

ANALYTICAL REPORT

PREPARED FOR

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JOB DESCRIPTION

INTERA - Red-Hill-Incident
Site H1 PFAS 1633

JOB NUMBER

380-222447-1

Eurofins Pomona

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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Definitions/Glossary

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

Job ID: 380-222447-1
SDG: Site H1 PFAS 1633

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

Case Narrative

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

Job ID: 380-222447-1

Job ID: 380-222447-1

Eurofins Pomona

Job Narrative 380-222447-1

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 7/1/2026 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 0.9°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.

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

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Detection Summary

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

Job ID: 380-222447-1
SDG: Site H1 PFAS 1633

Client Sample ID: BWS2253-H1-AQ

Lab Sample ID: 380-222447-1

No Detections.

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This Detection Summary does not include radiochemical test results.

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Client Sample Results

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

Job ID: 380-222447-1
SDG: Site H1 PFAS 1633

Client Sample ID: BWS2253-H1-AQ

Lab Sample ID: 380-222447-1

Date Collected: 06/30/26 11:30

Matrix: Water

Date Received: 07/01/26 09:30

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)	<2.8		2.8	ng/L		07/10/26 06:38	07/11/26 05:43	1
Perfluoropentanoic acid (PFPeA)	<1.4		1.4	ng/L		07/10/26 06:38	07/11/26 05:43	1
Perfluorohexanoic acid (PFHxA)	<1.4		1.4	ng/L		07/10/26 06:38	07/11/26 05:43	1
Perfluoroheptanoic acid (PFHpA)	<1.4		1.4	ng/L		07/10/26 06:38	07/11/26 05:43	1
Perfluorooctanoic acid (PFOA)	<1.4		1.4	ng/L		07/10/26 06:38	07/11/26 05:43	1
Perfluorononanoic acid (PFNA)	<1.4		1.4	ng/L		07/10/26 06:38	07/11/26 05:43	1
Perfluorodecanoic acid (PFDA)	<1.4		1.4	ng/L		07/10/26 06:38	07/11/26 05:43	1
Perfluoroundecanoic acid (PFUnA)	<1.4		1.4	ng/L		07/10/26 06:38	07/11/26 05:43	1
Perfluorododecanoic acid (PFDoA)	<1.4		1.4	ng/L		07/10/26 06:38	07/11/26 05:43	1
Perfluorotridecanoic acid (PFTriDA)	<1.4		1.4	ng/L		07/10/26 06:38	07/11/26 05:43	1
Perfluorotetradecanoic acid (PFTeDA)	<1.4		1.4	ng/L		07/10/26 06:38	07/11/26 05:43	1
Perfluorobutanesulfonic acid (PFBS)	<2.8		2.8	ng/L		07/10/26 06:38	07/11/26 05:43	1
Perfluoropentanesulfonic acid (PFPeS)	<1.4		1.4	ng/L		07/10/26 06:38	07/11/26 05:43	1
Perfluorohexanesulfonic acid (PFHxS)	<1.4		1.4	ng/L		07/10/26 06:38	07/11/26 05:43	1
Perfluoroheptanesulfonic acid (PFHpS)	<1.4		1.4	ng/L		07/10/26 06:38	07/11/26 05:43	1
Perfluorooctanesulfonic acid (PFOS)	<1.4		1.4	ng/L		07/10/26 06:38	07/11/26 05:43	1
Perfluorononanesulfonic acid (PFNS)	<1.4		1.4	ng/L		07/10/26 06:38	07/11/26 05:43	1
Perfluorodecanesulfonic acid (PFDS)	<1.4		1.4	ng/L		07/10/26 06:38	07/11/26 05:43	1
Perfluorododecanesulfonic acid (PFDoS)	<1.4		1.4	ng/L		07/10/26 06:38	07/11/26 05:43	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.8		2.8	ng/L		07/10/26 06:38	07/11/26 05:43	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.8		2.8	ng/L		07/10/26 06:38	07/11/26 05:43	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.8		2.8	ng/L		07/10/26 06:38	07/11/26 05:43	1
Perfluorooctanesulfonamide (PFOSA)	<1.4		1.4	ng/L		07/10/26 06:38	07/11/26 05:43	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	<1.4		1.4	ng/L		07/10/26 06:38	07/11/26 05:43	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	<1.4		1.4	ng/L		07/10/26 06:38	07/11/26 05:43	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<1.4		1.4	ng/L		07/10/26 06:38	07/11/26 05:43	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<1.4		1.4	ng/L		07/10/26 06:38	07/11/26 05:43	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	<6.9		6.9	ng/L		07/10/26 06:38	07/11/26 05:43	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	<6.9		6.9	ng/L		07/10/26 06:38	07/11/26 05:43	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<1.0		1.0	ng/L		07/10/26 06:38	07/11/26 05:43	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<1.4		1.4	ng/L		07/10/26 06:38	07/11/26 05:43	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<1.4		1.4	ng/L		07/10/26 06:38	07/11/26 05:43	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<1.4		1.4	ng/L		07/10/26 06:38	07/11/26 05:43	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<1.4		1.4	ng/L		07/10/26 06:38	07/11/26 05:43	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	<1.4		1.4	ng/L		07/10/26 06:38	07/11/26 05:43	1

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Client Sample Results

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

Job ID: 380-222447-1
SDG: Site H1 PFAS 1633

Client Sample ID: BWS2253-H1-AQ

Lab Sample ID: 380-222447-1

Date Collected: 06/30/26 11:30

Matrix: Water

Date Received: 07/01/26 09:30

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
11-Chloroeicosafluoro-3-oxaundecan e-1-sulfonic acid	<1.4		1.4	ng/L		07/10/26 06:38	07/11/26 05:43	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEA)	<1.4		1.4	ng/L		07/10/26 06:38	07/11/26 05:43	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	<2.8		2.8	ng/L		07/10/26 06:38	07/11/26 05:43	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	<6.9		6.9	ng/L		07/10/26 06:38	07/11/26 05:43	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	<6.9		6.9	ng/L		07/10/26 06:38	07/11/26 05:43	1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
13C4 PFBA	97.2		5 - 130			07/10/26 06:38	07/11/26 05:43	1
13C5 PFPeA	99.4		40 - 130			07/10/26 06:38	07/11/26 05:43	1
13C5 PFHxA	115		40 - 130			07/10/26 06:38	07/11/26 05:43	1
13C4 PFHpA	110		40 - 130			07/10/26 06:38	07/11/26 05:43	1
13C8 PFOA	98.3		40 - 130			07/10/26 06:38	07/11/26 05:43	1
13C9 PFNA	100		40 - 130			07/10/26 06:38	07/11/26 05:43	1
13C6 PFDA	94.7		40 - 130			07/10/26 06:38	07/11/26 05:43	1
13C7 PFUnA	98.3		30 - 130			07/10/26 06:38	07/11/26 05:43	1
13C2 PFDoA	91.1		10 - 130			07/10/26 06:38	07/11/26 05:43	1
13C2 PFTeDA	80.4		10 - 130			07/10/26 06:38	07/11/26 05:43	1
13C6 PFTriDA	80.2		20 - 150			07/10/26 06:38	07/11/26 05:43	1
13C3 PFBS	75.3		40 - 135			07/10/26 06:38	07/11/26 05:43	1
13C3 PFHxS	91.8		40 - 130			07/10/26 06:38	07/11/26 05:43	1
13C8 PFOS	93.7		40 - 130			07/10/26 06:38	07/11/26 05:43	1
13C8 PFOSA	81.7		40 - 130			07/10/26 06:38	07/11/26 05:43	1
d3-NMeFOSAA	91.6		40 - 170			07/10/26 06:38	07/11/26 05:43	1
d5-NEtFOSAA	84.6		25 - 135			07/10/26 06:38	07/11/26 05:43	1
13C2 4:2 FTS	89.1		40 - 200			07/10/26 06:38	07/11/26 05:43	1
13C2 6:2 FTS	88.9		40 - 200			07/10/26 06:38	07/11/26 05:43	1
13C2 8:2 FTS	81.5		40 - 300			07/10/26 06:38	07/11/26 05:43	1
13C3 HFPO-DA	104		40 - 130			07/10/26 06:38	07/11/26 05:43	1
d7-N-MeFOSE-M	61.8		10 - 130			07/10/26 06:38	07/11/26 05:43	1
d9-N-EtFOSE-M	60.9		10 - 130			07/10/26 06:38	07/11/26 05:43	1
d5-NEtPFOSA	61.8		10 - 130			07/10/26 06:38	07/11/26 05:43	1
d3-NMePFOSA	64.4		10 - 130			07/10/26 06:38	07/11/26 05:43	1
13C3-3:3 FTCA	107		20 - 150			07/10/26 06:38	07/11/26 05:43	1
13C3-5:3 FTCA	102		20 - 150			07/10/26 06:38	07/11/26 05:43	1

Action Limit Summary

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

Job ID: 380-222447-1
SDG: Site H1 PFAS 1633

Client Sample ID: BWS2253-H1-AQ

Lab Sample ID: 380-222447-1

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	RL	Method	Prep Type
				Limit			
Perfluorooctanoic acid (PFOA)	<1.4		ng/L	4	1.4	QSM B-24	Total/NA
Perfluorononanoic acid (PFNA)	<1.4		ng/L	10	1.4	QSM B-24	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	<1.4		ng/L	10	1.4	QSM B-24	Total/NA
Perfluorooctanesulfonic acid (PFOS)	<1.4		ng/L	4	1.4	QSM B-24	Total/NA
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<1.0		ng/L	10	1.0	QSM B-24	Total/NA

Isotope Dilution Summary

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

Job ID: 380-222447-1
SDG: Site H1 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)							
Lab Sample ID	Client Sample ID	PFBA (5-130)	PFPeA (40-130)	13C5PHA (40-130)	C4PFHA (40-130)	C8PFOA (40-130)	C9PFNA (40-130)	C6PFDA (40-130)	13C7PUA (30-130)
380-222447-1	BWS2253-H1-AQ	97.2	99.4	115	110	98.3	100	94.7	98.3
LCS 320-926009/3-A	Lab Control Sample	99.0	84.7	98.4	99.8	97.4	99.3	97.4	104
LCSD 320-926009/4-A	Lab Control Sample Dup	96.7	93.8	109	105	99.8	103	98.5	109
LLCS 320-926009/2-A	Lab Control Sample	102	102	106	108	97.7	99.6	85.9	85.0
MB 320-926009/1-A	Method Blank	101	85.3	99.6	94.0	96.8	103	95.9	104

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFDaA (10-130)	PFTDA (10-130)	C6PFTTrDA (20-150)	C3PFBS (40-135)	C3PFHS (40-130)	C8PFOS (40-130)	PFOSA (40-130)	d3NMFOS (40-170)
380-222447-1	BWS2253-H1-AQ	91.1	80.4	80.2	75.3	91.8	93.7	81.7	91.6
LCS 320-926009/3-A	Lab Control Sample	93.7	87.5	84.8	79.3	92.3	95.2	63.3	91.9
LCSD 320-926009/4-A	Lab Control Sample Dup	104	94.8	91.1	83.1	98.4	99.2	64.8	101
LLCS 320-926009/2-A	Lab Control Sample	81.3	84.5	80.2	80.5	92.9	93.3	64.1	85.1
MB 320-926009/1-A	Method Blank	107	109	97.6	82.2	93.9	93.8	79.3	91.9

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	d5NEFOS (25-135)	M242FTS (40-200)	M262FTS (40-200)	M282FTS (40-300)	HFPODA (40-130)	NMFM (10-130)	NEFM (10-130)	d5NPFSA (10-130)
380-222447-1	BWS2253-H1-AQ	84.6	89.1	88.9	81.5	104	61.8	60.9	61.8
LCS 320-926009/3-A	Lab Control Sample	81.8	97.2	97.1	88.6	89.2	61.8	62.0	67.1
LCSD 320-926009/4-A	Lab Control Sample Dup	90.2	88.8	110	96.6	93.6	63.7	64.1	66.5
LLCS 320-926009/2-A	Lab Control Sample	75.6	101	103	81.9	97.2	61.9	62.1	67.5
MB 320-926009/1-A	Method Blank	91.5	103	110	95.4	85.9	82.4	85.1	79.5

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	d3NMFSA (10-130)	3:3:3 FTC/ (20-150)	3:5:3 FTC/ (20-150)					
380-222447-1	BWS2253-H1-AQ	64.4	107	102					
LCS 320-926009/3-A	Lab Control Sample	67.9	85.7	88.7					
LCSD 320-926009/4-A	Lab Control Sample Dup	70.6	96.9	91.3					
LLCS 320-926009/2-A	Lab Control Sample	70.6	92.1	98.9					
MB 320-926009/1-A	Method Blank	78.7	83.9	89.2					

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
PFDaA = 13C2 PFDaA
PFTDA = 13C2 PFTeDA
C6PFTTrDA = 13C6 PFTTrDA
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

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

Job ID: 380-222447-1
SDG: Site H1 PFAS 1633

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QC Sample Results

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

Job ID: 380-222447-1
SDG: Site H1 PFAS 1633

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

Lab Sample ID: MB 320-926009/1-A

Matrix: Water

Analysis Batch: 926109

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 926009

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	<4.0		4.0	ng/L		07/10/26 06:38	07/11/26 00:47	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		07/10/26 06:38	07/11/26 00:47	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		07/10/26 06:38	07/11/26 00:47	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		07/10/26 06:38	07/11/26 00:47	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		07/10/26 06:38	07/11/26 00:47	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		07/10/26 06:38	07/11/26 00:47	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		07/10/26 06:38	07/11/26 00:47	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		07/10/26 06:38	07/11/26 00:47	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		07/10/26 06:38	07/11/26 00:47	1
Perfluorotridecanoic acid (PFTriDA)	<2.0		2.0	ng/L		07/10/26 06:38	07/11/26 00:47	1
Perfluorotetradecanoic acid (PFTeDA)	<2.0		2.0	ng/L		07/10/26 06:38	07/11/26 00:47	1
Perfluorobutanesulfonic acid (PFBS)	<4.0		4.0	ng/L		07/10/26 06:38	07/11/26 00:47	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		07/10/26 06:38	07/11/26 00:47	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		07/10/26 06:38	07/11/26 00:47	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		07/10/26 06:38	07/11/26 00:47	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		07/10/26 06:38	07/11/26 00:47	1
Perfluorononanesulfonic acid (PFNS)	<2.0		2.0	ng/L		07/10/26 06:38	07/11/26 00:47	1
Perfluorodecanesulfonic acid (PFDS)	<2.0		2.0	ng/L		07/10/26 06:38	07/11/26 00:47	1
Perfluorododecanesulfonic acid (PFDoS)	<2.0		2.0	ng/L		07/10/26 06:38	07/11/26 00:47	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<4.0		4.0	ng/L		07/10/26 06:38	07/11/26 00:47	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<4.0		4.0	ng/L		07/10/26 06:38	07/11/26 00:47	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<4.0		4.0	ng/L		07/10/26 06:38	07/11/26 00:47	1
Perfluorooctanesulfonamide (PFOSA)	<2.0		2.0	ng/L		07/10/26 06:38	07/11/26 00:47	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	<2.0		2.0	ng/L		07/10/26 06:38	07/11/26 00:47	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	<2.0		2.0	ng/L		07/10/26 06:38	07/11/26 00:47	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		07/10/26 06:38	07/11/26 00:47	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		07/10/26 06:38	07/11/26 00:47	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	<10		10	ng/L		07/10/26 06:38	07/11/26 00:47	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	<10		10	ng/L		07/10/26 06:38	07/11/26 00:47	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<1.5		1.5	ng/L		07/10/26 06:38	07/11/26 00:47	1
4,8-Dioxo-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		07/10/26 06:38	07/11/26 00:47	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		07/10/26 06:38	07/11/26 00:47	1
Nonfluoro-3,6-dioxahexanoic acid (NFDHA)	<2.0		2.0	ng/L		07/10/26 06:38	07/11/26 00:47	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		07/10/26 06:38	07/11/26 00:47	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	<2.0		2.0	ng/L		07/10/26 06:38	07/11/26 00:47	1

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QC Sample Results

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

Job ID: 380-222447-1
SDG: Site H1 PFAS 1633

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

Lab Sample ID: MB 320-926009/1-A

Matrix: Water

Analysis Batch: 926109

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 926009

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecan e-1-sulfonic acid	<2.0		2.0	ng/L		07/10/26 06:38	07/11/26 00:47	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		07/10/26 06:38	07/11/26 00:47	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	<4.0		4.0	ng/L		07/10/26 06:38	07/11/26 00:47	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	<10		10	ng/L		07/10/26 06:38	07/11/26 00:47	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	<10		10	ng/L		07/10/26 06:38	07/11/26 00:47	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	101		5 - 130	07/10/26 06:38	07/11/26 00:47	1
13C5 PFPeA	85.3		40 - 130	07/10/26 06:38	07/11/26 00:47	1
13C5 PFHxA	99.6		40 - 130	07/10/26 06:38	07/11/26 00:47	1
13C4 PFHpA	94.0		40 - 130	07/10/26 06:38	07/11/26 00:47	1
13C8 PFOA	96.8		40 - 130	07/10/26 06:38	07/11/26 00:47	1
13C9 PFNA	103		40 - 130	07/10/26 06:38	07/11/26 00:47	1
13C6 PFDA	95.9		40 - 130	07/10/26 06:38	07/11/26 00:47	1
13C7 PFUnA	104		30 - 130	07/10/26 06:38	07/11/26 00:47	1
13C2 PFDoA	107		10 - 130	07/10/26 06:38	07/11/26 00:47	1
13C2 PFTeDA	109		10 - 130	07/10/26 06:38	07/11/26 00:47	1
13C6 PFTrDA	97.6		20 - 150	07/10/26 06:38	07/11/26 00:47	1
13C3 PFBS	82.2		40 - 135	07/10/26 06:38	07/11/26 00:47	1
13C3 PFHxS	93.9		40 - 130	07/10/26 06:38	07/11/26 00:47	1
13C8 PFOS	93.8		40 - 130	07/10/26 06:38	07/11/26 00:47	1
13C8 PFOSA	79.3		40 - 130	07/10/26 06:38	07/11/26 00:47	1
d3-NMeFOSAA	91.9		40 - 170	07/10/26 06:38	07/11/26 00:47	1
d5-NEtFOSAA	91.5		25 - 135	07/10/26 06:38	07/11/26 00:47	1
13C2 4:2 FTS	103		40 - 200	07/10/26 06:38	07/11/26 00:47	1
13C2 6:2 FTS	110		40 - 200	07/10/26 06:38	07/11/26 00:47	1
13C2 8:2 FTS	95.4		40 - 300	07/10/26 06:38	07/11/26 00:47	1
13C3 HFPO-DA	85.9		40 - 130	07/10/26 06:38	07/11/26 00:47	1
d7-N-MeFOSE-M	82.4		10 - 130	07/10/26 06:38	07/11/26 00:47	1
d9-N-EtFOSE-M	85.1		10 - 130	07/10/26 06:38	07/11/26 00:47	1
d5-NEtPFOSA	79.5		10 - 130	07/10/26 06:38	07/11/26 00:47	1
d3-NMePFOSA	78.7		10 - 130	07/10/26 06:38	07/11/26 00:47	1
13C3-3:3 FTCA	83.9		20 - 150	07/10/26 06:38	07/11/26 00:47	1
13C3-5:3 FTCA	89.2		20 - 150	07/10/26 06:38	07/11/26 00:47	1

Lab Sample ID: LCS 320-926009/3-A

Matrix: Water

Analysis Batch: 926109

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 926009

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	80.0	77.2		ng/L		97	70 - 140
Perfluoropentanoic acid (PFPeA)	40.0	44.7		ng/L		112	65 - 135
Perfluorohexanoic acid (PFHxA)	40.0	38.9		ng/L		97	70 - 145
Perfluoroheptanoic acid (PFHpA)	40.0	42.5		ng/L		106	70 - 150
Perfluorooctanoic acid (PFOA)	40.0	37.7		ng/L		94	70 - 150

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QC Sample Results

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

Job ID: 380-222447-1
SDG: Site H1 PFAS 1633

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

Lab Sample ID: LCS 320-926009/3-A

Matrix: Water

Analysis Batch: 926109

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 926009

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorononanoic acid (PFNA)	40.0	39.5		ng/L		99	70 - 150
Perfluorodecanoic acid (PFDA)	40.0	39.1		ng/L		98	70 - 140
Perfluoroundecanoic acid (PFUnA)	40.0	37.2		ng/L		93	70 - 145
Perfluorododecanoic acid (PFDoA)	40.0	40.3		ng/L		101	70 - 140
Perfluorotridecanoic acid (PFTrDA)	40.0	41.4		ng/L		103	65 - 140
Perfluorotetradecanoic acid (PFTeDA)	40.0	37.4		ng/L		94	60 - 140
Perfluorobutanesulfonic acid (PFBS)	71.0	74.0		ng/L		104	60 - 145
Perfluoropentanesulfonic acid (PFPeS)	37.6	37.5		ng/L		100	65 - 140
Perfluorohexanesulfonic acid (PFHxS)	36.5	36.7		ng/L		101	65 - 145
Perfluoroheptanesulfonic acid (PFHpS)	38.2	41.1		ng/L		108	70 - 150
Perfluorooctanesulfonic acid (PFOS)	37.2	34.4		ng/L		92	55 - 150
Perfluorononanesulfonic acid (PFNS)	38.5	36.8		ng/L		96	65 - 145
Perfluorodecanesulfonic acid (PFDS)	38.6	34.0		ng/L		88	60 - 145
Perfluorododecanesulfonic acid (PFDoS)	38.8	28.7		ng/L		74	50 - 145
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	75.0	69.0		ng/L		92	70 - 145
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	76.2	71.1		ng/L		93	65 - 155
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	76.8	70.9		ng/L		92	60 - 150
Perfluorooctanesulfonamide (PFOSA)	40.0	39.4		ng/L		98	70 - 145
N-methylperfluorooctane sulfonamide (NMeFOSA)	40.0	41.4		ng/L		104	60 - 150
N-ethylperfluorooctane sulfonamide (NEtFOSA)	40.0	40.6		ng/L		102	65 - 145
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	39.5		ng/L		99	50 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	37.0		ng/L		93	70 - 145
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	200	204		ng/L		102	70 - 145
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	200	202		ng/L		101	70 - 135
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	30.0	31.0		ng/L		103	70 - 140
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.8	42.1		ng/L		111	65 - 145
Perfluoro-4-methoxybutanoic acid (PFMBA)	40.0	45.0		ng/L		112	60 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	40.0	39.8		ng/L		100	50 - 150

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QC Sample Results

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

Job ID: 380-222447-1
SDG: Site H1 PFAS 1633

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

Lab Sample ID: LCS 320-926009/3-A

Matrix: Water

Analysis Batch: 926109

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 926009

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoro-3-methoxypropanoic acid (PFMPA)	40.0	43.0		ng/L		107	55 - 140
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	37.4	34.6		ng/L		93	70 - 155
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	37.8	31.6		ng/L		84	55 - 160
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	35.7	32.9		ng/L		92	70 - 140
3-Perfluoropropylpropanoic acid (3:3 FTCA)	80.0	81.1		ng/L		101	65 - 130
3-Perfluoropentylpropanoic acid (5:3 FTCA)	200	189		ng/L		95	70 - 135
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	200	166		ng/L		83	50 - 145

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C4 PFBA	99.0		5 - 130
13C5 PFPeA	84.7		40 - 130
13C5 PFHxA	98.4		40 - 130
13C4 PFHpA	99.8		40 - 130
13C8 PFOA	97.4		40 - 130
13C9 PFNA	99.3		40 - 130
13C6 PFDA	97.4		40 - 130
13C7 PFUnA	104		30 - 130
13C2 PFDoA	93.7		10 - 130
13C2 PFTeDA	87.5		10 - 130
13C6 PFTrDA	84.8		20 - 150
13C3 PFBS	79.3		40 - 135
13C3 PFHxS	92.3		40 - 130
13C8 PFOS	95.2		40 - 130
13C8 PFOSA	63.3		40 - 130
d3-NMeFOSAA	91.9		40 - 170
d5-NEtFOSAA	81.8		25 - 135
13C2 4:2 FTS	97.2		40 - 200
13C2 6:2 FTS	97.1		40 - 200
13C2 8:2 FTS	88.6		40 - 300
13C3 HFPO-DA	89.2		40 - 130
d7-N-MeFOSE-M	61.8		10 - 130
d9-N-EtFOSE-M	62.0		10 - 130
d5-NEtPFOSA	67.1		10 - 130
d3-NMePFOSA	67.9		10 - 130
13C3-3:3 FTCA	85.7		20 - 150
13C3-5:3 FTCA	88.7		20 - 150

Lab Sample ID: LCSD 320-926009/4-A

Matrix: Water

Analysis Batch: 926109

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 926009

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Perfluorobutanoic acid (PFBA)	80.0	83.5		ng/L		104	70 - 140	8	30
Perfluoropentanoic acid (PFPeA)	40.0	43.7		ng/L		109	65 - 135	2	30

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QC Sample Results

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

Job ID: 380-222447-1
SDG: Site H1 PFAS 1633

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

Lab Sample ID: LCSD 320-926009/4-A

Matrix: Water

Analysis Batch: 926109

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 926009

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorohexanoic acid (PFHxA)	40.0	35.5		ng/L		89	70 - 145	9	30
Perfluoroheptanoic acid (PFHpA)	40.0	41.6		ng/L		104	70 - 150	2	30
Perfluorooctanoic acid (PFOA)	40.0	37.9		ng/L		95	70 - 150	1	30
Perfluorononanoic acid (PFNA)	40.0	38.1		ng/L		95	70 - 150	4	30
Perfluorodecanoic acid (PFDA)	40.0	42.0		ng/L		105	70 - 140	7	30
Perfluoroundecanoic acid (PFUnA)	40.0	37.6		ng/L		94	70 - 145	1	30
Perfluorododecanoic acid (PFDoA)	40.0	39.3		ng/L		98	70 - 140	2	30
Perfluorotridecanoic acid (PFTrDA)	40.0	41.2		ng/L		103	65 - 140	0	30
Perfluorotetradecanoic acid (PFTeDA)	40.0	37.2		ng/L		93	60 - 140	1	30
Perfluorobutanesulfonic acid (PFBS)	71.0	78.7		ng/L		111	60 - 145	6	30
Perfluoropentanesulfonic acid (PFPeS)	37.6	35.9		ng/L		95	65 - 140	4	30
Perfluorohexanesulfonic acid (PFHxS)	36.5	36.5		ng/L		100	65 - 145	1	30
Perfluoroheptanesulfonic acid (PFHpS)	38.2	40.1		ng/L		105	70 - 150	2	30
Perfluorooctanesulfonic acid (PFOS)	37.2	33.7		ng/L		91	55 - 150	2	30
Perfluorononanesulfonic acid (PFNS)	38.5	37.5		ng/L		97	65 - 145	2	30
Perfluorodecanesulfonic acid (PFDS)	38.6	33.8		ng/L		88	60 - 145	0	30
Perfluorododecanesulfonic acid (PFDoS)	38.8	28.5		ng/L		74	50 - 145	1	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	75.0	87.0		ng/L		116	70 - 145	23	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	76.2	71.5		ng/L		94	65 - 155	1	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	76.8	75.0		ng/L		98	60 - 150	6	30
Perfluorooctanesulfonamide (PFOSA)	40.0	39.6		ng/L		99	70 - 145	1	30
N-methylperfluorooctane sulfonamide (NMeFOSA)	40.0	39.8		ng/L		100	60 - 150	4	30
N-ethylperfluorooctane sulfonamide (NEtFOSA)	40.0	40.6		ng/L		102	65 - 145	0	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	38.1		ng/L		95	50 - 140	4	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	36.7		ng/L		92	70 - 145	1	30
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	200	203		ng/L		102	70 - 145	1	30
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	200	199		ng/L		99	70 - 135	1	30
Hexafluoropropylene Oxide	30.0	30.6		ng/L		102	70 - 140	1	30
Dimer Acid (HFPO-DA)									
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.8	37.6		ng/L		99	65 - 145	11	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	40.0	42.9		ng/L		107	60 - 150	5	30

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QC Sample Results

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

Job ID: 380-222447-1
SDG: Site H1 PFAS 1633

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

Lab Sample ID: LCSD 320-926009/4-A

Matrix: Water

Analysis Batch: 926109

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 926009

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	40.0	32.0		ng/L		80	50 - 150	22	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	40.0	41.1		ng/L		103	55 - 140	4	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	37.4	34.8		ng/L		93	70 - 155	0	30
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	37.8	33.0		ng/L		87	55 - 160	4	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	35.7	33.9		ng/L		95	70 - 140	3	30
3-Perfluoropropylpropanoic acid (3:3 FTCA)	80.0	80.9		ng/L		101	65 - 130	0	30
3-Perfluoropentylpropanoic acid (5:3 FTCA)	200	196		ng/L		98	70 - 135	3	30
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	200	163		ng/L		82	50 - 145	2	30
Isotope Dilution	LCSD %Recovery	LCSD Qualifier	LCSD Limits						
13C4 PFBA	96.7		5 - 130						
13C5 PFPeA	93.8		40 - 130						
13C5 PFHxA	109		40 - 130						
13C4 PFHpA	105		40 - 130						
13C8 PFOA	99.8		40 - 130						
13C9 PFNA	103		40 - 130						
13C6 PFDA	98.5		40 - 130						
13C7 PFUnA	109		30 - 130						
13C2 PFDoA	104		10 - 130						
13C2 PFTeDA	94.8		10 - 130						
13C6 PFTrDA	91.1		20 - 150						
13C3 PFBS	83.1		40 - 135						
13C3 PFHxS	98.4		40 - 130						
13C8 PFOS	99.2		40 - 130						
13C8 PFOSA	64.8		40 - 130						
d3-NMeFOSAA	101		40 - 170						
d5-NEtFOSAA	90.2		25 - 135						
13C2 4:2 FTS	88.8		40 - 200						
13C2 6:2 FTS	110		40 - 200						
13C2 8:2 FTS	96.6		40 - 300						
13C3 HFPO-DA	93.6		40 - 130						
d7-N-MeFOSE-M	63.7		10 - 130						
d9-N-EtFOSE-M	64.1		10 - 130						
d5-NEtPFOSA	66.5		10 - 130						
d3-NMePFOSA	70.6		10 - 130						
13C3-3:3 FTCA	96.9		20 - 150						
13C3-5:3 FTCA	91.3		20 - 150						

QC Sample Results

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

Job ID: 380-222447-1
SDG: Site H1 PFAS 1633

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

Lab Sample ID: LLCS 320-926009/2-A

Matrix: Water

Analysis Batch: 926109

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 926009

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	8.00	7.62		ng/L		95	70 - 140
Perfluoropentanoic acid (PFPeA)	4.00	4.15		ng/L		104	65 - 135
Perfluorohexanoic acid (PFHxA)	4.00	3.54		ng/L		88	70 - 145
Perfluoroheptanoic acid (PFHpA)	4.00	4.04		ng/L		101	70 - 150
Perfluorooctanoic acid (PFOA)	4.00	4.08		ng/L		102	70 - 150
Perfluorononanoic acid (PFNA)	4.00	3.70		ng/L		93	70 - 150
Perfluorodecanoic acid (PFDA)	4.00	4.25		ng/L		106	70 - 140
Perfluoroundecanoic acid (PFUnA)	4.00	3.49		ng/L		87	70 - 145
Perfluorododecanoic acid (PFDoA)	4.00	3.82		ng/L		96	70 - 140
Perfluorotridecanoic acid (PFTrDA)	4.00	3.74		ng/L		94	65 - 140
Perfluorotetradecanoic acid (PFTeDA)	4.00	3.24		ng/L		81	60 - 140
Perfluorobutanesulfonic acid (PFBS)	7.10	7.55		ng/L		106	60 - 145
Perfluoropentanesulfonic acid (PFPeS)	3.76	3.52		ng/L		94	65 - 140
Perfluorohexanesulfonic acid (PFHxS)	3.65	3.83		ng/L		105	65 - 145
Perfluoroheptanesulfonic acid (PFHpS)	3.82	4.05		ng/L		106	70 - 150
Perfluorooctanesulfonic acid (PFOS)	3.72	3.68		ng/L		99	55 - 150
Perfluorononanesulfonic acid (PFNS)	3.85	3.37		ng/L		88	65 - 145
Perfluorodecanesulfonic acid (PFDS)	3.86	2.71		ng/L		70	60 - 145
Perfluorododecanesulfonic acid (PFDoS)	3.88	2.77		ng/L		71	50 - 145
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	7.50	6.88		ng/L		92	70 - 145
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	7.62	7.34		ng/L		96	65 - 155
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	7.68	6.77		ng/L		88	60 - 150
Perfluorooctanesulfonamide (PFOSA)	4.00	3.72		ng/L		93	70 - 145
N-methylperfluorooctane sulfonamide (NMeFOSA)	4.00	3.81		ng/L		95	60 - 150
N-ethylperfluorooctane sulfonamide (NEtFOSA)	4.00	3.68		ng/L		92	65 - 145
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.00	3.52		ng/L		88	50 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.00	3.72		ng/L		93	70 - 145
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	20.0	18.4		ng/L		92	70 - 145
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	20.0	17.9		ng/L		89	70 - 135
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	3.00	2.69		ng/L		90	70 - 140

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QC Sample Results

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

Job ID: 380-222447-1
SDG: Site H1 PFAS 1633

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

Lab Sample ID: LLCS 320-926009/2-A

Matrix: Water

Analysis Batch: 926109

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 926009

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	3.78	3.98		ng/L		105	65 - 145
Perfluoro-4-methoxybutanoic acid (PFMBA)	4.00	3.81		ng/L		95	60 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	4.00	3.55		ng/L		89	50 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	4.00	3.84		ng/L		96	55 - 140
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	3.74	3.33		ng/L		89	70 - 155
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	3.78	2.59		ng/L		68	55 - 160
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	3.57	3.48		ng/L		98	70 - 140
3-Perfluoropropylpropanoic acid (3:3 FTCA)	8.00	8.31		ng/L		104	65 - 130
3-Perfluoropentylpropanoic acid (5:3 FTCA)	20.0	18.7		ng/L		93	70 - 135
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	20.0	14.9		ng/L		74	50 - 145

Isotope Dilution	LLCS		Limits
	%Recovery	Qualifier	
13C4 PFBA	102		5 - 130
13C5 PFPeA	102		40 - 130
13C5 PFHxA	106		40 - 130
13C4 PFHpA	108		40 - 130
13C8 PFOA	97.7		40 - 130
13C9 PFNA	99.6		40 - 130
13C6 PFDA	85.9		40 - 130
13C7 PFUnA	85.0		30 - 130
13C2 PFDoA	81.3		10 - 130
13C2 PFTeDA	84.5		10 - 130
13C6 PFTriDA	80.2		20 - 150
13C3 PFBS	80.5		40 - 135
13C3 PFHxS	92.9		40 - 130
13C8 PFOS	93.3		40 - 130
13C8 PFOSA	64.1		40 - 130
d3-NMeFOSAA	85.1		40 - 170
d5-NEtFOSAA	75.6		25 - 135
13C2 4:2 FTS	101		40 - 200
13C2 6:2 FTS	103		40 - 200
13C2 8:2 FTS	81.9		40 - 300
13C3 HFPO-DA	97.2		40 - 130
d7-N-MeFOSE-M	61.9		10 - 130
d9-N-EtFOSE-M	62.1		10 - 130
d5-NEtPFOSA	67.5		10 - 130
d3-NMePFOSA	70.6		10 - 130
13C3-3:3 FTCA	92.1		20 - 150
13C3-5:3 FTCA	98.9		20 - 150

QC Association Summary

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

Job ID: 380-222447-1
SDG: Site H1 PFAS 1633

LCMS

Prep Batch: 926009

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-222447-1	BWS2253-H1-AQ	Total/NA	Water	1633	
MB 320-926009/1-A	Method Blank	Total/NA	Water	1633	
LCS 320-926009/3-A	Lab Control Sample	Total/NA	Water	1633	
LCSD 320-926009/4-A	Lab Control Sample Dup	Total/NA	Water	1633	
LLCS 320-926009/2-A	Lab Control Sample	Total/NA	Water	1633	

Analysis Batch: 926109

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-222447-1	BWS2253-H1-AQ	Total/NA	Water	QSM B-24	926009
MB 320-926009/1-A	Method Blank	Total/NA	Water	QSM B-24	926009
LCS 320-926009/3-A	Lab Control Sample	Total/NA	Water	QSM B-24	926009
LCSD 320-926009/4-A	Lab Control Sample Dup	Total/NA	Water	QSM B-24	926009
LLCS 320-926009/2-A	Lab Control Sample	Total/NA	Water	QSM B-24	926009

Lab Chronicle

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

Job ID: 380-222447-1
SDG: Site H1 PFAS 1633

Client Sample ID: BWS2253-H1-AQ
Date Collected: 06/30/26 11:30
Date Received: 07/01/26 09:30

Lab Sample ID: 380-222447-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633			926009	F1D	EET SAC	07/10/26 06:38
Total/NA	Analysis	QSM B-24		1	926109	K1S	EET SAC	07/11/26 05:43

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: 380-222447-1
SDG: Site H1 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	08-11-26
Arkansas DEQ	State	88-0691	05-17-27
California	State	2897	01-31-28
Colorado	State	CA00044	08-31-26
Florida	NELAP	E87570	06-30-27
Georgia	State	4040	01-29-27
Illinois	NELAP	200060	03-31-27
Kansas	NELAP	E-10375	10-31-26
Louisiana (All)	NELAP	01944	06-30-27
Maine	State	CA00004	04-14-28
Massachusetts	State	M-CA044	07-01-27
Michigan	State	9947	08-03-26
Minnesota	NELAP	006-999-474	12-31-26
Nevada	State	CA00044	07-31-26
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	CA000442023-16	02-28-27
Virginia	NELAP	460278	09-30-26
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	08-31-26
Wyoming	State Program	8TMS-L	01-28-19 *

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

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Method Summary

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

Job ID: 380-222447-1
SDG: Site H1 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: 380-222447-1
SDG: Site H1 PFAS 1633

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
380-222447-1	BWS2253-H1-AQ	Water	06/30/26 11:30	07/01/26 09:30	Hawaii

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17

[illegible]

[illegible]



Chain of Custody Record

[illegible]

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-222447-1
SDG Number: Site H1 PFAS 1633

Login Number: 222447

List Number: 1

Creator: Edrosa, Rey

List Source: Eurofins Pomona

Question	Answer	Comment
The coolers custody seal, if present, is intact.		
Sample custody seals, if present, are intact.		
Samples were received on ice.		
Cooler(s) Temperature is acceptable.		
Cooler(s) Temperature is recorded.		
COC is present.		
COC is filled out in ink and is legible.		
COC is filled out with all pertinent information.		
There are no discrepancies between the containers received and the COC.		
Samples are received within Holding Time (excluding tests with immediate HTs)		
Sample containers have legible labels.		
Containers are not broken or leaking.		
Sample collection date/times are provided.		
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs		
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").		
CIO4 headspace requirement met (>50% for CA, >30% for other states).		
Samples do not require splitting or compositing.		
Container provided by EEA		

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-222447-1
SDG Number: Site H1 PFAS 1633

Login Number: 222447

List Number: 2

Creator: Simmons, Jason C

List Source: Eurofins Sacramento

List Creation: 07/01/26 04:00 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	Seal
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	0.9c
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?	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	
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	