

ANALYTICAL REPORT

PREPARED FOR

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JOB DESCRIPTION

INTERA - Red-Hill-Incident
Site H1

JOB NUMBER

380-184509-1

Eurofins Eaton Analytical 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 Eaton Analytical, 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: 380-184509-1
SDG: Site H1

Qualifiers

LCMS

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.

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: 380-184509-1

Job ID: 380-184509-1

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Job Narrative 380-184509-1

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

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

Receipt

The sample was received on 11/21/2025 7:20 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 1.9°C.

PFAS

Method 1633_DOD6: If aqueous samples were extracted beyond 7 days from collection, NMeFOSE, NEtFOSE, NMeFOSAA, and NEtFOSAA may be affected. If soil or tissue samples were extracted beyond 3 days from collection, NFDHA may be affected. If sample extracts, regardless of matrix, were analyzed beyond 28 days from extraction, 9Cl-PF3ONS and 11Cl-PF3OUdS may be affected. Per DoD Environmental Data Quality Workgroup Memorandum dated March 27, 2025, none of these analytes have associated regulatory limits or toxicity factors, thus any additional uncertainty associated with a holding time exceedance for these analytes will not affect current decision making and the DoD is willing to accept any additional uncertainty.

Method 1633_DOD6: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 320-890789 and analytical batch 320-891042 recovered outside control limits for Nonafluoro-3,6-dioxaheptanoic acid (NFDHA). The individual recoveries were within control limits.

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: 380-184509-1
SDG: Site H1

Client Sample ID: BWS2253-H1-AQ Lab Sample ID: 380-184509-1

No Detections.

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

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: 380-184509-1
SDG: Site H1

Client Sample ID: BWS2253-H1-AQ

Lab Sample ID: 380-184509-1

Date Collected: 11/20/25 10:30

Matrix: Drinking Water

Date Received: 11/21/25 07:20

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	<3.7		3.7	ng/L		12/08/25 05:05	12/09/25 09:21	1
Perfluoropentanoic acid (PFPeA)	<1.8		1.8	ng/L		12/08/25 05:05	12/09/25 09:21	1
Perfluorohexanoic acid (PFHxA)	<1.8		1.8	ng/L		12/08/25 05:05	12/09/25 09:21	1
Perfluoroheptanoic acid (PFHpA)	<1.8		1.8	ng/L		12/08/25 05:05	12/09/25 09:21	1
Perfluorooctanoic acid (PFOA)	<1.8		1.8	ng/L		12/08/25 05:05	12/09/25 09:21	1
Perfluorononanoic acid (PFNA)	<1.8		1.8	ng/L		12/08/25 05:05	12/09/25 09:21	1
Perfluorodecanoic acid (PFDA)	<1.8		1.8	ng/L		12/08/25 05:05	12/09/25 09:21	1
Perfluoroundecanoic acid (PFUnA)	<1.8		1.8	ng/L		12/08/25 05:05	12/09/25 09:21	1
Perfluorododecanoic acid (PFDoA)	<1.8		1.8	ng/L		12/08/25 05:05	12/09/25 09:21	1
Perfluorotridecanoic acid (PFTriDA)	<1.8		1.8	ng/L		12/08/25 05:05	12/09/25 09:21	1
Perfluorotetradecanoic acid (PFTeDA)	<1.8		1.8	ng/L		12/08/25 05:05	12/09/25 09:21	1
Perfluorobutanesulfonic acid (PFBS)	<1.8		1.8	ng/L		12/08/25 05:05	12/09/25 09:21	1
Perfluoropentanesulfonic acid (PFPeS)	<1.8		1.8	ng/L		12/08/25 05:05	12/09/25 09:21	1
Perfluorohexanesulfonic acid (PFHxS)	<1.8		1.8	ng/L		12/08/25 05:05	12/09/25 09:21	1
Perfluoroheptanesulfonic acid (PFHpS)	<1.8		1.8	ng/L		12/08/25 05:05	12/09/25 09:21	1
Perfluorooctanesulfonic acid (PFOS)	<1.8		1.8	ng/L		12/08/25 05:05	12/09/25 09:21	1
Perfluorononanesulfonic acid (PFNS)	<1.8		1.8	ng/L		12/08/25 05:05	12/09/25 09:21	1
Perfluorodecanesulfonic acid (PFDS)	<1.8		1.8	ng/L		12/08/25 05:05	12/09/25 09:21	1
Perfluorododecanesulfonic acid (PFDoS)	<1.8		1.8	ng/L		12/08/25 05:05	12/09/25 09:21	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<3.7		3.7	ng/L		12/08/25 05:05	12/09/25 09:21	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<3.7		3.7	ng/L		12/08/25 05:05	12/09/25 09:21	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<3.7		3.7	ng/L		12/08/25 05:05	12/09/25 09:21	1
Perfluorooctanesulfonamide (PFOSA)	<1.8		1.8	ng/L		12/08/25 05:05	12/09/25 09:21	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	<1.8		1.8	ng/L		12/08/25 05:05	12/09/25 09:21	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	<1.8		1.8	ng/L		12/08/25 05:05	12/09/25 09:21	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<1.8		1.8	ng/L		12/08/25 05:05	12/09/25 09:21	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<1.8		1.8	ng/L		12/08/25 05:05	12/09/25 09:21	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	<9.2		9.2	ng/L		12/08/25 05:05	12/09/25 09:21	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	<9.2		9.2	ng/L		12/08/25 05:05	12/09/25 09:21	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<1.4		1.4	ng/L		12/08/25 05:05	12/09/25 09:21	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<1.8		1.8	ng/L		12/08/25 05:05	12/09/25 09:21	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<1.8		1.8	ng/L		12/08/25 05:05	12/09/25 09:21	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<1.8 *1		1.8	ng/L		12/08/25 05:05	12/09/25 09:21	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<1.8		1.8	ng/L		12/08/25 05:05	12/09/25 09:21	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	<1.8		1.8	ng/L		12/08/25 05:05	12/09/25 09:21	1

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Client Sample Results

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

Job ID: 380-184509-1
SDG: Site H1

Client Sample ID: BWS2253-H1-AQ

Lab Sample ID: 380-184509-1

Date Collected: 11/20/25 10:30

Matrix: Drinking Water

Date Received: 11/21/25 07:20

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	<1.8		1.8	ng/L		12/08/25 05:05	12/09/25 09:21	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEA)	<1.8		1.8	ng/L		12/08/25 05:05	12/09/25 09:21	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	<3.7		3.7	ng/L		12/08/25 05:05	12/09/25 09:21	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	<9.2		9.2	ng/L		12/08/25 05:05	12/09/25 09:21	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	<9.2		9.2	ng/L		12/08/25 05:05	12/09/25 09:21	1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
13C4 PFBA	111		5 - 130			12/08/25 05:05	12/09/25 09:21	1
13C5 PFPeA	106		40 - 130			12/08/25 05:05	12/09/25 09:21	1
13C5 PFHxA	104		40 - 130			12/08/25 05:05	12/09/25 09:21	1
13C4 PFHpA	105		40 - 130			12/08/25 05:05	12/09/25 09:21	1
13C8 PFOA	115		40 - 130			12/08/25 05:05	12/09/25 09:21	1
13C9 PFNA	110		40 - 130			12/08/25 05:05	12/09/25 09:21	1
13C6 PFDA	108		40 - 130			12/08/25 05:05	12/09/25 09:21	1
13C7 PFUnA	96.7		30 - 130			12/08/25 05:05	12/09/25 09:21	1
13C2 PFDoA	92.9		10 - 130			12/08/25 05:05	12/09/25 09:21	1
13C2 PFTeDA	62.6		10 - 130			12/08/25 05:05	12/09/25 09:21	1
13C3 PFBS	115		40 - 135			12/08/25 05:05	12/09/25 09:21	1
13C3 PFHxS	112		40 - 130			12/08/25 05:05	12/09/25 09:21	1
13C8 PFOS	106		40 - 130			12/08/25 05:05	12/09/25 09:21	1
13C8 PFOSA	91.4		40 - 130			12/08/25 05:05	12/09/25 09:21	1
d3-NMeFOSAA	106		40 - 170			12/08/25 05:05	12/09/25 09:21	1
d5-NEtFOSAA	95.4		25 - 135			12/08/25 05:05	12/09/25 09:21	1
13C2 4:2 FTS	123		40 - 200			12/08/25 05:05	12/09/25 09:21	1
13C2 6:2 FTS	128		40 - 200			12/08/25 05:05	12/09/25 09:21	1
13C2 8:2 FTS	106		40 - 300			12/08/25 05:05	12/09/25 09:21	1
13C3 HFPO-DA	99.9		40 - 130			12/08/25 05:05	12/09/25 09:21	1
d7-N-MeFOSE-M	39.2		10 - 130			12/08/25 05:05	12/09/25 09:21	1
d9-N-EtFOSE-M	23.8		10 - 130			12/08/25 05:05	12/09/25 09:21	1
d5-NEtPFOSA	75.9		10 - 130			12/08/25 05:05	12/09/25 09:21	1
d3-NMePFOSA	75.8		10 - 130			12/08/25 05:05	12/09/25 09:21	1

Action Limit Summary

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

Job ID: 380-184509-1
SDG: Site H1

Client Sample ID: BWS2253-H1-AQ

Lab Sample ID: 380-184509-1

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)	<1.8		ng/L	4	1.8	QSM B-24	Total/NA
Perfluorononanoic acid (PFNA)	<1.8		ng/L	10	1.8	QSM B-24	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	<1.8		ng/L	10	1.8	QSM B-24	Total/NA
Perfluorooctanesulfonic acid (PFOS)	<1.8		ng/L	4	1.8	QSM B-24	Total/NA
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<1.4		ng/L	10	1.4	QSM B-24	Total/NA

Isotope Dilution Summary

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

Job ID: 380-184509-1
SDG: Site H1

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

Matrix: Drinking 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)
380-184509-1	BWS2253-H1-AQ	111	106	104	105	115	110	108	96.7

		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)
380-184509-1	BWS2253-H1-AQ	92.9	62.6	115	112	106	91.4	106	95.4

		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)
380-184509-1	BWS2253-H1-AQ	123	128	106	99.9	39.2	23.8	75.9	75.8

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

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)
LCS 320-890789/3-A	Lab Control Sample	101	110	111	111	105	105	105	100
LCSD 320-890789/4-A	Lab Control Sample Dup	101	103	100	102	103	104	106	103
LLCS 320-890789/2-A	Lab Control Sample	103	99.2	104	102	104	105	103	107
MB 320-890789/1-A	Method Blank	105	109	102	106	108	112	113	106

		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)
LCS 320-890789/3-A	Lab Control Sample	103	83.2	113	106	107	86.4	111	105

Eurofins Eaton Analytical Pomona

Isotope Dilution Summary

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

Job ID: 380-184509-1
SDG: Site H1

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

Matrix: Water

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFD _o A (10-130)	PFTDA (10-130)	C3PFBS (40-135)	C3PFHS (40-130)	C8PFOS (40-130)	PFOSA (40-130)	d3NMFOS (40-170)	d5NEFOS (25-135)
LCSD 320-890789/4-A	Lab Control Sample Dup	108	82.9	106	104	105	87.9	110	98.8
LLCS 320-890789/2-A	Lab Control Sample	110	88.4	110	106	109	87.9	113	104
MB 320-890789/1-A	Method Blank	118	91.6	111	109	115	90.5	116	108

		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)
LCS 320-890789/3-A	Lab Control Sample	121	109	106	99.9	85.9	78.8	78.0	76.9
LCSD 320-890789/4-A	Lab Control Sample Dup	112	101	99.2	93.8	86.0	81.5	83.1	81.1
LLCS 320-890789/2-A	Lab Control Sample	112	105	102	90.7	86.3	84.7	81.6	79.0
MB 320-890789/1-A	Method Blank	119	104	102	98.5	84.6	77.7	83.9	79.8

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
PFD_oA = 13C2 PFD_oA
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: 380-184509-1
SDG: Site H1

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

Lab Sample ID: MB 320-890789/1-A

Matrix: Water

Analysis Batch: 891042

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 890789

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	<4.0		4.0	ng/L		12/08/25 05:05	12/09/25 05:31	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		12/08/25 05:05	12/09/25 05:31	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		12/08/25 05:05	12/09/25 05:31	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		12/08/25 05:05	12/09/25 05:31	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		12/08/25 05:05	12/09/25 05:31	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		12/08/25 05:05	12/09/25 05:31	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		12/08/25 05:05	12/09/25 05:31	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		12/08/25 05:05	12/09/25 05:31	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		12/08/25 05:05	12/09/25 05:31	1
Perfluorotridecanoic acid (PFTriDA)	<2.0		2.0	ng/L		12/08/25 05:05	12/09/25 05:31	1
Perfluorotetradecanoic acid (PFTeDA)	<2.0		2.0	ng/L		12/08/25 05:05	12/09/25 05:31	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		12/08/25 05:05	12/09/25 05:31	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		12/08/25 05:05	12/09/25 05:31	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		12/08/25 05:05	12/09/25 05:31	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		12/08/25 05:05	12/09/25 05:31	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		12/08/25 05:05	12/09/25 05:31	1
Perfluorononanesulfonic acid (PFNS)	<2.0		2.0	ng/L		12/08/25 05:05	12/09/25 05:31	1
Perfluorodecanesulfonic acid (PFDS)	<2.0		2.0	ng/L		12/08/25 05:05	12/09/25 05:31	1
Perfluorododecanesulfonic acid (PFDoS)	<2.0		2.0	ng/L		12/08/25 05:05	12/09/25 05:31	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<4.0		4.0	ng/L		12/08/25 05:05	12/09/25 05:31	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<4.0		4.0	ng/L		12/08/25 05:05	12/09/25 05:31	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<4.0		4.0	ng/L		12/08/25 05:05	12/09/25 05:31	1
Perfluorooctanesulfonamide (PFOSA)	<2.0		2.0	ng/L		12/08/25 05:05	12/09/25 05:31	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	<2.0		2.0	ng/L		12/08/25 05:05	12/09/25 05:31	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	<2.0		2.0	ng/L		12/08/25 05:05	12/09/25 05:31	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		12/08/25 05:05	12/09/25 05:31	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		12/08/25 05:05	12/09/25 05:31	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	<10		10	ng/L		12/08/25 05:05	12/09/25 05:31	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	<10		10	ng/L		12/08/25 05:05	12/09/25 05:31	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<1.5		1.5	ng/L		12/08/25 05:05	12/09/25 05:31	1
4,8-Dioxo-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		12/08/25 05:05	12/09/25 05:31	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		12/08/25 05:05	12/09/25 05:31	1
Nonafluoro-3,6-dioxahexanoic acid (NFDHA)	<2.0		2.0	ng/L		12/08/25 05:05	12/09/25 05:31	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		12/08/25 05:05	12/09/25 05:31	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	<2.0		2.0	ng/L		12/08/25 05:05	12/09/25 05:31	1

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QC Sample Results

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

Job ID: 380-184509-1
SDG: Site H1

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

Lab Sample ID: MB 320-890789/1-A

Matrix: Water

Analysis Batch: 891042

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 890789

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	<2.0		2.0	ng/L		12/08/25 05:05	12/09/25 05:31	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		12/08/25 05:05	12/09/25 05:31	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	<4.0		4.0	ng/L		12/08/25 05:05	12/09/25 05:31	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	<10		10	ng/L		12/08/25 05:05	12/09/25 05:31	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	<10		10	ng/L		12/08/25 05:05	12/09/25 05:31	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	105		5 - 130	12/08/25 05:05	12/09/25 05:31	1
13C5 PFPeA	109		40 - 130	12/08/25 05:05	12/09/25 05:31	1
13C5 PFHxA	102		40 - 130	12/08/25 05:05	12/09/25 05:31	1
13C4 PFHpA	106		40 - 130	12/08/25 05:05	12/09/25 05:31	1
13C8 PFOA	108		40 - 130	12/08/25 05:05	12/09/25 05:31	1
13C9 PFNA	112		40 - 130	12/08/25 05:05	12/09/25 05:31	1
13C6 PFDA	113		40 - 130	12/08/25 05:05	12/09/25 05:31	1
13C7 PFUnA	106		30 - 130	12/08/25 05:05	12/09/25 05:31	1
13C2 PFDoA	118		10 - 130	12/08/25 05:05	12/09/25 05:31	1
13C2 PFTeDA	91.6		10 - 130	12/08/25 05:05	12/09/25 05:31	1
13C3 PFBS	111		40 - 135	12/08/25 05:05	12/09/25 05:31	1
13C3 PFHxS	109		40 - 130	12/08/25 05:05	12/09/25 05:31	1
13C8 PFOS	115		40 - 130	12/08/25 05:05	12/09/25 05:31	1
13C8 PFOSA	90.5		40 - 130	12/08/25 05:05	12/09/25 05:31	1
d3-NMeFOSAA	116		40 - 170	12/08/25 05:05	12/09/25 05:31	1
d5-NEtFOSAA	108		25 - 135	12/08/25 05:05	12/09/25 05:31	1
13C2 4:2 FTS	119		40 - 200	12/08/25 05:05	12/09/25 05:31	1
13C2 6:2 FTS	104		40 - 200	12/08/25 05:05	12/09/25 05:31	1
13C2 8:2 FTS	102		40 - 300	12/08/25 05:05	12/09/25 05:31	1
13C3 HFPO-DA	98.5		40 - 130	12/08/25 05:05	12/09/25 05:31	1
d7-N-MeFOSE-M	84.6		10 - 130	12/08/25 05:05	12/09/25 05:31	1
d9-N-EtFOSE-M	77.7		10 - 130	12/08/25 05:05	12/09/25 05:31	1
d5-NEtPFOSA	83.9		10 - 130	12/08/25 05:05	12/09/25 05:31	1
d3-NMePFOSA	79.8		10 - 130	12/08/25 05:05	12/09/25 05:31	1

Lab Sample ID: LCS 320-890789/3-A

Matrix: Water

Analysis Batch: 891042

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 890789

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	80.0	75.0		ng/L		94	70 - 140
Perfluoropentanoic acid (PFPeA)	40.0	36.5		ng/L		91	65 - 135
Perfluorohexanoic acid (PFHxA)	40.0	34.1		ng/L		85	70 - 145
Perfluoroheptanoic acid (PFHpA)	40.0	34.7		ng/L		87	70 - 150
Perfluorooctanoic acid (PFOA)	40.0	34.3		ng/L		86	70 - 150
Perfluorononanoic acid (PFNA)	40.0	33.7		ng/L		84	70 - 150
Perfluorodecanoic acid (PFDA)	40.0	34.9		ng/L		87	70 - 140

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QC Sample Results

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

Job ID: 380-184509-1
SDG: Site H1

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

Lab Sample ID: LCS 320-890789/3-A

Matrix: Water

Analysis Batch: 891042

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 890789

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroundecanoic acid (PFUnA)	40.0	38.0		ng/L		95	70 - 145
Perfluorododecanoic acid (PFDoA)	40.0	37.0		ng/L		93	70 - 140
Perfluorotridecanoic acid (PFTrDA)	40.0	40.5		ng/L		101	65 - 140
Perfluorotetradecanoic acid (PFTeDA)	40.0	41.4		ng/L		104	60 - 140
Perfluorobutanesulfonic acid (PFBS)	35.5	31.6		ng/L		89	60 - 145
Perfluoropentanesulfonic acid (PFPeS)	37.6	36.5		ng/L		97	65 - 140
Perfluorohexanesulfonic acid (PFHxS)	36.5	33.4		ng/L		91	65 - 145
Perfluoroheptanesulfonic acid (PFHpS)	38.2	33.4		ng/L		87	70 - 150
Perfluorooctanesulfonic acid (PFOS)	37.2	31.9		ng/L		86	55 - 150
Perfluorononanesulfonic acid (PFNS)	38.5	33.5		ng/L		87	65 - 145
Perfluorodecanesulfonic acid (PFDS)	38.6	34.4		ng/L		89	60 - 145
Perfluorododecanesulfonic acid (PFDoS)	38.8	31.5		ng/L		81	50 - 145
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	75.0	65.0		ng/L		87	70 - 145
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	76.2	72.2		ng/L		95	65 - 155
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	76.8	69.6		ng/L		91	60 - 150
Perfluorooctanesulfonamide (PFOSA)	40.0	36.4		ng/L		91	70 - 145
N-methylperfluorooctane sulfonamide (NMeFOSA)	40.0	35.3		ng/L		88	60 - 150
N-ethylperfluorooctane sulfonamide (NEtFOSA)	40.0	36.9		ng/L		92	65 - 145
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	36.9		ng/L		92	50 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	38.0		ng/L		95	70 - 145
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	200	192		ng/L		96	70 - 145
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	200	200		ng/L		100	70 - 135
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	30.0	26.0		ng/L		87	70 - 140
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.8	35.4		ng/L		93	65 - 145
Perfluoro-4-methoxybutanoic acid (PFMBA)	40.0	34.6		ng/L		86	60 - 150
Nonfluoro-3,6-dioxaheptanoic acid (NFDHA)	40.0	32.4		ng/L		81	50 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	40.0	37.2		ng/L		93	55 - 140
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	37.4	33.0		ng/L		88	70 - 155

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-184509-1
SDG: Site H1

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

Lab Sample ID: LCS 320-890789/3-A

Matrix: Water

Analysis Batch: 891042

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 890789

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	37.8	34.3		ng/L		91	55 - 160
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEA)	35.7	32.3		ng/L		90	70 - 140
3-Perfluoropropylpropanoic acid (3:3 FTCA)	80.0	68.1		ng/L		85	65 - 130
3-Perfluoropentylpropanoic acid (5:3 FTCA)	200	153		ng/L		77	70 - 135
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	200	136		ng/L		68	50 - 145

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C4 PFBA	101		5 - 130
13C5 PFPeA	110		40 - 130
13C5 PFHxA	111		40 - 130
13C4 PFHpA	111		40 - 130
13C8 PFOA	105		40 - 130
13C9 PFNA	105		40 - 130
13C6 PFDA	105		40 - 130
13C7 PFUnA	100		30 - 130
13C2 PFDoA	103		10 - 130
13C2 PFTeDA	83.2		10 - 130
13C3 PFBS	113		40 - 135
13C3 PFHxS	106		40 - 130
13C8 PFOS	107		40 - 130
13C8 PFOSA	86.4		40 - 130
d3-NMeFOSAA	111		40 - 170
d5-NEtFOSAA	105		25 - 135
13C2 4:2 FTS	121		40 - 200
13C2 6:2 FTS	109		40 - 200
13C2 8:2 FTS	106		40 - 300
13C3 HFPO-DA	99.9		40 - 130
d7-N-MeFOSE-M	85.9		10 - 130
d9-N-EtFOSE-M	78.8		10 - 130
d5-NEtPFOSA	78.0		10 - 130
d3-NMePFOSA	76.9		10 - 130

Lab Sample ID: LCSD 320-890789/4-A

Matrix: Water

Analysis Batch: 891042

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 890789

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)	80.0	72.4		ng/L		91	70 - 140	3	30
Perfluoropentanoic acid (PFPeA)	40.0	36.2		ng/L		91	65 - 135	1	30
Perfluorohexanoic acid (PFHxA)	40.0	35.9		ng/L		90	70 - 145	5	30
Perfluoroheptanoic acid (PFHpA)	40.0	35.1		ng/L		88	70 - 150	1	30
Perfluorooctanoic acid (PFOA)	40.0	34.5		ng/L		86	70 - 150	0	30
Perfluorononanoic acid (PFNA)	40.0	34.9		ng/L		87	70 - 150	3	30
Perfluorodecanoic acid (PFDA)	40.0	37.4		ng/L		94	70 - 140	7	30

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QC Sample Results

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

Job ID: 380-184509-1
SDG: Site H1

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

Lab Sample ID: LCSD 320-890789/4-A

Matrix: Water

Analysis Batch: 891042

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 890789

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluoroundecanoic acid (PFUnA)	40.0	37.0		ng/L		93	70 - 145	3	30
Perfluorododecanoic acid (PFDoA)	40.0	34.7		ng/L		87	70 - 140	6	30
Perfluorotridecanoic acid (PFTrDA)	40.0	39.2		ng/L		98	65 - 140	3	30
Perfluorotetradecanoic acid (PFTeDA)	40.0	37.8		ng/L		94	60 - 140	9	30
Perfluorobutanesulfonic acid (PFBS)	35.5	30.6		ng/L		86	60 - 145	3	30
Perfluoropentanesulfonic acid (PFPeS)	37.6	33.5		ng/L		89	65 - 140	9	30
Perfluorohexanesulfonic acid (PFHxS)	36.5	32.2		ng/L		88	65 - 145	4	30
Perfluoroheptanesulfonic acid (PFHpS)	38.2	33.4		ng/L		88	70 - 150	0	30
Perfluorooctanesulfonic acid (PFOS)	37.2	32.0		ng/L		86	55 - 150	0	30
Perfluorononanesulfonic acid (PFNS)	38.5	32.0		ng/L		83	65 - 145	5	30
Perfluorodecanesulfonic acid (PFDS)	38.6	33.0		ng/L		86	60 - 145	4	30
Perfluorododecanesulfonic acid (PFDoS)	38.8	29.9		ng/L		77	50 - 145	5	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	75.0	65.2		ng/L		87	70 - 145	0	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	76.2	80.1		ng/L		105	65 - 155	10	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	76.8	70.9		ng/L		92	60 - 150	2	30
Perfluorooctanesulfonamide (PFOSA)	40.0	35.7		ng/L		89	70 - 145	2	30
N-methylperfluorooctane sulfonamide (NMeFOSA)	40.0	35.7		ng/L		89	60 - 150	1	30
N-ethylperfluorooctane sulfonamide (NEtFOSA)	40.0	37.3		ng/L		93	65 - 145	1	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	35.2		ng/L		88	50 - 140	5	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	37.8		ng/L		94	70 - 145	0	30
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	200	186		ng/L		93	70 - 145	3	30
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	200	186		ng/L		93	70 - 135	7	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	30.0	26.2		ng/L		87	70 - 140	1	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.8	34.6		ng/L		92	65 - 145	2	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	40.0	35.2		ng/L		88	60 - 150	2	30
Nonfluoro-3,6-dioxahexanoic acid (NFDHA)	40.0	44.9	*1	ng/L		112	50 - 150	32	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	40.0	36.6		ng/L		91	55 - 140	2	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	37.4	33.8		ng/L		91	70 - 155	3	30

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-184509-1
SDG: Site H1

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

Lab Sample ID: LCSD 320-890789/4-A

Matrix: Water

Analysis Batch: 891042

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 890789

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	37.8	34.1		ng/L		90	55 - 160	0	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEA)	35.7	32.7		ng/L		92	70 - 140	1	30
3-Perfluoropropylpropanoic acid (3:3 FTCA)	80.0	69.0		ng/L		86	65 - 130	1	30
3-Perfluoropentylpropanoic acid (5:3 FTCA)	200	156		ng/L		78	70 - 135	2	30
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	200	146		ng/L		73	50 - 145	7	30

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
13C4 PFBA	101		5 - 130
13C5 PFPeA	103		40 - 130
13C5 PFHxA	100		40 - 130
13C4 PFHpA	102		40 - 130
13C8 PFOA	103		40 - 130
13C9 PFNA	104		40 - 130
13C6 PFDA	106		40 - 130
13C7 PFUnA	103		30 - 130
13C2 PFDoA	108		10 - 130
13C2 PFTeDA	82.9		10 - 130
13C3 PFBS	106		40 - 135
13C3 PFHxS	104		40 - 130
13C8 PFOS	105		40 - 130
13C8 PFOSA	87.9		40 - 130
d3-NMeFOSAA	110		40 - 170
d5-NEtFOSAA	98.8		25 - 135
13C2 4:2 FTS	112		40 - 200
13C2 6:2 FTS	101		40 - 200
13C2 8:2 FTS	99.2		40 - 300
13C3 HFPO-DA	93.8		40 - 130
d7-N-MeFOSE-M	86.0		10 - 130
d9-N-EtFOSE-M	81.5		10 - 130
d5-NEtPFOSA	83.1		10 - 130
d3-NMePFOSA	81.1		10 - 130

Lab Sample ID: LLCS 320-890789/2-A

Matrix: Water

Analysis Batch: 891042

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 890789

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	8.00	6.98		ng/L		87	70 - 140
Perfluoropentanoic acid (PFPeA)	4.00	3.58		ng/L		90	65 - 135
Perfluorohexanoic acid (PFHxA)	4.00	3.57		ng/L		89	70 - 145
Perfluoroheptanoic acid (PFHpA)	4.00	3.48		ng/L		87	70 - 150
Perfluorooctanoic acid (PFOA)	4.00	3.70		ng/L		92	70 - 150
Perfluorononanoic acid (PFNA)	4.00	3.51		ng/L		88	70 - 150
Perfluorodecanoic acid (PFDA)	4.00	3.73		ng/L		93	70 - 140

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-184509-1
SDG: Site H1

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

Lab Sample ID: LLCS 320-890789/2-A

Matrix: Water

Analysis Batch: 891042

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 890789

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroundecanoic acid (PFUnA)	4.00	3.58		ng/L		90	70 - 145
Perfluorododecanoic acid (PFDoA)	4.00	3.56		ng/L		89	70 - 140
Perfluorotridecanoic acid (PFTrDA)	4.00	3.89		ng/L		97	65 - 140
Perfluorotetradecanoic acid (PFTeDA)	4.00	4.06		ng/L		101	60 - 140
Perfluorobutanesulfonic acid (PFBS)	3.55	2.91		ng/L		82	60 - 145
Perfluoropentanesulfonic acid (PFPeS)	3.76	3.22		ng/L		86	65 - 140
Perfluorohexanesulfonic acid (PFHxS)	3.65	3.24		ng/L		89	65 - 145
Perfluoroheptanesulfonic acid (PFHpS)	3.82	3.20		ng/L		84	70 - 150
Perfluorooctanesulfonic acid (PFOS)	3.72	3.25		ng/L		87	55 - 150
Perfluorononanesulfonic acid (PFNS)	3.85	2.84		ng/L		74	65 - 145
Perfluorodecanesulfonic acid (PFDS)	3.86	3.06		ng/L		79	60 - 145
Perfluorododecanesulfonic acid (PFDoS)	3.88	2.73		ng/L		70	50 - 145
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	7.50	6.95		ng/L		93	70 - 145
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	7.62	7.46		ng/L		98	65 - 155
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	7.68	7.30		ng/L		95	60 - 150
Perfluorooctanesulfonamide (PFOSA)	4.00	3.39		ng/L		85	70 - 145
N-methylperfluorooctane sulfonamide (NMeFOSA)	4.00	3.26		ng/L		81	60 - 150
N-ethylperfluorooctane sulfonamide (NEtFOSA)	4.00	3.25		ng/L		81	65 - 145
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.00	3.30		ng/L		83	50 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.00	3.46		ng/L		86	70 - 145
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	20.0	17.3		ng/L		86	70 - 145
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	20.0	16.9		ng/L		85	70 - 135
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	3.00	2.56		ng/L		85	70 - 140
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	3.78	3.57		ng/L		94	65 - 145
Perfluoro-4-methoxybutanoic acid (PFMBA)	4.00	3.44		ng/L		86	60 - 150
Nonfluoro-3,6-dioxaheptanoic acid (NFDHA)	4.00	3.94		ng/L		98	50 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	4.00	3.66		ng/L		92	55 - 140
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	3.74	2.93		ng/L		78	70 - 155

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-184509-1
SDG: Site H1

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

Lab Sample ID: LLCS 320-890789/2-A

Matrix: Water

Analysis Batch: 891042

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 890789

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	3.78	3.30		ng/L		87	55 - 160
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEA)	3.57	3.04		ng/L		85	70 - 140
3-Perfluoropropylpropanoic acid (3:3 FTCA)	8.00	6.57		ng/L		82	65 - 130
3-Perfluoropentylpropanoic acid (5:3 FTCA)	20.0	14.8		ng/L		74	70 - 135
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	20.0	12.4		ng/L		62	50 - 145

Isotope Dilution	LLCS		Limits
	%Recovery	Qualifier	
13C4 PFBA	103		5 - 130
13C5 PFPeA	99.2		40 - 130
13C5 PFHxA	104		40 - 130
13C4 PFHpA	102		40 - 130
13C8 PFOA	104		40 - 130
13C9 PFNA	105		40 - 130
13C6 PFDA	103		40 - 130
13C7 PFUnA	107		30 - 130
13C2 PFDoA	110		10 - 130
13C2 PFTeDA	88.4		10 - 130
13C3 PFBS	110		40 - 135
13C3 PFHxS	106		40 - 130
13C8 PFOS	109		40 - 130
13C8 PFOSA	87.9		40 - 130
d3-NMeFOSAA	113		40 - 170
d5-NEtFOSAA	104		25 - 135
13C2 4:2 FTS	112		40 - 200
13C2 6:2 FTS	105		40 - 200
13C2 8:2 FTS	102		40 - 300
13C3 HFPO-DA	90.7		40 - 130
d7-N-MeFOSE-M	86.3		10 - 130
d9-N-EtFOSE-M	84.7		10 - 130
d5-NEtPFOSA	81.6		10 - 130
d3-NMePFOSA	79.0		10 - 130

QC Association Summary

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

Job ID: 380-184509-1
SDG: Site H1

LCMS

Prep Batch: 890789

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-184509-1	BWS2253-H1-AQ	Total/NA	Drinking Water	1633	
MB 320-890789/1-A	Method Blank	Total/NA	Water	1633	
LCS 320-890789/3-A	Lab Control Sample	Total/NA	Water	1633	
LCSD 320-890789/4-A	Lab Control Sample Dup	Total/NA	Water	1633	
LLCS 320-890789/2-A	Lab Control Sample	Total/NA	Water	1633	

Analysis Batch: 891042

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-184509-1	BWS2253-H1-AQ	Total/NA	Drinking Water	QSM B-24	890789
MB 320-890789/1-A	Method Blank	Total/NA	Water	QSM B-24	890789
LCS 320-890789/3-A	Lab Control Sample	Total/NA	Water	QSM B-24	890789
LCSD 320-890789/4-A	Lab Control Sample Dup	Total/NA	Water	QSM B-24	890789
LLCS 320-890789/2-A	Lab Control Sample	Total/NA	Water	QSM B-24	890789

Lab Chronicle

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

Job ID: 380-184509-1
SDG: Site H1

Client Sample ID: BWS2253-H1-AQ
Date Collected: 11/20/25 10:30
Date Received: 11/21/25 07:20

Lab Sample ID: 380-184509-1
Matrix: Drinking Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633			890789	BMS	EET SAC	12/08/25 05:05
Total/NA	Analysis	QSM B-24		1	891042	SEY	EET SAC	12/09/25 09:21

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: 380-184509-1
SDG: Site H1

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	02-01-26
Colorado	State	CA00044	08-31-26
Florida	NELAP	E87570	06-30-26
Georgia	State	4040	01-29-26
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	01-29-26
Minnesota	NELAP	2749448	12-31-25
Nevada	State	CA00044	07-31-26
New Jersey	NELAP	CA005	06-30-26
New York	NELAP	11666	04-01-26
Ohio	State	41252	01-29-26
Oregon	NELAP	4040	01-29-26
Texas	NELAP	T104704399-23-17	05-31-26
US Fish & Wildlife	US Federal Programs	A22139	04-30-26
USDA	US Federal Programs	P330-18-00239	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	02-01-26
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 Eaton Analytical Pomona

Method Summary

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

Job ID: 380-184509-1
SDG: Site H1

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

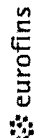
Job ID: 380-184509-1
SDG: Site H1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
380-184509-1	BWS2253-H1-AQ	Drinking Water	11/20/25 10:30	11/21/25 07:20	Hawaii

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

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

Chain of Custody Record



Environment Testing

[illegible]

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



Chain of Custody Record

Client Information		Lab PM: Lopez, Maria		Center Tracking No(s):		COC No:	
Client Contact: Mr. Edwin Kawata		Phone: 958-205-0730		State of Origin: Hawaii		Page: Page 1 of 1	
Company: City & County of Honolulu		Address: 630 South Beretania Street		City: Honolulu		State: HI, 96843	
Phone: 808-748-5066		Email: ekawata@hhhs.org		Project Name: HRS-340E - RED-HILL - INTERA		Site: Site H1	
Due Date Requested:		TAT Requested (days):		Standard		Compliance Project: Δ Year Δ No	
PO #:		WO #:		Project #:		SSOW#:	
Sample Identification		Sample Date	Sample Time	Sample Type (C-Comp, G-grab)	Preservation Code:	Matrix (Vesicular, Aerosol, Overstabil, 8th-Tissue, Adu)	Field Filtered Sample (Yes or No)
BWS2253-H1-AQ	11/20/25	1030	G	Water		Water	
BWS2253-H1-TB	11/20/25		G	Water		Water	
BWS2253-H1-EB	11/20/25		G	Water		Water	
Barcode: 380-184509 Chain of Custody							
Possible Hazard Identification		Flammable		Poison		Radioactive	
Deliverable Requested: I, II, III, IV Other (specify)		Skin Irritant		Unknown			
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment: FEDEX Priority Overnight	
Relinquished by: <i>Edwin Kawata</i>		Date/Time: 11/20/25 1200		Company: INTERA Inc		Received by: <i>[Signature]</i>	
Relinquished by:		Date/Time:		Company:		Received by:	
Relinquished by:		Date/Time:		Company:		Received by:	
Custody Seals Intact: Δ Yes Δ No		Custody Seal No. 2189541		Cooler Temperature(s) °C and Other Remarks: 1.9 °C		Ver 01/16/2019	

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-184509-1

SDG Number: Site H1

Login Number: 184509

List Source: Eurofins Eaton Analytical Pomona

List Number: 1

Creator: Sanchez, Joseph G

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).	N/A	
Samples do not require splitting or compositing.	True	
Container provided by EEA	True	

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-184509-1

SDG Number: Site H1

Login Number: 184509

List Number: 2

Creator: Oropeza, Salvador

List Source: Eurofins Sacramento

List Creation: 11/25/25 07:29 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	2189541
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	1.9C
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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	