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ANALYTICAL REPORT

PREPARED FOR

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City & County of Honolulu
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JOB DESCRIPTION

RED-HILL
PFAS: Moanalua Wells
RUSH Weekly Red Hill

JOB NUMBER

380-216854-1

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: RED-HILL

Job ID: 380-216854-1
SDG: PFAS: Moanalua Wells

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

Case Narrative

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

Job ID: 380-216854-1

Job ID: 380-216854-1

Eurofins Pomona

Job Narrative 380-216854-1

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 5/29/2026 10:03 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 4.6°C.

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: 380-216854-1
SDG: PFAS: Moanalua Wells

Client Sample ID: MOANALUA WELLS (331-223-TP202)
PWSID Number: HI0000331

Lab Sample ID: 380-216854-1

No Detections.

Client Sample ID: FB: MOANALUA WELLS (331-223-TP202)
PWSID Number: HI0000331

Lab Sample ID: 380-216854-2

No Detections.

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This Detection Summary does not include radiochemical test results.

Client Sample Results

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

Job ID: 380-216854-1
SDG: PFAS: Moanalua Wells

Client Sample ID: MOANALUA WELLS (331-223-TP202)

Lab Sample ID: 380-216854-1

Date Collected: 05/26/26 10:03

Matrix: Drinking Water

Date Received: 05/29/26 10:03

PWSID Number: HI0000331

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		06/03/26 15:53	06/04/26 10:46	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		06/03/26 15:53	06/04/26 10:46	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		06/03/26 15:53	06/04/26 10:46	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		06/03/26 15:53	06/04/26 10:46	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		06/03/26 15:53	06/04/26 10:46	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		06/03/26 15:53	06/04/26 10:46	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		06/03/26 15:53	06/04/26 10:46	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		06/03/26 15:53	06/04/26 10:46	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		06/03/26 15:53	06/04/26 10:46	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		06/03/26 15:53	06/04/26 10:46	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		06/03/26 15:53	06/04/26 10:46	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		06/03/26 15:53	06/04/26 10:46	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		06/03/26 15:53	06/04/26 10:46	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		06/03/26 15:53	06/04/26 10:46	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		06/03/26 15:53	06/04/26 10:46	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		06/03/26 15:53	06/04/26 10:46	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		06/03/26 15:53	06/04/26 10:46	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		06/03/26 15:53	06/04/26 10:46	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		06/03/26 15:53	06/04/26 10:46	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		2.0	ng/L		06/03/26 15:53	06/04/26 10:46	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		06/03/26 15:53	06/04/26 10:46	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		06/03/26 15:53	06/04/26 10:46	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		06/03/26 15:53	06/04/26 10:46	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		06/03/26 15:53	06/04/26 10:46	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		06/03/26 15:53	06/04/26 10:46	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	96		50 - 200	06/03/26 15:53	06/04/26 10:46	1
13C6 PFDA	99		50 - 200	06/03/26 15:53	06/04/26 10:46	1
13C5 PFHxA	106		50 - 200	06/03/26 15:53	06/04/26 10:46	1
13C4 PFHpA	108		50 - 200	06/03/26 15:53	06/04/26 10:46	1
13C8 PFOA	109		50 - 200	06/03/26 15:53	06/04/26 10:46	1
13C9 PFNA	105		50 - 200	06/03/26 15:53	06/04/26 10:46	1
13C7 PFUnA	96		50 - 200	06/03/26 15:53	06/04/26 10:46	1
13C2 PFDoA	92		50 - 200	06/03/26 15:53	06/04/26 10:46	1
13C4 PFBA	110		50 - 200	06/03/26 15:53	06/04/26 10:46	1
13C5 PFPeA	115		50 - 200	06/03/26 15:53	06/04/26 10:46	1
13C3 PFBS	108		50 - 200	06/03/26 15:53	06/04/26 10:46	1
13C3 PFHxS	109		50 - 200	06/03/26 15:53	06/04/26 10:46	1
13C8 PFOS	103		50 - 200	06/03/26 15:53	06/04/26 10:46	1

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Client Sample Results

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

Job ID: 380-216854-1
SDG: PFAS: Moanalua Wells

Client Sample ID: MOANALUA WELLS (331-223-TP202)

Lab Sample ID: 380-216854-1

Date Collected: 05/26/26 10:03

Matrix: Drinking Water

Date Received: 05/29/26 10:03

PWSID Number: HI0000331

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2-4:2-FTS	107		50 - 200	06/03/26 15:53	06/04/26 10:46	1
13C2-6:2-FTS	110		50 - 200	06/03/26 15:53	06/04/26 10:46	1
13C2-8:2-FTS	103		50 - 200	06/03/26 15:53	06/04/26 10:46	1

Method: EPA 537.1 V2 - EPA 537.1 Ver. 2.0 March 2020

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		06/01/26 14:45	06/02/26 21:54	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		06/01/26 14:45	06/02/26 21:54	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		06/01/26 14:45	06/02/26 21:54	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		06/01/26 14:45	06/02/26 21:54	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		06/01/26 14:45	06/02/26 21:54	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		06/01/26 14:45	06/02/26 21:54	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		06/01/26 14:45	06/02/26 21:54	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		06/01/26 14:45	06/02/26 21:54	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		06/01/26 14:45	06/02/26 21:54	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		06/01/26 14:45	06/02/26 21:54	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		06/01/26 14:45	06/02/26 21:54	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		06/01/26 14:45	06/02/26 21:54	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		06/01/26 14:45	06/02/26 21:54	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		06/01/26 14:45	06/02/26 21:54	1
Perfluorotridecanoic acid (PFTTrDA)	<2.0		2.0	ng/L		06/01/26 14:45	06/02/26 21:54	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		06/01/26 14:45	06/02/26 21:54	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		06/01/26 14:45	06/02/26 21:54	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		06/01/26 14:45	06/02/26 21:54	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	104		70 - 130			06/01/26 14:45	06/02/26 21:54	1
13C2 PFHxA	109		70 - 130			06/01/26 14:45	06/02/26 21:54	1
13C2 PFDA	114		70 - 130			06/01/26 14:45	06/02/26 21:54	1
13C3-GenX	106		70 - 130			06/01/26 14:45	06/02/26 21:54	1

Client Sample ID: FB: MOANALUA WELLS (331-223-TP202)

Lab Sample ID: 380-216854-2

Date Collected: 05/26/26 10:03

Matrix: Water

Date Received: 05/29/26 10:03

PWSID Number: HI0000331

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		06/03/26 15:53	06/04/26 10:56	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		06/03/26 15:53	06/04/26 10:56	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		06/03/26 15:53	06/04/26 10:56	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		06/03/26 15:53	06/04/26 10:56	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		06/03/26 15:53	06/04/26 10:56	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		06/03/26 15:53	06/04/26 10:56	1

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Client Sample Results

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

Job ID: 380-216854-1
SDG: PFAS: Moanalua Wells

Client Sample ID: FB: MOANALUA WELLS (331-223-TP202)

Lab Sample ID: 380-216854-2

Date Collected: 05/26/26 10:03

Matrix: Water

Date Received: 05/29/26 10:03

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		06/03/26 15:53	06/04/26 10:56	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		06/03/26 15:53	06/04/26 10:56	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		06/03/26 15:53	06/04/26 10:56	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		06/03/26 15:53	06/04/26 10:56	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		06/03/26 15:53	06/04/26 10:56	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		06/03/26 15:53	06/04/26 10:56	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		06/03/26 15:53	06/04/26 10:56	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		06/03/26 15:53	06/04/26 10:56	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		06/03/26 15:53	06/04/26 10:56	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		06/03/26 15:53	06/04/26 10:56	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		06/03/26 15:53	06/04/26 10:56	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		06/03/26 15:53	06/04/26 10:56	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		06/03/26 15:53	06/04/26 10:56	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		2.0	ng/L		06/03/26 15:53	06/04/26 10:56	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		06/03/26 15:53	06/04/26 10:56	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		06/03/26 15:53	06/04/26 10:56	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		06/03/26 15:53	06/04/26 10:56	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		06/03/26 15:53	06/04/26 10:56	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		06/03/26 15:53	06/04/26 10:56	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	93		50 - 200	06/03/26 15:53	06/04/26 10:56	1
13C6 PFDA	106		50 - 200	06/03/26 15:53	06/04/26 10:56	1
13C5 PFHxA	105		50 - 200	06/03/26 15:53	06/04/26 10:56	1
13C4 PFHpA	109		50 - 200	06/03/26 15:53	06/04/26 10:56	1
13C8 PFOA	107		50 - 200	06/03/26 15:53	06/04/26 10:56	1
13C9 PFNA	106		50 - 200	06/03/26 15:53	06/04/26 10:56	1
13C7 PFUnA	105		50 - 200	06/03/26 15:53	06/04/26 10:56	1
13C2 PFDoA	110		50 - 200	06/03/26 15:53	06/04/26 10:56	1
13C4 PFBA	110		50 - 200	06/03/26 15:53	06/04/26 10:56	1
13C5 PFPeA	109		50 - 200	06/03/26 15:53	06/04/26 10:56	1
13C3 PFBS	114		50 - 200	06/03/26 15:53	06/04/26 10:56	1
13C3 PFHxS	117		50 - 200	06/03/26 15:53	06/04/26 10:56	1
13C8 PFOS	121		50 - 200	06/03/26 15:53	06/04/26 10:56	1
13C2-4:2-FTS	132		50 - 200	06/03/26 15:53	06/04/26 10:56	1
13C2-6:2-FTS	127		50 - 200	06/03/26 15:53	06/04/26 10:56	1
13C2-8:2-FTS	116		50 - 200	06/03/26 15:53	06/04/26 10:56	1

Method: EPA 537.1 V2 - EPA 537.1 Ver. 2.0 March 2020

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		06/01/26 14:45	06/02/26 22:15	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		06/01/26 14:45	06/02/26 22:15	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		06/01/26 14:45	06/02/26 22:15	1

Eurofins Pomona

Client Sample Results

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

Job ID: 380-216854-1
SDG: PFAS: Moanalua Wells

Client Sample ID: FB: MOANALUA WELLS (331-223-TP202)

Lab Sample ID: 380-216854-2

Date Collected: 05/26/26 10:03

Matrix: Water

Date Received: 05/29/26 10:03

PWSID Number: HI0000331

Method: EPA 537.1 V2 - EPA 537.1 Ver. 2.0 March 2020 (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		06/01/26 14:45	06/02/26 22:15	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		06/01/26 14:45	06/02/26 22:15	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		06/01/26 14:45	06/02/26 22:15	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		06/01/26 14:45	06/02/26 22:15	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		06/01/26 14:45	06/02/26 22:15	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		06/01/26 14:45	06/02/26 22:15	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		06/01/26 14:45	06/02/26 22:15	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		06/01/26 14:45	06/02/26 22:15	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		06/01/26 14:45	06/02/26 22:15	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		06/01/26 14:45	06/02/26 22:15	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		06/01/26 14:45	06/02/26 22:15	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		06/01/26 14:45	06/02/26 22:15	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<2.0		2.0	ng/L		06/01/26 14:45	06/02/26 22:15	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		06/01/26 14:45	06/02/26 22:15	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		06/01/26 14:45	06/02/26 22:15	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	116		70 - 130			06/01/26 14:45	06/02/26 22:15	1
13C2 PFHxA	114		70 - 130			06/01/26 14:45	06/02/26 22:15	1
13C2 PFDA	110		70 - 130			06/01/26 14:45	06/02/26 22:15	1
13C3-GenX	108		70 - 130			06/01/26 14:45	06/02/26 22:15	1

Action Limit Summary

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

Job ID: 380-216854-1
SDG: PFAS: Moanalua Wells

Client Sample ID: MOANALUA WELLS (331-223-TP202)

Lab Sample ID: 380-216854-1

PWSID Number: HI0000331

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			
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
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		ng/L	10	2.0	EPA 537.1 V2	Total/NA
Perfluorooctanesulfonic acid (PFOS)	<2.0		ng/L	4	2.0	EPA 537.1 V2	Total/NA
Perfluorooctanoic acid (PFOA)	<2.0		ng/L	4	2.0	EPA 537.1 V2	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	<2.0		ng/L	10	2.0	EPA 537.1 V2	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	EPA 537.1 V2	Total/NA

Client Sample ID: FB: MOANALUA WELLS (331-223-TP202)

Lab Sample ID: 380-216854-2

PWSID Number: HI0000331

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			
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
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		ng/L	10	2.0	EPA 537.1 V2	Total/NA
Perfluorooctanesulfonic acid (PFOS)	<2.0		ng/L	4	2.0	EPA 537.1 V2	Total/NA
Perfluorooctanoic acid (PFOA)	<2.0		ng/L	4	2.0	EPA 537.1 V2	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	<2.0		ng/L	10	2.0	EPA 537.1 V2	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	EPA 537.1 V2	Total/NA

Surrogate Summary

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

Job ID: 380-216854-1
 SDG: PFAS: Moanalua Wells

Method: EPA 537.1 V2 - EPA 537.1 Ver. 2.0 March 2020

Matrix: Drinking Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		d5NEFOS (70-130)	PFHxA (70-130)	PFDA (70-130)	GenX (70-130)
380-216854-1	MOANALUA WELLS (331-223-TP202)	104	109	114	106

Surrogate Legend

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

Method: EPA 537.1 V2 - EPA 537.1 Ver. 2.0 March 2020

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		d5NEFOS (70-130)	PFHxA (70-130)	PFDA (70-130)	GenX (70-130)
380-216853-B-1-A MS	Matrix Spike	111	123	119	116
380-216853-C-1-A MSD	Matrix Spike Duplicate	106	114	110	110
380-216854-2	FB: MOANALUA WELLS (331-223-TP202)	116	114	110	108
LCS 380-230775/21-A	Lab Control Sample	101	110	105	99
MBL 380-230775/19-A	Method Blank	109	113	113	110
MRL 380-230775/20-A	Lab Control Sample	107	111	110	105

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: 380-216854-1
SDG: PFAS: Moanalua Wells

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

Matrix: Drinking 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)
380-216854-1	MOANALUA WELLS (331-223-TP20)	96	99	106	108	109	105	96	92

		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)
380-216854-1	MOANALUA WELLS (331-223-TP20)	110	115	108	109	103	107	110	103

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 PFDaA
- 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

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)
380-216792-B-7-A MS	Matrix Spike	101	100	105	102	104	101	101	104
380-216792-C-7-A MSD	Matrix Spike Duplicate	108	105	109	106	104	107	104	107
380-216854-2	FB: MOANALUA WELLS (331-223-TP202)	93	106	105	109	107	106	105	110
LCS 380-231395/22-A	Lab Control Sample	117	117	115	115	115	116	118	116
MBL 380-231395/20-A	Method Blank	105	113	111	115	118	113	112	110
MRL 380-231395/21-A	Lab Control Sample	95	104	105	109	107	106	104	104

		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)
380-216792-B-7-A MS	Matrix Spike	105	103	99	102	100	95	104	96
380-216792-C-7-A MSD	Matrix Spike Duplicate	109	110	104	107	108	110	110	106
380-216854-2	FB: MOANALUA WELLS (331-223-TP202)	110	109	114	117	121	132	127	116
LCS 380-231395/22-A	Lab Control Sample	115	118	118	116	119	117	115	117
MBL 380-231395/20-A	Method Blank	118	121	111	115	111	118	114	107
MRL 380-231395/21-A	Lab Control Sample	106	111	100	107	103	107	106	97

Surrogate Legend

- HFPODA = 13C3 HFPO-DA
- C6PFDA = 13C6 PFDA

Isotope Dilution Summary

Client: City & County of Honolulu

Project/Site: RED-HILL

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

Job ID: 380-216854-1
SDG: PFAS: Moanalua Wells

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QC Sample Results

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

Job ID: 380-216854-1
SDG: PFAS: Moanalua Wells

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

Lab Sample ID: MBL 380-231395/20-A
Matrix: Water
Analysis Batch: 231609

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 231395

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		06/03/26 15:53	06/04/26 07:45	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		06/03/26 15:53	06/04/26 07:45	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		06/03/26 15:53	06/04/26 07:45	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<1.0		2.0	ng/L		06/03/26 15:53	06/04/26 07:45	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		06/03/26 15:53	06/04/26 07:45	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		06/03/26 15:53	06/04/26 07:45	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		06/03/26 15:53	06/04/26 07:45	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		06/03/26 15:53	06/04/26 07:45	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		06/03/26 15:53	06/04/26 07:45	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		06/03/26 15:53	06/04/26 07:45	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		06/03/26 15:53	06/04/26 07:45	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		06/03/26 15:53	06/04/26 07:45	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		06/03/26 15:53	06/04/26 07:45	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		06/03/26 15:53	06/04/26 07:45	1
Perfluorobutanoic acid (PFBA)	<0.69		2.0	ng/L		06/03/26 15:53	06/04/26 07:45	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<0.38		2.0	ng/L		06/03/26 15:53	06/04/26 07:45	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<0.37		2.0	ng/L		06/03/26 15:53	06/04/26 07:45	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<0.48		2.0	ng/L		06/03/26 15:53	06/04/26 07:45	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<0.47		2.0	ng/L		06/03/26 15:53	06/04/26 07:45	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<0.25		2.0	ng/L		06/03/26 15:53	06/04/26 07:45	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<0.46		2.0	ng/L		06/03/26 15:53	06/04/26 07:45	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<0.15		2.0	ng/L		06/03/26 15:53	06/04/26 07:45	1
Perfluoropentanoic acid (PFPeA)	<0.38		2.0	ng/L		06/03/26 15:53	06/04/26 07:45	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.36		2.0	ng/L		06/03/26 15:53	06/04/26 07:45	1
Perfluoropentanesulfonic acid (PFPeS)	<0.39		2.0	ng/L		06/03/26 15:53	06/04/26 07:45	1

Isotope Dilution	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	105		50 - 200	06/03/26 15:53	06/04/26 07:45	1
13C6 PFDA	113		50 - 200	06/03/26 15:53	06/04/26 07:45	1
13C5 PFHxA	111		50 - 200	06/03/26 15:53	06/04/26 07:45	1
13C4 PFHpA	115		50 - 200	06/03/26 15:53	06/04/26 07:45	1
13C8 PFOA	118		50 - 200	06/03/26 15:53	06/04/26 07:45	1
13C9 PFNA	113		50 - 200	06/03/26 15:53	06/04/26 07:45	1
13C7 PFUnA	112		50 - 200	06/03/26 15:53	06/04/26 07:45	1
13C2 PFDoA	110		50 - 200	06/03/26 15:53	06/04/26 07:45	1
13C4 PFBA	118		50 - 200	06/03/26 15:53	06/04/26 07:45	1
13C5 PFPeA	121		50 - 200	06/03/26 15:53	06/04/26 07:45	1
13C3 PFBS	111		50 - 200	06/03/26 15:53	06/04/26 07:45	1
13C3 PFHxS	115		50 - 200	06/03/26 15:53	06/04/26 07:45	1

Eurofins Pomona

QC Sample Results

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

Job ID: 380-216854-1
SDG: PFAS: Moanalua Wells

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

Lab Sample ID: MBL 380-231395/20-A
Matrix: Water
Analysis Batch: 231609

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 231395

Isotope Dilution	MBL MBL		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
13C8 PFOS	111		50 - 200	06/03/26 15:53	06/04/26 07:45	1
13C2-4:2-FTS	118		50 - 200	06/03/26 15:53	06/04/26 07:45	1
13C2-6:2-FTS	114		50 - 200	06/03/26 15:53	06/04/26 07:45	1
13C2-8:2-FTS	107		50 - 200	06/03/26 15:53	06/04/26 07:45	1

Lab Sample ID: LCS 380-231395/22-A
Matrix: Water
Analysis Batch: 231609

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 231395

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	60.2	57.4		ng/L		95	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	60.2	60.8		ng/L		101	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	60.2	59.5		ng/L		99	70 - 130
Perfluorobutanesulfonic acid (PFBS)	60.2	58.2		ng/L		97	70 - 130
Perfluorodecanoic acid (PFDA)	60.2	58.1		ng/L		96	70 - 130
Perfluorododecanoic acid (PFDoA)	60.2	60.0		ng/L		100	70 - 130
Perfluoroheptanoic acid (PFHpA)	60.2	60.7		ng/L		101	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	60.2	62.5		ng/L		104	70 - 130
Perfluorohexanoic acid (PFHxA)	60.2	60.2		ng/L		100	70 - 130
Perfluorononanoic acid (PFNA)	60.2	58.5		ng/L		97	70 - 130
Perfluorooctanesulfonic acid (PFOS)	60.2	58.1		ng/L		96	70 - 130
Perfluorooctanoic acid (PFOA)	60.2	59.0		ng/L		98	70 - 130
Perfluoroundecanoic acid (PFUnA)	60.2	58.4		ng/L		97	70 - 130
Perfluorobutanoic acid (PFBA)	60.2	59.7		ng/L		99	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	60.2	60.4		ng/L		100	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	60.2	59.8		ng/L		99	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	60.2	61.6		ng/L		102	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	60.2	56.6		ng/L		94	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	60.2	60.2		ng/L		100	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	60.2	58.7		ng/L		98	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	60.2	58.0		ng/L		96	70 - 130
Perfluoropentanoic acid (PFPeA)	60.2	59.7		ng/L		99	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	60.2	60.6		ng/L		101	70 - 130

QC Sample Results

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

Job ID: 380-216854-1
SDG: PFAS: Moanalua Wells

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

Lab Sample ID: LCS 380-231395/22-A
Matrix: Water
Analysis Batch: 231609

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 231395

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoropentanesulfonic acid (PFPeS)	60.2	62.2		ng/L		103	70 - 130
LCS LCS							
Isotope Dilution	%Recovery	Qualifier	Limits				
13C3 HFPO-DA	117		50 - 200				
13C6 PFDA	117		50 - 200				
13C5 PFHxA	115		50 - 200				
13C4 PFHpA	115		50 - 200				
13C8 PFOA	115		50 - 200				
13C9 PFNA	116		50 - 200				
13C7 PFUnA	118		50 - 200				
13C2 PFDoA	116		50 - 200				
13C4 PFBA	115		50 - 200				
13C5 PFPeA	118		50 - 200				
13C3 PFBS	118		50 - 200				
13C3 PFHxS	116		50 - 200				
13C8 PFOS	119		50 - 200				
13C2-4:2-FTS	117		50 - 200				
13C2-6:2-FTS	115		50 - 200				
13C2-8:2-FTS	117		50 - 200				

Lab Sample ID: MRL 380-231395/21-A
Matrix: Water
Analysis Batch: 231609

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 231395

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.01	1.92	J	ng/L		96	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	2.01	2.01	J	ng/L		100	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.01	2.15	J	ng/L		107	50 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.01	2.08	J	ng/L		104	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.01	2.10	J	ng/L		104	50 - 150
Perfluorodecanoic acid (PFDA)	2.01	2.23	J	ng/L		111	50 - 150
Perfluorododecanoic acid (PFDoA)	2.01	2.22	J	ng/L		110	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.01	2.09	J	ng/L		104	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.01	2.08	J	ng/L		104	50 - 150
Perfluorohexanoic acid (PFHxA)	2.01	2.07	J	ng/L		103	50 - 150
Perfluorononanoic acid (PFNA)	2.01	2.15	J	ng/L		107	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.01	2.19	J	ng/L		109	50 - 150
Perfluorooctanoic acid (PFOA)	2.01	2.21	J	ng/L		110	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.01	2.17	J	ng/L		108	50 - 150
Perfluorobutanoic acid (PFBA)	2.01	2.18	J	ng/L		109	50 - 150

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QC Sample Results

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

Job ID: 380-216854-1
SDG: PFAS: Moanalua Wells

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

Lab Sample ID: MRL 380-231395/21-A
Matrix: Water
Analysis Batch: 231609

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 231395

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	2.01	2.30	J	ng/L		115	50 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	2.01	2.27	J	ng/L		113	50 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	2.01	2.13	J	ng/L		106	50 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	2.01	1.65	J	ng/L		82	50 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	2.01	1.97	J	ng/L		98	50 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	2.01	1.99	J	ng/L		99	50 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.01	1.97	J	ng/L		98	50 - 150
Perfluoropentanoic acid (PFPeA)	2.01	2.08	J	ng/L		104	50 - 150
Perfluoroheptanesulfonic acid (PFHpS)	2.01	2.20	J	ng/L		110	50 - 150
Perfluoropentanesulfonic acid (PFPeS)	2.01	2.02	J	ng/L		101	50 - 150

Isotope Dilution	MRL %Recovery	MRL Qualifier	MRL Limits
13C3 HFPO-DA	95		50 - 200
13C6 PFDA	104		50 - 200
13C5 PFHxA	105		50 - 200
13C4 PFHpA	109		50 - 200
13C8 PFOA	107		50 - 200
13C9 PFNA	106		50 - 200
13C7 PFUnA	104		50 - 200
13C2 PFDoA	104		50 - 200
13C4 PFBA	106		50 - 200
13C5 PFPeA	111		50 - 200
13C3 PFBS	100		50 - 200
13C3 PFHxS	107		50 - 200
13C8 PFOS	103		50 - 200
13C2-4:2-FTS	107		50 - 200
13C2-6:2-FTS	106		50 - 200
13C2-8:2-FTS	97		50 - 200

Lab Sample ID: 380-216792-B-7-A MS
Matrix: Water
Analysis Batch: 231609

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 231395

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		60.1	55.8		ng/L		93	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		60.1	58.7		ng/L		98	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		60.1	58.8		ng/L		98	70 - 130

QC Sample Results

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

Job ID: 380-216854-1
SDG: PFAS: Moanalua Wells

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

Lab Sample ID: 380-216792-B-7-A MS

Client Sample ID: Matrix Spike

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 231609

Prep Batch: 231395

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec Limits
	Result	Qualifier	Added	Result	Qualifier				
Hexafluoropropylene Oxide	<2.0		60.1	58.9		ng/L		98	70 - 130
Dimer Acid (HFPO-DA/GenX)									
Perfluorobutanesulfonic acid (PFBS)	<2.0		60.1	60.4		ng/L		100	70 - 130
Perfluorodecanoic acid (PFDA)	<2.0		60.1	59.2		ng/L		98	70 - 130
Perfluorododecanoic acid (PFDoA)	<2.0		60.1	59.7		ng/L		99	70 - 130
Perfluoroheptanoic acid (PFHpA)	<2.0		60.1	59.5		ng/L		99	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	<2.0		60.1	59.3		ng/L		99	70 - 130
Perfluorohexanoic acid (PFHxA)	<2.0		60.1	57.4		ng/L		95	70 - 130
Perfluorononanoic acid (PFNA)	<2.0		60.1	59.1		ng/L		98	70 - 130
Perfluorooctanesulfonic acid (PFOS)	<2.0		60.1	59.5		ng/L		99	70 - 130
Perfluorooctanoic acid (PFOA)	<2.0		60.1	58.7		ng/L		98	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		60.1	60.6		ng/L		101	70 - 130
Perfluorobutanoic acid (PFBA)	<2.0		60.1	58.2		ng/L		97	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		60.1	62.8		ng/L		104	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		60.1	63.4		ng/L		105	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		60.1	54.8		ng/L		91	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		60.1	45.9		ng/L		76	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		60.1	61.1		ng/L		102	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		60.1	60.2		ng/L		100	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		60.1	56.4		ng/L		94	70 - 130
Perfluoropentanoic acid (PFPeA)	<2.0		60.1	61.2		ng/L		102	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		60.1	62.1		ng/L		103	70 - 130
Perfluoropentanesulfonic acid (PFPeS)	<2.0		60.1	61.5		ng/L		102	70 - 130

Isotope Dilution	MS MS		Limits
	%Recovery	Qualifier	
13C3 HFPO-DA	101		50 - 200
13C6 PFDA	100		50 - 200
13C5 PFHxA	105		50 - 200
13C4 PFHpA	102		50 - 200
13C8 PFOA	104		50 - 200
13C9 PFNA	101		50 - 200
13C7 PFUnA	101		50 - 200
13C2 PFDoA	104		50 - 200
13C4 PFBA	105		50 - 200
13C5 PFPeA	103		50 - 200
13C3 PFBS	99		50 - 200
13C3 PFHxS	102		50 - 200
13C8 PFOS	100		50 - 200

QC Sample Results

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

Job ID: 380-216854-1
SDG: PFAS: Moanalua Wells

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

Lab Sample ID: 380-216792-B-7-A MS
Matrix: Water
Analysis Batch: 231609

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 231395

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>MS MS Qualifier</i>	<i>Limits</i>
13C2-4:2-FTS	95		50 - 200
13C2-6:2-FTS	104		50 - 200
13C2-8:2-FTS	96		50 - 200

Lab Sample ID: 380-216792-C-7-A MSD
Matrix: Water
Analysis Batch: 231609

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 231395

<i>Analyte</i>	<i>Sample Result</i>	<i>Sample Qualifier</i>	<i>Spike Added</i>	<i>MSD Result</i>	<i>MSD Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec Limits</i>	<i>RPD</i>	<i>RPD Limit</i>
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		60.1	56.1		ng/L		93	70 - 130	0	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		60.1	57.3		ng/L		95	70 - 130	2	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		60.1	60.0		ng/L		100	70 - 130	2	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		60.1	59.8		ng/L		99	70 - 130	1	30
Perfluorobutanesulfonic acid (PFBS)	<2.0		60.1	59.1		ng/L		98	70 - 130	2	30
Perfluorodecanoic acid (PFDA)	<2.0		60.1	59.4		ng/L		99	70 - 130	0	30
Perfluorododecanoic acid (PFDoA)	<2.0		60.1	57.8		ng/L		96	70 - 130	3	30
Perfluoroheptanoic acid (PFHpA)	<2.0		60.1	59.2		ng/L		99	70 - 130	1	30
Perfluorohexanesulfonic acid (PFHxS)	<2.0		60.1	59.2		ng/L		98	70 - 130	0	30
Perfluorohexanoic acid (PFHxA)	<2.0		60.1	58.5		ng/L		97	70 - 130	2	30
Perfluorononanoic acid (PFNA)	<2.0		60.1	58.0		ng/L		96	70 - 130	2	30
Perfluorooctanesulfonic acid (PFOS)	<2.0		60.1	57.0		ng/L		95	70 - 130	4	30
Perfluorooctanoic acid (PFOA)	<2.0		60.1	60.2		ng/L		100	70 - 130	3	30
Perfluoroundecanoic acid (PFUnA)	<2.0		60.1	61.4		ng/L		102	70 - 130	1	30
Perfluorobutanoic acid (PFBA)	<2.0		60.1	58.9		ng/L		98	70 - 130	1	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		60.1	60.7		ng/L		101	70 - 130	3	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		60.1	55.8		ng/L		93	70 - 130	13	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		60.1	54.0		ng/L		90	70 - 130	2	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		60.1	56.7		ng/L		94	70 - 130	21	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		60.1	60.9		ng/L		101	70 - 130	0	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		60.1	60.2		ng/L		100	70 - 130	0	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		60.1	58.1		ng/L		97	70 - 130	3	30
Perfluoropentanoic acid (PFPeA)	<2.0		60.1	61.2		ng/L		102	70 - 130	0	30
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		60.1	59.8		ng/L		99	70 - 130	4	30
Perfluoropentanesulfonic acid (PFPeS)	<2.0		60.1	58.6		ng/L		98	70 - 130	5	30

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QC Sample Results

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

Job ID: 380-216854-1
SDG: PFAS: Moanalua Wells

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

Isotope Dilution	MSD MSD		Limits
	%Recovery	Qualifier	
13C3 HFPO-DA	108		50 - 200
13C6 PFDA	105		50 - 200
13C5 PFHxA	109		50 - 200
13C4 PFHpA	106		50 - 200
13C8 PFOA	104		50 - 200
13C9 PFNA	107		50 - 200
13C7 PFUnA	104		50 - 200
13C2 PFDoA	107		50 - 200
13C4 PFBA	109		50 - 200
13C5 PFPeA	110		50 - 200
13C3 PFBS	104		50 - 200
13C3 PFHxS	107		50 - 200
13C8 PFOS	108		50 - 200
13C2-4:2-FTS	110		50 - 200
13C2-6:2-FTS	110		50 - 200
13C2-8:2-FTS	106		50 - 200

Method: EPA 537.1 V2 - EPA 537.1 Ver. 2.0 March 2020

Lab Sample ID: MBL 380-230775/19-A
Matrix: Water
Analysis Batch: 231111

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 230775

Analyte	MBL MBL		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<1.0		2.0	ng/L		06/01/26 14:45	06/02/26 19:40	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		06/01/26 14:45	06/02/26 19:40	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		06/01/26 14:45	06/02/26 19:40	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<0.58		2.0	ng/L		06/01/26 14:45	06/02/26 19:40	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<0.42		2.0	ng/L		06/01/26 14:45	06/02/26 19:40	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		06/01/26 14:45	06/02/26 19:40	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		06/01/26 14:45	06/02/26 19:40	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		06/01/26 14:45	06/02/26 19:40	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		06/01/26 14:45	06/02/26 19:40	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		06/01/26 14:45	06/02/26 19:40	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		06/01/26 14:45	06/02/26 19:40	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		06/01/26 14:45	06/02/26 19:40	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		06/01/26 14:45	06/02/26 19:40	1
Perfluorotetradecanoic acid (PFTA)	<0.54		2.0	ng/L		06/01/26 14:45	06/02/26 19:40	1
Perfluorotridecanoic acid (PFTTrDA)	<0.36		2.0	ng/L		06/01/26 14:45	06/02/26 19:40	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		06/01/26 14:45	06/02/26 19:40	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<0.30		2.0	ng/L		06/01/26 14:45	06/02/26 19:40	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		06/01/26 14:45	06/02/26 19:40	1
Surrogate	MBL MBL		Limits			Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier						
d5-NEtFOSAA	109		70 - 130			06/01/26 14:45	06/02/26 19:40	1
13C2 PFHxA	113		70 - 130			06/01/26 14:45	06/02/26 19:40	1
13C2 PFDA	113		70 - 130			06/01/26 14:45	06/02/26 19:40	1

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QC Sample Results

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

Job ID: 380-216854-1
SDG: PFAS: Moanalua Wells

Method: EPA 537.1 V2 - EPA 537.1 Ver. 2.0 March 2020 (Continued)

Lab Sample ID: MBL 380-230775/19-A
Matrix: Water
Analysis Batch: 231111

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 230775

Surrogate	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3-GenX	110		70 - 130	06/01/26 14:45	06/02/26 19:40	1

Lab Sample ID: LCS 380-230775/21-A
Matrix: Water
Analysis Batch: 231111

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 230775

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide	50.2	45.7		ng/L		91	70 - 130
Dimer Acid (HFPO-DA/GenX)							
Perfluorooctanesulfonic acid (PFOS)	50.2	52.6		ng/L		105	70 - 130
Perfluoroundecanoic acid (PFUnA)	50.2	48.2		ng/L		96	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	50.2	48.0		ng/L		96	70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	50.2	49.2		ng/L		98	70 - 130
Perfluorohexanoic acid (PFHxA)	50.2	47.9		ng/L		95	70 - 130
Perfluorododecanoic acid (PFDoA)	50.2	49.4		ng/L		98	70 - 130
Perfluorooctanoic acid (PFOA)	50.2	48.8		ng/L		97	70 - 130
Perfluorodecanoic acid (PFDA)	50.2	48.2		ng/L		96	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	50.2	49.6		ng/L		99	70 - 130
Perfluorobutanesulfonic acid (PFBS)	50.2	52.2		ng/L		104	70 - 130
Perfluoroheptanoic acid (PFHpA)	50.2	48.7		ng/L		97	70 - 130
Perfluorononanoic acid (PFNA)	50.2	48.7		ng/L		97	70 - 130
Perfluorotetradecanoic acid (PFTA)	50.2	38.0		ng/L		76	70 - 130
Perfluorotridecanoic acid (PFTrDA)	50.2	49.3		ng/L		98	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	50.2	49.3		ng/L		98	70 - 130
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	50.2	49.1		ng/L		98	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	50.2	47.8		ng/L		95	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
d5-NEtFOSAA	101		70 - 130
13C2 PFHxA	110		70 - 130
13C2 PFDA	105		70 - 130
13C3-GenX	99		70 - 130

QC Sample Results

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

Job ID: 380-216854-1
SDG: PFAS: Moanalua Wells

Method: EPA 537.1 V2 - EPA 537.1 Ver. 2.0 March 2020 (Continued)

Lab Sample ID: MRL 380-230775/20-A
Matrix: Water
Analysis Batch: 231111

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 230775

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.01	1.83	J	ng/L		91	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.01	2.03	J	ng/L		101	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.01	2.17	J	ng/L		108	50 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.01	2.07	J	ng/L		103	50 - 150
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.01	2.32	J	ng/L		116	50 - 150
Perfluorohexanoic acid (PFHxA)	2.01	2.05	J	ng/L		102	50 - 150
Perfluorododecanoic acid (PFDoA)	2.01	2.17	J	ng/L		108	50 - 150
Perfluorooctanoic acid (PFOA)	2.01	2.19	J	ng/L		109	50 - 150
Perfluorodecanoic acid (PFDA)	2.01	2.15	J	ng/L		107	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.01	2.16	J	ng/L		108	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.01	2.06	J	ng/L		102	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.01	2.22	J	ng/L		111	50 - 150
Perfluorononanoic acid (PFNA)	2.01	2.25	J	ng/L		112	50 - 150
Perfluorotetradecanoic acid (PFTA)	2.01	1.78	J	ng/L		89	50 - 150
Perfluorotridecanoic acid (PFTrDA)	2.01	2.16	J	ng/L		107	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	2.01	1.95	J	ng/L		97	50 - 150
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.01	1.90	J	ng/L		95	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.01	2.07	J	ng/L		103	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	Limits
d5-NEtFOSAA	107		70 - 130
13C2 PFHxA	111		70 - 130
13C2 PFDA	110		70 - 130
13C3-GenX	105		70 - 130

Lab Sample ID: 380-216853-B-1-A MS
Matrix: Water
Analysis Batch: 231111

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 230775

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		25.1	26.3		ng/L		105	70 - 130
Perfluorooctanesulfonic acid (PFOS)	<2.0		25.1	28.1		ng/L		112	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		25.1	28.0		ng/L		112	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		25.1	27.1		ng/L		108	70 - 130

Eurofins Pomona

QC Association Summary

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

Job ID: 380-216854-1
 SDG: PFAS: Moanalua Wells

LCMS

Prep Batch: 230775

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-216854-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	537.1 DW	
380-216854-2	FB: MOANALUA WELLS (331-223-TP202)	Total/NA	Water	537.1 DW	
MBL 380-230775/19-A	Method Blank	Total/NA	Water	537.1 DW	
LCS 380-230775/21-A	Lab Control Sample	Total/NA	Water	537.1 DW	
MRL 380-230775/20-A	Lab Control Sample	Total/NA	Water	537.1 DW	
380-216853-B-1-A MS	Matrix Spike	Total/NA	Water	537.1 DW	
380-216853-C-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	537.1 DW	

Analysis Batch: 231111

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-216854-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	EPA 537.1 V2	230775
380-216854-2	FB: MOANALUA WELLS (331-223-TP202)	Total/NA	Water	EPA 537.1 V2	230775
MBL 380-230775/19-A	Method Blank	Total/NA	Water	EPA 537.1 V2	230775
LCS 380-230775/21-A	Lab Control Sample	Total/NA	Water	EPA 537.1 V2	230775
MRL 380-230775/20-A	Lab Control Sample	Total/NA	Water	EPA 537.1 V2	230775
380-216853-B-1-A MS	Matrix Spike	Total/NA	Water	EPA 537.1 V2	230775
380-216853-C-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	EPA 537.1 V2	230775

Prep Batch: 231395

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-216854-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	533	
380-216854-2	FB: MOANALUA WELLS (331-223-TP202)	Total/NA	Water	533	
MBL 380-231395/20-A	Method Blank	Total/NA	Water	533	
LCS 380-231395/22-A	Lab Control Sample	Total/NA	Water	533	
MRL 380-231395/21-A	Lab Control Sample	Total/NA	Water	533	
380-216792-B-7-A MS	Matrix Spike	Total/NA	Water	533	
380-216792-C-7-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	

Analysis Batch: 231609

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-216854-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	533	231395
380-216854-2	FB: MOANALUA WELLS (331-223-TP202)	Total/NA	Water	533	231395
MBL 380-231395/20-A	Method Blank	Total/NA	Water	533	231395
LCS 380-231395/22-A	Lab Control Sample	Total/NA	Water	533	231395
MRL 380-231395/21-A	Lab Control Sample	Total/NA	Water	533	231395
380-216792-B-7-A MS	Matrix Spike	Total/NA	Water	533	231395
380-216792-C-7-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	231395

Lab Chronicle

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

Job ID: 380-216854-1
 SDG: PFAS: Moanalua Wells

Client Sample ID: MOANALUA WELLS (331-223-TP202)

Lab Sample ID: 380-216854-1

Date Collected: 05/26/26 10:03

Matrix: Drinking Water

Date Received: 05/29/26 10:03

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			231395	E2HD	EA POM	06/03/26 15:53
Total/NA	Analysis	533		1	231609	SZ9R	EA POM	06/04/26 10:46
Total/NA	Prep	537.1 DW			230775	LM3A	EA POM	06/01/26 14:45
Total/NA	Analysis	EPA 537.1 V2		1	231111	SZ9R	EA POM	06/02/26 21:54

Client Sample ID: FB: MOANALUA WELLS (331-223-TP202)

Lab Sample ID: 380-216854-2

Date Collected: 05/26/26 10:03

Matrix: Water

Date Received: 05/29/26 10:03

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			231395	E2HD	EA POM	06/03/26 15:53
Total/NA	Analysis	533		1	231609	SZ9R	EA POM	06/04/26 10:56
Total/NA	Prep	537.1 DW			230775	LM3A	EA POM	06/01/26 14:45
Total/NA	Analysis	EPA 537.1 V2		1	231111	SZ9R	EA POM	06/02/26 22:15

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: 380-216854-1
SDG: PFAS: Moanalua Wells

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 *

- 1
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- 17

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

Method Summary

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

Job ID: 380-216854-1
SDG: PFAS: Moanalua Wells

Method	Method Description	Protocol	Laboratory
533	Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water	EPA	EA POM
EPA 537.1 V2	EPA 537.1 Ver. 2.0 March 2020	EPA	EA POM
533	Extraction of Perfluorinated and Polyfluorinated Alkyl Acids	EPA	EA POM
537.1 DW	Extraction of Perfluorinated 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: 380-216854-1
SDG: PFAS: Moanalua Wells

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	PWSID Number
380-216854-1	MOANALUA WELLS (331-223-TP202)	Drinking Water	05/26/26 10:03	05/29/26 10:03	HI0000331
380-216854-2	FB: MOANALUA WELLS (331-223-TP202)	Water	05/26/26 10:03	05/29/26 10:03	HI0000331

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Chain of Custody Record



Enviro
Americ



380-216854 COC

Client Information		Sampler: bailey		Lab PM: Lopez, Maria		Carrier Tracking No(s):		COC No:					
Client Contact: kirk lwamoto		Phone: +1 808 748 5840		E-Mail: Maria.Lopez@ef.eurofins.com		State of Origin:		Page: Page 1 of 1					
Company: City & County of Honolulu		PWSID:		Analysis Requested						Job #:			
Address: 630 South Beretania Street, Chemistry Lab		Due Date Requested:		Field Filled Sample (Yes or No) Perform MS/MS (Yes or No) SUBCONTRACT - 628 PAH Physals LL (EAL) + TICs 80158_ORO_LL - (MOD) GRO 80158_DRO_LL_CS - HHL Ranges: C10-C24/C24-C36/C6-C18 828.2_PREC - (MOD) 825plus PLUS TICs 837.1_DW_PREC - 837.1 Full List 833 - All Analytes						Preservation Codes:			
City: Honolulu		TAT Requested (days):								M - Hexane		N - None	
State, Zip: HI, 96843		Compliance Project: Δ No								O - AsNaO2		P - Na2O4S	
Phone: 808-748-5840 (tel)		PO #: C20525101 exp 05312023								Q - Na2SO3		R - Na2S2O3	
Email: kiwamoto@hbws.org		WO #:								S - H2SO4		T - TSP Dodecahydrate	
Project Name: RED-HILL/HBWS sites Event Desc: RUSH Weekly Red Hill		Project #: 38001111		U - Acetone		V - MCAA		W - pH 4-5					
Site:		SSOW#:		Y - Trizma		Z - other (specify)		Other:					
Sample Identification		Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=organic)		Total Number of containers			
										Special Instructions/Note:			
Moanalua Wells (331-223-TP202)		26-May-2026		0953		G		Water		chlorinated			
FB: Moanalua Wells (331-223-TP202)		26-May-2026		0953						1 1			
Possible Hazard Identification										Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)			
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological										<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months			
Deliverable Requested: I, II, III, IV, Other (specify)										Special Instructions/QC Requirements:			
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment: FedX: 8723 0637 5555							
Relinquished by:		Date/Time: 27MAY2026 1400		Company: HBWS		Received by: [Signature]		Date/Time: 5/29/26 1003		Company: EEAF			
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: (631A) 4.6 + 0.0 4.6 761-110367									

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-216854-1
SDG Number: PFAS: Moanalua Wells

Login Number: 216854

List Number: 1

Creator: Avila, Ivan

List Source: Eurofins Pomona

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

