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ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Erwin Kawata
City & County of Honolulu
630 South Beretania Street
Public Service Bldg. Room 310
Honolulu, Hawaii 96843

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JOB DESCRIPTION

RED-HILL
PFAS: Halawa Wells Units 1&2 P1

JOB NUMBER

380-193815-1

Eurofins Pomona
941 Corporate Center Drive
Pomona CA 91768-2642

See page two for job notes and contact information.

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Job Notes

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

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

Compliance Statement

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

Authorization

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Authorized for release by
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Table of Contents

Definitions/Glossary

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-193815-1
SDG: PFAS: Halawa Wells Units 1&2 P1

Qualifiers

LCMS

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

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

Job Narrative
380-193815-1

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 samples were received on 1/22/2026 9:24 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.6°C.

Receipt Exceptions
Field blank bottle for 537 was received in plastic 250ml bottle with ammonium acetate. Bottle ID reads that it is preserved with trizma. Due to the discrepancy in the sample preservative received for the field blank and the native sample containing hits above the MRL (method reporting limit), analysis of PFAS 537.1 has been excluded for both the native and the field blank sample. The sample is collected weekly thus follow up sample was collected on 01/26/26 under job # 380-195078-1. Analysis by EPA 537.1 is currently in progress. (XWB4)

HALAWA WELL UNIT 1 & 2 P1 (380-193815-1) and FB HALAWA WELL UNIT 1 & 2 P1 (380-193815-2)

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

Detection Summary

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-193815-1
SDG: PFAS: Halawa Wells Units 1&2 P1

Client Sample ID: HALAWA WELL UNITS 1 & 2 P1 — Lab Sample ID: 380-193815-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanesulfonic acid (PFHxS)	2.6		2.0		ng/L	1		533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.3		2.0		ng/L	1		533	Total/NA

Client Sample ID: FB HALAWA WELL UNITS 1 & 2 P1 — Lab Sample ID: 380-193815-2

No Detections.

This Detection Summary does not include radiochemical test results.

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-193815-1
SDG: PFAS: Halawa Wells Units 1&2 P1

Client Sample ID: HALAWA WELL UNITS 1 & 2 P1
Date Collected: 01/20/26 11:10
Date Received: 01/22/26 09:24

Lab Sample ID: 380-193815-1
Matrix: Water

Method: EPA 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0		ng/L		01/23/26 16:22	01/24/26 22:17	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0		ng/L		01/23/26 16:22	01/24/26 22:17	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0		ng/L		01/23/26 16:22	01/24/26 22:17	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0		ng/L		01/23/26 16:22	01/24/26 22:17	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0		ng/L		01/23/26 16:22	01/24/26 22:17	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0		ng/L		01/23/26 16:22	01/24/26 22:17	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0		ng/L		01/23/26 16:22	01/24/26 22:17	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0		ng/L		01/23/26 16:22	01/24/26 22:17	1
Perfluorohexanesulfonic acid (PFHxS)	**2.6**		2.0		ng/L		01/23/26 16:22	01/24/26 22:17	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0		ng/L		01/23/26 16:22	01/24/26 22:17	1
Perfluorononanoic acid (PFNA)	<2.0		2.0		ng/L		01/23/26 16:22	01/24/26 22:17	1
Perfluorooctanesulfonic acid (PFOS)	**2.3**		2.0		ng/L		01/23/26 16:22	01/24/26 22:17	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0		ng/L		01/23/26 16:22	01/24/26 22:17	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0		ng/L		01/23/26 16:22	01/24/26 22:17	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0		ng/L		01/23/26 16:22	01/24/26 22:17	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0		ng/L		01/23/26 16:22	01/24/26 22:17	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0		ng/L		01/23/26 16:22	01/24/26 22:17	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0		ng/L		01/23/26 16:22	01/24/26 22:17	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0		ng/L		01/23/26 16:22	01/24/26 22:17	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		2.0		ng/L		01/23/26 16:22	01/24/26 22:17	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0		ng/L		01/23/26 16:22	01/24/26 22:17	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0		ng/L		01/23/26 16:22	01/24/26 22:17	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0		ng/L		01/23/26 16:22	01/24/26 22:17	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0		ng/L		01/23/26 16:22	01/24/26 22:17	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0		ng/L		01/23/26 16:22	01/24/26 22:17	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C3 HFPO-DA	*105*		*50 - 200*	*01/23/26 16:22*	*01/24/26 22:17*	*1*
13C6 PFDA	*113*		*50 - 200*	*01/23/26 16:22*	*01/24/26 22:17*	*1*
13C5 PFHxA	*106*		*50 - 200*	*01/23/26 16:22*	*01/24/26 22:17*	*1*
13C4 PFHpA	*111*		*50 - 200*	*01/23/26 16:22*	*01/24/26 22:17*	*1*
13C8 PFOA	*111*		*50 - 200*	*01/23/26 16:22*	*01/24/26 22:17*	*1*
13C9 PFNA	*114*		*50 - 200*	*01/23/26 16:22*	*01/24/26 22:17*	*1*
13C7 PFUnA	*110*		*50 - 200*	*01/23/26 16:22*	*01/24/26 22:17*	*1*
13C2 PFDoA	*109*		*50 - 200*	*01/23/26 16:22*	*01/24/26 22:17*	*1*
13C4 PFBA	*107*		*50 - 200*	*01/23/26 16:22*	*01/24/26 22:17*	*1*
13C5 PFPeA	*113*		*50 - 200*	*01/23/26 16:22*	*01/24/26 22:17*	*1*
13C3 PFBS	*108*		*50 - 200*	*01/23/26 16:22*	*01/24/26 22:17*	*1*
13C3 PFHxS	*112*		*50 - 200*	*01/23/26 16:22*	*01/24/26 22:17*	*1*

Client Sample ID: HALAWA WELL UNITS 1 & 2 P1

Lab Sample ID: 380-193815-1

Date Collected: 01/20/26 11:10
Matrix: Water
Date Received: 01/22/26 09:24

Method: EPA 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 PFOS	110		50 - 200	01/23/26 16:22	01/24/26 22:17	1
13C2-4:2-FTS	126		50 - 200	01/23/26 16:22	01/24/26 22:17	1
13C2-6:2-FTS	121		50 - 200	01/23/26 16:22	01/24/26 22:17	1
13C2-8:2-FTS	115		50 - 200	01/23/26 16:22	01/24/26 22:17	1

Client Sample ID: FB HALAWA WELL UNITS 1 & 2 P1

Lab Sample ID: 380-193815-2

Date Collected: 01/20/26 11:10
Matrix: Water
Date Received: 01/22/26 09:24

Method: EPA 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0		ng/L		01/23/26 16:22	01/24/26 23:05	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0		ng/L		01/23/26 16:22	01/24/26 23:05	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0		ng/L		01/23/26 16:22	01/24/26 23:05	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0		ng/L		01/23/26 16:22	01/24/26 23:05	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0		ng/L		01/23/26 16:22	01/24/26 23:05	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0		ng/L		01/23/26 16:22	01/24/26 23:05	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0		ng/L		01/23/26 16:22	01/24/26 23:05	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0		ng/L		01/23/26 16:22	01/24/26 23:05	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0		ng/L		01/23/26 16:22	01/24/26 23:05	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0		ng/L		01/23/26 16:22	01/24/26 23:05	1
Perfluorononanoic acid (PFNA)	<2.0		2.0		ng/L		01/23/26 16:22	01/24/26 23:05	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0		ng/L		01/23/26 16:22	01/24/26 23:05	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0		ng/L		01/23/26 16:22	01/24/26 23:05	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0		ng/L		01/23/26 16:22	01/24/26 23:05	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0		ng/L		01/23/26 16:22	01/24/26 23:05	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0		ng/L		01/23/26 16:22	01/24/26 23:05	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0		ng/L		01/23/26 16:22	01/24/26 23:05	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0		ng/L		01/23/26 16:22	01/24/26 23:05	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0		ng/L		01/23/26 16:22	01/24/26 23:05	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		2.0		ng/L		01/23/26 16:22	01/24/26 23:05	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0		ng/L		01/23/26 16:22	01/24/26 23:05	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0		ng/L		01/23/26 16:22	01/24/26 23:05	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0		ng/L		01/23/26 16:22	01/24/26 23:05	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0		ng/L		01/23/26 16:22	01/24/26 23:05	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0		ng/L		01/23/26 16:22	01/24/26 23:05	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	80		50 - 200	01/23/26 16:22	01/24/26 23:05	1
13C6 PFDA	88		50 - 200	01/23/26 16:22	01/24/26 23:05	1
13C5 PFHxA	90		50 - 200	01/23/26 16:22	01/24/26 23:05	1

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-193815-1
SDG: PFAS: Halawa Wells Units 1&2 P1

Client Sample ID: FB HALAWA WELL UNITS 1 & 2 P1
Date Collected: 01/20/26 11:10
Date Received: 01/22/26 09:24

Lab Sample ID: 380-193815-2
Matrix: Water

Method: EPA 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFHpA	90		50 - 200	01/23/26 16:22	01/24/26 23:05	1
13C8 PFOA	92		50 - 200	01/23/26 16:22	01/24/26 23:05	1
13C9 PFNA	93		50 - 200	01/23/26 16:22	01/24/26 23:05	1
13C7 PFUnA	84		50 - 200	01/23/26 16:22	01/24/26 23:05	1
13C2 PFDoA	84		50 - 200	01/23/26 16:22	01/24/26 23:05	1
13C4 PFBA	97		50 - 200	01/23/26 16:22	01/24/26 23:05	1
13C5 PFPeA	89		50 - 200	01/23/26 16:22	01/24/26 23:05	1
13C3 PFBS	111		50 - 200	01/23/26 16:22	01/24/26 23:05	1
13C3 PFHxS	110		50 - 200	01/23/26 16:22	01/24/26 23:05	1
13C8 PFOS	112		50 - 200	01/23/26 16:22	01/24/26 23:05	1
13C2-4:2-FTS	119		50 - 200	01/23/26 16:22	01/24/26 23:05	1
13C2-6:2-FTS	123		50 - 200	01/23/26 16:22	01/24/26 23:05	1
13C2-8:2-FTS	119		50 - 200	01/23/26 16:22	01/24/26 23:05	1

Action Limit Summary

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-193815-1
SDG: PFAS: Halawa Wells Units 1&2 P1

Client Sample ID: HALAWA WELL UNITS 1 & 2 P1 — Lab Sample ID: 380-193815-1

Compliance Check

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

Analyte	Result	Qualifier	Unit	EPAMCL Limit	RL	Method	Prep Type
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.6		ng/L	10	2.0	533	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.3		ng/L	4	2.0	533	Total/NA
Perfluorooctanoic acid (PFOA)	<2.0		ng/L	4	2.0	533	Total/NA

Client Sample ID: FB HALAWA WELL UNITS 1 & 2 P1 — Lab Sample ID: 380-193815-2

Compliance Check

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

Analyte	Result	Qualifier	Unit	EPAMCL Limit	RL	Method	Prep Type
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	<2.0		ng/L	4	2.0	533	Total/NA
Perfluorooctanoic acid (PFOA)	<2.0		ng/L	4	2.0	533	Total/NA

Surrogate Summary

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-193815-1
SDG: PFAS: Halawa Wells 1&2 P1

Method: 537.1 - Perfluorinated Alkyl Acids (LC/MS)

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

		Percent Surrogate Recovery (Acceptance Limits)			
		d5NEFOS	PFHxA	PFDA	GenX
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	(70-130)	(70-130)
380-193240-T-1-A MS	Matrix Spike	109	107	115	98
380-193240-U-1-A MSD	Matrix Spike Duplicate	112	115	120	100
380-193815-1	HALAWA WELL P1	102	103	112	97
LCS 380-200196/20-A	Lab Control Sample	101	112	112	103
MBL 380-200196/18-A	Method Blank	103	108	112	99
MRL 380-200196/19-A	Lab Control Sample	108	112	112	107

Surrogate Legend

d5NEFOS = d5-NEtFOSAA
PFHxA = 13C2 PFHxA
PFDA = 13C2 PFDA
GenX = 13C3-GenX

Isotope Dilution Summary

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-193815-1
SDG: PFAS: Halawa Wells Units 1&2 P1

Method: 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water

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

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	HFPODA (50-200)	C6PFDA (50-200)	13C5PHA (50-200)	C4PFHA (50-200)	C8PFOA (50-200)	C9PFNA (50-200)	13C7PUA (50-200)	PFDoA (50-200)
380-193815-1	HALAWA WELL UNITS 1 & 2 P1	105	113	106	111	111	114	110	109
380-193815-1 MS	HALAWA WELL UNITS 1 & 2 P1	108	110	110	112	111	109	113	110
380-193815-1 MSD	HALAWA WELL UNITS 1 & 2 P1	111	113	110	112	111	114	113	112
380-193815-2	FB HALAWA WELL UNITS 1 & 2 P1	80	88	90	90	92	93	84	84
LCS 380-200582/22-A	Lab Control Sample	117	113	109	111	111	115	114	112
MBL 380-200582/20-A	Method Blank	102	115	111	116	115	116	111	111
MRL 380-200582/21-A	Lab Control Sample	106	113	116	114	114	114	115	113

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFBA (50-200)	PFPeA (50-200)	C3PFBS (50-200)	C3PFHS (50-200)	C8PFOS (50-200)	42FTS (50-200)	62FTS (50-200)	82FTS (50-200)
380-193815-1	HALAWA WELL UNITS 1 & 2 P1	107	113	108	112	110	126	121	115
380-193815-1 MS	HALAWA WELL UNITS 1 & 2 P1	109	113	116	116	110	126	122	125
380-193815-1 MSD	HALAWA WELL UNITS 1 & 2 P1	108	114	121	114	114	134	127	122
380-193815-2	FB HALAWA WELL UNITS 1 & 2 P1	97	89	111	110	112	119	123	119
LCS 380-200582/22-A	Lab Control Sample	107	108	116	111	109	109	118	119
MBL 380-200582/20-A	Method Blank	109	115	110	112	111	121	118	117
MRL 380-200582/21-A	Lab Control Sample	111	111	112	115	116	120	121	126

Surrogate Legend

HFPODA = 13C3 HFPO-DA
C6PFDA = 13C6 PFDA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
13C7PUA = 13C7 PFUnA
PFDoA = 13C2 PFDoA
PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
42FTS = 13C2-4:2-FTS
62FTS = 13C2-6:2-FTS
82FTS = 13C2-8:2-FTS

Method: 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water

Lab Sample ID: MBL 380-200582/20-A
Matrix: Water
Analysis Batch: 200699

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 200582

Analyte	MBL Result	MBL Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<0.30		2.0		ng/L		01/23/26 16:22	01/24/26 21:49	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0		ng/L		01/23/26 16:22	01/24/26 21:49	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0		ng/L		01/23/26 16:22	01/24/26 21:49	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<1.0		2.0		ng/L		01/23/26 16:22	01/24/26 21:49	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0		ng/L		01/23/26 16:22	01/24/26 21:49	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0		ng/L		01/23/26 16:22	01/24/26 21:49	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0		ng/L		01/23/26 16:22	01/24/26 21:49	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0		ng/L		01/23/26 16:22	01/24/26 21:49	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0		ng/L		01/23/26 16:22	01/24/26 21:49	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0		ng/L		01/23/26 16:22	01/24/26 21:49	1
Perfluorononanoic acid (PFNA)	<0.40		2.0		ng/L		01/23/26 16:22	01/24/26 21:49	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0		ng/L		01/23/26 16:22	01/24/26 21:49	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0		ng/L		01/23/26 16:22	01/24/26 21:49	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0		ng/L		01/23/26 16:22	01/24/26 21:49	1
Perfluorobutanoic acid (PFBA)	<0.69		2.0		ng/L		01/23/26 16:22	01/24/26 21:49	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<0.38		2.0		ng/L		01/23/26 16:22	01/24/26 21:49	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<0.37		2.0		ng/L		01/23/26 16:22	01/24/26 21:49	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<0.48		2.0		ng/L		01/23/26 16:22	01/24/26 21:49	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<0.47		2.0		ng/L		01/23/26 16:22	01/24/26 21:49	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<0.25		2.0		ng/L		01/23/26 16:22	01/24/26 21:49	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<0.46		2.0		ng/L		01/23/26 16:22	01/24/26 21:49	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<0.15		2.0		ng/L		01/23/26 16:22	01/24/26 21:49	1
Perfluoropentanoic acid (PFPeA)	<0.38		2.0		ng/L		01/23/26 16:22	01/24/26 21:49	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.36		2.0		ng/L		01/23/26 16:22	01/24/26 21:49	1
Perfluoropentanesulfonic acid (PFPeS)	<0.39		2.0		ng/L		01/23/26 16:22	01/24/26 21:49	1

Isotope Dilution	*MBL %Recovery*	*MBL Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C3 HFPO-DA	*102*		*50 - 200*	*01/23/26 16:22*	*01/24/26 21:49*	*1*
13C6 PFDA	*115*		*50 - 200*	*01/23/26 16:22*	*01/24/26 21:49*	*1*
13C5 PFHxA	*111*		*50 - 200*	*01/23/26 16:22*	*01/24/26 21:49*	*1*
13C4 PFHpA	*116*		*50 - 200*	*01/23/26 16:22*	*01/24/26 21:49*	*1*
13C8 PFOA	*115*		*50 - 200*	*01/23/26 16:22*	*01/24/26 21:49*	*1*
13C9 PFNA	*116*		*50 - 200*	*01/23/26 16:22*	*01/24/26 21:49*	*1*
13C7 PFUnA	*111*		*50 - 200*	*01/23/26 16:22*	*01/24/26 21:49*	*1*
13C2 PFDoA	*111*		*50 - 200*	*01/23/26 16:22*	*01/24/26 21:49*	*1*
13C4 PFBA	*109*		*50 - 200*	*01/23/26 16:22*	*01/24/26 21:49*	*1*
13C5 PFPeA	*115*		*50 - 200*	*01/23/26 16:22*	*01/24/26 21:49*	*1*
13C3 PFBS	*110*		*50 - 200*	*01/23/26 16:22*	*01/24/26 21:49*	*1*
13C3 PFHxS	*112*		*50 - 200*	*01/23/26 16:22*	*01/24/26 21:49*	*1*

Method: 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water (Continued)

Lab Sample ID: MBL 380-200582/20-A
Matrix: Water
Analysis Batch: 200699

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 200582

Isotope Dilution	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 PFOS	111		50 - 200	01/23/26 16:22	01/24/26 21:49	1
13C2-4:2-FTS	121		50 - 200	01/23/26 16:22	01/24/26 21:49	1
13C2-6:2-FTS	118		50 - 200	01/23/26 16:22	01/24/26 21:49	1
13C2-8:2-FTS	117		50 - 200	01/23/26 16:22	01/24/26 21:49	1

Lab Sample ID: LCS 380-200582/22-A
Matrix: Water
Analysis Batch: 200699

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 200582

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	60.2	60.0		ng/L		100	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	60.2	58.3		ng/L		97	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	60.2	57.9		ng/L		96	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	60.2	52.8		ng/L		88	70 - 130
Perfluorobutanesulfonic acid (PFBS)	60.2	55.1		ng/L		91	70 - 130
Perfluorodecanoic acid (PFDA)	60.2	59.3		ng/L		98	70 - 130
Perfluorododecanoic acid (PFDoA)	60.2	58.8		ng/L		98	70 - 130
Perfluoroheptanoic acid (PFHpA)	60.2	57.1		ng/L		95	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	60.2	57.9		ng/L		96	70 - 130
Perfluorohexanoic acid (PFHxA)	60.2	61.8		ng/L		103	70 - 130
Perfluorononanoic acid (PFNA)	60.2	56.1		ng/L		93	70 - 130
Perfluorooctanesulfonic acid (PFOS)	60.2	58.4		ng/L		97	70 - 130
Perfluorooctanoic acid (PFOA)	60.2	56.7		ng/L		94	70 - 130
Perfluoroundecanoic acid (PFUnA)	60.2	54.6		ng/L		91	70 - 130
Perfluorobutanoic acid (PFBA)	60.2	59.0		ng/L		98	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	60.2	60.9		ng/L		101	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	60.2	60.1		ng/L		100	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	60.2	58.1		ng/L		96	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	60.2	58.8		ng/L		98	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	60.2	59.0		ng/L		98	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	60.2	58.2		ng/L		97	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	60.2	59.6		ng/L		99	70 - 130
Perfluoropentanoic acid (PFPeA)	60.2	58.8		ng/L		98	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	60.2	57.3		ng/L		95	70 - 130

Method: 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water (Continued)

Lab Sample ID: LCS 380-200582/22-A
Matrix: Water
Analysis Batch: 200699

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 200582

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Perfluoropentanesulfonic acid (PFPeS)			60.2	59.1		ng/L		98	70 - 130		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C3 HFPO-DA	*117*		*50 - 200*
13C6 PFDA	*113*		*50 - 200*
13C5 PFHxA	*109*		*50 - 200*
13C4 PFHpA	*111*		*50 - 200*
13C8 PFOA	*111*		*50 - 200*
13C9 PFNA	*115*		*50 - 200*
13C7 PFUnA	*114*		*50 - 200*
13C2 PFDoA	*112*		*50 - 200*
13C4 PFBA	*107*		*50 - 200*
13C5 PFPeA	*108*		*50 - 200*
13C3 PFBS	*116*		*50 - 200*
13C3 PFHxS	*111*		*50 - 200*
13C8 PFOS	*109*		*50 - 200*
13C2-4:2-FTS	*109*		*50 - 200*
13C2-6:2-FTS	*118*		*50 - 200*
13C2-8:2-FTS	*119*		*50 - 200*

Lab Sample ID: MRL 380-200582/21-A
Matrix: Water
Analysis Batch: 200699

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 200582

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits		
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			2.01	2.03	J	ng/L		101	50 - 150		
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)			2.01	2.09	J	ng/L		104	50 - 150		
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)			2.01	2.09	J	ng/L		104	50 - 150		
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)			2.01	2.15	J	ng/L		107	50 - 150		
Perfluorobutanesulfonic acid (PFBS)			2.01	2.13	J	ng/L		106	50 - 150		
Perfluorodecanoic acid (PFDA)			2.01	2.12	J	ng/L		105	50 - 150		
Perfluorododecanoic acid (PFDoA)			2.01	2.17	J	ng/L		108	50 - 150		
Perfluoroheptanoic acid (PFHpA)			2.01	2.17	J	ng/L		108	50 - 150		
Perfluorohexanesulfonic acid (PFHxS)			2.01	2.01	J	ng/L		100	50 - 150		
Perfluorohexanoic acid (PFHxA)			2.01	2.13	J	ng/L		106	50 - 150		
Perfluorononanoic acid (PFNA)			2.01	2.11	J	ng/L		105	50 - 150		
Perfluorooctanesulfonic acid (PFOS)			2.01	2.06	J	ng/L		102	50 - 150		
Perfluorooctanoic acid (PFOA)			2.01	2.11	J	ng/L		105	50 - 150		
Perfluoroundecanoic acid (PFUnA)			2.01	1.96	J	ng/L		98	50 - 150		
Perfluorobutanoic acid (PFBA)			2.01	2.17	J	ng/L		108	50 - 150		

Method: 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water (Continued)

Lab Sample ID: MRL 380-200582/21-A
Matrix: Water
Analysis Batch: 200699

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 200582

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits		
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)			2.01	2.14	J	ng/L		107	50 - 150		
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)			2.01	2.29	J	ng/L		114	50 - 150		
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)			2.01	2.45	J	ng/L		122	50 - 150		
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)			2.01	1.99	J	ng/L		99	50 - 150		
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)			2.01	2.32	J	ng/L		115	50 - 150		
Perfluoro-3-methoxypropanoic acid (PFMPA)			2.01	2.10	J	ng/L		105	50 - 150		
Perfluoro-4-methoxybutanoic acid (PFMBA)			2.01	2.36	J	ng/L		117	50 - 150		
Perfluoropentanoic acid (PFPeA)			2.01	2.06	J	ng/L		103	50 - 150		
Perfluoroheptanesulfonic acid (PFHpS)			2.01	1.93	J	ng/L		96	50 - 150		
Perfluoropentanesulfonic acid (PFPeS)			2.01	1.95	J	ng/L		97	50 - 150		

Isotope Dilution	*MRL %Recovery*	*MRL Qualifier*	*Limits*
13C3 HFPO-DA	*106*		*50 - 200*
13C6 PFDA	*113*		*50 - 200*
13C5 PFHxA	*116*		*50 - 200*
13C4 PFHpA	*114*		*50 - 200*
13C8 PFOA	*114*		*50 - 200*
13C9 PFNA	*114*		*50 - 200*
13C7 PFUnA	*115*		*50 - 200*
13C2 PFDoA	*113*		*50 - 200*
13C4 PFBA	*111*		*50 - 200*
13C5 PFPeA	*111*		*50 - 200*
13C3 PFBS	*112*		*50 - 200*
13C3 PFHxS	*115*		*50 - 200*
13C8 PFOS	*116*		*50 - 200*
13C2-4:2-FTS	*120*		*50 - 200*
13C2-6:2-FTS	*121*		*50 - 200*
13C2-8:2-FTS	*126*		*50 - 200*

Lab Sample ID: 380-193815-1 MS
Matrix: Water
Analysis Batch: 200699

Client Sample ID: HALAWA WELL UNITS 1 & 2 P1
Prep Type: Total/NA
Prep Batch: 200582

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		60.4	60.9		ng/L		101	70 - 130		
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		60.4	59.4		ng/L		98	70 - 130		
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		60.4	56.9		ng/L		94	70 - 130		

Method: 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water (Continued)

Lab Sample ID: 380-193815-1 MS
Matrix: Water
Analysis Batch: 200699

Client Sample ID: HALAWA WELL UNITS 1 & 2 P1
Prep Type: Total/NA
Prep Batch: 200582

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		60.4	60.5		ng/L		100	70 - 130
Perfluorobutanesulfonic acid (PFBS)	<2.0		60.4	55.5		ng/L		90	70 - 130
Perfluorodecanoic acid (PFDA)	<2.0		60.4	60.5		ng/L		100	70 - 130
Perfluorododecanoic acid (PFDoA)	<2.0		60.4	57.5		ng/L		95	70 - 130
Perfluoroheptanoic acid (PFHpA)	<2.0		60.4	55.9		ng/L		91	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	2.6		60.4	59.0		ng/L		93	70 - 130
Perfluorohexanoic acid (PFHxA)	<2.0		60.4	61.2		ng/L		98	70 - 130
Perfluorononanoic acid (PFNA)	<2.0		60.4	57.6		ng/L		95	70 - 130
Perfluorooctanesulfonic acid (PFOS)	2.3		60.4	61.0		ng/L		97	70 - 130
Perfluorooctanoic acid (PFOA)	<2.0		60.4	59.7		ng/L		96	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		60.4	54.3		ng/L		90	70 - 130
Perfluorobutanoic acid (PFBA)	<2.0		60.4	59.9		ng/L		98	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		60.4	57.7		ng/L		96	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		60.4	56.6		ng/L		94	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		60.4	60.9		ng/L		101	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		60.4	62.7		ng/L		104	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		60.4	61.1		ng/L		101	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		60.4	61.7		ng/L		102	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		60.4	57.4		ng/L		95	70 - 130
Perfluoropentanoic acid (PFPeA)	<2.0		60.4	59.5		ng/L		95	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		60.4	58.8		ng/L		97	70 - 130
Perfluoropentanesulfonic acid (PFPeS)	<2.0		60.4	57.7		ng/L		96	70 - 130

Isotope Dilution	*MS %Recovery*	*MS Qualifier*	*Limits*
13C3 HFPO-DA	*108*		*50 - 200*
13C6 PFDA	*110*		*50 - 200*
13C5 PFHxA	*110*		*50 - 200*
13C4 PFHpA	*112*		*50 - 200*
13C8 PFOA	*111*		*50 - 200*
13C9 PFNA	*109*		*50 - 200*
13C7 PFUnA	*113*		*50 - 200*
13C2 PFDoA	*110*		*50 - 200*
13C4 PFBA	*109*		*50 - 200*
13C5 PFPeA	*113*		*50 - 200*
13C3 PFBS	*116*		*50 - 200*
13C3 PFHxS	*116*		*50 - 200*
13C8 PFOS	*110*		*50 - 200*

Method: 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water (Continued)

Lab Sample ID: 380-193815-1 MS
Matrix: Water
Analysis Batch: 200699

Client Sample ID: HALAWA WELL UNITS 1 & 2 P1
Prep Type: Total/NA
Prep Batch: 200582

Isotope Dilution	MS %Recovery	MS Qualifier	Limits
13C2-4:2-FTS	126		50 - 200
13C2-6:2-FTS	122		50 - 200
13C2-8:2-FTS	125		50 - 200

Lab Sample ID: 380-193815-1 MSD
Matrix: Water
Analysis Batch: 200699

Client Sample ID: HALAWA WELL UNITS 1 & 2 P1
Prep Type: Total/NA
Prep Batch: 200582

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		60.4	56.3		ng/L		93	70 - 130	8	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		60.4	58.3		ng/L		97	70 - 130	2	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		60.4	57.9		ng/L		96	70 - 130	2	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		60.4	58.6		ng/L		97	70 - 130	3	30
Perfluorobutanesulfonic acid (PFBS)	<2.0		60.4	55.7		ng/L		90	70 - 130	0	30
Perfluorodecanoic acid (PFDA)	<2.0		60.4	59.1		ng/L		98	70 - 130	2	30
Perfluorododecanoic acid (PFDoA)	<2.0		60.4	58.0		ng/L		96	70 - 130	1	30
Perfluoroheptanoic acid (PFHpA)	<2.0		60.4	58.6		ng/L		96	70 - 130	5	30
Perfluorohexanesulfonic acid (PFHxS)	2.6		60.4	60.8		ng/L		96	70 - 130	3	30
Perfluorohexanoic acid (PFHxA)	<2.0		60.4	60.5		ng/L		97	70 - 130	1	30
Perfluorononanoic acid (PFNA)	<2.0		60.4	56.5		ng/L		94	70 - 130	2	30
Perfluorooctanesulfonic acid (PFOS)	2.3		60.4	59.9		ng/L		95	70 - 130	2	30
Perfluorooctanoic acid (PFOA)	<2.0		60.4	59.3		ng/L		96	70 - 130	1	30
Perfluoroundecanoic acid (PFUnA)	<2.0		60.4	55.7		ng/L		92	70 - 130	2	30
Perfluorobutanoic acid (PFBA)	<2.0		60.4	59.0		ng/L		97	70 - 130	1	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		60.4	61.1		ng/L		101	70 - 130	6	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		60.4	53.9		ng/L		89	70 - 130	5	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		60.4	59.6		ng/L		99	70 - 130	2	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		60.4	53.7		ng/L		89	70 - 130	15	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		60.4	60.0		ng/L		99	70 - 130	2	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		60.4	62.5		ng/L		104	70 - 130	1	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		60.4	57.3		ng/L		95	70 - 130	0	30
Perfluoropentanoic acid (PFPeA)	<2.0		60.4	56.7		ng/L		91	70 - 130	5	30
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		60.4	56.1		ng/L		93	70 - 130	5	30
Perfluoropentanesulfonic acid (PFPeS)	<2.0		60.4	59.0		ng/L		98	70 - 130	2	30

Method: 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water (Continued)

Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits
13C3 HFPO-DA	111		50 - 200
13C6 PFDA	113		50 - 200
13C5 PFHxA	110		50 - 200
13C4 PFHpA	112		50 - 200
13C8 PFOA	111		50 - 200
13C9 PFNA	114		50 - 200
13C7 PFUnA	113		50 - 200
13C2 PFDoA	112		50 - 200
13C4 PFBA	108		50 - 200
13C5 PFPeA	114		50 - 200
13C3 PFBS	121		50 - 200
13C3 PFHxS	114		50 - 200
13C8 PFOS	114		50 - 200
13C2-4:2-FTS	134		50 - 200
13C2-6:2-FTS	127		50 - 200
13C2-8:2-FTS	122		50 - 200

QC Association Summary

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-193815-1
SDG: PFAS: Halawa Wells Units 1&2 P1

LCMS

Prep Batch: 200582

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-193815-1	HALAWA WELL UNITS 1 & 2 P1	Total/NA	Water	533	
380-193815-2	FB HALAWA WELL UNITS 1 & 2 P1	Total/NA	Water	533	
MBL 380-200582/20-A	Method Blank	Total/NA	Water	533	
LCS 380-200582/22-A	Lab Control Sample	Total/NA	Water	533	
MRL 380-200582/21-A	Lab Control Sample	Total/NA	Water	533	
380-193815-1 MS	HALAWA WELL UNITS 1 & 2 P1	Total/NA	Water	533	
380-193815-1 MSD	HALAWA WELL UNITS 1 & 2 P1	Total/NA	Water	533	

Analysis Batch: 200699

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-193815-1	HALAWA WELL UNITS 1 & 2 P1	Total/NA	Water	533	200582
380-193815-2	FB HALAWA WELL UNITS 1 & 2 P1	Total/NA	Water	533	200582
MBL 380-200582/20-A	Method Blank	Total/NA	Water	533	200582
LCS 380-200582/22-A	Lab Control Sample	Total/NA	Water	533	200582
MRL 380-200582/21-A	Lab Control Sample	Total/NA	Water	533	200582
380-193815-1 MS	HALAWA WELL UNITS 1 & 2 P1	Total/NA	Water	533	200582
380-193815-1 MSD	HALAWA WELL UNITS 1 & 2 P1	Total/NA	Water	533	200582

Lab Chronicle

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-193815-1
SDG: PFAS: Halawa Wells Units 1&2 P1

Client Sample ID: HALAWA WELL UNITS 1 & 2 P1

Lab Sample ID: 380-193815-1

Date Collected: 01/20/26 11:10
Matrix: Water
Date Received: 01/22/26 09:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			200582	E2HD	EA POM	01/23/26 16:22
Total/NA	Analysis	533		1	200699	M7ML	EA POM	01/24/26 22:17

Client Sample ID: FB HALAWA WELL UNITS 1 & 2 P1

Lab Sample ID: 380-193815-2

Date Collected: 01/20/26 11:10
Matrix: Water
Date Received: 01/22/26 09:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			200582	E2HD	EA POM	01/23/26 16:22
Total/NA	Analysis	533		1	200699	M7ML	EA POM	01/24/26 23:05

Laboratory References:

EA POM = Eurofins Pomona, 941 Corporate Center Drive, Pomona, CA 91768-2642, TEL (626)386-1100

Accreditation/Certification Summary

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-193815-1
SDG: PFAS: Halawa Wells Units 1&2 P1

Laboratory: Eurofins Pomona

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Hawaii	State	CA00006	01-31-26

Method Summary

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-193815-1
SDG: PFAS: Halawa Wells Units 1&2 P1

Method	Method Description	Protocol	Laboratory
533	Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water	EPA	EA POM
533	Extraction of Perfluorinated and Polyfluorinated Alkyl Acids	EPA	EA POM

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

EA POM = Eurofins Pomona, 941 Corporate Center Drive, Pomona, CA 91768-2642, TEL (626)386-1100

Sample Summary

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-193815-1
SDG: PFAS: Halawa Wells Units 1&2 P1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
380-193815-1	HALAWA WELL UNITS 1 & 2 P1	Water	01/20/26 11:10	01/22/26 09:24	Hawaii
380-193815-2	FB HALAWA WELL UNITS 1 & 2 P1	Water	01/20/26 11:10	01/22/26 09:24	Hawaii

Monrovia, CA (Suite 100)
750 Royal Oaks Drive Suite 100
Monrovia, CA 91016
Phone (626) 386-1100

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Jason Rakofsky	Lab PM: Arada, Rachelle	Carrier Tracking No(s):	COC No: 380-27941-2757.2
Client Contact: Kirk Iwamoto	Phone: +1 808 748 5840	E-Mail: Rachelle.Arada@et.eurofinsus.com	State of Origin:	Page: Page 2 of 2
Company: City & County of Honolulu	PWSID:			Job #:
Address: 530 South Beretania Street; Chemistry Lab	Due Date Requested:			
City: Honolulu	TAT Requested (days): RUSH			
State, Zip: HI, 96843	Compliance Project: Δ No			
Phone: 808-748-5840 (tel)	PO #: C20525101 exp 05312023			
Email: kiwamoto@hbws.org	WO #:			
Project Name: RED-HILL/HBWS sites Event Desc: RUSH Weekly Red Hill	Project #: 38001111			
Site:	SSOW#:			

Analysis Requested

- SUBCONTRACT - 625 PAH Physis LL (EAL) + TICs
- 8015B_GRO_LL - (MOD) GRO
- 8015B_DRO_LL_C8 HHL Ranges: C10-C24/C24-C36/C8-C10
- 526.2_PREC - (MOD) 525plus PLUS TICs
- 537.1_DW_PREC - 537.1 Full List
- 533 - All Analytes

Preservation Codes: R, A, Q, QA, Y, 1

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix	SUBCONTRACT - 625 PAH	8015B_GRO_LL	8015B_DRO_LL_C8	526.2_PREC	537.1_DW_PREC	533 - All Analytes	Special Instructions/Note:
Halawa Well ~~P1~~ Unit 1 & 2 P1	20-Jan-2026	1110	G	Water					3	3	
Halawa Well ~~P1 Blank~~ Unit 1 & 2 P1 FB	20-Jan-2026	✓	G	Water					(1)	1	
JP 1/23											
RECEIVED IN 533 BOTTLE JS 1/22/26											380-193815 COC

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
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Y - Trizma
Z - other (specify)
Other:

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

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

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
[redacted]	1/21/26 1100	HBWS	[signature]	1/22/26 924	EEAP
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 75IR 3.6/3.6 901 frozen

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-193815-1
SDG Number: PFAS: Halawa Wells Unit 1&2 P1

Login Number: 193815
List Number: 1
Creator: Segura, Ryan

List Source: Eurofins Pomona

Question	Answer	Comment
The coolers custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
Samples were received on ice.	True	
Cooler(s) Temperature is acceptable.	True	
Cooler(s) Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and is legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	False	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
ClO4 headspace requirement met (>50% for CA, >30% for other states).	True	
Samples do not require splitting or compositing.	True	
Container provided by EEA	True	