

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

ANALYTICAL REPORT

PREPARED FOR

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

Generated 6/8/2026 1:44:39 PM

JOB DESCRIPTION

RED-HILL
PFAS: Aiea Gulch Wells P1/P2

JOB NUMBER

380-217618-1

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
Maria Lopez, Project Manager
Maria.Lopez@et.eurofinsus.com
(626)386-1100

Generated
6/8/2026 1:44:39 PM



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	15
Surrogate Summary	17
Isotope Dilution Summary	18
QC Sample Results	20
QC Association Summary	31
Lab Chronicle	32
Certification Summary	33
Method Summary	34
Sample Summary	35
Chain of Custody	36
Receipt Checklists	38

Definitions/Glossary

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

Job ID: 380-217618-1
SDG: PFAS: Aiea Gulch Wells P1/P2

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: 380-217618-1

Job ID: 380-217618-1

Eurofins Pomona

Job Narrative 380-217618-1

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 6/3/2026 10:05 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.8°C and 2.6°C.

PFAS

Method EPA 537.1 V2: PFAS results by 537.1 for AIEA GULCH WELLS PUMP 2 (331-202-TP072) (380-217618-2) collected on 06/01/26 is a resample for AIEA GULCH WELLS PUMP 2 (331-202-TP072) collected on 05/26/26. (XWB4)

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

Eurofins Pomona

Detection Summary

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

Job ID: 380-217618-1
SDG: PFAS: Aiea Gulch Wells P1/P2

**Client Sample ID: AIEA GULCH WELLS PUMP 1
(331-201-TP071)**

Lab Sample ID: 380-217618-1

No Detections.

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

Lab Sample ID: 380-217618-2

No Detections.

**Client Sample ID: FB: AIEA GULCH WELLS PUMP 1
(331-201-TP071)**

Lab Sample ID: 380-217618-3

No Detections.

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

Lab Sample ID: 380-217618-4

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Pomona



Client Sample Results

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

Job ID: 380-217618-1
SDG: PFAS: Aiea Gulch Wells P1/P2

**Client Sample ID: AIEA GULCH WELLS PUMP 1
(331-201-TP071)**

Lab Sample ID: 380-217618-1

Date Collected: 06/01/26 09:20

Matrix: Drinking Water

Date Received: 06/03/26 10:05

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		06/06/26 16:06	06/08/26 00:20	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:20	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:20	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:20	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:20	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:20	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:20	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:20	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:20	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:20	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:20	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:20	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:20	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:20	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:20	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:20	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:20	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:20	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:20	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEA)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:20	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:20	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:20	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:20	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:20	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:20	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	65		50 - 200	06/06/26 16:06	06/08/26 00:20	1
13C6 PFDA	71		50 - 200	06/06/26 16:06	06/08/26 00:20	1
13C5 PFHxA	76		50 - 200	06/06/26 16:06	06/08/26 00:20	1
13C4 PFHpA	73		50 - 200	06/06/26 16:06	06/08/26 00:20	1
13C8 PFOA	74		50 - 200	06/06/26 16:06	06/08/26 00:20	1
13C9 PFNA	73		50 - 200	06/06/26 16:06	06/08/26 00:20	1
13C7 PFUnA	77		50 - 200	06/06/26 16:06	06/08/26 00:20	1
13C2 PFDoA	85		50 - 200	06/06/26 16:06	06/08/26 00:20	1
13C4 PFBA	80		50 - 200	06/06/26 16:06	06/08/26 00:20	1
13C5 PFPeA	75		50 - 200	06/06/26 16:06	06/08/26 00:20	1
13C3 PFBS	99		50 - 200	06/06/26 16:06	06/08/26 00:20	1
13C3 PFHxS	106		50 - 200	06/06/26 16:06	06/08/26 00:20	1

Eurofins Pomona

Client Sample Results

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

Job ID: 380-217618-1
SDG: PFAS: Aiea Gulch Wells P1/P2

**Client Sample ID: AIEA GULCH WELLS PUMP 1
(331-201-TP071)**

Lab Sample ID: 380-217618-1

Date Collected: 06/01/26 09:20

Matrix: Drinking Water

Date Received: 06/03/26 10:05

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 PFOS	107		50 - 200	06/06/26 16:06	06/08/26 00:20	1
13C2-4:2-FTS	108		50 - 200	06/06/26 16:06	06/08/26 00:20	1
13C2-6:2-FTS	104		50 - 200	06/06/26 16:06	06/08/26 00:20	1
13C2-8:2-FTS	102		50 - 200	06/06/26 16:06	06/08/26 00:20	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		06/04/26 02:25	06/05/26 02:58	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		06/04/26 02:25	06/05/26 02:58	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		06/04/26 02:25	06/05/26 02:58	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		06/04/26 02:25	06/05/26 02:58	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		06/04/26 02:25	06/05/26 02:58	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		06/04/26 02:25	06/05/26 02:58	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		06/04/26 02:25	06/05/26 02:58	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		06/04/26 02:25	06/05/26 02:58	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		06/04/26 02:25	06/05/26 02:58	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		06/04/26 02:25	06/05/26 02:58	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		06/04/26 02:25	06/05/26 02:58	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		06/04/26 02:25	06/05/26 02:58	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		06/04/26 02:25	06/05/26 02:58	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		06/04/26 02:25	06/05/26 02:58	1
Perfluorotridecanoic acid (PFTTrDA)	<2.0		2.0	ng/L		06/04/26 02:25	06/05/26 02:58	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		06/04/26 02:25	06/05/26 02:58	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		06/04/26 02:25	06/05/26 02:58	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		06/04/26 02:25	06/05/26 02:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	95		70 - 130	06/04/26 02:25	06/05/26 02:58	1
13C2 PFHxA	102		70 - 130	06/04/26 02:25	06/05/26 02:58	1
13C2 PFDA	101		70 - 130	06/04/26 02:25	06/05/26 02:58	1
13C3-GenX	98		70 - 130	06/04/26 02:25	06/05/26 02:58	1

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

Lab Sample ID: 380-217618-2

Date Collected: 06/01/26 09:30

Matrix: Drinking Water

Date Received: 06/03/26 10:05

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		06/06/26 16:06	06/08/26 00:30	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:30	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:30	1

Eurofins Pomona

Client Sample Results

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

Job ID: 380-217618-1
SDG: PFAS: Aiea Gulch Wells P1/P2

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

Lab Sample ID: 380-217618-2

Date Collected: 06/01/26 09:30

Matrix: Drinking Water

Date Received: 06/03/26 10:05

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		06/06/26 16:06	06/08/26 00:30	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:30	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:30	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:30	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:30	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:30	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:30	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:30	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:30	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:30	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:30	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:30	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:30	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:30	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:30	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:30	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:30	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:30	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:30	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:30	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:30	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:30	1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	79		50 - 200			06/06/26 16:06	06/08/26 00:30	1
13C6 PFDA	85		50 - 200			06/06/26 16:06	06/08/26 00:30	1
13C5 PFHxA	89		50 - 200			06/06/26 16:06	06/08/26 00:30	1
13C4 PFHpA	89		50 - 200			06/06/26 16:06	06/08/26 00:30	1
13C8 PFOA	93		50 - 200			06/06/26 16:06	06/08/26 00:30	1
13C9 PFNA	95		50 - 200			06/06/26 16:06	06/08/26 00:30	1
13C7 PFUnA	97		50 - 200			06/06/26 16:06	06/08/26 00:30	1
13C2 PFDoA	96		50 - 200			06/06/26 16:06	06/08/26 00:30	1
13C4 PFBA	92		50 - 200			06/06/26 16:06	06/08/26 00:30	1
13C5 PFPeA	94		50 - 200			06/06/26 16:06	06/08/26 00:30	1
13C3 PFBS	98		50 - 200			06/06/26 16:06	06/08/26 00:30	1
13C3 PFHxS	102		50 - 200			06/06/26 16:06	06/08/26 00:30	1
13C8 PFOS	106		50 - 200			06/06/26 16:06	06/08/26 00:30	1
13C2-4:2-FTS	107		50 - 200			06/06/26 16:06	06/08/26 00:30	1
13C2-6:2-FTS	103		50 - 200			06/06/26 16:06	06/08/26 00:30	1
13C2-8:2-FTS	99		50 - 200			06/06/26 16:06	06/08/26 00:30	1

Client Sample Results

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

Job ID: 380-217618-1
SDG: PFAS: Aiea Gulch Wells P1/P2

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

Lab Sample ID: 380-217618-2

Date Collected: 06/01/26 09:30

Matrix: Drinking Water

Date Received: 06/03/26 10:05

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		06/04/26 02:25	06/05/26 03:08	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		06/04/26 02:25	06/05/26 03:08	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		06/04/26 02:25	06/05/26 03:08	1
N-methylperfluorooctanesulfonamide cetic acid (NMeFOSAA)	<2.0		2.0	ng/L		06/04/26 02:25	06/05/26 03:08	1
N-ethylperfluorooctanesulfonamide cetic acid (NEtFOSAA)	<2.0		2.0	ng/L		06/04/26 02:25	06/05/26 03:08	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		06/04/26 02:25	06/05/26 03:08	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		06/04/26 02:25	06/05/26 03:08	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		06/04/26 02:25	06/05/26 03:08	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		06/04/26 02:25	06/05/26 03:08	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		06/04/26 02:25	06/05/26 03:08	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		06/04/26 02:25	06/05/26 03:08	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		06/04/26 02:25	06/05/26 03:08	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		06/04/26 02:25	06/05/26 03:08	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		06/04/26 02:25	06/05/26 03:08	1
Perfluorotridecanoic acid (PFTTrDA)	<2.0		2.0	ng/L		06/04/26 02:25	06/05/26 03:08	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		06/04/26 02:25	06/05/26 03:08	1
11-Chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		06/04/26 02:25	06/05/26 03:08	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		06/04/26 02:25	06/05/26 03:08	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	97		70 - 130			06/04/26 02:25	06/05/26 03:08	1
13C2 PFHxA	109		70 - 130			06/04/26 02:25	06/05/26 03:08	1
13C2 PFDA	105		70 - 130			06/04/26 02:25	06/05/26 03:08	1
13C3-GenX	103		70 - 130			06/04/26 02:25	06/05/26 03:08	1

**Client Sample ID: FB: AIEA GULCH WELLS PUMP 1
(331-201-TP071)**

Lab Sample ID: 380-217618-3

Date Collected: 06/01/26 09:20

Matrix: Water

Date Received: 06/03/26 10:05

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:39	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:39	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:39	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:39	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:39	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:39	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:39	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:39	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:39	1

Eurofins Pomona

Client Sample Results

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

Job ID: 380-217618-1
SDG: PFAS: Aiea Gulch Wells P1/P2

**Client Sample ID: FB: AIEA GULCH WELLS PUMP 1
(331-201-TP071)**

Lab Sample ID: 380-217618-3

Date Collected: 06/01/26 09:20

Matrix: Water

Date Received: 06/03/26 10:05

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:39	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:39	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:39	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:39	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:39	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:39	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:39	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:39	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:39	1
Nonafluoro-3,6-dioxahexanoic acid (NFDHA)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:39	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:39	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:39	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:39	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:39	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:39	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:39	1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	75		50 - 200			06/06/26 16:06	06/08/26 00:39	1
13C6 PFDA	66		50 - 200			06/06/26 16:06	06/08/26 00:39	1
13C5 PFHxA	83		50 - 200			06/06/26 16:06	06/08/26 00:39	1
13C4 PFHpA	77		50 - 200			06/06/26 16:06	06/08/26 00:39	1
13C8 PFOA	79		50 - 200			06/06/26 16:06	06/08/26 00:39	1
13C9 PFNA	80		50 - 200			06/06/26 16:06	06/08/26 00:39	1
13C7 PFUnA	73		50 - 200			06/06/26 16:06	06/08/26 00:39	1
13C2 PFDoA	75		50 - 200			06/06/26 16:06	06/08/26 00:39	1
13C4 PFBA	84		50 - 200			06/06/26 16:06	06/08/26 00:39	1
13C5 PFPeA	82		50 - 200			06/06/26 16:06	06/08/26 00:39	1
13C3 PFBS	103		50 - 200			06/06/26 16:06	06/08/26 00:39	1
13C3 PFHxS	109		50 - 200			06/06/26 16:06	06/08/26 00:39	1
13C8 PFOS	113		50 - 200			06/06/26 16:06	06/08/26 00:39	1
13C2-4:2-FTS	111		50 - 200			06/06/26 16:06	06/08/26 00:39	1
13C2-6:2-FTS	108		50 - 200			06/06/26 16:06	06/08/26 00:39	1
13C2-8:2-FTS	104		50 - 200			06/06/26 16:06	06/08/26 00:39	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		06/04/26 02:25	06/05/26 03:17	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		06/04/26 02:25	06/05/26 03:17	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		06/04/26 02:25	06/05/26 03:17	1
N-methylperfluorooctanesulfonamide acetic acid (NMeFOSAA)	<2.0		2.0	ng/L		06/04/26 02:25	06/05/26 03:17	1

Eurofins Pomona

Client Sample Results

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

Job ID: 380-217618-1
SDG: PFAS: Aiea Gulch Wells P1/P2

**Client Sample ID: FB: AIEA GULCH WELLS PUMP 1
(331-201-TP071)**

Lab Sample ID: 380-217618-3

Date Collected: 06/01/26 09:20

Matrix: Water

Date Received: 06/03/26 10:05

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-ethylperfluorooctanesulfonamidoacetic acid (NETFOSAA)	<2.0		2.0	ng/L		06/04/26 02:25	06/05/26 03:17	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		06/04/26 02:25	06/05/26 03:17	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		06/04/26 02:25	06/05/26 03:17	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		06/04/26 02:25	06/05/26 03:17	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		06/04/26 02:25	06/05/26 03:17	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		06/04/26 02:25	06/05/26 03:17	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		06/04/26 02:25	06/05/26 03:17	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		06/04/26 02:25	06/05/26 03:17	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		06/04/26 02:25	06/05/26 03:17	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		06/04/26 02:25	06/05/26 03:17	1
Perfluorotridecanoic acid (PFTDA)	<2.0		2.0	ng/L		06/04/26 02:25	06/05/26 03:17	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9CI-PF3ONS)	<2.0		2.0	ng/L		06/04/26 02:25	06/05/26 03:17	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3OUdS)	<2.0		2.0	ng/L		06/04/26 02:25	06/05/26 03:17	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		06/04/26 02:25	06/05/26 03:17	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NETFOSAA	99		70 - 130			06/04/26 02:25	06/05/26 03:17	1
13C2 PFHxA	106		70 - 130			06/04/26 02:25	06/05/26 03:17	1
13C2 PFDA	106		70 - 130			06/04/26 02:25	06/05/26 03:17	1
13C3-GenX	98		70 - 130			06/04/26 02:25	06/05/26 03:17	1

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

Lab Sample ID: 380-217618-4

Date Collected: 06/01/26 09:23

Matrix: Water

Date Received: 06/03/26 10:05

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 (11CI-PF3OUdS)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:49	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9CI-PF3ONS)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:49	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:49	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:49	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:49	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:49	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:49	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:49	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:49	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:49	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:49	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:49	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:49	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:49	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:49	1

Eurofins Pomona

Client Sample Results

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

Job ID: 380-217618-1
SDG: PFAS: Aiea Gulch Wells P1/P2

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

Lab Sample ID: 380-217618-4

Date Collected: 06/01/26 09:23

Matrix: Water

Date Received: 06/03/26 10:05

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:49	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:49	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:49	1
Nonafluoro-3,6-dioxahexanoic acid (NFDHA)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:49	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:49	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:49	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:49	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:49	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:49	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		06/06/26 16:06	06/08/26 00:49	1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	68		50 - 200			06/06/26 16:06	06/08/26 00:49	1
13C6 PFDA	58		50 - 200			06/06/26 16:06	06/08/26 00:49	1
13C5 PFHxA	77		50 - 200			06/06/26 16:06	06/08/26 00:49	1
13C4 PFHpA	66		50 - 200			06/06/26 16:06	06/08/26 00:49	1
13C8 PFOA	72		50 - 200			06/06/26 16:06	06/08/26 00:49	1
13C9 PFNA	66		50 - 200			06/06/26 16:06	06/08/26 00:49	1
13C7 PFUnA	60		50 - 200			06/06/26 16:06	06/08/26 00:49	1
13C2 PFDoA	57		50 - 200			06/06/26 16:06	06/08/26 00:49	1
13C4 PFBA	85		50 - 200			06/06/26 16:06	06/08/26 00:49	1
13C5 PFPeA	86		50 - 200			06/06/26 16:06	06/08/26 00:49	1
13C3 PFBS	106		50 - 200			06/06/26 16:06	06/08/26 00:49	1
13C3 PFHxS	108		50 - 200			06/06/26 16:06	06/08/26 00:49	1
13C8 PFOS	107		50 - 200			06/06/26 16:06	06/08/26 00:49	1
13C2-4:2-FTS	111		50 - 200			06/06/26 16:06	06/08/26 00:49	1
13C2-6:2-FTS	108		50 - 200			06/06/26 16:06	06/08/26 00:49	1
13C2-8:2-FTS	108		50 - 200			06/06/26 16:06	06/08/26 00:49	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		06/04/26 02:25	06/05/26 03:26	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		06/04/26 02:25	06/05/26 03:26	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		06/04/26 02:25	06/05/26 03:26	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		06/04/26 02:25	06/05/26 03:26	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		06/04/26 02:25	06/05/26 03:26	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		06/04/26 02:25	06/05/26 03:26	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		06/04/26 02:25	06/05/26 03:26	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		06/04/26 02:25	06/05/26 03:26	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		06/04/26 02:25	06/05/26 03:26	1

Eurofins Pomona

Client Sample Results

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

Job ID: 380-217618-1
 SDG: PFAS: Aiea Gulch Wells P1/P2

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

Lab Sample ID: 380-217618-4

Date Collected: 06/01/26 09:23

Matrix: Water

Date Received: 06/03/26 10:05

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		06/04/26 02:25	06/05/26 03:26	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		06/04/26 02:25	06/05/26 03:26	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		06/04/26 02:25	06/05/26 03:26	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		06/04/26 02:25	06/05/26 03:26	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		06/04/26 02:25	06/05/26 03:26	1
Perfluorotridecanoic acid (PFTTrDA)	<2.0		2.0	ng/L		06/04/26 02:25	06/05/26 03:26	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		06/04/26 02:25	06/05/26 03:26	1
11-Chloroeicosafluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		06/04/26 02:25	06/05/26 03:26	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		06/04/26 02:25	06/05/26 03:26	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	102		70 - 130			06/04/26 02:25	06/05/26 03:26	1
13C2 PFHxA	110		70 - 130			06/04/26 02:25	06/05/26 03:26	1
13C2 PFDA	100		70 - 130			06/04/26 02:25	06/05/26 03:26	1
13C3-GenX	102		70 - 130			06/04/26 02:25	06/05/26 03:26	1

Action Limit Summary

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

Job ID: 380-217618-1
SDG: PFAS: Aiea Gulch Wells P1/P2

**Client Sample ID: AIEA GULCH WELLS PUMP 1
(331-201-TP071)**

Lab Sample ID: 380-217618-1

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

Lab Sample ID: 380-217618-2

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

**Client Sample ID: FB: AIEA GULCH WELLS PUMP 1
(331-201-TP071)**

Lab Sample ID: 380-217618-3

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

Action Limit Summary

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

Job ID: 380-217618-1
SDG: PFAS: Aiea Gulch Wells P1/P2

**Client Sample ID: FB: AIEA GULCH WELLS PUMP 1
(331-201-TP071) (Continued)**

Lab Sample ID: 380-217618-3

Compliance Check

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

Analyte	Result	Qualifier	Unit	EPAMCL	RL	Method	Prep Type
				Limit			
Perfluorooctanoic acid (PFOA)	<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: 380-217618-4

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: 380-217618-1
SDG: PFAS: Aiea Gulch Wells P1/P2

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)
380-217618-1	AIEA GULCH WELLS PUMP 1 (331	95	102	101	98
380-217618-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	97	109	105	103

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)
380-217500-A-1-B MS	Matrix Spike	98	107	106	106
380-217500-A-1-C MSD	Matrix Spike Duplicate	101	102	102	96
380-217618-3	FB: AIEA GULCH WELLS PUMP 1 (331-201-TP071)	99	106	106	98
380-217618-4	FB: AIEA GULCH WELLS PUMP 2 (331-202-TP072)	102	110	100	102
LCS 380-231597/21-A	Lab Control Sample	99	113	104	105
MBL 380-231597/19-A	Method Blank	93	102	99	95
MRL 380-231597/20-A	Lab Control Sample	99	106	98	97

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: 380-217618-1
SDG: PFAS: Aiea Gulch Wells P1/P2

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)
380-217618-1	AIEA GULCH WELLS PUMP 1 (331	65	71	76	73	74	73	77	85
380-217618-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	79	85	89	89	93	95	97	96

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)
380-217618-1	AIEA GULCH WELLS PUMP 1 (331	80	75	99	106	107	108	104	102
380-217618-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	92	94	98	102	106	107	103	99

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)
380-217617-B-1-A MS	Matrix Spike	98	98	97	97	102	102	107	106
380-217617-C-1-A MSD	Matrix Spike Duplicate	100	95	101	97	98	105	105	106
380-217618-3	FB: AIEA GULCH WELLS PUMP 1 (331-201-TP071)	75	66	83	77	79	80	73	75
380-217618-4	FB: AIEA GULCH WELLS PUMP 2 (331-202-TP072)	68	58	77	66	72	66	60	57
LCS 380-232106/22-A	Lab Control Sample	75	81	78	81	82	85	89	89
MBL 380-232106/20-A	Method Blank	81	87	86	90	92	91	99	99
MRL 380-232106/21-A	Lab Control Sample	81	86	85	87	88	95	86	96

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)
380-217617-B-1-A MS	Matrix Spike	101	99	107	109	106	106	109	109
380-217617-C-1-A MSD	Matrix Spike Duplicate	99	102	105	106	105	104	104	102
380-217618-3	FB: AIEA GULCH WELLS PUMP 1 (331-201-TP071)	84	82	103	109	113	111	108	104

Eurofins Pomona

Isotope Dilution Summary

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

Job ID: 380-217618-1
 SDG: PFAS: Aiea Gulch Wells P1/P2

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA (50-200)	PFPeA (50-200)	C3PFBS (50-200)	C3PFHS (50-200)	C8PFOS (50-200)	42FTS (50-200)	62FTS (50-200)	82FTS (50-200)
380-217618-4	FB: AIEA GULCH WELLS PUMP 2 (85	86	106	108	107	111	108	108
LCS 380-232106/22-A	Lab Control Sample	85	82	96	106	108	103	103	100
MBL 380-232106/20-A	Method Blank	93	92	100	101	108	112	105	107
MRL 380-232106/21-A	Lab Control Sample	91	88	103	105	114	113	108	110

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

QC Sample Results

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

Job ID: 380-217618-1
SDG: PFAS: Aiea Gulch Wells P1/P2

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

Lab Sample ID: MBL 380-232106/20-A
Matrix: Water
Analysis Batch: 232147

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 232106

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		06/06/26 16:06	06/07/26 21:32	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		06/06/26 16:06	06/07/26 21:32	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		06/06/26 16:06	06/07/26 21:32	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<1.0		2.0	ng/L		06/06/26 16:06	06/07/26 21:32	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		06/06/26 16:06	06/07/26 21:32	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		06/06/26 16:06	06/07/26 21:32	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		06/06/26 16:06	06/07/26 21:32	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		06/06/26 16:06	06/07/26 21:32	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		06/06/26 16:06	06/07/26 21:32	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		06/06/26 16:06	06/07/26 21:32	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		06/06/26 16:06	06/07/26 21:32	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		06/06/26 16:06	06/07/26 21:32	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		06/06/26 16:06	06/07/26 21:32	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		06/06/26 16:06	06/07/26 21:32	1
Perfluorobutanoic acid (PFBA)	<0.69		2.0	ng/L		06/06/26 16:06	06/07/26 21:32	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<0.38		2.0	ng/L		06/06/26 16:06	06/07/26 21:32	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<0.37		2.0	ng/L		06/06/26 16:06	06/07/26 21:32	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<0.48		2.0	ng/L		06/06/26 16:06	06/07/26 21:32	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<0.47		2.0	ng/L		06/06/26 16:06	06/07/26 21:32	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<0.25		2.0	ng/L		06/06/26 16:06	06/07/26 21:32	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<0.46		2.0	ng/L		06/06/26 16:06	06/07/26 21:32	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<0.15		2.0	ng/L		06/06/26 16:06	06/07/26 21:32	1
Perfluoropentanoic acid (PFPeA)	<0.38		2.0	ng/L		06/06/26 16:06	06/07/26 21:32	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.36		2.0	ng/L		06/06/26 16:06	06/07/26 21:32	1
Perfluoropentanesulfonic acid (PFPeS)	<0.39		2.0	ng/L		06/06/26 16:06	06/07/26 21:32	1

Isotope Dilution	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	81		50 - 200	06/06/26 16:06	06/07/26 21:32	1
13C6 PFDA	87		50 - 200	06/06/26 16:06	06/07/26 21:32	1
13C5 PFHxA	86		50 - 200	06/06/26 16:06	06/07/26 21:32	1
13C4 PFHpA	90		50 - 200	06/06/26 16:06	06/07/26 21:32	1
13C8 PFOA	92		50 - 200	06/06/26 16:06	06/07/26 21:32	1
13C9 PFNA	91		50 - 200	06/06/26 16:06	06/07/26 21:32	1
13C7 PFUnA	99		50 - 200	06/06/26 16:06	06/07/26 21:32	1
13C2 PFDoA	99		50 - 200	06/06/26 16:06	06/07/26 21:32	1
13C4 PFBA	93		50 - 200	06/06/26 16:06	06/07/26 21:32	1
13C5 PFPeA	92		50 - 200	06/06/26 16:06	06/07/26 21:32	1
13C3 PFBS	100		50 - 200	06/06/26 16:06	06/07/26 21:32	1
13C3 PFHxS	101		50 - 200	06/06/26 16:06	06/07/26 21:32	1

Eurofins Pomona

QC Sample Results

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

Job ID: 380-217618-1
SDG: PFAS: Aiea Gulch Wells P1/P2

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

Lab Sample ID: MBL 380-232106/20-A
Matrix: Water
Analysis Batch: 232147

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 232106

<i>Isotope Dilution</i>	<i>MBL</i>	<i>MBL</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
	<i>%Recovery</i>	<i>Qualifier</i>				
13C8 PFOS	108		50 - 200	06/06/26 16:06	06/07/26 21:32	1
13C2-4:2-FTS	112		50 - 200	06/06/26 16:06	06/07/26 21:32	1
13C2-6:2-FTS	105		50 - 200	06/06/26 16:06	06/07/26 21:32	1
13C2-8:2-FTS	107		50 - 200	06/06/26 16:06	06/07/26 21:32	1

Lab Sample ID: LCS 380-232106/22-A
Matrix: Water
Analysis Batch: 232147

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 232106

<i>Analyte</i>	<i>Spike</i>	<i>LCS</i>	<i>LCS</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec</i>
	<i>Added</i>	<i>Result</i>	<i>Qualifier</i>				<i>Limits</i>
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	60.1	56.6		ng/L		94	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	60.1	56.8		ng/L		94	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	60.1	61.0		ng/L		101	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	60.1	59.2		ng/L		98	70 - 130
Perfluorobutanesulfonic acid (PFBS)	60.1	63.8		ng/L		106	70 - 130
Perfluorodecanoic acid (PFDA)	60.1	63.6		ng/L		106	70 - 130
Perfluorododecanoic acid (PFDoA)	60.1	61.9		ng/L		103	70 - 130
Perfluoroheptanoic acid (PFHpA)	60.1	62.3		ng/L		104	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	60.1	60.3		ng/L		100	70 - 130
Perfluorohexanoic acid (PFHxA)	60.1	62.2		ng/L		103	70 - 130
Perfluorononanoic acid (PFNA)	60.1	58.2		ng/L		97	70 - 130
Perfluorooctanesulfonic acid (PFOS)	60.1	56.5		ng/L		94	70 - 130
Perfluorooctanoic acid (PFOA)	60.1	63.9		ng/L		106	70 - 130
Perfluoroundecanoic acid (PFUnA)	60.1	58.9		ng/L		98	70 - 130
Perfluorobutanoic acid (PFBA)	60.1	61.8		ng/L		103	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	60.1	66.2		ng/L		110	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	60.1	61.3		ng/L		102	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	60.1	62.3		ng/L		104	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	60.1	59.8		ng/L		99	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	60.1	65.2		ng/L		108	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	60.1	63.2		ng/L		105	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	60.1	62.9		ng/L		105	70 - 130
Perfluoropentanoic acid (PFPeA)	60.1	62.9		ng/L		105	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	60.1	59.5		ng/L		99	70 - 130

QC Sample Results

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

Job ID: 380-217618-1
SDG: PFAS: Aiea Gulch Wells P1/P2

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

Lab Sample ID: LCS 380-232106/22-A

Matrix: Water

Analysis Batch: 232147

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 232106

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoropentanesulfonic acid (PFPeS)	60.1	61.3		ng/L		102	70 - 130
LCS LCS							
Isotope Dilution	%Recovery	Qualifier	Limits				
13C3 HFPO-DA	75		50 - 200				
13C6 PFDA	81		50 - 200				
13C5 PFHxA	78		50 - 200				
13C4 PFHpA	81		50 - 200				
13C8 PFOA	82		50 - 200				
13C9 PFNA	85		50 - 200				
13C7 PFUnA	89		50 - 200				
13C2 PFDoA	89		50 - 200				
13C4 PFBA	85		50 - 200				
13C5 PFPeA	82		50 - 200				
13C3 PFBS	96		50 - 200				
13C3 PFHxS	106		50 - 200				
13C8 PFOS	108		50 - 200				
13C2-4:2-FTS	103		50 - 200				
13C2-6:2-FTS	103		50 - 200				
13C2-8:2-FTS	100		50 - 200				

Lab Sample ID: MRL 380-232106/21-A

Matrix: Water

Analysis Batch: 232147

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 232106

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.01	1.94	J	ng/L		97	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	2.01	1.94	J	ng/L		96	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.01	2.12	J	ng/L		106	50 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.01	2.23	J	ng/L		111	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.01	2.27	J	ng/L		113	50 - 150
Perfluorodecanoic acid (PFDA)	2.01	2.37	J	ng/L		118	50 - 150
Perfluorododecanoic acid (PFDoA)	2.01	2.20	J	ng/L		110	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.01	2.28	J	ng/L		113	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.01	2.23	J	ng/L		111	50 - 150
Perfluorohexanoic acid (PFHxA)	2.01	2.43	J	ng/L		121	50 - 150
Perfluorononanoic acid (PFNA)	2.01	2.17	J	ng/L		108	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.01	1.99	J	ng/L		99	50 - 150
Perfluorooctanoic acid (PFOA)	2.01	2.38	J	ng/L		119	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.01	2.37	J	ng/L		118	50 - 150
Perfluorobutanoic acid (PFBA)	2.01	2.38	J	ng/L		119	50 - 150

Eurofins Pomona

QC Sample Results

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

Job ID: 380-217618-1
SDG: PFAS: Aiea Gulch Wells P1/P2

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

Lab Sample ID: MRL 380-232106/21-A

Matrix: Water

Analysis Batch: 232147

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 232106

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	2.01	2.26	J	ng/L		113	50 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	2.01	2.47	J	ng/L		123	50 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	2.01	2.53	J	ng/L		126	50 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	2.01	2.11	J	ng/L		105	50 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	2.01	2.21	J	ng/L		110	50 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	2.01	2.31	J	ng/L		115	50 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.01	2.17	J	ng/L		108	50 - 150
Perfluoropentanoic acid (PFPeA)	2.01	2.39	J	ng/L		119	50 - 150
Perfluoroheptanesulfonic acid (PFHpS)	2.01	2.16	J	ng/L		107	50 - 150
Perfluoropentanesulfonic acid (PFPeS)	2.01	2.19	J	ng/L		109	50 - 150

Isotope Dilution	MRL %Recovery	MRL Qualifier	MRL Limits
13C3 HFPO-DA	81		50 - 200
13C6 PFDA	86		50 - 200
13C5 PFHxA	85		50 - 200
13C4 PFHpA	87		50 - 200
13C8 PFOA	88		50 - 200
13C9 PFNA	95		50 - 200
13C7 PFUnA	86		50 - 200
13C2 PFDoA	96		50 - 200
13C4 PFBA	91		50 - 200
13C5 PFPeA	88		50 - 200
13C3 PFBS	103		50 - 200
13C3 PFHxS	105		50 - 200
13C8 PFOS	114		50 - 200
13C2-4:2-FTS	113		50 - 200
13C2-6:2-FTS	108		50 - 200
13C2-8:2-FTS	110		50 - 200

Lab Sample ID: 380-217617-B-1-A MS

Matrix: Water

Analysis Batch: 232147

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 232106

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	119		ng/L		99	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		120	123		ng/L		102	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		120	127		ng/L		106	70 - 130

QC Sample Results

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

Job ID: 380-217618-1
SDG: PFAS: Aiea Gulch Wells P1/P2

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

Lab Sample ID: 380-217617-B-1-A MS

Client Sample ID: Matrix Spike

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 232147

Prep Batch: 232106

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec Limits
	Result	Qualifier	Added	Result	Qualifier				
Hexafluoropropylene Oxide	<2.0		120	123		ng/L		103	70 - 130
Dimer Acid (HFPO-DA/GenX)									
Perfluorobutanesulfonic acid (PFBS)	<2.0		120	118		ng/L		97	70 - 130
Perfluorodecanoic acid (PFDA)	<2.0		120	128		ng/L		106	70 - 130
Perfluorododecanoic acid (PFDoA)	<2.0		120	124		ng/L		103	70 - 130
Perfluoroheptanoic acid (PFHpA)	<2.0		120	124		ng/L		103	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	<2.0		120	120		ng/L		100	70 - 130
Perfluorohexanoic acid (PFHxA)	<2.0		120	125		ng/L		103	70 - 130
Perfluorononanoic acid (PFNA)	<2.0		120	117		ng/L		98	70 - 130
Perfluorooctanesulfonic acid (PFOS)	<2.0		120	118		ng/L		98	70 - 130
Perfluorooctanoic acid (PFOA)	<2.0		120	122		ng/L		100	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		120	111		ng/L		93	70 - 130
Perfluorobutanoic acid (PFBA)	<2.0		120	121		ng/L		100	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		120	117		ng/L		97	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		120	120		ng/L		100	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		120	117		ng/L		97	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		120	115		ng/L		95	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		120	124		ng/L		103	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		120	121		ng/L		100	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		120	121		ng/L		101	70 - 130
Perfluoropentanoic acid (PFPeA)	<2.0		120	126		ng/L		103	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		120	123		ng/L		102	70 - 130
Perfluoropentanesulfonic acid (PFPeS)	<2.0		120	124		ng/L		103	70 - 130

Isotope Dilution	MS MS		Limits
	%Recovery	Qualifier	
13C3 HFPO-DA	98		50 - 200
13C6 PFDA	98		50 - 200
13C5 PFHxA	97		50 - 200
13C4 PFHpA	97		50 - 200
13C8 PFOA	102		50 - 200
13C9 PFNA	102		50 - 200
13C7 PFUnA	107		50 - 200
13C2 PFDoA	106		50 - 200
13C4 PFBA	101		50 - 200
13C5 PFPeA	99		50 - 200
13C3 PFBS	107		50 - 200
13C3 PFHxS	109		50 - 200
13C8 PFOS	106		50 - 200

QC Sample Results

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

Job ID: 380-217618-1
SDG: PFAS: Aiea Gulch Wells P1/P2

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

Lab Sample ID: 380-217617-B-1-A MS

Matrix: Water

Analysis Batch: 232147

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 232106

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>MS MS Qualifier</i>	<i>Limits</i>
13C2-4:2-FTS	106		50 - 200
13C2-6:2-FTS	109		50 - 200
13C2-8:2-FTS	109		50 - 200

Lab Sample ID: 380-217617-C-1-A MSD

Matrix: Water

Analysis Batch: 232147

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 232106

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	119		ng/L		99	70 - 130	0	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		120	117		ng/L		97	70 - 130	5	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		120	124		ng/L		103	70 - 130	3	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		120	119		ng/L		99	70 - 130	4	30
Perfluorobutanesulfonic acid (PFBS)	<2.0		120	126		ng/L		104	70 - 130	7	30
Perfluorodecanoic acid (PFDA)	<2.0		120	128		ng/L		106	70 - 130	1	30
Perfluorododecanoic acid (PFDoA)	<2.0		120	124		ng/L		103	70 - 130	0	30
Perfluoroheptanoic acid (PFHpA)	<2.0		120	125		ng/L		104	70 - 130	1	30
Perfluorohexanesulfonic acid (PFHxS)	<2.0		120	119		ng/L		99	70 - 130	1	30
Perfluorohexanoic acid (PFHxA)	<2.0		120	120		ng/L		98	70 - 130	4	30
Perfluorononanoic acid (PFNA)	<2.0		120	113		ng/L		94	70 - 130	4	30
Perfluorooctanesulfonic acid (PFOS)	<2.0		120	117		ng/L		97	70 - 130	0	30
Perfluorooctanoic acid (PFOA)	<2.0		120	127		ng/L		105	70 - 130	4	30
Perfluoroundecanoic acid (PFUnA)	<2.0		120	118		ng/L		98	70 - 130	6	30
Perfluorobutanoic acid (PFBA)	<2.0		120	122		ng/L		101	70 - 130	1	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		120	124		ng/L		103	70 - 130	5	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		120	114		ng/L		94	70 - 130	6	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		120	118		ng/L		98	70 - 130	1	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		120	126		ng/L		105	70 - 130	9	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		120	122		ng/L		101	70 - 130	2	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		120	117		ng/L		97	70 - 130	3	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		120	122		ng/L		101	70 - 130	1	30
Perfluoropentanoic acid (PFPeA)	<2.0		120	120		ng/L		98	70 - 130	4	30
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		120	121		ng/L		100	70 - 130	2	30
Perfluoropentanesulfonic acid (PFPeS)	<2.0		120	122		ng/L		101	70 - 130	2	30

Eurofins Pomona

QC Sample Results

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

Job ID: 380-217618-1
SDG: PFAS: Aiea Gulch Wells P1/P2

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

Isotope Dilution	MSD MSD		Limits
	%Recovery	Qualifier	
13C3 HFPO-DA	100		50 - 200
13C6 PFDA	95		50 - 200
13C5 PFHxA	101		50 - 200
13C4 PFHpA	97		50 - 200
13C8 PFOA	98		50 - 200
13C9 PFNA	105		50 - 200
13C7 PFUnA	105		50 - 200
13C2 PFDoA	106		50 - 200
13C4 PFBA	99		50 - 200
13C5 PFPeA	102		50 - 200
13C3 PFBS	105		50 - 200
13C3 PFHxS	106		50 - 200
13C8 PFOS	105		50 - 200
13C2-4:2-FTS	104		50 - 200
13C2-6:2-FTS	104		50 - 200
13C2-8:2-FTS	102		50 - 200

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

Lab Sample ID: MBL 380-231597/19-A
Matrix: Water
Analysis Batch: 231722

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 231597

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		06/04/26 02:25	06/05/26 01:13	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		06/04/26 02:25	06/05/26 01:13	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		06/04/26 02:25	06/05/26 01:13	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<0.58		2.0	ng/L		06/04/26 02:25	06/05/26 01:13	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<0.42		2.0	ng/L		06/04/26 02:25	06/05/26 01:13	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		06/04/26 02:25	06/05/26 01:13	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		06/04/26 02:25	06/05/26 01:13	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		06/04/26 02:25	06/05/26 01:13	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		06/04/26 02:25	06/05/26 01:13	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		06/04/26 02:25	06/05/26 01:13	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		06/04/26 02:25	06/05/26 01:13	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		06/04/26 02:25	06/05/26 01:13	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		06/04/26 02:25	06/05/26 01:13	1
Perfluorotetradecanoic acid (PFTA)	<0.54		2.0	ng/L		06/04/26 02:25	06/05/26 01:13	1
Perfluorotridecanoic acid (PFTTrDA)	<0.36		2.0	ng/L		06/04/26 02:25	06/05/26 01:13	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		06/04/26 02:25	06/05/26 01:13	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<0.30		2.0	ng/L		06/04/26 02:25	06/05/26 01:13	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		06/04/26 02:25	06/05/26 01:13	1

Surrogate	MBL MBL		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
d5-NEtFOSAA	93		70 - 130	06/04/26 02:25	06/05/26 01:13	1
13C2 PFHxA	102		70 - 130	06/04/26 02:25	06/05/26 01:13	1
13C2 PFDA	99		70 - 130	06/04/26 02:25	06/05/26 01:13	1

Eurofins Pomona

QC Sample Results

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

Job ID: 380-217618-1
SDG: PFAS: Aiea Gulch Wells P1/P2

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

Lab Sample ID: MBL 380-231597/19-A
Matrix: Water
Analysis Batch: 231722

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 231597

<i>Surrogate</i>	<i>MBL</i>	<i>MBL</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C3-GenX	95	Qualifier	70 - 130	06/04/26 02:25	06/05/26 01:13	1

Lab Sample ID: LCS 380-231597/21-A
Matrix: Water
Analysis Batch: 231722

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 231597

<i>Analyte</i>	<i>Spike</i>	<i>LCS</i>	<i>LCS</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec</i>	<i>Limits</i>
	<i>Added</i>	<i>Result</i>	<i>Qualifier</i>					
Hexafluoropropylene Oxide	25.1	25.7		ng/L		103		70 - 130
Dimer Acid (HFPO-DA/GenX)								
Perfluorooctanesulfonic acid (PFOS)	25.1	25.8		ng/L		103		70 - 130
Perfluoroundecanoic acid (PFUnA)	25.1	25.3		ng/L		101		70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	25.1	24.1		ng/L		96		70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	25.1	22.9		ng/L		91		70 - 130
Perfluorohexanoic acid (PFHxA)	25.1	25.8		ng/L		103		70 - 130
Perfluorododecanoic acid (PFDoA)	25.1	25.2		ng/L		100		70 - 130
Perfluorooctanoic acid (PFOA)	25.1	25.5		ng/L		102		70 - 130
Perfluorodecanoic acid (PFDA)	25.1	25.7		ng/L		102		70 - 130
Perfluorohexanesulfonic acid (PFHxS)	25.1	26.7		ng/L		106		70 - 130
Perfluorobutanesulfonic acid (PFBS)	25.1	25.2		ng/L		100		70 - 130
Perfluoroheptanoic acid (PFHpA)	25.1	26.0		ng/L		104		70 - 130
Perfluorononanoic acid (PFNA)	25.1	25.8		ng/L		103		70 - 130
Perfluorotetradecanoic acid (PFTA)	25.1	19.9		ng/L		79		70 - 130
Perfluorotridecanoic acid (PFTrDA)	25.1	24.7		ng/L		98		70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	25.1	24.4		ng/L		97		70 - 130
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	25.1	24.3		ng/L		97		70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	25.1	24.4		ng/L		97		70 - 130

<i>Surrogate</i>	<i>LCS</i>	<i>LCS</i>	<i>Limits</i>
	<i>%Recovery</i>	<i>Qualifier</i>	
d5-NEtFOSAA	99		70 - 130
13C2 PFHxA	113		70 - 130
13C2 PFDA	104		70 - 130
13C3-GenX	105		70 - 130

QC Sample Results

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

Job ID: 380-217618-1
SDG: PFAS: Aiea Gulch Wells P1/P2

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

Lab Sample ID: MRL 380-231597/20-A
Matrix: Water
Analysis Batch: 231722

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 231597

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.01	1.94	J	ng/L		97	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.01	1.94	J	ng/L		96	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.01	2.06	J	ng/L		103	50 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.01	1.84	J	ng/L		92	50 - 150
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.01	2.00	J	ng/L		100	50 - 150
Perfluorohexanoic acid (PFHxA)	2.01	2.03	J	ng/L		101	50 - 150
Perfluorododecanoic acid (PFDoA)	2.01	1.96	J	ng/L		97	50 - 150
Perfluorooctanoic acid (PFOA)	2.01	2.05	J	ng/L		102	50 - 150
Perfluorodecanoic acid (PFDA)	2.01	1.90	J	ng/L		94	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.01	2.06	J	ng/L		103	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.01	2.04	J	ng/L		102	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.01	2.13	J	ng/L		106	50 - 150
Perfluorononanoic acid (PFNA)	2.01	2.03	J	ng/L		101	50 - 150
Perfluorotetradecanoic acid (PFTA)	2.01	1.76	J	ng/L		88	50 - 150
Perfluorotridecanoic acid (PFTrDA)	2.01	2.07	J	ng/L		103	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	2.01	1.88	J	ng/L		94	50 - 150
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.01	1.87	J	ng/L		93	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.01	1.97	J	ng/L		98	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	Limits
d5-NEtFOSAA	99		70 - 130
13C2 PFHxA	106		70 - 130
13C2 PFDA	98		70 - 130
13C3-GenX	97		70 - 130

Lab Sample ID: 380-217500-A-1-B MS
Matrix: Water
Analysis Batch: 231722

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 231597

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		25.2	26.1		ng/L		104	70 - 130
Perfluorooctanesulfonic acid (PFOS)	<2.0		25.2	26.3		ng/L		103	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		25.2	26.9		ng/L		107	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		25.2	25.0		ng/L		99	70 - 130

Eurofins Pomona

QC Association Summary

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

Job ID: 380-217618-1
 SDG: PFAS: Aiea Gulch Wells P1/P2

LCMS

Prep Batch: 231597

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-217618-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	537.1 DW	
380-217618-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	537.1 DW	
380-217618-3	FB: AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Water	537.1 DW	
380-217618-4	FB: AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Water	537.1 DW	
MBL 380-231597/19-A	Method Blank	Total/NA	Water	537.1 DW	
LCS 380-231597/21-A	Lab Control Sample	Total/NA	Water	537.1 DW	
MRL 380-231597/20-A	Lab Control Sample	Total/NA	Water	537.1 DW	
380-217500-A-1-B MS	Matrix Spike	Total/NA	Water	537.1 DW	
380-217500-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	537.1 DW	

Analysis Batch: 231722

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-217618-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	EPA 537.1 V2	231597
380-217618-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	EPA 537.1 V2	231597
380-217618-3	FB: AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Water	EPA 537.1 V2	231597
380-217618-4	FB: AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Water	EPA 537.1 V2	231597
MBL 380-231597/19-A	Method Blank	Total/NA	Water	EPA 537.1 V2	231597
LCS 380-231597/21-A	Lab Control Sample	Total/NA	Water	EPA 537.1 V2	231597
MRL 380-231597/20-A	Lab Control Sample	Total/NA	Water	EPA 537.1 V2	231597
380-217500-A-1-B MS	Matrix Spike	Total/NA	Water	EPA 537.1 V2	231597
380-217500-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	EPA 537.1 V2	231597

Prep Batch: 232106

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-217618-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	533	
380-217618-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	533	
380-217618-3	FB: AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Water	533	
380-217618-4	FB: AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Water	533	
MBL 380-232106/20-A	Method Blank	Total/NA	Water	533	
LCS 380-232106/22-A	Lab Control Sample	Total/NA	Water	533	
MRL 380-232106/21-A	Lab Control Sample	Total/NA	Water	533	
380-217617-B-1-A MS	Matrix Spike	Total/NA	Water	533	
380-217617-C-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	

Analysis Batch: 232147

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-217618-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	533	232106
380-217618-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	533	232106
380-217618-3	FB: AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Water	533	232106
380-217618-4	FB: AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Water	533	232106
MBL 380-232106/20-A	Method Blank	Total/NA	Water	533	232106
LCS 380-232106/22-A	Lab Control Sample	Total/NA	Water	533	232106
MRL 380-232106/21-A	Lab Control Sample	Total/NA	Water	533	232106
380-217617-B-1-A MS	Matrix Spike	Total/NA	Water	533	232106
380-217617-C-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	232106

Lab Chronicle

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

Job ID: 380-217618-1
SDG: PFAS: Aiea Gulch Wells P1/P2

**Client Sample ID: AIEA GULCH WELLS PUMP 1
(331-201-TP071)**

Lab Sample ID: 380-217618-1

Date Collected: 06/01/26 09:20

Matrix: Drinking Water

Date Received: 06/03/26 10:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			232106	N8NE	EA POM	06/06/26 16:06
Total/NA	Analysis	533		1	232147	M7ML	EA POM	06/08/26 00:20
Total/NA	Prep	537.1 DW			231597	G9MN	EA POM	06/04/26 02:25
Total/NA	Analysis	EPA 537.1 V2		1	231722	Y5FM	EA POM	06/05/26 02:58

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

Lab Sample ID: 380-217618-2

Date Collected: 06/01/26 09:30

Matrix: Drinking Water

Date Received: 06/03/26 10:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			232106	N8NE	EA POM	06/06/26 16:06
Total/NA	Analysis	533		1	232147	M7ML	EA POM	06/08/26 00:30
Total/NA	Prep	537.1 DW			231597	G9MN	EA POM	06/04/26 02:25
Total/NA	Analysis	EPA 537.1 V2		1	231722	Y5FM	EA POM	06/05/26 03:08

**Client Sample ID: FB: AIEA GULCH WELLS PUMP 1
(331-201-TP071)**

Lab Sample ID: 380-217618-3

Date Collected: 06/01/26 09:20

Matrix: Water

Date Received: 06/03/26 10:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			232106	N8NE	EA POM	06/06/26 16:06
Total/NA	Analysis	533		1	232147	M7ML	EA POM	06/08/26 00:39
Total/NA	Prep	537.1 DW			231597	G9MN	EA POM	06/04/26 02:25
Total/NA	Analysis	EPA 537.1 V2		1	231722	Y5FM	EA POM	06/05/26 03:17

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

Lab Sample ID: 380-217618-4

Date Collected: 06/01/26 09:23

Matrix: Water

Date Received: 06/03/26 10:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			232106	N8NE	EA POM	06/06/26 16:06
Total/NA	Analysis	533		1	232147	M7ML	EA POM	06/08/26 00:49
Total/NA	Prep	537.1 DW			231597	G9MN	EA POM	06/04/26 02:25
Total/NA	Analysis	EPA 537.1 V2		1	231722	Y5FM	EA POM	06/05/26 03:26

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: 380-217618-1
SDG: PFAS: Aiea Gulch Wells P1/P2

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: 380-217618-1
SDG: PFAS: Aiea Gulch Wells P1/P2

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: 380-217618-1
SDG: PFAS: Aiea Gulch Wells P1/P2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
380-217618-1	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Drinking Water	06/01/26 09:20	06/03/26 10:05	Hawaii
380-217618-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Drinking Water	06/01/26 09:30	06/03/26 10:05	Hawaii
380-217618-3	FB: AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Water	06/01/26 09:20	06/03/26 10:05	Hawaii
380-217618-4	FB: AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Water	06/01/26 09:23	06/03/26 10:05	Hawaii


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

Eurofins Eaton Analytical Pomona

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

Chain of Custody Record



Client Information		Sampler: Kai Edison		Lab PM: Arada, Rachele		Carrier Tracking No(s)		COC No: 380-28005-2757 1													
Client Contact: Kirk Iwamoto		Phone: +1 808 748 5840		E Mail: Rachele.Arada@eurofinsus.com		State of Origin		Page: Page 1 of 1													
Company: City & County of Honolulu				PWSID		Analysis Requested															
Address: 630 South Beretania Street Chemistry Lab		Due Date Requested		Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) 625-1, 625-1_SIM 8015B_GRO_LL - (MOD) GRO 8015B_DRO_LL_CS - HNL Ranges: C16-C24/C24-C36/C8-C18 525-2_PREC - (MOD) 525plus Plus TICs 537-1_DW_PREC - 537 1 Full List 533 - All Analytes		Total Number of Containers		Preservation Codes R NaThioSO4 RA NaThio/HCl Q Na2SO3 QA Na2SO3/HCl Y Trizma I NH4 Acetate													
City: Honolulu		TAT Requested (days):						Other: 380-217618 COC													
State Zip: HI, 96843		Compliance Project <input type="checkbox"/> Yes <input type="checkbox"/> No																			
Phone: 808-748-5840 (Tel)		PO #: C20525101 exp 05312023																			
Email: kiwamoto@hbws.org		WC #:																			
Project Name: RED-HILL/HBWS Sites Event Desc RUSH Weekly Red Hill		Project #: 38001111		SSOW#:		Site: Hawaii		Special Instructions/Note:													
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wastefol, BT=Tissue, A=Air)	R	RA	Q	QA	Y	I										
Area Gulch Wells P1		1-Jun-2026	9:20	G	Water					3	3									chlorinated	
Area Gulch Wells P2		1-Jun-2026	9:30	G	Water					3	3										chlorinated
FB Area Gulch Wells P1		1-Jun-2026	9:20	G	Water					1	1										
FB Area Gulch Wells P2		1-Jun-2026	9:30	G	Water					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 872513615769															
Relinquished by [Redacted]		Date/Time: 6/2/26 12:00		Company: HBWS		Received by: [Signature]		Date/Time: 6/3/26 1005		Company: ECAP											
Relinquished by		Date/Time		Company		Received by		Date/Time		Company											
Relinquished by		Date/Time		Company		Received by		Date/Time		Company											
Custody Seals Intact. <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.		Cooler Temperature(s) °C and Other Remarks: (63/1) 2.6+0.0 26 901-frozen																	



ORIGIN ID HIKA (808) 748-5840
BWS CHEMLAB
HONOLULU BOARD OF WATER SUPPLY
630 S BERETANIA ST
CHEMICAL LABORATORY
HONOLULU, HI 96843
UNITED STATES US

SHIP DATE 02JUN26
ACTWGT 62.00 LB
CAD 258050552/INET4535

BILL RECIPIENT

TO EUROFINS RECEIVING DEPARTMENT
EUROFINS DRINKING WATER TESTING
941 CORPORATE CENTER DR

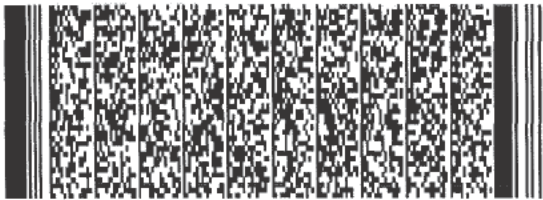
POMONA CA 91768

(626) 386-1100

REF

INV
PO:

DEPT:



FedEx
Express



258102601280100

58KJ3/C6A5/484B

1 of 2

WED - 03 JUN 10:30A

PRIORITY OVERNIGHT

TRK#

8725 1361 5758

0201

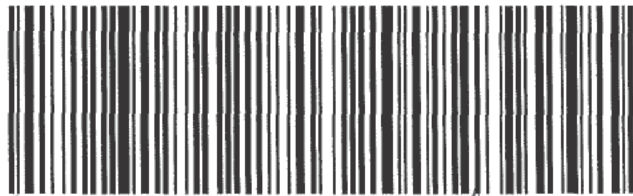
MASTER

91768

WM ONTA

CA-US

ONT



(631A) 1.8+0.0-16 961-100267
Mark Urrutia 6/3/26 1005

After printing this label
CONSIGNEE COPY - PLEASE PLACE IN FRONT OF POUCH
1. Fold the printed page along the horizontal line
2. Place label in shipping pouch and affix it to your shipment.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide



Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-217618-1
SDG Number: PFAS: Aiea Gulch Wells P1/P2

Login Number: 217618

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	
CIO4 headspace requirement met (>50% for CA, >30% for other states).	True	
Samples do not require splitting or compositing.	True	
Container provided by EEA	True	

