

ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
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Laboratory Job ID: 410-31526-1
Client Project/Site: Permanone 30-30

For:
PEER
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Attn: Tim Whitehouse



Authorized for release by:
3/19/2021 11:42:47 AM

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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.

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

Dana Kauffman
Project Manager
3/19/2021 11:42:48 AM



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Definitions/Glossary

Client: PEER
Project/Site: Permanone 30-30

Job ID: 410-31526-1

Qualifiers

LCMS

Qualifier	Qualifier Description
*5-	Isotope dilution analyte is outside acceptance limits, low biased.
*5+	Isotope dilution analyte is outside acceptance limits, high biased.
B	Compound was found in the blank and sample.
I	Value is EMPC (estimated maximum possible concentration).
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: PEER
Project/Site: Permanone 30-30

Job ID: 410-31526-1

Job ID: 410-31526-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative 410-31526-1

Receipt

The samples were received on 3/8/2021 9:48 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 1.5°C

LCMS

Method PFC_IDA: The recovery for the labeled isotope(s) in the following sample: Field Blank Permanone 30-30 (410-31526-1) is outside the QC acceptance limits. Sufficient sample was not available to re-extract this sample.

Method PFC_IDA: The sample injection standard peak areas in the following sample: Permanone 30-30 (410-31526-2) are outside of the QC limits for both the initial injection and the re-injection. The values here are from the initial injection of the sample. The recovery for the labeled isotope(s) in the following sample: Permanone 30-30 (410-31526-2) are outside the QC acceptance limits. The signal to noise in the method blank was greater than 10:1, indicating the analysis had sufficient sensitivity to accurately quantify and correct the associated native compound for that recovery.

Method PFC_IDA: The recoveries for target analytes Perfluorododecanoic acid and 10:2-FTS are outside the QC acceptance limits in the opening continuing calibration verification standard. Since the results are high and targets Perfluorododecanoic acid and 10:2-FTS are not detected in the following samples: Permanone 30-30 (410-31526-2), 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: PEER
Project/Site: Permanone 30-30

Job ID: 410-31526-1

Client Sample ID: Field Blank Permanone 30-30

Lab Sample ID: 410-31526-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanoic acid	1.1	J B	1.6	0.40	ng/L	1		537 IDA	Total/NA
Perfluorooctanesulfonic acid	0.63	J B	1.6	0.40	ng/L	1		537 IDA	Total/NA

Client Sample ID: Permanone 30-30

Lab Sample ID: 410-31526-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanoic acid	3500	I	1000	250	ng/L	1		537 IDA	Total/NA
HFPODA	630	J	1500	250	ng/L	1		537 IDA	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

Client Sample Results

Client: PEER
Project/Site: Permanone 30-30

Job ID: 410-31526-1

Client Sample ID: Field Blank Permanone 30-30

Lab Sample ID: 410-31526-1

Date Collected: 03/04/21 12:09

Matrix: Water

Date Received: 03/08/21 09:48

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	ND		1.6	0.40	ng/L		03/10/21 08:01	03/11/21 17:19	1
Perfluoroheptanoic acid	ND		1.6	0.40	ng/L		03/10/21 08:01	03/11/21 17:19	1
Perfluorooctanoic acid	1.1	J B	1.6	0.40	ng/L		03/10/21 08:01	03/11/21 17:19	1
Perfluorononanoic acid	ND		1.6	0.40	ng/L		03/10/21 08:01	03/11/21 17:19	1
Perfluorodecanoic acid	ND		1.6	0.40	ng/L		03/10/21 08:01	03/11/21 17:19	1
Perfluorotridecanoic acid	ND		1.6	0.40	ng/L		03/10/21 08:01	03/11/21 17:19	1
Perfluorotetradecanoic acid	ND		1.6	0.40	ng/L		03/10/21 08:01	03/11/21 17:19	1
Perfluorobutanesulfonic acid	ND		1.6	0.40	ng/L		03/10/21 08:01	03/11/21 17:19	1
Perfluorohexanesulfonic acid	ND		1.6	0.40	ng/L		03/10/21 08:01	03/11/21 17:19	1
Perfluorooctanesulfonic acid	0.63	J B	1.6	0.40	ng/L		03/10/21 08:01	03/11/21 17:19	1
NETFOSAA	ND		2.4	0.40	ng/L		03/10/21 08:01	03/11/21 17:19	1
NMeFOSAA	ND		1.6	0.48	ng/L		03/10/21 08:01	03/11/21 17:19	1
10:2 FTS	ND		4.0	0.80	ng/L		03/10/21 08:01	03/11/21 17:19	1
Perfluoropentanesulfonic acid	ND		1.6	0.40	ng/L		03/10/21 08:01	03/11/21 17:19	1
Perfluoroheptanesulfonic acid	ND		1.6	0.40	ng/L		03/10/21 08:01	03/11/21 17:19	1
Perfluorononanesulfonic acid	ND		1.6	0.40	ng/L		03/10/21 08:01	03/11/21 17:19	1
Perfluorodecanesulfonic acid	ND		1.6	0.40	ng/L		03/10/21 08:01	03/11/21 17:19	1
Perfluorododecanesulfonic acid (PFDoS)	ND		2.4	0.40	ng/L		03/10/21 08:01	03/11/21 17:19	1
Perfluorooctanesulfonamide	ND		1.6	0.40	ng/L		03/10/21 08:01	03/11/21 17:19	1
Perfluorohexadecanoic acid	ND		2.4	0.80	ng/L		03/10/21 08:01	03/11/21 17:19	1
Perfluorooctadecanoic acid	ND		2.4	0.80	ng/L		03/10/21 08:01	03/11/21 17:19	1
Perfluorobutanoic acid	ND		4.0	1.6	ng/L		03/10/21 08:01	03/11/21 17:19	1
Perfluoropentanoic acid	ND		1.6	0.40	ng/L		03/10/21 08:01	03/11/21 17:19	1
NMeFOSE	ND		2.4	0.80	ng/L		03/10/21 08:01	03/11/21 17:19	1
NMeFOSA	ND		2.4	0.80	ng/L		03/10/21 08:01	03/11/21 17:19	1
NEtFOSE	ND		2.4	0.80	ng/L		03/10/21 08:01	03/11/21 17:19	1
NEtFOSA	ND		4.0	0.80	ng/L		03/10/21 08:01	03/11/21 17:19	1
HFPODA	ND		2.4	0.40	ng/L		03/10/21 08:01	03/11/21 17:19	1
DONA	ND		1.6	0.40	ng/L		03/10/21 08:01	03/11/21 17:19	1
9CI-PF3ONS	ND		1.6	0.40	ng/L		03/10/21 08:01	03/11/21 17:19	1
11CI-PF3OUdS	ND		1.6	0.40	ng/L		03/10/21 08:01	03/11/21 17:19	1
Perfluorododecanoic acid	ND		1.6	0.40	ng/L		03/10/21 08:01	03/11/21 17:19	1
4:2 Fluorotelomer sulfonic acid	ND		1.6	0.40	ng/L		03/10/21 08:01	03/11/21 17:19	1
Perfluoroundecanoic acid	ND		1.6	0.40	ng/L		03/10/21 08:01	03/11/21 17:19	1
6:2 Fluorotelomer sulfonic acid	ND		4.0	1.6	ng/L		03/10/21 08:01	03/11/21 17:19	1
8:2 Fluorotelomer sulfonic acid	ND		2.4	0.80	ng/L		03/10/21 08:01	03/11/21 17:19	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-4:2 FTS	153		20 - 187	03/10/21 08:01	03/11/21 17:19	1
M2-8:2 FTS	141		34 - 182	03/10/21 08:01	03/11/21 17:19	1
M2-6:2 FTS	141		29 - 189	03/10/21 08:01	03/11/21 17:19	1
13C5 PFHxA	144	*5+	31 - 142	03/10/21 08:01	03/11/21 17:19	1
13C4 PFHpA	152	*5+	30 - 144	03/10/21 08:01	03/11/21 17:19	1
13C8 PFOA	135	*5+	49 - 127	03/10/21 08:01	03/11/21 17:19	1
13C9 PFNA	120		47 - 136	03/10/21 08:01	03/11/21 17:19	1
13C6 PFDA	124		47 - 128	03/10/21 08:01	03/11/21 17:19	1
13C7 PFUnA	129		40 - 135	03/10/21 08:01	03/11/21 17:19	1
13C2-PFDoDA	136		28 - 136	03/10/21 08:01	03/11/21 17:19	1
13C2 PFTeDA	122		10 - 144	03/10/21 08:01	03/11/21 17:19	1

Client Sample Results

Client: PEER
Project/Site: Permanone 30-30

Job ID: 410-31526-1

Client Sample ID: Field Blank Permanone 30-30

Lab Sample ID: 410-31526-1

Date Collected: 03/04/21 12:09

Matrix: Water

Date Received: 03/08/21 09:48

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 PFBS	126		19 - 178	03/10/21 08:01	03/11/21 17:19	1
13C3 PFHxS	143		32 - 145	03/10/21 08:01	03/11/21 17:19	1
13C8 PFOS	120		49 - 126	03/10/21 08:01	03/11/21 17:19	1
d3-NMeFOSAA	123		32 - 151	03/10/21 08:01	03/11/21 17:19	1
d5-NEtFOSAA	122		37 - 164	03/10/21 08:01	03/11/21 17:19	1
13C8 FOSA	89		10 - 143	03/10/21 08:01	03/11/21 17:19	1
13C4 PFBA	123		41 - 132	03/10/21 08:01	03/11/21 17:19	1
13C5 PFPeA	123		33 - 155	03/10/21 08:01	03/11/21 17:19	1
d7-N-MeFOSE-M	83		10 - 143	03/10/21 08:01	03/11/21 17:19	1
d3-NMePFOSA	75		10 - 107	03/10/21 08:01	03/11/21 17:19	1
d9-N-EtFOSE-M	88		10 - 142	03/10/21 08:01	03/11/21 17:19	1
d5-NEtPFOSA	75		10 - 108	03/10/21 08:01	03/11/21 17:19	1
13C3 HFPO-DA	130		20 - 153	03/10/21 08:01	03/11/21 17:19	1

Client Sample ID: Permanone 30-30

Lab Sample ID: 410-31526-2

Date Collected: 03/04/21 12:15

Matrix: Water

Date Received: 03/08/21 09:48

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	ND		1000	250	ng/L		03/11/21 11:01	03/16/21 10:36	1
Perfluoroheptanoic acid	ND		1000	250	ng/L		03/11/21 11:01	03/16/21 10:36	1
Perfluorooctanoic acid	3500	I	1000	250	ng/L		03/11/21 11:01	03/16/21 10:36	1
Perfluorononanoic acid	ND		1000	250	ng/L		03/11/21 11:01	03/16/21 10:36	1
Perfluorodecanoic acid	ND		1000	250	ng/L		03/11/21 11:01	03/16/21 10:36	1
Perfluorotridecanoic acid	ND		1000	250	ng/L		03/11/21 11:01	03/16/21 10:36	1
Perfluorotetradecanoic acid	ND		1000	250	ng/L		03/11/21 11:01	03/16/21 10:36	1
Perfluorobutanesulfonic acid	ND		1000	250	ng/L		03/11/21 11:01	03/16/21 10:36	1
Perfluorohexanesulfonic acid	ND		1000	250	ng/L		03/11/21 11:01	03/16/21 10:36	1
Perfluorooctanesulfonic acid	ND		1000	250	ng/L		03/11/21 11:01	03/16/21 10:36	1
NEtFOSAA	ND		1500	250	ng/L		03/11/21 11:01	03/16/21 10:36	1
NMeFOSAA	ND		1000	300	ng/L		03/11/21 11:01	03/16/21 10:36	1
10:2 FTS	ND		2500	500	ng/L		03/11/21 11:01	03/16/21 10:36	1
Perfluoropentanesulfonic acid	ND		1000	250	ng/L		03/11/21 11:01	03/16/21 10:36	1
Perfluoroheptanesulfonic acid	ND		1000	250	ng/L		03/11/21 11:01	03/16/21 10:36	1
Perfluorononanesulfonic acid	ND		1000	250	ng/L		03/11/21 11:01	03/16/21 10:36	1
Perfluorodecanesulfonic acid	ND		1000	250	ng/L		03/11/21 11:01	03/16/21 10:36	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1500	250	ng/L		03/11/21 11:01	03/16/21 10:36	1
Perfluorooctanesulfonamide	ND		1000	250	ng/L		03/11/21 11:01	03/16/21 10:36	1
Perfluorohexadecanoic acid	ND		1500	500	ng/L		03/11/21 11:01	03/16/21 10:36	1
Perfluorooctadecanoic acid	ND		1500	500	ng/L		03/11/21 11:01	03/16/21 10:36	1
Perfluorobutanoic acid	ND		2500	1000	ng/L		03/11/21 11:01	03/16/21 10:36	1
Perfluoropentanoic acid	ND		1000	250	ng/L		03/11/21 11:01	03/16/21 10:36	1
NMeFOSE	ND		1500	500	ng/L		03/11/21 11:01	03/16/21 10:36	1
NMeFOSA	ND		1500	500	ng/L		03/11/21 11:01	03/16/21 10:36	1
NEtFOSE	ND		1500	500	ng/L		03/11/21 11:01	03/16/21 10:36	1
NEtFOSA	ND		2500	500	ng/L		03/11/21 11:01	03/16/21 10:36	1
HFPODA	630	J	1500	250	ng/L		03/11/21 11:01	03/16/21 10:36	1
DONA	ND		1000	250	ng/L		03/11/21 11:01	03/16/21 10:36	1

Client Sample Results

Client: PEER
Project/Site: Permanone 30-30

Job ID: 410-31526-1

Client Sample ID: Permanone 30-30

Lab Sample ID: 410-31526-2

Date Collected: 03/04/21 12:15

Matrix: Water

Date Received: 03/08/21 09:48

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
9CI-PF3ONS	ND		1000	250	ng/L		03/11/21 11:01	03/16/21 10:36	1
11CI-PF3OUdS	ND		1000	250	ng/L		03/11/21 11:01	03/16/21 10:36	1
Perfluorododecanoic acid	ND		1000	250	ng/L		03/11/21 11:01	03/16/21 10:36	1
4:2 Fluorotelomer sulfonic acid	ND		1000	250	ng/L		03/11/21 11:01	03/16/21 10:36	1
Perfluoroundecanoic acid	ND		1000	250	ng/L		03/11/21 11:01	03/16/21 10:36	1
6:2 Fluorotelomer sulfonic acid	ND		2500	1000	ng/L		03/11/21 11:01	03/16/21 10:36	1
8:2 Fluorotelomer sulfonic acid	ND		1500	500	ng/L		03/11/21 11:01	03/16/21 10:36	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-4:2 FTS	520	*5+	20 - 187	03/11/21 11:01	03/16/21 10:36	1
M2-8:2 FTS	211	*5+	34 - 182	03/11/21 11:01	03/16/21 10:36	1
M2-6:2 FTS	544	*5+	29 - 189	03/11/21 11:01	03/16/21 10:36	1
13C5 PFHxA	197	*5+	31 - 142	03/11/21 11:01	03/16/21 10:36	1
13C4 PFHpA	282	*5+	30 - 144	03/11/21 11:01	03/16/21 10:36	1
13C8 PFOA	77		49 - 127	03/11/21 11:01	03/16/21 10:36	1
13C9 PFNA	104		47 - 136	03/11/21 11:01	03/16/21 10:36	1
13C6 PFDA	68		47 - 128	03/11/21 11:01	03/16/21 10:36	1
13C7 PFUnA	70		40 - 135	03/11/21 11:01	03/16/21 10:36	1
13C2-PFDoDA	8	*5-	28 - 136	03/11/21 11:01	03/16/21 10:36	1
13C2 PFTeDA	75		10 - 144	03/11/21 11:01	03/16/21 10:36	1
13C3 PFBS	72		19 - 178	03/11/21 11:01	03/16/21 10:36	1
13C3 PFHxS	211	*5+	32 - 145	03/11/21 11:01	03/16/21 10:36	1
13C8 PFOS	83		49 - 126	03/11/21 11:01	03/16/21 10:36	1
d3-NMeFOSAA	56		32 - 151	03/11/21 11:01	03/16/21 10:36	1
d5-NEtFOSAA	140		37 - 164	03/11/21 11:01	03/16/21 10:36	1
13C8 FOSA	59		10 - 143	03/11/21 11:01	03/16/21 10:36	1
13C4 PFBA	80		41 - 132	03/11/21 11:01	03/16/21 10:36	1
13C5 PFPeA	67		33 - 155	03/11/21 11:01	03/16/21 10:36	1
d7-N-MeFOSE-M	13		10 - 143	03/11/21 11:01	03/16/21 10:36	1
d3-NMePFOSA	17		10 - 107	03/11/21 11:01	03/16/21 10:36	1
d9-N-EtFOSE-M	129		10 - 142	03/11/21 11:01	03/16/21 10:36	1
d5-NEtPFOSA	74		10 - 108	03/11/21 11:01	03/16/21 10:36	1
13C3 HFPO-DA	103		20 - 153	03/11/21 11:01	03/16/21 10:36	1

Isotope Dilution Summary

Client: PEER
Project/Site: Permanone 30-30

Job ID: 410-31526-1

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)
410-31526-1	Field Blank Permanone 30-30	153	141	141	144 *5+	152 *5+	135 *5+	120	124
410-31526-2	Permanone 30-30	520 *5+	211 *5+	544 *5+	197 *5+	282 *5+	77	104	68
LCS 410-101498/2-A	Lab Control Sample	136	112	118	123	129	122	106	111
LCS 410-102145/2-B	Lab Control Sample	133	130	131	116	131	114	113	105
LCS D 410-101498/3-A	Lab Control Sample Dup	178	143	157	160 *5+	168 *5+	153 *5+	128	145 *5+
LCS D 410-102145/3-B	Lab Control Sample Dup	140	110	132	122	138	119	112	108
MB 410-101498/1-A	Method Blank	149	126	139	139	144	137 *5+	115	120
MB 410-102145/1-B	Method Blank	134	116	115	112	125	110	104	104

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)
410-31526-1	Field Blank Permanone 30-30	129	136	122	126	143	120	123	122
410-31526-2	Permanone 30-30	70	8 *5-	75	72	211 *5+	83	56	140
LCS 410-101498/2-A	Lab Control Sample	117	114	110	108	122	109	110	109
LCS 410-102145/2-B	Lab Control Sample	104	112	98	111	127	111	82	74
LCS D 410-101498/3-A	Lab Control Sample Dup	137 *5+	150 *5+	142	140	162 *5+	136 *5+	139	131
LCS D 410-102145/3-B	Lab Control Sample Dup	106	107	94	106	132	110	97	100
MB 410-101498/1-A	Method Blank	128	127	114	120	138	118	114	118
MB 410-102145/1-B	Method Blank	105	109	95	107	120	103	92	90

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)
410-31526-1	Field Blank Permanone 30-30	89	123	123	83	75	88	75	130
410-31526-2	Permanone 30-30	59	80	67	13	17	129	74	103
LCS 410-101498/2-A	Lab Control Sample	82	112	110	81	74	83	70	117
LCS 410-102145/2-B	Lab Control Sample	60	112	100	61	38	60	33	94
LCS D 410-101498/3-A	Lab Control Sample Dup	105	145 *5+	135	106	97	102	97	157 *5+
LCS D 410-102145/3-B	Lab Control Sample Dup	62	108	99	62	39	61	37	94
MB 410-101498/1-A	Method Blank	84	124	118	85	65	84	67	128
MB 410-102145/1-B	Method Blank	66	105	97	49	26	49	23	91

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

Isotope Dilution Summary

Client: PEER

Project/Site: Permanone 30-30

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

Job ID: 410-31526-1

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QC Sample Results

Client: PEER
Project/Site: Permanone 30-30

Job ID: 410-31526-1

Method: 537 IDA - EPA 537 Isotope Dilution

Lab Sample ID: MB 410-101498/1-A
Matrix: Water
Analysis Batch: 102185

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 101498

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Perfluorohexanoic acid	ND		2.0	0.50	ng/L		03/10/21 08:01	03/11/21 15:54	1
Perfluoroheptanoic acid	ND		2.0	0.50	ng/L		03/10/21 08:01	03/11/21 15:54	1
Perfluorooctanoic acid	0.543	J	2.0	0.50	ng/L		03/10/21 08:01	03/11/21 15:54	1
Perfluorononanoic acid	ND		2.0	0.50	ng/L		03/10/21 08:01	03/11/21 15:54	1
Perfluorodecanoic acid	ND		2.0	0.50	ng/L		03/10/21 08:01	03/11/21 15:54	1
Perfluorotridecanoic acid	ND		2.0	0.50	ng/L		03/10/21 08:01	03/11/21 15:54	1
Perfluorotetradecanoic acid	ND		2.0	0.50	ng/L		03/10/21 08:01	03/11/21 15:54	1
Perfluorobutanesulfonic acid	ND		2.0	0.50	ng/L		03/10/21 08:01	03/11/21 15:54	1
Perfluorohexanesulfonic acid	ND		2.0	0.50	ng/L		03/10/21 08:01	03/11/21 15:54	1
Perfluorooctanesulfonic acid	0.956	J	2.0	0.50	ng/L		03/10/21 08:01	03/11/21 15:54	1
NEtFOSAA	ND		3.0	0.50	ng/L		03/10/21 08:01	03/11/21 15:54	1
NMeFOSAA	ND		2.0	0.60	ng/L		03/10/21 08:01	03/11/21 15:54	1
10:2 FTS	ND		5.0	1.0	ng/L		03/10/21 08:01	03/11/21 15:54	1
Perfluoropentanesulfonic acid	ND		2.0	0.50	ng/L		03/10/21 08:01	03/11/21 15:54	1
Perfluoroheptanesulfonic acid	ND		2.0	0.50	ng/L		03/10/21 08:01	03/11/21 15:54	1
Perfluorononanesulfonic acid	ND		2.0	0.50	ng/L		03/10/21 08:01	03/11/21 15:54	1
Perfluorodecanesulfonic acid	ND		2.0	0.50	ng/L		03/10/21 08:01	03/11/21 15:54	1
Perfluorododecanesulfonic acid (PFDoS)	ND		3.0	0.50	ng/L		03/10/21 08:01	03/11/21 15:54	1
Perfluorooctanesulfonamide	ND		2.0	0.50	ng/L		03/10/21 08:01	03/11/21 15:54	1
Perfluorohexadecanoic acid	ND		3.0	1.0	ng/L		03/10/21 08:01	03/11/21 15:54	1
Perfluorooctadecanoic acid	ND		3.0	1.0	ng/L		03/10/21 08:01	03/11/21 15:54	1
Perfluorobutanoic acid	ND		5.0	2.0	ng/L		03/10/21 08:01	03/11/21 15:54	1
Perfluoropentanoic acid	ND		2.0	0.50	ng/L		03/10/21 08:01	03/11/21 15:54	1
NMeFOSE	ND		3.0	1.0	ng/L		03/10/21 08:01	03/11/21 15:54	1
NMeFOSA	ND		3.0	1.0	ng/L		03/10/21 08:01	03/11/21 15:54	1
NEtFOSE	ND		3.0	1.0	ng/L		03/10/21 08:01	03/11/21 15:54	1
NEtFOSA	ND		5.0	1.0	ng/L		03/10/21 08:01	03/11/21 15:54	1
HFPODA	ND		3.0	0.50	ng/L		03/10/21 08:01	03/11/21 15:54	1
DONA	ND		2.0	0.50	ng/L		03/10/21 08:01	03/11/21 15:54	1
9Cl-PF3ONS	ND		2.0	0.50	ng/L		03/10/21 08:01	03/11/21 15:54	1
11Cl-PF3OUdS	ND		2.0	0.50	ng/L		03/10/21 08:01	03/11/21 15:54	1
Perfluorododecanoic acid	ND		2.0	0.50	ng/L		03/10/21 08:01	03/11/21 15:54	1
4:2 Fluorotelomer sulfonic acid	ND		2.0	0.50	ng/L		03/10/21 08:01	03/11/21 15:54	1
Perfluoroundecanoic acid	ND		2.0	0.50	ng/L		03/10/21 08:01	03/11/21 15:54	1
6:2 Fluorotelomer sulfonic acid	ND		5.0	2.0	ng/L		03/10/21 08:01	03/11/21 15:54	1
8:2 Fluorotelomer sulfonic acid	ND		3.0	1.0	ng/L		03/10/21 08:01	03/11/21 15:54	1

Isotope Dilution	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
M2-4:2 FTS	149		20 - 187	03/10/21 08:01	03/11/21 15:54	1
M2-8:2 FTS	126		34 - 182	03/10/21 08:01	03/11/21 15:54	1
M2-6:2 FTS	139		29 - 189	03/10/21 08:01	03/11/21 15:54	1
13C5 PFHxA	139		31 - 142	03/10/21 08:01	03/11/21 15:54	1
13C4 PFHpA	144		30 - 144	03/10/21 08:01	03/11/21 15:54	1
13C8 PFOA	137	*5+	49 - 127	03/10/21 08:01	03/11/21 15:54	1
13C9 PFNA	115		47 - 136	03/10/21 08:01	03/11/21 15:54	1
13C6 PFDA	120		47 - 128	03/10/21 08:01	03/11/21 15:54	1
13C7 PFUnA	128		40 - 135	03/10/21 08:01	03/11/21 15:54	1
13C2-PFDoDA	127		28 - 136	03/10/21 08:01	03/11/21 15:54	1

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QC Sample Results

Client: PEER
Project/Site: Permanone 30-30

Job ID: 410-31526-1

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

Lab Sample ID: MB 410-101498/1-A

Matrix: Water

Analysis Batch: 102185

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 101498

Isotope Dilution	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
13C2 PFTeDA	114		10 - 144	03/10/21 08:01	03/11/21 15:54	1
13C3 PFBS	120		19 - 178	03/10/21 08:01	03/11/21 15:54	1
13C3 PFHxS	138		32 - 145	03/10/21 08:01	03/11/21 15:54	1
13C8 PFOS	118		49 - 126	03/10/21 08:01	03/11/21 15:54	1
d3-NMeFOSAA	114		32 - 151	03/10/21 08:01	03/11/21 15:54	1
d5-NEtFOSAA	118		37 - 164	03/10/21 08:01	03/11/21 15:54	1
13C8 FOSA	84		10 - 143	03/10/21 08:01	03/11/21 15:54	1
13C4 PFBA	124		41 - 132	03/10/21 08:01	03/11/21 15:54	1
13C5 PFPeA	118		33 - 155	03/10/21 08:01	03/11/21 15:54	1
d7-N-MeFOSE-M	85		10 - 143	03/10/21 08:01	03/11/21 15:54	1
d3-NMePFOSA	65		10 - 107	03/10/21 08:01	03/11/21 15:54	1
d9-N-EtFOSE-M	84		10 - 142	03/10/21 08:01	03/11/21 15:54	1
d5-NEtPFOSA	67		10 - 108	03/10/21 08:01	03/11/21 15:54	1
13C3 HFPO-DA	128		20 - 153	03/10/21 08:01	03/11/21 15:54	1

Lab Sample ID: LCS 410-101498/2-A

Matrix: Water

Analysis Batch: 102185

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 101498

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.
							Limits
Perfluorohexanoic acid	25.6	24.8		ng/L		97	66 - 137
Perfluoroheptanoic acid	25.6	25.2		ng/L		99	66 - 141
Perfluorooctanoic acid	25.6	29.7		ng/L		116	65 - 136
Perfluorononanoic acid	25.6	23.7		ng/L		93	65 - 140
Perfluorodecanoic acid	25.6	28.0		ng/L		109	63 - 137
Perfluorotridecanoic acid	25.6	29.1		ng/L		114	58 - 146
Perfluorotetradecanoic acid	25.6	23.7		ng/L		93	64 - 141
Perfluorobutanesulfonic acid	22.6	24.5		ng/L		108	65 - 132
Perfluorohexanesulfonic acid	24.2	22.4		ng/L		93	60 - 128
Perfluorooctanesulfonic acid	24.5	23.0		ng/L		94	51 - 126
NEtFOSAA	25.6	26.9		ng/L		105	54 - 134
NMeFOSAA	25.6	26.3		ng/L		103	58 - 143
10:2 FTS	24.7	23.3		ng/L		94	44 - 141
Perfluoropentanesulfonic acid	24.0	25.0		ng/L		104	71 - 136
Perfluoroheptanesulfonic acid	24.4	23.4		ng/L		96	67 - 135
Perfluorononanesulfonic acid	24.6	22.5		ng/L		91	67 - 137
Perfluorodecanesulfonic acid	24.7	23.7		ng/L		96	61 - 134
Perfluorododecanesulfonic acid (PFDoS)	24.8	23.2		ng/L		94	54 - 136
Perfluorooctanesulfonamide	25.6	28.5		ng/L		112	55 - 130
Perfluorohexadecanoic acid	25.6	23.7		ng/L		92	52 - 149
Perfluorooctadecanoic acid	25.6	21.4		ng/L		83	32 - 167
Perfluorobutanoic acid	25.6	26.2		ng/L		103	62 - 156
Perfluoropentanoic acid	25.6	25.3		ng/L		99	72 - 139
NMeFOSE	25.6	24.1		ng/L		94	52 - 131
NMeFOSA	25.6	25.1		ng/L		98	49 - 141
NEtFOSE	25.6	24.5		ng/L		96	49 - 128
NEtFOSA	25.6	26.6		ng/L		104	50 - 136
HFPODA	25.6	22.7		ng/L		89	37 - 147

QC Sample Results

Client: PEER
Project/Site: Permanone 30-30

Job ID: 410-31526-1

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

Lab Sample ID: LCS 410-101498/2-A

Matrix: Water

Analysis Batch: 102185

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 101498

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
DONA	24.1	23.3		ng/L		97	49 - 158
9CI-PF3ONS	23.9	22.7		ng/L		95	52 - 135
11CI-PF3OUdS	24.1	24.5		ng/L		102	45 - 134
Perfluorododecanoic acid	25.6	24.9		ng/L		97	63 - 140
4:2 Fluorotelomer sulfonic acid	23.9	24.6		ng/L		103	59 - 130
Perfluoroundecanoic acid	25.6	25.4		ng/L		99	62 - 138
6:2 Fluorotelomer sulfonic acid	24.3	25.6		ng/L		105	57 - 137
8:2 Fluorotelomer sulfonic acid	24.5	27.8		ng/L		114	56 - 140

Isotope Dilution	LCS LCS		Limits
	%Recovery	Qualifier	
M2-4:2 FTS	136		20 - 187
M2-8:2 FTS	112		34 - 182
M2-6:2 FTS	118		29 - 189
13C5 PFHxA	123		31 - 142
13C4 PFHpA	129		30 - 144
13C8 PFOA	122		49 - 127
13C9 PFNA	106		47 - 136
13C6 PFDA	111		47 - 128
13C7 PFUnA	117		40 - 135
13C2-PFDoDA	114		28 - 136
13C2 PFTeDA	110		10 - 144
13C3 PFBS	108		19 - 178
13C3 PFHxS	122		32 - 145
13C8 PFOS	109		49 - 126
d3-NMeFOSAA	110		32 - 151
d5-NEtFOSAA	109		37 - 164
13C8 FOSA	82		10 - 143
13C4 PFBA	112		41 - 132
13C5 PFPeA	110		33 - 155
d7-N-MeFOSE-M	81		10 - 143
d3-NMePFOSA	74		10 - 107
d9-N-EtFOSE-M	83		10 - 142
d5-NEtPFOSA	70		10 - 108
13C3 HFPO-DA	117		20 - 153

Lab Sample ID: LCSD 410-101498/3-A

Matrix: Water

Analysis Batch: 102185

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 101498

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	
								RPD	Limit
Perfluorohexanoic acid	25.6	24.5		ng/L		96	66 - 137	1	30
Perfluoroheptanoic acid	25.6	25.5		ng/L		100	66 - 141	1	30
Perfluorooctanoic acid	25.6	26.3		ng/L		103	65 - 136	12	30
Perfluorononanoic acid	25.6	26.0		ng/L		101	65 - 140	9	30
Perfluorodecanoic acid	25.6	26.3		ng/L		103	63 - 137	6	30
Perfluorotridecanoic acid	25.6	27.9		ng/L		109	58 - 146	4	30
Perfluorotetradecanoic acid	25.6	25.1		ng/L		98	64 - 141	6	30
Perfluorobutanesulfonic acid	22.6	24.5		ng/L		108	65 - 132	0	30
Perfluorohexanesulfonic acid	24.2	23.2		ng/L		96	60 - 128	4	30

Eurofins Lancaster Laboratories Env, LLC

QC Sample Results

Client: PEER
Project/Site: Permanone 30-30

Job ID: 410-31526-1

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

Lab Sample ID: LCSD 410-101498/3-A

Matrix: Water

Analysis Batch: 102185

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 101498

Analyte	Spike Added	LCSD	LCSD	Unit	D	%Rec	%Rec.	RPD	RPD
		Result	Qualifier				Limits		
Perfluorooctanesulfonic acid	24.5	23.5		ng/L		96	51 - 126	2	30
NEtFOSAA	25.6	30.4		ng/L		119	54 - 134	12	30
NMeFOSAA	25.6	28.4		ng/L		111	58 - 143	8	30
10:2 FTS	24.7	24.9		ng/L		101	44 - 141	7	30
Perfluoropentanesulfonic acid	24.0	25.9		ng/L		108	71 - 136	4	30
Perfluoroheptanesulfonic acid	24.4	23.8		ng/L		98	67 - 135	2	30
Perfluorononanesulfonic acid	24.6	23.5		ng/L		96	67 - 137	4	30
Perfluorodecanesulfonic acid	24.7	24.6		ng/L		100	61 - 134	4	30
Perfluorododecanesulfonic acid (PFDoS)	24.8	23.2		ng/L		94	54 - 136	0	30
Perfluorooctanesulfonamide	25.6	29.0		ng/L		113	55 - 130	2	30
Perfluorohexadecanoic acid	25.6	23.5		ng/L		92	52 - 149	1	30
Perfluorooctadecanoic acid	25.6	20.3		ng/L		79	32 - 167	5	30
Perfluorobutanoic acid	25.6	26.1		ng/L		102	62 - 156	0	30
Perfluoropentanoic acid	25.6	25.8		ng/L		101	72 - 139	2	30
NMeFOSE	25.6	24.0		ng/L		94	52 - 131	0	30
NMeFOSA	25.6	26.4		ng/L		103	49 - 141	5	30
NEtFOSE	25.6	25.3		ng/L		99	49 - 128	3	30
NEtFOSA	25.6	26.7		ng/L		104	50 - 136	0	30
HFPODA	25.6	22.8		ng/L		89	37 - 147	0	30
DONA	24.1	23.8		ng/L		99	49 - 158	2	30
9Cl-PF3ONS	23.9	22.5		ng/L		94	52 - 135	1	30
11Cl-PF3OUdS	24.1	24.0		ng/L		100	45 - 134	2	30
Perfluorododecanoic acid	25.6	26.4		ng/L		103	63 - 140	6	30
4:2 Fluorotelomer sulfonic acid	23.9	25.3		ng/L		106	59 - 130	3	30
Perfluoroundecanoic acid	25.6	28.0		ng/L		109	62 - 138	10	30
6:2 Fluorotelomer sulfonic acid	24.3	27.2		ng/L		112	57 - 137	6	30
8:2 Fluorotelomer sulfonic acid	24.5	28.6		ng/L		117	56 - 140	3	30

Isotope Dilution	LCSD LCSD		Limits
	%Recovery	Qualifier	
M2-4:2 FTS	178		20 - 187
M2-8:2 FTS	143		34 - 182
M2-6:2 FTS	157		29 - 189
13C5 PFHxA	160	*5+	31 - 142
13C4 PFHpA	168	*5+	30 - 144
13C8 PFOA	153	*5+	49 - 127
13C9 PFNA	128		47 - 136
13C6 PFDA	145	*5+	47 - 128
13C7 PFUnA	137	*5+	40 - 135
13C2-PFDoDA	150	*5+	28 - 136
13C2 PFTeDA	142		10 - 144
13C3 PFBS	140		19 - 178
13C3 PFHxS	162	*5+	32 - 145
13C8 PFOS	136	*5+	49 - 126
d3-NMeFOSAA	139		32 - 151
d5-NEtFOSAA	131		37 - 164
13C8 FOSA	105		10 - 143
13C4 PFBA	145	*5+	41 - 132
13C5 PFPeA	135		33 - 155

QC Sample Results

Client: PEER
Project/Site: Permanone 30-30

Job ID: 410-31526-1

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

Lab Sample ID: LCSD 410-101498/3-A
Matrix: Water
Analysis Batch: 102185

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 101498

Isotope Dilution	LCSD		Limits
	%Recovery	Qualifier	
d7-N-MeFOSE-M	106		10 - 143
d3-NMePFOSA	97		10 - 107
d9-N-EtFOSE-M	102		10 - 142
d5-NEtPFOSA	97		10 - 108
13C3 HFPO-DA	157	*5+	20 - 153

Lab Sample ID: MB 410-102145/1-B
Matrix: Water
Analysis Batch: 102671

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 102145

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Perfluorohexanoic acid	ND		1000	250	ng/L		03/11/21 11:01	03/12/21 18:58	1
Perfluoroheptanoic acid	ND		1000	250	ng/L		03/11/21 11:01	03/12/21 18:58	1
Perfluorooctanoic acid	ND		1000	250	ng/L		03/11/21 11:01	03/12/21 18:58	1
Perfluorononanoic acid	ND		1000	250	ng/L		03/11/21 11:01	03/12/21 18:58	1
Perfluorodecanoic acid	ND		1000	250	ng/L		03/11/21 11:01	03/12/21 18:58	1
Perfluorotridecanoic acid	ND		1000	250	ng/L		03/11/21 11:01	03/12/21 18:58	1
Perfluorotetradecanoic acid	ND		1000	250	ng/L		03/11/21 11:01	03/12/21 18:58	1
Perfluorobutanesulfonic acid	ND		1000	250	ng/L		03/11/21 11:01	03/12/21 18:58	1
Perfluorohexanesulfonic acid	ND		1000	250	ng/L		03/11/21 11:01	03/12/21 18:58	1
Perfluorooctanesulfonic acid	ND		1000	250	ng/L		03/11/21 11:01	03/12/21 18:58	1
NEtFOSAA	ND		1500	250	ng/L		03/11/21 11:01	03/12/21 18:58	1
NMeFOSAA	ND		1000	300	ng/L		03/11/21 11:01	03/12/21 18:58	1
10:2 FTS	ND		2500	500	ng/L		03/11/21 11:01	03/12/21 18:58	1
Perfluoropentanesulfonic acid	ND		1000	250	ng/L		03/11/21 11:01	03/12/21 18:58	1
Perfluoroheptanesulfonic acid	ND		1000	250	ng/L		03/11/21 11:01	03/12/21 18:58	1
Perfluorononanesulfonic acid	ND		1000	250	ng/L		03/11/21 11:01	03/12/21 18:58	1
Perfluorodecanesulfonic acid	ND		1000	250	ng/L		03/11/21 11:01	03/12/21 18:58	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1500	250	ng/L		03/11/21 11:01	03/12/21 18:58	1
Perfluorooctanesulfonamide	ND		1000	250	ng/L		03/11/21 11:01	03/12/21 18:58	1
Perfluorohexadecanoic acid	ND		1500	500	ng/L		03/11/21 11:01	03/12/21 18:58	1
Perfluorooctadecanoic acid	ND		1500	500	ng/L		03/11/21 11:01	03/12/21 18:58	1
Perfluorobutanoic acid	ND		2500	1000	ng/L		03/11/21 11:01	03/12/21 18:58	1
Perfluoropentanoic acid	ND		1000	250	ng/L		03/11/21 11:01	03/12/21 18:58	1
NMeFOSE	ND		1500	500	ng/L		03/11/21 11:01	03/12/21 18:58	1
NMeFOSA	ND		1500	500	ng/L		03/11/21 11:01	03/12/21 18:58	1
NEtFOSE	ND		1500	500	ng/L		03/11/21 11:01	03/12/21 18:58	1
NEtFOSA	ND		2500	500	ng/L		03/11/21 11:01	03/12/21 18:58	1
HFPODA	ND		1500	250	ng/L		03/11/21 11:01	03/12/21 18:58	1
DONA	ND		1000	250	ng/L		03/11/21 11:01	03/12/21 18:58	1
9Cl-PF3ONS	ND		1000	250	ng/L		03/11/21 11:01	03/12/21 18:58	1
11Cl-PF3OUdS	ND		1000	250	ng/L		03/11/21 11:01	03/12/21 18:58	1
Perfluorododecanoic acid	ND		1000	250	ng/L		03/11/21 11:01	03/12/21 18:58	1
4:2 Fluorotelomer sulfonic acid	ND		1000	250	ng/L		03/11/21 11:01	03/12/21 18:58	1
Perfluoroundecanoic acid	ND		1000	250	ng/L		03/11/21 11:01	03/12/21 18:58	1
6:2 Fluorotelomer sulfonic acid	ND		2500	1000	ng/L		03/11/21 11:01	03/12/21 18:58	1
8:2 Fluorotelomer sulfonic acid	ND		1500	500	ng/L		03/11/21 11:01	03/12/21 18:58	1

QC Sample Results

Client: PEER
Project/Site: Permanone 30-30

Job ID: 410-31526-1

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

Isotope Dilution	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
M2-4:2 FTS	134		20 - 187	03/11/21 11:01	03/12/21 18:58	1
M2-8:2 FTS	116		34 - 182	03/11/21 11:01	03/12/21 18:58	1
M2-6:2 FTS	115		29 - 189	03/11/21 11:01	03/12/21 18:58	1
13C5 PFHxA	112		31 - 142	03/11/21 11:01	03/12/21 18:58	1
13C4 PFHpA	125		30 - 144	03/11/21 11:01	03/12/21 18:58	1
13C8 PFOA	110		49 - 127	03/11/21 11:01	03/12/21 18:58	1
13C9 PFNA	104		47 - 136	03/11/21 11:01	03/12/21 18:58	1
13C6 PFDA	104		47 - 128	03/11/21 11:01	03/12/21 18:58	1
13C7 PFUnA	105		40 - 135	03/11/21 11:01	03/12/21 18:58	1
13C2-PFDoDA	109		28 - 136	03/11/21 11:01	03/12/21 18:58	1
13C2 PFTeDA	95		10 - 144	03/11/21 11:01	03/12/21 18:58	1
13C3 PFBS	107		19 - 178	03/11/21 11:01	03/12/21 18:58	1
13C3 PFHxS	120		32 - 145	03/11/21 11:01	03/12/21 18:58	1
13C8 PFOS	103		49 - 126	03/11/21 11:01	03/12/21 18:58	1
d3-NMeFOSAA	92		32 - 151	03/11/21 11:01	03/12/21 18:58	1
d5-NEtFOSAA	90		37 - 164	03/11/21 11:01	03/12/21 18:58	1
13C8 FOSA	66		10 - 143	03/11/21 11:01	03/12/21 18:58	1
13C4 PFBA	105		41 - 132	03/11/21 11:01	03/12/21 18:58	1
13C5 PFPeA	97		33 - 155	03/11/21 11:01	03/12/21 18:58	1
d7-N-MeFOSE-M	49		10 - 143	03/11/21 11:01	03/12/21 18:58	1
d3-NMePFOSA	26		10 - 107	03/11/21 11:01	03/12/21 18:58	1
d9-N-EtFOSE-M	49		10 - 142	03/11/21 11:01	03/12/21 18:58	1
d5-NEtPFOSA	23		10 - 108	03/11/21 11:01	03/12/21 18:58	1
13C3 HFPO-DA	91		20 - 153	03/11/21 11:01	03/12/21 18:58	1

Lab Sample ID: LCS 410-102145/2-B

Matrix: Water

Analysis Batch: 102671

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 102145

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.
							Limits
Perfluorohexanoic acid	6400	5890		ng/L		92	66 - 137
Perfluoroheptanoic acid	6400	6000		ng/L		94	66 - 141
Perfluorooctanoic acid	6400	6580		ng/L		103	65 - 136
Perfluorononanoic acid	6400	5990		ng/L		94	65 - 140
Perfluorodecanoic acid	6400	6870		ng/L		107	63 - 137
Perfluorotridecanoic acid	6400	6200		ng/L		97	58 - 146
Perfluorotetradecanoic acid	6400	5810		ng/L		91	64 - 141
Perfluorobutanesulfonic acid	5660	5760		ng/L		102	65 - 132
Perfluorohexanesulfonic acid	6050	5440		ng/L		90	60 - 128
Perfluorooctanesulfonic acid	6120	5160		ng/L		84	51 - 126
NEtFOSAA	6400	6210		ng/L		97	54 - 134
NMeFOSAA	6400	5810		ng/L		91	58 - 143
10:2 FTS	6170	5420		ng/L		88	44 - 141
Perfluoropentanesulfonic acid	6000	6170		ng/L		103	71 - 136
Perfluoroheptanesulfonic acid	6090	5510		ng/L		90	67 - 135
Perfluorononanesulfonic acid	6140	6010		ng/L		98	67 - 137
Perfluorodecanesulfonic acid	6160	5510		ng/L		89	61 - 134
Perfluorododecanesulfonic acid (PFDoS)	6200	5540		ng/L		89	54 - 136
Perfluorooctanesulfonamide	6400	6530		ng/L		102	55 - 130
Perfluorohexadecanoic acid	6400	5330		ng/L		83	52 - 149
Perfluorooctadecanoic acid	6400	3700		ng/L		58	32 - 167

Eurofins Lancaster Laboratories Env, LLC

QC Sample Results

Client: PEER
Project/Site: Permanone 30-30

Job ID: 410-31526-1

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

Lab Sample ID: LCS 410-102145/2-B

Matrix: Water

Analysis Batch: 102671

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 102145

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorobutanoic acid	6400	6940		ng/L		108	62 - 156
Perfluoropentanoic acid	6400	6340		ng/L		99	72 - 139
NMeFOSE	6400	5480		ng/L		86	52 - 131
NMeFOSA	6400	5520		ng/L		86	49 - 141
NEtFOSE	6400	5660		ng/L		88	49 - 128
NEtFOSA	6400	6120		ng/L		96	50 - 136
HFPODA	6400	5660		ng/L		88	37 - 147
DONA	6030	5200		ng/L		86	49 - 158
9Cl-PF3ONS	5960	5380		ng/L		90	52 - 135
11Cl-PF3OUdS	6030	5550		ng/L		92	45 - 134
Perfluorododecanoic acid	6400	6370		ng/L		100	63 - 140
4:2 Fluorotelomer sulfonic acid	5980	6000		ng/L		100	59 - 130
Perfluoroundecanoic acid	6400	6600		ng/L		103	62 - 138
6:2 Fluorotelomer sulfonic acid	6070	5830		ng/L		96	57 - 137
8:2 Fluorotelomer sulfonic acid	6130	6370		ng/L		104	56 - 140

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
M2-4:2 FTS	133		20 - 187
M2-8:2 FTS	130		34 - 182
M2-6:2 FTS	131		29 - 189
13C5 PFHxA	116		31 - 142
13C4 PFHpA	131		30 - 144
13C8 PFOA	114		49 - 127
13C9 PFNA	113		47 - 136
13C6 PFDA	105		47 - 128
13C7 PFUnA	104		40 - 135
13C2-PFDoDA	112		28 - 136
13C2 PFTeDA	98		10 - 144
13C3 PFBS	111		19 - 178
13C3 PFHxS	127		32 - 145
13C8 PFOS	111		49 - 126
d3-NMeFOSAA	82		32 - 151
d5-NEtFOSAA	74		37 - 164
13C8 FOSA	60		10 - 143
13C4 PFBA	112		41 - 132
13C5 PFPeA	100		33 - 155
d7-N-MeFOSE-M	61		10 - 143
d3-NMePFOSA	38		10 - 107
d9-N-EtFOSE-M	60		10 - 142
d5-NEtPFOSA	33		10 - 108
13C3 HFPO-DA	94		20 - 153

Lab Sample ID: LCSD 410-102145/3-B

Matrix: Water

Analysis Batch: 102671

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 102145

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Perfluorohexanoic acid	6400	5890		ng/L		92	66 - 137	0	30
Perfluoroheptanoic acid	6400	5850		ng/L		91	66 - 141	3	30

Eurofins Lancaster Laboratories Env, LLC

QC Sample Results

Client: PEER
Project/Site: Permanone 30-30

Job ID: 410-31526-1

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

Lab Sample ID: LCSD 410-102145/3-B

Matrix: Water

Analysis Batch: 102671

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 102145

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.		RPD	RPD Limit
							Limits	RPD		
Perfluorooctanoic acid	6400	6760		ng/L		106	65 - 136	3	30	
Perfluorononanoic acid	6400	5940		ng/L		93	65 - 140	1	30	
Perfluorodecanoic acid	6400	7000		ng/L		109	63 - 137	2	30	
Perfluorotridecanoic acid	6400	6520		ng/L		102	58 - 146	5	30	
Perfluorotetradecanoic acid	6400	5980		ng/L		93	64 - 141	3	30	
Perfluorobutanesulfonic acid	5660	5820		ng/L		103	65 - 132	1	30	
Perfluorohexanesulfonic acid	6050	5400		ng/L		89	60 - 128	1	30	
Perfluorooctanesulfonic acid	6120	5180		ng/L		85	51 - 126	0	30	
NEtFOSAA	6400	6230		ng/L		97	54 - 134	0	30	
NMeFOSAA	6400	6290		ng/L		98	58 - 143	8	30	
10:2 FTS	6170	6360		ng/L		103	44 - 141	16	30	
Perfluoropentanesulfonic acid	6000	6150		ng/L		102	71 - 136	0	30	
Perfluoroheptanesulfonic acid	6090	5570		ng/L		91	67 - 135	1	30	
Perfluorononanesulfonic acid	6140	5560		ng/L		91	67 - 137	8	30	
Perfluorodecanesulfonic acid	6160	5450		ng/L		88	61 - 134	1	30	
Perfluorododecanesulfonic acid (PFDoS)	6200	5150		ng/L		83	54 - 136	7	30	
Perfluorooctanesulfonamide	6400	6810		ng/L		106	55 - 130	4	30	
Perfluorohexadecanoic acid	6400	5350		ng/L		84	52 - 149	0	30	
Perfluorooctadecanoic acid	6400	3610		ng/L		56	32 - 167	2	30	
Perfluorobutanoic acid	6400	6690		ng/L		105	62 - 156	4	30	
Perfluoropentanoic acid	6400	6060		ng/L		95	72 - 139	4	30	
NMeFOSE	6400	5240		ng/L		82	52 - 131	4	30	
NMeFOSA	6400	6290		ng/L		98	49 - 141	13	30	
NEtFOSE	6400	5700		ng/L		89	49 - 128	1	30	
NEtFOSA	6400	6470		ng/L		101	50 - 136	6	30	
HFPODA	6400	6010		ng/L		94	37 - 147	6	30	
DONA	6030	5310		ng/L		88	49 - 158	2	30	
9Cl-PF3ONS	5960	5130		ng/L		86	52 - 135	5	30	
11Cl-PF3OUdS	6030	5610		ng/L		93	45 - 134	1	30	
Perfluorododecanoic acid	6400	6540		ng/L		102	63 - 140	3	30	
4:2 Fluorotelomer sulfonic acid	5980	6200		ng/L		104	59 - 130	3	30	
Perfluoroundecanoic acid	6400	6380		ng/L		100	62 - 138	3	30	
6:2 Fluorotelomer sulfonic acid	6070	5910		ng/L		97	57 - 137	2	30	
8:2 Fluorotelomer sulfonic acid	6130	6980		ng/L		114	56 - 140	9	30	

Isotope Dilution	LCSD		Limits
	%Recovery	Qualifier	
M2-4:2 FTS	140		20 - 187
M2-8:2 FTS	110		34 - 182
M2-6:2 FTS	132		29 - 189
13C5 PFHxA	122		31 - 142
13C4 PFHpA	138		30 - 144
13C8 PFOA	119		49 - 127
13C9 PFNA	112		47 - 136
13C6 PFDA	108		47 - 128
13C7 PFUnA	106		40 - 135
13C2-PFDoDA	107		28 - 136
13C2 PFTeDA	94		10 - 144
13C3 PFBS	106		19 - 178

QC Sample Results

Client: PEER
Project/Site: Permanone 30-30

Job ID: 410-31526-1

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

Lab Sample ID: LCSD 410-102145/3-B

Matrix: Water

Analysis Batch: 102671

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 102145

Isotope Dilution	LCSD		Limits
	%Recovery	Qualifier	
13C3 PFHxS	132		32 - 145
13C8 PFOS	110		49 - 126
d3-NMeFOSAA	97		32 - 151
d5-NEtFOSAA	100		37 - 164
13C8 FOSA	62		10 - 143
13C4 PFBA	108		41 - 132
13C5 PFPeA	99		33 - 155
d7-N-MeFOSE-M	62		10 - 143
d3-NMePFOSA	39		10 - 107
d9-N-EtFOSE-M	61		10 - 142
d5-NEtPFOSA	37		10 - 108
13C3 HFPO-DA	94		20 - 153

QC Association Summary

Client: PEER
Project/Site: Permanone 30-30

Job ID: 410-31526-1

LCMS

Prep Batch: 101498

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-31526-1	Field Blank Permanone 30-30	Total/NA	Water	537 IDA	
410-31526-1 - RA	Field Blank Permanone 30-30	Total/NA	Water	537 IDA	
MB 410-101498/1-A	Method Blank	Total/NA	Water	537 IDA	
LCS 410-101498/2-A	Lab Control Sample	Total/NA	Water	537 IDA	
LCSD 410-101498/3-A	Lab Control Sample Dup	Total/NA	Water	537 IDA	

Prep Batch: 102145

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-31526-2 - RA	Permanone 30-30	Total/NA	Water	EPA 537 (Mod)	
410-31526-2	Permanone 30-30	Total/NA	Water	EPA 537 (Mod)	
MB 410-102145/1-B	Method Blank	Total/NA	Water	EPA 537 (Mod)	
LCS 410-102145/2-B	Lab Control Sample	Total/NA	Water	EPA 537 (Mod)	
LCSD 410-102145/3-B	Lab Control Sample Dup	Total/NA	Water	EPA 537 (Mod)	

Cleanup Batch: 102155

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-31526-2	Permanone 30-30	Total/NA	Water	Extract Aliquot	102145
410-31526-2 - RA	Permanone 30-30	Total/NA	Water	Extract Aliquot	102145
MB 410-102145/1-B	Method Blank	Total/NA	Water	Extract Aliquot	102145
LCS 410-102145/2-B	Lab Control Sample	Total/NA	Water	Extract Aliquot	102145
LCSD 410-102145/3-B	Lab Control Sample Dup	Total/NA	Water	Extract Aliquot	102145

Analysis Batch: 102185

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-31526-1	Field Blank Permanone 30-30	Total/NA	Water	537 IDA	101498
410-31526-1 - RA	Field Blank Permanone 30-30	Total/NA	Water	537 IDA	101498
MB 410-101498/1-A	Method Blank	Total/NA	Water	537 IDA	101498
LCS 410-101498/2-A	Lab Control Sample	Total/NA	Water	537 IDA	101498
LCSD 410-101498/3-A	Lab Control Sample Dup	Total/NA	Water	537 IDA	101498

Analysis Batch: 102671

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-31526-2 - RA	Permanone 30-30	Total/NA	Water	537 IDA	102155
MB 410-102145/1-B	Method Blank	Total/NA	Water	537 IDA	102155
LCS 410-102145/2-B	Lab Control Sample	Total/NA	Water	537 IDA	102155
LCSD 410-102145/3-B	Lab Control Sample Dup	Total/NA	Water	537 IDA	102155

Analysis Batch: 103586

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-31526-2	Permanone 30-30	Total/NA	Water	537 IDA	102155

Lab Chronicle

Client: PEER
 Project/Site: Permanone 30-30

Job ID: 410-31526-1

Client Sample ID: Field Blank Permanone 30-30

Lab Sample ID: 410-31526-1

Date Collected: 03/04/21 12:09

Matrix: Water

Date Received: 03/08/21 09:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	537 IDA			101498	03/10/21 08:01	X4HV	ELLE
Total/NA	Analysis	537 IDA		1	102185	03/11/21 17:19	UUV6	ELLE
Total/NA	Prep	537 IDA	RA		101498	03/10/21 08:01	X4HV	ELLE
Total/NA	Analysis	537 IDA	RA	1	102185	03/12/21 02:38	UUV6	ELLE

Client Sample ID: Permanone 30-30

Lab Sample ID: 410-31526-2

Date Collected: 03/04/21 12:15

Matrix: Water

Date Received: 03/08/21 09:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	EPA 537 (Mod)	RA		102145	03/11/21 11:01	X4HV	ELLE
Total/NA	Cleanup	Extract Aliquot	RA		102155	03/11/21 11:18	X4HV	ELLE
Total/NA	Analysis	537 IDA	RA	1	102671	03/12/21 19:30	UUV6	ELLE
Total/NA	Prep	EPA 537 (Mod)			102145	03/11/21 11:01	X4HV	ELLE
Total/NA	Cleanup	Extract Aliquot			102155	03/11/21 11:18	X4HV	ELLE
Total/NA	Analysis	537 IDA		1	103586	03/16/21 10:36	OLN7	ELLE

Laboratory References:

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



Accreditation/Certification Summary

Client: PEER
 Project/Site: Permanone 30-30

Job ID: 410-31526-1

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	06-30-21

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 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
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
537 IDA	EPA 537 (Mod)	Water	10:2 FTS
537 IDA	EPA 537 (Mod)	Water	11CI-PF3OUdS
537 IDA	EPA 537 (Mod)	Water	4:2 Fluorotelomer sulfonic acid
537 IDA	EPA 537 (Mod)	Water	6:2 Fluorotelomer sulfonic acid
537 IDA	EPA 537 (Mod)	Water	8:2 Fluorotelomer sulfonic acid
537 IDA	EPA 537 (Mod)	Water	9CI-PF3ONS
537 IDA	EPA 537 (Mod)	Water	DONA
537 IDA	EPA 537 (Mod)	Water	HFPODA
537 IDA	EPA 537 (Mod)	Water	NEtFOSA

Accreditation/Certification Summary

Client: PEER
Project/Site: Permanone 30-30

Job ID: 410-31526-1

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	06-30-21
537 IDA	EPA 537 (Mod)	Water	NEtFOSAA
537 IDA	EPA 537 (Mod)	Water	NEtFOSE
537 IDA	EPA 537 (Mod)	Water	NMeFOSA
537 IDA	EPA 537 (Mod)	Water	NMeFOSAA
537 IDA	EPA 537 (Mod)	Water	NMeFOSE
537 IDA	EPA 537 (Mod)	Water	Perfluorobutanesulfonic acid
537 IDA	EPA 537 (Mod)	Water	Perfluorobutanoic acid
537 IDA	EPA 537 (Mod)	Water	Perfluorodecanesulfonic acid
537 IDA	EPA 537 (Mod)	Water	Perfluorodecanoic acid
537 IDA	EPA 537 (Mod)	Water	Perfluorododecanesulfonic acid (PFDoS)
537 IDA	EPA 537 (Mod)	Water	Perfluorododecanoic acid
537 IDA	EPA 537 (Mod)	Water	Perfluoroheptanesulfonic acid
537 IDA	EPA 537 (Mod)	Water	Perfluoroheptanoic acid
537 IDA	EPA 537 (Mod)	Water	Perfluorohexadecanoic acid
537 IDA	EPA 537 (Mod)	Water	Perfluorohexanesulfonic acid
537 IDA	EPA 537 (Mod)	Water	Perfluorohexanoic acid
537 IDA	EPA 537 (Mod)	Water	Perfluorononanesulfonic acid
537 IDA	EPA 537 (Mod)	Water	Perfluorononanoic acid
537 IDA	EPA 537 (Mod)	Water	Perfluorooctadecanoic acid
537 IDA	EPA 537 (Mod)	Water	Perfluorooctanesulfonamide
537 IDA	EPA 537 (Mod)	Water	Perfluorooctanesulfonic acid
537 IDA	EPA 537 (Mod)	Water	Perfluorooctanoic acid
537 IDA	EPA 537 (Mod)	Water	Perfluoropentanesulfonic acid
537 IDA	EPA 537 (Mod)	Water	Perfluoropentanoic acid
537 IDA	EPA 537 (Mod)	Water	Perfluorotetradecanoic acid
537 IDA	EPA 537 (Mod)	Water	Perfluorotridecanoic acid
537 IDA	EPA 537 (Mod)	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 IDA	Water	10:2 FTS
537 IDA	537 IDA	Water	11Cl-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	9Cl-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

Accreditation/Certification Summary

Client: PEER
Project/Site: Permanone 30-30

Job ID: 410-31526-1

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	04-01-21
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
537 IDA	EPA 537 (Mod)	Water	10:2 FTS
537 IDA	EPA 537 (Mod)	Water	11Cl-PF3OUdS
537 IDA	EPA 537 (Mod)	Water	4:2 Fluorotelomer sulfonic acid
537 IDA	EPA 537 (Mod)	Water	6:2 Fluorotelomer sulfonic acid
537 IDA	EPA 537 (Mod)	Water	8:2 Fluorotelomer sulfonic acid
537 IDA	EPA 537 (Mod)	Water	9Cl-PF3ONS
537 IDA	EPA 537 (Mod)	Water	DONA
537 IDA	EPA 537 (Mod)	Water	HFPODA
537 IDA	EPA 537 (Mod)	Water	NEtFOSA
537 IDA	EPA 537 (Mod)	Water	NEtFOSAA
537 IDA	EPA 537 (Mod)	Water	NEtFOSE
537 IDA	EPA 537 (Mod)	Water	NMeFOSA
537 IDA	EPA 537 (Mod)	Water	NMeFOSAA
537 IDA	EPA 537 (Mod)	Water	NMeFOSE
537 IDA	EPA 537 (Mod)	Water	Perfluorobutanesulfonic acid
537 IDA	EPA 537 (Mod)	Water	Perfluorobutanoic acid
537 IDA	EPA 537 (Mod)	Water	Perfluorodecanesulfonic acid
537 IDA	EPA 537 (Mod)	Water	Perfluorodecanoic acid
537 IDA	EPA 537 (Mod)	Water	Perfluorododecanesulfonic acid (PFDoS)
537 IDA	EPA 537 (Mod)	Water	Perfluorododecanoic acid
537 IDA	EPA 537 (Mod)	Water	Perfluoroheptanesulfonic acid
537 IDA	EPA 537 (Mod)	Water	Perfluoroheptanoic acid
537 IDA	EPA 537 (Mod)	Water	Perfluorohexadecanoic acid
537 IDA	EPA 537 (Mod)	Water	Perfluorohexanesulfonic acid
537 IDA	EPA 537 (Mod)	Water	Perfluorohexanoic acid
537 IDA	EPA 537 (Mod)	Water	Perfluorononanesulfonic acid
537 IDA	EPA 537 (Mod)	Water	Perfluorononanoic acid
537 IDA	EPA 537 (Mod)	Water	Perfluorooctadecanoic acid
537 IDA	EPA 537 (Mod)	Water	Perfluorooctanesulfonamide
537 IDA	EPA 537 (Mod)	Water	Perfluorooctanesulfonic acid
537 IDA	EPA 537 (Mod)	Water	Perfluorooctanoic acid

Accreditation/Certification Summary

Client: PEER
Project/Site: Permanone 30-30

Job ID: 410-31526-1

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	04-01-21
537 IDA	EPA 537 (Mod)	Water	Perfluoropentanesulfonic acid
537 IDA	EPA 537 (Mod)	Water	Perfluoropentanoic acid
537 IDA	EPA 537 (Mod)	Water	Perfluorotetradecanoic acid
537 IDA	EPA 537 (Mod)	Water	Perfluorotridecanoic acid
537 IDA	EPA 537 (Mod)	Water	Perfluoroundecanoic acid

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Method Summary

Client: PEER
Project/Site: Permanone 30-30

Job ID: 410-31526-1

Method	Method Description	Protocol	Laboratory
537 IDA	EPA 537 Isotope Dilution	EPA	ELLE
537 IDA	EPA 537 Isotope Dilution	EPA	ELLE
EPA 537 (Mod)	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: PEER
Project/Site: Permanone 30-30

Job ID: 410-31526-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
410-31526-1	Field Blank Permanone 30-30	Water	03/04/21 12:09	03/08/21 09:48	
410-31526-2	Permanone 30-30	Water	03/04/21 12:15	03/08/21 09:48	

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Login Sample Receipt Checklist

Client: PEER

Job Number: 410-31526-1

Login Number: 31526

List Source: Eurofins Lancaster Laboratories Env

List Number: 1

Creator: Foreman, Leah M

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	