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ANALYTICAL REPORT

PREPARED FOR

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JOB DESCRIPTION

INTERA - Red-Hill-Incident
Site S1 PFAS 1633

JOB NUMBER

380-248458-1

Eurofins Pomona
941 Corporate Center Drive
Pomona CA 91768-2642

See page two for job notes and contact information.

my EOL

Job Notes

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

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

Compliance Statement

1. Laboratory is accredited in accordance with TNI 2016 Standards and ISO/IEC 17025:2017.
2. Laboratory certifies that the test results meet all TNI 2016 and ISO/IEC 17025:2017 requirements unless noted under the individual analysis
3. Test results relate only to the sample(s) tested.
4. This report shall not be reproduced except in full, without the written approval of the laboratory.
5. Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below. (DW,Water matrices)

Authorization



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Glossary

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

Job Narrative
380-248458-1

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt
The sample was received on 11/17/2026 9:30 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.0°C.

PFAS
Method QSM B-24: If aqueous samples were extracted beyond 7 days from collection, NMeFOSE, NEtFOSE, NMeFOSAA, and NEtFOSAA may be affected. If soil or tissue samples were extracted beyond 3 days from collection, NFDHA may be affected. If sample extracts, regardless of matrix, were analyzed beyond 28 days from extraction, 9Cl-PF3ONS and 11Cl-PF3OUdS may be affected. Per DoD Environmental Data Quality Workgroup Memorandum dated March 27, 2025, none of these analytes have associated regulatory limits or toxicity factors, thus any additional uncertainty associated with a holding time exceedance for these analytes will not affect current decision making and the DoD is willing to accept any additional uncertainty.

Method QSM B-24: One or more continuing calibration verifications (CCV) and/or continuing calibration blanks (CCB) in analytical batch(es) 320-948701 recovered outside control limits for one or more Extracted Internal Standards/Isotope Dilution Analytes (EIS/IDAs). Recovery for the affected EIS/IDAs in associated laboratory QC aliquots and client sample(s) were evaluated and corrective action was performed as required. Otherwise, the data have been reported.

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

Detection Summary

Client: City & County of Honolulu
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-248458-1
SDG: Site S1 PFAS 1633

Client Sample ID: BWS2153-S1-AQ

Lab Sample ID: 380-248458-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanoic acid (PFOA)	4.9		1.6		ng/L	1		QSM B-24	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.7		1.6		ng/L	1		QSM B-24	Total/NA
Perfluorooctanesulfonic acid (PFOS)	15		1.6		ng/L	1		QSM B-24	Total/NA

This Detection Summary does not include radiochemical test results.

Client: City & County of Honolulu
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-248458-1
SDG: Site S1 PFAS 1633

Client Sample ID: BWS2153-S1-AQ
Date Collected: 11/16/26 12:00
Date Received: 11/17/26 09:30

Lab Sample ID: 380-248458-1
Matrix: Water

Method: DoD 6.0 QSM B-24 - PFAS for QSM 6.0, Table B-24

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	<3.1		3.1		ng/L		11/19/26 19:46	11/22/26 07:35	1
Perfluoropentanoic acid (PFPeA)	<1.6		1.6		ng/L		11/19/26 19:46	11/22/26 07:35	1
Perfluorohexanoic acid (PFHxA)	<1.6		1.6		ng/L		11/19/26 19:46	11/22/26 07:35	1
Perfluoroheptanoic acid (PFHpA)	<1.6		1.6		ng/L		11/19/26 19:46	11/22/26 07:35	1
Perfluorooctanoic acid (PFOA)	**4.9**		1.6		ng/L		11/19/26 19:46	11/22/26 07:35	1
Perfluorononanoic acid (PFNA)	<1.6		1.6		ng/L		11/19/26 19:46	11/22/26 07:35	1
Perfluorodecanoic acid (PFDA)	<1.6		1.6		ng/L		11/19/26 19:46	11/22/26 07:35	1
Perfluoroundecanoic acid (PFUnA)	<1.6		1.6		ng/L		11/19/26 19:46	11/22/26 07:35	1
Perfluorododecanoic acid (PFDoA)	<1.6		1.6		ng/L		11/19/26 19:46	11/22/26 07:35	1
Perfluorotridecanoic acid (PFTrDA)	<1.6		1.6		ng/L		11/19/26 19:46	11/22/26 07:35	1
Perfluorotetradecanoic acid (PFTeDA)	<1.6		1.6		ng/L		11/19/26 19:46	11/22/26 07:35	1
Perfluorobutanesulfonic acid (PFBS)	<3.1		3.1		ng/L		11/19/26 19:46	11/22/26 07:35	1
Perfluoropentanesulfonic acid (PFPeS)	<1.6		1.6		ng/L		11/19/26 19:46	11/22/26 07:35	1
Perfluorohexanesulfonic acid (PFHxS)	**2.7**		1.6		ng/L		11/19/26 19:46	11/22/26 07:35	1
Perfluoroheptanesulfonic acid (PFHpS)	<1.6		1.6		ng/L		11/19/26 19:46	11/22/26 07:35	1
Perfluorooctanesulfonic acid (PFOS)	**15**		1.6		ng/L		11/19/26 19:46	11/22/26 07:35	1
Perfluorononanesulfonic acid (PFNS)	<1.6		1.6		ng/L		11/19/26 19:46	11/22/26 07:35	1
Perfluorodecanesulfonic acid (PFDS)	<1.6		1.6		ng/L		11/19/26 19:46	11/22/26 07:35	1
Perfluorododecanesulfonic acid (PFDoS)	<1.6		1.6		ng/L		11/19/26 19:46	11/22/26 07:35	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<3.1		3.1		ng/L		11/19/26 19:46	11/22/26 07:35	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<3.1		3.1		ng/L		11/19/26 19:46	11/22/26 07:35	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<3.1		3.1		ng/L		11/19/26 19:46	11/22/26 07:35	1
Perfluorooctanesulfonamide (PFOSA)	<1.6		1.6		ng/L		11/19/26 19:46	11/22/26 07:35	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	<1.6		1.6		ng/L		11/19/26 19:46	11/22/26 07:35	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	<1.6		1.6		ng/L		11/19/26 19:46	11/22/26 07:35	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<1.6		1.6		ng/L		11/19/26 19:46	11/22/26 07:35	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<1.6		1.6		ng/L		11/19/26 19:46	11/22/26 07:35	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	<7.8		7.8		ng/L		11/19/26 19:46	11/22/26 07:35	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	<7.8		7.8		ng/L		11/19/26 19:46	11/22/26 07:35	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<1.2		1.2		ng/L		11/19/26 19:46	11/22/26 07:35	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<1.6		1.6		ng/L		11/19/26 19:46	11/22/26 07:35	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<1.6		1.6		ng/L		11/19/26 19:46	11/22/26 07:35	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<1.6		1.6		ng/L		11/19/26 19:46	11/22/26 07:35	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<1.6		1.6		ng/L		11/19/26 19:46	11/22/26 07:35	1

Client: City & County of Honolulu
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-248458-1
SDG: Site S1 PFAS 1633

Client Sample ID: BWS2153-S1-AQ
Date Collected: 11/16/26 12:00
Date Received: 11/17/26 09:30

Lab Sample ID: 380-248458-1
Matrix: Water

Method: DoD 6.0 QSM B-24 - PFAS for QSM 6.0, Table B-24 (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	<1.6		1.6		ng/L		11/19/26 19:46	11/22/26 07:35	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	<1.6		1.6		ng/L		11/19/26 19:46	11/22/26 07:35	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<1.6		1.6		ng/L		11/19/26 19:46	11/22/26 07:35	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	<3.1		3.1		ng/L		11/19/26 19:46	11/22/26 07:35	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	<7.8		7.8		ng/L		11/19/26 19:46	11/22/26 07:35	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	<7.8		7.8		ng/L		11/19/26 19:46	11/22/26 07:35	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*86.5*		*5 - 130*	*11/19/26 19:46*	*11/22/26 07:35*	*1*
13C5 PFPeA	*91.9*		*40 - 130*	*11/19/26 19:46*	*11/22/26 07:35*	*1*
13C5 PFHxA	*103*		*40 - 130*	*11/19/26 19:46*	*11/22/26 07:35*	*1*
13C4 PFHpA	*106*		*40 - 130*	*11/19/26 19:46*	*11/22/26 07:35*	*1*
13C8 PFOA	*98.0*		*40 - 130*	*11/19/26 19:46*	*11/22/26 07:35*	*1*
13C9 PFNA	*94.5*		*40 - 130*	*11/19/26 19:46*	*11/22/26 07:35*	*1*
13C6 PFDA	*102*		*40 - 130*	*11/19/26 19:46*	*11/22/26 07:35*	*1*
13C7 PFUnA	*108*		*30 - 130*	*11/19/26 19:46*	*11/22/26 07:35*	*1*
13C2 PFDoA	*97.8*		*10 - 130*	*11/19/26 19:46*	*11/22/26 07:35*	*1*
13C2 PFTeDA	*92.8*		*10 - 130*	*11/19/26 19:46*	*11/22/26 07:35*	*1*
13C6 PFTrDA	*108*		*20 - 150*	*11/19/26 19:46*	*11/22/26 07:35*	*1*
13C3 PFBS	*105*		*40 - 135*	*11/19/26 19:46*	*11/22/26 07:35*	*1*
13C3 PFHxS	*100*		*40 - 130*	*11/19/26 19:46*	*11/22/26 07:35*	*1*
13C8 PFOS	*101*		*40 - 130*	*11/19/26 19:46*	*11/22/26 07:35*	*1*
13C8 PFOSA	*84.8*		*40 - 130*	*11/19/26 19:46*	*11/22/26 07:35*	*1*
d3-NMeFOSAA	*108*		*40 - 170*	*11/19/26 19:46*	*11/22/26 07:35*	*1*
d5-NEtFOSAA	*121*		*25 - 135*	*11/19/26 19:46*	*11/22/26 07:35*	*1*
13C2 4:2 FTS	*120*		*40 - 200*	*11/19/26 19:46*	*11/22/26 07:35*	*1*
13C2 6:2 FTS	*85.5*		*40 - 200*	*11/19/26 19:46*	*11/22/26 07:35*	*1*
13C2 8:2 FTS	*94.7*		*40 - 300*	*11/19/26 19:46*	*11/22/26 07:35*	*1*
13C3 HFPO-DA	*97.0*		*40 - 130*	*11/19/26 19:46*	*11/22/26 07:35*	*1*
d7-N-MeFOSE-M	*85.8*		*10 - 130*	*11/19/26 19:46*	*11/22/26 07:35*	*1*
d9-N-EtFOSE-M	*78.8*		*10 - 130*	*11/19/26 19:46*	*11/22/26 07:35*	*1*
d5-NEtPFOSA	*72.5*		*10 - 130*	*11/19/26 19:46*	*11/22/26 07:35*	*1*
d3-NMePFOSA	*77.0*		*10 - 130*	*11/19/26 19:46*	*11/22/26 07:35*	*1*
13C3-3:3 FTCA	*83.3*		*20 - 150*	*11/19/26 19:46*	*11/22/26 07:35*	*1*
13C3-5:3 FTCA	*86.7*		*20 - 150*	*11/19/26 19:46*	*11/22/26 07:35*	*1*

Action Limit Summary

Client: City & County of Honolulu
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-248458-1
SDG: Site S1 PFAS 1633

Client Sample ID: BWS2153-S1-AQ

Lab Sample ID: 380-248458-1

Compliance Check

The results obtained from the analytical testing of this data set were checked against compliance limits received from the client. Any results at or above the compliance limits have been highlighted for your convenience.

Analyte	Result	Qualifier	Unit	EPAMCL Limit	RL	Method	Prep Type
Perfluorooctanoic acid (PFOA)	**4.9**		ng/L	**4**	1.6	QSM B-24	Total/NA
Perfluorononanoic acid (PFNA)	<1.6		ng/L	10	1.6	QSM B-24	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.7		ng/L	10	1.6	QSM B-24	Total/NA
Perfluorooctanesulfonic acid (PFOS)	**15**		ng/L	**4**	1.6	QSM B-24	Total/NA
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<1.2		ng/L	10	1.2	QSM B-24	Total/NA

Isotope Dilution Summary

Client: City & County of Honolulu
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-248458-1
SDG: Site S1 PFAS 1633

Method: QSM B-24 - PFAS for QSM 6.0, Table B-24

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

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA	PFPeA	13C5PHA	C4PFHA	C8PFOA	C9PFNA	C6PFDA	13C7PUA
Lab Sample ID	Client Sample ID	(5-130)	(40-130)	(40-130)	(40-130)	(40-130)	(40-130)	(40-130)	(30-130)
380-248458-1	BWS2153-S1-AQ	86.5	91.9	103	106	98.0	94.5	102	108
LCS 320-948559/3-A	Lab Control Sample	87.4	86.4	98.5	102	107	105	95.9	89.6
LCSD 320-948559/4-A	Lab Control Sample Dup	87.0	90.2	94.3	98.7	96.9	103	94.9	93.8
LLCS 320-948559/2-A	Lab Control Sample	87.5	85.1	104	95.6	93.8	101	92.3	84.7
MB 320-948559/1-A	Method Blank	87.7	82.6	93.8	102	102	103	103	119

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFDoA	PFTDA	C6PFTrDA	C3PFBS	C3PFHS	C8PFOS	PFOSA	d3NMFOS
Lab Sample ID	Client Sample ID	(10-130)	(10-130)	(20-150)	(40-135)	(40-130)	(40-130)	(40-130)	(40-170)
380-248458-1	BWS2153-S1-AQ	97.8	92.8	108	105	100	101	84.8	108
LCS 320-948559/3-A	Lab Control Sample	92.6	81.4	95.2	96.6	95.6	82.2	84.9	82.1
LCSD 320-948559/4-A	Lab Control Sample Dup	102	83.7	106	92.9	92.4	88.1	80.8	91.3
LLCS 320-948559/2-A	Lab Control Sample	89.4	72.3	86.8	97.8	92.1	85.3	83.6	83.2
MB 320-948559/1-A	Method Blank	104	99.2	112	95.0	89.4	93.7	87.3	93.3

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		d5NEFOS	M242FTS	M262FTS	M282FTS	HFPODA	NMFM	NEFM	d5NPFSA
Lab Sample ID	Client Sample ID	(25-135)	(40-200)	(40-200)	(40-300)	(40-130)	(10-130)	(10-130)	(10-130)
380-248458-1	BWS2153-S1-AQ	121	120	85.5	94.7	97.0	85.8	78.8	72.5
LCS 320-948559/3-A	Lab Control Sample	77.8	75.2	80.0	68.0	102	77.8	74.8	65.9
LCSD 320-948559/4-A	Lab Control Sample Dup	76.0	80.8	76.3	71.6	99.1	78.3	74.7	66.9
LLCS 320-948559/2-A	Lab Control Sample	84.2	78.6	80.1	65.9	93.5	77.6	73.3	66.1
MB 320-948559/1-A	Method Blank	81.6	80.1	72.9	80.5	104	79.5	76.7	68.1

		Percent Isotope Dilution Recovery (Acceptance Limits)		
		d3NMFSA	3-3:3 FTC	3-5:3 FTC
Lab Sample ID	Client Sample ID	(10-130)	(20-150)	(20-150)
380-248458-1	BWS2153-S1-AQ	77.0	83.3	86.7
LCS 320-948559/3-A	Lab Control Sample	70.3	89.0	89.6
LCSD 320-948559/4-A	Lab Control Sample Dup	71.8	87.5	90.5
LLCS 320-948559/2-A	Lab Control Sample	66.2	86.5	88.6
MB 320-948559/1-A	Method Blank	70.5	84.7	92.7

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFDoA = 13C2 PFDoA
PFTDA = 13C2 PFTeDA
C6PFTrDA = 13C6 PFTrDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
PFOSA = 13C8 PFOSA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M242FTS = 13C2 4:2 FTS

Isotope Dilution Summary

Client: City & County of Honolulu
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-248458-1
SDG: Site S1 PFAS 1633

M262FTS = 13C2 6:2 FTS
M282FTS = 13C2 8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
C3-3:3 FTCA = 13C3-3:3 FTCA
C3-5:3 FTCA = 13C3-5:3 FTCA

Method: QSM B-24 - PFAS for QSM 6.0, Table B-24

Lab Sample ID: MB 320-948559/1-A
Matrix: Water
Analysis Batch: 948701

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 948559

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	<4.0		4.0		ng/L		11/19/26 19:46	11/21/26 23:55	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0		ng/L		11/19/26 19:46	11/21/26 23:55	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0		ng/L		11/19/26 19:46	11/21/26 23:55	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0		ng/L		11/19/26 19:46	11/21/26 23:55	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0		ng/L		11/19/26 19:46	11/21/26 23:55	1
Perfluorononanoic acid (PFNA)	<2.0		2.0		ng/L		11/19/26 19:46	11/21/26 23:55	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0		ng/L		11/19/26 19:46	11/21/26 23:55	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0		ng/L		11/19/26 19:46	11/21/26 23:55	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0		ng/L		11/19/26 19:46	11/21/26 23:55	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0		ng/L		11/19/26 19:46	11/21/26 23:55	1
Perfluorotetradecanoic acid (PFTeDA)	<2.0		2.0		ng/L		11/19/26 19:46	11/21/26 23:55	1
Perfluorobutanesulfonic acid (PFBS)	<4.0		4.0		ng/L		11/19/26 19:46	11/21/26 23:55	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0		ng/L		11/19/26 19:46	11/21/26 23:55	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0		ng/L		11/19/26 19:46	11/21/26 23:55	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0		ng/L		11/19/26 19:46	11/21/26 23:55	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0		ng/L		11/19/26 19:46	11/21/26 23:55	1
Perfluorononanesulfonic acid (PFNS)	<2.0		2.0		ng/L		11/19/26 19:46	11/21/26 23:55	1
Perfluorodecanesulfonic acid (PFDS)	<2.0		2.0		ng/L		11/19/26 19:46	11/21/26 23:55	1
Perfluorododecanesulfonic acid (PFDoS)	<2.0		2.0		ng/L		11/19/26 19:46	11/21/26 23:55	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<4.0		4.0		ng/L		11/19/26 19:46	11/21/26 23:55	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<4.0		4.0		ng/L		11/19/26 19:46	11/21/26 23:55	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<4.0		4.0		ng/L		11/19/26 19:46	11/21/26 23:55	1
Perfluorooctanesulfonamide (PFOSA)	<2.0		2.0		ng/L		11/19/26 19:46	11/21/26 23:55	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	<2.0		2.0		ng/L		11/19/26 19:46	11/21/26 23:55	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	<2.0		2.0		ng/L		11/19/26 19:46	11/21/26 23:55	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0		ng/L		11/19/26 19:46	11/21/26 23:55	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0		ng/L		11/19/26 19:46	11/21/26 23:55	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	<10		10		ng/L		11/19/26 19:46	11/21/26 23:55	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	<10		10		ng/L		11/19/26 19:46	11/21/26 23:55	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<1.5		1.5		ng/L		11/19/26 19:46	11/21/26 23:55	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0		ng/L		11/19/26 19:46	11/21/26 23:55	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0		ng/L		11/19/26 19:46	11/21/26 23:55	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0		ng/L		11/19/26 19:46	11/21/26 23:55	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0		ng/L		11/19/26 19:46	11/21/26 23:55	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	<2.0		2.0		ng/L		11/19/26 19:46	11/21/26 23:55	1

Method: QSM B-24 - PFAS for QSM 6.0, Table B-24 (Continued)

Lab Sample ID: MB 320-948559/1-A
Matrix: Water
Analysis Batch: 948701

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 948559

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	<2.0		2.0		ng/L		11/19/26 19:46	11/21/26 23:55	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		2.0		ng/L		11/19/26 19:46	11/21/26 23:55	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	<4.0		4.0		ng/L		11/19/26 19:46	11/21/26 23:55	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	<10		10		ng/L		11/19/26 19:46	11/21/26 23:55	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	<10		10		ng/L		11/19/26 19:46	11/21/26 23:55	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*87.7*		*5 - 130*	*11/19/26 19:46*	*11/21/26 23:55*	*1*
13C5 PFPeA	*82.6*		*40 - 130*	*11/19/26 19:46*	*11/21/26 23:55*	*1*
13C5 PFHxA	*93.8*		*40 - 130*	*11/19/26 19:46*	*11/21/26 23:55*	*1*
13C4 PFHpA	*102*		*40 - 130*	*11/19/26 19:46*	*11/21/26 23:55*	*1*
13C8 PFOA	*102*		*40 - 130*	*11/19/26 19:46*	*11/21/26 23:55*	*1*
13C9 PFNA	*103*		*40 - 130*	*11/19/26 19:46*	*11/21/26 23:55*	*1*
13C6 PFDA	*103*		*40 - 130*	*11/19/26 19:46*	*11/21/26 23:55*	*1*
13C7 PFUnA	*119*		*30 - 130*	*11/19/26 19:46*	*11/21/26 23:55*	*1*
13C2 PFDoA	*104*		*10 - 130*	*11/19/26 19:46*	*11/21/26 23:55*	*1*
13C2 PFTeDA	*99.2*		*10 - 130*	*11/19/26 19:46*	*11/21/26 23:55*	*1*
13C6 PFTrDA	*112*		*20 - 150*	*11/19/26 19:46*	*11/21/26 23:55*	*1*
13C3 PFBS	*95.0*		*40 - 135*	*11/19/26 19:46*	*11/21/26 23:55*	*1*
13C3 PFHxS	*89.4*		*40 - 130*	*11/19/26 19:46*	*11/21/26 23:55*	*1*
13C8 PFOS	*93.7*		*40 - 130*	*11/19/26 19:46*	*11/21/26 23:55*	*1*
13C8 PFOSA	*87.3*		*40 - 130*	*11/19/26 19:46*	*11/21/26 23:55*	*1*
d3-NMeFOSAA	*93.3*		*40 - 170*	*11/19/26 19:46*	*11/21/26 23:55*	*1*
d5-NEtFOSAA	*81.6*		*25 - 135*	*11/19/26 19:46*	*11/21/26 23:55*	*1*
13C2 4:2 FTS	*80.1*		*40 - 200*	*11/19/26 19:46*	*11/21/26 23:55*	*1*
13C2 6:2 FTS	*72.9*		*40 - 200*	*11/19/26 19:46*	*11/21/26 23:55*	*1*
13C2 8:2 FTS	*80.5*		*40 - 300*	*11/19/26 19:46*	*11/21/26 23:55*	*1*
13C3 HFPO-DA	*104*		*40 - 130*	*11/19/26 19:46*	*11/21/26 23:55*	*1*
d7-N-MeFOSE-M	*79.5*		*10 - 130*	*11/19/26 19:46*	*11/21/26 23:55*	*1*
d9-N-EtFOSE-M	*76.7*		*10 - 130*	*11/19/26 19:46*	*11/21/26 23:55*	*1*
d5-NEtPFOSA	*68.1*		*10 - 130*	*11/19/26 19:46*	*11/21/26 23:55*	*1*
d3-NMePFOSA	*70.5*		*10 - 130*	*11/19/26 19:46*	*11/21/26 23:55*	*1*
13C3-3:3 FTCA	*84.7*		*20 - 150*	*11/19/26 19:46*	*11/21/26 23:55*	*1*
13C3-5:3 FTCA	*92.7*		*20 - 150*	*11/19/26 19:46*	*11/21/26 23:55*	*1*

Lab Sample ID: LCS 320-948559/3-A
Matrix: Water
Analysis Batch: 948701

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 948559

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Perfluorobutanoic acid (PFBA)			80.0	90.3		ng/L		113	70 - 140		
Perfluoropentanoic acid (PFPeA)			40.0	41.6		ng/L		104	65 - 135		
Perfluorohexanoic acid (PFHxA)			40.0	41.8		ng/L		105	70 - 145		
Perfluoroheptanoic acid (PFHpA)			40.0	43.8		ng/L		109	70 - 150		
Perfluorooctanoic acid (PFOA)			40.0	38.3		ng/L		96	70 - 150		

Method: QSM B-24 - PFAS for QSM 6.0, Table B-24 (Continued)

Lab Sample ID: LCS 320-948559/3-A
Matrix: Water
Analysis Batch: 948701

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 948559

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorononanoic acid (PFNA)	40.0	38.9		ng/L		97	70 - 150
Perfluorodecanoic acid (PFDA)	40.0	40.0		ng/L		100	70 - 140
Perfluoroundecanoic acid (PFUnA)	40.0	44.0		ng/L		110	70 - 145
Perfluorododecanoic acid (PFDoA)	40.0	42.8		ng/L		107	70 - 140
Perfluorotridecanoic acid (PFTrDA)	40.0	38.8		ng/L		97	65 - 140
Perfluorotetradecanoic acid (PFTeDA)	40.0	37.8		ng/L		95	60 - 140
Perfluorobutanesulfonic acid (PFBS)	71.0	59.0		ng/L		83	60 - 145
Perfluoropentanesulfonic acid (PFPeS)	37.6	36.9		ng/L		98	65 - 140
Perfluorohexanesulfonic acid (PFHxS)	36.5	31.8		ng/L		87	65 - 145
Perfluoroheptanesulfonic acid (PFHpS)	38.2	44.2		ng/L		116	70 - 150
Perfluorooctanesulfonic acid (PFOS)	37.2	39.0		ng/L		105	55 - 150
Perfluorononanesulfonic acid (PFNS)	38.5	45.0		ng/L		117	65 - 145
Perfluorodecanesulfonic acid (PFDS)	38.6	42.6		ng/L		111	60 - 145
Perfluorododecanesulfonic acid (PFDoS)	38.8	42.7		ng/L		110	50 - 145
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	75.0	82.5		ng/L		110	70 - 145
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	76.2	95.9		ng/L		126	65 - 155
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	76.8	87.2		ng/L		114	60 - 150
Perfluorooctanesulfonamide (PFOSA)	40.0	36.9		ng/L		92	70 - 145
N-methylperfluorooctane sulfonamide (NMeFOSA)	40.0	42.2		ng/L		106	60 - 150
N-ethylperfluorooctane sulfonamide (NEtFOSA)	40.0	40.9		ng/L		102	65 - 145
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	40.5		ng/L		101	50 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	44.1		ng/L		110	70 - 145
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	200	205		ng/L		102	70 - 145
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	200	204		ng/L		102	70 - 135
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	30.0	31.8		ng/L		106	70 - 140
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.8	37.1		ng/L		98	65 - 145
Perfluoro-4-methoxybutanoic acid (PFMBA)	40.0	45.3		ng/L		113	60 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	40.0	39.4		ng/L		99	50 - 150

Method: QSM B-24 - PFAS for QSM 6.0, Table B-24 (Continued)

Lab Sample ID: LCS 320-948559/3-A
Matrix: Water
Analysis Batch: 948701

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 948559

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Perfluoro-3-methoxypropanoic acid (PFMPA)			40.0	44.7		ng/L		112	55 - 140		
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid			37.4	43.5		ng/L		117	70 - 155		
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid			37.8	41.4		ng/L		110	55 - 160		
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			35.7	42.4		ng/L		119	70 - 140		
3-Perfluoropropylpropanoic acid (3:3 FTCA)			80.0	81.4		ng/L		102	65 - 130		
3-Perfluoropentylpropanoic acid (5:3 FTCA)			200	231		ng/L		116	70 - 135		
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			200	184		ng/L		92	50 - 145		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*87.4*		*5 - 130*
13C5 PFPeA	*86.4*		*40 - 130*
13C5 PFHxA	*98.5*		*40 - 130*
13C4 PFHpA	*102*		*40 - 130*
13C8 PFOA	*107*		*40 - 130*
13C9 PFNA	*105*		*40 - 130*
13C6 PFDA	*95.9*		*40 - 130*
13C7 PFUnA	*89.6*		*30 - 130*
13C2 PFDoA	*92.6*		*10 - 130*
13C2 PFTeDA	*81.4*		*10 - 130*
13C6 PFTrDA	*95.2*		*20 - 150*
13C3 PFBS	*96.6*		*40 - 135*
13C3 PFHxS	*95.6*		*40 - 130*
13C8 PFOS	*82.2*		*40 - 130*
13C8 PFOSA	*84.9*		*40 - 130*
d3-NMeFOSAA	*82.1*		*40 - 170*
d5-NEtFOSAA	*77.8*		*25 - 135*
13C2 4:2 FTS	*75.2*		*40 - 200*
13C2 6:2 FTS	*80.0*		*40 - 200*
13C2 8:2 FTS	*68.0*		*40 - 300*
13C3 HFPO-DA	*102*		*40 - 130*
d7-N-MeFOSE-M	*77.8*		*10 - 130*
d9-N-EtFOSE-M	*74.8*		*10 - 130*
d5-NEtPFOSA	*65.9*		*10 - 130*
d3-NMePFOSA	*70.3*		*10 - 130*
13C3-3:3 FTCA	*89.0*		*20 - 150*
13C3-5:3 FTCA	*89.6*		*20 - 150*

Lab Sample ID: LCSD 320-948559/4-A
Matrix: Water
Analysis Batch: 948701

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 948559

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)			80.0	84.8		ng/L		106	70 - 140	6	30
Perfluoropentanoic acid (PFPeA)			40.0	39.2		ng/L		98	65 - 135	6	30

Method: QSM B-24 - PFAS for QSM 6.0, Table B-24 (Continued)

Lab Sample ID: LCSD 320-948559/4-A
Matrix: Water
Analysis Batch: 948701

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 948559

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorohexanoic acid (PFHxA)			40.0	42.2		ng/L		106	70 - 145	1	30
Perfluoroheptanoic acid (PFHpA)			40.0	45.2		ng/L		113	70 - 150	3	30
Perfluorooctanoic acid (PFOA)			40.0	35.5		ng/L		89	70 - 150	7	30
Perfluorononanoic acid (PFNA)			40.0	38.2		ng/L		95	70 - 150	2	30
Perfluorodecanoic acid (PFDA)			40.0	43.3		ng/L		108	70 - 140	8	30
Perfluoroundecanoic acid (PFUnA)			40.0	41.9		ng/L		105	70 - 145	5	30
Perfluorododecanoic acid (PFDoA)			40.0	43.9		ng/L		110	70 - 140	2	30
Perfluorotridecanoic acid (PFTrDA)			40.0	41.5		ng/L		104	65 - 140	7	30
Perfluorotetradecanoic acid (PFTeDA)			40.0	41.2		ng/L		103	60 - 140	9	30
Perfluorobutanesulfonic acid (PFBS)			71.0	61.3		ng/L		86	60 - 145	4	30
Perfluoropentanesulfonic acid (PFPeS)			37.6	39.3		ng/L		105	65 - 140	6	30
Perfluorohexanesulfonic acid (PFHxS)			36.5	32.5		ng/L		89	65 - 145	2	30
Perfluoroheptanesulfonic acid (PFHpS)			38.2	39.3		ng/L		103	70 - 150	12	30
Perfluorooctanesulfonic acid (PFOS)			37.2	36.2		ng/L		97	55 - 150	7	30
Perfluorononanesulfonic acid (PFNS)			38.5	40.6		ng/L		106	65 - 145	10	30
Perfluorodecanesulfonic acid (PFDS)			38.6	37.6		ng/L		98	60 - 145	13	30
Perfluorododecanesulfonic acid (PFDoS)			38.8	36.6		ng/L		94	50 - 145	15	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)			75.0	79.5		ng/L		106	70 - 145	4	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)			76.2	83.0		ng/L		109	65 - 155	14	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)			76.8	78.8		ng/L		103	60 - 150	10	30
Perfluorooctanesulfonamide (PFOSA)			40.0	39.4		ng/L		99	70 - 145	7	30
N-methylperfluorooctane sulfonamide (NMeFOSA)			40.0	41.2		ng/L		103	60 - 150	3	30
N-ethylperfluorooctane sulfonamide (NEtFOSA)			40.0	40.9		ng/L		102	65 - 145	0	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)			40.0	36.1		ng/L		90	50 - 140	11	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)			40.0	42.0		ng/L		105	70 - 145	5	30
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)			200	204		ng/L		102	70 - 145	0	30
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)			200	207		ng/L		104	70 - 135	2	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)			30.0	28.0		ng/L		93	70 - 140	13	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)			37.8	34.0		ng/L		90	65 - 145	9	30
Perfluoro-4-methoxybutanoic acid (PFMBA)			40.0	41.2		ng/L		103	60 - 150	9	30

Method: QSM B-24 - PFAS for QSM 6.0, Table B-24 (Continued)

Lab Sample ID: LCSD 320-948559/4-A
Matrix: Water
Analysis Batch: 948701

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 948559

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)			40.0	41.4		ng/L		103	50 - 150	5	30
Perfluoro-3-methoxypropanoic acid (PFMPA)			40.0	40.4		ng/L		101	55 - 140	10	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid			37.4	36.3		ng/L		97	70 - 155	18	30
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid			37.8	42.1		ng/L		112	55 - 160	2	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			35.7	43.2		ng/L		121	70 - 140	2	30
3-Perfluoropropylpropanoic acid (3:3 FTCA)			80.0	83.9		ng/L		105	65 - 130	3	30
3-Perfluoropentylpropanoic acid (5:3 FTCA)			200	200		ng/L		100	70 - 135	14	30
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			200	188		ng/L		94	50 - 145	2	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C4 PFBA	*87.0*		*5 - 130*
13C5 PFPeA	*90.2*		*40 - 130*
13C5 PFHxA	*94.3*		*40 - 130*
13C4 PFHpA	*98.7*		*40 - 130*
13C8 PFOA	*96.9*		*40 - 130*
13C9 PFNA	*103*		*40 - 130*
13C6 PFDA	*94.9*		*40 - 130*
13C7 PFUnA	*93.8*		*30 - 130*
13C2 PFDoA	*102*		*10 - 130*
13C2 PFTeDA	*83.7*		*10 - 130*
13C6 PFTrDA	*106*		*20 - 150*
13C3 PFBS	*92.9*		*40 - 135*
13C3 PFHxS	*92.4*		*40 - 130*
13C8 PFOS	*88.1*		*40 - 130*
13C8 PFOSA	*80.8*		*40 - 130*
d3-NMeFOSAA	*91.3*		*40 - 170*
d5-NEtFOSAA	*76.0*		*25 - 135*
13C2 4:2 FTS	*80.8*		*40 - 200*
13C2 6:2 FTS	*76.3*		*40 - 200*
13C2 8:2 FTS	*71.6*		*40 - 300*
13C3 HFPO-DA	*99.1*		*40 - 130*
d7-N-MeFOSE-M	*78.3*		*10 - 130*
d9-N-EtFOSE-M	*74.7*		*10 - 130*
d5-NEtPFOSA	*66.9*		*10 - 130*
d3-NMePFOSA	*71.8*		*10 - 130*
13C3-3:3 FTCA	*87.5*		*20 - 150*
13C3-5:3 FTCA	*90.5*		*20 - 150*

Method: QSM B-24 - PFAS for QSM 6.0, Table B-24 (Continued)

Lab Sample ID: LLCS 320-948559/2-A
Matrix: Water
Analysis Batch: 948701

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 948559

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	8.00	9.46		ng/L		118	70 - 140
Perfluoropentanoic acid (PFPeA)	4.00	4.89		ng/L		122	65 - 135
Perfluorohexanoic acid (PFHxA)	4.00	4.12		ng/L		103	70 - 145
Perfluoroheptanoic acid (PFHpA)	4.00	4.57		ng/L		114	70 - 150
Perfluorooctanoic acid (PFOA)	4.00	4.46		ng/L		112	70 - 150
Perfluorononanoic acid (PFNA)	4.00	4.22		ng/L		106	70 - 150
Perfluorodecanoic acid (PFDA)	4.00	4.47		ng/L		112	70 - 140
Perfluoroundecanoic acid (PFUnA)	4.00	4.39		ng/L		110	70 - 145
Perfluorododecanoic acid (PFDoA)	4.00	4.44		ng/L		111	70 - 140
Perfluorotridecanoic acid (PFTrDA)	4.00	4.56		ng/L		114	65 - 140
Perfluorotetradecanoic acid (PFTeDA)	4.00	4.22		ng/L		106	60 - 140
Perfluorobutanesulfonic acid (PFBS)	7.10	6.63		ng/L		93	60 - 145
Perfluoropentanesulfonic acid (PFPeS)	3.76	4.36		ng/L		116	65 - 140
Perfluorohexanesulfonic acid (PFHxS)	3.65	3.71		ng/L		102	65 - 145
Perfluoroheptanesulfonic acid (PFHpS)	3.82	4.74		ng/L		124	70 - 150
Perfluorooctanesulfonic acid (PFOS)	3.72	4.46		ng/L		120	55 - 150
Perfluorononanesulfonic acid (PFNS)	3.85	5.15		ng/L		134	65 - 145
Perfluorodecanesulfonic acid (PFDS)	3.86	4.50		ng/L		117	60 - 145
Perfluorododecanesulfonic acid (PFDoS)	3.88	4.46		ng/L		115	50 - 145
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	7.50	9.99		ng/L		133	70 - 145
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	7.62	9.91		ng/L		130	65 - 155
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	7.68	9.55		ng/L		124	60 - 150
Perfluorooctanesulfonamide (PFOSA)	4.00	4.01		ng/L		100	70 - 145
N-methylperfluorooctane sulfonamide (NMeFOSA)	4.00	4.92		ng/L		123	60 - 150
N-ethylperfluorooctane sulfonamide (NEtFOSA)	4.00	4.38		ng/L		109	65 - 145
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.00	4.26		ng/L		106	50 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.00	4.26		ng/L		107	70 - 145
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	20.0	21.1		ng/L		105	70 - 145
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	20.0	21.5		ng/L		108	70 - 135
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	3.00	3.41		ng/L		114	70 - 140

Method: QSM B-24 - PFAS for QSM 6.0, Table B-24 (Continued)

Lab Sample ID: LLCS 320-948559/2-A
Matrix: Water
Analysis Batch: 948701

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 948559

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	3.78	4.49		ng/L		119	65 - 145
Perfluoro-4-methoxybutanoic acid (PFMBA)	4.00	4.46		ng/L		112	60 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	4.00	4.12		ng/L		103	50 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	4.00	4.93		ng/L		123	55 - 140
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	3.74	4.47		ng/L		120	70 - 155
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	3.78	4.50		ng/L		119	55 - 160
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	3.57	4.19		ng/L		117	70 - 140
3-Perfluoropropylpropanoic acid (3:3 FTCA)	8.00	8.54		ng/L		107	65 - 130
3-Perfluoropentylpropanoic acid (5:3 FTCA)	20.0	23.5		ng/L		117	70 - 135
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	20.0	18.0		ng/L		90	50 - 145

Isotope Dilution	*LLCS %Recovery*	*LLCS Qualifier*	*Limits*
13C4 PFBA	*87.5*		*5 - 130*
13C5 PFPeA	*85.1*		*40 - 130*
13C5 PFHxA	*104*		*40 - 130*
13C4 PFHpA	*95.6*		*40 - 130*
13C8 PFOA	*93.8*		*40 - 130*
13C9 PFNA	*101*		*40 - 130*
13C6 PFDA	*92.3*		*40 - 130*
13C7 PFUnA	*84.7*		*30 - 130*
13C2 PFDoA	*89.4*		*10 - 130*
13C2 PFTeDA	*72.3*		*10 - 130*
13C6 PFTrDA	*86.8*		*20 - 150*
13C3 PFBS	*97.8*		*40 - 135*
13C3 PFHxS	*92.1*		*40 - 130*
13C8 PFOS	*85.3*		*40 - 130*
13C8 PFOSA	*83.6*		*40 - 130*
d3-NMeFOSAA	*83.2*		*40 - 170*
d5-NEtFOSAA	*84.2*		*25 - 135*
13C2 4:2 FTS	*78.6*		*40 - 200*
13C2 6:2 FTS	*80.1*		*40 - 200*
13C2 8:2 FTS	*65.9*		*40 - 300*
13C3 HFPO-DA	*93.5*		*40 - 130*
d7-N-MeFOSE-M	*77.6*		*10 - 130*
d9-N-EtFOSE-M	*73.3*		*10 - 130*
d5-NEtPFOSA	*66.1*		*10 - 130*
d3-NMePFOSA	*66.2*		*10 - 130*
13C3-3:3 FTCA	*86.5*		*20 - 150*
13C3-5:3 FTCA	*88.6*		*20 - 150*

QC Association Summary

Client: City & County of Honolulu
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-248458-1
SDG: Site S1 PFAS 1633

LCMS

Prep Batch: 948559

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-248458-1	BWS2153-S1-AQ	Total/NA	Water	1633	
MB 320-948559/1-A	Method Blank	Total/NA	Water	1633	
LCS 320-948559/3-A	Lab Control Sample	Total/NA	Water	1633	
LCSD 320-948559/4-A	Lab Control Sample Dup	Total/NA	Water	1633	
LLCS 320-948559/2-A	Lab Control Sample	Total/NA	Water	1633	

Analysis Batch: 948701

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-248458-1	BWS2153-S1-AQ	Total/NA	Water	QSM B-24	948559
MB 320-948559/1-A	Method Blank	Total/NA	Water	QSM B-24	948559
LCS 320-948559/3-A	Lab Control Sample	Total/NA	Water	QSM B-24	948559
LCSD 320-948559/4-A	Lab Control Sample Dup	Total/NA	Water	QSM B-24	948559
LLCS 320-948559/2-A	Lab Control Sample	Total/NA	Water	QSM B-24	948559

Lab Chronicle

Client: City & County of Honolulu
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-248458-1
SDG: Site S1 PFAS 1633

Client Sample ID: BWS2153-S1-AQ

Date Collected: 11/16/26 12:00
Date Received: 11/17/26 09:30

Lab Sample ID: 380-248458-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633			948559	A3L	EET SAC	11/19/26 19:46
Total/NA	Analysis	QSM B-24		1	948701	K1D	EET SAC	11/22/26 07:35

Laboratory References:

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

Accreditation/Certification Summary

Client: City & County of Honolulu
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-248458-1
SDG: Site S1 PFAS 1633

Laboratory: Eurofins Sacramento

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

Authority	Program	Identification Number	Expiration Date
Alaska	State	CA00044	06-30-27
Alaska (UST)	State	17-020	02-22-27
ANAB	Dept. of Defense ELAP	L2468	01-20-27
ANAB	Dept. of Energy	L2468.01	01-20-27
ANAB	ISO/IEC 17025	L2468.03	01-20-27
Arizona	State	AZ0708	08-11-27
Arkansas DEQ	State	88-0691	05-17-27
California	State	2897	01-31-28
Colorado	State	CA00044	08-31-27
Florida	NELAP	E87570	06-30-27
Georgia	State	4040	01-29-27
Illinois	NELAP	200060	03-31-27
Louisiana (All)	NELAP	01944	06-30-27
Maine	State	CA00004	04-14-28
Massachusetts	State	M-CA044	07-01-27
Michigan	State	9947	01-31-28
Minnesota	NELAP	006-999-474	12-31-26
Nevada	State	CA00044	07-31-27
New Jersey	NELAP	CA005	06-30-27
New York	NELAP	11666	04-01-27
Ohio	State	41252	01-29-27
Oregon	NELAP	4040	01-29-27
Texas	NELAP	T104704399-23-17	05-31-27
US Fish & Wildlife	US Federal Programs	A22139	04-30-27
USDA	US Federal Programs	525-23-59-76739	03-01-27
Utah	NELAP	CA000442026-20	02-28-27
Virginia	NELAP	460278	09-30-27
Washington	State	C581	05-06-27
West Virginia (DW)	State	9930C	01-31-27
West Virginia DEP	State	422	07-31-27
Wisconsin	State	998204680	08-31-27
Wyoming	State Program	8TMS-L	01-28-19 *

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

Method Summary

Client: City & County of Honolulu
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-248458-1
SDG: Site S1 PFAS 1633

Method	Method Description	Protocol	Laboratory
QSM B-24	PFAS for QSM 6.0, Table B-24	DoD 6.0	EET SAC
1633	Solid-Phase Extraction (SPE)	EPA	EET SAC

Protocol References:

DoD 6.0 = Department of Defense Quality Systems Manual V6.0

EPA = US Environmental Protection Agency

Laboratory References:

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

Sample Summary

Client: City & County of Honolulu
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-248458-1
SDG: Site S1 PFAS 1633

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
380-248458-1	BWS2153-S1-AQ	Water	11/16/26 12:00	11/17/26 09:30	Hawaii

Eurofins Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone (626) 386-1100

Chain of Custody Record

eurofins | Environment Testing

Client Information	Sampler: H. Bentley (808) 321-0683	Lab PM: Lopez, Maria	Carrier Tracking No(s):	COC No:
Client Contact: Mr Erwin Kawata	Phone: 858-205-0730	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: City & County of Honolulu	PWSID:			Job #:
Address: 630 South Beretania Street	Due Date Requested:			Preservation Codes: A-HCL N None
City: Honolulu	TAT Requested (days): Standard			
State, Zip: HI, 96843	Compliance Project: Δ Yes X No			
Phone: 808-748-5066	PO #:			
Email: ekawata@hbws.org	WO #:			
Project Name: INTERA Red-Hill-Incident	Project #: 38000861			
Site: S1	SSOW#:			Other:

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air, DW=Drinking Water)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1633_DOD6 EPA Method 1633 Std List	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N		
BWS2153-S1-AQ	11/16/26	12 00	G	Water	N	N	2	2	BILL TO POMONA EEA

380-248458 COC

Possible Hazard Identification
☐ X 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 ☐ X 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:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	11/16/26 14 00	INTERA, INC	CH	11.17 26 0930	EETSAC

Custody Seals Intact:	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:
✓ Δ Yes Δ No	Seal	10

Ver: 05/06/2024

Eurofins Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone: 626-386-1100

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Lopez, Maria	Carrier Tracking No(s): N/A	COC No: 380-405424 1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Maria.Lopez@et.eurofinsus.com	State of Origin: Hawaii	Page: Page 1 of 1
Company: Eurofins Environment Testing Northern Ca		Accreditations Required (See note): State - Hawaii		Job #: 380-248458-1
Address: 880 Riverside Parkway, ,	Due Date Requested: 11/30/2026			Preservation Codes: -
City: West Sacramento	TAT Requested (days): N/A			
State, Zip: CA, 95605				
Phone: 916-373-5600(Tel) 916-372-1059(Fax)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: INTERA - Red-Hill-Incident	Project #: 38000861			
Site: Honolulu BWS Sites	SSOW#: N/A			Other: N/A

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1633_DOD6/1633_SPE_125(MOD) EPA Method 1633 Std List	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
BWS2153-S1-AQ (380-248458-1)	11/16/26	12:00 Hawaiian	G	Water			X	2	

Note: Since laboratory accreditations are subject to change, Eurofins Drinking Water and Wastewater West, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Drinking Water and Wastewater West, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Drinking Water and Wastewater West, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Drinking Water and Wastewater West, LLC.

Possible Hazard Identification: Unconfirmed	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) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

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

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
				11/17/26 0930	ET SAC
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No: Seal | Cooler Temperature(s) °C and Other Remarks: 1.0°C

Ver: 08/18/2026

11/24/2026

Eurofins Pomona
941 Corporate Center Drive
Pomona, CA 91768-2642
Phone (626) 386-1100

Chain of Custody Record

eurofins | Environment Testing

Client Information	Sampler: H Bentley (808) 321-0683	Lab PM: Lopez, Maria	Carrier Tracking No(s):	COC No:
Client Contact: Mr Erwin Kawata	Phone: 858-205-0730	E-Mail: Maria.Lopez@et.eurofinsus com	State of Origin: Hawaii	Page: Page 1 of 1
Company: City & County of Honolulu	PWSID:			Job #:
Address: 630 South Beretania Street	Due Date Requested			
City: Honolulu	TAT Requested (days): Standard			
State, Zip: HI 96843	Compliance Project: Δ Yes X No			
Phone: 808-748-5066	PO #:			
Email: ekawata@hbws org	WO #:			
Project Name: INTERA - Red-Hill-Incident	Project #: 38000861			
Site: S1	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL
N - None
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air DW=Drinking Water)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1633_DOD6 - EPA Method 1633 Std List	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N		
BWS2153-S1-AQ	11/16/26	12:00	G	Water	N	N	2	2	BILL TO POMONA EEA

380-248458 Chain of Custody

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
X Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	☐ Return To Client X 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:

	Relinquished by	Date/Time:	Company	Received by:	Date/Time:	Company
1		11/16/26 14 00	INTERA, INC	CM	11-17-26 0930	EETSAC
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact:	Custody Seal No	Cooler Temperature(s) °C and Other Remarks.
Δ Yes Δ No	Seal	1.0

Ver 05/06/2024

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-248458-1
SDG Number: Site S1 PFAS 1633

Login Number: 248458
List Number: 1
Creator: Ngo, Theodore

List Source: Eurofins Pomona

Question	Answer	Comment
The coolers custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
Samples were received on ice.	True	
Cooler(s) Temperature is acceptable.	True	
Cooler(s) Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and is 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	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
ClO4 headspace requirement met (>50% for CA, >30% for other states).	N/A	
Samples do not require splitting or compositing.	True	
Container provided by EEA	True	

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-248458-1
SDG Number: Site S1 PFAS 1633

Login Number: 248458
List Number: 2
Creator: Oropeza, Salvador

List Source: Eurofins Sacramento
List Creation: 11/17/26 05:23 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
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.	True	
Cooler Temperature is recorded.	True	1.0C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
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	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	