

1
2
3
4
5
6
7
8
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11
12
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14
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16
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ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Erwin Kawata
City & County of Honolulu
630 South Beretania Street
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Honolulu, Hawaii 96843

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JOB DESCRIPTION

RED-HILL
PFAS: Aiea Gulch Wells Pump 2

JOB NUMBER

380-209877-1

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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Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Detection Summary	6
Client Sample Results	7
Action Limit Summary	11
Surrogate Summary	12
Isotope Dilution Summary	13
QC Sample Results	15
QC Association Summary	26
Lab Chronicle	27
Certification Summary	28
Method Summary	29
Sample Summary	30
Chain of Custody	31
Receipt Checklists	32

Definitions/Glossary

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

Job ID: 380-209877-1
SDG: PFAS: Aiea Gulch Wells Pump 2

Qualifiers

LCMS

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
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: 380-209877-1

Job ID: 380-209877-1

Eurofins Pomona

Job Narrative 380-209877-1

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 4/22/2026 10:22 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 3.7°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: 380-209877-1
SDG: PFAS: Aiea Gulch Wells Pump 2

**Client Sample ID: AIEA GULCH WELLS PUMP 2
(331-202-TP072)**

Lab Sample ID: 380-209877-1

No Detections.

**Client Sample ID: FB: AIEA GULCH WELLS PUMP 2
(331-202-TP072)**

Lab Sample ID: 380-209877-2

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: 380-209877-1
SDG: PFAS: Aiea Gulch Wells Pump 2

**Client Sample ID: AIEA GULCH WELLS PUMP 2
(331-202-TP072)**

Lab Sample ID: 380-209877-1

Date Collected: 04/20/26 11:42

Matrix: Drinking Water

Date Received: 04/22/26 10:22

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		04/26/26 14:57	04/27/26 11:53	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		04/26/26 14:57	04/27/26 11:53	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		04/26/26 14:57	04/27/26 11:53	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		04/26/26 14:57	04/27/26 11:53	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		04/26/26 14:57	04/27/26 11:53	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		04/26/26 14:57	04/27/26 11:53	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		04/26/26 14:57	04/27/26 11:53	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		04/26/26 14:57	04/27/26 11:53	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		04/26/26 14:57	04/27/26 11:53	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		04/26/26 14:57	04/27/26 11:53	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		04/26/26 14:57	04/27/26 11:53	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		04/26/26 14:57	04/27/26 11:53	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		04/26/26 14:57	04/27/26 11:53	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		04/26/26 14:57	04/27/26 11:53	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		04/26/26 14:57	04/27/26 11:53	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		04/26/26 14:57	04/27/26 11:53	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		04/26/26 14:57	04/27/26 11:53	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		04/26/26 14:57	04/27/26 11:53	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		04/26/26 14:57	04/27/26 11:53	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		04/26/26 14:57	04/27/26 11:53	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		04/26/26 14:57	04/27/26 11:53	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		04/26/26 14:57	04/27/26 11:53	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		04/26/26 14:57	04/27/26 11:53	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		04/26/26 14:57	04/27/26 11:53	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		04/26/26 14:57	04/27/26 11:53	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	100		50 - 200	04/26/26 14:57	04/27/26 11:53	1
13C6 PFDA	105		50 - 200	04/26/26 14:57	04/27/26 11:53	1
13C5 PFHxA	98		50 - 200	04/26/26 14:57	04/27/26 11:53	1
13C4 PFHpA	106		50 - 200	04/26/26 14:57	04/27/26 11:53	1
13C8 PFOA	106		50 - 200	04/26/26 14:57	04/27/26 11:53	1
13C9 PFNA	108		50 - 200	04/26/26 14:57	04/27/26 11:53	1
13C7 PFUnA	104		50 - 200	04/26/26 14:57	04/27/26 11:53	1
13C2 PFDoA	103		50 - 200	04/26/26 14:57	04/27/26 11:53	1
13C4 PFBA	107		50 - 200	04/26/26 14:57	04/27/26 11:53	1
13C5 PFPeA	107		50 - 200	04/26/26 14:57	04/27/26 11:53	1
13C3 PFBS	97		50 - 200	04/26/26 14:57	04/27/26 11:53	1
13C3 PFHxS	106		50 - 200	04/26/26 14:57	04/27/26 11:53	1

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Client Sample Results

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

Job ID: 380-209877-1
SDG: PFAS: Aiea Gulch Wells Pump 2

**Client Sample ID: AIEA GULCH WELLS PUMP 2
(331-202-TP072)**

Lab Sample ID: 380-209877-1

Date Collected: 04/20/26 11:42

Matrix: Drinking Water

Date Received: 04/22/26 10:22

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 PFOS	105		50 - 200	04/26/26 14:57	04/27/26 11:53	1
13C2-4:2-FTS	107		50 - 200	04/26/26 14:57	04/27/26 11:53	1
13C2-6:2-FTS	105		50 - 200	04/26/26 14:57	04/27/26 11:53	1
13C2-8:2-FTS	104		50 - 200	04/26/26 14:57	04/27/26 11:53	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		04/24/26 01:00	04/24/26 13:10	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		04/24/26 01:00	04/24/26 13:10	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		04/24/26 01:00	04/24/26 13:10	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		04/24/26 01:00	04/24/26 13:10	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		04/24/26 01:00	04/24/26 13:10	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		04/24/26 01:00	04/24/26 13:10	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		04/24/26 01:00	04/24/26 13:10	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		04/24/26 01:00	04/24/26 13:10	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		04/24/26 01:00	04/24/26 13:10	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		04/24/26 01:00	04/24/26 13:10	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		04/24/26 01:00	04/24/26 13:10	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		04/24/26 01:00	04/24/26 13:10	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		04/24/26 01:00	04/24/26 13:10	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		04/24/26 01:00	04/24/26 13:10	1
Perfluorotridecanoic acid (PFTTrDA)	<2.0		2.0	ng/L		04/24/26 01:00	04/24/26 13:10	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		04/24/26 01:00	04/24/26 13:10	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		04/24/26 01:00	04/24/26 13:10	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		04/24/26 01:00	04/24/26 13:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	117		70 - 130	04/24/26 01:00	04/24/26 13:10	1
13C2 PFHxA	100		70 - 130	04/24/26 01:00	04/24/26 13:10	1
13C2 PFDA	106		70 - 130	04/24/26 01:00	04/24/26 13:10	1
13C3-GenX	95		70 - 130	04/24/26 01:00	04/24/26 13:10	1

**Client Sample ID: FB: AIEA GULCH WELLS PUMP 2
(331-202-TP072)**

Lab Sample ID: 380-209877-2

Date Collected: 04/20/26 11:42

Matrix: Water

Date Received: 04/22/26 10:22

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		04/26/26 14:57	04/27/26 12:02	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		04/26/26 14:57	04/27/26 12:02	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		04/26/26 14:57	04/27/26 12:02	1

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Client Sample Results

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

Job ID: 380-209877-1
SDG: PFAS: Aiea Gulch Wells Pump 2

**Client Sample ID: FB: AIEA GULCH WELLS PUMP 2
(331-202-TP072)**

Lab Sample ID: 380-209877-2

Date Collected: 04/20/26 11:42

Matrix: Water

Date Received: 04/22/26 10:22

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		04/26/26 14:57	04/27/26 12:02	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		04/26/26 14:57	04/27/26 12:02	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		04/26/26 14:57	04/27/26 12:02	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		04/26/26 14:57	04/27/26 12:02	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		04/26/26 14:57	04/27/26 12:02	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		04/26/26 14:57	04/27/26 12:02	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		04/26/26 14:57	04/27/26 12:02	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		04/26/26 14:57	04/27/26 12:02	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		04/26/26 14:57	04/27/26 12:02	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		04/26/26 14:57	04/27/26 12:02	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		04/26/26 14:57	04/27/26 12:02	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		04/26/26 14:57	04/27/26 12:02	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		04/26/26 14:57	04/27/26 12:02	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		04/26/26 14:57	04/27/26 12:02	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		04/26/26 14:57	04/27/26 12:02	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		04/26/26 14:57	04/27/26 12:02	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		2.0	ng/L		04/26/26 14:57	04/27/26 12:02	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		04/26/26 14:57	04/27/26 12:02	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		04/26/26 14:57	04/27/26 12:02	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		04/26/26 14:57	04/27/26 12:02	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		04/26/26 14:57	04/27/26 12:02	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		04/26/26 14:57	04/27/26 12:02	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	102		50 - 200	04/26/26 14:57	04/27/26 12:02	1
13C6 PFDA	107		50 - 200	04/26/26 14:57	04/27/26 12:02	1
13C5 PFHxA	104		50 - 200	04/26/26 14:57	04/27/26 12:02	1
13C4 PFHpA	106		50 - 200	04/26/26 14:57	04/27/26 12:02	1
13C8 PFOA	112		50 - 200	04/26/26 14:57	04/27/26 12:02	1
13C9 PFNA	114		50 - 200	04/26/26 14:57	04/27/26 12:02	1
13C7 PFUnA	107		50 - 200	04/26/26 14:57	04/27/26 12:02	1
13C2 PFDoA	113		50 - 200	04/26/26 14:57	04/27/26 12:02	1
13C4 PFBA	104		50 - 200	04/26/26 14:57	04/27/26 12:02	1
13C5 PFPeA	101		50 - 200	04/26/26 14:57	04/27/26 12:02	1
13C3 PFBS	104		50 - 200	04/26/26 14:57	04/27/26 12:02	1
13C3 PFHxS	107		50 - 200	04/26/26 14:57	04/27/26 12:02	1
13C8 PFOS	109		50 - 200	04/26/26 14:57	04/27/26 12:02	1
13C2-4:2-FTS	107		50 - 200	04/26/26 14:57	04/27/26 12:02	1
13C2-6:2-FTS	108		50 - 200	04/26/26 14:57	04/27/26 12:02	1
13C2-8:2-FTS	109		50 - 200	04/26/26 14:57	04/27/26 12:02	1

Client Sample Results

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

Job ID: 380-209877-1
SDG: PFAS: Aiea Gulch Wells Pump 2

**Client Sample ID: FB: AIEA GULCH WELLS PUMP 2
(331-202-TP072)**

Lab Sample ID: 380-209877-2

Date Collected: 04/20/26 11:42

Matrix: Water

Date Received: 04/22/26 10:22

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		04/24/26 01:00	04/24/26 13:20	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		04/24/26 01:00	04/24/26 13:20	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		04/24/26 01:00	04/24/26 13:20	1
N-methylperfluorooctanesulfonamide cetic acid (NMeFOSAA)	<2.0		2.0	ng/L		04/24/26 01:00	04/24/26 13:20	1
N-ethylperfluorooctanesulfonamide cetic acid (NEtFOSAA)	<2.0		2.0	ng/L		04/24/26 01:00	04/24/26 13:20	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		04/24/26 01:00	04/24/26 13:20	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		04/24/26 01:00	04/24/26 13:20	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		04/24/26 01:00	04/24/26 13:20	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		04/24/26 01:00	04/24/26 13:20	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		04/24/26 01:00	04/24/26 13:20	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		04/24/26 01:00	04/24/26 13:20	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		04/24/26 01:00	04/24/26 13:20	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		04/24/26 01:00	04/24/26 13:20	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		04/24/26 01:00	04/24/26 13:20	1
Perfluorotridecanoic acid (PFTTrDA)	<2.0		2.0	ng/L		04/24/26 01:00	04/24/26 13:20	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		04/24/26 01:00	04/24/26 13:20	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		04/24/26 01:00	04/24/26 13:20	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		04/24/26 01:00	04/24/26 13:20	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	109		70 - 130			04/24/26 01:00	04/24/26 13:20	1
13C2 PFHxA	107		70 - 130			04/24/26 01:00	04/24/26 13:20	1
13C2 PFDA	105		70 - 130			04/24/26 01:00	04/24/26 13:20	1
13C3-GenX	100		70 - 130			04/24/26 01:00	04/24/26 13:20	1

Action Limit Summary

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

Job ID: 380-209877-1
SDG: PFAS: Aiea Gulch Wells Pump 2

**Client Sample ID: AIEA GULCH WELLS PUMP 2
(331-202-TP072)**

Lab Sample ID: 380-209877-1

Compliance Check

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

Analyte	Result	Qualifier	Unit	EPAMCL	RL	Method	Prep Type
				Limit			
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: AIEA GULCH WELLS PUMP 2
(331-202-TP072)**

Lab Sample ID: 380-209877-2

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	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: 380-209877-1
 SDG: PFAS: Aiea Gulch Wells Pump 2

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)
380-209877-1	AIEA GULCH WELLS PUMP 2 (331	117	100	106	95

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)
380-209870-E-1-A MS	Matrix Spike	104	101	104	98
380-209870-F-1-A MSD	Matrix Spike Duplicate	95	72	95	72
380-209877-2	FB: AIEA GULCH WELLS PUMP 2 (331-202-TP072)	109	107	105	100
LCS 380-222322/21-A	Lab Control Sample	98	101	100	94
MBL 380-222322/19-A	Method Blank	108	114	110	100
MRL 380-222322/20-A	Lab Control Sample	107	112	113	108

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: 380-209877-1
SDG: PFAS: Aiea Gulch Wells Pump 2

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)
380-209877-1	AIEA GULCH WELLS PUMP 2 (331	10	105	98	106	106	108	104	103

		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)
380-209877-1	AIEA GULCH WELLS PUMP 2 (331	107	107	97	106	105	107	105	104

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

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)
380-209837-B-1-A MS	Matrix Spike	104	106	100	101	108	108	106	105
380-209837-C-1-A MSD	Matrix Spike Duplicate	105	106	101	101	105	109	106	106
380-209877-2	FB: AIEA GULCH WELLS PUMP 2 (331-202-TP072)	102	107	104	106	112	114	107	113
LCS 380-222970/22-A	Lab Control Sample	99	106	99	102	104	102	104	106
MBL 380-222970/20-A	Method Blank	103	111	104	106	111	112	107	111
MRL 380-222970/21-A	Lab Control Sample	97	102	98	104	101	108	102	101

		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)
380-209837-B-1-A MS	Matrix Spike	103	99	105	103	107	91	100	98
380-209837-C-1-A MSD	Matrix Spike Duplicate	106	102	98	102	102	92	95	94
380-209877-2	FB: AIEA GULCH WELLS PUMP 2 (331-202-TP072)	104	101	104	107	109	107	108	109
LCS 380-222970/22-A	Lab Control Sample	103	102	100	102	103	100	98	93
MBL 380-222970/20-A	Method Blank	110	102	107	109	109	109	101	104
MRL 380-222970/21-A	Lab Control Sample	107	108	100	107	109	102	103	99

Surrogate Legend

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

Isotope Dilution Summary

Client: City & County of Honolulu

Project/Site: RED-HILL

Job ID: 380-209877-1
SDG: PFAS: Aiea Gulch Wells Pump 2

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

- 1
- 2
- 3
- 4
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- 17

QC Sample Results

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

Job ID: 380-209877-1
SDG: PFAS: Aiea Gulch Wells Pump 2

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

Lab Sample ID: MBL 380-222970/20-A
Matrix: Water
Analysis Batch: 223146

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 222970

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<0.30		2.0	ng/L		04/26/26 14:57	04/27/26 08:43	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		04/26/26 14:57	04/27/26 08:43	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		04/26/26 14:57	04/27/26 08:43	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<1.0		2.0	ng/L		04/26/26 14:57	04/27/26 08:43	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		04/26/26 14:57	04/27/26 08:43	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		04/26/26 14:57	04/27/26 08:43	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		04/26/26 14:57	04/27/26 08:43	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		04/26/26 14:57	04/27/26 08:43	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		04/26/26 14:57	04/27/26 08:43	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		04/26/26 14:57	04/27/26 08:43	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		04/26/26 14:57	04/27/26 08:43	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		04/26/26 14:57	04/27/26 08:43	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		04/26/26 14:57	04/27/26 08:43	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		04/26/26 14:57	04/27/26 08:43	1
Perfluorobutanoic acid (PFBA)	<0.69		2.0	ng/L		04/26/26 14:57	04/27/26 08:43	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<0.38		2.0	ng/L		04/26/26 14:57	04/27/26 08:43	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<0.37		2.0	ng/L		04/26/26 14:57	04/27/26 08:43	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<0.48		2.0	ng/L		04/26/26 14:57	04/27/26 08:43	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<0.47		2.0	ng/L		04/26/26 14:57	04/27/26 08:43	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<0.25		2.0	ng/L		04/26/26 14:57	04/27/26 08:43	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<0.46		2.0	ng/L		04/26/26 14:57	04/27/26 08:43	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<0.15		2.0	ng/L		04/26/26 14:57	04/27/26 08:43	1
Perfluoropentanoic acid (PFPeA)	<0.38		2.0	ng/L		04/26/26 14:57	04/27/26 08:43	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.36		2.0	ng/L		04/26/26 14:57	04/27/26 08:43	1
Perfluoropentanesulfonic acid (PFPeS)	<0.39		2.0	ng/L		04/26/26 14:57	04/27/26 08:43	1

Isotope Dilution	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	103		50 - 200	04/26/26 14:57	04/27/26 08:43	1
13C6 PFDA	111		50 - 200	04/26/26 14:57	04/27/26 08:43	1
13C5 PFHxA	104		50 - 200	04/26/26 14:57	04/27/26 08:43	1
13C4 PFHpA	106		50 - 200	04/26/26 14:57	04/27/26 08:43	1
13C8 PFOA	111		50 - 200	04/26/26 14:57	04/27/26 08:43	1
13C9 PFNA	112		50 - 200	04/26/26 14:57	04/27/26 08:43	1
13C7 PFUnA	107		50 - 200	04/26/26 14:57	04/27/26 08:43	1
13C2 PFDoA	111		50 - 200	04/26/26 14:57	04/27/26 08:43	1
13C4 PFBA	110		50 - 200	04/26/26 14:57	04/27/26 08:43	1
13C5 PFPeA	102		50 - 200	04/26/26 14:57	04/27/26 08:43	1
13C3 PFBS	107		50 - 200	04/26/26 14:57	04/27/26 08:43	1
13C3 PFHxS	109		50 - 200	04/26/26 14:57	04/27/26 08:43	1

Eurofins Pomona

QC Sample Results

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

Job ID: 380-209877-1
SDG: PFAS: Aiea Gulch Wells Pump 2

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

Lab Sample ID: MBL 380-222970/20-A
Matrix: Water
Analysis Batch: 223146

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 222970

Isotope Dilution	MBL MBL		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
13C8 PFOS	109		50 - 200	04/26/26 14:57	04/27/26 08:43	1
13C2-4:2-FTS	109		50 - 200	04/26/26 14:57	04/27/26 08:43	1
13C2-6:2-FTS	101		50 - 200	04/26/26 14:57	04/27/26 08:43	1
13C2-8:2-FTS	104		50 - 200	04/26/26 14:57	04/27/26 08:43	1

Lab Sample ID: LCS 380-222970/22-A
Matrix: Water
Analysis Batch: 223146

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 222970

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	60.0	58.1		ng/L		97	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	60.0	61.1		ng/L		102	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	60.0	61.0		ng/L		102	70 - 130
Perfluorobutanesulfonic acid (PFBS)	60.0	58.8		ng/L		98	70 - 130
Perfluorodecanoic acid (PFDA)	60.0	57.8		ng/L		96	70 - 130
Perfluorododecanoic acid (PFDoA)	60.0	61.6		ng/L		103	70 - 130
Perfluoroheptanoic acid (PFHpA)	60.0	59.5		ng/L		99	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	60.0	60.2		ng/L		100	70 - 130
Perfluorohexanoic acid (PFHxA)	60.0	64.2		ng/L		107	70 - 130
Perfluorononanoic acid (PFNA)	60.0	64.5		ng/L		108	70 - 130
Perfluorooctanesulfonic acid (PFOS)	60.0	61.3		ng/L		102	70 - 130
Perfluorooctanoic acid (PFOA)	60.0	61.9		ng/L		103	70 - 130
Perfluoroundecanoic acid (PFUnA)	60.0	61.1		ng/L		102	70 - 130
Perfluorobutanoic acid (PFBA)	60.0	62.4		ng/L		104	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	60.0	65.3		ng/L		109	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	60.0	61.6		ng/L		103	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	60.0	60.2		ng/L		100	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	60.0	58.7		ng/L		98	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	60.0	60.7		ng/L		101	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	60.0	62.3		ng/L		104	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	60.0	61.0		ng/L		102	70 - 130
Perfluoropentanoic acid (PFPeA)	60.0	63.8		ng/L		106	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	60.0	60.8		ng/L		101	70 - 130

QC Sample Results

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

Job ID: 380-209877-1
SDG: PFAS: Aiea Gulch Wells Pump 2

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

Lab Sample ID: LCS 380-222970/22-A
Matrix: Water
Analysis Batch: 223146

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 222970

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoropentanesulfonic acid (PFPeS)	60.0	58.8		ng/L		98	70 - 130
LCS LCS							
Isotope Dilution	%Recovery	Qualifier	Limits				
13C3 HFPO-DA	99		50 - 200				
13C6 PFDA	106		50 - 200				
13C5 PFHxA	99		50 - 200				
13C4 PFHpA	102		50 - 200				
13C8 PFOA	104		50 - 200				
13C9 PFNA	102		50 - 200				
13C7 PFUnA	104		50 - 200				
13C2 PFDoA	106		50 - 200				
13C4 PFBA	103		50 - 200				
13C5 PFPeA	102		50 - 200				
13C3 PFBS	100		50 - 200				
13C3 PFHxS	102		50 - 200				
13C8 PFOS	103		50 - 200				
13C2-4:2-FTS	100		50 - 200				
13C2-6:2-FTS	98		50 - 200				
13C2-8:2-FTS	93		50 - 200				

Lab Sample ID: MRL 380-222970/21-A
Matrix: Water
Analysis Batch: 223146

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 222970

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.00	2.13	J	ng/L		106	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	2.00	2.12	J	ng/L		106	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.00	2.15	J	ng/L		107	50 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.00	2.26	J	ng/L		113	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.00	2.24	J	ng/L		112	50 - 150
Perfluorodecanoic acid (PFDA)	2.00	2.25	J	ng/L		112	50 - 150
Perfluorododecanoic acid (PFDoA)	2.00	2.41	J	ng/L		120	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.00	2.26	J	ng/L		113	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.00	2.17	J	ng/L		108	50 - 150
Perfluorohexanoic acid (PFHxA)	2.00	2.33	J	ng/L		116	50 - 150
Perfluorononanoic acid (PFNA)	2.00	2.31	J	ng/L		115	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.00	2.25	J	ng/L		112	50 - 150
Perfluorooctanoic acid (PFOA)	2.00	2.32	J	ng/L		116	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.00	2.30	J	ng/L		115	50 - 150
Perfluorobutanoic acid (PFBA)	2.00	2.39	J	ng/L		119	50 - 150

Eurofins Pomona

QC Sample Results

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

Job ID: 380-209877-1
SDG: PFAS: Aiea Gulch Wells Pump 2

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

Lab Sample ID: MRL 380-222970/21-A
Matrix: Water
Analysis Batch: 223146

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 222970

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	2.00	2.43	J	ng/L		121	50 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	2.00	2.46	J	ng/L		123	50 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	2.00	2.57	J	ng/L		128	50 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	2.00	2.02	J	ng/L		101	50 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	2.00	2.17	J	ng/L		108	50 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	2.00	2.14	J	ng/L		107	50 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.00	2.03	J	ng/L		101	50 - 150
Perfluoropentanoic acid (PFPeA)	2.00	2.32	J	ng/L		116	50 - 150
Perfluoroheptanesulfonic acid (PFHpS)	2.00	2.17	J	ng/L		108	50 - 150
Perfluoropentanesulfonic acid (PFPeS)	2.00	2.07	J	ng/L		103	50 - 150

Isotope Dilution	MRL %Recovery	MRL Qualifier	MRL Limits
13C3 HFPO-DA	97		50 - 200
13C6 PFDA	102		50 - 200
13C5 PFHxA	98		50 - 200
13C4 PFHpA	104		50 - 200
13C8 PFOA	101		50 - 200
13C9 PFNA	108		50 - 200
13C7 PFUnA	102		50 - 200
13C2 PFDoA	101		50 - 200
13C4 PFBA	107		50 - 200
13C5 PFPeA	108		50 - 200
13C3 PFBS	100		50 - 200
13C3 PFHxS	107		50 - 200
13C8 PFOS	109		50 - 200
13C2-4:2-FTS	102		50 - 200
13C2-6:2-FTS	103		50 - 200
13C2-8:2-FTS	99		50 - 200

Lab Sample ID: 380-209837-B-1-A MS
Matrix: Water
Analysis Batch: 223146

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 222970

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		120	113		ng/L		94	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		120	114		ng/L		94	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		120	128		ng/L		106	70 - 130

QC Sample Results

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

Job ID: 380-209877-1
SDG: PFAS: Aiea Gulch Wells Pump 2

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

Lab Sample ID: 380-209837-B-1-A MS

Client Sample ID: Matrix Spike

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 223146

Prep Batch: 222970

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec Limits
	Result	Qualifier	Added	Result	Qualifier				
Hexafluoropropylene Oxide	<2.0		120	125		ng/L		104	70 - 130
Dimer Acid (HFPO-DA/GenX)									
Perfluorobutanesulfonic acid (PFBS)	<2.0		120	117		ng/L		97	70 - 130
Perfluorodecanoic acid (PFDA)	<2.0		120	115		ng/L		95	70 - 130
Perfluorododecanoic acid (PFDoA)	<2.0		120	125		ng/L		104	70 - 130
Perfluoroheptanoic acid (PFHpA)	<2.0		120	123		ng/L		102	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	<2.0		120	118		ng/L		98	70 - 130
Perfluorohexanoic acid (PFHxA)	<2.0		120	128		ng/L		106	70 - 130
Perfluorononanoic acid (PFNA)	<2.0		120	122		ng/L		101	70 - 130
Perfluorooctanesulfonic acid (PFOS)	<2.0		120	119		ng/L		98	70 - 130
Perfluorooctanoic acid (PFOA)	<2.0		120	118		ng/L		98	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		120	119		ng/L		99	70 - 130
Perfluorobutanoic acid (PFBA)	<2.0		120	119		ng/L		99	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		120	118		ng/L		98	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		120	126		ng/L		105	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		120	118		ng/L		98	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		120	115		ng/L		96	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		120	117		ng/L		97	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		120	118		ng/L		98	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		120	128		ng/L		107	70 - 130
Perfluoropentanoic acid (PFPeA)	<2.0		120	124		ng/L		102	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		120	117		ng/L		97	70 - 130
Perfluoropentanesulfonic acid (PFPeS)	<2.0		120	119		ng/L		99	70 - 130

Isotope Dilution	MS MS		Limits
	%Recovery	Qualifier	
13C3 HFPO-DA	104		50 - 200
13C6 PFDA	106		50 - 200
13C5 PFHxA	100		50 - 200
13C4 PFHpA	101		50 - 200
13C8 PFOA	108		50 - 200
13C9 PFNA	108		50 - 200
13C7 PFUnA	106		50 - 200
13C2 PFDoA	105		50 - 200
13C4 PFBA	103		50 - 200
13C5 PFPeA	99		50 - 200
13C3 PFBS	105		50 - 200
13C3 PFHxS	103		50 - 200
13C8 PFOS	107		50 - 200

QC Sample Results

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

Job ID: 380-209877-1
SDG: PFAS: Aiea Gulch Wells Pump 2

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

Lab Sample ID: 380-209837-B-1-A MS
Matrix: Water
Analysis Batch: 223146

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 222970

<i>Isotope Dilution</i>	<i>MS MS</i> %Recovery	<i>MS MS</i> Qualifier	<i>Limits</i>
13C2-4:2-FTS	91		50 - 200
13C2-6:2-FTS	100		50 - 200
13C2-8:2-FTS	98		50 - 200

Lab Sample ID: 380-209837-C-1-A MSD
Matrix: Water
Analysis Batch: 223146

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 222970

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		120	117		ng/L		97	70 - 130	4	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		120	115		ng/L		95	70 - 130	1	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		120	128		ng/L		106	70 - 130	0	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		120	123		ng/L		102	70 - 130	1	30
Perfluorobutanesulfonic acid (PFBS)	<2.0		120	128		ng/L		106	70 - 130	9	30
Perfluorodecanoic acid (PFDA)	<2.0		120	117		ng/L		97	70 - 130	2	30
Perfluorododecanoic acid (PFDoA)	<2.0		120	124		ng/L		103	70 - 130	0	30
Perfluoroheptanoic acid (PFHpA)	<2.0		120	126		ng/L		104	70 - 130	2	30
Perfluorohexanesulfonic acid (PFHxS)	<2.0		120	116		ng/L		97	70 - 130	1	30
Perfluorohexanoic acid (PFHxA)	<2.0		120	123		ng/L		102	70 - 130	4	30
Perfluorononanoic acid (PFNA)	<2.0		120	121		ng/L		100	70 - 130	1	30
Perfluorooctanesulfonic acid (PFOS)	<2.0		120	121		ng/L		101	70 - 130	2	30
Perfluorooctanoic acid (PFOA)	<2.0		120	121		ng/L		101	70 - 130	3	30
Perfluoroundecanoic acid (PFUnA)	<2.0		120	124		ng/L		103	70 - 130	4	30
Perfluorobutanoic acid (PFBA)	<2.0		120	120		ng/L		100	70 - 130	1	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		120	121		ng/L		101	70 - 130	2	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		120	127		ng/L		105	70 - 130	1	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		120	122		ng/L		101	70 - 130	3	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		120	119		ng/L		99	70 - 130	3	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		120	120		ng/L		99	70 - 130	3	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		120	118		ng/L		98	70 - 130	1	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		120	124		ng/L		103	70 - 130	3	30
Perfluoropentanoic acid (PFPeA)	<2.0		120	120		ng/L		99	70 - 130	3	30
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		120	120		ng/L		100	70 - 130	2	30
Perfluoropentanesulfonic acid (PFPeS)	<2.0		120	115		ng/L		96	70 - 130	4	30

QC Sample Results

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

Job ID: 380-209877-1
SDG: PFAS: Aiea Gulch Wells Pump 2

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

Isotope Dilution	MSD MSD		Limits
	%Recovery	Qualifier	
13C3 HFPO-DA	105		50 - 200
13C6 PFDA	106		50 - 200
13C5 PFHxA	101		50 - 200
13C4 PFHpA	101		50 - 200
13C8 PFOA	105		50 - 200
13C9 PFNA	109		50 - 200
13C7 PFUnA	106		50 - 200
13C2 PFDoA	106		50 - 200
13C4 PFBA	106		50 - 200
13C5 PFPeA	102		50 - 200
13C3 PFBS	98		50 - 200
13C3 PFHxS	102		50 - 200
13C8 PFOS	102		50 - 200
13C2-4:2-FTS	92		50 - 200
13C2-6:2-FTS	95		50 - 200
13C2-8:2-FTS	94		50 - 200

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

Lab Sample ID: MBL 380-222322/19-A
Matrix: Water
Analysis Batch: 222702

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 222322

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		04/24/26 01:00	04/24/26 11:16	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		04/24/26 01:00	04/24/26 11:16	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		04/24/26 01:00	04/24/26 11:16	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<0.58		2.0	ng/L		04/24/26 01:00	04/24/26 11:16	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<0.42		2.0	ng/L		04/24/26 01:00	04/24/26 11:16	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		04/24/26 01:00	04/24/26 11:16	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		04/24/26 01:00	04/24/26 11:16	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		04/24/26 01:00	04/24/26 11:16	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		04/24/26 01:00	04/24/26 11:16	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		04/24/26 01:00	04/24/26 11:16	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		04/24/26 01:00	04/24/26 11:16	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		04/24/26 01:00	04/24/26 11:16	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		04/24/26 01:00	04/24/26 11:16	1
Perfluorotetradecanoic acid (PFTA)	<0.54		2.0	ng/L		04/24/26 01:00	04/24/26 11:16	1
Perfluorotridecanoic acid (PFTTrDA)	<0.36		2.0	ng/L		04/24/26 01:00	04/24/26 11:16	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		04/24/26 01:00	04/24/26 11:16	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<0.30		2.0	ng/L		04/24/26 01:00	04/24/26 11:16	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		04/24/26 01:00	04/24/26 11:16	1

Surrogate	MBL MBL		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
d5-NEtFOSAA	108		70 - 130	04/24/26 01:00	04/24/26 11:16	1
13C2 PFHxA	114		70 - 130	04/24/26 01:00	04/24/26 11:16	1
13C2 PFDA	110		70 - 130	04/24/26 01:00	04/24/26 11:16	1

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QC Sample Results

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

Job ID: 380-209877-1
SDG: PFAS: Aiea Gulch Wells Pump 2

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

Lab Sample ID: MBL 380-222322/19-A
Matrix: Water
Analysis Batch: 222702

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 222322

Surrogate	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3-GenX	100		70 - 130	04/24/26 01:00	04/24/26 11:16	1

Lab Sample ID: LCS 380-222322/21-A
Matrix: Water
Analysis Batch: 222702

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 222322

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide	50.0	44.6		ng/L		89	70 - 130
Dimer Acid (HFPO-DA/GenX)							
Perfluorooctanesulfonic acid (PFOS)	50.0	49.0		ng/L		98	70 - 130
Perfluoroundecanoic acid (PFUnA)	50.0	46.4		ng/L		93	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	50.0	46.9		ng/L		94	70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	50.0	45.1		ng/L		90	70 - 130
Perfluorohexanoic acid (PFHxA)	50.0	44.5		ng/L		89	70 - 130
Perfluorododecanoic acid (PFDoA)	50.0	46.3		ng/L		93	70 - 130
Perfluorooctanoic acid (PFOA)	50.0	49.5		ng/L		99	70 - 130
Perfluorodecanoic acid (PFDA)	50.0	45.8		ng/L		92	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	50.0	49.3		ng/L		99	70 - 130
Perfluorobutanesulfonic acid (PFBS)	50.0	51.2		ng/L		102	70 - 130
Perfluoroheptanoic acid (PFHpA)	50.0	46.5		ng/L		93	70 - 130
Perfluorononanoic acid (PFNA)	50.0	48.1		ng/L		96	70 - 130
Perfluorotetradecanoic acid (PFTA)	50.0	38.9		ng/L		78	70 - 130
Perfluorotridecanoic acid (PFTrDA)	50.0	47.1		ng/L		94	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	50.0	49.5		ng/L		99	70 - 130
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	50.0	48.5		ng/L		97	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	50.0	44.3		ng/L		89	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
d5-NEtFOSAA	98		70 - 130
13C2 PFHxA	101		70 - 130
13C2 PFDA	100		70 - 130
13C3-GenX	94		70 - 130

QC Sample Results

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

Job ID: 380-209877-1
SDG: PFAS: Aiea Gulch Wells Pump 2

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

Lab Sample ID: MRL 380-222322/20-A
Matrix: Water
Analysis Batch: 222702

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 222322

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits	
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.00	1.80	J	ng/L		90	50 - 150	
Perfluorooctanesulfonic acid (PFOS)	2.00	1.95	J	ng/L		98	50 - 150	
Perfluoroundecanoic acid (PFUnA)	2.00	1.88	J	ng/L		94	50 - 150	
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.00	1.86	J	ng/L		93	50 - 150	
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.00	1.76	J	ng/L		88	50 - 150	
Perfluorohexanoic acid (PFHxA)	2.00	1.91	J	ng/L		96	50 - 150	
Perfluorododecanoic acid (PFDoA)	2.00	1.82	J	ng/L		91	50 - 150	
Perfluorooctanoic acid (PFOA)	2.00	1.89	J	ng/L		94	50 - 150	
Perfluorodecanoic acid (PFDA)	2.00	1.96	J	ng/L		98	50 - 150	
Perfluorohexanesulfonic acid (PFHxS)	2.00	1.95	J	ng/L		98	50 - 150	
Perfluorobutanesulfonic acid (PFBS)	2.00	1.95	J	ng/L		97	50 - 150	
Perfluoroheptanoic acid (PFHpA)	2.00	2.00	J	ng/L		100	50 - 150	
Perfluorononanoic acid (PFNA)	2.00	2.05	J	ng/L		103	50 - 150	
Perfluorotetradecanoic acid (PFTA)	2.00	1.54	J	ng/L		77	50 - 150	
Perfluorotridecanoic acid (PFTrDA)	2.00	1.82	J	ng/L		91	50 - 150	
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	2.00	1.96	J	ng/L		98	50 - 150	
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.00	1.83	J	ng/L		91	50 - 150	
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.00	1.78	J	ng/L		89	50 - 150	
		MRL	MRL					
Surrogate		%Recovery	Qualifier				Limits	
d5-NEtFOSAA		107					70 - 130	
13C2 PFHxA		112					70 - 130	
13C2 PFDA		113					70 - 130	
13C3-GenX		108					70 - 130	

Lab Sample ID: 380-209870-E-1-A MS
Matrix: Water
Analysis Batch: 222702

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 222322

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	F1 F2	50.2	46.4		ng/L		92	70 - 130	
Perfluorooctanesulfonic acid (PFOS)	5.5		50.2	54.3		ng/L		97	70 - 130	
Perfluoroundecanoic acid (PFUnA)	<2.0		50.2	45.0		ng/L		90	70 - 130	
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		50.2	51.0		ng/L		102	70 - 130	

Eurofins Pomona

QC Association Summary

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

Job ID: 380-209877-1
 SDG: PFAS: Aiea Gulch Wells Pump 2

LCMS

Prep Batch: 222322

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-209877-1	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	537.1 DW	
380-209877-2	FB: AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Water	537.1 DW	
MBL 380-222322/19-A	Method Blank	Total/NA	Water	537.1 DW	
LCS 380-222322/21-A	Lab Control Sample	Total/NA	Water	537.1 DW	
MRL 380-222322/20-A	Lab Control Sample	Total/NA	Water	537.1 DW	
380-209870-E-1-A MS	Matrix Spike	Total/NA	Water	537.1 DW	
380-209870-F-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	537.1 DW	

Analysis Batch: 222702

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-209877-1	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	EPA 537.1 V2	222322
380-209877-2	FB: AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Water	EPA 537.1 V2	222322
MBL 380-222322/19-A	Method Blank	Total/NA	Water	EPA 537.1 V2	222322
LCS 380-222322/21-A	Lab Control Sample	Total/NA	Water	EPA 537.1 V2	222322
MRL 380-222322/20-A	Lab Control Sample	Total/NA	Water	EPA 537.1 V2	222322
380-209870-E-1-A MS	Matrix Spike	Total/NA	Water	EPA 537.1 V2	222322
380-209870-F-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	EPA 537.1 V2	222322

Prep Batch: 222970

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-209877-1	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	533	
380-209877-2	FB: AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Water	533	
MBL 380-222970/20-A	Method Blank	Total/NA	Water	533	
LCS 380-222970/22-A	Lab Control Sample	Total/NA	Water	533	
MRL 380-222970/21-A	Lab Control Sample	Total/NA	Water	533	
380-209837-B-1-A MS	Matrix Spike	Total/NA	Water	533	
380-209837-C-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	

Analysis Batch: 223146

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-209877-1	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	533	222970
380-209877-2	FB: AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Water	533	222970
MBL 380-222970/20-A	Method Blank	Total/NA	Water	533	222970
LCS 380-222970/22-A	Lab Control Sample	Total/NA	Water	533	222970
MRL 380-222970/21-A	Lab Control Sample	Total/NA	Water	533	222970
380-209837-B-1-A MS	Matrix Spike	Total/NA	Water	533	222970
380-209837-C-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	222970

Lab Chronicle

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

Job ID: 380-209877-1
 SDG: PFAS: Aiea Gulch Wells Pump 2

**Client Sample ID: AIEA GULCH WELLS PUMP 2
 (331-202-TP072)**

Lab Sample ID: 380-209877-1

Date Collected: 04/20/26 11:42

Matrix: Drinking Water

Date Received: 04/22/26 10:22

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			222970	N8NE	EA POM	04/26/26 14:57
Total/NA	Analysis	533		1	223146	SZ9R	EA POM	04/27/26 11:53
Total/NA	Prep	537.1 DW			222322	G9MN	EA POM	04/24/26 01:00
Total/NA	Analysis	EPA 537.1 V2		1	222702	Y5FM	EA POM	04/24/26 13:10

**Client Sample ID: FB: AIEA GULCH WELLS PUMP 2
 (331-202-TP072)**

Lab Sample ID: 380-209877-2

Date Collected: 04/20/26 11:42

Matrix: Water

Date Received: 04/22/26 10:22

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			222970	N8NE	EA POM	04/26/26 14:57
Total/NA	Analysis	533		1	223146	SZ9R	EA POM	04/27/26 12:02
Total/NA	Prep	537.1 DW			222322	G9MN	EA POM	04/24/26 01:00
Total/NA	Analysis	EPA 537.1 V2		1	222702	Y5FM	EA POM	04/24/26 13:20

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: 380-209877-1
SDG: PFAS: Aiea Gulch Wells Pump 2

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

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

Method Summary

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

Job ID: 380-209877-1
SDG: PFAS: Aiea Gulch Wells Pump 2

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: 380-209877-1
SDG: PFAS: Aiea Gulch Wells Pump 2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
380-209877-1	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Drinking Water	04/20/26 11:42	04/22/26 10:22	Hawaii
380-209877-2	FB: AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Water	04/20/26 11:42	04/22/26 10:22	Hawaii

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

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-209877-1
SDG Number: PFAS: Aiea Gulch Wells Pump 2

Login Number: 209877

List Number: 1

Creator: Del Rosario, Michael

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	
ClO4 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	

