

ANALYTICAL REPORT

PREPARED FOR

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JOB DESCRIPTION

INTERA - Red-Hill-Incident
Site H1 PFAS 1633

JOB NUMBER

380-199947-1

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



Authorized for release by
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Definitions/Glossary

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

Job ID: 380-199947-1
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: 380-199947-1

Job ID: 380-199947-1

Eurofins Pomona

Job Narrative 380-199947-1

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 2/25/2026 9:00 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 1.5°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: 380-199947-1
SDG: Site H1 PFAS 1633

Client Sample ID: BWS2253-H1-AQ Lab Sample ID: 380-199947-1

No Detections.

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

This Detection Summary does not include radiochemical test results.

Client Sample Results

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

Job ID: 380-199947-1
SDG: Site H1 PFAS 1633

Client Sample ID: BWS2253-H1-AQ

Lab Sample ID: 380-199947-1

Date Collected: 02/24/26 12:00

Matrix: Water

Date Received: 02/25/26 09:00

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		02/26/26 20:19	02/27/26 18:21	1
Perfluoropentanoic acid (PFPeA)	<1.4		1.4	ng/L		02/26/26 20:19	02/27/26 18:21	1
Perfluorohexanoic acid (PFHxA)	<1.4		1.4	ng/L		02/26/26 20:19	02/27/26 18:21	1
Perfluoroheptanoic acid (PFHpA)	<1.4		1.4	ng/L		02/26/26 20:19	02/27/26 18:21	1
Perfluorooctanoic acid (PFOA)	<1.4		1.4	ng/L		02/26/26 20:19	02/27/26 18:21	1
Perfluorononanoic acid (PFNA)	<1.4		1.4	ng/L		02/26/26 20:19	02/27/26 18:21	1
Perfluorodecanoic acid (PFDA)	<1.4		1.4	ng/L		02/26/26 20:19	02/27/26 18:21	1
Perfluoroundecanoic acid (PFUnA)	<1.4		1.4	ng/L		02/26/26 20:19	02/27/26 18:21	1
Perfluorododecanoic acid (PFDoA)	<1.4		1.4	ng/L		02/26/26 20:19	02/27/26 18:21	1
Perfluorotridecanoic acid (PFTriDA)	<1.4		1.4	ng/L		02/26/26 20:19	02/27/26 18:21	1
Perfluorotetradecanoic acid (PFTeDA)	<1.4		1.4	ng/L		02/26/26 20:19	02/27/26 18:21	1
Perfluorobutanesulfonic acid (PFBS)	<1.4		1.4	ng/L		02/26/26 20:19	02/27/26 18:21	1
Perfluoropentanesulfonic acid (PFPeS)	<1.4		1.4	ng/L		02/26/26 20:19	02/27/26 18:21	1
Perfluorohexanesulfonic acid (PFHxS)	<1.4		1.4	ng/L		02/26/26 20:19	02/27/26 18:21	1
Perfluoroheptanesulfonic acid (PFHpS)	<1.4		1.4	ng/L		02/26/26 20:19	02/27/26 18:21	1
Perfluorooctanesulfonic acid (PFOS)	<1.4		1.4	ng/L		02/26/26 20:19	02/27/26 18:21	1
Perfluorononanesulfonic acid (PFNS)	<1.4		1.4	ng/L		02/26/26 20:19	02/27/26 18:21	1
Perfluorodecanesulfonic acid (PFDS)	<1.4		1.4	ng/L		02/26/26 20:19	02/27/26 18:21	1
Perfluorododecanesulfonic acid (PFDoS)	<1.4		1.4	ng/L		02/26/26 20:19	02/27/26 18:21	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.8		2.8	ng/L		02/26/26 20:19	02/27/26 18:21	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.8		2.8	ng/L		02/26/26 20:19	02/27/26 18:21	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.8		2.8	ng/L		02/26/26 20:19	02/27/26 18:21	1
Perfluorooctanesulfonamide (PFOSA)	<1.4		1.4	ng/L		02/26/26 20:19	02/27/26 18:21	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	<1.4		1.4	ng/L		02/26/26 20:19	02/27/26 18:21	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	<1.4		1.4	ng/L		02/26/26 20:19	02/27/26 18:21	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<1.4		1.4	ng/L		02/26/26 20:19	02/27/26 18:21	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<1.4		1.4	ng/L		02/26/26 20:19	02/27/26 18:21	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	<7.1		7.1	ng/L		02/26/26 20:19	02/27/26 18:21	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	<7.1		7.1	ng/L		02/26/26 20:19	02/27/26 18:21	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<1.1		1.1	ng/L		02/26/26 20:19	02/27/26 18:21	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<1.4		1.4	ng/L		02/26/26 20:19	02/27/26 18:21	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<1.4		1.4	ng/L		02/26/26 20:19	02/27/26 18:21	1
Nonfluoro-3,6-dioxaheptanoic acid (NFDHA)	<1.4		1.4	ng/L		02/26/26 20:19	02/27/26 18:21	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<1.4		1.4	ng/L		02/26/26 20:19	02/27/26 18:21	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	<1.4		1.4	ng/L		02/26/26 20:19	02/27/26 18:21	1

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Client Sample Results

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

Job ID: 380-199947-1
SDG: Site H1 PFAS 1633

Client Sample ID: BWS2253-H1-AQ

Lab Sample ID: 380-199947-1

Date Collected: 02/24/26 12:00

Matrix: Water

Date Received: 02/25/26 09:00

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		02/26/26 20:19	02/27/26 18:21	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEA)	<1.4		1.4	ng/L		02/26/26 20:19	02/27/26 18:21	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	<2.8		2.8	ng/L		02/26/26 20:19	02/27/26 18:21	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	<7.1		7.1	ng/L		02/26/26 20:19	02/27/26 18:21	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	<7.1		7.1	ng/L		02/26/26 20:19	02/27/26 18:21	1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
13C4 PFBA	108		5 - 130			02/26/26 20:19	02/27/26 18:21	1
13C5 PFPeA	108		40 - 130			02/26/26 20:19	02/27/26 18:21	1
13C5 PFHxA	97.4		40 - 130			02/26/26 20:19	02/27/26 18:21	1
13C4 PFHpA	99.6		40 - 130			02/26/26 20:19	02/27/26 18:21	1
13C8 PFOA	103		40 - 130			02/26/26 20:19	02/27/26 18:21	1
13C9 PFNA	102		40 - 130			02/26/26 20:19	02/27/26 18:21	1
13C6 PFDA	93.9		40 - 130			02/26/26 20:19	02/27/26 18:21	1
13C7 PFUnA	92.9		30 - 130			02/26/26 20:19	02/27/26 18:21	1
13C2 PFDoA	87.6		10 - 130			02/26/26 20:19	02/27/26 18:21	1
13C2 PFTeDA	81.1		10 - 130			02/26/26 20:19	02/27/26 18:21	1
13C3 PFBS	95.4		40 - 135			02/26/26 20:19	02/27/26 18:21	1
13C3 PFHxS	101		40 - 130			02/26/26 20:19	02/27/26 18:21	1
13C8 PFOS	93.4		40 - 130			02/26/26 20:19	02/27/26 18:21	1
13C8 PFOSA	86.9		40 - 130			02/26/26 20:19	02/27/26 18:21	1
d3-NMeFOSAA	86.3		40 - 170			02/26/26 20:19	02/27/26 18:21	1
d5-NEtFOSAA	78.4		25 - 135			02/26/26 20:19	02/27/26 18:21	1
13C2 4:2 FTS	110		40 - 200			02/26/26 20:19	02/27/26 18:21	1
13C2 6:2 FTS	124		40 - 200			02/26/26 20:19	02/27/26 18:21	1
13C2 8:2 FTS	111		40 - 300			02/26/26 20:19	02/27/26 18:21	1
13C3 HFPO-DA	96.0		40 - 130			02/26/26 20:19	02/27/26 18:21	1
d7-N-MeFOSE-M	65.5		10 - 130			02/26/26 20:19	02/27/26 18:21	1
d9-N-EtFOSE-M	65.6		10 - 130			02/26/26 20:19	02/27/26 18:21	1
d5-NEtPFOSA	68.4		10 - 130			02/26/26 20:19	02/27/26 18:21	1
d3-NMePFOSA	74.7		10 - 130			02/26/26 20:19	02/27/26 18:21	1

Action Limit Summary

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

Job ID: 380-199947-1
SDG: Site H1 PFAS 1633

Client Sample ID: BWS2253-H1-AQ

Lab Sample ID: 380-199947-1

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)	<1.1		ng/L	10	1.1	QSM B-24	Total/NA

Isotope Dilution Summary

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

Job ID: 380-199947-1
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)
380-199947-1	BWS2253-H1-AQ	108	108	97.4	99.6	103	102	93.9	92.9
LCS 320-903847/3-A	Lab Control Sample	114	109	108	104	102	106	92.5	92.6
LCSD 320-903847/4-A	Lab Control Sample Dup	115	107	107	103	106	100	99.8	94.9
LLCS 320-903847/2-A	Lab Control Sample	111	108	99.2	99.0	94.3	94.7	88.6	86.6
MB 320-903847/1-A	Method Blank	109	110	101	104	101	103	104	99.4

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFDaA (10-130)	PFTDA (10-130)	C3PFBS (40-135)	C3PFHS (40-130)	C8PFOS (40-130)	PFOSA (40-130)	d3NMFOS (40-170)	d5NEFOS (25-135)
380-199947-1	BWS2253-H1-AQ	87.6	81.1	95.4	101	93.4	86.9	86.3	78.4
LCS 320-903847/3-A	Lab Control Sample	89.8	76.4	94.9	102	98.4	86.9	83.9	80.9
LCSD 320-903847/4-A	Lab Control Sample Dup	94.9	86.8	100	102	99.1	88.9	91.8	86.8
LLCS 320-903847/2-A	Lab Control Sample	83.7	75.2	91.8	97.0	89.8	85.2	83.2	81.7
MB 320-903847/1-A	Method Blank	101	81.8	95.7	97.8	100	87.7	92.1	86.0

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	M242FTS (40-200)	M262FTS (40-200)	M282FTS (40-300)	HFPODA (40-130)	NMFM (10-130)	NEFM (10-130)	d5NPFSA (10-130)	d3NMFSA (10-130)
380-199947-1	BWS2253-H1-AQ	110	124	111	96.0	65.5	65.6	68.4	74.7
LCS 320-903847/3-A	Lab Control Sample	109	117	104	110	71.1	74.7	64.8	69.1
LCSD 320-903847/4-A	Lab Control Sample Dup	117	117	104	102	77.0	82.3	75.2	79.6
LLCS 320-903847/2-A	Lab Control Sample	114	113	101	93.1	73.2	78.5	70.9	73.6
MB 320-903847/1-A	Method Blank	107	121	108	107	74.8	79.7	73.6	76.8

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

QC Sample Results

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

Job ID: 380-199947-1
SDG: Site H1 PFAS 1633

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

Lab Sample ID: MB 320-903847/1-A

Matrix: Water

Analysis Batch: 903802

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 903847

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	<4.0		4.0	ng/L		02/26/26 20:19	02/27/26 11:24	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		02/26/26 20:19	02/27/26 11:24	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		02/26/26 20:19	02/27/26 11:24	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		02/26/26 20:19	02/27/26 11:24	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		02/26/26 20:19	02/27/26 11:24	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		02/26/26 20:19	02/27/26 11:24	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		02/26/26 20:19	02/27/26 11:24	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		02/26/26 20:19	02/27/26 11:24	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		02/26/26 20:19	02/27/26 11:24	1
Perfluorotridecanoic acid (PFTriDA)	<2.0		2.0	ng/L		02/26/26 20:19	02/27/26 11:24	1
Perfluorotetradecanoic acid (PFTeDA)	<2.0		2.0	ng/L		02/26/26 20:19	02/27/26 11:24	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		02/26/26 20:19	02/27/26 11:24	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		02/26/26 20:19	02/27/26 11:24	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		02/26/26 20:19	02/27/26 11:24	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		02/26/26 20:19	02/27/26 11:24	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		02/26/26 20:19	02/27/26 11:24	1
Perfluorononanesulfonic acid (PFNS)	<2.0		2.0	ng/L		02/26/26 20:19	02/27/26 11:24	1
Perfluorodecanesulfonic acid (PFDS)	<2.0		2.0	ng/L		02/26/26 20:19	02/27/26 11:24	1
Perfluorododecanesulfonic acid (PFDoS)	<2.0		2.0	ng/L		02/26/26 20:19	02/27/26 11:24	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<4.0		4.0	ng/L		02/26/26 20:19	02/27/26 11:24	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<4.0		4.0	ng/L		02/26/26 20:19	02/27/26 11:24	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<4.0		4.0	ng/L		02/26/26 20:19	02/27/26 11:24	1
Perfluorooctanesulfonamide (PFOSA)	<2.0		2.0	ng/L		02/26/26 20:19	02/27/26 11:24	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	<2.0		2.0	ng/L		02/26/26 20:19	02/27/26 11:24	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	<2.0		2.0	ng/L		02/26/26 20:19	02/27/26 11:24	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		02/26/26 20:19	02/27/26 11:24	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		02/26/26 20:19	02/27/26 11:24	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	<10		10	ng/L		02/26/26 20:19	02/27/26 11:24	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	<10		10	ng/L		02/26/26 20:19	02/27/26 11:24	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<1.5		1.5	ng/L		02/26/26 20:19	02/27/26 11:24	1
4,8-Dioxo-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		02/26/26 20:19	02/27/26 11:24	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		02/26/26 20:19	02/27/26 11:24	1
Nonfluoro-3,6-dioxahexanoic acid (NFDHA)	<2.0		2.0	ng/L		02/26/26 20:19	02/27/26 11:24	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		02/26/26 20:19	02/27/26 11:24	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	<2.0		2.0	ng/L		02/26/26 20:19	02/27/26 11:24	1

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QC Sample Results

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

Job ID: 380-199947-1
SDG: Site H1 PFAS 1633

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

Lab Sample ID: MB 320-903847/1-A

Matrix: Water

Analysis Batch: 903802

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 903847

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		02/26/26 20:19	02/27/26 11:24	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		02/26/26 20:19	02/27/26 11:24	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	<4.0		4.0	ng/L		02/26/26 20:19	02/27/26 11:24	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	<10		10	ng/L		02/26/26 20:19	02/27/26 11:24	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	<10		10	ng/L		02/26/26 20:19	02/27/26 11:24	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	109		5 - 130	02/26/26 20:19	02/27/26 11:24	1
13C5 PFPeA	110		40 - 130	02/26/26 20:19	02/27/26 11:24	1
13C5 PFHxA	101		40 - 130	02/26/26 20:19	02/27/26 11:24	1
13C4 PFHpA	104		40 - 130	02/26/26 20:19	02/27/26 11:24	1
13C8 PFOA	101		40 - 130	02/26/26 20:19	02/27/26 11:24	1
13C9 PFNA	103		40 - 130	02/26/26 20:19	02/27/26 11:24	1
13C6 PFDA	104		40 - 130	02/26/26 20:19	02/27/26 11:24	1
13C7 PFUnA	99.4		30 - 130	02/26/26 20:19	02/27/26 11:24	1
13C2 PFDoA	101		10 - 130	02/26/26 20:19	02/27/26 11:24	1
13C2 PFTeDA	81.8		10 - 130	02/26/26 20:19	02/27/26 11:24	1
13C3 PFBS	95.7		40 - 135	02/26/26 20:19	02/27/26 11:24	1
13C3 PFHxS	97.8		40 - 130	02/26/26 20:19	02/27/26 11:24	1
13C8 PFOS	100		40 - 130	02/26/26 20:19	02/27/26 11:24	1
13C8 PFOSA	87.7		40 - 130	02/26/26 20:19	02/27/26 11:24	1
d3-NMeFOSAA	92.1		40 - 170	02/26/26 20:19	02/27/26 11:24	1
d5-NEtFOSAA	86.0		25 - 135	02/26/26 20:19	02/27/26 11:24	1
13C2 4:2 FTS	107		40 - 200	02/26/26 20:19	02/27/26 11:24	1
13C2 6:2 FTS	121		40 - 200	02/26/26 20:19	02/27/26 11:24	1
13C2 8:2 FTS	108		40 - 300	02/26/26 20:19	02/27/26 11:24	1
13C3 HFPO-DA	107		40 - 130	02/26/26 20:19	02/27/26 11:24	1
d7-N-MeFOSE-M	74.8		10 - 130	02/26/26 20:19	02/27/26 11:24	1
d9-N-EtFOSE-M	79.7		10 - 130	02/26/26 20:19	02/27/26 11:24	1
d5-NEtPFOSA	73.6		10 - 130	02/26/26 20:19	02/27/26 11:24	1
d3-NMePFOSA	76.8		10 - 130	02/26/26 20:19	02/27/26 11:24	1

Lab Sample ID: LCS 320-903847/3-A

Matrix: Water

Analysis Batch: 903802

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 903847

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	80.0	77.0		ng/L		96	70 - 140
Perfluoropentanoic acid (PFPeA)	40.0	44.3		ng/L		111	65 - 135
Perfluorohexanoic acid (PFHxA)	40.0	40.3		ng/L		101	70 - 145
Perfluoroheptanoic acid (PFHpA)	40.0	41.0		ng/L		103	70 - 150
Perfluorooctanoic acid (PFOA)	40.0	40.0		ng/L		100	70 - 150
Perfluorononanoic acid (PFNA)	40.0	38.3		ng/L		96	70 - 150
Perfluorodecanoic acid (PFDA)	40.0	42.7		ng/L		107	70 - 140

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QC Sample Results

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

Job ID: 380-199947-1
SDG: Site H1 PFAS 1633

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

Lab Sample ID: LCS 320-903847/3-A

Matrix: Water

Analysis Batch: 903802

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 903847

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroundecanoic acid (PFUnA)	40.0	41.0		ng/L		102	70 - 145
Perfluorododecanoic acid (PFDoA)	40.0	41.1		ng/L		103	70 - 140
Perfluorotridecanoic acid (PFTrDA)	40.0	44.4		ng/L		111	65 - 140
Perfluorotetradecanoic acid (PFTeDA)	40.0	47.0		ng/L		118	60 - 140
Perfluorobutanesulfonic acid (PFBS)	35.5	36.6		ng/L		103	60 - 145
Perfluoropentanesulfonic acid (PFPeS)	37.6	38.4		ng/L		102	65 - 140
Perfluorohexanesulfonic acid (PFHxS)	36.5	34.6		ng/L		95	65 - 145
Perfluoroheptanesulfonic acid (PFHpS)	38.2	37.9		ng/L		99	70 - 150
Perfluorooctanesulfonic acid (PFOS)	37.2	36.9		ng/L		99	55 - 150
Perfluorononanesulfonic acid (PFNS)	38.5	35.9		ng/L		93	65 - 145
Perfluorodecanesulfonic acid (PFDS)	38.6	34.3		ng/L		89	60 - 145
Perfluorododecanesulfonic acid (PFDoS)	38.8	34.9		ng/L		90	50 - 145
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	75.0	70.2		ng/L		94	70 - 145
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	76.2	77.1		ng/L		101	65 - 155
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	76.8	76.5		ng/L		100	60 - 150
Perfluorooctanesulfonamide (PFOSA)	40.0	41.9		ng/L		105	70 - 145
N-methylperfluorooctane sulfonamide (NMeFOSA)	40.0	43.1		ng/L		108	60 - 150
N-ethylperfluorooctane sulfonamide (NEtFOSA)	40.0	41.2		ng/L		103	65 - 145
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	41.2		ng/L		103	50 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	43.7		ng/L		109	70 - 145
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	200	219		ng/L		110	70 - 145
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	200	188		ng/L		94	70 - 135
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	30.0	27.7		ng/L		92	70 - 140
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.8	36.0		ng/L		95	65 - 145
Perfluoro-4-methoxybutanoic acid (PFMBA)	40.0	37.8		ng/L		95	60 - 150
Nonfluoro-3,6-dioxaheptanoic acid (NFDHA)	40.0	37.6		ng/L		94	50 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	40.0	41.1		ng/L		103	55 - 140
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	37.4	34.7		ng/L		93	70 - 155

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QC Sample Results

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

Job ID: 380-199947-1
SDG: Site H1 PFAS 1633

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

Lab Sample ID: LCS 320-903847/3-A

Matrix: Water

Analysis Batch: 903802

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 903847

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	37.8	32.6		ng/L		86	55 - 160
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEA)	35.7	37.1		ng/L		104	70 - 140
3-Perfluoropropylpropanoic acid (3:3 FTCA)	80.0	81.3		ng/L		102	65 - 130
3-Perfluoropentylpropanoic acid (5:3 FTCA)	200	197		ng/L		98	70 - 135
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	200	193		ng/L		97	50 - 145

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C4 PFBA	114		5 - 130
13C5 PFPeA	109		40 - 130
13C5 PFHxA	108		40 - 130
13C4 PFHpA	104		40 - 130
13C8 PFOA	102		40 - 130
13C9 PFNA	106		40 - 130
13C6 PFDA	92.5		40 - 130
13C7 PFUnA	92.6		30 - 130
13C2 PFDoA	89.8		10 - 130
13C2 PFTeDA	76.4		10 - 130
13C3 PFBS	94.9		40 - 135
13C3 PFHxS	102		40 - 130
13C8 PFOS	98.4		40 - 130
13C8 PFOSA	86.9		40 - 130
d3-NMeFOSAA	83.9		40 - 170
d5-NEtFOSAA	80.9		25 - 135
13C2 4:2 FTS	109		40 - 200
13C2 6:2 FTS	117		40 - 200
13C2 8:2 FTS	104		40 - 300
13C3 HFPO-DA	110		40 - 130
d7-N-MeFOSE-M	71.1		10 - 130
d9-N-EtFOSE-M	74.7		10 - 130
d5-NEtPFOSA	64.8		10 - 130
d3-NMePFOSA	69.1		10 - 130

Lab Sample ID: LCSD 320-903847/4-A

Matrix: Water

Analysis Batch: 903802

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 903847

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)	80.0	79.9		ng/L		100	70 - 140	4	30
Perfluoropentanoic acid (PFPeA)	40.0	45.2		ng/L		113	65 - 135	2	30
Perfluorohexanoic acid (PFHxA)	40.0	42.7		ng/L		107	70 - 145	6	30
Perfluoroheptanoic acid (PFHpA)	40.0	39.9		ng/L		100	70 - 150	3	30
Perfluorooctanoic acid (PFOA)	40.0	42.4		ng/L		106	70 - 150	6	30
Perfluorononanoic acid (PFNA)	40.0	42.1		ng/L		105	70 - 150	9	30
Perfluorodecanoic acid (PFDA)	40.0	42.5		ng/L		106	70 - 140	0	30

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QC Sample Results

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

Job ID: 380-199947-1
SDG: Site H1 PFAS 1633

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

Lab Sample ID: LCSD 320-903847/4-A

Matrix: Water

Analysis Batch: 903802

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 903847

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluoroundecanoic acid (PFUnA)	40.0	42.1		ng/L		105	70 - 145	3	30
Perfluorododecanoic acid (PFDoA)	40.0	42.9		ng/L		107	70 - 140	4	30
Perfluorotridecanoic acid (PFTrDA)	40.0	42.8		ng/L		107	65 - 140	4	30
Perfluorotetradecanoic acid (PFTeDA)	40.0	47.6		ng/L		119	60 - 140	1	30
Perfluorobutanesulfonic acid (PFBS)	35.5	35.9		ng/L		101	60 - 145	2	30
Perfluoropentanesulfonic acid (PFPeS)	37.6	40.2		ng/L		107	65 - 140	5	30
Perfluorohexanesulfonic acid (PFHxS)	36.5	37.0		ng/L		101	65 - 145	7	30
Perfluoroheptanesulfonic acid (PFHpS)	38.2	41.1		ng/L		108	70 - 150	8	30
Perfluorooctanesulfonic acid (PFOS)	37.2	39.4		ng/L		106	55 - 150	7	30
Perfluorononanesulfonic acid (PFNS)	38.5	37.9		ng/L		98	65 - 145	5	30
Perfluorodecanesulfonic acid (PFDS)	38.6	37.0		ng/L		96	60 - 145	8	30
Perfluorododecanesulfonic acid (PFDoS)	38.8	37.5		ng/L		97	50 - 145	7	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	75.0	79.4		ng/L		106	70 - 145	12	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	76.2	82.7		ng/L		109	65 - 155	7	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	76.8	81.5		ng/L		106	60 - 150	6	30
Perfluorooctanesulfonamide (PFOSA)	40.0	43.9		ng/L		110	70 - 145	5	30
N-methylperfluorooctane sulfonamide (NMeFOSA)	40.0	39.6		ng/L		99	60 - 150	8	30
N-ethylperfluorooctane sulfonamide (NEtFOSA)	40.0	40.1		ng/L		100	65 - 145	3	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	40.2		ng/L		100	50 - 140	3	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	41.6		ng/L		104	70 - 145	5	30
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	200	224		ng/L		112	70 - 145	2	30
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	200	195		ng/L		98	70 - 135	4	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	30.0	29.8		ng/L		99	70 - 140	7	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.8	42.0		ng/L		111	65 - 145	15	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	40.0	39.9		ng/L		100	60 - 150	5	30
Nonfluoro-3,6-dioxaheptanoic acid (NFDHA)	40.0	37.7		ng/L		94	50 - 150	0	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	40.0	44.0		ng/L		110	55 - 140	7	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	37.4	35.9		ng/L		96	70 - 155	3	30

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QC Sample Results

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

Job ID: 380-199947-1
SDG: Site H1 PFAS 1633

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

Lab Sample ID: LCSD 320-903847/4-A

Matrix: Water

Analysis Batch: 903802

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 903847

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	37.8	34.5		ng/L		91	55 - 160	6	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEA)	35.7	37.1		ng/L		104	70 - 140	0	30
3-Perfluoropropylpropanoic acid (3:3 FTCA)	80.0	81.8		ng/L		102	65 - 130	1	30
3-Perfluoropentylpropanoic acid (5:3 FTCA)	200	201		ng/L		100	70 - 135	2	30
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	200	199		ng/L		100	50 - 145	3	30

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
13C4 PFBA	115		5 - 130
13C5 PFPeA	107		40 - 130
13C5 PFHxA	107		40 - 130
13C4 PFHpA	103		40 - 130
13C8 PFOA	106		40 - 130
13C9 PFNA	100		40 - 130
13C6 PFDA	99.8		40 - 130
13C7 PFUnA	94.9		30 - 130
13C2 PFDoA	94.9		10 - 130
13C2 PFTeDA	86.8		10 - 130
13C3 PFBS	100		40 - 135
13C3 PFHxS	102		40 - 130
13C8 PFOS	99.1		40 - 130
13C8 PFOSA	88.9		40 - 130
d3-NMeFOSAA	91.8		40 - 170
d5-NEtFOSAA	86.8		25 - 135
13C2 4:2 FTS	117		40 - 200
13C2 6:2 FTS	117		40 - 200
13C2 8:2 FTS	104		40 - 300
13C3 HFPO-DA	102		40 - 130
d7-N-MeFOSE-M	77.0		10 - 130
d9-N-EtFOSE-M	82.3		10 - 130
d5-NEtPFOSA	75.2		10 - 130
d3-NMePFOSA	79.6		10 - 130

Lab Sample ID: LLCS 320-903847/2-A

Matrix: Water

Analysis Batch: 903802

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 903847

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	8.00	8.28		ng/L		104	70 - 140
Perfluoropentanoic acid (PFPeA)	4.00	4.22		ng/L		106	65 - 135
Perfluorohexanoic acid (PFHxA)	4.00	4.39		ng/L		110	70 - 145
Perfluoroheptanoic acid (PFHpA)	4.00	4.12		ng/L		103	70 - 150
Perfluorooctanoic acid (PFOA)	4.00	4.30		ng/L		108	70 - 150
Perfluorononanoic acid (PFNA)	4.00	4.24		ng/L		106	70 - 150
Perfluorodecanoic acid (PFDA)	4.00	4.50		ng/L		112	70 - 140

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QC Sample Results

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

Job ID: 380-199947-1
SDG: Site H1 PFAS 1633

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

Lab Sample ID: LLCS 320-903847/2-A

Matrix: Water

Analysis Batch: 903802

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 903847

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroundecanoic acid (PFUnA)	4.00	3.76		ng/L		94	70 - 145
Perfluorododecanoic acid (PFDoA)	4.00	4.27		ng/L		107	70 - 140
Perfluorotridecanoic acid (PFTrDA)	4.00	4.74		ng/L		119	65 - 140
Perfluorotetradecanoic acid (PFTeDA)	4.00	4.80		ng/L		120	60 - 140
Perfluorobutanesulfonic acid (PFBS)	3.55	3.73		ng/L		105	60 - 145
Perfluoropentanesulfonic acid (PFPeS)	3.76	3.83		ng/L		102	65 - 140
Perfluorohexanesulfonic acid (PFHxS)	3.65	4.02		ng/L		110	65 - 145
Perfluoroheptanesulfonic acid (PFHpS)	3.82	3.94		ng/L		103	70 - 150
Perfluorooctanesulfonic acid (PFOS)	3.72	3.99		ng/L		107	55 - 150
Perfluorononanesulfonic acid (PFNS)	3.85	3.69		ng/L		96	65 - 145
Perfluorodecanesulfonic acid (PFDS)	3.86	3.84		ng/L		100	60 - 145
Perfluorododecanesulfonic acid (PFDoS)	3.88	4.22		ng/L		109	50 - 145
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	7.50	7.91		ng/L		105	70 - 145
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	7.62	7.74		ng/L		102	65 - 155
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	7.68	7.75		ng/L		101	60 - 150
Perfluorooctanesulfonamide (PFOSA)	4.00	4.25		ng/L		106	70 - 145
N-methylperfluorooctane sulfonamide (NMeFOSA)	4.00	3.72		ng/L		93	60 - 150
N-ethylperfluorooctane sulfonamide (NEtFOSA)	4.00	3.97		ng/L		99	65 - 145
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.00	3.83		ng/L		96	50 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.00	3.71		ng/L		93	70 - 145
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	20.0	21.3		ng/L		106	70 - 145
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	20.0	19.3		ng/L		96	70 - 135
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	3.00	3.41		ng/L		114	70 - 140
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	3.78	4.37		ng/L		115	65 - 145
Perfluoro-4-methoxybutanoic acid (PFMBA)	4.00	3.92		ng/L		98	60 - 150
Nonfluoro-3,6-dioxaheptanoic acid (NFDHA)	4.00	3.88		ng/L		97	50 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	4.00	4.14		ng/L		104	55 - 140
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	3.74	3.41		ng/L		91	70 - 155

Eurofins Pomona

QC Sample Results

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

Job ID: 380-199947-1
SDG: Site H1 PFAS 1633

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

Lab Sample ID: LLCS 320-903847/2-A

Matrix: Water

Analysis Batch: 903802

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 903847

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	3.78	3.28		ng/L		87	55 - 160
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	3.57	3.84		ng/L		108	70 - 140
3-Perfluoropropylpropanoic acid (3:3 FTCA)	8.00	8.45		ng/L		106	65 - 130
3-Perfluoropentylpropanoic acid (5:3 FTCA)	20.0	22.3		ng/L		111	70 - 135
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	20.0	20.7		ng/L		103	50 - 145

Isotope Dilution	LLCS		Limits
	%Recovery	Qualifier	
13C4 PFBA	111		5 - 130
13C5 PFPeA	108		40 - 130
13C5 PFHxA	99.2		40 - 130
13C4 PFHpA	99.0		40 - 130
13C8 PFOA	94.3		40 - 130
13C9 PFNA	94.7		40 - 130
13C6 PFDA	88.6		40 - 130
13C7 PFUnA	86.6		30 - 130
13C2 PFDoA	83.7		10 - 130
13C2 PFTeDA	75.2		10 - 130
13C3 PFBS	91.8		40 - 135
13C3 PFHxS	97.0		40 - 130
13C8 PFOS	89.8		40 - 130
13C8 PFOSA	85.2		40 - 130
d3-NMeFOSAA	83.2		40 - 170
d5-NEtFOSAA	81.7		25 - 135
13C2 4:2 FTS	114		40 - 200
13C2 6:2 FTS	113		40 - 200
13C2 8:2 FTS	101		40 - 300
13C3 HFPO-DA	93.1		40 - 130
d7-N-MeFOSE-M	73.2		10 - 130
d9-N-EtFOSE-M	78.5		10 - 130
d5-NEtPFOSA	70.9		10 - 130
d3-NMePFOSA	73.6		10 - 130

QC Association Summary

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

Job ID: 380-199947-1
SDG: Site H1 PFAS 1633

LCMS

Analysis Batch: 903802

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-199947-1	BWS2253-H1-AQ	Total/NA	Water	QSM B-24	903847
MB 320-903847/1-A	Method Blank	Total/NA	Water	QSM B-24	903847
LCS 320-903847/3-A	Lab Control Sample	Total/NA	Water	QSM B-24	903847
LCSD 320-903847/4-A	Lab Control Sample Dup	Total/NA	Water	QSM B-24	903847
LLCS 320-903847/2-A	Lab Control Sample	Total/NA	Water	QSM B-24	903847

Prep Batch: 903847

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-199947-1	BWS2253-H1-AQ	Total/NA	Water	1633	
MB 320-903847/1-A	Method Blank	Total/NA	Water	1633	
LCS 320-903847/3-A	Lab Control Sample	Total/NA	Water	1633	
LCSD 320-903847/4-A	Lab Control Sample Dup	Total/NA	Water	1633	
LLCS 320-903847/2-A	Lab Control Sample	Total/NA	Water	1633	

Lab Chronicle

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

Job ID: 380-199947-1
SDG: Site H1 PFAS 1633

Client Sample ID: BWS2253-H1-AQ
Date Collected: 02/24/26 12:00
Date Received: 02/25/26 09:00

Lab Sample ID: 380-199947-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633			903847	JJN	EET SAC	02/26/26 20:19
Total/NA	Analysis	QSM B-24		1	903802	SS	EET SAC	02/27/26 18:21

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: 380-199947-1
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	06-30-26
Alaska (UST)	State	17-020	02-20-27
ANAB	Dept. of Defense ELAP	L2468	01-20-27
ANAB	Dept. of Energy	L2468.01	01-20-27
ANAB	ISO/IEC 17025	L2468.03	01-20-27
Arizona	State	AZ0708	08-11-26
Arkansas DEQ	State	88-0691	05-18-26
California	State	2897	01-31-28
Colorado	State	CA00044	08-31-26
Florida	NELAP	E87570	06-30-26
Georgia	State	4040	01-29-27
Illinois	NELAP	200060	03-31-26
Kansas	NELAP	E-10375	10-31-26
Louisiana	NELAP	01944	06-30-26
Louisiana (All)	NELAP	01944	06-30-26
Maine	State	CA00004	04-14-26
Massachusetts	State	M-CA044	06-30-26
Michigan	State	9947	08-03-26
Minnesota	NELAP	006-999-474	12-31-26
Nevada	State	CA00044	07-31-26
New Jersey	NELAP	CA005	06-30-26
New York	NELAP	11666	04-01-26
Ohio	State	41252	01-29-27
Oregon	NELAP	4040	01-29-27
Texas	NELAP	T104704399-23-17	05-31-26
US Fish & Wildlife	US Federal Programs	A22139	04-30-26
USDA	US Federal Programs	525-23-59-76739	02-28-26
Utah	NELAP	CA000442023-16	02-28-26
Virginia	NELAP	460278	03-14-26
Washington	State	C581	05-05-26
West Virginia (DW)	State	9930C	01-31-27
West Virginia DEP	State	422	03-28-26
Wisconsin	State	998204680	08-31-26
Wyoming	State Program	8TMS-L	01-28-19 *

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

Eurofins Pomona

Method Summary

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

Job ID: 380-199947-1
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: 380-199947-1
SDG: Site H1 PFAS 1633

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
380-199947-1	BWS2253-H1-AQ	Water	02/24/26 12:00	02/25/26 09:00	Hawaii

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

Eurofins Pomona, CA
941 Corporate Center Drive
Pomona, CA 91768

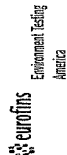
Chain of Custody Record



Client Information		Lab PAC		Customer Tracking No(s)		COC No:			
Client Contact: Mr. Erwin Kawata		Lopez, Maria		State of Origin: Hawaii		Page: Page 1 of 1			
Company: City & County of Honolulu		Phone: 808-205-0730		Email: Maria.Lopez@eurofins.com		Job #:			
Address: 630 South Beretania Street Honolulu HI, 96843 Phone: 808-748-5066 Email: ekawata@eurofins.org		FVSD:		Analysis Requested					
Due Date Requested:		TAT Requested (days): Standard		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - NaOH E - NaOH F - NaOH G - NaOH H - Acetic Acid I - Ice J - DI Water K - EDTA L - EDA M - None N - None O - AsNaO2 P - Na2OAS Q - Na2SO3 R - Na2SO4 S - H2SO4 T - TSP Dodecylsulfate U - Acetone V - MCA W - PH 4.0 X - EDTA Y - TSP Z - other (specify) Other					
Compliance Project: ☐ Yes ☒ No		PO #:		Special Instructions/Note: x = testing comes from another container.					
Project #: 38000861		Project Name: HRS-340E - RED-HILL - INTERA		Subcontract Notes: 625 PAH - EEA Pom 8015 TPH D+M, JP5, JP8 - EEA Pom 8015 Gas - EEA Pom 8260B - EEA POM PFAS 537.1 & 533 - EEA POM PFAS 1633 - EEA SAC Bill and Report to EEA - Pomona					
Site: Site H1		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)		Matrix (V=Visual, S=Solid, L=Liquid, G=Gas, O=Other)	
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)		Matrix (V=Visual, S=Solid, L=Liquid, G=Gas, O=Other)	
BWS2253-H1-AQ		2/24/2026		12:00		G		Water	
BWS2253-H1-FB		2/24/2026		12:00		G		Water	
BWS2253-H1-FB		2/24/2026		12:00		G		Water	
Possible Hazard Identification		Non-Hazard ☐ Flammable ☐ Poison ☐ Unknown ☐ Radiological ☐		Return To Client ☐ Disposal By Lab ☐ Archive For ☐ Months		Special Instructions/OC Requirements:			
Deliverable Requested: I, II, III, IV, Other (specify)		Date:		Time:		Method of Shipment: FEDEX Priority Overnight			
Emply Kit Relinquished by:		Date/Time:		Date/Time:		Company:			
Relinquished by:		2/24/26 13:00		2/24/26 13:00		Company: INTERA Inc			
Relinquished by:		Date/Time:		Date/Time:		Company:			
Relinquished by:		Date/Time:		Date/Time:		Company:			
Custody Seals Intact: ☒ Yes ☐ No		Custody Seal No. 2189211		Cooler Temperature(s) °C and Other Remarks: 15°C		Ver: 01/16/2019			



380-199947 COC



380-199947 Chain of Custody

[illegible]

Ver 01/16/2019

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

Ver 10/10/2024

Eurofins Pomona, CA
941 Corporate Center Drive
Pomona, CA 91768

Eurofins
Environmental Testing
Pomona



380-199947 Chain of Custody

Client Information Client Contact: Mr. Erwin Kawata Phone: 858-205-0730 Email: Maria.Lopez@eurofins.com		Lab PM: Lopez, Maria E-Mail: Maria.Lopez@eurofins.com		Carrier Tracking No(s): State of Origin: Hawaii		COC No: Page: Page 1 of 1 Lab #:	
City & County of Honolulu Address: 630 South Beretania Street City: Honolulu State, Zip: HI 96843 Phone: 808-748-5066 Email: ekawata@hbws.org		Due Date Requested: TAT Requested (days): Compliance Project: ☐ Yes ☒ No PO #: 38000861 WO #: 38000861 Project #: 38000861 SSOW#:		Analysis Requested Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) TAT-6075 DWT JPS-10 8260B (Meth) super Volatiles List 6075 GAS PFAS 633 All Analytes PFAS 637 + DW - PPEC 537 + Full List PFAS 1633 DODS - 1633 Std List		Preservation Codes: A HCL B NaOH C Zn Acetate D Nitric Acid E NaHSO4 F MeOH G Amchlor H Ascorbic Acid I Ice J DI Water K EDTA L EDA Other:	
Sample Identification Sample Date: 2/24/2026 Sample Time: 12:00 Sample Type: G (Grab) Matrix: Water Preservation Code:		Total Number of Containers:		Special Instructions/Note: x = testing comes from another container		Subcontract Notes: 625 PAH - EEA Pom 8015 TPH D+M, JP5, JP8 - EEA Pom 8015 Gas - EEA Pom 8260B - EEA Pom PFAS 537.1 & 533 - EEA Pom PFAS 1633 - EEA SAC Bill and Report to EEA - Pomona	
Possible Hazard Identification ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown ☐ Radiological		Deliverable Requested: ☐ I ☐ II ☐ III ☐ IV ☐ Other (Specify)		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months		Special Instructions/QC Requirements:	
Empty Kit Relinquished by:		Date: 2/24/2026 13:00 Company: INTERA Inc		Date/Time: 2/24/2026 13:00 Company: INTERA Inc		Date/Time: 2/24/2026 13:00 Company: INTERA Inc	
Relinquished by:		Date/Time:		Date/Time:		Date/Time:	
Relinquished by:		Date/Time:		Date/Time:		Date/Time:	
Relinquished by:		Date/Time:		Date/Time:		Date/Time:	
Custody Seal No. 2189411 ☒ Yes ☐ No		Custody Seal No.		Cooler Temperature(s) °C and Other Remarks: 15°C		Ver: 01/16/2019	

 Environment Testing	Document Title: Sample Receiving Notes		
	Eurofins Document Reference : S-SR-FRM72109	Revision: 3	Historical Reference: QA-812
	Effective date : 18 Jul 2025		Issued by: XE8X

Job _____



380-199947 Field Sheet

Tracking # 399052007256

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

GSL / OnTrac / Goldstreak / USPS / Other _____

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

Therm. ID 206 Corr. Factor (+/-) NA °C

Ice / Wet / Gel _____ Other _____

Cooler Custody Seal 2189611

Cooler ID 1 of 2

Temp Observed: 1.5 °C Corrected 1.5 °C

From Temp Blank ☐ Sandwich ☒ Sidewall ☐
Opening/Processing The Shipment Yes No NA

Cooler compromised/tampered with? ☐ ☒ ☐

Cooler Temperature is acceptable? ☒ ☐ ☐

Frozen samples show signs of thaw? ☐ ☐ ☒

Initials DM Date 02/25/24
Unpacking/Labeling The Samples Yes No NA

Containers are not broken or leaking? ☒ ☐ ☐

Samples compromised/tampered with? ☐ ☒ ☐

COC is complete w/o discrepancies ☒ ☐ ☐

Sample custody seal? ☐ ☐ ☒

Sample containers have legible labels? ☒ ☐ ☐

Sample date/times are provided? ☒ ☐ ☐

Appropriate containers are used? ☒ ☐ ☐

Sample bottles are completely filled? ☒ ☐ ☐

Sample preservatives verified? ☐ ☐ ☒

Is the Field Sampler's name on COC? ☐ ☐ ☒

Samples w/o discrepancies? ☒ ☐ ☐

Zero headspace?* ☐ ☐ ☒

Alkalinity has no headspace? ☐ ☐ ☒

Perchlorate has headspace?
(Methods 314, 331, 6850) ☐ ☐ ☒

Multiphasic samples are not present? ☒ ☐ ☐

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

Initials h Date 02/25/24

Notes _____

Trizma Lot #(s) _____

Ammonium

Acetate Lot #(s) _____

Login Completion Yes No NA

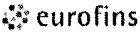
Receipt Temperature on COC? ☒ ☐ ☐

NCM Filed? ☐ ☐ ☒

Samples received within hold time? ☐ ☐ ☒

Log Release checked in TALS? ☐ ☐ ☒

Initials h Date 02/25/24

 Environment Testing?	Document Title: Sample Receiving Notes		
	Eurofins Document Reference : S-SR-FRM72109	Revision: 3	Historical Reference: QA-812
	Effective date : 18 Jul 2025		Issued by: XE8X

Job _____



380-199947 Field Sheet

Tracking # 399052007256

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

GSL / OnTrac / Goldstreak / USPS / Other _____

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

Therm. ID 206 Corr. Factor (+/-) NA °C

Ice ☒ Wet ☒ Gel _____ Other _____

Cooler Custody Seal 2189611

Cooler ID 1 of 2

Temp Observed 1.5 °C Corrected 1.5 °C

From Temp Blank ☐ Sandwich ☒ Sidewall ☐
Opening/Processing The Shipment Yes No NA

Cooler compromised/tampered with? ☐ ☒ ☐

Cooler Temperature is acceptable? ☒ ☐ ☐

Frozen samples show signs of thaw? ☐ ☐ ☒

Initials DM Date 02/25/24
Unpacking/Labeling The Samples Yes No NA

Containers are not broken or leaking? ☒ ☐ ☐

Samples compromised/tampered with? ☐ ☒ ☐

COC is complete w/o discrepancies ☒ ☐ ☐

Sample custody seal? ☐ ☐ ☒

Sample containers have legible labels? ☒ ☐ ☐

Sample date/times are provided? ☒ ☐ ☐

Appropriate containers are used? ☒ ☐ ☐

Sample bottles are completely filled? ☒ ☐ ☐

Sample preservatives verified? ☐ ☐ ☒

Is the Field Sampler's name on COC? ☐ ☐ ☒

Samples w/o discrepancies? ☒ ☐ ☐

Zero headspace?* ☐ ☐ ☒

Alkalinity has no headspace? ☐ ☐ ☒

Perchlorate has headspace?
(Methods 314, 331, 6850) ☐ ☐ ☒

Multiphasic samples are not present? ☒ ☐ ☐

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

Initials h Date 02/25/24

Notes _____

Trizma Lot #(s) _____

Ammonium

Acetate Lot #(s) _____

Login Completion Yes No NA

Receipt Temperature on COC? ☒ ☐ ☐

NCM Filed? ☐ ☐ ☒

Samples received within hold time? ☐ ☐ ☒

Log Release checked in TALS? ☐ ☐ ☒

Initials h Date 02/25/24

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-199947-1
SDG Number: Site H1 PFAS 1633

Login Number: 199947

List Number: 1

Creator: Ngo, Theodore

List Source: Eurofins Pomona

Question	Answer	Comment
The coolers custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
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	
CIO4 headspace requirement met (>50% for CA, >30% for other states).	True	
Samples do not require splitting or compositing.	True	
Container provided by EEA	True	

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-199947-1
SDG Number: Site H1 PFAS 1633

Login Number: 199947

List Number: 2

Creator: Simmons, Jason C

List Source: Eurofins Sacramento

List Creation: 02/25/26 04:30 PM

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	2189611
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	1.5c
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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	