

ANALYTICAL REPORT

PREPARED FOR

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JOB DESCRIPTION

INTERA - Red-Hill-Incident
Site D2 PFAS 533/537.1

JOB NUMBER

380-217263-1

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



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Definitions/Glossary

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

Job ID: 380-217263-1
SDG: Site D2 PFAS 533/537.1

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: INTERA - Red-Hill-Incident

Job ID: 380-217263-1

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Job Narrative 380-217263-1

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 6/2/2026 9:45 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 3.2°C.

PFAS

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

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Detection Summary

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

Job ID: 380-217263-1
SDG: Site D2 PFAS 533/537.1

Client Sample ID: BWS2254-D2-AQ

Lab Sample ID: 380-217263-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanesulfonic acid (PFHxS)	9.6		2.0	ng/L	1		533	Total/NA
Perfluorooctanoic acid (PFOA)	3.9		2.0	ng/L	1		533	Total/NA
Perfluorooctanoic acid (PFOA)	4.4		2.0	ng/L	1		EPA 537.1 V2	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	10		2.0	ng/L	1		EPA 537.1 V2	Total/NA

Client Sample ID: BWS2254-D2-FB

Lab Sample ID: 380-217263-2

No Detections.

This Detection Summary does not include radiochemical test results.

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Client Sample Results

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

Job ID: 380-217263-1
SDG: Site D2 PFAS 533/537.1

Client Sample ID: BWS2254-D2-AQ

Lab Sample ID: 380-217263-1

Date Collected: 06/01/26 10:45

Matrix: Water

Date Received: 06/02/26 09:45

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		06/05/26 05:19	06/06/26 02:16	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9CI-PF3ONS)	<2.0		2.0	ng/L		06/05/26 05:19	06/06/26 02:16	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		06/05/26 05:19	06/06/26 02:16	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		06/05/26 05:19	06/06/26 02:16	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		06/05/26 05:19	06/06/26 02:16	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		06/05/26 05:19	06/06/26 02:16	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		06/05/26 05:19	06/06/26 02:16	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		06/05/26 05:19	06/06/26 02:16	1
Perfluorohexanesulfonic acid (PFHxS)	9.6		2.0	ng/L		06/05/26 05:19	06/06/26 02:16	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		06/05/26 05:19	06/06/26 02:16	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		06/05/26 05:19	06/06/26 02:16	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		06/05/26 05:19	06/06/26 02:16	1
Perfluorooctanoic acid (PFOA)	3.9		2.0	ng/L		06/05/26 05:19	06/06/26 02:16	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		06/05/26 05:19	06/06/26 02:16	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		06/05/26 05:19	06/06/26 02:16	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		06/05/26 05:19	06/06/26 02:16	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		06/05/26 05:19	06/06/26 02:16	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		06/05/26 05:19	06/06/26 02:16	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		06/05/26 05:19	06/06/26 02:16	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		06/05/26 05:19	06/06/26 02:16	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		06/05/26 05:19	06/06/26 02:16	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		06/05/26 05:19	06/06/26 02:16	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		06/05/26 05:19	06/06/26 02:16	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		06/05/26 05:19	06/06/26 02:16	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		06/05/26 05:19	06/06/26 02:16	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	98		50 - 200	06/05/26 05:19	06/06/26 02:16	1
13C6 PFDA	101		50 - 200	06/05/26 05:19	06/06/26 02:16	1
13C5 PFHxA	100		50 - 200	06/05/26 05:19	06/06/26 02:16	1
13C4 PFHpA	102		50 - 200	06/05/26 05:19	06/06/26 02:16	1
13C8 PFOA	107		50 - 200	06/05/26 05:19	06/06/26 02:16	1
13C9 PFNA	103		50 - 200	06/05/26 05:19	06/06/26 02:16	1
13C7 PFUnA	102		50 - 200	06/05/26 05:19	06/06/26 02:16	1
13C2 PFDoA	100		50 - 200	06/05/26 05:19	06/06/26 02:16	1
13C4 PFBA	107		50 - 200	06/05/26 05:19	06/06/26 02:16	1
13C5 PFPeA	117		50 - 200	06/05/26 05:19	06/06/26 02:16	1
13C3 PFBS	104		50 - 200	06/05/26 05:19	06/06/26 02:16	1
13C3 PFHxS	105		50 - 200	06/05/26 05:19	06/06/26 02:16	1
13C8 PFOS	105		50 - 200	06/05/26 05:19	06/06/26 02:16	1

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Client Sample Results

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

Job ID: 380-217263-1
SDG: Site D2 PFAS 533/537.1

Client Sample ID: BWS2254-D2-AQ

Lab Sample ID: 380-217263-1

Date Collected: 06/01/26 10:45

Matrix: Water

Date Received: 06/02/26 09:45

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2-4:2-FTS	113		50 - 200	06/05/26 05:19	06/06/26 02:16	1
13C2-6:2-FTS	107		50 - 200	06/05/26 05:19	06/06/26 02:16	1
13C2-8:2-FTS	93		50 - 200	06/05/26 05:19	06/06/26 02:16	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		06/03/26 13:37	06/04/26 18:57	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		06/03/26 13:37	06/04/26 18:57	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		06/03/26 13:37	06/04/26 18:57	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		06/03/26 13:37	06/04/26 18:57	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		06/03/26 13:37	06/04/26 18:57	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		06/03/26 13:37	06/04/26 18:57	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		06/03/26 13:37	06/04/26 18:57	1
Perfluorooctanoic acid (PFOA)	4.4		2.0	ng/L		06/03/26 13:37	06/04/26 18:57	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		06/03/26 13:37	06/04/26 18:57	1
Perfluorohexanesulfonic acid (PFHxS)	10		2.0	ng/L		06/03/26 13:37	06/04/26 18:57	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		06/03/26 13:37	06/04/26 18:57	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		06/03/26 13:37	06/04/26 18:57	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		06/03/26 13:37	06/04/26 18:57	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		06/03/26 13:37	06/04/26 18:57	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		06/03/26 13:37	06/04/26 18:57	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		06/03/26 13:37	06/04/26 18:57	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		06/03/26 13:37	06/04/26 18:57	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		06/03/26 13:37	06/04/26 18:57	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	97		70 - 130			06/03/26 13:37	06/04/26 18:57	1
13C2 PFHxA	110		70 - 130			06/03/26 13:37	06/04/26 18:57	1
13C2 PFDA	109		70 - 130			06/03/26 13:37	06/04/26 18:57	1
13C3-GenX	105		70 - 130			06/03/26 13:37	06/04/26 18:57	1

Client Sample ID: BWS2254-D2-FB

Lab Sample ID: 380-217263-2

Date Collected: 06/01/26 10:45

Matrix: Water

Date Received: 06/02/26 09:45

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		06/05/26 05:19	06/06/26 02:26	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		06/05/26 05:19	06/06/26 02:26	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		06/05/26 05:19	06/06/26 02:26	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		06/05/26 05:19	06/06/26 02:26	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		06/05/26 05:19	06/06/26 02:26	1

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Client Sample Results

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

Job ID: 380-217263-1
SDG: Site D2 PFAS 533/537.1

Client Sample ID: BWS2254-D2-FB

Lab Sample ID: 380-217263-2

Date Collected: 06/01/26 10:45

Matrix: Water

Date Received: 06/02/26 09:45

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		06/05/26 05:19	06/06/26 02:26	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		06/05/26 05:19	06/06/26 02:26	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		06/05/26 05:19	06/06/26 02:26	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		06/05/26 05:19	06/06/26 02:26	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		06/05/26 05:19	06/06/26 02:26	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		06/05/26 05:19	06/06/26 02:26	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		06/05/26 05:19	06/06/26 02:26	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		06/05/26 05:19	06/06/26 02:26	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		06/05/26 05:19	06/06/26 02:26	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		06/05/26 05:19	06/06/26 02:26	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		06/05/26 05:19	06/06/26 02:26	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		06/05/26 05:19	06/06/26 02:26	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		06/05/26 05:19	06/06/26 02:26	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		06/05/26 05:19	06/06/26 02:26	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		06/05/26 05:19	06/06/26 02:26	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		06/05/26 05:19	06/06/26 02:26	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		06/05/26 05:19	06/06/26 02:26	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		06/05/26 05:19	06/06/26 02:26	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		06/05/26 05:19	06/06/26 02:26	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		06/05/26 05:19	06/06/26 02:26	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	90		50 - 200	06/05/26 05:19	06/06/26 02:26	1
13C6 PFDA	101		50 - 200	06/05/26 05:19	06/06/26 02:26	1
13C5 PFHxA	107		50 - 200	06/05/26 05:19	06/06/26 02:26	1
13C4 PFHpA	108		50 - 200	06/05/26 05:19	06/06/26 02:26	1
13C8 PFOA	108		50 - 200	06/05/26 05:19	06/06/26 02:26	1
13C9 PFNA	105		50 - 200	06/05/26 05:19	06/06/26 02:26	1
13C7 PFUnA	100		50 - 200	06/05/26 05:19	06/06/26 02:26	1
13C2 PFDoA	105		50 - 200	06/05/26 05:19	06/06/26 02:26	1
13C4 PFBA	106		50 - 200	06/05/26 05:19	06/06/26 02:26	1
13C5 PFPeA	105		50 - 200	06/05/26 05:19	06/06/26 02:26	1
13C3 PFBS	102		50 - 200	06/05/26 05:19	06/06/26 02:26	1
13C3 PFHxS	103		50 - 200	06/05/26 05:19	06/06/26 02:26	1
13C8 PFOS	104		50 - 200	06/05/26 05:19	06/06/26 02:26	1
13C2-4:2-FTS	101		50 - 200	06/05/26 05:19	06/06/26 02:26	1
13C2-6:2-FTS	104		50 - 200	06/05/26 05:19	06/06/26 02:26	1
13C2-8:2-FTS	94		50 - 200	06/05/26 05:19	06/06/26 02:26	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		06/03/26 13:37	06/04/26 19:07	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		06/03/26 13:37	06/04/26 19:07	1

Eurofins Pomona

Client Sample Results

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

Job ID: 380-217263-1
SDG: Site D2 PFAS 533/537.1

Client Sample ID: BWS2254-D2-FB

Lab Sample ID: 380-217263-2

Date Collected: 06/01/26 10:45

Matrix: Water

Date Received: 06/02/26 09:45

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		06/03/26 13:37	06/04/26 19:07	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		06/03/26 13:37	06/04/26 19:07	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		06/03/26 13:37	06/04/26 19:07	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		06/03/26 13:37	06/04/26 19:07	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		06/03/26 13:37	06/04/26 19:07	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		06/03/26 13:37	06/04/26 19:07	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		06/03/26 13:37	06/04/26 19:07	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		06/03/26 13:37	06/04/26 19:07	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		06/03/26 13:37	06/04/26 19:07	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		06/03/26 13:37	06/04/26 19:07	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		06/03/26 13:37	06/04/26 19:07	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		06/03/26 13:37	06/04/26 19:07	1
Perfluorotridecanoic acid (PFTTrDA)	<2.0		2.0	ng/L		06/03/26 13:37	06/04/26 19:07	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		06/03/26 13:37	06/04/26 19:07	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		06/03/26 13:37	06/04/26 19:07	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		06/03/26 13:37	06/04/26 19:07	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	97		70 - 130			06/03/26 13:37	06/04/26 19:07	1
13C2 PFHxA	103		70 - 130			06/03/26 13:37	06/04/26 19:07	1
13C2 PFDA	99		70 - 130			06/03/26 13:37	06/04/26 19:07	1
13C3-GenX	99		70 - 130			06/03/26 13:37	06/04/26 19:07	1

Action Limit Summary

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

Job ID: 380-217263-1
SDG: Site D2 PFAS 533/537.1

Client Sample ID: BWS2254-D2-AQ

Lab Sample ID: 380-217263-1

Compliance Check

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

Analyte	Result	Qualifier	Unit	EPAMCL Limit	RL	Method	Prep Type
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	9.6		ng/L	10	2.0	533	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	<2.0		ng/L	4	2.0	533	Total/NA
Perfluorooctanoic acid (PFOA)	3.9		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)	4.4		ng/L	4	2.0	EPA 537.1 V2	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	10		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: BWS2254-D2-FB

Lab Sample ID: 380-217263-2

Compliance Check

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

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

Job ID: 380-217263-1
SDG: Site D2 PFAS 533/537.1

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)
380-217249-H-1-A MS	Matrix Spike	100	111	107	103
380-217249-I-1-A MSD	Matrix Spike Duplicate	102	114	107	106
380-217263-1	BWS2254-D2-AQ	97	110	109	105
380-217263-2	BWS2254-D2-FB	97	103	99	99
LCS 380-231368/18-A	Lab Control Sample	103	106	104	99
MBL 380-231368/16-A	Method Blank	95	103	102	104
MRL 380-231368/17-A	Lab Control Sample	101	113	110	106

Surrogate Legend

d5NEFOS = d5-NEtFOSAA

PFHxA = 13C2 PFHxA

PFDA = 13C2 PFDA

GenX = 13C3-GenX

Isotope Dilution Summary

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

Job ID: 380-217263-1
SDG: Site D2 PFAS 533/537.1

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)	PFDaA (50-200)
380-217263-1	BWS2254-D2-AQ	98	101	100	102	107	103	102	100
380-217263-2	BWS2254-D2-FB	90	101	107	108	108	105	100	105
380-217500-B-1-A MS	Matrix Spike	110	105	108	104	104	105	105	105
380-217500-B-1-B MSD	Matrix Spike Duplicate	106	104	106	102	104	106	101	102
LCS 380-231866/22-A	Lab Control Sample	107	105	108	106	108	106	104	106
MBL 380-231866/20-A	Method Blank	90	95	97	100	102	97	93	94
MRL 380-231866/21-A	Lab Control Sample	92	99	102	107	109	103	98	94

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)
380-217263-1	BWS2254-D2-AQ	107	117	104	105	105	113	107	93
380-217263-2	BWS2254-D2-FB	106	105	102	103	104	101	104	94
380-217500-B-1-A MS	Matrix Spike	108	105	108	106	107	100	105	105
380-217500-B-1-B MSD	Matrix Spike Duplicate	107	102	101	101	103	100	102	95
LCS 380-231866/22-A	Lab Control Sample	108	103	104	104	103	97	104	96
MBL 380-231866/20-A	Method Blank	109	107	98	99	98	106	104	95
MRL 380-231866/21-A	Lab Control Sample	113	111	108	105	109	105	112	97

Surrogate Legend

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

QC Sample Results

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

Job ID: 380-217263-1
SDG: Site D2 PFAS 533/537.1

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

Lab Sample ID: MBL 380-231866/20-A

Matrix: Water

Analysis Batch: 232018

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 231866

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<0.30		2.0	ng/L		06/05/26 05:19	06/05/26 23:34	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		06/05/26 05:19	06/05/26 23:34	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		06/05/26 05:19	06/05/26 23:34	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<1.0		2.0	ng/L		06/05/26 05:19	06/05/26 23:34	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		06/05/26 05:19	06/05/26 23:34	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		06/05/26 05:19	06/05/26 23:34	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		06/05/26 05:19	06/05/26 23:34	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		06/05/26 05:19	06/05/26 23:34	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		06/05/26 05:19	06/05/26 23:34	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		06/05/26 05:19	06/05/26 23:34	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		06/05/26 05:19	06/05/26 23:34	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		06/05/26 05:19	06/05/26 23:34	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		06/05/26 05:19	06/05/26 23:34	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		06/05/26 05:19	06/05/26 23:34	1
Perfluorobutanoic acid (PFBA)	<0.69		2.0	ng/L		06/05/26 05:19	06/05/26 23:34	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<0.38		2.0	ng/L		06/05/26 05:19	06/05/26 23:34	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<0.37		2.0	ng/L		06/05/26 05:19	06/05/26 23:34	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<0.48		2.0	ng/L		06/05/26 05:19	06/05/26 23:34	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<0.47		2.0	ng/L		06/05/26 05:19	06/05/26 23:34	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<0.25		2.0	ng/L		06/05/26 05:19	06/05/26 23:34	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<0.46		2.0	ng/L		06/05/26 05:19	06/05/26 23:34	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<0.15		2.0	ng/L		06/05/26 05:19	06/05/26 23:34	1
Perfluoropentanoic acid (PFPeA)	<0.38		2.0	ng/L		06/05/26 05:19	06/05/26 23:34	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.36		2.0	ng/L		06/05/26 05:19	06/05/26 23:34	1
Perfluoropentanesulfonic acid (PFPeS)	<0.39		2.0	ng/L		06/05/26 05:19	06/05/26 23:34	1

Isotope Dilution	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	90		50 - 200	06/05/26 05:19	06/05/26 23:34	1
13C6 PFDA	95		50 - 200	06/05/26 05:19	06/05/26 23:34	1
13C5 PFHxA	97		50 - 200	06/05/26 05:19	06/05/26 23:34	1
13C4 PFHpA	100		50 - 200	06/05/26 05:19	06/05/26 23:34	1
13C8 PFOA	102		50 - 200	06/05/26 05:19	06/05/26 23:34	1
13C9 PFNA	97		50 - 200	06/05/26 05:19	06/05/26 23:34	1
13C7 PFUnA	93		50 - 200	06/05/26 05:19	06/05/26 23:34	1
13C2 PFDoA	94		50 - 200	06/05/26 05:19	06/05/26 23:34	1
13C4 PFBA	109		50 - 200	06/05/26 05:19	06/05/26 23:34	1
13C5 PFPeA	107		50 - 200	06/05/26 05:19	06/05/26 23:34	1
13C3 PFBS	98		50 - 200	06/05/26 05:19	06/05/26 23:34	1
13C3 PFHxS	99		50 - 200	06/05/26 05:19	06/05/26 23:34	1

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QC Sample Results

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

Job ID: 380-217263-1
SDG: Site D2 PFAS 533/537.1

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

Lab Sample ID: MBL 380-231866/20-A

Matrix: Water

Analysis Batch: 232018

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 231866

Isotope Dilution	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 PFOS	98		50 - 200	06/05/26 05:19	06/05/26 23:34	1
13C2-4:2-FTS	106		50 - 200	06/05/26 05:19	06/05/26 23:34	1
13C2-6:2-FTS	104		50 - 200	06/05/26 05:19	06/05/26 23:34	1
13C2-8:2-FTS	95		50 - 200	06/05/26 05:19	06/05/26 23:34	1

Lab Sample ID: LCS 380-231866/22-A

Matrix: Water

Analysis Batch: 232018

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 231866

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	120	120		ng/L		99	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	120	112		ng/L		93	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	120	114		ng/L		95	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	120	115		ng/L		96	70 - 130
Perfluorobutanesulfonic acid (PFBS)	120	119		ng/L		98	70 - 130
Perfluorodecanoic acid (PFDA)	120	115		ng/L		96	70 - 130
Perfluorododecanoic acid (PFDaA)	120	115		ng/L		95	70 - 130
Perfluoroheptanoic acid (PFHpA)	120	116		ng/L		96	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	120	116		ng/L		96	70 - 130
Perfluorohexanoic acid (PFHxA)	120	113		ng/L		94	70 - 130
Perfluorononanoic acid (PFNA)	120	112		ng/L		93	70 - 130
Perfluorooctanesulfonic acid (PFOS)	120	115		ng/L		95	70 - 130
Perfluorooctanoic acid (PFOA)	120	113		ng/L		94	70 - 130
Perfluoroundecanoic acid (PFUnA)	120	119		ng/L		98	70 - 130
Perfluorobutanoic acid (PFBA)	120	113		ng/L		94	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	120	117		ng/L		97	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	120	122		ng/L		102	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	120	111		ng/L		92	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	120	105		ng/L		87	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEA)	120	108		ng/L		89	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	120	113		ng/L		94	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	120	118		ng/L		98	70 - 130
Perfluoropentanoic acid (PFPeA)	120	116		ng/L		96	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	120	115		ng/L		96	70 - 130

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QC Sample Results

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

Job ID: 380-217263-1
SDG: Site D2 PFAS 533/537.1

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

Lab Sample ID: LCS 380-231866/22-A

Matrix: Water

Analysis Batch: 232018

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 231866

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoropentanesulfonic acid (PFPeS)	120	118		ng/L		98	70 - 130
LCS LCS							
Isotope Dilution	%Recovery	Qualifier	Limits				
13C3 HFPO-DA	107		50 - 200				
13C6 PFDA	105		50 - 200				
13C5 PFHxA	108		50 - 200				
13C4 PFHpA	106		50 - 200				
13C8 PFOA	108		50 - 200				
13C9 PFNA	106		50 - 200				
13C7 PFUnA	104		50 - 200				
13C2 PFDoA	106		50 - 200				
13C4 PFBA	108		50 - 200				
13C5 PFPeA	103		50 - 200				
13C3 PFBS	104		50 - 200				
13C3 PFHxS	104		50 - 200				
13C8 PFOS	103		50 - 200				
13C2-4:2-FTS	97		50 - 200				
13C2-6:2-FTS	104		50 - 200				
13C2-8:2-FTS	96		50 - 200				

Lab Sample ID: MRL 380-231866/21-A

Matrix: Water

Analysis Batch: 232018

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 231866

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.01	1.93	J	ng/L		96	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	2.01	1.91	J	ng/L		95	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.01	2.17	J	ng/L		108	50 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.01	2.29	J	ng/L		114	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.01	2.09	J	ng/L		104	50 - 150
Perfluorodecanoic acid (PFDA)	2.01	2.16	J	ng/L		108	50 - 150
Perfluorododecanoic acid (PFDoA)	2.01	2.45	J	ng/L		122	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.01	2.28	J	ng/L		114	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.01	2.34	J	ng/L		117	50 - 150
Perfluorohexanoic acid (PFHxA)	2.01	2.17	J	ng/L		108	50 - 150
Perfluorononanoic acid (PFNA)	2.01	2.20	J	ng/L		110	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.01	2.18	J	ng/L		109	50 - 150
Perfluorooctanoic acid (PFOA)	2.01	2.19	J	ng/L		109	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.01	2.24	J	ng/L		112	50 - 150
Perfluorobutanoic acid (PFBA)	2.01	2.23	J	ng/L		111	50 - 150

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QC Sample Results

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

Job ID: 380-217263-1
SDG: Site D2 PFAS 533/537.1

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

Lab Sample ID: MRL 380-231866/21-A

Matrix: Water

Analysis Batch: 232018

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 231866

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	2.01	2.33	J	ng/L		116	50 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	2.01	2.48	J	ng/L		123	50 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	2.01	2.25	J	ng/L		112	50 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	2.01	1.78	J	ng/L		89	50 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	2.01	1.96	J	ng/L		97	50 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	2.01	2.04	J	ng/L		102	50 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.01	2.15	J	ng/L		107	50 - 150
Perfluoropentanoic acid (PFPeA)	2.01	2.14	J	ng/L		107	50 - 150
Perfluoroheptanesulfonic acid (PFHpS)	2.01	2.22	J	ng/L		110	50 - 150
Perfluoropentanesulfonic acid (PFPeS)	2.01	2.20	J	ng/L		109	50 - 150

Isotope Dilution	MRL %Recovery	MRL Qualifier	MRL Limits
13C3 HFPO-DA	92		50 - 200
13C6 PFDA	99		50 - 200
13C5 PFHxA	102		50 - 200
13C4 PFHpA	107		50 - 200
13C8 PFOA	109		50 - 200
13C9 PFNA	103		50 - 200
13C7 PFUnA	98		50 - 200
13C2 PFDoA	94		50 - 200
13C4 PFBA	113		50 - 200
13C5 PFPeA	111		50 - 200
13C3 PFBS	108		50 - 200
13C3 PFHxS	105		50 - 200
13C8 PFOS	109		50 - 200
13C2-4:2-FTS	105		50 - 200
13C2-6:2-FTS	112		50 - 200
13C2-8:2-FTS	97		50 - 200

Lab Sample ID: 380-217500-B-1-A MS

Matrix: Water

Analysis Batch: 232018

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 231866

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		121	115		ng/L		95	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		121	113		ng/L		94	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		121	110		ng/L		91	70 - 130

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QC Sample Results

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

Job ID: 380-217263-1
SDG: Site D2 PFAS 533/537.1

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

Lab Sample ID: 380-217500-B-1-A MS

Matrix: Water

Analysis Batch: 232018

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 231866

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide	<2.0		121	118		ng/L		98	70 - 130
Dimer Acid (HFPO-DA/GenX)									
Perfluorobutanesulfonic acid (PFBS)	<2.0		121	120		ng/L		98	70 - 130
Perfluorodecanoic acid (PFDA)	<2.0		121	118		ng/L		98	70 - 130
Perfluorododecanoic acid (PFDoA)	<2.0		121	119		ng/L		98	70 - 130
Perfluoroheptanoic acid (PFHpA)	<2.0		121	116		ng/L		96	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	2.8		121	121		ng/L		98	70 - 130
Perfluorohexanoic acid (PFHxA)	2.3		121	117		ng/L		95	70 - 130
Perfluorononanoic acid (PFNA)	<2.0		121	114		ng/L		95	70 - 130
Perfluorooctanesulfonic acid (PFOS)	<2.0		121	117		ng/L		96	70 - 130
Perfluorooctanoic acid (PFOA)	<2.0		121	124		ng/L		101	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		121	116		ng/L		96	70 - 130
Perfluorobutanoic acid (PFBA)	<2.0		121	117		ng/L		96	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		121	113		ng/L		94	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		121	123		ng/L		102	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		121	111		ng/L		92	70 - 130
Nonafluoro-3,6-dioxahexanoic acid (NFDHA)	<2.0		121	117		ng/L		97	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		121	111		ng/L		92	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		121	119		ng/L		98	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		121	119		ng/L		98	70 - 130
Perfluoropentanoic acid (PFPeA)	3.1		121	123		ng/L		99	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		121	115		ng/L		95	70 - 130
Perfluoropentanesulfonic acid (PFPeS)	<2.0		121	119		ng/L		98	70 - 130

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

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QC Sample Results

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

Job ID: 380-217263-1
SDG: Site D2 PFAS 533/537.1

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

Lab Sample ID: 380-217500-B-1-A MS

Matrix: Water

Analysis Batch: 232018

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 231866

Isotope Dilution	MS %Recovery	MS Qualifier	Limits
13C2-4:2-FTS	100		50 - 200
13C2-6:2-FTS	105		50 - 200
13C2-8:2-FTS	105		50 - 200

Lab Sample ID: 380-217500-B-1-B MSD

Matrix: Water

Analysis Batch: 232018

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 231866

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		121	109		ng/L		90	70 - 130	5	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<2.0		121	111		ng/L		92	70 - 130	2	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		121	118		ng/L		98	70 - 130	7	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		121	121		ng/L		100	70 - 130	2	30
Perfluorobutanesulfonic acid (PFBS)	<2.0		121	119		ng/L		98	70 - 130	0	30
Perfluorodecanoic acid (PFDA)	<2.0		121	116		ng/L		96	70 - 130	2	30
Perfluorododecanoic acid (PFDaA)	<2.0		121	118		ng/L		97	70 - 130	1	30
Perfluoroheptanoic acid (PFHpA)	<2.0		121	116		ng/L		95	70 - 130	1	30
Perfluorohexanesulfonic acid (PFHxS)	2.8		121	122		ng/L		99	70 - 130	1	30
Perfluorohexanoic acid (PFHxA)	2.3		121	115		ng/L		93	70 - 130	2	30
Perfluorononanoic acid (PFNA)	<2.0		121	110		ng/L		91	70 - 130	4	30
Perfluorooctanesulfonic acid (PFOS)	<2.0		121	116		ng/L		95	70 - 130	1	30
Perfluorooctanoic acid (PFOA)	<2.0		121	120		ng/L		98	70 - 130	3	30
Perfluoroundecanoic acid (PFUnA)	<2.0		121	122		ng/L		101	70 - 130	4	30
Perfluorobutanoic acid (PFBA)	<2.0		121	116		ng/L		95	70 - 130	1	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		121	118		ng/L		97	70 - 130	4	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		121	121		ng/L		100	70 - 130	1	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		121	110		ng/L		91	70 - 130	0	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		121	113		ng/L		93	70 - 130	4	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEA)	<2.0		121	114		ng/L		94	70 - 130	2	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		121	122		ng/L		101	70 - 130	3	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		121	124		ng/L		103	70 - 130	4	30
Perfluoropentanoic acid (PFPeA)	3.1		121	119		ng/L		96	70 - 130	3	30
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		121	118		ng/L		97	70 - 130	3	30
Perfluoropentanesulfonic acid (PFPeS)	<2.0		121	117		ng/L		97	70 - 130	1	30

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QC Sample Results

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

Job ID: 380-217263-1
SDG: Site D2 PFAS 533/537.1

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

Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits
13C3 HFPO-DA	106		50 - 200
13C6 PFDA	104		50 - 200
13C5 PFHxA	106		50 - 200
13C4 PFHpA	102		50 - 200
13C8 PFOA	104		50 - 200
13C9 PFNA	106		50 - 200
13C7 PFUnA	101		50 - 200
13C2 PFDoA	102		50 - 200
13C4 PFBA	107		50 - 200
13C5 PFPeA	102		50 - 200
13C3 PFBS	101		50 - 200
13C3 PFHxS	101		50 - 200
13C8 PFOS	103		50 - 200
13C2-4:2-FTS	100		50 - 200
13C2-6:2-FTS	102		50 - 200
13C2-8:2-FTS	95		50 - 200

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

Lab Sample ID: MBL 380-231368/16-A
Matrix: Water
Analysis Batch: 231623

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 231368

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<1.0		2.0	ng/L		06/03/26 13:37	06/04/26 17:03	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		06/03/26 13:37	06/04/26 17:03	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		06/03/26 13:37	06/04/26 17:03	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<0.58		2.0	ng/L		06/03/26 13:37	06/04/26 17:03	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<0.42		2.0	ng/L		06/03/26 13:37	06/04/26 17:03	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		06/03/26 13:37	06/04/26 17:03	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		06/03/26 13:37	06/04/26 17:03	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		06/03/26 13:37	06/04/26 17:03	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		06/03/26 13:37	06/04/26 17:03	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		06/03/26 13:37	06/04/26 17:03	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		06/03/26 13:37	06/04/26 17:03	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		06/03/26 13:37	06/04/26 17:03	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		06/03/26 13:37	06/04/26 17:03	1
Perfluorotetradecanoic acid (PFTA)	<0.54		2.0	ng/L		06/03/26 13:37	06/04/26 17:03	1
Perfluorotridecanoic acid (PFTrDA)	<0.36		2.0	ng/L		06/03/26 13:37	06/04/26 17:03	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		06/03/26 13:37	06/04/26 17:03	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<0.30		2.0	ng/L		06/03/26 13:37	06/04/26 17:03	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		06/03/26 13:37	06/04/26 17:03	1
Surrogate	MBL %Recovery	MBL Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	95		70 - 130			06/03/26 13:37	06/04/26 17:03	1
13C2 PFHxA	103		70 - 130			06/03/26 13:37	06/04/26 17:03	1
13C2 PFDA	102		70 - 130			06/03/26 13:37	06/04/26 17:03	1

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QC Sample Results

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

Job ID: 380-217263-1
SDG: Site D2 PFAS 533/537.1

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

Lab Sample ID: MBL 380-231368/16-A

Matrix: Water

Analysis Batch: 231623

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 231368

Surrogate	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3-GenX	104		70 - 130	06/03/26 13:37	06/04/26 17:03	1

Lab Sample ID: LCS 380-231368/18-A

Matrix: Water

Analysis Batch: 231623

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 231368

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide	50.1	47.2		ng/L		94	70 - 130
Dimer Acid (HFPO-DA/GenX)							
Perfluorooctanesulfonic acid (PFOS)	50.1	47.3		ng/L		94	70 - 130
Perfluoroundecanoic acid (PFUnA)	50.1	49.5		ng/L		99	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	50.1	48.1		ng/L		96	70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	50.1	48.1		ng/L		96	70 - 130
Perfluorohexanoic acid (PFHxA)	50.1	47.5		ng/L		95	70 - 130
Perfluorododecanoic acid (PFDoA)	50.1	49.0		ng/L		98	70 - 130
Perfluorooctanoic acid (PFOA)	50.1	50.1		ng/L		100	70 - 130
Perfluorodecanoic acid (PFDA)	50.1	45.1		ng/L		90	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	50.1	49.5		ng/L		99	70 - 130
Perfluorobutanesulfonic acid (PFBS)	50.1	49.6		ng/L		99	70 - 130
Perfluoroheptanoic acid (PFHpA)	50.1	51.7		ng/L		103	70 - 130
Perfluorononanoic acid (PFNA)	50.1	47.4		ng/L		95	70 - 130
Perfluorotetradecanoic acid (PFTA)	50.1	39.7		ng/L		79	70 - 130
Perfluorotridecanoic acid (PFTrDA)	50.1	44.7		ng/L		89	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	50.1	46.1		ng/L		92	70 - 130
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	50.1	45.5		ng/L		91	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	50.1	48.3		ng/L		96	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
d5-NEtFOSAA	103		70 - 130
13C2 PFHxA	106		70 - 130
13C2 PFDA	104		70 - 130
13C3-GenX	99		70 - 130

QC Sample Results

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

Job ID: 380-217263-1
SDG: Site D2 PFAS 533/537.1

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

Lab Sample ID: MRL 380-231368/17-A

Matrix: Water

Analysis Batch: 231623

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 231368

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.01	2.11	J	ng/L		105	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.01	2.00	J	ng/L		100	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.01	2.16	J	ng/L		108	50 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.01	1.94	J	ng/L		96	50 - 150
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.01	1.91	J	ng/L		95	50 - 150
Perfluorohexanoic acid (PFHxA)	2.01	2.17	J	ng/L		108	50 - 150
Perfluorododecanoic acid (PFDoA)	2.01	2.17	J	ng/L		108	50 - 150
Perfluorooctanoic acid (PFOA)	2.01	2.26	J	ng/L		113	50 - 150
Perfluorodecanoic acid (PFDA)	2.01	1.99	J	ng/L		99	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.01	2.10	J	ng/L		105	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.01	2.05	J	ng/L		102	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.01	2.23	J	ng/L		111	50 - 150
Perfluorononanoic acid (PFNA)	2.01	2.15	J	ng/L		107	50 - 150
Perfluorotetradecanoic acid (PFTA)	2.01	1.86	J	ng/L		93	50 - 150
Perfluorotridecanoic acid (PFTrDA)	2.01	2.12	J	ng/L		106	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	2.01	2.00	J	ng/L		100	50 - 150
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.01	1.95	J	ng/L		97	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.01	2.06	J	ng/L		103	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	Limits
d5-NEtFOSAA	101		70 - 130
13C2 PFHxA	113		70 - 130
13C2 PFDA	110		70 - 130
13C3-GenX	106		70 - 130

Lab Sample ID: 380-217249-H-1-A MS

Matrix: Water

Analysis Batch: 231623

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 231368

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	25.2		ng/L		100	70 - 130
Perfluorooctanesulfonic acid (PFOS)	<2.0		25.2	26.6		ng/L		104	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		25.2	26.8		ng/L		107	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		25.2	24.3		ng/L		97	70 - 130

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QC Sample Results

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

Job ID: 380-217263-1
SDG: Site D2 PFAS 533/537.1

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

Lab Sample ID: 380-217249-H-1-A MS

Matrix: Water

Analysis Batch: 231623

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 231368

Report Date: 10/10/2023									
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		25.2	23.8		ng/L		94	70 - 130
Perfluorohexanoic acid (PFHxA)	<2.0		25.2	27.4		ng/L		107	70 - 130
Perfluorododecanoic acid (PFDoA)	<2.0		25.2	25.5		ng/L		101	70 - 130
Perfluorooctanoic acid (PFOA)	<2.0		25.2	27.1		ng/L		108	70 - 130
Perfluorodecanoic acid (PFDA)	<2.0		25.2	25.9		ng/L		103	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	<2.0		25.2	25.9		ng/L		101	70 - 130
Perfluorobutanesulfonic acid (PFBS)	<2.0		25.2	26.8		ng/L		106	70 - 130
Perfluoroheptanoic acid (PFHpA)	<2.0		25.2	26.8		ng/L		106	70 - 130
Perfluorononanoic acid (PFNA)	<2.0		25.2	26.2		ng/L		104	70 - 130
Perfluorotetradecanoic acid (PFTA)	<2.0		25.2	24.7		ng/L		98	70 - 130
Perfluorotridecanoic acid (PFTrDA)	<2.0		25.2	26.3		ng/L		105	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		25.2	25.5		ng/L		101	70 - 130
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		25.2	25.0		ng/L		99	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		25.2	26.4		ng/L		105	70 - 130

Lab Sample ID: 380-217249-I-1-A MSD

Matrix: Water

Analysis Batch: 231623

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 231368

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		25.2	26.4		ng/L		105	70 - 130	5	30
Perfluorooctanesulfonic acid (PFOS)	<2.0		25.2	27.0		ng/L		106	70 - 130	2	30
Perfluoroundecanoic acid (PFUnA)	<2.0		25.2	27.3		ng/L		108	70 - 130	2	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		25.2	24.9		ng/L		99	70 - 130	2	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		25.2	23.5		ng/L		93	70 - 130	1	30
Perfluorohexanoic acid (PFHxA)	<2.0		25.2	27.3		ng/L		107	70 - 130	0	30
Perfluorododecanoic acid (PFDoA)	<2.0		25.2	26.5		ng/L		105	70 - 130	4	30
Perfluorooctanoic acid (PFOA)	<2.0		25.2	26.3		ng/L		105	70 - 130	3	30
Perfluorodecanoic acid (PFDA)	<2.0		25.2	26.4		ng/L		105	70 - 130	2	30

Eurofins Pomona

QC Sample Results

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

Job ID: 380-217263-1
SDG: Site D2 PFAS 533/537.1

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

Lab Sample ID: 380-217249-I-1-A MSD

Matrix: Water

Analysis Batch: 231623

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 231368

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorohexanesulfonic acid (PFHxS)	<2.0		25.2	26.9		ng/L		105	70 - 130	4	30
Perfluorobutanesulfonic acid (PFBS)	<2.0		25.2	27.1		ng/L		108	70 - 130	1	30
Perfluoroheptanoic acid (PFHpA)	<2.0		25.2	28.1		ng/L		112	70 - 130	5	30
Perfluorononanoic acid (PFNA)	<2.0		25.2	27.1		ng/L		108	70 - 130	3	30
Perfluorotetradecanoic acid (PFTA)	<2.0		25.2	24.2		ng/L		96	70 - 130	2	30
Perfluorotridecanoic acid (PFTTrDA)	<2.0		25.2	26.2		ng/L		104	70 - 130	0	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		25.2	25.1		ng/L		100	70 - 130	2	30
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		25.2	25.3		ng/L		101	70 - 130	1	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		25.2	26.9		ng/L		107	70 - 130	2	30
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
d5-NEtFOSAA	102		70 - 130								
13C2 PFHxA	114		70 - 130								
13C2 PFDA	107		70 - 130								
13C3-GenX	106		70 - 130								

QC Association Summary

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

Job ID: 380-217263-1
SDG: Site D2 PFAS 533/537.1

LCMS

Prep Batch: 231368

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-217263-1	BWS2254-D2-AQ	Total/NA	Water	537.1 DW	
380-217263-2	BWS2254-D2-FB	Total/NA	Water	537.1 DW	
MBL 380-231368/16-A	Method Blank	Total/NA	Water	537.1 DW	
LCS 380-231368/18-A	Lab Control Sample	Total/NA	Water	537.1 DW	
MRL 380-231368/17-A	Lab Control Sample	Total/NA	Water	537.1 DW	
380-217249-H-1-A MS	Matrix Spike	Total/NA	Water	537.1 DW	
380-217249-I-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	537.1 DW	

Analysis Batch: 231623

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-217263-1	BWS2254-D2-AQ	Total/NA	Water	EPA 537.1 V2	231368
380-217263-2	BWS2254-D2-FB	Total/NA	Water	EPA 537.1 V2	231368
MBL 380-231368/16-A	Method Blank	Total/NA	Water	EPA 537.1 V2	231368
LCS 380-231368/18-A	Lab Control Sample	Total/NA	Water	EPA 537.1 V2	231368
MRL 380-231368/17-A	Lab Control Sample	Total/NA	Water	EPA 537.1 V2	231368
380-217249-H-1-A MS	Matrix Spike	Total/NA	Water	EPA 537.1 V2	231368
380-217249-I-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	EPA 537.1 V2	231368

Prep Batch: 231866

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-217263-1	BWS2254-D2-AQ	Total/NA	Water	533	
380-217263-2	BWS2254-D2-FB	Total/NA	Water	533	
MBL 380-231866/20-A	Method Blank	Total/NA	Water	533	
LCS 380-231866/22-A	Lab Control Sample	Total/NA	Water	533	
MRL 380-231866/21-A	Lab Control Sample	Total/NA	Water	533	
380-217500-B-1-A MS	Matrix Spike	Total/NA	Water	533	
380-217500-B-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	533	

Analysis Batch: 232018

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-217263-1	BWS2254-D2-AQ	Total/NA	Water	533	231866
380-217263-2	BWS2254-D2-FB	Total/NA	Water	533	231866
MBL 380-231866/20-A	Method Blank	Total/NA	Water	533	231866
LCS 380-231866/22-A	Lab Control Sample	Total/NA	Water	533	231866
MRL 380-231866/21-A	Lab Control Sample	Total/NA	Water	533	231866
380-217500-B-1-A MS	Matrix Spike	Total/NA	Water	533	231866
380-217500-B-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	533	231866

Lab Chronicle

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

Job ID: 380-217263-1
SDG: Site D2 PFAS 533/537.1

Client Sample ID: BWS2254-D2-AQ

Lab Sample ID: 380-217263-1

Date Collected: 06/01/26 10:45

Matrix: Water

Date Received: 06/02/26 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			231866	XTD8	EA POM	06/05/26 05:19
Total/NA	Analysis	533		1	232018	Y5FM	EA POM	06/06/26 02:16
Total/NA	Prep	537.1 DW			231368	LM3A	EA POM	06/03/26 13:37
Total/NA	Analysis	EPA 537.1 V2		1	231623	Y5FM	EA POM	06/04/26 18:57

Client Sample ID: BWS2254-D2-FB

Lab Sample ID: 380-217263-2

Date Collected: 06/01/26 10:45

Matrix: Water

Date Received: 06/02/26 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			231866	XTD8	EA POM	06/05/26 05:19
Total/NA	Analysis	533		1	232018	Y5FM	EA POM	06/06/26 02:26
Total/NA	Prep	537.1 DW			231368	LM3A	EA POM	06/03/26 13:37
Total/NA	Analysis	EPA 537.1 V2		1	231623	Y5FM	EA POM	06/04/26 19:07

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: INTERA - Red-Hill-Incident

Job ID: 380-217263-1
SDG: Site D2 PFAS 533/537.1

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 *

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

Method Summary

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

Job ID: 380-217263-1
SDG: Site D2 PFAS 533/537.1

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: INTERA - Red-Hill-Incident

Job ID: 380-217263-1
SDG: Site D2 PFAS 533/537.1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
380-217263-1	BWS2254-D2-AQ	Water	06/01/26 10:45	06/02/26 09:45	Hawaii
380-217263-2	BWS2254-D2-FB	Water	06/01/26 10:45	06/02/26 09:45	Hawaii

- 1
- 2
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- 5
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- 8
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- 10
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- 14
- 15
- 16
- 17

[illegible]

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-217263-1
SDG Number: Site D2 PFAS 533/537.1

Login Number: 217263

List Number: 1

Creator: Edrosa, Rey

List Source: Eurofins Pomona

Question	Answer	Comment
The coolers custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
Samples were received on ice.	True	
Cooler(s) Temperature is acceptable.	True	
Cooler(s) Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and is legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
CIO4 headspace requirement met (>50% for CA, >30% for other states).	N/A	
Samples do not require splitting or compositing.	True	
Container provided by EEA	True	