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Environmental Scientist
3M Company
3M Center
Bldg 224-5-W-17
Maplewood, MN 55144

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ENVIRONMENT

Subject:
3M-Roofing Granule Plant
Preliminary Report
Per- and Polyfluoroalkyl Substances Sampling Investigation
Corona, California

Date:
November 6, 2020

Contact:
Trenna Seilheimer

Phone:
414 277 6262

Email:
trenna.seilheimer@arcadis.com

Our ref:
30060094

Dear Ms. Foster:

Arcadis U.S., Inc. (Arcadis) was retained by the 3M Company (3M) to conduct Per- and Polyfluoroalkyl Substances (PFAS) sampling at the 3M Roofing Granule Plant located at 18750 Minnesota Road in Corona, Riverside County, California (the Site). The objective of the PFAS sampling was to collect groundwater, surface water, and sediment samples per the request of the Santa Ana Regional Water Quality Control Board (RWQCB), and in accordance with the California State Water Quality Control Board (the Board) Per- and Polyfluoroalkyl Substances (PFAS) Sampling Guidelines (dated September 2020).

Site Background

The Site is approximately 1,300 acres located adjacent to a predominantly industrial area in the western portion of Riverside County, California (**Figure 1**). The Site consists of multiple buildings, two onsite ponds, and production wells on hilly topography. The Site manufactures roofing granules for the asphalt shingle industry. Current information indicates that the Site has not historically and currently does not manufacture PFAS or use PFAS in its operations. Water present in the two onsite ponds is recirculated back into the manufacturing process. The ponds do not have an outfall that discharges to the Temescal Wash and the Site is not aware of the ponds overtopping during stormwater events.

Scope of Work

Arcadis conducted the PFAS sampling on September 24, 2020, per the 3M prepared Monitoring and Analysis Plan (Plan) dated July 24, 2020. The Plan was approved by the Santa Ana RWQCB via email on August 25, 2020. Mr. William Rice of the Santa Ana RWQCB accompanied Arcadis during the sampling activities conducted on September 24, 2020. Samples were collected from the locations identified below and are presented in **Figure 2**:

Location Name	Latitude	Longitude	Sample Type
Production Well #1	33°50'43.31" N	117°30'38.22" W	Groundwater
Production Well #2	33°50'45.07" N	117°30'38.95" W	Groundwater
South Pond	33°50'56.25" N	117°30'42.77" W	Sediment
South Pond	33°50'57.50" N	117°30'42.73" W	Surface Water
Upstream- Temescal Wash	33°50'36.58" N	117°30'36.97" W	Sediment/Soil
Downstream- Temescal Wash	33°51'9.03" N	117°31'11.03" W	Surface Water

Groundwater samples collected from the production wells were also measured for the following water quality parameters: temperature, conductivity, pH, turbidity, dissolved oxygen (DO), and oxygen reduction potential (ORP). The parameters were collected using a Horiba U-5000 Water Quality Meter. Groundwater samples collected from the production wells were additionally analyzed for the following general chemistry parameters: total dissolved solids, chloride, carbonate, bicarbonate, nitrate-nitrogen, sulfate, calcium, magnesium, potassium, and sodium. Recorded water quality parameters are presented in **Table 1**.

Sampling Results

Below is a summary of the analytical results from the PFAS sampling. Photographs of the sampling locations are presented in **Attachment A**. Laboratory reports are presented in **Attachment B**. Arcadis performed a data validation of the analytical results which is presented in **Attachment C**.

Production Wells

Production wells #1 and #2 are located southeast of the main facility office and north of River Rock Road. The production wells are not used as a potable water source for the facility. The production wells were flushed via a sample spigot for 5 minutes before recording water quality parameters to ensure readings did not include any stagnant water that may have been present in the pump system. At that time, the water quality parameters identified above were collected for at least 15 minutes until stabilization. Groundwater samples were then collected directly from each production well spigot. Duplicate and matrix spike/matrix spike duplicate quality assurance/quality control samples were also collected. **Table 2** presents the groundwater analytical results.

South Pond

The south pond is located just to the northwest of the facility's main office. The surface water sample was collected directly into approved, laboratory supplied sample containers from the northern catwalk. The sediment sample was collected from the southern end of the pond as requested in the field by the RWQCB. The sediment sample was collected with a stainless-steel scoop at a depth of approximately 4 to 5 inches below ground surface (bgs) and transferred into approved laboratory supplied containers. **Table 3** presents the surface water analytical results and **Table 4** presents the sediment analytical results.

Temescal Wash

The upstream location in the Temescal Wash is located approximately 1,000 feet south-southeast of the facility office building. No surface water was present for the upstream location; therefore, a soil sample was collected at 1.5 feet bgs within the Wash. The soil sample was collected with a stainless-steel hand auger and transferred into approved, laboratory supplied containers. The downstream location in the Temescal Wash is located approximately 4,750 feet northwest of the facility office building. Surface water was present at the downstream location. The surface water sample was collected directly into approved, laboratory supplied containers at a depth of approximately 2 inches below the surface of the ponded water (Temescal Wash did not contain active flow at the time of sample collection). The ponded water was approximately 3 feet by 5 feet and 4 to 6 inches deep. **Table 3** presents the surface water analytical results and **Table 4** presents the sediment/soil analytical results.

Conclusions

With no water available to collect an upstream surface water sample, the current sample results are considered preliminary and conclusions should not be made until a complete dataset is obtained. To obtain that full dataset, a sample will be collected from an upstream surface water location in the Temescal Wash once there is sufficient flow. Arcadis will review weather data and reports to determine when this sampling may be able to occur. As requested by the RWQCB, this Preliminary Report has been drafted with the analytical results collected on September 24, 2020. A Final Report will be prepared with the analytical results of the upstream surface water sample.

3M will be evaluating publicly available data in the vicinity of the Site via the California State Water Resources Control Board GeoTracker system. In addition, 3M is assessing the need for additional sampling events to be conducted in order to adequately understand the variability in the PFAS analytical data results in the area of the Site.

Sincerely,

Arcadis U.S., Inc.

Trenna Seilheimer
Project Manager

Erika Houtz, PhD, PE
Senior Engineer, PFAS Subject Matter Expert

Enclosures:

Tables

1 Recorded Water Quality Parameters
2 Groundwater Analytical Results
3 Surface Water Analytical Results
4 Sediment/Soil Analytical Results

Figures

1 Site Location Map
2 Sample Location Map

Attachments

A Photographic Log
B Laboratory Report
C Data Validation

TABLES

Table 1
Groundwater Field Parameters
3M-Roofing Granule Plant
Corona, Riverside County, CA

ARCADIS Design & Consultancy for natural and built assets

Date	Time	Temperature	pH	Turbidity	Specific Conductivity	Dissolved Oxygen	Oxidation Reduction Potential	Comments
		°F	SI Units	NTUs	mS/cm	mg/L	mV	
Production Well #1								
9/24/2020	12:30	--	--	--	--	--	--	Pump on, began 5 minute purge
	12:35	27.68	3.81	49.1	1.14	18.39	259	--
	12:38	24.77	6.45	24.2	1.55	11.82	181	--
	12:41	24.42	7.00	19	1.55	11.21	170	--
	12:44	24.41	7.51	18.7	1.50	11.01	161	--
	12:48	24.18	7.64	21.4	1.54	15.99	157	--
	12:50	23.75	7.70	14.9	1.55	18.54	153	--
	12:53	24.54	7.72	13.2	1.51	12.10	150	--
	13:05	--	--	--	--	--	--	Pump Off
Production Well #2								
9/24/2020	13:18	--	--	--	--	--	--	Pump on, began 5 minute purge
	13:23	25.91	7.86	1.6	1.58	4.26	148	--
	13:26	25.1	7.66	0	1.57	9.61	143	--
	13:29	24.8	7.61	0	1.58	18.99	138	--
	13:32	24.52	7.59	0	1.59	18.05	134	--
	13:35	24.35	7.57	0	1.59	4.32	132	--
	13:38	24.05	7.54	0	1.59	18.22	130	--
	13:44	--	--	--	--	--	--	Pump Off

Acronyms and Abbreviations:
"--" - not recorded
°F - degrees Farenheit
mg/L - milligrams per liter
mS/cm - millisiemens per centimeter
mV - millivolts
NTU - Nephelometric Turbidity Unit

Table 2
Groundwater Analytical Results
3M-Roofing Granule Plant
Corona, Riverside County, CA

ARCADIS Design & Consultancy for natural and built assets

Chemical Name	Location ID	Production Well #1	Production Well #2	Production Well #2
	Sample ID	Corona-prod well 1-092420	Corona-prod well 2-092420	Corona-dup-092420
	Sample Date	9/24/2020	9/24/2020	9/24/2020
	Unit			
Metals				
Calcium	mg/L	160	150	--
Magnesium	mg/L	42	38	--
Potassium	mg/L	5.8	4.1	--
Sodium	mg/L	110	130	--
Wet Chemistry				
Sulfate	mg/L	270	270	280
Total Dissolved Solids	mg/L	940	980	1000
Bicarbonate Alkalinity as CaCO3	mg/L	270	260	260
Chloride	mg/L	170	170	180
Total Alkalinity as CaCO3 to pH	mg/L	270	260J	260
HPLC/IC - EPA 300.0 R2.1				
Nitrogen, Nitrate	mg/L	6.4	5.9	6
LCMS - EPA 537 (Mod)				
Perfluoropentanoic acid	ng/L	20	16	17
Perfluoropentanesulfonic acid	ng/L	2.7	2.7	2.8
Perfluorooctanoic acid	ng/L	25	23	24
Perfluorooctanesulfonic acid	ng/L	15	21	22
Perfluorononanoic acid	ng/L	2.8	2.9	3
Perfluorohexanoic acid	ng/L	19	17	17
Perfluorohexanesulfonic acid	ng/L	9.1	9.4	9.8
Perfluoroheptanoic acid	ng/L	7.9	5.9	6.4
Perfluoroheptanesulfonic acid	ng/L	ND	0.62	0.71
Perfluorobutanoic acid	ng/L	17	22	23
Perfluorobutanesulfonic acid	ng/L	29	31	32

Qualifier Definitions:
J - Result < RL but ≥ to MDL, concentration is approximate value

Acronyms and Abbreviations:
"--" - not analyzed
ID - identification
mg/L - milligram per liter
MS - matrix spike
MSD - matrix spike duplicate
ND - non-detect
ng/L - nanogram per liter

Notes:
Table only shows chemicals with a detection
Sample results for Equipment Blank and Field Blank all non-detect

Table 3
Surface Water Analytical
3M-Roofing Granule Plant
Corona, Riverside County, CA

ARCADIS Design & Consultancy for natural and built assets

Chemical Name	Location ID	Downstream	South Pond
	Sample ID	Corona-downstream water-092420	Corona-south pond-water-092420
	Sample Date	9/24/2020	9/24/2020
	Unit		
LCMS - EPA 537 (Mod)			
Perfluoroundecanoic acid	ng/L	1.1JN	ND
Perfluoropentanoic acid	ng/L	83	39
Perfluoropentanesulfonic acid	ng/L	150	11J
Perfluorooctanoic acid	ng/L	1100	220
Perfluorooctanesulfonic acid	ng/L	1200	70
Perfluorooctanesulfonamide	ng/L	67J	11J
Perfluorononanoic acid	ng/L	7.6	ND
Perfluorononanesulfonic acid	ng/L	0.52J	ND
Perfluorohexanoic acid	ng/L	240	60
Perfluorohexanesulfonic acid	ng/L	300	30
Perfluorohexadecanoic acid	ng/L	ND	ND
Perfluoroheptanoic acid	ng/L	260	32
Perfluoroheptanesulfonic acid	ng/L	30	ND
Perfluorodecanoic acid	ng/L	7.7	ND
Perfluorobutanoic acid	ng/L	88	46J
Perfluorobutanesulfonic acid	ng/L	240	60
NMeFOSAA	ng/L	0.84J	ND
NEtFOSAA	ng/L	30	290

Qualifier Definitions:

J - Result < RL but ≥ to MDL, concentration is approximate value

JN - Analysis indicates presence of compound for which there is presumptive evidence to make tentative identification, associated numerical value is an estimated concentration only

Acronyms and Abbreviations:

ID - identification
LCS - laboratory control sample
LCSD - laboratory control sample duplicate
ND - non-detect
ng/L - nanogram per liter

Notes:

Table only shows chemicals with a detection

Table 4
Sediment Analytical Results
3M-Roofing Granule Plant
Corona, Riverside County, CA

ARCADIS Design & Consultancy for natural and built assets

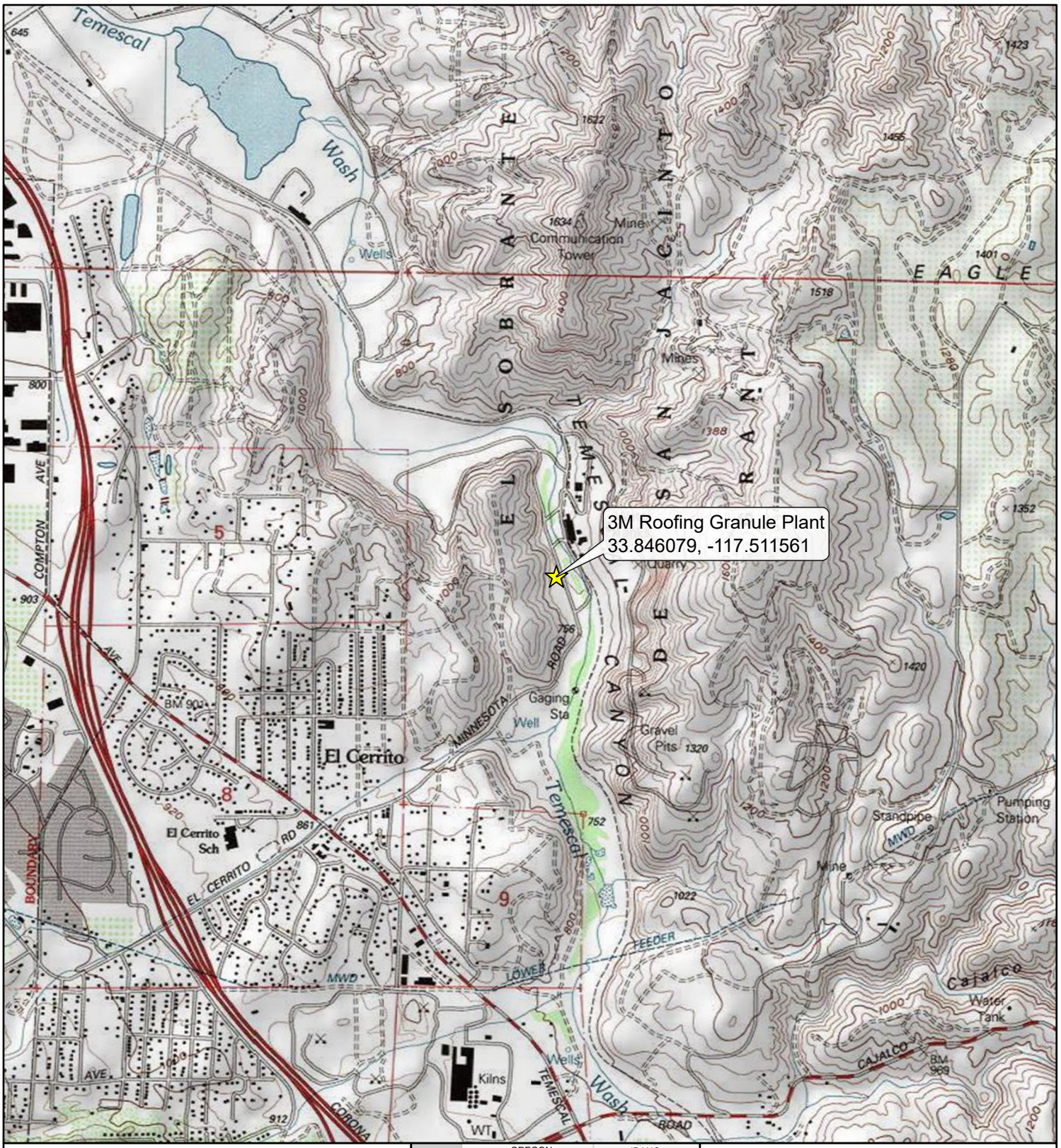
Chemical Name	Location ID	Upstream	South Pond
	Sample ID	Corona-upstream-sed-092420	Corona-south pond-sed-092420
	Sample Date	9/24/2020	9/24/2020
	Unit		
LCMS - EPA 537 (Mod)			
Perfluorooctanoic acid	ng/g	0.31J	0.58J
Perfluorooctanesulfonic acid	ng/g	1.2	0.9J
Perfluorooctanesulfonamide	ng/g	0.34J	0.67J
NEtFOSAA	ng/g	ND	16

Qualifier Definitions:
J - Result < RL but ≥ to MDL, concentration is approximate value

Acronyms and Abbreviations:
ID - identification
ND - non-detect
ng/g - nanogram per gram

Notes:
Table only shows chemicals with a detection

FIGURES

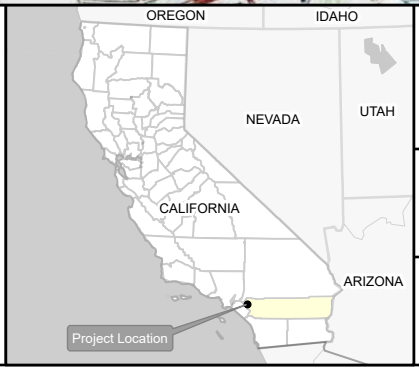


Project Location

USGS Topographic Quadrangles for Corona, CA obtained through ArcGIS Online Streaming Service

N

0 2,000 4,000 Feet



3M ROOFING GRANULE PLANT
18750 MINNESOTA ROAD
CORONA, RIVERSIDE COUNTY, CALIFORNIA

SITE LOCATION

ARCADIS

FIGURE 1

Project Location

Sample Type

- Groundwater
- Surface Water
- Sediment

N

0 500 1,000 Feet

3M ROOFING GRANULE PLANT
18750 MINNESOTA ROAD
CORONA, RIVERSIDE COUNTY, CALIFORNIA

SAMPLE LOCATION

ARCADIS

FIGURE 2

ATTACHMENT A

Photographic Log

Project Photographs

3M-Roofing Granule Plant
Corona, Riverside County, California

Photo: #1

Date:
09/24/2020

Description:
Looking Southeast. Sediment sample area.

Location:
Upstream, Temescal Wash

Photo: #2

Date:
09/24/2020

Description:
Looking North. Sediment sample via hand auger.

Location:
Upstream, Temescal Wash

Project Photographs

3M-Roofing Granule Plant
Corona, Riverside County, California

Photo: #3

Date:
09/24/2020

Description:
Looking Southeast. Sediment sample via hand auger.

Location:
Upstream, Temescal Wash

Photo: #4

Date:
09/24/2020

Description:
Looking Southeast. Surface water sample location.

Location:
Downstream, Temescal Wash

Project Photographs

3M-Roofing Granule Plant
Corona, Riverside County, California

Photo: #5

Date:
09/24/2020

Description:
Looking Northeast. Pond sediment sample location.

Location:
South pond.

Photo: #6

Date:
09/24/2020

Description:
Looking North. Pond surface water sample location.

Location:
South pond.

Project Photographs

3M-Roofing Granule Plant
Corona, Riverside County, California

Photo: #7

Date:
09/24/2020

Description:
Production well #1 sample port.

Location:
Southeast from main site building.

Photo: #8

Date:
09/24/2020

Description:
Production well #2 sample port.

Location:
Southeast from main site building.

ATTACHMENT B

Laboratory Report

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-15093-1
Client Project/Site: California Water Board

For:
ARCADIS U.S., Inc.
100 Montgomery Street
Suite 300
San Francisco, California 94104

Attn: Erika Houtz

Authorized for release by:
10/15/2020 10:32:57 AM

Megan Moeller, Client Services Group Leader
(717)556-7261
meganmoeller@eurofinsus.com

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

* QC recoveries that exceed the upper limits and are associated with non-detect samples are qualified but no further narration is needed since the bias is high and does not change a non-detect result.

* Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.

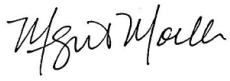
* Surrogate recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANACASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.



Megan Moeller
Client Services Group Leader
10/15/2020 10:32:57 AM

Table of Contents

Definitions/Glossary

Client: ARCADIS U.S., Inc.
Job ID: 410-15093-1
Project/Site: California Water Board

Qualifiers

LCMS

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
*5	Isotope dilution analyte is outside acceptance limits.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
I	Value is EMPC (estimated maximum possible concentration).
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 410-15093-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative
410-15093-1

Comments
No additional comments.

Receipt
The samples were received on 9/25/2020 10:34 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 0.4º C.

HPLC/IC
Method 300.0: The following samples were diluted to bring the concentration of target analytes within the calibration range: Corona-prod well 1-092420 (410-15093-7), Corona-prod well 2-092420 (410-15093-8) and Corona-dup-092420 (410-15093-9). Elevated reporting limits (RLs) are provided.

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

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

LCMS
Method EPA 537 (Mod): Reporting limits were raised for the following sample: Corona-south pond-water-092420 (410-15093-6) due to interference from the sample matrix.

Method EPA 537 (Mod): The recovery for the labeled isotope(s) in the following sample: Corona-downstream water-092420 (410-15093-5) and Corona-prod well 1-092420 (410-15093-7) is outside the QC acceptance limits. The following action was taken: This sample was re-extracted within the required holding time and the recovery for the labeled isotope(s) is again outside the QC acceptance limits.

The recovery for the labeled isotope(s) in the laboratory control spike samples associated with the following samples: Corona-downstream water-092420 (410-15093-5) and Corona-prod well 1-092420 (410-15093-7) is outside the QC acceptance limits. The following action was taken: This sample(s) was re-extracted within the required holding time and the recovery for the labeled isotope(s) in the re-extracted laboratory control spike sample(s) is within the QC acceptance limits.

Method EPA 537 (Mod): The recovery for the labeled isotope(s) in the following sample: Corona-EB-092420 (410-15093-3), Corona-FB-092420 (410-15093-4), Corona-south pond-water-092420 (410-15093-6), Corona-prod well 2-092420 (410-15093-8) and Corona-dup-092420 (410-15093-9) is outside the QC acceptance limits. The following action was taken: This sample was re-extracted within the required holding time and the recovery for the labeled isotope(s) is again outside the QC acceptance limits.

Method EPA 537 (Mod): The recovery for the labeled isotope(s) in the laboratory control spike sample associated with the following sample: Corona-downstream water-092420 (410-15093-5) is outside the QC acceptance limits. The following action was taken: This sample(s) was re-extracted within the required holding time and the recovery for the labeled isotope(s) in the re-extracted laboratory control spike sample(s) is within the QC acceptance limits.

Method EPA 537 (Mod): The recovery for the labeled isotope(s) is outside the QC acceptance limits in the following background, matrix spike and matrix spike duplicate samples: Corona-prod well 1-092420 (410-15093-7), Corona-prod well 1-MS-092420 (410-15093-7[MS]) and Corona-prod well 1-MSD-092420 (410-15093-7[MSD]), indicating a matrix effect.

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

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

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

Detection Summary

Client: ARCADIS U.S., Inc.
Project/Site: California Water Board

Job ID: 410-15093-1

Client Sample ID: Corona-upstream-sed-092420 — Lab Sample ID: 410-15093-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanoic acid	0.31	J	0.81	0.27	ng/g	1	☼	EPA 537 (Mod)	Total/NA
Perfluorooctanesulfonic acid	1.2		0.81	0.27	ng/g	1	☼	EPA 537 (Mod)	Total/NA
Perfluorooctanesulfonamide	0.34	J	0.81	0.27	ng/g	1	☼	EPA 537 (Mod)	Total/NA

Client Sample ID: Corona-south pond-sed-092420 — Lab Sample ID: 410-15093-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanoic acid	0.58	J	1.3	0.45	ng/g	1	☼	EPA 537 (Mod)	Total/NA
Perfluorooctanesulfonic acid	0.90	J	1.3	0.45	ng/g	1	☼	EPA 537 (Mod)	Total/NA
Perfluorooctanesulfonamide	0.67	J	1.3	0.45	ng/g	1	☼	EPA 537 (Mod)	Total/NA
NEtFOSAA	16		4.5	0.45	ng/g	1	☼	EPA 537 (Mod)	Total/NA

Client Sample ID: Corona-EB-092420 — Lab Sample ID: 410-15093-3

No Detections.

Client Sample ID: Corona-FB-092420 — Lab Sample ID: 410-15093-4

No Detections.

Client Sample ID: Corona-downstream water-092420 — Lab Sample ID: 410-15093-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoroundecanoic acid	1.1	J I	1.9	0.47	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluoropentanoic acid	83		1.9	0.47	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorooctanesulfonamide	67		1.9	0.47	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorononanoic acid	7.6		1.9	0.47	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorononanesulfonic acid	0.52	J	1.9	0.47	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluoroheptanesulfonic acid	30		1.9	0.47	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorodecanoic acid	7.7		1.9	0.47	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorobutanoic acid	88		4.7	1.9	ng/L	1		EPA 537 (Mod)	Total/NA
NMeFOSAA	0.84	J	1.9	0.56	ng/L	1		EPA 537 (Mod)	Total/NA
NEtFOSAA	30		2.8	0.47	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluoropentanesulfonic acid - DL	150		19	4.7	ng/L	10		EPA 537 (Mod)	Total/NA
Perfluorooctanoic acid - DL	1100		19	4.7	ng/L	10		EPA 537 (Mod)	Total/NA
Perfluorooctanesulfonic acid - DL	1200		19	4.7	ng/L	10		EPA 537 (Mod)	Total/NA
Perfluorohexanoic acid - DL	240		19	4.7	ng/L	10		EPA 537 (Mod)	Total/NA
Perfluorohexanesulfonic acid - DL	300		19	4.7	ng/L	10		EPA 537 (Mod)	Total/NA
Perfluoroheptanoic acid - DL	260		19	4.7	ng/L	10		EPA 537 (Mod)	Total/NA
Perfluorobutanesulfonic acid - DL	240		19	4.7	ng/L	10		EPA 537 (Mod)	Total/NA

Client Sample ID: Corona-south pond-water-092420 — Lab Sample ID: 410-15093-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid	39		21	5.2	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluoropentanesulfonic acid	11	J	21	5.2	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorooctanoic acid	220		21	5.2	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorooctanesulfonic acid	70		21	5.2	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorooctanesulfonamide	11	J	21	5.2	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorohexanoic acid	60		21	5.2	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorohexanesulfonic acid	30		21	5.2	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluoroheptanoic acid	32		21	5.2	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorobutanoic acid	46	J	52	21	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorobutanesulfonic acid	60		21	5.2	ng/L	1		EPA 537 (Mod)	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: Corona-south pond-water-092420 (Continued)

Lab Sample ID: 410-15093-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
NEtFOSAA	290		31	5.2	ng/L	1		EPA 537 (Mod)	Total/NA

Client Sample ID: Corona-prod well 1-092420

Lab Sample ID: 410-15093-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nitrogen, Nitrate	6.4		0.50	0.25	mg/L	5		EPA 300.0 R2.1	Total/NA
Perfluoropentanoic acid	20		2.8	0.70	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluoropentanesulfonic acid	2.7	J	2.8	0.70	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorooctanoic acid	25		2.8	0.70	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorooctanesulfonic acid	15		2.8	0.70	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorononanoic acid	2.8		2.8	0.70	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorohexanoic acid	19		2.8	0.70	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorohexanesulfonic acid	9.1		2.8	0.70	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluoroheptanoic acid	7.9		2.8	0.70	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorobutanoic acid	17		7.0	2.8	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorobutanesulfonic acid	29		2.8	0.70	ng/L	1		EPA 537 (Mod)	Total/NA
Calcium	160		0.50	0.10	mg/L	1		6010B	Total/NA
Magnesium	42		0.20	0.043	mg/L	1		6010B	Total/NA
Potassium	5.8		0.50	0.10	mg/L	1		6010B	Total/NA
Sodium	110		1.0	0.32	mg/L	1		6010B	Total/NA
Bicarbonate Alkalinity as CaCO3	270		8.0	8.0	mg/L	1		2320B-2011	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	270		8.0	8.0	mg/L	1		2320B-2011	Total/NA
Total Dissolved Solids	940	B	120	40	mg/L	1		2540C-2011	Total/NA
Sulfate	270		10	1.7	mg/L	5		300.0	Total/NA
Chloride	170		2.5	1.4	mg/L	5		300.0	Total/NA

Client Sample ID: Corona-prod well 2-092420

Lab Sample ID: 410-15093-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nitrogen, Nitrate	5.9		0.50	0.25	mg/L	5		EPA 300.0 R2.1	Total/NA
Perfluoropentanoic acid	16		1.7	0.43	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluoropentanesulfonic acid	2.7		1.7	0.43	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorooctanoic acid	23		1.7	0.43	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorooctanesulfonic acid	21		1.7	0.43	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorononanoic acid	2.9		1.7	0.43	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorohexanoic acid	17		1.7	0.43	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorohexanesulfonic acid	9.4		1.7	0.43	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluoroheptanoic acid	5.9		1.7	0.43	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluoroheptanesulfonic acid	0.62	J	1.7	0.43	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorobutanoic acid	22		4.3	1.7	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorobutanesulfonic acid	31		1.7	0.43	ng/L	1		EPA 537 (Mod)	Total/NA
Calcium	150		0.50	0.10	mg/L	1		6010B	Total/NA
Magnesium	38		0.20	0.043	mg/L	1		6010B	Total/NA
Potassium	4.1		0.50	0.10	mg/L	1		6010B	Total/NA
Sodium	130		1.0	0.32	mg/L	1		6010B	Total/NA
Bicarbonate Alkalinity as CaCO3	260		8.0	8.0	mg/L	1		2320B-2011	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	260	F1	8.0	8.0	mg/L	1		2320B-2011	Total/NA
Total Dissolved Solids	980	B	120	40	mg/L	1		2540C-2011	Total/NA
Sulfate	270		10	1.7	mg/L	5		300.0	Total/NA
Chloride	170		2.5	1.4	mg/L	5		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: ARCADIS U.S., Inc.
Project/Site: California Water Board

Job ID: 410-15093-1

Client Sample ID: Corona-dup-092420

Lab Sample ID: 410-15093-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nitrogen, Nitrate	6.0		0.50	0.25	mg/L	5		EPA 300.0 R2.1	Total/NA
Perfluoropentanoic acid	17		1.6	0.41	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluoropentanesulfonic acid	2.8		1.6	0.41	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorooctanoic acid	24		1.6	0.41	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorooctanesulfonic acid	22		1.6	0.41	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorononanoic acid	3.0		1.6	0.41	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorohexanoic acid	17		1.6	0.41	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorohexanesulfonic acid	9.8		1.6	0.41	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluoroheptanoic acid	6.4		1.6	0.41	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluoroheptanesulfonic acid	0.71	J	1.6	0.41	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorobutanoic acid	23		4.1	1.6	ng/L	1		EPA 537 (Mod)	Total/NA
Perfluorobutanesulfonic acid	32		1.6	0.41	ng/L	1		EPA 537 (Mod)	Total/NA
Bicarbonate Alkalinity as CaCO3	260		8.0	8.0	mg/L	1		2320B-2011	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	260		8.0	8.0	mg/L	1		2320B-2011	Total/NA
Total Dissolved Solids	1000	B	120	40	mg/L	1		2540C-2011	Total/NA
Sulfate	280		10	1.7	mg/L	5		300.0	Total/NA
Chloride	180		2.5	1.4	mg/L	5		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

Client: ARCADIS U.S., Inc.
Project/Site: California Water Board

Job ID: 410-15093-1

Client Sample ID: Corona-upstream-sed-092420
Date Collected: 09/24/20 09:55
Date Received: 09/25/20 10:34

Lab Sample ID: 410-15093-1
Matrix: Solid
Percent Solids: 69.0

Method: EPA 537 (Mod) - EPA 537 mod QSM 5.1, Table B-15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroundecanoic acid	ND		0.81	0.27	ng/g	☼	10/01/20 07:11	10/02/20 01:41	1
Perfluorotridecanoic acid	ND		0.81	0.27	ng/g	☼	10/01/20 07:11	10/02/20 01:41	1
Perfluorotetradecanoic acid	ND		0.81	0.27	ng/g	☼	10/01/20 07:11	10/02/20 01:41	1
Perfluoropentanoic acid	ND		0.81	0.27	ng/g	☼	10/01/20 07:11	10/02/20 01:41	1
Perfluoropentanesulfonic acid	ND		4.0	0.27	ng/g	☼	10/01/20 07:11	10/02/20 01:41	1
Perfluorooctanoic acid	**0.31**	**J**	0.81	0.27	ng/g	☼	10/01/20 07:11	10/02/20 01:41	1
Perfluorooctanesulfonic acid	**1.2**		0.81	0.27	ng/g	☼	10/01/20 07:11	10/02/20 01:41	1
Perfluorooctanesulfonamide	**0.34**	**J**	0.81	0.27	ng/g	☼	10/01/20 07:11	10/02/20 01:41	1
Perfluorooctadecanoic acid	ND		0.81	0.27	ng/g	☼	10/01/20 07:11	10/02/20 01:41	1
Perfluorononanoic acid	ND		0.81	0.27	ng/g	☼	10/01/20 07:11	10/02/20 01:41	1
Perfluorononanesulfonic acid	ND		0.81	0.27	ng/g	☼	10/01/20 07:11	10/02/20 01:41	1
Perfluorohexanoic acid	ND		0.81	0.27	ng/g	☼	10/01/20 07:11	10/02/20 01:41	1
Perfluorohexanesulfonic acid	ND		0.81	0.27	ng/g	☼	10/01/20 07:11	10/02/20 01:41	1
Perfluorohexadecanoic acid	ND		0.81	0.27	ng/g	☼	10/01/20 07:11	10/02/20 01:41	1
Perfluoroheptanoic acid	ND		0.81	0.27	ng/g	☼	10/01/20 07:11	10/02/20 01:41	1
Perfluoroheptanesulfonic acid	ND		0.81	0.27	ng/g	☼	10/01/20 07:11	10/02/20 01:41	1
Perfluorododecanoic acid	ND		0.81	0.27	ng/g	☼	10/01/20 07:11	10/02/20 01:41	1
Perfluorodecanoic acid	ND		0.81	0.27	ng/g	☼	10/01/20 07:11	10/02/20 01:41	1
Perfluorodecanesulfonic acid	ND		0.81	0.27	ng/g	☼	10/01/20 07:11	10/02/20 01:41	1
Perfluorobutanoic acid	ND		2.7	0.81	ng/g	☼	10/01/20 07:11	10/02/20 01:41	1
Perfluorobutanesulfonic acid	ND		2.7	0.54	ng/g	☼	10/01/20 07:11	10/02/20 01:41	1
NMeFOSE	ND		2.7	0.67	ng/g	☼	10/01/20 07:11	10/02/20 01:41	1
NMeFOSA	ND		2.7	0.67	ng/g	☼	10/01/20 07:11	10/02/20 01:41	1
NMeFOSAA	ND		2.7	0.27	ng/g	☼	10/01/20 07:11	10/02/20 01:41	1
NEtFOSE	ND		2.7	0.67	ng/g	☼	10/01/20 07:11	10/02/20 01:41	1
NEtFOSA	ND		2.7	0.67	ng/g	☼	10/01/20 07:11	10/02/20 01:41	1
NEtFOSAA	ND		2.7	0.27	ng/g	☼	10/01/20 07:11	10/02/20 01:41	1
HFPODA	ND		4.0	0.54	ng/g	☼	10/01/20 07:11	10/02/20 01:41	1
DONA	ND		0.81	0.27	ng/g	☼	10/01/20 07:11	10/02/20 01:41	1
9Cl-PF3ONS	ND		2.7	0.27	ng/g	☼	10/01/20 07:11	10/02/20 01:41	1
8:2 Fluorotelomer sulfonic acid	ND		4.0	0.81	ng/g	☼	10/01/20 07:11	10/02/20 01:41	1
6:2 Fluorotelomer sulfonic acid	ND		2.7	0.81	ng/g	☼	10/01/20 07:11	10/02/20 01:41	1
4:2 Fluorotelomer sulfonic acid	ND		2.7	0.81	ng/g	☼	10/01/20 07:11	10/02/20 01:41	1
11Cl-PF3OUdS	ND		0.81	0.27	ng/g	☼	10/01/20 07:11	10/02/20 01:41	1
10:2 Fluorotelomer sulfonic acid	ND		2.7	0.81	ng/g	☼	10/01/20 07:11	10/02/20 01:41	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-4:2 FTS	*65*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:41*	*1*
M2-6:2 FTS	*87*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:41*	*1*
M2-8:2 FTS	*88*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:41*	*1*
13C2 PFTeDA	*77*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:41*	*1*
13C3 HFPO-DA	*79*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:41*	*1*
13C3 PFBS	*78*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:41*	*1*
13C4 PFBA	*88*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:41*	*1*
13C4 PFHpA	*79*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:41*	*1*
13C5 PFPeA	*88*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:41*	*1*
13C8 PFOA	*88*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:41*	*1*
13C8 PFOS	*85*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:41*	*1*
13C8 FOSA	*72*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:41*	*1*
d3-NMeFOSAA	*98*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:41*	*1*

Client Sample ID: Corona-upstream-sed-092420

Lab Sample ID: 410-15093-1
Date Collected: 09/24/20 09:55
Matrix: Solid
Date Received: 09/25/20 10:34
Percent Solids: 69.0

Method: EPA 537 (Mod) - EPA 537 mod QSM 5.1, Table B-15 (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	77		50 - 150	10/01/20 07:11	10/02/20 01:41	1
d7-N-MeFOSE-M	66		50 - 150	10/01/20 07:11	10/02/20 01:41	1
d9-N-EtFOSE-M	65		50 - 150	10/01/20 07:11	10/02/20 01:41	1
d3-NMePFOSA	56		50 - 150	10/01/20 07:11	10/02/20 01:41	1
13C2-PFDoDA	79		50 - 150	10/01/20 07:11	10/02/20 01:41	1
13C3 PFHxS	85		50 - 150	10/01/20 07:11	10/02/20 01:41	1
13C5 PFHxA	80		50 - 150	10/01/20 07:11	10/02/20 01:41	1
13C6 PFDA	85		50 - 150	10/01/20 07:11	10/02/20 01:41	1
13C7 PFUnA	77		50 - 150	10/01/20 07:11	10/02/20 01:41	1
13C9 PFNA	91		50 - 150	10/01/20 07:11	10/02/20 01:41	1
d5-NEtPFOSA	60		50 - 150	10/01/20 07:11	10/02/20 01:41	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	31.0		1.0	1.0	%			09/25/20 16:24	1
Percent Solids	69.0		1.0	1.0	%			09/25/20 16:24	1

Client Sample ID: Corona-south pond-sed-092420

Lab Sample ID: 410-15093-2
Date Collected: 09/24/20 11:30
Matrix: Solid
Date Received: 09/25/20 10:34
Percent Solids: 44.2

Method: EPA 537 (Mod) - EPA 537 mod QSM 5.1, Table B-15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroundecanoic acid	ND		1.3	0.45	ng/g	☼	10/01/20 07:11	10/02/20 01:50	1
Perfluorotridecanoic acid	ND		1.3	0.45	ng/g	☼	10/01/20 07:11	10/02/20 01:50	1
Perfluorotetradecanoic acid	ND		1.3	0.45	ng/g	☼	10/01/20 07:11	10/02/20 01:50	1
Perfluoropentanoic acid	ND		1.3	0.45	ng/g	☼	10/01/20 07:11	10/02/20 01:50	1
Perfluoropentanesulfonic acid	ND		6.7	0.45	ng/g	☼	10/01/20 07:11	10/02/20 01:50	1
Perfluorooctanoic acid	0.58	J	1.3	0.45	ng/g	☼	10/01/20 07:11	10/02/20 01:50	1
Perfluorooctanesulfonic acid	0.90	J	1.3	0.45	ng/g	☼	10/01/20 07:11	10/02/20 01:50	1
Perfluorooctanesulfonamide	0.67	J	1.3	0.45	ng/g	☼	10/01/20 07:11	10/02/20 01:50	1
Perfluorooctadecanoic acid	ND		1.3	0.45	ng/g	☼	10/01/20 07:11	10/02/20 01:50	1
Perfluorononanoic acid	ND		1.3	0.45	ng/g	☼	10/01/20 07:11	10/02/20 01:50	1
Perfluorononanesulfonic acid	ND		1.3	0.45	ng/g	☼	10/01/20 07:11	10/02/20 01:50	1
Perfluorohexanoic acid	ND		1.3	0.45	ng/g	☼	10/01/20 07:11	10/02/20 01:50	1
Perfluorohexanesulfonic acid	ND		1.3	0.45	ng/g	☼	10/01/20 07:11	10/02/20 01:50	1
Perfluorohexadecanoic acid	ND		1.3	0.45	ng/g	☼	10/01/20 07:11	10/02/20 01:50	1
Perfluoroheptanoic acid	ND		1.3	0.45	ng/g	☼	10/01/20 07:11	10/02/20 01:50	1
Perfluoroheptanesulfonic acid	ND		1.3	0.45	ng/g	☼	10/01/20 07:11	10/02/20 01:50	1
Perfluorododecanoic acid	ND		1.3	0.45	ng/g	☼	10/01/20 07:11	10/02/20 01:50	1
Perfluorodecanoic acid	ND		1.3	0.45	ng/g	☼	10/01/20 07:11	10/02/20 01:50	1
Perfluorodecanesulfonic acid	ND		1.3	0.45	ng/g	☼	10/01/20 07:11	10/02/20 01:50	1
Perfluorobutanoic acid	ND		4.5	1.3	ng/g	☼	10/01/20 07:11	10/02/20 01:50	1
Perfluorobutanesulfonic acid	ND		4.5	0.90	ng/g	☼	10/01/20 07:11	10/02/20 01:50	1
NMeFOSE	ND		4.5	1.1	ng/g	☼	10/01/20 07:11	10/02/20 01:50	1
NMeFOSA	ND		4.5	1.1	ng/g	☼	10/01/20 07:11	10/02/20 01:50	1
NMeFOSAA	ND		4.5	0.45	ng/g	☼	10/01/20 07:11	10/02/20 01:50	1
NEtFOSE	ND		4.5	1.1	ng/g	☼	10/01/20 07:11	10/02/20 01:50	1
NEtFOSA	ND		4.5	1.1	ng/g	☼	10/01/20 07:11	10/02/20 01:50	1
NEtFOSAA	16		4.5	0.45	ng/g	☼	10/01/20 07:11	10/02/20 01:50	1

Client Sample ID: Corona-south pond-sed-092420

Lab Sample ID: 410-15093-2
Date Collected: 09/24/20 11:30
Matrix: Solid
Date Received: 09/25/20 10:34
Percent Solids: 44.2

Method: EPA 537 (Mod) - EPA 537 mod QSM 5.1, Table B-15 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HFPODA	ND		6.7	0.90	ng/g	☼	10/01/20 07:11	10/02/20 01:50	1
DONA	ND		1.3	0.45	ng/g	☼	10/01/20 07:11	10/02/20 01:50	1
9Cl-PF3ONS	ND		4.5	0.45	ng/g	☼	10/01/20 07:11	10/02/20 01:50	1
8:2 Fluorotelomer sulfonic acid	ND		6.7	1.3	ng/g	☼	10/01/20 07:11	10/02/20 01:50	1
6:2 Fluorotelomer sulfonic acid	ND		4.5	1.3	ng/g	☼	10/01/20 07:11	10/02/20 01:50	1
4:2 Fluorotelomer sulfonic acid	ND		4.5	1.3	ng/g	☼	10/01/20 07:11	10/02/20 01:50	1
11Cl-PF3OUdS	ND		1.3	0.45	ng/g	☼	10/01/20 07:11	10/02/20 01:50	1
10:2 Fluorotelomer sulfonic acid	ND		4.5	1.3	ng/g	☼	10/01/20 07:11	10/02/20 01:50	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-4:2 FTS	*65*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:50*	*1*
M2-6:2 FTS	*86*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:50*	*1*
M2-8:2 FTS	*87*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:50*	*1*
13C2 PFTeDA	*77*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:50*	*1*
13C3 HFPO-DA	*82*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:50*	*1*
13C3 PFBS	*76*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:50*	*1*
13C4 PFBA	*87*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:50*	*1*
13C4 PFHpA	*77*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:50*	*1*
13C5 PFPeA	*85*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:50*	*1*
13C8 PFOA	*86*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:50*	*1*
13C8 PFOS	*83*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:50*	*1*
13C8 FOSA	*74*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:50*	*1*
d3-NMeFOSAA	*93*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:50*	*1*
d5-NEtFOSAA	*88*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:50*	*1*
d7-N-MeFOSE-M	*67*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:50*	*1*
d9-N-EtFOSE-M	*73*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:50*	*1*
d3-NMePFOSA	*65*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:50*	*1*
13C2-PFDoDA	*78*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:50*	*1*
13C3 PFHxS	*86*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:50*	*1*
13C5 PFHxA	*82*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:50*	*1*
13C6 PFDA	*77*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:50*	*1*
13C7 PFUnA	*83*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:50*	*1*
13C9 PFNA	*88*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:50*	*1*
d5-NEtPFOSA	*66*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:50*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**55.8**		1.0	1.0	%			09/25/20 16:24	1
Percent Solids	**44.2**		1.0	1.0	%			09/25/20 16:24	1

Client Sample ID: Corona-EB-092420

Lab Sample ID: 410-15093-3
Date Collected: 09/24/20 11:55
Matrix: Water
Date Received: 09/25/20 10:34

Method: EPA 537 (Mod) - EPA 537 mod QSM 5.1, Table B-15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroundecanoic acid	ND		2.4	0.61	ng/L		09/28/20 07:26	09/30/20 04:34	1
Perfluorotridecanoic acid	ND		2.4	0.61	ng/L		09/28/20 07:26	09/30/20 04:34	1
Perfluorotetradecanoic acid	ND		2.4	0.61	ng/L		09/28/20 07:26	09/30/20 04:34	1
Perfluoropentanoic acid	ND		2.4	0.61	ng/L		09/28/20 07:26	09/30/20 04:34	1
Perfluoropentanesulfonic acid	ND		2.4	0.61	ng/L		09/28/20 07:26	09/30/20 04:34	1

Client: ARCADIS U.S., Inc.
Project/Site: California Water Board

Job ID: 410-15093-1

Client Sample ID: Corona-EB-092420
Date Collected: 09/24/20 11:55
Date Received: 09/25/20 10:34

Lab Sample ID: 410-15093-3
Matrix: Water

Method: EPA 537 (Mod) - EPA 537 mod QSM 5.1, Table B-15 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanoic acid	ND		2.4	0.61	ng/L		09/28/20 07:26	09/30/20 04:34	1
Perfluorooctanesulfonic acid	ND		2.4	0.61	ng/L		09/28/20 07:26	09/30/20 04:34	1
Perfluorooctanesulfonamide	ND		2.4	0.61	ng/L		09/28/20 07:26	09/30/20 04:34	1
Perfluorooctadecanoic acid	ND		3.7	1.2	ng/L		09/28/20 07:26	09/30/20 04:34	1
Perfluorononanoic acid	ND		2.4	0.61	ng/L		09/28/20 07:26	09/30/20 04:34	1
Perfluorononanesulfonic acid	ND		2.4	0.61	ng/L		09/28/20 07:26	09/30/20 04:34	1
Perfluorohexanoic acid	ND		2.4	0.61	ng/L		09/28/20 07:26	09/30/20 04:34	1
Perfluorohexanesulfonic acid	ND		2.4	0.61	ng/L		09/28/20 07:26	09/30/20 04:34	1
Perfluorohexadecanoic acid	ND		3.7	1.2	ng/L		09/28/20 07:26	09/30/20 04:34	1
Perfluoroheptanoic acid	ND		2.4	0.61	ng/L		09/28/20 07:26	09/30/20 04:34	1
Perfluoroheptanesulfonic acid	ND		2.4	0.61	ng/L		09/28/20 07:26	09/30/20 04:34	1
Perfluorododecanoic acid	ND		2.4	0.61	ng/L		09/28/20 07:26	09/30/20 04:34	1
Perfluorodecanoic acid	ND		2.4	0.61	ng/L		09/28/20 07:26	09/30/20 04:34	1
Perfluorodecanesulfonic acid	ND		2.4	0.61	ng/L		09/28/20 07:26	09/30/20 04:34	1
Perfluorobutanoic acid	ND		6.1	2.4	ng/L		09/28/20 07:26	09/30/20 04:34	1
Perfluorobutanesulfonic acid	ND		2.4	0.61	ng/L		09/28/20 07:26	09/30/20 04:34	1
NMeFOSE	ND		3.7	1.2	ng/L		09/28/20 07:26	09/30/20 04:34	1
NMeFOSA	ND		3.7	1.2	ng/L		09/28/20 07:26	09/30/20 04:34	1
NMeFOSAA	ND		2.4	0.73	ng/L		09/28/20 07:26	09/30/20 04:34	1
NEtFOSE	ND		3.7	1.2	ng/L		09/28/20 07:26	09/30/20 04:34	1
NEtFOSA	ND		6.1	1.2	ng/L		09/28/20 07:26	09/30/20 04:34	1
NEtFOSAA	ND		3.7	0.61	ng/L		09/28/20 07:26	09/30/20 04:34	1
HFPODA	ND		3.7	0.61	ng/L		09/28/20 07:26	09/30/20 04:34	1
DONA	ND		2.4	0.61	ng/L		09/28/20 07:26	09/30/20 04:34	1
9Cl-PF3ONS	ND		2.4	0.61	ng/L		09/28/20 07:26	09/30/20 04:34	1
8:2 Fluorotelomer sulfonic acid	ND		3.7	1.2	ng/L		09/28/20 07:26	09/30/20 04:34	1
6:2 Fluorotelomer sulfonic acid	ND		6.1	2.4	ng/L		09/28/20 07:26	09/30/20 04:34	1
4:2 Fluorotelomer sulfonic acid	ND		2.4	0.61	ng/L		09/28/20 07:26	09/30/20 04:34	1
11Cl-PF3OUdS	ND		2.4	0.61	ng/L		09/28/20 07:26	09/30/20 04:34	1
10:2 Fluorotelomer sulfonic acid	ND		6.1	1.2	ng/L		09/28/20 07:26	09/30/20 04:34	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-4:2 FTS	*83*		*50 - 150*	*09/28/20 07:26*	*09/30/20 04:34*	*1*
M2-6:2 FTS	*115*		*50 - 150*	*09/28/20 07:26*	*09/30/20 04:34*	*1*
M2-8:2 FTS	*94*		*50 - 150*	*09/28/20 07:26*	*09/30/20 04:34*	*1*
13C2 PFTeDA	*84*		*50 - 150*	*09/28/20 07:26*	*09/30/20 04:34*	*1*
13C3 HFPO-DA	*91*		*50 - 150*	*09/28/20 07:26*	*09/30/20 04:34*	*1*
13C3 PFBS	*86*		*50 - 150*	*09/28/20 07:26*	*09/30/20 04:34*	*1*
13C4 PFBA	*101*		*50 - 150*	*09/28/20 07:26*	*09/30/20 04:34*	*1*
13C4 PFHpA	*97*		*50 - 150*	*09/28/20 07:26*	*09/30/20 04:34*	*1*
13C5 PFPeA	*103*		*50 - 150*	*09/28/20 07:26*	*09/30/20 04:34*	*1*
13C8 PFOA	*106*		*50 - 150*	*09/28/20 07:26*	*09/30/20 04:34*	*1*
13C8 PFOS	*99*		*50 - 150*	*09/28/20 07:26*	*09/30/20 04:34*	*1*
13C8 FOSA	*79*		*50 - 150*	*09/28/20 07:26*	*09/30/20 04:34*	*1*
d3-NMeFOSAA	*111*		*50 - 150*	*09/28/20 07:26*	*09/30/20 04:34*	*1*
d5-NEtFOSAA	*91*		*50 - 150*	*09/28/20 07:26*	*09/30/20 04:34*	*1*
d7-N-MeFOSE-M	*55*		*50 - 150*	*09/28/20 07:26*	*09/30/20 04:34*	*1*
d9-N-EtFOSE-M	*51*		*50 - 150*	*09/28/20 07:26*	*09/30/20 04:34*	*1*
d3-NMePFOSA	*41*	**5*	*50 - 150*	*09/28/20 07:26*	*09/30/20 04:34*	*1*
13C2-PFDoDA	*94*		*50 - 150*	*09/28/20 07:26*	*09/30/20 04:34*	*1*

Client Sample ID: Corona-EB-092420

Lab Sample ID: 410-15093-3

Date Collected: 09/24/20 11:55
Matrix: Water
Date Received: 09/25/20 10:34

Method: EPA 537 (Mod) - EPA 537 mod QSM 5.1, Table B-15 (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 PFHxS	99		50 - 150	09/28/20 07:26	09/30/20 04:34	1
13C5 PFHxA	99		50 - 150	09/28/20 07:26	09/30/20 04:34	1
13C6 PFDA	91		50 - 150	09/28/20 07:26	09/30/20 04:34	1
13C7 PFUnA	93		50 - 150	09/28/20 07:26	09/30/20 04:34	1
13C9 PFNA	106		50 - 150	09/28/20 07:26	09/30/20 04:34	1
d5-NEtPFOSA	34	*5	50 - 150	09/28/20 07:26	09/30/20 04:34	1

Client Sample ID: Corona-FB-092420

Lab Sample ID: 410-15093-4

Date Collected: 09/24/20 11:51
Matrix: Water
Date Received: 09/25/20 10:34

Method: EPA 537 (Mod) - EPA 537 mod QSM 5.1, Table B-15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroundecanoic acid	ND		1.7	0.42	ng/L		09/28/20 07:26	09/30/20 04:52	1
Perfluorotridecanoic acid	ND		1.7	0.42	ng/L		09/28/20 07:26	09/30/20 04:52	1
Perfluorotetradecanoic acid	ND		1.7	0.42	ng/L		09/28/20 07:26	09/30/20 04:52	1
Perfluoropentanoic acid	ND		1.7	0.42	ng/L		09/28/20 07:26	09/30/20 04:52	1
Perfluoropentanesulfonic acid	ND		1.7	0.42	ng/L		09/28/20 07:26	09/30/20 04:52	1
Perfluorooctanoic acid	ND		1.7	0.42	ng/L		09/28/20 07:26	09/30/20 04:52	1
Perfluorooctanesulfonic acid	ND		1.7	0.42	ng/L		09/28/20 07:26	09/30/20 04:52	1
Perfluorooctanesulfonamide	ND		1.7	0.42	ng/L		09/28/20 07:26	09/30/20 04:52	1
Perfluorooctadecanoic acid	ND		2.5	0.83	ng/L		09/28/20 07:26	09/30/20 04:52	1
Perfluorononanoic acid	ND		1.7	0.42	ng/L		09/28/20 07:26	09/30/20 04:52	1
Perfluorononanesulfonic acid	ND		1.7	0.42	ng/L		09/28/20 07:26	09/30/20 04:52	1
Perfluorohexanoic acid	ND		1.7	0.42	ng/L		09/28/20 07:26	09/30/20 04:52	1
Perfluorohexanesulfonic acid	ND		1.7	0.42	ng/L		09/28/20 07:26	09/30/20 04:52	1
Perfluorohexadecanoic acid	ND		2.5	0.83	ng/L		09/28/20 07:26	09/30/20 04:52	1
Perfluoroheptanoic acid	ND		1.7	0.42	ng/L		09/28/20 07:26	09/30/20 04:52	1
Perfluoroheptanesulfonic acid	ND		1.7	0.42	ng/L		09/28/20 07:26	09/30/20 04:52	1
Perfluorododecanoic acid	ND		1.7	0.42	ng/L		09/28/20 07:26	09/30/20 04:52	1
Perfluorodecanoic acid	ND		1.7	0.42	ng/L		09/28/20 07:26	09/30/20 04:52	1
Perfluorodecanesulfonic acid	ND		1.7	0.42	ng/L		09/28/20 07:26	09/30/20 04:52	1
Perfluorobutanoic acid	ND		4.2	1.7	ng/L		09/28/20 07:26	09/30/20 04:52	1
Perfluorobutanesulfonic acid	ND		1.7	0.42	ng/L		09/28/20 07:26	09/30/20 04:52	1
NMeFOSE	ND		2.5	0.83	ng/L		09/28/20 07:26	09/30/20 04:52	1
NMeFOSA	ND		2.5	0.83	ng/L		09/28/20 07:26	09/30/20 04:52	1
NMeFOSAA	ND		1.7	0.50	ng/L		09/28/20 07:26	09/30/20 04:52	1
NEtFOSE	ND		2.5	0.83	ng/L		09/28/20 07:26	09/30/20 04:52	1
NEtFOSA	ND		4.2	0.83	ng/L		09/28/20 07:26	09/30/20 04:52	1
NEtFOSAA	ND		2.5	0.42	ng/L		09/28/20 07:26	09/30/20 04:52	1
HFPODA	ND		2.5	0.42	ng/L		09/28/20 07:26	09/30/20 04:52	1
DONA	ND		1.7	0.42	ng/L		09/28/20 07:26	09/30/20 04:52	1
9Cl-PF3ONS	ND		1.7	0.42	ng/L		09/28/20 07:26	09/30/20 04:52	1
8:2 Fluorotelomer sulfonic acid	ND		2.5	0.83	ng/L		09/28/20 07:26	09/30/20 04:52	1
6:2 Fluorotelomer sulfonic acid	ND		4.2	1.7	ng/L		09/28/20 07:26	09/30/20 04:52	1
4:2 Fluorotelomer sulfonic acid	ND		1.7	0.42	ng/L		09/28/20 07:26	09/30/20 04:52	1
11Cl-PF3OUdS	ND		1.7	0.42	ng/L		09/28/20 07:26	09/30/20 04:52	1
10:2 Fluorotelomer sulfonic acid	ND		4.2	0.83	ng/L		09/28/20 07:26	09/30/20 04:52	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-4:2 FTS	91		50 - 150	09/28/20 07:26	09/30/20 04:52	1

Client Sample ID: Corona-FB-092420

Lab Sample ID: 410-15093-4

Date Collected: 09/24/20 11:51
Matrix: Water
Date Received: 09/25/20 10:34

Method: EPA 537 (Mod) - EPA 537 mod QSM 5.1, Table B-15 (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	118		50 - 150	09/28/20 07:26	09/30/20 04:52	1
M2-8:2 FTS	105		50 - 150	09/28/20 07:26	09/30/20 04:52	1
13C2 PFTeDA	81		50 - 150	09/28/20 07:26	09/30/20 04:52	1
13C3 HFPO-DA	101		50 - 150	09/28/20 07:26	09/30/20 04:52	1
13C3 PFBS	93		50 - 150	09/28/20 07:26	09/30/20 04:52	1
13C4 PFBA	105		50 - 150	09/28/20 07:26	09/30/20 04:52	1
13C4 PFHpA	104		50 - 150	09/28/20 07:26	09/30/20 04:52	1
13C5 PFPeA	98		50 - 150	09/28/20 07:26	09/30/20 04:52	1
13C8 PFOA	112		50 - 150	09/28/20 07:26	09/30/20 04:52	1
13C8 PFOS	102		50 - 150	09/28/20 07:26	09/30/20 04:52	1
13C8 FOSA	85		50 - 150	09/28/20 07:26	09/30/20 04:52	1
d3-NMeFOSAA	128		50 - 150	09/28/20 07:26	09/30/20 04:52	1
d5-NEtFOSAA	104		50 - 150	09/28/20 07:26	09/30/20 04:52	1
d7-N-MeFOSE-M	19	*5	50 - 150	09/28/20 07:26	09/30/20 04:52	1
d9-N-EtFOSE-M	15	*5	50 - 150	09/28/20 07:26	09/30/20 04:52	1
d3-NMePFOSA	24	*5	50 - 150	09/28/20 07:26	09/30/20 04:52	1
13C2-PFDoDA	102		50 - 150	09/28/20 07:26	09/30/20 04:52	1
13C3 PFHxS	102		50 - 150	09/28/20 07:26	09/30/20 04:52	1
13C5 PFHxA	105		50 - 150	09/28/20 07:26	09/30/20 04:52	1
13C6 PFDA	98		50 - 150	09/28/20 07:26	09/30/20 04:52	1
13C7 PFUnA	105		50 - 150	09/28/20 07:26	09/30/20 04:52	1
13C9 PFNA	112		50 - 150	09/28/20 07:26	09/30/20 04:52	1
d5-NEtPFOSA	17	*5	50 - 150	09/28/20 07:26	09/30/20 04:52	1

Client Sample ID: Corona-downstream water-092420

Lab Sample ID: 410-15093-5

Date Collected: 09/24/20 10:50
Matrix: Water
Date Received: 09/25/20 10:34

Method: EPA 537 (Mod) - EPA 537 mod QSM 5.1, Table B-15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroundecanoic acid	**1.1**	**J I**	1.9	0.47	ng/L		09/30/20 18:45	10/01/20 22:21	1
Perfluorotridecanoic acid	ND		1.9	0.47	ng/L		09/30/20 18:45	10/01/20 22:21	1
Perfluorotetradecanoic acid	ND		1.9	0.47	ng/L		09/30/20 18:45	10/01/20 22:21	1
Perfluoropentanoic acid	**83**		1.9	0.47	ng/L		09/30/20 18:45	10/01/20 22:21	1
Perfluorooctanesulfonamide	**67**		1.9	0.47	ng/L		09/30/20 18:45	10/01/20 22:21	1
Perfluorooctadecanoic acid	ND		2.8	0.93	ng/L		09/30/20 18:45	10/01/20 22:21	1
Perfluorononanoic acid	**7.6**		1.9	0.47	ng/L		09/30/20 18:45	10/01/20 22:21	1
Perfluorononanesulfonic acid	**0.52**	**J**	1.9	0.47	ng/L		09/30/20 18:45	10/01/20 22:21	1
Perfluorohexadecanoic acid	ND	*	2.8	0.93	ng/L		09/30/20 18:45	10/01/20 22:21	1
Perfluoroheptanesulfonic acid	**30**		1.9	0.47	ng/L		09/30/20 18:45	10/01/20 22:21	1
Perfluorododecanoic acid	ND		1.9	0.47	ng/L		09/30/20 18:45	10/01/20 22:21	1
Perfluorodecanoic acid	**7.7**		1.9	0.47	ng/L		09/30/20 18:45	10/01/20 22:21	1
Perfluorodecanesulfonic acid	ND		1.9	0.47	ng/L		09/30/20 18:45	10/01/20 22:21	1
Perfluorobutanoic acid	**88**		4.7	1.9	ng/L		09/30/20 18:45	10/01/20 22:21	1
NMeFOSE	ND		2.8	0.93	ng/L		09/30/20 18:45	10/01/20 22:21	1
NMeFOSA	ND		2.8	0.93	ng/L		09/30/20 18:45	10/01/20 22:21	1
NMeFOSAA	**0.84**	**J**	1.9	0.56	ng/L		09/30/20 18:45	10/01/20 22:21	1
NEtFOSE	ND		2.8	0.93	ng/L		09/30/20 18:45	10/01/20 22:21	1
NEtFOSA	ND		4.7	0.93	ng/L		09/30/20 18:45	10/01/20 22:21	1
NEtFOSAA	**30**		2.8	0.47	ng/L		09/30/20 18:45	10/01/20 22:21	1

Client Sample ID: Corona-downstream water-092420
Date Collected: 09/24/20 10:50
Date Received: 09/25/20 10:34

Lab Sample ID: 410-15093-5
Matrix: Water

Method: EPA 537 (Mod) - EPA 537 mod QSM 5.1, Table B-15 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HFPODA	ND		2.8	0.47	ng/L		09/30/20 18:45	10/01/20 22:21	1
DONA	ND		1.9	0.47	ng/L		09/30/20 18:45	10/01/20 22:21	1
9Cl-PF3ONS	ND		1.9	0.47	ng/L		09/30/20 18:45	10/01/20 22:21	1
8:2 Fluorotelomer sulfonic acid	ND		2.8	0.93	ng/L		09/30/20 18:45	10/01/20 22:21	1
6:2 Fluorotelomer sulfonic acid	ND		4.7	1.9	ng/L		09/30/20 18:45	10/01/20 22:21	1
4:2 Fluorotelomer sulfonic acid	ND		1.9	0.47	ng/L		09/30/20 18:45	10/01/20 22:21	1
11Cl-PF3OUdS	ND		1.9	0.47	ng/L		09/30/20 18:45	10/01/20 22:21	1
10:2 Fluorotelomer sulfonic acid	ND		4.7	0.93	ng/L		09/30/20 18:45	10/01/20 22:21	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-4:2 FTS	*195*	**5*	*50 - 150*	*09/30/20 18:45*	*10/01/20 22:21*	*1*
M2-6:2 FTS	*152*	**5*	*50 - 150*	*09/30/20 18:45*	*10/01/20 22:21*	*1*
M2-8:2 FTS	*126*		*50 - 150*	*09/30/20 18:45*	*10/01/20 22:21*	*1*
13C2 PFTeDA	*7*	**5*	*50 - 150*	*09/30/20 18:45*	*10/01/20 22:21*	*1*
13C3 HFPO-DA	*72*		*50 - 150*	*09/30/20 18:45*	*10/01/20 22:21*	*1*
13C3 PFBS	*187*	**5*	*50 - 150*	*09/30/20 18:45*	*10/01/20 22:21*	*1*
13C4 PFBA	*72*		*50 - 150*	*09/30/20 18:45*	*10/01/20 22:21*	*1*
13C4 PFHpA	*99*		*50 - 150*	*09/30/20 18:45*	*10/01/20 22:21*	*1*
13C5 PFPeA	*137*		*50 - 150*	*09/30/20 18:45*	*10/01/20 22:21*	*1*
13C8 PFOA	*84*		*50 - 150*	*09/30/20 18:45*	*10/01/20 22:21*	*1*
13C8 PFOS	*80*		*50 - 150*	*09/30/20 18:45*	*10/01/20 22:21*	*1*
13C8 FOSA	*18*	**5*	*50 - 150*	*09/30/20 18:45*	*10/01/20 22:21*	*1*
d3-NMeFOSAA	*81*		*50 - 150*	*09/30/20 18:45*	*10/01/20 22:21*	*1*
d5-NEtFOSAA	*80*		*50 - 150*	*09/30/20 18:45*	*10/01/20 22:21*	*1*
d7-N-MeFOSE-M	*2*	**5*	*50 - 150*	*09/30/20 18:45*	*10/01/20 22:21*	*1*
d9-N-EtFOSE-M	*1*	**5*	*50 - 150*	*09/30/20 18:45*	*10/01/20 22:21*	*1*
d3-NMePFOSA	*0.3*	**5*	*50 - 150*	*09/30/20 18:45*	*10/01/20 22:21*	*1*
13C2-PFDoDA	*32*	**5*	*50 - 150*	*09/30/20 18:45*	*10/01/20 22:21*	*1*
13C3 PFHxS	*91*		*50 - 150*	*09/30/20 18:45*	*10/01/20 22:21*	*1*
13C5 PFHxA	*68*		*50 - 150*	*09/30/20 18:45*	*10/01/20 22:21*	*1*
13C6 PFDA	*72*		*50 - 150*	*09/30/20 18:45*	*10/01/20 22:21*	*1*
13C7 PFUnA	*62*		*50 - 150*	*09/30/20 18:45*	*10/01/20 22:21*	*1*
13C9 PFNA	*102*		*50 - 150*	*09/30/20 18:45*	*10/01/20 22:21*	*1*
d5-NEtPFOSA	*0*	**5*	*50 - 150*	*09/30/20 18:45*	*10/01/20 22:21*	*1*

Method: EPA 537 (Mod) - EPA 537 mod QSM 5.1, Table B-15 - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanesulfonic acid	**150**		19	4.7	ng/L		09/30/20 18:45	10/02/20 16:52	10
Perfluorooctanoic acid	**1100**		19	4.7	ng/L		09/30/20 18:45	10/02/20 16:52	10
Perfluorooctanesulfonic acid	**1200**		19	4.7	ng/L		09/30/20 18:45	10/02/20 16:52	10
Perfluorohexanoic acid	**240**		19	4.7	ng/L		09/30/20 18:45	10/02/20 16:52	10
Perfluorohexanesulfonic acid	**300**		19	4.7	ng/L		09/30/20 18:45	10/02/20 16:52	10
Perfluoroheptanoic acid	**260**		19	4.7	ng/L		09/30/20 18:45	10/02/20 16:52	10
Perfluorobutanesulfonic acid	**240**		19	4.7	ng/L		09/30/20 18:45	10/02/20 16:52	10

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C3 PFBS	*115*		*50 - 150*	*09/30/20 18:45*	*10/02/20 16:52*	*10*
13C4 PFHpA	*109*		*50 - 150*	*09/30/20 18:45*	*10/02/20 16:52*	*10*
13C8 PFOA	*104*		*50 - 150*	*09/30/20 18:45*	*10/02/20 16:52*	*10*
13C8 PFOS	*96*		*50 - 150*	*09/30/20 18:45*	*10/02/20 16:52*	*10*
13C3 PFHxS	*105*		*50 - 150*	*09/30/20 18:45*	*10/02/20 16:52*	*10*

Client Sample ID: Corona-downstream water-092420

Lab Sample ID: 410-15093-5

Date Collected: 09/24/20 10:50
Matrix: Water
Date Received: 09/25/20 10:34

Method: EPA 537 (Mod) - EPA 537 mod QSM 5.1, Table B-15 - DL (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C5 PFHxA	*101*		*50 - 150*	*09/30/20 18:45*	*10/02/20 16:52*	*10*

Client Sample ID: Corona-south pond-water-092420

Lab Sample ID: 410-15093-6

Date Collected: 09/24/20 11:23
Matrix: Water
Date Received: 09/25/20 10:34

Method: EPA 537 (Mod) - EPA 537 mod QSM 5.1, Table B-15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroundecanoic acid	ND		21	5.2	ng/L		09/28/20 07:26	09/30/20 05:10	1
Perfluorotridecanoic acid	ND		21	5.2	ng/L		09/28/20 07:26	09/30/20 05:10	1
Perfluorotetradecanoic acid	ND		21	5.2	ng/L		09/28/20 07:26	09/30/20 05:10	1
Perfluoropentanoic acid	**39**		21	5.2	ng/L		09/28/20 07:26	09/30/20 05:10	1
Perfluoropentanesulfonic acid	**11**	**J**	21	5.2	ng/L		09/28/20 07:26	09/30/20 05:10	1
Perfluorooctanoic acid	**220**		21	5.2	ng/L		09/28/20 07:26	09/30/20 05:10	1
Perfluorooctanesulfonic acid	**70**		21	5.2	ng/L		09/28/20 07:26	09/30/20 05:10	1
Perfluorooctanesulfonamide	**11**	**J**	21	5.2	ng/L		09/28/20 07:26	09/30/20 05:10	1
Perfluorooctadecanoic acid	ND		31	10	ng/L		09/28/20 07:26	09/30/20 05:10	1
Perfluorononanoic acid	ND		21	5.2	ng/L		09/28/20 07:26	09/30/20 05:10	1
Perfluorononanesulfonic acid	ND		21	5.2	ng/L		09/28/20 07:26	09/30/20 05:10	1
Perfluorohexanoic acid	**60**		21	5.2	ng/L		09/28/20 07:26	09/30/20 05:10	1
Perfluorohexanesulfonic acid	**30**		21	5.2	ng/L		09/28/20 07:26	09/30/20 05:10	1
Perfluorohexadecanoic acid	ND		31	10	ng/L		09/28/20 07:26	09/30/20 05:10	1
Perfluoroheptanoic acid	**32**		21	5.2	ng/L		09/28/20 07:26	09/30/20 05:10	1
Perfluoroheptanesulfonic acid	ND		21	5.2	ng/L		09/28/20 07:26	09/30/20 05:10	1
Perfluorododecanoic acid	ND		21	5.2	ng/L		09/28/20 07:26	09/30/20 05:10	1
Perfluorodecanoic acid	ND		21	5.2	ng/L		09/28/20 07:26	09/30/20 05:10	1
Perfluorodecanesulfonic acid	ND		21	5.2	ng/L		09/28/20 07:26	09/30/20 05:10	1
Perfluorobutanoic acid	**46**	**J**	52	21	ng/L		09/28/20 07:26	09/30/20 05:10	1
Perfluorobutanesulfonic acid	**60**		21	5.2	ng/L		09/28/20 07:26	09/30/20 05:10	1
NMeFOSE	ND		31	10	ng/L		09/28/20 07:26	09/30/20 05:10	1
NMeFOSA	ND		31	10	ng/L		09/28/20 07:26	09/30/20 05:10	1
NMeFOSAA	ND		21	6.2	ng/L		09/28/20 07:26	09/30/20 05:10	1
NEtFOSE	ND		31	10	ng/L		09/28/20 07:26	09/30/20 05:10	1
NEtFOSA	ND		52	10	ng/L		09/28/20 07:26	09/30/20 05:10	1
NEtFOSAA	**290**		31	5.2	ng/L		09/28/20 07:26	09/30/20 05:10	1
HFPODA	ND		31	5.2	ng/L		09/28/20 07:26	09/30/20 05:10	1
DONA	ND		21	5.2	ng/L		09/28/20 07:26	09/30/20 05:10	1
9Cl-PF3ONS	ND		21	5.2	ng/L		09/28/20 07:26	09/30/20 05:10	1
8:2 Fluorotelomer sulfonic acid	ND		31	10	ng/L		09/28/20 07:26	09/30/20 05:10	1
6:2 Fluorotelomer sulfonic acid	ND		52	21	ng/L		09/28/20 07:26	09/30/20 05:10	1
4:2 Fluorotelomer sulfonic acid	ND		21	5.2	ng/L		09/28/20 07:26	09/30/20 05:10	1
11Cl-PF3OUdS	ND		21	5.2	ng/L		09/28/20 07:26	09/30/20 05:10	1
10:2 Fluorotelomer sulfonic acid	ND		52	10	ng/L		09/28/20 07:26	09/30/20 05:10	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-4:2 FTS	*67*		*50 - 150*	*09/28/20 07:26*	*09/30/20 05:10*	*1*
M2-6:2 FTS	*74*		*50 - 150*	*09/28/20 07:26*	*09/30/20 05:10*	*1*
M2-8:2 FTS	*63*		*50 - 150*	*09/28/20 07:26*	*09/30/20 05:10*	*1*
13C2 PFTeDA	*55*		*50 - 150*	*09/28/20 07:26*	*09/30/20 05:10*	*1*
13C3 HFPO-DA	*38*	**5*	*50 - 150*	*09/28/20 07:26*	*09/30/20 05:10*	*1*
13C3 PFBS	*56*		*50 - 150*	*09/28/20 07:26*	*09/30/20 05:10*	*1*

Client Sample ID: Corona-south pond-water-092420

Lab Sample ID: 410-15093-6
Matrix: Water
Date Collected: 09/24/20 11:23
Date Received: 09/25/20 10:34

Method: EPA 537 (Mod) - EPA 537 mod QSM 5.1, Table B-15 (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	64		50 - 150	09/28/20 07:26	09/30/20 05:10	1
13C4 PFHpA	62		50 - 150	09/28/20 07:26	09/30/20 05:10	1
13C5 PFPeA	66		50 - 150	09/28/20 07:26	09/30/20 05:10	1
13C8 PFOA	64		50 - 150	09/28/20 07:26	09/30/20 05:10	1
13C8 PFOS	60		50 - 150	09/28/20 07:26	09/30/20 05:10	1
13C8 FOSA	50		50 - 150	09/28/20 07:26	09/30/20 05:10	1
d3-NMeFOSAA	63		50 - 150	09/28/20 07:26	09/30/20 05:10	1
d5-NEtFOSAA	61		50 - 150	09/28/20 07:26	09/30/20 05:10	1
d7-N-MeFOSE-M	41	*5	50 - 150	09/28/20 07:26	09/30/20 05:10	1
d9-N-EtFOSE-M	39	*5	50 - 150	09/28/20 07:26	09/30/20 05:10	1
d3-NMePFOSA	46	*5	50 - 150	09/28/20 07:26	09/30/20 05:10	1
13C2-PFDoDA	60		50 - 150	09/28/20 07:26	09/30/20 05:10	1
13C3 PFHxS	61		50 - 150	09/28/20 07:26	09/30/20 05:10	1
13C5 PFHxA	61		50 - 150	09/28/20 07:26	09/30/20 05:10	1
13C6 PFDA	58		50 - 150	09/28/20 07:26	09/30/20 05:10	1
13C7 PFUnA	57		50 - 150	09/28/20 07:26	09/30/20 05:10	1
13C9 PFNA	71		50 - 150	09/28/20 07:26	09/30/20 05:10	1
d5-NEtPFOSA	44	*5	50 - 150	09/28/20 07:26	09/30/20 05:10	1

Client Sample ID: Corona-prod well 1-092420

Lab Sample ID: 410-15093-7
Matrix: Water
Date Collected: 09/24/20 13:02
Date Received: 09/25/20 10:34

Method: EPA 300.0 R2.1 - Anions, Ion Chromatgraphy

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate	**6.4**		0.50	0.25	mg/L			09/25/20 20:00	5

Method: EPA 537 (Mod) - EPA 537 mod QSM 5.1, Table B-15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroundecanoic acid	ND		2.8	0.70	ng/L		09/30/20 18:45	10/01/20 22:39	1
Perfluorotridecanoic acid	ND		2.8	0.70	ng/L		09/30/20 18:45	10/01/20 22:39	1
Perfluorotetradecanoic acid	ND		2.8	0.70	ng/L		09/30/20 18:45	10/01/20 22:39	1
Perfluoropentanoic acid	**20**		2.8	0.70	ng/L		09/30/20 18:45	10/01/20 22:39	1
Perfluoropentanesulfonic acid	**2.7**	**J**	2.8	0.70	ng/L		09/30/20 18:45	10/01/20 22:39	1
Perfluorooctanoic acid	**25**		2.8	0.70	ng/L		09/30/20 18:45	10/01/20 22:39	1
Perfluorooctanesulfonic acid	**15**		2.8	0.70	ng/L		09/30/20 18:45	10/01/20 22:39	1
Perfluorooctanesulfonamide	ND		2.8	0.70	ng/L		09/30/20 18:45	10/01/20 22:39	1
Perfluorooctadecanoic acid	ND	F2 F1	4.2	1.4	ng/L		09/30/20 18:45	10/01/20 22:39	1
Perfluorononanoic acid	**2.8**		2.8	0.70	ng/L		09/30/20 18:45	10/01/20 22:39	1
Perfluorononanesulfonic acid	ND		2.8	0.70	ng/L		09/30/20 18:45	10/01/20 22:39	1
Perfluorohexanoic acid	**19**		2.8	0.70	ng/L		09/30/20 18:45	10/01/20 22:39	1
Perfluorohexanesulfonic acid	**9.1**		2.8	0.70	ng/L		09/30/20 18:45	10/01/20 22:39	1
Perfluorohexadecanoic acid	ND	F2 *	4.2	1.4	ng/L		09/30/20 18:45	10/01/20 22:39	1
Perfluoroheptanoic acid	**7.9**		2.8	0.70	ng/L		09/30/20 18:45	10/01/20 22:39	1
Perfluoroheptanesulfonic acid	ND		2.8	0.70	ng/L		09/30/20 18:45	10/01/20 22:39	1
Perfluorododecanoic acid	ND		2.8	0.70	ng/L		09/30/20 18:45	10/01/20 22:39	1
Perfluorodecanoic acid	ND	F2	2.8	0.70	ng/L		09/30/20 18:45	10/01/20 22:39	1
Perfluorodecanesulfonic acid	ND	F2	2.8	0.70	ng/L		09/30/20 18:45	10/01/20 22:39	1
Perfluorobutanoic acid	**17**		7.0	2.8	ng/L		09/30/20 18:45	10/01/20 22:39	1
Perfluorobutanesulfonic acid	**29**		2.8	0.70	ng/L		09/30/20 18:45	10/01/20 22:39	1

Client: ARCADIS U.S., Inc.
Project/Site: California Water Board

Job ID: 410-15093-1

Client Sample ID: Corona-prod well 1-092420

Date Collected: 09/24/20 13:02
Date Received: 09/25/20 10:34

Lab Sample ID: 410-15093-7

Matrix: Water

Method: EPA 537 (Mod) - EPA 537 mod QSM 5.1, Table B-15 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
NMeFOSE	ND		4.2	1.4	ng/L		09/30/20 18:45	10/01/20 22:39	1
NMeFOSA	ND	F2 F1	4.2	1.4	ng/L		09/30/20 18:45	10/01/20 22:39	1
NMeFOSAA	ND		2.8	0.83	ng/L		09/30/20 18:45	10/01/20 22:39	1
NEtFOSE	ND	F2	4.2	1.4	ng/L		09/30/20 18:45	10/01/20 22:39	1
NEtFOSA	ND	F1	7.0	1.4	ng/L		09/30/20 18:45	10/01/20 22:39	1
NEtFOSAA	ND		4.2	0.70	ng/L		09/30/20 18:45	10/01/20 22:39	1
HFPODA	ND		4.2	0.70	ng/L		09/30/20 18:45	10/01/20 22:39	1
DONA	ND		2.8	0.70	ng/L		09/30/20 18:45	10/01/20 22:39	1
9Cl-PF3ONS	ND		2.8	0.70	ng/L		09/30/20 18:45	10/01/20 22:39	1
8:2 Fluorotelomer sulfonic acid	ND		4.2	1.4	ng/L		09/30/20 18:45	10/01/20 22:39	1
6:2 Fluorotelomer sulfonic acid	ND		7.0	2.8	ng/L		09/30/20 18:45	10/01/20 22:39	1
4:2 Fluorotelomer sulfonic acid	ND		2.8	0.70	ng/L		09/30/20 18:45	10/01/20 22:39	1
11Cl-PF3OUdS	ND		2.8	0.70	ng/L		09/30/20 18:45	10/01/20 22:39	1
10:2 Fluorotelomer sulfonic acid	ND		7.0	1.4	ng/L		09/30/20 18:45	10/01/20 22:39	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-4:2 FTS	*69*		*50 - 150*	*09/30/20 18:45*	*10/01/20 22:39*	*1*
M2-6:2 FTS	*88*		*50 - 150*	*09/30/20 18:45*	*10/01/20 22:39*	*1*
M2-8:2 FTS	*83*		*50 - 150*	*09/30/20 18:45*	*10/01/20 22:39*	*1*
13C2 PFTeDA	*56*		*50 - 150*	*09/30/20 18:45*	*10/01/20 22:39*	*1*
13C3 HFPO-DA	*78*		*50 - 150*	*09/30/20 18:45*	*10/01/20 22:39*	*1*
13C3 PFBS	*77*		*50 - 150*	*09/30/20 18:45*	*10/01/20 22:39*	*1*
13C4 PFBA	*82*		*50 - 150*	*09/30/20 18:45*	*10/01/20 22:39*	*1*
13C4 PFHpA	*77*		*50 - 150*	*09/30/20 18:45*	*10/01/20 22:39*	*1*
13C5 PFPeA	*84*		*50 - 150*	*09/30/20 18:45*	*10/01/20 22:39*	*1*
13C8 PFOA	*87*		*50 - 150*	*09/30/20 18:45*	*10/01/20 22:39*	*1*
13C8 PFOS	*80*		*50 - 150*	*09/30/20 18:45*	*10/01/20 22:39*	*1*
13C8 FOSA	*57*		*50 - 150*	*09/30/20 18:45*	*10/01/20 22:39*	*1*
d3-NMeFOSAA	*97*		*50 - 150*	*09/30/20 18:45*	*10/01/20 22:39*	*1*
d5-NEtFOSAA	*74*		*50 - 150*	*09/30/20 18:45*	*10/01/20 22:39*	*1*
d7-N-MeFOSE-M	*15*	**5*	*50 - 150*	*09/30/20 18:45*	*10/01/20 22:39*	*1*
d9-N-EtFOSE-M	*12*	**5*	*50 - 150*	*09/30/20 18:45*	*10/01/20 22:39*	*1*
d3-NMePFOSA	*1*	**5*	*50 - 150*	*09/30/20 18:45*	*10/01/20 22:39*	*1*
13C2-PFDoDA	*61*		*50 - 150*	*09/30/20 18:45*	*10/01/20 22:39*	*1*
13C3 PFHxS	*86*		*50 - 150*	*09/30/20 18:45*	*10/01/20 22:39*	*1*
13C5 PFHxA	*82*		*50 - 150*	*09/30/20 18:45*	*10/01/20 22:39*	*1*
13C6 PFDA	*76*		*50 - 150*	*09/30/20 18:45*	*10/01/20 22:39*	*1*
13C7 PFUnA	*70*		*50 - 150*	*09/30/20 18:45*	*10/01/20 22:39*	*1*
13C9 PFNA	*85*		*50 - 150*	*09/30/20 18:45*	*10/01/20 22:39*	*1*
d5-NEtPFOSA	*0.8*	**5*	*50 - 150*	*09/30/20 18:45*	*10/01/20 22:39*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**160**		0.50	0.10	mg/L		09/30/20 09:40	09/30/20 23:36	1
Magnesium	**42**		0.20	0.043	mg/L		09/30/20 09:40	09/30/20 23:36	1
Potassium	**5.8**		0.50	0.10	mg/L		09/30/20 09:40	09/30/20 23:36	1
Sodium	**110**		1.0	0.32	mg/L		09/30/20 09:40	09/30/20 23:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**940**	**B**	120	40	mg/L			09/29/20 12:04	1

Client Sample ID: Corona-prod well 1-092420

Lab Sample ID: 410-15093-7

Date Collected: 09/24/20 13:02
Matrix: Water
Date Received: 09/25/20 10:34

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**270**		10	1.7	mg/L			10/02/20 23:56	5
Chloride	**170**		2.5	1.4	mg/L			10/02/20 23:56	5

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Carbonate Alkalinity as CaCO3	ND		8.0	8.0	mg/L			09/25/20 21:30	1
Bicarbonate Alkalinity as CaCO3	**270**		8.0	8.0	mg/L			09/25/20 21:30	1
Total Alkalinity as CaCO3 to pH 4.5	**270**		8.0	8.0	mg/L			09/25/20 21:30	1
Phenolphthalein Alkalinity as CaCO3 to pH 8.3	ND		8.0	8.0	mg/L			09/25/20 21:30	1

Client Sample ID: Corona-prod well 2-092420

Lab Sample ID: 410-15093-8

Date Collected: 09/24/20 13:40
Matrix: Water
Date Received: 09/25/20 10:34

Method: EPA 300.0 R2.1 - Anions, Ion Chromatgraphy

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate	**5.9**		0.50	0.25	mg/L			09/25/20 20:18	5

Method: EPA 537 (Mod) - EPA 537 mod QSM 5.1, Table B-15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroundecanoic acid	ND		1.7	0.43	ng/L		09/28/20 07:26	09/30/20 05:46	1
Perfluorotridecanoic acid	ND		1.7	0.43	ng/L		09/28/20 07:26	09/30/20 05:46	1
Perfluorotetradecanoic acid	ND		1.7	0.43	ng/L		09/28/20 07:26	09/30/20 05:46	1
Perfluoropentanoic acid	**16**		1.7	0.43	ng/L		09/28/20 07:26	09/30/20 05:46	1
Perfluoropentanesulfonic acid	**2.7**		1.7	0.43	ng/L		09/28/20 07:26	09/30/20 05:46	1
Perfluorooctanoic acid	**23**		1.7	0.43	ng/L		09/28/20 07:26	09/30/20 05:46	1
Perfluorooctanesulfonic acid	**21**		1.7	0.43	ng/L		09/28/20 07:26	09/30/20 05:46	1
Perfluorooctanesulfonamide	ND		1.7	0.43	ng/L		09/28/20 07:26	09/30/20 05:46	1
Perfluorooctadecanoic acid	ND		2.6	0.87	ng/L		09/28/20 07:26	09/30/20 05:46	1
Perfluorononanoic acid	**2.9**		1.7	0.43	ng/L		09/28/20 07:26	09/30/20 05:46	1
Perfluorononanesulfonic acid	ND		1.7	0.43	ng/L		09/28/20 07:26	09/30/20 05:46	1
Perfluorohexanoic acid	**17**		1.7	0.43	ng/L		09/28/20 07:26	09/30/20 05:46	1
Perfluorohexanesulfonic acid	**9.4**		1.7	0.43	ng/L		09/28/20 07:26	09/30/20 05:46	1
Perfluorohexadecanoic acid	ND		2.6	0.87	ng/L		09/28/20 07:26	09/30/20 05:46	1
Perfluoroheptanoic acid	**5.9**		1.7	0.43	ng/L		09/28/20 07:26	09/30/20 05:46	1
Perfluoroheptanesulfonic acid	**0.62**	**J**	1.7	0.43	ng/L		09/28/20 07:26	09/30/20 05:46	1
Perfluorododecanoic acid	ND		1.7	0.43	ng/L		09/28/20 07:26	09/30/20 05:46	1
Perfluorodecanoic acid	ND		1.7	0.43	ng/L		09/28/20 07:26	09/30/20 05:46	1
Perfluorodecanesulfonic acid	ND		1.7	0.43	ng/L		09/28/20 07:26	09/30/20 05:46	1
Perfluorobutanoic acid	**22**		4.3	1.7	ng/L		09/28/20 07:26	09/30/20 05:46	1
Perfluorobutanesulfonic acid	**31**		1.7	0.43	ng/L		09/28/20 07:26	09/30/20 05:46	1
NMeFOSE	ND		2.6	0.87	ng/L		09/28/20 07:26	09/30/20 05:46	1
NMeFOSA	ND		2.6	0.87	ng/L		09/28/20 07:26	09/30/20 05:46	1
NMeFOSAA	ND		1.7	0.52	ng/L		09/28/20 07:26	09/30/20 05:46	1
NEtFOSE	ND		2.6	0.87	ng/L		09/28/20 07:26	09/30/20 05:46	1
NEtFOSA	ND		4.3	0.87	ng/L		09/28/20 07:26	09/30/20 05:46	1
NEtFOSAA	ND		2.6	0.43	ng/L		09/28/20 07:26	09/30/20 05:46	1
HFPODA	ND		2.6	0.43	ng/L		09/28/20 07:26	09/30/20 05:46	1
DONA	ND		1.7	0.43	ng/L		09/28/20 07:26	09/30/20 05:46	1
9Cl-PF3ONS	ND		1.7	0.43	ng/L		09/28/20 07:26	09/30/20 05:46	1
8:2 Fluorotelomer sulfonic acid	ND		2.6	0.87	ng/L		09/28/20 07:26	09/30/20 05:46	1

Client Sample ID: Corona-prod well 2-092420

Lab Sample ID: 410-15093-8

Date Collected: 09/24/20 13:40

Matrix: Water

Date Received: 09/25/20 10:34

Method: EPA 537 (Mod) - EPA 537 mod QSM 5.1, Table B-15 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
6:2 Fluorotelomer sulfonic acid	ND		4.3	1.7	ng/L		09/28/20 07:26	09/30/20 05:46	1
4:2 Fluorotelomer sulfonic acid	ND		1.7	0.43	ng/L		09/28/20 07:26	09/30/20 05:46	1
11Cl-PF3OUdS	ND		1.7	0.43	ng/L		09/28/20 07:26	09/30/20 05:46	1
10:2 Fluorotelomer sulfonic acid	ND		4.3	0.87	ng/L		09/28/20 07:26	09/30/20 05:46	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-4:2 FTS	*101*		*50 - 150*	*09/28/20 07:26*	*09/30/20 05:46*	*1*
M2-6:2 FTS	*106*		*50 - 150*	*09/28/20 07:26*	*09/30/20 05:46*	*1*
M2-8:2 FTS	*90*		*50 - 150*	*09/28/20 07:26*	*09/30/20 05:46*	*1*
13C2 PFTeDA	*73*		*50 - 150*	*09/28/20 07:26*	*09/30/20 05:46*	*1*
13C3 HFPO-DA	*86*		*50 - 150*	*09/28/20 07:26*	*09/30/20 05:46*	*1*
13C3 PFBS	*107*		*50 - 150*	*09/28/20 07:26*	*09/30/20 05:46*	*1*
13C4 PFBA	*97*		*50 - 150*	*09/28/20 07:26*	*09/30/20 05:46*	*1*
13C4 PFHpA	*92*		*50 - 150*	*09/28/20 07:26*	*09/30/20 05:46*	*1*
13C5 PFPeA	*123*		*50 - 150*	*09/28/20 07:26*	*09/30/20 05:46*	*1*
13C8 PFOA	*98*		*50 - 150*	*09/28/20 07:26*	*09/30/20 05:46*	*1*
13C8 PFOS	*94*		*50 - 150*	*09/28/20 07:26*	*09/30/20 05:46*	*1*
13C8 FOSA	*52*		*50 - 150*	*09/28/20 07:26*	*09/30/20 05:46*	*1*
d3-NMeFOSAA	*119*		*50 - 150*	*09/28/20 07:26*	*09/30/20 05:46*	*1*
d5-NEtFOSAA	*92*		*50 - 150*	*09/28/20 07:26*	*09/30/20 05:46*	*1*
d7-N-MeFOSE-M	*29*	**5*	*50 - 150*	*09/28/20 07:26*	*09/30/20 05:46*	*1*
d9-N-EtFOSE-M	*23*	**5*	*50 - 150*	*09/28/20 07:26*	*09/30/20 05:46*	*1*
d3-NMePFOSA	*4*	**5*	*50 - 150*	*09/28/20 07:26*	*09/30/20 05:46*	*1*
13C2-PFDoDA	*82*		*50 - 150*	*09/28/20 07:26*	*09/30/20 05:46*	*1*
13C3 PFHxS	*92*		*50 - 150*	*09/28/20 07:26*	*09/30/20 05:46*	*1*
13C5 PFHxA	*91*		*50 - 150*	*09/28/20 07:26*	*09/30/20 05:46*	*1*
13C6 PFDA	*81*		*50 - 150*	*09/28/20 07:26*	*09/30/20 05:46*	*1*
13C7 PFUnA	*90*		*50 - 150*	*09/28/20 07:26*	*09/30/20 05:46*	*1*
13C9 PFNA	*100*		*50 - 150*	*09/28/20 07:26*	*09/30/20 05:46*	*1*
d5-NEtPFOSA	*3*	**5*	*50 - 150*	*09/28/20 07:26*	*09/30/20 05:46*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**150**		0.50	0.10	mg/L		09/30/20 09:40	09/30/20 23:40	1
Magnesium	**38**		0.20	0.043	mg/L		09/30/20 09:40	09/30/20 23:40	1
Potassium	**4.1**		0.50	0.10	mg/L		09/30/20 09:40	09/30/20 23:40	1
Sodium	**130**		1.0	0.32	mg/L		09/30/20 09:40	09/30/20 23:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**980**	**B**	120	40	mg/L			09/29/20 12:04	1
Sulfate	**270**		10	1.7	mg/L			10/03/20 00:11	5
Chloride	**170**		2.5	1.4	mg/L			10/03/20 00:11	5

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Carbonate Alkalinity as CaCO3	ND		8.0	8.0	mg/L			09/25/20 21:08	1
Bicarbonate Alkalinity as CaCO3	**260**		8.0	8.0	mg/L			09/25/20 21:08	1
Total Alkalinity as CaCO3 to pH 4.5	**260**	**F1**	8.0	8.0	mg/L			09/25/20 21:08	1
Phenolphthalein Alkalinity as CaCO3 to pH 8.3	ND		8.0	8.0	mg/L			09/25/20 21:08	1

Client Sample ID: Corona-dup-092420
Date Collected: 09/24/20 00:00
Date Received: 09/25/20 10:34

Lab Sample ID: 410-15093-9
Matrix: Water

Method: EPA 300.0 R2.1 - Anions, Ion Chromatgraphy

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate	**6.0**		0.50	0.25	mg/L			09/25/20 19:06	5

Method: EPA 537 (Mod) - EPA 537 mod QSM 5.1, Table B-15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroundecanoic acid	ND		1.6	0.41	ng/L		09/28/20 07:26	09/30/20 05:56	1
Perfluorotridecanoic acid	ND		1.6	0.41	ng/L		09/28/20 07:26	09/30/20 05:56	1
Perfluorotetradecanoic acid	ND		1.6	0.41	ng/L		09/28/20 07:26	09/30/20 05:56	1
Perfluoropentanoic acid	**17**		1.6	0.41	ng/L		09/28/20 07:26	09/30/20 05:56	1
Perfluoropentanesulfonic acid	**2.8**		1.6	0.41	ng/L		09/28/20 07:26	09/30/20 05:56	1
Perfluorooctanoic acid	**24**		1.6	0.41	ng/L		09/28/20 07:26	09/30/20 05:56	1
Perfluorooctanesulfonic acid	**22**		1.6	0.41	ng/L		09/28/20 07:26	09/30/20 05:56	1
Perfluorooctanesulfonamide	ND		1.6	0.41	ng/L		09/28/20 07:26	09/30/20 05:56	1
Perfluorooctadecanoic acid	ND		2.5	0.82	ng/L		09/28/20 07:26	09/30/20 05:56	1
Perfluorononanoic acid	**3.0**		1.6	0.41	ng/L		09/28/20 07:26	09/30/20 05:56	1
Perfluorononanesulfonic acid	ND		1.6	0.41	ng/L		09/28/20 07:26	09/30/20 05:56	1
Perfluorohexanoic acid	**17**		1.6	0.41	ng/L		09/28/20 07:26	09/30/20 05:56	1
Perfluorohexanesulfonic acid	**9.8**		1.6	0.41	ng/L		09/28/20 07:26	09/30/20 05:56	1
Perfluorohexadecanoic acid	ND		2.5	0.82	ng/L		09/28/20 07:26	09/30/20 05:56	1
Perfluoroheptanoic acid	**6.4**		1.6	0.41	ng/L		09/28/20 07:26	09/30/20 05:56	1
Perfluoroheptanesulfonic acid	**0.71**	**J**	1.6	0.41	ng/L		09/28/20 07:26	09/30/20 05:56	1
Perfluorododecanoic acid	ND		1.6	0.41	ng/L		09/28/20 07:26	09/30/20 05:56	1
Perfluorodecanoic acid	ND		1.6	0.41	ng/L		09/28/20 07:26	09/30/20 05:56	1
Perfluorodecanesulfonic acid	ND		1.6	0.41	ng/L		09/28/20 07:26	09/30/20 05:56	1
Perfluorobutanoic acid	**23**		4.1	1.6	ng/L		09/28/20 07:26	09/30/20 05:56	1
Perfluorobutanesulfonic acid	**32**		1.6	0.41	ng/L		09/28/20 07:26	09/30/20 05:56	1
NMeFOSE	ND		2.5	0.82	ng/L		09/28/20 07:26	09/30/20 05:56	1
NMeFOSA	ND		2.5	0.82	ng/L		09/28/20 07:26	09/30/20 05:56	1
NMeFOSAA	ND		1.6	0.49	ng/L		09/28/20 07:26	09/30/20 05:56	1
NEtFOSE	ND		2.5	0.82	ng/L		09/28/20 07:26	09/30/20 05:56	1
NEtFOSA	ND		4.1	0.82	ng/L		09/28/20 07:26	09/30/20 05:56	1
NEtFOSAA	ND		2.5	0.41	ng/L		09/28/20 07:26	09/30/20 05:56	1
HFPODA	ND		2.5	0.41	ng/L		09/28/20 07:26	09/30/20 05:56	1
DONA	ND		1.6	0.41	ng/L		09/28/20 07:26	09/30/20 05:56	1
9Cl-PF3ONS	ND		1.6	0.41	ng/L		09/28/20 07:26	09/30/20 05:56	1
8:2 Fluorotelomer sulfonic acid	ND		2.5	0.82	ng/L		09/28/20 07:26	09/30/20 05:56	1
6:2 Fluorotelomer sulfonic acid	ND		4.1	1.6	ng/L		09/28/20 07:26	09/30/20 05:56	1
4:2 Fluorotelomer sulfonic acid	ND		1.6	0.41	ng/L		09/28/20 07:26	09/30/20 05:56	1
11Cl-PF3OUdS	ND		1.6	0.41	ng/L		09/28/20 07:26	09/30/20 05:56	1
10:2 Fluorotelomer sulfonic acid	ND		4.1	0.82	ng/L		09/28/20 07:26	09/30/20 05:56	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-4:2 FTS	*110*		*50 - 150*	*09/28/20 07:26*	*09/30/20 05:56*	*1*
M2-6:2 FTS	*107*		*50 - 150*	*09/28/20 07:26*	*09/30/20 05:56*	*1*
M2-8:2 FTS	*96*		*50 - 150*	*09/28/20 07:26*	*09/30/20 05:56*	*1*
13C2 PFTeDA	*77*		*50 - 150*	*09/28/20 07:26*	*09/30/20 05:56*	*1*
13C3 HFPO-DA	*88*		*50 - 150*	*09/28/20 07:26*	*09/30/20 05:56*	*1*
13C3 PFBS	*110*		*50 - 150*	*09/28/20 07:26*	*09/30/20 05:56*	*1*
13C4 PFBA	*99*		*50 - 150*	*09/28/20 07:26*	*09/30/20 05:56*	*1*
13C4 PFHpA	*96*		*50 - 150*	*09/28/20 07:26*	*09/30/20 05:56*	*1*
13C5 PFPeA	*120*		*50 - 150*	*09/28/20 07:26*	*09/30/20 05:56*	*1*

Client: ARCADIS U.S., Inc.
Project/Site: California Water Board

Job ID: 410-15093-1

Client Sample ID: Corona-dup-092420

Date Collected: 09/24/20 00:00
Date Received: 09/25/20 10:34

Lab Sample ID: 410-15093-9

Matrix: Water

Method: EPA 537 (Mod) - EPA 537 mod QSM 5.1, Table B-15 (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 PFOA	102		50 - 150	09/28/20 07:26	09/30/20 05:56	1
13C8 PFOS	93		50 - 150	09/28/20 07:26	09/30/20 05:56	1
13C8 FOSA	70		50 - 150	09/28/20 07:26	09/30/20 05:56	1
d3-NMeFOSAA	103		50 - 150	09/28/20 07:26	09/30/20 05:56	1
d5-NEtFOSAA	87		50 - 150	09/28/20 07:26	09/30/20 05:56	1
d7-N-MeFOSE-M	54		50 - 150	09/28/20 07:26	09/30/20 05:56	1
d9-N-EtFOSE-M	49	*5	50 - 150	09/28/20 07:26	09/30/20 05:56	1
d3-NMePFOSA	14	*5	50 - 150	09/28/20 07:26	09/30/20 05:56	1
13C2-PFDoDA	84		50 - 150	09/28/20 07:26	09/30/20 05:56	1
13C3 PFHxS	94		50 - 150	09/28/20 07:26	09/30/20 05:56	1
13C5 PFHxA	97		50 - 150	09/28/20 07:26	09/30/20 05:56	1
13C6 PFDA	82		50 - 150	09/28/20 07:26	09/30/20 05:56	1
13C7 PFUnA	90		50 - 150	09/28/20 07:26	09/30/20 05:56	1
13C9 PFNA	103		50 - 150	09/28/20 07:26	09/30/20 05:56	1
d5-NEtPFOSA	11	*5	50 - 150	09/28/20 07:26	09/30/20 05:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1000**	**B**	120	40	mg/L			09/29/20 12:04	1
Sulfate	**280**		10	1.7	mg/L			10/03/20 00:25	5
Chloride	**180**		2.5	1.4	mg/L			10/03/20 00:25	5

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Carbonate Alkalinity as CaCO3	ND		8.0	8.0	mg/L			09/25/20 21:44	1
Bicarbonate Alkalinity as CaCO3	**260**		8.0	8.0	mg/L			09/25/20 21:44	1
Total Alkalinity as CaCO3 to pH 4.5	**260**		8.0	8.0	mg/L			09/25/20 21:44	1
Phenolphthalein Alkalinity as CaCO3 to pH 8.3	ND		8.0	8.0	mg/L			09/25/20 21:44	1

Isotope Dilution Summary

Client: ARCADIS U.S., Inc.
Project/Site: California Water Board

Job ID: 410-15093-1

Method: EPA 537 (Mod) - EPA 537 mod QSM 5.1, Table B-15

Matrix: Solid

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		M242FTS	M262FTS	M282FTS	PFTDA	HFPODA	C3PFBS	PFBA	C4PFHA
Lab Sample ID	Client Sample ID	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)
410-15093-1	Corona-upstream-sed-092420	65	87	88	77	79	78	88	79
410-15093-2	Corona-south pond-sed-092420	65	86	87	77	82	76	87	77
LCS 410-49717/2-B	Lab Control Sample	62	80	84	78	83	78	87	80
MB 410-49717/1-B	Method Blank	66	91	90	72	82	76	86	85

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFPeA	C8PFOA	C8PFOS	PFOSA	d3NMFOS	d5NEFOS	NMFM	NEFM
Lab Sample ID	Client Sample ID	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)
410-15093-1	Corona-upstream-sed-092420	88	88	85	72	98	77	66	65
410-15093-2	Corona-south pond-sed-092420	85	86	83	74	93	88	67	73
LCS 410-49717/2-B	Lab Control Sample	88	88	87	81	102	97	74	70
MB 410-49717/1-B	Method Blank	86	89	83	81	99	87	73	69

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		d3NMFSA	PFDoDA	C3PFHS	13C5PHA	C6PFDA	13C7PUA	C9PFNA	d5NPFSA
Lab Sample ID	Client Sample ID	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)
410-15093-1	Corona-upstream-sed-092420	56	79	85	80	85	77	91	60
410-15093-2	Corona-south pond-sed-092420	65	78	86	82	77	83	88	66
LCS 410-49717/2-B	Lab Control Sample	67	82	86	81	86	88	89	65
MB 410-49717/1-B	Method Blank	68	80	90	84	82	84	90	64

Surrogate Legend

M242FTS = M2-4:2 FTS
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
PFTDA = 13C2 PFTeDA
HFPODA = 13C3 HFPO-DA
C3PFBS = 13C3 PFBS
PFBA = 13C4 PFBA
C4PFHA = 13C4 PFHpA
PFPeA = 13C5 PFPeA
C8PFOA = 13C8 PFOA
C8PFOS = 13C8 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d3NMFSA = d3-NMePFOSA
PFDoDA = 13C2-PFDoDA
C3PFHS = 13C3 PFHxS
13C5PHA = 13C5 PFHxA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
C9PFNA = 13C9 PFNA
d5NPFSA = d5-NEtPFOSA

Isotope Dilution Summary

Client: ARCADIS U.S., Inc.
Job ID: 410-15093-1
Project/Site: California Water Board

Method: EPA 537 (Mod) - EPA 537 mod QSM 5.1, Table B-15

Matrix: Water
Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	M242FTS (50-150)	M262FTS (50-150)	M282FTS (50-150)	PFTDA (50-150)	HFPODA (50-150)	C3PFBS (50-150)	PFBA (50-150)	C4PFHA (50-150)
410-15093-3	Corona-EB-092420	83	115	94	84	91	86	101	97
410-15093-4	Corona-FB-092420	91	118	105	81	101	93	105	104
410-15093-5	Corona-downstream water-092420	195 *5	152 *5	126	7 *5	72	187 *5	72	99
410-15093-5 - DL	Corona-downstream water-092420						115		109
410-15093-6	Corona-south pond-water-092420	67	74	63	55	38 *5	56	64	62
410-15093-7	Corona-prod well 1-092420	69	88	83	56	78	77	82	77
410-15093-7 MS	Corona-prod well 1-MS-092420	71	87	91	63	77	87	82	78
410-15093-7 MSD	Corona-prod well 1-MSD-092420	62	78	79	59	69	71	74	70
410-15093-8	Corona-prod well 2-092420	101	106	90	73	86	107	97	92
410-15093-9	Corona-dup-092420	110	107	96	77	88	110	99	96
LCS 410-48278/2-A	Lab Control Sample	78	88	85	76	80	75	87	84
LCS 410-49572/2-A	Lab Control Sample	23 *5	30 *5	30 *5	27 *5	28 *5	27 *5	31 *5	27 *5
MB 410-48278/1-A	Method Blank	82	103	93	80	87	83	95	91
MB 410-49572/1-A	Method Blank	65	86	95	75	79	76	88	81

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFPeA (50-150)	C8PFOA (50-150)	C8PFOS (50-150)	PFOSA (50-150)	d3NMFOS (50-150)	d5NEFOS (50-150)	NMFM (50-150)	NEFM (50-150)
410-15093-3	Corona-EB-092420	103	106	99	79	111	91	55	51
410-15093-4	Corona-FB-092420	98	112	102	85	128	104	19 *5	15 *5
410-15093-5	Corona-downstream water-092420	137	84	80	18 *5	81	80	2 *5	1 *5
410-15093-5 - DL	Corona-downstream water-092420		104	96					
410-15093-6	Corona-south pond-water-092420	66	64	60	50	63	61	41 *5	39 *5
410-15093-7	Corona-prod well 1-092420	84	87	80	57	97	74	15 *5	12 *5
410-15093-7 MS	Corona-prod well 1-MS-092420	87	86	86	43 *5	107	82	6 *5	5 *5
410-15093-7 MSD	Corona-prod well 1-MSD-092420	76	77	75	54	95	78	17 *5	11 *5
410-15093-8	Corona-prod well 2-092420	123	98	94	52	119	92	29 *5	23 *5
410-15093-9	Corona-dup-092420	120	102	93	70	103	87	54	49 *5
LCS 410-48278/2-A	Lab Control Sample	83	88	83	69	99	80	47 *5	42 *5
LCS 410-49572/2-A	Lab Control Sample	28 *5	31 *5	29 *5	26 *5	33 *5	34 *5	16 *5	13 *5
MB 410-48278/1-A	Method Blank	96	98	95	73	109	85	59	56
MB 410-49572/1-A	Method Blank	89	89	86	71	104	92	44 *5	37 *5

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	d3NMFSA (50-150)	PFDoDA (50-150)	C3PFHS (50-150)	13C5PHA (50-150)	C6PFDA (50-150)	13C7PUA (50-150)	C9PFNA (50-150)	d5NPFSA (50-150)
410-15093-3	Corona-EB-092420	41 *5	94	99	99	91	93	106	34 *5
410-15093-4	Corona-FB-092420	24 *5	102	102	105	98	105	112	17 *5
410-15093-5	Corona-downstream water-092420	0.3 *5	32 *5	91	68	72	62	102	0 *5
410-15093-5 - DL	Corona-downstream water-092420			105	101				
410-15093-6	Corona-south pond-water-092420	46 *5	60	61	61	58	57	71	44 *5
410-15093-7	Corona-prod well 1-092420	1 *5	61	86	82	76	70	85	0.8 *5
410-15093-7 MS	Corona-prod well 1-MS-092420	0.8 *5	73	84	81	81	80	87	0.4 *5

Isotope Dilution Summary

Client: ARCADIS U.S., Inc. Job ID: 410-15093-1
Project/Site: California Water Board

Method: EPA 537 (Mod) - EPA 537 mod QSM 5.1, Table B-15 (Continued)

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

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	d3NMFSA (50-150)	PFDoDA (50-150)	C3PFHS (50-150)	13C5PHA (50-150)	C6PFDA (50-150)	13C7PUA (50-150)	C9PFNA (50-150)	d5NPFSA (50-150)
410-15093-7 MSD	Corona-prod well 1-MSD-09242(	1 *5	67	75	72	68	72	83	0.9 *5
410-15093-8	Corona-prod well 2-092420	4 *5	82	92	91	81	90	100	3 *5
410-15093-9	Corona-dup-092420	14 *5	84	94	97	82	90	103	11 *5
LCS 410-48278/2-A	Lab Control Sample	42 *5	82	85	85	78	85	90	33 *5
LCS 410-49572/2-A	Lab Control Sample	12 *5	29 *5	30 *5	29 *5	28 *5	30 *5	33 *5	9 *5
MB 410-48278/1-A	Method Blank	45 *5	86	93	92	87	88	107	42 *5
MB 410-49572/1-A	Method Blank	32 *5	80	86	79	85	85	92	25 *5

Surrogate Legend

M242FTS = M2-4:2 FTS
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
PFTDA = 13C2 PFTeDA
HFPODA = 13C3 HFPO-DA
C3PFBS = 13C3 PFBS
PFBA = 13C4 PFBA
C4PFHA = 13C4 PFHpA
PFPeA = 13C5 PFPeA
C8PFOA = 13C8 PFOA
C8PFOS = 13C8 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d3NMFSA = d3-NMePFOSA
PFDoDA = 13C2-PFDoDA
C3PFHS = 13C3 PFHxS
13C5PHA = 13C5 PFHxA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
C9PFNA = 13C9 PFNA
d5NPFSA = d5-NEtPFOSA

Method: EPA 300.0 R2.1 - Anions, Ion Chromatgraphy

Lab Sample ID: MB 410-47920/24
Matrix: Water
Analysis Batch: 47920

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate	ND		0.10	0.050	mg/L			09/26/20 01:26	1

Lab Sample ID: LCS 410-47920/23
Matrix: Water
Analysis Batch: 47920

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrogen, Nitrate	0.750	0.689		mg/L		92	90 - 110

Lab Sample ID: 410-15093-9 MS
Matrix: Water
Analysis Batch: 47920

Client Sample ID: Corona-dup-092420
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrogen, Nitrate	6.0		2.50	8.26		mg/L		90	90 - 110

Lab Sample ID: 410-15093-9 DU
Matrix: Water
Analysis Batch: 47920

Client Sample ID: Corona-dup-092420
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Nitrogen, Nitrate	6.0		5.95		mg/L		1	15

Method: EPA 537 (Mod) - EPA 537 mod QSM 5.1, Table B-15

Lab Sample ID: MB 410-48278/1-A
Matrix: Water
Analysis Batch: 48818

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 48278

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroundecanoic acid	ND		2.0	0.50	ng/L		09/28/20 07:26	09/30/20 03:58	1
Perfluorotridecanoic acid	ND		2.0	0.50	ng/L		09/28/20 07:26	09/30/20 03:58	1
Perfluorotetradecanoic acid	ND		2.0	0.50	ng/L		09/28/20 07:26	09/30/20 03:58	1
Perfluoropentanoic acid	ND		2.0	0.50	ng/L		09/28/20 07:26	09/30/20 03:58	1
Perfluoropentanesulfonic acid	ND		2.0	0.50	ng/L		09/28/20 07:26	09/30/20 03:58	1
Perfluorooctanoic acid	ND		2.0	0.50	ng/L		09/28/20 07:26	09/30/20 03:58	1
Perfluorooctanesulfonic acid	ND		2.0	0.50	ng/L		09/28/20 07:26	09/30/20 03:58	1
Perfluorooctanesulfonamide	ND		2.0	0.50	ng/L		09/28/20 07:26	09/30/20 03:58	1
Perfluorooctadecanoic acid	ND		3.0	1.0	ng/L		09/28/20 07:26	09/30/20 03:58	1
Perfluorononanoic acid	ND		2.0	0.50	ng/L		09/28/20 07:26	09/30/20 03:58	1
Perfluorononanesulfonic acid	ND		2.0	0.50	ng/L		09/28/20 07:26	09/30/20 03:58	1
Perfluorohexanoic acid	ND		2.0	0.50	ng/L		09/28/20 07:26	09/30/20 03:58	1
Perfluorohexanesulfonic acid	ND		2.0	0.50	ng/L		09/28/20 07:26	09/30/20 03:58	1
Perfluorohexadecanoic acid	ND		3.0	1.0	ng/L		09/28/20 07:26	09/30/20 03:58	1
Perfluoroheptanoic acid	ND		2.0	0.50	ng/L		09/28/20 07:26	09/30/20 03:58	1
Perfluoroheptanesulfonic acid	ND		2.0	0.50	ng/L		09/28/20 07:26	09/30/20 03:58	1
Perfluorododecanoic acid	ND		2.0	0.50	ng/L		09/28/20 07:26	09/30/20 03:58	1
Perfluorodecanoic acid	ND		2.0	0.50	ng/L		09/28/20 07:26	09/30/20 03:58	1
Perfluorodecanesulfonic acid	ND		2.0	0.50	ng/L		09/28/20 07:26	09/30/20 03:58	1
Perfluorobutanoic acid	ND		5.0	2.0	ng/L		09/28/20 07:26	09/30/20 03:58	1

Method: EPA 537 (Mod) - EPA 537 mod QSM 5.1, Table B-15 (Continued)

Lab Sample ID: MB 410-48278/1-A
Matrix: Water
Analysis Batch: 48818

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 48278

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid	ND		2.0	0.50	ng/L		09/28/20 07:26	09/30/20 03:58	1
NMeFOSE	ND		3.0	1.0	ng/L		09/28/20 07:26	09/30/20 03:58	1
NMeFOSA	ND		3.0	1.0	ng/L		09/28/20 07:26	09/30/20 03:58	1
NMeFOSAA	ND		2.0	0.60	ng/L		09/28/20 07:26	09/30/20 03:58	1
NEtFOSE	ND		3.0	1.0	ng/L		09/28/20 07:26	09/30/20 03:58	1
NEtFOSA	ND		5.0	1.0	ng/L		09/28/20 07:26	09/30/20 03:58	1
NEtFOSAA	ND		3.0	0.50	ng/L		09/28/20 07:26	09/30/20 03:58	1
HFPODA	ND		3.0	0.50	ng/L		09/28/20 07:26	09/30/20 03:58	1
DONA	ND		2.0	0.50	ng/L		09/28/20 07:26	09/30/20 03:58	1
9Cl-PF3ONS	ND		2.0	0.50	ng/L		09/28/20 07:26	09/30/20 03:58	1
8:2 Fluorotelomer sulfonic acid	ND		3.0	1.0	ng/L		09/28/20 07:26	09/30/20 03:58	1
6:2 Fluorotelomer sulfonic acid	ND		5.0	2.0	ng/L		09/28/20 07:26	09/30/20 03:58	1
4:2 Fluorotelomer sulfonic acid	ND		2.0	0.50	ng/L		09/28/20 07:26	09/30/20 03:58	1
11Cl-PF3OUdS	ND		2.0	0.50	ng/L		09/28/20 07:26	09/30/20 03:58	1
10:2 Fluorotelomer sulfonic acid	ND		5.0	1.0	ng/L		09/28/20 07:26	09/30/20 03:58	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-4:2 FTS	*82*		*50 - 150*	*09/28/20 07:26*	*09/30/20 03:58*	*1*
M2-6:2 FTS	*103*		*50 - 150*	*09/28/20 07:26*	*09/30/20 03:58*	*1*
M2-8:2 FTS	*93*		*50 - 150*	*09/28/20 07:26*	*09/30/20 03:58*	*1*
13C2 PFTeDA	*80*		*50 - 150*	*09/28/20 07:26*	*09/30/20 03:58*	*1*
13C3 HFPO-DA	*87*		*50 - 150*	*09/28/20 07:26*	*09/30/20 03:58*	*1*
13C3 PFBS	*83*		*50 - 150*	*09/28/20 07:26*	*09/30/20 03:58*	*1*
13C4 PFBA	*95*		*50 - 150*	*09/28/20 07:26*	*09/30/20 03:58*	*1*
13C4 PFHpA	*91*		*50 - 150*	*09/28/20 07:26*	*09/30/20 03:58*	*1*
13C5 PFPeA	*96*		*50 - 150*	*09/28/20 07:26*	*09/30/20 03:58*	*1*
13C8 PFOA	*98*		*50 - 150*	*09/28/20 07:26*	*09/30/20 03:58*	*1*
13C8 PFOS	*95*		*50 - 150*	*09/28/20 07:26*	*09/30/20 03:58*	*1*
13C8 FOSA	*73*		*50 - 150*	*09/28/20 07:26*	*09/30/20 03:58*	*1*
d3-NMeFOSAA	*109*		*50 - 150*	*09/28/20 07:26*	*09/30/20 03:58*	*1*
d5-NEtFOSAA	*85*		*50 - 150*	*09/28/20 07:26*	*09/30/20 03:58*	*1*
d7-N-MeFOSE-M	*59*		*50 - 150*	*09/28/20 07:26*	*09/30/20 03:58*	*1*
d9-N-EtFOSE-M	*56*		*50 - 150*	*09/28/20 07:26*	*09/30/20 03:58*	*1*
d3-NMePFOSA	*45*	**5*	*50 - 150*	*09/28/20 07:26*	*09/30/20 03:58*	*1*
13C2-PFDoDA	*86*		*50 - 150*	*09/28/20 07:26*	*09/30/20 03:58*	*1*
13C3 PFHxS	*93*		*50 - 150*	*09/28/20 07:26*	*09/30/20 03:58*	*1*
13C5 PFHxA	*92*		*50 - 150*	*09/28/20 07:26*	*09/30/20 03:58*	*1*
13C6 PFDA	*87*		*50 - 150*	*09/28/20 07:26*	*09/30/20 03:58*	*1*
13C7 PFUnA	*88*		*50 - 150*	*09/28/20 07:26*	*09/30/20 03:58*	*1*
13C9 PFNA	*107*		*50 - 150*	*09/28/20 07:26*	*09/30/20 03:58*	*1*
d5-NEtPFOSA	*42*	**5*	*50 - 150*	*09/28/20 07:26*	*09/30/20 03:58*	*1*

Lab Sample ID: LCS 410-48278/2-A
Matrix: Water
Analysis Batch: 48818

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 48278

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluoroundecanoic acid	25.6	27.8		ng/L		109	61 - 136
Perfluorotridecanoic acid	25.6	25.7		ng/L		101	46 - 143

Method: EPA 537 (Mod) - EPA 537 mod QSM 5.1, Table B-15 (Continued)

Lab Sample ID: LCS 410-48278/2-A
Matrix: Water
Analysis Batch: 48818

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 48278

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorotetradecanoic acid	25.6	25.0		ng/L		98	65 - 140
Perfluoropentanoic acid	25.6	23.0		ng/L		90	72 - 138
Perfluoropentanesulfonic acid	24.0	24.9		ng/L		104	71 - 137
Perfluorooctanoic acid	25.6	23.9		ng/L		93	64 - 132
Perfluorooctanesulfonic acid	24.5	21.6		ng/L		88	54 - 129
Perfluorooctanesulfonamide	25.6	24.9		ng/L		97	58 - 130
Perfluorooctadecanoic acid	25.6	15.8		ng/L		62	10 - 122
Perfluorononanoic acid	25.6	25.2		ng/L		98	66 - 139
Perfluorononanesulfonic acid	24.6	24.5		ng/L		100	62 - 139
Perfluorohexanoic acid	25.6	25.6		ng/L		100	67 - 132
Perfluorohexanesulfonic acid	24.2	23.3		ng/L		96	62 - 132
Perfluorohexadecanoic acid	25.6	31.1		ng/L		122	10 - 145
Perfluoroheptanoic acid	25.6	26.3		ng/L		103	64 - 146
Perfluoroheptanesulfonic acid	24.4	23.1		ng/L		95	68 - 132
Perfluorododecanoic acid	25.6	25.7		ng/L		101	62 - 136
Perfluorodecanoic acid	25.6	28.4		ng/L		111	61 - 132
Perfluorodecanesulfonic acid	24.7	22.3		ng/L		91	50 - 137
Perfluorobutanoic acid	25.6	23.9		ng/L		93	61 - 153
Perfluorobutanesulfonic acid	22.6	23.8		ng/L		105	66 - 135
NMeFOSE	25.6	24.4		ng/L		95	52 - 129
NMeFOSA	25.6	24.8		ng/L		97	43 - 143
NMeFOSAA	25.6	32.5		ng/L		127	59 - 144
NEtFOSE	25.6	25.1		ng/L		98	48 - 124
NEtFOSA	25.6	29.6		ng/L		116	51 - 133
NEtFOSAA	25.6	32.6		ng/L		127	53 - 138
HFPODA	25.6	24.7		ng/L		97	52 - 134
DONA	24.1	27.4		ng/L		114	53 - 160
9Cl-PF3ONS	23.9	24.1		ng/L		101	61 - 123
8:2 Fluorotelomer sulfonic acid	24.5	26.7		ng/L		109	52 - 141
6:2 Fluorotelomer sulfonic acid	24.3	24.7		ng/L		102	56 - 135
4:2 Fluorotelomer sulfonic acid	23.9	22.6		ng/L		95	59 - 129
11Cl-PF3OUdS	24.1	25.2		ng/L		104	42 - 125
10:2 Fluorotelomer sulfonic acid	24.7	25.4		ng/L		103	29 - 143

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
M2-4:2 FTS	*78*		*50 - 150*
M2-6:2 FTS	*88*		*50 - 150*
M2-8:2 FTS	*85*		*50 - 150*
13C2 PFTeDA	*76*		*50 - 150*
13C3 HFPO-DA	*80*		*50 - 150*
13C3 PFBS	*75*		*50 - 150*
13C4 PFBA	*87*		*50 - 150*
13C4 PFHpA	*84*		*50 - 150*
13C5 PFPeA	*83*		*50 - 150*
13C8 PFOA	*88*		*50 - 150*
13C8 PFOS	*83*		*50 - 150*
13C8 FOSA	*69*		*50 - 150*
d3-NMeFOSAA	*99*		*50 - 150*
d5-NEtFOSAA	*80*		*50 - 150*

Method: EPA 537 (Mod) - EPA 537 mod QSM 5.1, Table B-15 (Continued)

Lab Sample ID: LCS 410-48278/2-A
Matrix: Water
Analysis Batch: 48818

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 48278

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
d7-N-MeFOSE-M	47	*5	50 - 150
d9-N-EtFOSE-M	42	*5	50 - 150
d3-NMePFOSA	42	*5	50 - 150
13C2-PFDoDA	82		50 - 150
13C3 PFHxS	85		50 - 150
13C5 PFHxA	85		50 - 150
13C6 PFDA	78		50 - 150
13C7 PFUnA	85		50 - 150
13C9 PFNA	90		50 - 150
d5-NEtPFOSA	33	*5	50 - 150

Lab Sample ID: MB 410-49572/1-A
Matrix: Water
Analysis Batch: 49894

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 49572

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroundecanoic acid	ND		2.0	0.50	ng/L		09/30/20 18:45	10/01/20 21:36	1
Perfluorotridecanoic acid	ND		2.0	0.50	ng/L		09/30/20 18:45	10/01/20 21:36	1
Perfluorotetradecanoic acid	ND		2.0	0.50	ng/L		09/30/20 18:45	10/01/20 21:36	1
Perfluoropentanoic acid	ND		2.0	0.50	ng/L		09/30/20 18:45	10/01/20 21:36	1
Perfluoropentanesulfonic acid	ND		2.0	0.50	ng/L		09/30/20 18:45	10/01/20 21:36	1
Perfluorooctanoic acid	ND		2.0	0.50	ng/L		09/30/20 18:45	10/01/20 21:36	1
Perfluorooctanesulfonic acid	ND		2.0	0.50	ng/L		09/30/20 18:45	10/01/20 21:36	1
Perfluorooctanesulfonamide	ND		2.0	0.50	ng/L		09/30/20 18:45	10/01/20 21:36	1
Perfluorooctadecanoic acid	ND		3.0	1.0	ng/L		09/30/20 18:45	10/01/20 21:36	1
Perfluorononanoic acid	ND		2.0	0.50	ng/L		09/30/20 18:45	10/01/20 21:36	1
Perfluorononanesulfonic acid	ND		2.0	0.50	ng/L		09/30/20 18:45	10/01/20 21:36	1
Perfluorohexanoic acid	ND		2.0	0.50	ng/L		09/30/20 18:45	10/01/20 21:36	1
Perfluorohexanesulfonic acid	ND		2.0	0.50	ng/L		09/30/20 18:45	10/01/20 21:36	1
Perfluorohexadecanoic acid	ND		3.0	1.0	ng/L		09/30/20 18:45	10/01/20 21:36	1
Perfluoroheptanoic acid	ND		2.0	0.50	ng/L		09/30/20 18:45	10/01/20 21:36	1
Perfluoroheptanesulfonic acid	ND		2.0	0.50	ng/L		09/30/20 18:45	10/01/20 21:36	1
Perfluorododecanoic acid	ND		2.0	0.50	ng/L		09/30/20 18:45	10/01/20 21:36	1
Perfluorodecanoic acid	ND		2.0	0.50	ng/L		09/30/20 18:45	10/01/20 21:36	1
Perfluorodecanesulfonic acid	ND		2.0	0.50	ng/L		09/30/20 18:45	10/01/20 21:36	1
Perfluorobutanoic acid	ND		5.0	2.0	ng/L		09/30/20 18:45	10/01/20 21:36	1
Perfluorobutanesulfonic acid	ND		2.0	0.50	ng/L		09/30/20 18:45	10/01/20 21:36	1
NMeFOSE	ND		3.0	1.0	ng/L		09/30/20 18:45	10/01/20 21:36	1
NMeFOSA	ND		3.0	1.0	ng/L		09/30/20 18:45	10/01/20 21:36	1
NMeFOSAA	ND		2.0	0.60	ng/L		09/30/20 18:45	10/01/20 21:36	1
NEtFOSE	ND		3.0	1.0	ng/L		09/30/20 18:45	10/01/20 21:36	1
NEtFOSA	ND		5.0	1.0	ng/L		09/30/20 18:45	10/01/20 21:36	1
NEtFOSAA	ND		3.0	0.50	ng/L		09/30/20 18:45	10/01/20 21:36	1
HFPODA	ND		3.0	0.50	ng/L		09/30/20 18:45	10/01/20 21:36	1
DONA	ND		2.0	0.50	ng/L		09/30/20 18:45	10/01/20 21:36	1
9Cl-PF3ONS	ND		2.0	0.50	ng/L		09/30/20 18:45	10/01/20 21:36	1
8:2 Fluorotelomer sulfonic acid	ND		3.0	1.0	ng/L		09/30/20 18:45	10/01/20 21:36	1
6:2 Fluorotelomer sulfonic acid	ND		5.0	2.0	ng/L		09/30/20 18:45	10/01/20 21:36	1
4:2 Fluorotelomer sulfonic acid	ND		2.0	0.50	ng/L		09/30/20 18:45	10/01/20 21:36	1

Method: EPA 537 (Mod) - EPA 537 mod QSM 5.1, Table B-15 (Continued)

Lab Sample ID: MB 410-49572/1-A
Matrix: Water
Analysis Batch: 49894

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 49572

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11Cl-PF3OUdS	ND		2.0	0.50	ng/L		09/30/20 18:45	10/01/20 21:36	1
10:2 Fluorotelomer sulfonic acid	ND		5.0	1.0	ng/L		09/30/20 18:45	10/01/20 21:36	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-4:2 FTS	*65*		*50 - 150*	*09/30/20 18:45*	*10/01/20 21:36*	*1*
M2-6:2 FTS	*86*		*50 - 150*	*09/30/20 18:45*	*10/01/20 21:36*	*1*
M2-8:2 FTS	*95*		*50 - 150*	*09/30/20 18:45*	*10/01/20 21:36*	*1*
13C2 PFTeDA	*75*		*50 - 150*	*09/30/20 18:45*	*10/01/20 21:36*	*1*
13C3 HFPO-DA	*79*		*50 - 150*	*09/30/20 18:45*	*10/01/20 21:36*	*1*
13C3 PFBS	*76*		*50 - 150*	*09/30/20 18:45*	*10/01/20 21:36*	*1*
13C4 PFBA	*88*		*50 - 150*	*09/30/20 18:45*	*10/01/20 21:36*	*1*
13C4 PFHpA	*81*		*50 - 150*	*09/30/20 18:45*	*10/01/20 21:36*	*1*
13C5 PFPeA	*89*		*50 - 150*	*09/30/20 18:45*	*10/01/20 21:36*	*1*
13C8 PFOA	*89*		*50 - 150*	*09/30/20 18:45*	*10/01/20 21:36*	*1*
13C8 PFOS	*86*		*50 - 150*	*09/30/20 18:45*	*10/01/20 21:36*	*1*
13C8 FOSA	*71*		*50 - 150*	*09/30/20 18:45*	*10/01/20 21:36*	*1*
d3-NMeFOSAA	*104*		*50 - 150*	*09/30/20 18:45*	*10/01/20 21:36*	*1*
d5-NEtFOSAA	*92*		*50 - 150*	*09/30/20 18:45*	*10/01/20 21:36*	*1*
d7-N-MeFOSE-M	*44*	**5*	*50 - 150*	*09/30/20 18:45*	*10/01/20 21:36*	*1*
d9-N-EtFOSE-M	*37*	**5*	*50 - 150*	*09/30/20 18:45*	*10/01/20 21:36*	*1*
d3-NMePFOSA	*32*	**5*	*50 - 150*	*09/30/20 18:45*	*10/01/20 21:36*	*1*
13C2-PFDoDA	*80*		*50 - 150*	*09/30/20 18:45*	*10/01/20 21:36*	*1*
13C3 PFHxS	*86*		*50 - 150*	*09/30/20 18:45*	*10/01/20 21:36*	*1*
13C5 PFHxA	*79*		*50 - 150*	*09/30/20 18:45*	*10/01/20 21:36*	*1*
13C6 PFDA	*85*		*50 - 150*	*09/30/20 18:45*	*10/01/20 21:36*	*1*
13C7 PFUnA	*85*		*50 - 150*	*09/30/20 18:45*	*10/01/20 21:36*	*1*
13C9 PFNA	*92*		*50 - 150*	*09/30/20 18:45*	*10/01/20 21:36*	*1*
d5-NEtPFOSA	*25*	**5*	*50 - 150*	*09/30/20 18:45*	*10/01/20 21:36*	*1*

Lab Sample ID: LCS 410-49572/2-A
Matrix: Water
Analysis Batch: 49894

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 49572

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluoroundecanoic acid	25.6	29.8	I	ng/L		116	61 - 136
Perfluorotridecanoic acid	25.6	28.1		ng/L		110	46 - 143
Perfluorotetradecanoic acid	25.6	26.4		ng/L		103	65 - 140
Perfluoropentanoic acid	25.6	26.4		ng/L		103	72 - 138
Perfluoropentanesulfonic acid	24.0	26.8		ng/L		112	71 - 137
Perfluorooctanoic acid	25.6	24.5		ng/L		96	64 - 132
Perfluorooctanesulfonic acid	24.5	23.0		ng/L		94	54 - 129
Perfluorooctanesulfonamide	25.6	26.7		ng/L		104	58 - 130
Perfluorooctadecanoic acid	25.6	26.7		ng/L		104	10 - 122
Perfluorononanoic acid	25.6	26.8		ng/L		105	66 - 139
Perfluorononanesulfonic acid	24.6	25.3		ng/L		103	62 - 139
Perfluorohexanoic acid	25.6	26.4		ng/L		103	67 - 132
Perfluorohexanesulfonic acid	24.2	25.1		ng/L		104	62 - 132
Perfluorohexadecanoic acid	25.6	39.2	*	ng/L		153	10 - 145
Perfluoroheptanoic acid	25.6	30.0		ng/L		117	64 - 146

Method: EPA 537 (Mod) - EPA 537 mod QSM 5.1, Table B-15 (Continued)

Lab Sample ID: LCS 410-49572/2-A
Matrix: Water
Analysis Batch: 49894

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 49572

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluoroheptanesulfonic acid	24.4	25.4		ng/L		104	68 - 132
Perfluorododecanoic acid	25.6	26.8		ng/L		105	62 - 136
Perfluorodecanoic acid	25.6	26.7		ng/L		104	61 - 132
Perfluorodecanesulfonic acid	24.7	25.7		ng/L		104	50 - 137
Perfluorobutanoic acid	25.6	25.1		ng/L		98	61 - 153
Perfluorobutanesulfonic acid	22.6	23.8		ng/L		105	66 - 135
NMeFOSE	25.6	25.8		ng/L		101	52 - 129
NMeFOSA	25.6	29.4		ng/L		115	43 - 143
NMeFOSAA	25.6	33.3		ng/L		130	59 - 144
NEtFOSE	25.6	26.2		ng/L		102	48 - 124
NEtFOSA	25.6	29.7		ng/L		116	51 - 133
NEtFOSAA	25.6	32.0		ng/L		125	53 - 138
HFPODA	25.6	24.0		ng/L		94	52 - 134
DONA	24.1	30.3		ng/L		126	53 - 160
9Cl-PF3ONS	23.9	25.6		ng/L		107	61 - 123
8:2 Fluorotelomer sulfonic acid	24.5	29.4		ng/L		120	52 - 141
6:2 Fluorotelomer sulfonic acid	24.3	26.3		ng/L		109	56 - 135
4:2 Fluorotelomer sulfonic acid	23.9	24.9		ng/L		104	59 - 129
11Cl-PF3OUdS	24.1	25.4		ng/L		106	42 - 125
10:2 Fluorotelomer sulfonic acid	24.7	25.0		ng/L		101	29 - 143

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
M2-4:2 FTS	*23*	**5*	*50 - 150*
M2-6:2 FTS	*30*	**5*	*50 - 150*
M2-8:2 FTS	*30*	**5*	*50 - 150*
13C2 PFTeDA	*27*	**5*	*50 - 150*
13C3 HFPO-DA	*28*	**5*	*50 - 150*
13C3 PFBS	*27*	**5*	*50 - 150*
13C4 PFBA	*31*	**5*	*50 - 150*
13C4 PFHpA	*27*	**5*	*50 - 150*
13C5 PFPeA	*28*	**5*	*50 - 150*
13C8 PFOA	*31*	**5*	*50 - 150*
13C8 PFOS	*29*	**5*	*50 - 150*
13C8 FOSA	*26*	**5*	*50 - 150*
d3-NMeFOSAA	*33*	**5*	*50 - 150*
d5-NEtFOSAA	*34*	**5*	*50 - 150*
d7-N-MeFOSE-M	*16*	**5*	*50 - 150*
d9-N-EtFOSE-M	*13*	**5*	*50 - 150*
d3-NMePFOSA	*12*	**5*	*50 - 150*
13C2-PFDoDA	*29*	**5*	*50 - 150*
13C3 PFHxS	*30*	**5*	*50 - 150*
13C5 PFHxA	*29*	**5*	*50 - 150*
13C6 PFDA	*28*	**5*	*50 - 150*
13C7 PFUnA	*30*	**5*	*50 - 150*
13C9 PFNA	*33*	**5*	*50 - 150*
d5-NEtPFOSA	*9*	**5*	*50 - 150*

Method: EPA 537 (Mod) - EPA 537 mod QSM 5.1, Table B-15 (Continued)

Lab Sample ID: 410-15093-7 MS
Matrix: Water
Analysis Batch: 49894

Client Sample ID: Corona-prod well 1-MS-092420
Prep Type: Total/NA
Prep Batch: 49572

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluoroundecanoic acid	ND		22.1	25.6		ng/L		116	61 - 136
Perfluorotridecanoic acid	ND		22.1	23.0		ng/L		104	46 - 143
Perfluorotetradecanoic acid	ND		22.1	22.9		ng/L		103	65 - 140
Perfluoropentanoic acid	20		22.1	42.5		ng/L		101	72 - 138
Perfluoropentanesulfonic acid	2.7	J	20.8	24.7		ng/L		106	71 - 137
Perfluorooctanoic acid	25		22.1	45.6		ng/L		92	64 - 132
Perfluorooctanesulfonic acid	15		21.1	33.9		ng/L		91	54 - 129
Perfluorooctanesulfonamide	ND		22.1	23.7		ng/L		107	58 - 130
Perfluorooctadecanoic acid	ND	F2 F1	22.1	34.3	F1	ng/L		155	10 - 122
Perfluorononanoic acid	2.8		22.1	27.4		ng/L		111	66 - 139
Perfluorononanesulfonic acid	ND		21.2	21.9		ng/L		103	62 - 139
Perfluorohexanoic acid	19		22.1	42.1		ng/L		106	67 - 132
Perfluorohexanesulfonic acid	9.1		20.9	31.7		ng/L		108	62 - 132
Perfluorohexadecanoic acid	ND	F2 *	22.1	27.1		ng/L		122	10 - 145
Perfluoroheptanoic acid	7.9		22.1	32.5		ng/L		111	64 - 146
Perfluoroheptanesulfonic acid	ND		21.0	22.0		ng/L		105	68 - 132
Perfluorododecanoic acid	ND		22.1	24.1		ng/L		109	62 - 136
Perfluorodecanoic acid	ND	F2	22.1	23.6		ng/L		107	61 - 132
Perfluorodecanesulfonic acid	ND	F2	21.3	20.1		ng/L		95	50 - 137
Perfluorobutanoic acid	17		22.1	37.6		ng/L		92	61 - 153
Perfluorobutanesulfonic acid	29		19.6	48.3		ng/L		97	66 - 135
NMeFOSE	ND		22.1	20.5		ng/L		93	52 - 129
NMeFOSA	ND	F2 F1	22.1	24.7		ng/L		112	43 - 143
NMeFOSAA	ND		22.1	27.8		ng/L		126	59 - 144
NEtFOSE	ND	F2	22.1	17.9		ng/L		81	48 - 124
NEtFOSA	ND	F1	22.1	30.2	F1	ng/L		136	51 - 133
NEtFOSAA	ND		22.1	27.9		ng/L		126	53 - 138
HFPODA	ND		22.1	22.0		ng/L		99	52 - 134
DONA	ND		20.8	25.2		ng/L		121	53 - 160
9Cl-PF3ONS	ND		20.6	22.2		ng/L		108	61 - 123
8:2 Fluorotelomer sulfonic acid	ND		21.2	21.7		ng/L		103	52 - 141
6:2 Fluorotelomer sulfonic acid	ND		21.0	22.3		ng/L		106	56 - 135
4:2 Fluorotelomer sulfonic acid	ND		20.7	22.1		ng/L		107	59 - 129
11Cl-PF3OUdS	ND		20.8	19.6		ng/L		94	42 - 125
10:2 Fluorotelomer sulfonic acid	ND		21.3	18.7		ng/L		88	29 - 143

Isotope Dilution	*MS %Recovery*	*MS Qualifier*	*Limits*
M2-4:2 FTS	*71*		*50 - 150*
M2-6:2 FTS	*87*		*50 - 150*
M2-8:2 FTS	*91*		*50 - 150*
13C2 PFTeDA	*63*		*50 - 150*
13C3 HFPO-DA	*77*		*50 - 150*
13C3 PFBS	*87*		*50 - 150*
13C4 PFBA	*82*		*50 - 150*
13C4 PFHpA	*78*		*50 - 150*
13C5 PFPeA	*87*		*50 - 150*
13C8 PFOA	*86*		*50 - 150*
13C8 PFOS	*86*		*50 - 150*

Method: EPA 537 (Mod) - EPA 537 mod QSM 5.1, Table B-15 (Continued)

Lab Sample ID: 410-15093-7 MS
Matrix: Water
Analysis Batch: 49894

Client Sample ID: Corona-prod well 1-MS-092420
Prep Type: Total/NA
Prep Batch: 49572

Isotope Dilution	MS %Recovery	MS Qualifier	Limits
13C8 FOSA	43	*5	50 - 150
d3-NMeFOSAA	107		50 - 150
d5-NEtFOSAA	82		50 - 150
d7-N-MeFOSE-M	6	*5	50 - 150
d9-N-EtFOSE-M	5	*5	50 - 150
d3-NMePFOSA	0.8	*5	50 - 150
13C2-PFDoDA	73		50 - 150
13C3 PFHxS	84		50 - 150
13C5 PFHxA	81		50 - 150
13C6 PFDA	81		50 - 150
13C7 PFUnA	80		50 - 150
13C9 PFNA	87		50 - 150
d5-NEtPFOSA	0.4	*5	50 - 150

Lab Sample ID: 410-15093-7 MSD
Matrix: Water
Analysis Batch: 49894

Client Sample ID: Corona-prod well 1-MSD-092420
Prep Type: Total/NA
Prep Batch: 49572

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluoroundecanoic acid	ND		28.0	31.8		ng/L		114	61 - 136	22	30
Perfluorotridecanoic acid	ND		28.0	29.0		ng/L		104	46 - 143	23	30
Perfluorotetradecanoic acid	ND		28.0	28.5		ng/L		102	65 - 140	22	30
Perfluoropentanoic acid	20		28.0	47.8		ng/L		98	72 - 138	12	30
Perfluoropentanesulfonic acid	2.7	J	26.2	31.7		ng/L		111	71 - 137	25	30
Perfluorooctanoic acid	25		28.0	51.4		ng/L		94	64 - 132	12	30
Perfluorooctanesulfonic acid	15		26.7	39.5		ng/L		93	54 - 129	15	30
Perfluorooctanesulfonamide	ND		28.0	29.8		ng/L		107	58 - 130	23	30
Perfluorooctadecanoic acid	ND	F2 F1	28.0	16.4	F2	ng/L		58	10 - 122	71	30
Perfluorononanoic acid	2.8		28.0	31.5		ng/L		103	66 - 139	14	30
Perfluorononanesulfonic acid	ND		26.8	28.3		ng/L		105	62 - 139	25	30
Perfluorohexanoic acid	19		28.0	49.4		ng/L		109	67 - 132	16	30
Perfluorohexanesulfonic acid	9.1		26.4	35.8		ng/L		101	62 - 132	12	30
Perfluorohexadecanoic acid	ND	F2 *	28.0	37.2	F2	ng/L		133	10 - 145	31	30
Perfluoroheptanoic acid	7.9		28.0	39.5		ng/L		113	64 - 146	19	30
Perfluoroheptanesulfonic acid	ND		26.6	28.8		ng/L		108	68 - 132	27	30
Perfluorododecanoic acid	ND		28.0	29.9		ng/L		107	62 - 136	21	30
Perfluorodecanoic acid	ND	F2	28.0	32.5	F2	ng/L		116	61 - 132	32	30
Perfluorodecanesulfonic acid	ND	F2	26.9	27.8	F2	ng/L		103	50 - 137	32	30
Perfluorobutanoic acid	17		28.0	43.8		ng/L		95	61 - 153	15	30
Perfluorobutanesulfonic acid	29		24.7	56.2		ng/L		108	66 - 135	15	30
NMeFOSE	ND		28.0	25.3		ng/L		90	52 - 129	21	30
NMeFOSA	ND	F2 F1	28.0	41.6	F1 F2	ng/L		149	43 - 143	51	30
NMeFOSAA	ND		28.0	37.7		ng/L		135	59 - 144	30	30
NEtFOSE	ND	F2	28.0	28.1	F2	ng/L		101	48 - 124	44	30
NEtFOSA	ND	F1	28.0	22.9		ng/L		82	51 - 133	27	30
NEtFOSAA	ND		28.0	33.5		ng/L		120	53 - 138	18	30
HFPODA	ND		28.0	27.4		ng/L		98	52 - 134	22	30
DONA	ND		26.3	32.6		ng/L		124	53 - 160	26	30
9Cl-PF3ONS	ND		26.1	28.1		ng/L		108	61 - 123	24	30

Method: EPA 537 (Mod) - EPA 537 mod QSM 5.1, Table B-15 (Continued)

Lab Sample ID: 410-15093-7 MSD
Matrix: Water
Analysis Batch: 49894

Client Sample ID: Corona-prod well 1-MSD-092420
Prep Type: Total/NA
Prep Batch: 49572

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
8:2 Fluorotelomer sulfonic acid	ND		26.8	25.5		ng/L		95	52 - 141	16	30
6:2 Fluorotelomer sulfonic acid	ND		26.5	28.8		ng/L		109	56 - 135	26	30
4:2 Fluorotelomer sulfonic acid	ND		26.1	27.7		ng/L		106	59 - 129	23	30
11Cl-PF3OUdS	ND		26.3	26.6		ng/L		101	42 - 125	30	30
10:2 Fluorotelomer sulfonic acid	ND		27.0	24.8		ng/L		92	29 - 143	28	30

Isotope Dilution	*MSD %Recovery*	*MSD Qualifier*	*Limits*
M2-4:2 FTS	*62*		*50 - 150*
M2-6:2 FTS	*78*		*50 - 150*
M2-8:2 FTS	*79*		*50 - 150*
13C2 PFTeDA	*59*		*50 - 150*
13C3 HFPO-DA	*69*		*50 - 150*
13C3 PFBS	*71*		*50 - 150*
13C4 PFBA	*74*		*50 - 150*
13C4 PFHpA	*70*		*50 - 150*
13C5 PFPeA	*76*		*50 - 150*
13C8 PFOA	*77*		*50 - 150*
13C8 PFOS	*75*		*50 - 150*
13C8 FOSA	*54*		*50 - 150*
d3-NMeFOSAA	*95*		*50 - 150*
d5-NEtFOSAA	*78*		*50 - 150*
d7-N-MeFOSE-M	*17*	**5*	*50 - 150*
d9-N-EtFOSE-M	*11*	**5*	*50 - 150*
d3-NMePFOSA	*1*	**5*	*50 - 150*
13C2-PFDoDA	*67*		*50 - 150*
13C3 PFHxS	*75*		*50 - 150*
13C5 PFHxA	*72*		*50 - 150*
13C6 PFDA	*68*		*50 - 150*
13C7 PFUnA	*72*		*50 - 150*
13C9 PFNA	*83*		*50 - 150*
d5-NEtPFOSA	*0.9*	**5*	*50 - 150*

Lab Sample ID: MB 410-49717/1-B
Matrix: Solid
Analysis Batch: 49894

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 49717

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroundecanoic acid	ND		0.60	0.20	ng/g		10/01/20 07:11	10/02/20 00:28	1
Perfluorotridecanoic acid	ND		0.60	0.20	ng/g		10/01/20 07:11	10/02/20 00:28	1
Perfluorotetradecanoic acid	ND		0.60	0.20	ng/g		10/01/20 07:11	10/02/20 00:28	1
Perfluoropentanoic acid	ND		0.60	0.20	ng/g		10/01/20 07:11	10/02/20 00:28	1
Perfluoropentanesulfonic acid	ND		3.0	0.20	ng/g		10/01/20 07:11	10/02/20 00:28	1
Perfluorooctanoic acid	ND		0.60	0.20	ng/g		10/01/20 07:11	10/02/20 00:28	1
Perfluorooctanesulfonic acid	ND		0.60	0.20	ng/g		10/01/20 07:11	10/02/20 00:28	1
Perfluorooctanesulfonamide	ND		0.60	0.20	ng/g		10/01/20 07:11	10/02/20 00:28	1
Perfluorooctadecanoic acid	ND		0.60	0.20	ng/g		10/01/20 07:11	10/02/20 00:28	1
Perfluorononanoic acid	ND		0.60	0.20	ng/g		10/01/20 07:11	10/02/20 00:28	1
Perfluorononanesulfonic acid	ND		0.60	0.20	ng/g		10/01/20 07:11	10/02/20 00:28	1
Perfluorohexanoic acid	ND		0.60	0.20	ng/g		10/01/20 07:11	10/02/20 00:28	1

Method: EPA 537 (Mod) - EPA 537 mod QSM 5.1, Table B-15 (Continued)

Lab Sample ID: MB 410-49717/1-B
Matrix: Solid
Analysis Batch: 49894

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 49717

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanesulfonic acid	ND		0.60	0.20	ng/g		10/01/20 07:11	10/02/20 00:28	1
Perfluorohexadecanoic acid	ND		0.60	0.20	ng/g		10/01/20 07:11	10/02/20 00:28	1
Perfluoroheptanoic acid	ND		0.60	0.20	ng/g		10/01/20 07:11	10/02/20 00:28	1
Perfluoroheptanesulfonic acid	ND		0.60	0.20	ng/g		10/01/20 07:11	10/02/20 00:28	1
Perfluorododecanoic acid	ND		0.60	0.20	ng/g		10/01/20 07:11	10/02/20 00:28	1
Perfluorodecanoic acid	ND		0.60	0.20	ng/g		10/01/20 07:11	10/02/20 00:28	1
Perfluorodecanesulfonic acid	ND		0.60	0.20	ng/g		10/01/20 07:11	10/02/20 00:28	1
Perfluorobutanoic acid	ND		2.0	0.60	ng/g		10/01/20 07:11	10/02/20 00:28	1
Perfluorobutanesulfonic acid	ND		2.0	0.40	ng/g		10/01/20 07:11	10/02/20 00:28	1
NMeFOSE	ND		2.0	0.50	ng/g		10/01/20 07:11	10/02/20 00:28	1
NMeFOSA	ND		2.0	0.50	ng/g		10/01/20 07:11	10/02/20 00:28	1
NMeFOSAA	ND		2.0	0.20	ng/g		10/01/20 07:11	10/02/20 00:28	1
NEtFOSE	ND		2.0	0.50	ng/g		10/01/20 07:11	10/02/20 00:28	1
NEtFOSA	ND		2.0	0.50	ng/g		10/01/20 07:11	10/02/20 00:28	1
NEtFOSAA	ND		2.0	0.20	ng/g		10/01/20 07:11	10/02/20 00:28	1
HFPODA	ND		3.0	0.40	ng/g		10/01/20 07:11	10/02/20 00:28	1
DONA	ND		0.60	0.20	ng/g		10/01/20 07:11	10/02/20 00:28	1
9Cl-PF3ONS	ND		2.0	0.20	ng/g		10/01/20 07:11	10/02/20 00:28	1
8:2 Fluorotelomer sulfonic acid	ND		3.0	0.60	ng/g		10/01/20 07:11	10/02/20 00:28	1
6:2 Fluorotelomer sulfonic acid	ND		2.0	0.60	ng/g		10/01/20 07:11	10/02/20 00:28	1
4:2 Fluorotelomer sulfonic acid	ND		2.0	0.60	ng/g		10/01/20 07:11	10/02/20 00:28	1
11Cl-PF3OUdS	ND		0.60	0.20	ng/g		10/01/20 07:11	10/02/20 00:28	1
10:2 Fluorotelomer sulfonic acid	ND		2.0	0.60	ng/g		10/01/20 07:11	10/02/20 00:28	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-4:2 FTS	*66*		*50 - 150*	*10/01/20 07:11*	*10/02/20 00:28*	*1*
M2-6:2 FTS	*91*		*50 - 150*	*10/01/20 07:11*	*10/02/20 00:28*	*1*
M2-8:2 FTS	*90*		*50 - 150*	*10/01/20 07:11*	*10/02/20 00:28*	*1*
13C2 PFTeDA	*72*		*50 - 150*	*10/01/20 07:11*	*10/02/20 00:28*	*1*
13C3 HFPO-DA	*82*		*50 - 150*	*10/01/20 07:11*	*10/02/20 00:28*	*1*
13C3 PFBS	*76*		*50 - 150*	*10/01/20 07:11*	*10/02/20 00:28*	*1*
13C4 PFBA	*86*		*50 - 150*	*10/01/20 07:11*	*10/02/20 00:28*	*1*
13C4 PFHpA	*85*		*50 - 150*	*10/01/20 07:11*	*10/02/20 00:28*	*1*
13C5 PFPeA	*86*		*50 - 150*	*10/01/20 07:11*	*10/02/20 00:28*	*1*
13C8 PFOA	*89*		*50 - 150*	*10/01/20 07:11*	*10/02/20 00:28*	*1*
13C8 PFOS	*83*		*50 - 150*	*10/01/20 07:11*	*10/02/20 00:28*	*1*
13C8 FOSA	*81*		*50 - 150*	*10/01/20 07:11*	*10/02/20 00:28*	*1*
d3-NMeFOSAA	*99*		*50 - 150*	*10/01/20 07:11*	*10/02/20 00:28*	*1*
d5-NEtFOSAA	*87*		*50 - 150*	*10/01/20 07:11*	*10/02/20 00:28*	*1*
d7-N-MeFOSE-M	*73*		*50 - 150*	*10/01/20 07:11*	*10/02/20 00:28*	*1*
d9-N-EtFOSE-M	*69*		*50 - 150*	*10/01/20 07:11*	*10/02/20 00:28*	*1*
d3-NMePFOSA	*68*		*50 - 150*	*10/01/20 07:11*	*10/02/20 00:28*	*1*
13C2-PFDoDA	*80*		*50 - 150*	*10/01/20 07:11*	*10/02/20 00:28*	*1*
13C3 PFHxS	*90*		*50 - 150*	*10/01/20 07:11*	*10/02/20 00:28*	*1*
13C5 PFHxA	*84*		*50 - 150*	*10/01/20 07:11*	*10/02/20 00:28*	*1*
13C6 PFDA	*82*		*50 - 150*	*10/01/20 07:11*	*10/02/20 00:28*	*1*
13C7 PFUnA	*84*		*50 - 150*	*10/01/20 07:11*	*10/02/20 00:28*	*1*
13C9 PFNA	*90*		*50 - 150*	*10/01/20 07:11*	*10/02/20 00:28*	*1*
d5-NEtPFOSA	*64*		*50 - 150*	*10/01/20 07:11*	*10/02/20 00:28*	*1*

Method: EPA 537 (Mod) - EPA 537 mod QSM 5.1, Table B-15

Lab Sample ID: LCS 410-49717/2-B
Matrix: Solid
Analysis Batch: 49894

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 49717

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluoroundecanoic acid	25.0	25.8		ng/g		103	56 - 144
Perfluorotridecanoic acid	25.0	22.9		ng/g		92	60 - 151
Perfluorotetradecanoic acid	25.0	22.0		ng/g		88	61 - 149
Perfluoropentanoic acid	25.0	19.8		ng/g		79	65 - 144
Perfluoropentanesulfonic acid	23.5	21.8		ng/g		93	63 - 149
Perfluorooctanoic acid	25.0	21.2		ng/g		85	59 - 136
Perfluorooctanesulfonic acid	23.9	18.9		ng/g		79	54 - 131
Perfluorooctanesulfonamide	25.0	23.4		ng/g		93	44 - 146
Perfluorooctadecanoic acid	25.0	32.0		ng/g		128	19 - 139
Perfluorononanoic acid	25.0	23.6		ng/g		94	62 - 146
Perfluorononanesulfonic acid	24.0	21.0		ng/g		88	65 - 142
Perfluorohexanoic acid	25.0	24.3		ng/g		97	57 - 144
Perfluorohexanesulfonic acid	23.6	20.9		ng/g		88	57 - 138
Perfluorohexadecanoic acid	25.0	34.8		ng/g		139	49 - 148
Perfluoroheptanoic acid	25.0	24.5		ng/g		98	58 - 159
Perfluoroheptanesulfonic acid	23.8	21.1		ng/g		89	70 - 132
Perfluorododecanoic acid	25.0	24.1		ng/g		96	56 - 146
Perfluorodecanoic acid	25.0	22.1		ng/g		89	59 - 138
Perfluorodecanesulfonic acid	24.1	21.6		ng/g		90	60 - 143
Perfluorobutanoic acid	25.0	21.5		ng/g		86	46 - 196
Perfluorobutanesulfonic acid	22.1	21.2		ng/g		96	63 - 138
NMeFOSE	25.0	21.8		ng/g		87	43 - 143
NMeFOSA	25.0	23.4		ng/g		94	49 - 126
NMeFOSAA	25.0	29.6		ng/g		118	47 - 159
NEtFOSE	25.0	22.6		ng/g		91	40 - 136
NEtFOSA	25.0	23.5		ng/g		94	46 - 138
NEtFOSAA	25.0	28.1		ng/g		112	45 - 150
HFPODA	25.0	21.5		ng/g		86	51 - 129
DONA	23.6	25.2		ng/g		107	55 - 149
9Cl-PF3ONS	23.3	21.8		ng/g		94	64 - 118
8:2 Fluorotelomer sulfonic acid	24.0	24.1		ng/g		101	45 - 153
6:2 Fluorotelomer sulfonic acid	23.7	22.4		ng/g		94	51 - 141
4:2 Fluorotelomer sulfonic acid	23.4	21.9		ng/g		94	50 - 138
11Cl-PF3OUdS	23.6	22.5		ng/g		96	58 - 121
10:2 Fluorotelomer sulfonic acid	24.1	21.2		ng/g		88	32 - 160

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
M2-4:2 FTS	*62*		*50 - 150*
M2-6:2 FTS	*80*		*50 - 150*
M2-8:2 FTS	*84*		*50 - 150*
13C2 PFTeDA	*78*		*50 - 150*
13C3 HFPO-DA	*83*		*50 - 150*
13C3 PFBS	*78*		*50 - 150*
13C4 PFBA	*87*		*50 - 150*
13C4 PFHpA	*80*		*50 - 150*
13C5 PFPeA	*88*		*50 - 150*
13C8 PFOA	*88*		*50 - 150*
13C8 PFOS	*87*		*50 - 150*

Method: EPA 537 (Mod) - EPA 537 mod QSM 5.1, Table B-15 (Continued)

Lab Sample ID: LCS 410-49717/2-B
Matrix: Solid
Analysis Batch: 49894

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 49717

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C8 FOSA	*81*		*50 - 150*
d3-NMeFOSAA	*102*		*50 - 150*
d5-NEtFOSAA	*97*		*50 - 150*
d7-N-MeFOSE-M	*74*		*50 - 150*
d9-N-EtFOSE-M	*70*		*50 - 150*
d3-NMePFOSA	*67*		*50 - 150*
13C2-PFDoDA	*82*		*50 - 150*
13C3 PFHxS	*86*		*50 - 150*
13C5 PFHxA	*81*		*50 - 150*
13C6 PFDA	*86*		*50 - 150*
13C7 PFUnA	*88*		*50 - 150*
13C9 PFNA	*89*		*50 - 150*
d5-NEtPFOSA	*65*		*50 - 150*

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 480-551789/1-A
Matrix: Water
Analysis Batch: 552042

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 551789

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		0.50	0.10	mg/L		09/30/20 09:40	09/30/20 23:29	1
Magnesium	ND		0.20	0.043	mg/L		09/30/20 09:40	09/30/20 23:29	1
Potassium	ND		0.50	0.10	mg/L		09/30/20 09:40	09/30/20 23:29	1
Sodium	ND		1.0	0.32	mg/L		09/30/20 09:40	09/30/20 23:29	1

Lab Sample ID: LCS 480-551789/2-A
Matrix: Water
Analysis Batch: 552042

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 551789

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	10.0	10.4		mg/L		104	80 - 120
Magnesium	10.0	9.75		mg/L		98	80 - 120
Potassium	10.0	9.54		mg/L		95	80 - 120
Sodium	10.0	10.0		mg/L		100	80 - 120

Method: 2320B-2011 - Alkalinity, Total

Lab Sample ID: MB 410-48470/30
Matrix: Water
Analysis Batch: 48470

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

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Carbonate Alkalinity as CaCO3	ND		8.0	8.0	mg/L			09/25/20 20:43	1
Bicarbonate Alkalinity as CaCO3	ND		8.0	8.0	mg/L			09/25/20 20:43	1
Total Alkalinity as CaCO3 to pH 4.5	ND		8.0	8.0	mg/L			09/25/20 20:43	1
Phenolphthalein Alkalinity as CaCO3 to pH 8.3	ND		8.0	8.0	mg/L			09/25/20 20:43	1

Method: 2320B-2011 - Alkalinity, Total (Continued)

Lab Sample ID: LCS 410-48470/31
Matrix: Water
Analysis Batch: 48470

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Alkalinity as CaCO3 to pH 4.5			189	169		mg/L		90	82 - 106		

Lab Sample ID: 410-15093-8 MS
Matrix: Water
Analysis Batch: 48470

Client Sample ID: Corona-prod well 2-092420
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Alkalinity as CaCO3 to pH 4.5	260	F1	189	387	F1	mg/L		69	82 - 106		

Lab Sample ID: 410-15093-7 DU
Matrix: Water
Analysis Batch: 48470

Client Sample ID: Corona-prod well 1-092420
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Carbonate Alkalinity as CaCO3	ND			ND		mg/L				NC	5
Bicarbonate Alkalinity as CaCO3	270			262		mg/L				5	5
Total Alkalinity as CaCO3 to pH 4.5	270			262		mg/L				5	5
Phenolphthalein Alkalinity as CaCO3 to pH 8.3	ND			ND		mg/L				NC	5

Lab Sample ID: 410-15093-8 DU
Matrix: Water
Analysis Batch: 48470

Client Sample ID: Corona-prod well 2-092420
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Carbonate Alkalinity as CaCO3	ND			ND		mg/L				NC	5
Bicarbonate Alkalinity as CaCO3	260			260		mg/L				1	5
Total Alkalinity as CaCO3 to pH 4.5	260	F1		260		mg/L				1	5
Phenolphthalein Alkalinity as CaCO3 to pH 8.3	ND			ND		mg/L				NC	5

Method: 2540C-2011 - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 410-48896/1
Matrix: Water
Analysis Batch: 48896

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	18.0	J	30	10	mg/L			09/29/20 12:04	1

Lab Sample ID: LCS 410-48896/2
Matrix: Water
Analysis Batch: 48896

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Dissolved Solids			200	209		mg/L		104	72 - 127		

Method: 2540C-2011 - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: 410-15093-7 MS
Matrix: Water
Analysis Batch: 48896

Client Sample ID: Corona-prod well 1-092420
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Dissolved Solids	940	B	800	1760		mg/L		103	72 - 127		

Lab Sample ID: 410-15093-7 DU
Matrix: Water
Analysis Batch: 48896

Client Sample ID: Corona-prod well 1-092420
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	940	B		976		mg/L				4	5

Lab Sample ID: 410-15093-8 DU
Matrix: Water
Analysis Batch: 48896

Client Sample ID: Corona-prod well 2-092420
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	980	B		996		mg/L				2	5

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 480-552263/29
Matrix: Water
Analysis Batch: 552263

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		2.0	0.35	mg/L			10/02/20 23:42	1
Chloride	ND		0.50	0.28	mg/L			10/02/20 23:42	1

Lab Sample ID: LCS 480-552263/28
Matrix: Water
Analysis Batch: 552263

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			50.0	47.3		mg/L		95	90 - 110		
Chloride			50.0	48.7		mg/L		97	90 - 110		

HPLC/IC

Analysis Batch: 47920

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-15093-7	Corona-prod well 1-092420	Total/NA	Water	EPA 300.0 R2.1	
410-15093-8	Corona-prod well 2-092420	Total/NA	Water	EPA 300.0 R2.1	
410-15093-9	Corona-dup-092420	Total/NA	Water	EPA 300.0 R2.1	
MB 410-47920/24	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 410-47920/23	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
410-15093-9 MS	Corona-dup-092420	Total/NA	Water	EPA 300.0 R2.1	
410-15093-9 DU	Corona-dup-092420	Total/NA	Water	EPA 300.0 R2.1	

LCMS

Prep Batch: 48278

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-15093-3	Corona-EB-092420	Total/NA	Water	537 IDA	
410-15093-4	Corona-FB-092420	Total/NA	Water	537 IDA	
410-15093-5 - RE	Corona-downstream water-092420	Total/NA	Water	537 IDA	
410-15093-6	Corona-south pond-water-092420	Total/NA	Water	537 IDA	
410-15093-8	Corona-prod well 2-092420	Total/NA	Water	537 IDA	
410-15093-9	Corona-dup-092420	Total/NA	Water	537 IDA	
MB 410-48278/1-A	Method Blank	Total/NA	Water	537 IDA	
LCS 410-48278/2-A	Lab Control Sample	Total/NA	Water	537 IDA	

Analysis Batch: 48818

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-15093-3	Corona-EB-092420	Total/NA	Water	EPA 537 (Mod)	48278
410-15093-4	Corona-FB-092420	Total/NA	Water	EPA 537 (Mod)	48278
410-15093-5 - RE	Corona-downstream water-092420	Total/NA	Water	EPA 537 (Mod)	48278
410-15093-6	Corona-south pond-water-092420	Total/NA	Water	EPA 537 (Mod)	48278
410-15093-8	Corona-prod well 2-092420	Total/NA	Water	EPA 537 (Mod)	48278
410-15093-9	Corona-dup-092420	Total/NA	Water	EPA 537 (Mod)	48278
MB 410-48278/1-A	Method Blank	Total/NA	Water	EPA 537 (Mod)	48278
LCS 410-48278/2-A	Lab Control Sample	Total/NA	Water	EPA 537 (Mod)	48278

Prep Batch: 49572

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-15093-3 - RE	Corona-EB-092420	Total/NA	Water	537 IDA	
410-15093-4 - RE	Corona-FB-092420	Total/NA	Water	537 IDA	
410-15093-5	Corona-downstream water-092420	Total/NA	Water	537 IDA	
410-15093-5 - DL	Corona-downstream water-092420	Total/NA	Water	537 IDA	
410-15093-6 - RE	Corona-south pond-water-092420	Total/NA	Water	537 IDA	
410-15093-7	Corona-prod well 1-092420	Total/NA	Water	537 IDA	
410-15093-8 - RE	Corona-prod well 2-092420	Total/NA	Water	537 IDA	
410-15093-9 - RE	Corona-dup-092420	Total/NA	Water	537 IDA	
MB 410-49572/1-A	Method Blank	Total/NA	Water	537 IDA	
LCS 410-49572/2-A	Lab Control Sample	Total/NA	Water	537 IDA	
410-15093-7 MS	Corona-prod well 1-MS-092420	Total/NA	Water	537 IDA	
410-15093-7 MSD	Corona-prod well 1-MSD-092420	Total/NA	Water	537 IDA	

Prep Batch: 49717

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-15093-1	Corona-upstream-sed-092420	Total/NA	Solid	537 (mod)	
410-15093-2	Corona-south pond-sed-092420	Total/NA	Solid	537 (mod)	

LCMS (Continued)

Prep Batch: 49717 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-49717/1-B	Method Blank	Total/NA	Solid	537 (mod)	
LCS 410-49717/2-B	Lab Control Sample	Total/NA	Solid	537 (mod)	

Cleanup Batch: 49834

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-15093-1	Corona-upstream-sed-092420	Total/NA	Solid	Extract Aliquot	49717
410-15093-2	Corona-south pond-sed-092420	Total/NA	Solid	Extract Aliquot	49717
MB 410-49717/1-B	Method Blank	Total/NA	Solid	Extract Aliquot	49717
LCS 410-49717/2-B	Lab Control Sample	Total/NA	Solid	Extract Aliquot	49717

Analysis Batch: 49894

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-15093-1	Corona-upstream-sed-092420	Total/NA	Solid	EPA 537 (Mod)	49834
410-15093-2	Corona-south pond-sed-092420	Total/NA	Solid	EPA 537 (Mod)	49834
410-15093-3 - RE	Corona-EB-092420	Total/NA	Water	EPA 537 (Mod)	49572
410-15093-4 - RE	Corona-FB-092420	Total/NA	Water	EPA 537 (Mod)	49572
410-15093-5	Corona-downstream water-092420	Total/NA	Water	EPA 537 (Mod)	49572
410-15093-6 - RE	Corona-south pond-water-092420	Total/NA	Water	EPA 537 (Mod)	49572
410-15093-7	Corona-prod well 1-092420	Total/NA	Water	EPA 537 (Mod)	49572
410-15093-8 - RE	Corona-prod well 2-092420	Total/NA	Water	EPA 537 (Mod)	49572
410-15093-9 - RE	Corona-dup-092420	Total/NA	Water	EPA 537 (Mod)	49572
MB 410-49572/1-A	Method Blank	Total/NA	Water	EPA 537 (Mod)	49572
MB 410-49717/1-B	Method Blank	Total/NA	Solid	EPA 537 (Mod)	49834
LCS 410-49572/2-A	Lab Control Sample	Total/NA	Water	EPA 537 (Mod)	49572
LCS 410-49717/2-B	Lab Control Sample	Total/NA	Solid	EPA 537 (Mod)	49834
410-15093-7 MS	Corona-prod well 1-MS-092420	Total/NA	Water	EPA 537 (Mod)	49572
410-15093-7 MSD	Corona-prod well 1-MSD-092420	Total/NA	Water	EPA 537 (Mod)	49572

Analysis Batch: 50226

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-15093-5 - DL	Corona-downstream water-092420	Total/NA	Water	EPA 537 (Mod)	49572

Metals

Prep Batch: 551789

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-15093-7	Corona-prod well 1-092420	Total/NA	Water	3010A	
410-15093-8	Corona-prod well 2-092420	Total/NA	Water	3010A	
MB 480-551789/1-A	Method Blank	Total/NA	Water	3010A	
LCS 480-551789/2-A	Lab Control Sample	Total/NA	Water	3010A	

Analysis Batch: 552042

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-15093-7	Corona-prod well 1-092420	Total/NA	Water	6010B	551789
410-15093-8	Corona-prod well 2-092420	Total/NA	Water	6010B	551789
MB 480-551789/1-A	Method Blank	Total/NA	Water	6010B	551789
LCS 480-551789/2-A	Lab Control Sample	Total/NA	Water	6010B	551789

General Chemistry

Analysis Batch: 47924

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-15093-1	Corona-upstream-sed-092420	Total/NA	Solid	Moisture	
410-15093-2	Corona-south pond-sed-092420	Total/NA	Solid	Moisture	

Analysis Batch: 48470

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-15093-7	Corona-prod well 1-092420	Total/NA	Water	2320B-2011	
410-15093-8	Corona-prod well 2-092420	Total/NA	Water	2320B-2011	
410-15093-9	Corona-dup-092420	Total/NA	Water	2320B-2011	
MB 410-48470/30	Method Blank	Total/NA	Water	2320B-2011	
LCS 410-48470/31	Lab Control Sample	Total/NA	Water	2320B-2011	
410-15093-8 MS	Corona-prod well 2-092420	Total/NA	Water	2320B-2011	
410-15093-7 DU	Corona-prod well 1-092420	Total/NA	Water	2320B-2011	
410-15093-8 DU	Corona-prod well 2-092420	Total/NA	Water	2320B-2011	

Analysis Batch: 48896

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-15093-7	Corona-prod well 1-092420	Total/NA	Water	2540C-2011	
410-15093-8	Corona-prod well 2-092420	Total/NA	Water	2540C-2011	
410-15093-9	Corona-dup-092420	Total/NA	Water	2540C-2011	
MB 410-48896/1	Method Blank	Total/NA	Water	2540C-2011	
LCS 410-48896/2	Lab Control Sample	Total/NA	Water	2540C-2011	
410-15093-7 MS	Corona-prod well 1-092420	Total/NA	Water	2540C-2011	
410-15093-7 DU	Corona-prod well 1-092420	Total/NA	Water	2540C-2011	
410-15093-8 DU	Corona-prod well 2-092420	Total/NA	Water	2540C-2011	

Analysis Batch: 552263

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-15093-7	Corona-prod well 1-092420	Total/NA	Water	300.0	
410-15093-8	Corona-prod well 2-092420	Total/NA	Water	300.0	
410-15093-9	Corona-dup-092420	Total/NA	Water	300.0	
MB 480-552263/29	Method Blank	Total/NA	Water	300.0	
LCS 480-552263/28	Lab Control Sample	Total/NA	Water	300.0	

Client Sample ID: Corona-upstream-sed-092420
Lab Sample ID: 410-15093-1
Date Collected: 09/24/20 09:55
Matrix: Solid
Date Received: 09/25/20 10:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	47924	09/25/20 16:24	OEL4	ELLE

Client Sample ID: Corona-upstream-sed-092420
Lab Sample ID: 410-15093-1
Date Collected: 09/24/20 09:55
Matrix: Solid
Date Received: 09/25/20 10:34
Percent Solids: 69.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	537 (mod)			49717	10/01/20 07:11	W5MU	ELLE
Total/NA	Cleanup	Extract Aliquot			49834	10/01/20 09:27	W5MU	ELLE
Total/NA	Analysis	EPA 537 (Mod)		1	49894	10/02/20 01:41	PY4D	ELLE

Client Sample ID: Corona-south pond-sed-092420
Lab Sample ID: 410-15093-2
Date Collected: 09/24/20 11:30
Matrix: Solid
Date Received: 09/25/20 10:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	47924	09/25/20 16:24	OEL4	ELLE

Client Sample ID: Corona-south pond-sed-092420
Lab Sample ID: 410-15093-2
Date Collected: 09/24/20 11:30
Matrix: Solid
Date Received: 09/25/20 10:34
Percent Solids: 44.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	537 (mod)			49717	10/01/20 07:11	W5MU	ELLE
Total/NA	Cleanup	Extract Aliquot			49834	10/01/20 09:27	W5MU	ELLE
Total/NA	Analysis	EPA 537 (Mod)		1	49894	10/02/20 01:50	PY4D	ELLE

Client Sample ID: Corona-EB-092420
Lab Sample ID: 410-15093-3
Date Collected: 09/24/20 11:55
Matrix: Water
Date Received: 09/25/20 10:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	537 IDA			48278	09/28/20 07:26	W5MU	ELLE
Total/NA	Analysis	EPA 537 (Mod)		1	48818	09/30/20 04:34	UCD3	ELLE
Total/NA	Prep	537 IDA	RE		49572	09/30/20 18:45	QLP7	ELLE
Total/NA	Analysis	EPA 537 (Mod)	RE	1	49894	10/01/20 22:03	PY4D	ELLE

Client Sample ID: Corona-FB-092420
Lab Sample ID: 410-15093-4
Date Collected: 09/24/20 11:51
Matrix: Water
Date Received: 09/25/20 10:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	537 IDA			48278	09/28/20 07:26	W5MU	ELLE
Total/NA	Analysis	EPA 537 (Mod)		1	48818	09/30/20 04:52	UCD3	ELLE
Total/NA	Prep	537 IDA	RE		49572	09/30/20 18:45	QLP7	ELLE
Total/NA	Analysis	EPA 537 (Mod)	RE	1	49894	10/01/20 22:12	PY4D	ELLE

Client Sample ID: Corona-downstream water-092420

Lab Sample ID: 410-15093-5

Date Collected: 09/24/20 10:50

Matrix: Water

Date Received: 09/25/20 10:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	537 IDA	RE		48278	09/28/20 07:26	W5MU	ELLE
Total/NA	Analysis	EPA 537 (Mod)	RE	1	48818	09/30/20 05:01	UCD3	ELLE
Total/NA	Prep	537 IDA			49572	09/30/20 18:45	QLP7	ELLE
Total/NA	Analysis	EPA 537 (Mod)		1	49894	10/01/20 22:21	PY4D	ELLE
Total/NA	Prep	537 IDA	DL		49572	09/30/20 18:45	QLP7	ELLE
Total/NA	Analysis	EPA 537 (Mod)	DL	10	50226	10/02/20 16:52	GG3Y	ELLE

Client Sample ID: Corona-south pond-water-092420

Lab Sample ID: 410-15093-6

Date Collected: 09/24/20 11:23

Matrix: Water

Date Received: 09/25/20 10:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	537 IDA			48278	09/28/20 07:26	W5MU	ELLE
Total/NA	Analysis	EPA 537 (Mod)		1	48818	09/30/20 05:10	UCD3	ELLE
Total/NA	Prep	537 IDA	RE		49572	09/30/20 18:45	QLP7	ELLE
Total/NA	Analysis	EPA 537 (Mod)	RE	1	49894	10/01/20 22:30	PY4D	ELLE

Client Sample ID: Corona-prod well 1-092420

Lab Sample ID: 410-15093-7

Date Collected: 09/24/20 13:02

Matrix: Water

Date Received: 09/25/20 10:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		5	47920	09/25/20 20:00	GJ35	ELLE
Total/NA	Prep	537 IDA			49572	09/30/20 18:45	QLP7	ELLE
Total/NA	Analysis	EPA 537 (Mod)		1	49894	10/01/20 22:39	PY4D	ELLE
Total/NA	Prep	3010A			551789	09/30/20 09:40	ADM	TAL BUF
Total/NA	Analysis	6010B		1	552042	09/30/20 23:36	LMH	TAL BUF
Total/NA	Analysis	2320B-2011		1	48470	09/25/20 21:30	JB	ELLE
Total/NA	Analysis	2540C-2011		1	48896	09/29/20 12:04	M98K	ELLE
Total/NA	Analysis	300.0		5	552263	10/02/20 23:56	CLA	TAL BUF

Client Sample ID: Corona-prod well 2-092420

Lab Sample ID: 410-15093-8

Date Collected: 09/24/20 13:40

Matrix: Water

Date Received: 09/25/20 10:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		5	47920	09/25/20 20:18	GJ35	ELLE
Total/NA	Prep	537 IDA			48278	09/28/20 07:26	W5MU	ELLE
Total/NA	Analysis	EPA 537 (Mod)		1	48818	09/30/20 05:46	UCD3	ELLE
Total/NA	Prep	537 IDA	RE		49572	09/30/20 18:45	QLP7	ELLE
Total/NA	Analysis	EPA 537 (Mod)	RE	1	49894	10/01/20 23:06	PY4D	ELLE
Total/NA	Prep	3010A			551789	09/30/20 09:40	ADM	TAL BUF
Total/NA	Analysis	6010B		1	552042	09/30/20 23:40	LMH	TAL BUF
Total/NA	Analysis	2320B-2011		1	48470	09/25/20 21:08	JB	ELLE
Total/NA	Analysis	2540C-2011		1	48896	09/29/20 12:04	M98K	ELLE

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: California Water Board

Job ID: 410-15093-1

Client Sample ID: Corona-prod well 2-092420

Lab Sample ID: 410-15093-8

Date Collected: 09/24/20 13:40

Matrix: Water

Date Received: 09/25/20 10:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5	552263	10/03/20 00:11	CLA	TAL BUF

Client Sample ID: Corona-dup-092420

Lab Sample ID: 410-15093-9

Date Collected: 09/24/20 00:00

Matrix: Water

Date Received: 09/25/20 10:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		5	47920	09/25/20 19:06	GJ35	ELLE
Total/NA	Prep	537 IDA			48278	09/28/20 07:26	W5MU	ELLE
Total/NA	Analysis	EPA 537 (Mod)		1	48818	09/30/20 05:56	UCD3	ELLE
Total/NA	Prep	537 IDA	RE		49572	09/30/20 18:45	QLP7	ELLE
Total/NA	Analysis	EPA 537 (Mod)	RE	1	49894	10/01/20 23:15	PY4D	ELLE
Total/NA	Analysis	2320B-2011		1	48470	09/25/20 21:44	JB	ELLE
Total/NA	Analysis	2540C-2011		1	48896	09/29/20 12:04	M98K	ELLE
Total/NA	Analysis	300.0		5	552263	10/03/20 00:25	CLA	TAL BUF

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: ARCADIS U.S., Inc.
Job ID: 410-15093-1
Project/Site: California Water Board

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
California	State	2792	01-31-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
2320B-2011		Water	Phenolphthalein Alkalinity as CaCO3 to pH 8.3
EPA 537 (Mod)	537 (mod)	Solid	11Cl-PF3OUdS
EPA 537 (Mod)	537 (mod)	Solid	9Cl-PF3ONS
EPA 537 (Mod)	537 (mod)	Solid	DONA
EPA 537 (Mod)	537 (mod)	Solid	HFPODA
EPA 537 (Mod)	537 (mod)	Solid	Perfluorooctadecanoic acid
EPA 537 (Mod)	537 IDA	Water	11Cl-PF3OUdS
EPA 537 (Mod)	537 IDA	Water	9Cl-PF3ONS
EPA 537 (Mod)	537 IDA	Water	DONA
EPA 537 (Mod)	537 IDA	Water	HFPODA
EPA 537 (Mod)	537 IDA	Water	Perfluorooctadecanoic acid
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Laboratory: Eurofins TestAmerica, Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
California	State	2931	04-01-20 *

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
6010B	3010A	Water	Calcium
6010B	3010A	Water	Magnesium
6010B	3010A	Water	Potassium
6010B	3010A	Water	Sodium

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

Method Summary

Client: ARCADIS U.S., Inc.
Project/Site: California Water Board

Job ID: 410-15093-1

Method	Method Description	Protocol	Laboratory
EPA 300.0 R2.1	Anions, Ion Chromatgraphy	EPA	ELLE
EPA 537 (Mod)	EPA 537 mod QSM 5.1, Table B-15	EPA	ELLE
6010B	Metals (ICP)	SW846	TAL BUF
2320B-2011	Alkalinity, Total	SM	ELLE
2540C-2011	Solids, Total Dissolved (TDS)	SM	ELLE
300.0	Anions, Ion Chromatography	MCAWW	TAL BUF
Moisture	Percent Moisture	EPA	ELLE
3010A	Preparation, Total Metals	SW846	TAL BUF
537 (mod)	EPA 537 Isotope Dilution	EPA	ELLE
537 IDA	EPA 537 Isotope Dilution	EPA	ELLE
Extract Aliquot	Preparation, Extract Aliquot	None	ELLE

Protocol References:

EPA = US Environmental Protection Agency
MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
None = None
SM = "Standard Methods For The Examination Of Water And Wastewater"
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300
TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: ARCADIS U.S., Inc.
Project/Site: California Water Board

Job ID: 410-15093-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
410-15093-1	Corona-upstream-sed-092420	Solid	09/24/20 09:55	09/25/20 10:34	
410-15093-2	Corona-south pond-sed-092420	Solid	09/24/20 11:30	09/25/20 10:34	
410-15093-3	Corona-EB-092420	Water	09/24/20 11:55	09/25/20 10:34	
410-15093-4	Corona-FB-092420	Water	09/24/20 11:51	09/25/20 10:34	
410-15093-5	Corona-downstream water-092420	Water	09/24/20 10:50	09/25/20 10:34	
410-15093-6	Corona-south pond-water-092420	Water	09/24/20 11:23	09/25/20 10:34	
410-15093-7	Corona-prod well 1-092420	Water	09/24/20 13:02	09/25/20 10:34	
410-15093-8	Corona-prod well 2-092420	Water	09/24/20 13:40	09/25/20 10:34	
410-15093-9	Corona-dup-092420	Water	09/24/20 00:00	09/25/20 10:34	

410-15093 Chain of Custody

Chain of Custody Record

eurofins Environment Testing America

Client Contact: Erika Houtz	Sampler: Elysha Nygaard	Lab PM: Moeller, Megan	Carrier Tracking No(s):
Company: ARCADIS U.S., Inc.	Phone: 626-615-0400	E-Mail: meganmoeller@eurofinsus.com	COC No: 410-9821-2936.1
Address: 100 Montgomery Street Suite 300	Due Date Requested:		Page: Page 1 of ~~2~~ 1
City: San Francisco	TAT Requested (days): 10 day		Job #: 30060094
State, Zip: CA, 94104	PO #: See COC		
Phone:	WO #:		
Email: Erika.Houtz@arcadis.com	Project #: 41003765		
Project Name: California Water Board	SSOW#:		
Site: Corona PFAS			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	537_IDA - CAWB 36 Cmpds	Moisture - Percent Moisture	2320B, 2540C_SingleDry, 300_ORGFM_28D, 300_ORGFMS	6010B - 4 metals by ICP Ca, Mg, K, Na	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N	D		
Corona-upstream-Sed-092420	9/24/20	0955	G	~~Water~~ S			X	X			2	
Corona-South pond-Sed-092420	9/24/20	1130	G	~~Water~~ S			X	X			2	
Corona-EB-092420	9/24/20	1155	G	Water			X				2	
Corona-FB-092420	9/24/20	1151	G	Water			X				2	
Corona-downstream water-092420	9/24/20	1050	G	Water			X				2	
Corona-South pond-water-092420	9/24/20	1123	G	Water			X				2	
Corona-prod well 1-092420	9/24/20	1302	G	Water			X		X	X	5	
Corona-prod well 1-MS-092420	9/24/20	1302	G	Water		X	X				2	
Corona-prod well 1-MSD-092420	9/24/20	1302	G	Water		X	X				2	
Corona-prod well 2-092420	9/24/20	1340	G	Water			X		X	X	5	
Corona-dup-092420	9/24/20	—	G	Water			X		X		4	

Possible Hazard Identification

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

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

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

Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:	
Relinquished by:	Date/Time: 9-18-20 14:35	Company: ELLE	Received by:		Date/Time:		Company
Relinquished by:	Date/Time: 9/24/20 1552	Company: ANA	Received by:		Date/Time:		Company
Relinquished by:	Date/Time:	Company	Received by:		Date/Time: 9/25/20 1034		Company: ELLE

Custody Seals Intact: Δ Yes Δ No

Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 0.4

Ver: 01/16/2019

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Moeller, Megan	Carrier Tracking No(s):	COC No: 410-252011.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: meganmoeller@eurofinsus.com	State of Origin: California	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State - California		Job #: 410-15093-1
Address: 10 Hazelwood Drive, ,	Due Date Requested: 10/7/2020			
City: Amherst	TAT Requested (days):			
State, Zip: NY, 14228-2298				
Phone: 716-691-2600(Tel) 716-691-7991(Fax)	PO #:			
Email:	WO #:			
Project Name: California Water Board	Project #: 41003765			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300.0_28D/ Chloride & Sulfate 300.0	6010B/3010A 4 metals by ICP	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
Corona-prod well 1-092420 (410-15093-7)	9/24/20	13:02 Pacific		Water			X	X	2	
Corona-prod well 2-092420 (410-15093-8)	9/24/20	13:40 Pacific		Water			X	X	2	
Corona-dup-092420 (410-15093-9)	9/24/20	Pacific		Water			X		1	

Note: Since laboratory accreditations are subject to change, Eurofins Lancaster Laboratories Env places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Lancaster Laboratories Env laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Lancaster Laboratories Env attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Lancaster Laboratories Env.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

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

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Kristin Zeigler (ELLE)	9/25/20 1549	ELLE		9-26-20 10:30	TAB
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 2.6 ICE #1

Ver: 01/16/2019

10/15/2020

Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 410-15093-1

Login Number: 15093
List Number: 1
Creator: Rivera-Santa, Julissa

List Source: Eurofins Lancaster Laboratories Env

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and 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	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified.	N/A	
Residual Chlorine Checked.	N/A	
Sample custody seals are intact.	N/A	

Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 410-15093-1

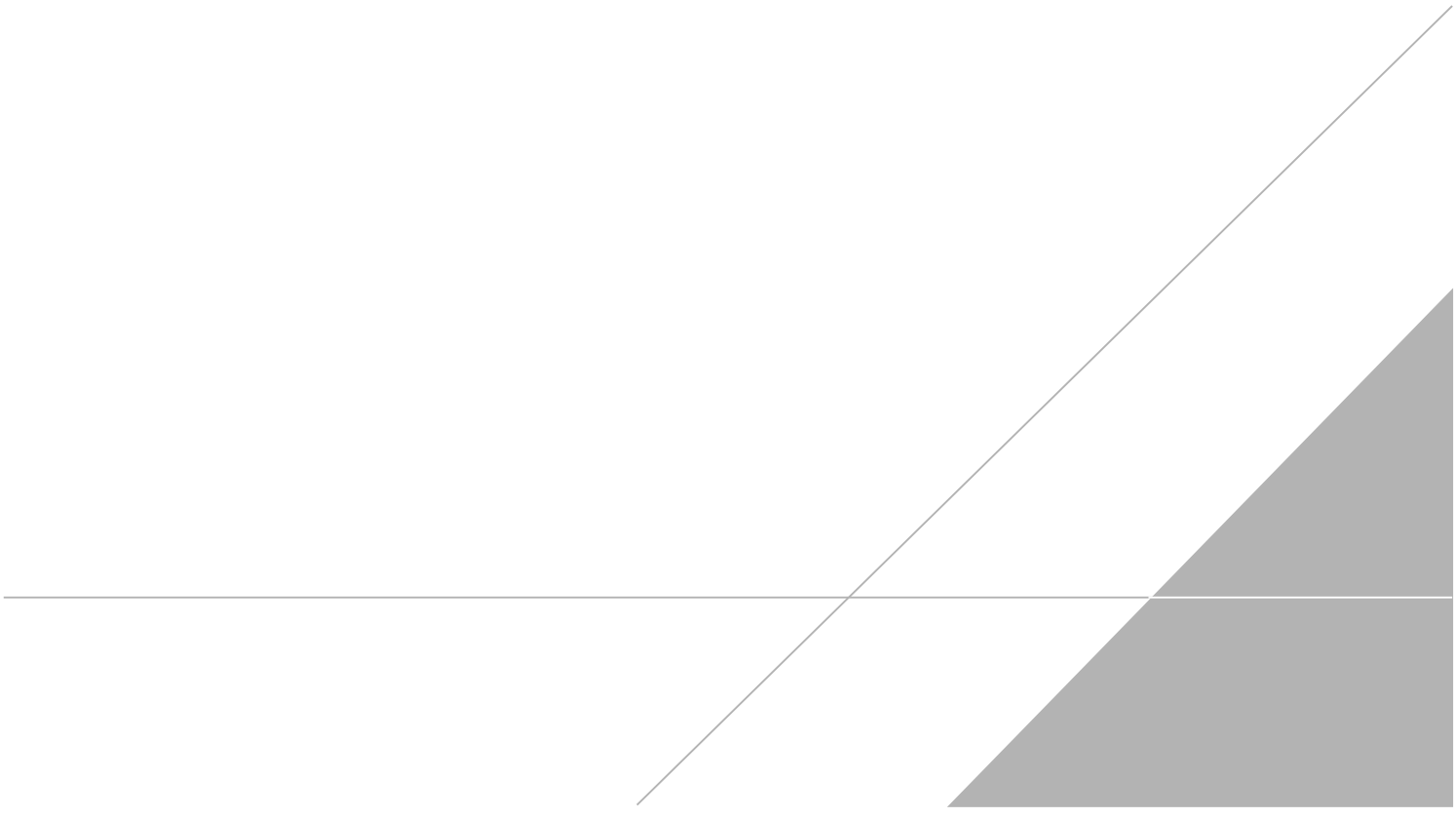
Login Number: 15093
List Number: 2
Creator: Yeager, Brian A

List Source: Eurofins TestAmerica, Buffalo
List Creation: 09/28/20 12:11 PM

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.6 ice ir gun #1
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers 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	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	True	

ATTACHMENT C

Data Validation



ARCADIS Design & Consultancy for natural and built assets

3M Company

DATA REVIEW

Corona, California

Perfluorinated Alkyl Acids (PFAA) Analyses

SDG #410-15093-1

Analyses Performed By:
Eurofins Lancaster Laboratories, Env, LLC
Lancaster, Pennsylvania

Report #38688R
Review Level: Stage 2 Review
Project: 30060094.00001

SUMMARY

This data quality assessment summarizes the review of Sample Delivery Group (SDG) #410-15093-1 for samples collected in association with the for the 3M Company, Corona, California Site. The review was conducted as a Stage 2 review evaluation and included review of data package completeness (USEPA Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use, EPA 540-R-08-005, January 2009). Only analytical data associated with constituents of concern were reviewed for this validation. Field documentation was not included in this review. Included with this assessment are the validation annotated sample result sheets, and chain of custody. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis		
					PFAAS	METAL	MISC
Corona-upstream-sed-092420	410-15093-1	Sediment	09/24/20		X		
Corona-south pond-sed-092420	410-15093-2	Sediment	09/24/20		X		
Corona-EB-092420	410-15093-3	Water	09/24/20		X		
Corona-FB-092420	410-15093-4	Water	09/24/20		X		
Corona-downstream water-092420	410-15093-5	Water	09/24/20		X		
Corona-south pond-water-092420	410-15093-6	Water	09/24/20		X		
Corona-prod well 1-092420	410-15093-7	Water	09/24/20		X	X	X
Corona-prod well 2-092420	410-15093-8	Water	09/24/20		X	X	X
Corona-dup-092420	410-15093-9	Water	09/24/20	Corona-prod well 2-092420	X	X	

Note:

1. The matrix spike/matrix spike duplicate (MS/MSD) analysis was performed on sample location Corona-prod well 1-092420 for PFAAS analysis; MS analysis performed on sample Corona-dup-092420 for nitrogen, nitrate analysis; MS analysis performed on sample location Corona-prod well 2-092420 for alkalinity analysis; MS analysis performed on sample location Corona-prod well 1-092420 for TDS analysis.

ANALYTICAL DATA PACKAGE DOCUMENTATION

The table below is the evaluation of the data package completeness.

Items Reviewed	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
1. Sample receipt condition		X		X	
2. Requested analyses and sample results		X		X	
3. Master tracking list		X		X	
4. Methods of analysis		X		X	
5. Reporting limits		X		X	
6. Sample collection date		X		X	
7. Laboratory sample received date		X		X	
8. Sample preservation verification (as applicable)		X		X	
9. Sample preparation/extraction/analysis dates		X		X	
10. Fully executed Chain-of-Custody (COC) form		X		X	
11. Narrative summary of QA or sample problems provided		X		X	
12. Data Package Completeness and Compliance		X		X	

Note:
QA - Quality Assurance

ORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to United States Environmental Protection Agency (USEPA) Method 537 Modified and laboratory standard operating procedure (SOP) "***Polyfluorinated Alkyl Substances (PFAS) in Aqueous Samples by EPA Method 537 Isotope Dilution; and for WV only - SW-846 8321B, Using LC/MS/MS]***", Data were reviewed in accordance with Determination of Selected Perfluorinated Alkyl Acids (PFAA) in Drinking Water by Solid Phase Extraction (SPE) and Analysis by Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS), September 2018); and Department of Defense (DoD) Quality Systems Manual (QSM) version 5.1.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- Concentration (C) Qualifiers

  U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

  B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.

- Quantitation (Q) Qualifiers

  E The compound was quantitated above the calibration range.

  D Concentration is based on a diluted sample analysis.

- Validation Qualifiers

  UB Compound is considered non-detect at the listed value due to associated blank contamination.

  J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

  J+ The result is an estimated quantity. The associated numerical value is expected to have a positive or high bias.

  J- The result is an estimated quantity. The associated numerical value is expected to have a negative or low bias.

  UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.

  JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.

  R The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

PERFLUORINATED ALKYL ACIDS (PFAA) ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
USEPA modified 537 DoD QSM 5.3	Water	28 days from collection to extraction and 28 days from extraction to analysis	Cool to <6 °C

All samples were analyzed within the specified holding time criteria.

The holding time has been changed from the original holding time documented in EPA 537 of 14 days to extraction hold time that has now been changed to 28 days. This was documented in EPA Technical Brief EPA/600/F-17/022h Updated January 2020. Utilizing the new guidance of 28 days all samples were analyzed within the specified holding time criteria.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Compounds were not detected above the MDL in the associated blanks; therefore, detected sample results were not associated with blank contamination.

3. Internal Standard Isotopically Labelled Standards

3. 1 Extracted Internal Standard (EIS)/Isotopically Labelled Standards

Labeled standards must be added to all field samples and QC samples prior to extraction. EIS recoveries must be within DoD QSM 5.1 specified limits of 50% to150%.

Sample locations associated with EIS exhibiting recoveries outside of the control limits are presented in the following table.

Sample Locations	EIS	Associated Compound	%R
Corona-EB-092420	d3-NMePFOSA	NMeFOSA	<LL but > 20%
	d5-NEtPFOSA	NEtFOSA	<LL but > 20%
Corona-FB-092420	d7-N-MeFOSE-M	NMeFOSE	< 20%
	d9-N-EtFOSE-M	NEtFOSE	< 20%
	d3-NMePFOSA	NMeFOSA	<LL but > 20%

Sample Locations	EIS	Associated Compound	%R
	d5-NEtPFOSA	NEtFOSA	< 20%
Corona-downstream water-092420	M2-4:2 FTS	4:2 Fluorotelomer sulfonic acid	>UL
	M2-6:2 FTS	6:2 Fluorotelomer sulfonic acid	>UL
	13C2 PFTeDA	Perfluorotetradecanoic acid	< 20%
	13C3 PFBS	Perfluorobutanesulfonic acid	>UL
	13C8 FOSA	Perfluorooctanesulfonamide	< 20%
	d7-N-MeFOSE-M	NMeFOSE	< 20%
	d9-N-EtFOSE-M	NEtFOSE	< 20%
	d3-NMePFOSA	NMeFOSA	< 20%
	13C2-PFDoDA	Perfluorododecanoic acid	<LL but > 20%
	d5-NEtPFOSA	NEtFOSA	< 20%
Corona-south pond-water-092420	13C3 HFPO-DA	HFPODA	<LL but > 20%
	d7-N-MeFOSE-M	NMeFOSE	<LL but > 20%
	d9-N-EtFOSE-M	NEtFOSE	<LL but > 20%
	d3-NMePFOSA	NMeFOSA	<LL but > 20%
	d5-NEtPFOSA	NEtFOSA	<LL but > 20%
Corona-prod well 1-092420	d7-N-MeFOSE-M	NMeFOSE	< 20%
	d9-N-EtFOSE-M	NEtFOSE	< 20%
	d3-NMePFOSA	NMeFOSA	< 20%
	d5-NEtPFOSA	NEtFOSA	< 20%
Corona-prod well 2-092420	d7-N-MeFOSE-M	NMeFOSE	<LL but > 20%
	d9-N-EtFOSE-M	NEtFOSE	<LL but > 20%
	d3-NMePFOSA	NMeFOSA	< 20%
	d5-NEtPFOSA	NEtFOSA	< 20%
Corona-dup-092420	d9-N-EtFOSE-M	NEtFOSE	<LL but > 20%
	d3-NMePFOSA	NMeFOSA	< 20%
	d5-NEtPFOSA	NEtFOSA	< 20%

Notes:
<LL = less than the lower control limit
>UL = greater than the upper control limit

The criteria used to evaluate the EIS recoveries are presented in the following table. In the case of an EIS deviation, the sample results associated with the EIS are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> 150%	Non-detect	No Action
	Detect	J
< 50% but > 20%	Non-detect	UJ
	Detect	J
< 20%	Non-detect	R
	Detect	J

Notes:-

The laboratory narrative states the following based on EIS analysis:

- The recovery for the labeled isotope(s) in the laboratory control spike samples associated with the following samples: Corona-downstream water-092420 (410-15093-5) and Corona-prod well 1-092420 (410-15093-7) is outside the QC acceptance limits. The following action was taken: This sample(s) was re-extracted within the required holding time and the recovery for the labeled isotope(s) in the re-extracted laboratory control spike sample(s) is within the QC acceptance limits.
- The recovery for the labeled isotope(s) in the following sample: Corona-EB-092420 (410-15093-3), Corona-FB-092420 (410-15093-4), Corona-south pond-water-092420 (410-15093-6), Corona-prod well 2-092420 (410-15093-8) and Corona-dup-092420 (410-15093-9) is outside the QC acceptance limits. The following action was taken: This sample was re-extracted within the required holding time and the recovery for the labeled isotope(s) is again outside the QC acceptance limits.
- The recovery for the labeled isotope(s) in the laboratory control spike sample associated with the following sample: Corona-downstream water-092420 (410-15093-5) is outside the QC acceptance limits. The following action was taken: This sample(s) was re-extracted within the required holding time and the recovery for the labeled isotope(s) in the re-extracted laboratory control spike sample(s) is within the QC acceptance limits.

4. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the DoD QSM 5.1 acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must be ≤ 30%.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

Sample locations associated with the MS/MSD exhibiting recoveries outside of the control limits are presented in the following table.

Sample Locations	Compound	MS Recovery	MSD Recovery
Corona-prod well 1-092420	Perfluorooctadecanoic acid	>UL	AC
	NMeFOSA	AC	>UL
	NEtFOSA	>UL	AC

Note:
AC = acceptable

The criteria used to evaluate the MS/MSD recoveries are presented in the following table. In the case of an MS/MSD deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> the upper control limit (UL)	Non-detect	No Action
	Detect	J
< the lower control limit (LL) but > 10%	Non-detect	UJ
	Detect	J
< 10%	Non-detect	R
	Detect	J
Parent sample concentration > four times the MS/MSD spiking solution concentration.	Detect	No Action
	Non-detect	

Sample locations associated with MS/MSD recoveries exhibiting an RPD greater than of the control limit presented in the following table.

Sample Locations	Compound
Corona-prod well 1-092420	Perfluorooctadecanoic acid
	Perfluorohexadecanoic acid
	Perfluorodecanoic acid
	Perfluorodecanesulfonic acid
	NMeFOSA
	NEtFOSE
	NEtFOSA

The criteria used to evaluate the RPD between the MS/MSD recoveries are presented in the following table. In the case of an RPD deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> UL	Non-detect	UJ
	Detect	J

5. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS analysis must exhibit a percent recovery within the DoD QSM 5.1 acceptance limits.

Sample locations associated with LCS analysis exhibiting recoveries outside of the control limits presented in the following table.

Sample Locations	Compound	LCS Recovery
Corona-downstream water-092420 Corona-prod well 1-092420	Perfluorohexadecanoic acid	>UL

The criteria used to evaluate the LCS recoveries are presented in the following table. In the case of an LCS deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> the upper control limit (UL)	Non-detect	No Action
	Detect	J
< the lower control limit (LL) but > 10%	Non-detect	UJ
	Detect	J
< 10%	Non-detect	R
	Detect	J

6. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 30% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the LOQ, a control limit of two times the LOQ is applied for water matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/ Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
Corona-prod well 2-092420/ Corona-dup-092420	Perfluoropentanoic acid	16	17	6.1%
	Perfluoropentanesulfonic acid	2.7	2.8	AC
	Perfluorooctanoic acid	23	24	4.3%
	Perfluorooctanesulfonic acid	21	22	4.7%
	Perfluorononanoic acid	2.9	3.0	AC
	Perfluorohexanoic acid	17	17	0.0%
	Perfluorohexanesulfonic acid	9.4	9.8	4.2%
	Perfluoroheptanoic acid	5.9	6.4	AC
	Perfluoroheptanesulfonic acid	0.62 J	0.71 J	AC
	Perfluorobutanoic acid	22	23	4.4%
	Perfluorobutanesulfonic acid	31	32	3.2%

Notes:
AC = acceptable
NC = not compliant

The calculated RPDs between the parent sample and field duplicate were acceptable.

7. System Performance and Overall Assessment

Sample results associated with compound that exhibited a concentration greater than the linear range of the instrument calibration are summarized in the following table.

Sample ID	Compound	Original Analysis	Diluted Analysis	Reported Analysis
Corona-downstream water-092420	Perfluoropentanesulfonic acid	--	150 D	150 D
	Perfluorooctanoic acid	--	1100 D	1100 D
	Perfluorooctanesulfonic acid	--	1200 D	1200 D
	Perfluorohexanoic acid	--	240 D	240 D
	Perfluorohexanesulfonic acid	--	300 D	300 D
	Perfluoroheptanoic acid	--	260 D	260 D
	Perfluorobutanesulfonic acid	--	240 D	240 D

Notes:
"-" = not applicable

In the instance where both the original analysis and the diluted analysis sample results exhibited a concentration greater than and/or less than the calibration linear range of the instrument; the sample result exhibiting the greatest concentration will be reported as the final result.

Sample results associated with compounds exhibiting concentrations greater than the linear range are qualified as documented in the table below when reported as the final reported sample result.

Reported Sample Results	Qualification
Diluted sample result within calibration range	D

The laboratory flagged several compounds with "I" flag to identify any analyte whose ion ratio is outside of the recommended limits. Based on discussion with the laboratory, it was determined that the "I" flag means the ratio is outside the control limit and analyst judgement was used to positively identify the analyte "The following approach was used to address this flag used by the laboratory. Due to the ion ratio being outside of the criteria which is used to for the sample PFAS identification as outlined in the QSM 5.2: "The chemical derivation of the ion transitions must be documented. A minimum of two ion transitions (Precursor -->quant ion and precursor --> confirmation ion) and the ion transitions ratio per analyte are required for confirmation. Compounds flagged "I" were qualified as "JN" tentative identified.

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR PFAAs

SVOCs: EPA 537 Modified	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS)					
Stage 2 Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Field/Equipment blanks	X				X
Laboratory Control Sample (LCS) %R		X	X		
Laboratory Control Sample Duplicate (LCSD) %R	X				X
LCS/LCSD Precision (RPD)	X				X
Matrix Spike (MS) %R		X	X		
Matrix Spike Duplicate (MSD) %R		X	X		
MS/MSD Precision (RPD)		X	X		
Field/Lab Duplicate (RPD)		X		X	
Extracted Internal Standard/Extracted Internal Standard (EIS)		X	X		
Dilution Factor		X		X	
Moisture Content	X				X

Notes:
%R = percent recovery
RPD = relative percent difference
%D = percent difference

INORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 Methods 6010B, Standard Method SM 2320B (alkalinity), 2540C (total dissolved solids [TDS]), and USEPA 300.0. Data were reviewed in accordance with USEPA National Functional Guidelines of October 2004.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and that it was already subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with the USEPA National Functional Guidelines:

- Concentration (C) Qualifiers

  U The analyte was analyzed for but not detected. The associated value is the analyte instrument detection limit.

  B The reported value was obtained from a reading less than the contract-required detection limit (CRDL), but greater than or equal to the instrument detection limit (IDL).

- Quantitation (Q) Qualifiers

  E The reported value is estimated due to the presence of interference.

  N Spiked sample recovery is not within control limits.

  * Duplicate analysis is not within control limits.

- Validation Qualifiers

  J The analyte was positively identified; however, the associated numerical value is an estimated concentration only.

  UJ The analyte was not detected above the reported sample detection limit. However, the reported limit is approximate and may or may not represent the actual limit of detection.

  UB Analyte considered non-detect at the listed value due to associated blank contamination.

  R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

METALS ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 6010B	Water	180 days from collection to analysis	Preserved to a pH of less than 2.

All samples were analyzed within the specified holding times.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

All analytes associated with the QA blanks exhibited a concentration less than the MDL, with the exception of the analytes listed in the following table. Sample results associated with QA blank contamination that were greater than the BAL resulted in the removal of the laboratory qualifier (B) from the data. Sample results less than the BAL associated with the following sample locations were qualified as listed in the following table.

Sample Locations	Analytes	Sample Result	Qualification
SC-203-B (031120)	Nickel (dissolved)	Detected sample results <RL and <BAL	"UB" at the RL
SC-203-B (031120)	Nickel (total) Zinc (dissolved)	Detected sample results >RL and <BAL	"UB" at detected sample concentration

Note:
RL = reporting limit

3. Matrix Spike (MS)/Laboratory Duplicate Analysis

MS and laboratory duplicate data are used to assess the precision and accuracy of the analytical method.

3.1 MS Analysis

All metal analytes must exhibit a percent recovery within the established acceptance limits of 75% to 125%. The MS recovery control limits do not apply for MS performed on sample locations where the analyte's concentration detected in the parent sample exceeds the MS concentration by a factor of four or greater. In instance where this is true, the data will not be qualified even if the percent recovery does not meet the control limits and the laboratory flag will be removed.

The MS analysis exhibited a recovery within the control limit.

3.2 Laboratory Duplicate Analysis

The laboratory duplicate relative percent difference (RPD) criterion is applied when parent and duplicate sample concentrations are greater than or equal to 5 times the RL. A control limit of 20% for water matrices and 35% for soil matrices is applied when the criteria above is true. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of one times the RL is applied for water matrices and two times the RL for soil matrices.

The laboratory duplicate analysis was not performed on a sample location within this SDG.

4. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 30% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices.

Field duplicate was not collected or analyzed associated with the metals analysis.

5. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the accuracy of the analytical method independent of matrix interferences. The analytes associated with the LCS analysis must exhibit a percent recovery between the control limits of 80% and 120%.

The LCS analysis exhibited recoveries within the control limits.

6. Serial Dilution

The serial dilution analysis is used to assess if a significant physical or chemical interference exists due to sample matrix. Analytes exhibiting concentrations greater than 50 times the MDL in the undiluted sample are evaluated to determine if matrix interference exists. These analytes are required to have less than a 10% difference (%D) between sample results from the undiluted (parent) sample and results associated with the same sample analyzed with a five-fold dilution.

The serial dilution analysis was not included within this review.

7. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR METAL

METALS; SW-846 6020A and 7470A	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
Inductively Coupled Plasma-Mass Spectrometry (ICP-MS)					
Atomic Absorption – Manual Cold Vapor (CV)					
Tier II Validation					
Holding Times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Instrument Blanks	X				X
B. Method Blanks		X		X	
C. Equipment/Field Blanks	X				X
Laboratory Control Sample (LCS)		X		X	
Matrix Spike (MS) %R	X				X
Matrix Spike Duplicate (MSD) %R	X				X
MS/MSD Precision (RPD)	X				X
Field/Lab Duplicate (RPD)		X		X	
Reporting Limit Verification		X		X	

Notes:
%R = Percent recovery
RPD = Relative percent difference

GENERAL CHEMISRTY ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
Nitrate-N by EPA 300.0	Water	48 hours from collection to analysis	Cool to <6 °C.
Chloride, Sulfate by EPA 300.0	Water	28 days from collection to analysis	Cool to <6 °C.
Alkalinity by SM 2320B	Water	14 days from collection to analysis	Cool to <6 °C.
Total Dissolved Solids (TDS) by SM2540C	water	7 days from collection to analysis	Cool to <6 °C.

Samples were analyzed within the specified holding times.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of ten times the concentration of a detected compound in an associated blank is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Analytes were detected in the associated QA blanks; however, the associated sample results were greater than the BAL and/or were non-detect. Therefore, sample results greater than the BAL resulted in the removal of the laboratory qualifier (B). No other qualification of the sample results was required.

3. Matrix Spike (MS)/Laboratory Duplicate Analysis

MS and laboratory duplicate data are used to assess the precision and accuracy of the analytical method.

3.1 MS Analysis

All analytes must exhibit a percent recovery within the established acceptance limits of 75% to 125%. The MS recovery control limits do not apply for MS performed on sample locations where the analyte's concentration detected in the parent sample exceeds the MS concentration by a factor of four or greater. In instance where this is true, the data will not be qualified even if the percent recovery does not meet the control limits and the laboratory flag will be removed.

All analytes associated with MS recoveries were within control limits with the exception of the following analytes present in the table below.

Sample Location	Analytes	MS Recovery
Corona-prod well 2-092420	Total Alkalinity as CaCO3 to pH 4.5	69%

The criteria used to evaluate MS recoveries are presented in the following table. In the case of an MS deviation, the sample results are qualified. The qualifications are applied to all sample results associated with this SDG.

Control limit	Sample Result	Qualification
MS percent recovery 30% to 74%	Non-detect	UJ
	Detect	J
MS percent recovery <30%	Non-detect	R
	Detect	J
MS percent recovery >125%	Non-detect	No Action
	Detect	J

Laboratory Duplicate Analysis

The laboratory duplicate sample relative percent difference (RPD) criterion is applied when both the parent and duplicate sample concentrations are greater than or equal to five times the reporting limit (RL). A control limit of 20% for water matrices and 35% for soil matrices is applied when the criteria above is true. In the instance when the parent and/or duplicate sample concentrations are less than or equal to five times the detection limit, a control limit of two times the RL for waters and soils.

The laboratory duplicate sample analysis exhibited RPDs within the control limits.

4. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 30% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/ Duplicate ID	Analyte	Sample Result	Duplicate Result	RPD
Corona-prod well 2-092420/ Corona-dup-092420	Bicarbonate Alkalinity as CaCO3	260	260	0.0%
	Total Alkalinity as CaCO3 to pH 4.5	260	260	0.0%
	Chloride	170	180	5.7%
	Sulfate	270	280	3.6%
	TDS	980	1000	2.0%

Note:
AC = acceptable

The calculated RPDs between the parent sample and field duplicate were acceptable.

5. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The analytes associated with the LCS analysis must exhibit a percent recovery between the control limits of 80% and 120%.

The LCS analysis exhibited recoveries within the control limits.

6. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR GENERAL CHEMISTRY

General Chemistry: Various Methods	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
Miscellaneous Instrumentation					
Stage 2 Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X	X		
B. Equipment blanks	X				X
Laboratory Control Sample (LCS) %R		X		X	
Laboratory Control Sample Duplicate (LCSD) %R	X				X
LCS/LCSD Precision (RPD)	X				X
Matrix Spike (MS) %R		X	X		
Matrix Spike Duplicate (MSD) %R	X				X
MS/MSD Precision (RPD)	X				X
Field/Lab Duplicate (RPD)		X		X	
Dilution Factor		X		X	
Moisture Content	X				X

Notes:
%R = percent recovery
RPD = relative percent difference

VALIDATION PERFORMED BY: Todd Church

SIGNATURE: 

DATE: October 27, 2020

PEER REVIEW: Jeffrey L. Davin

DATE: October 28, 2020

CHAIN OF CUSTODY

CORRECTED SAMPLE ANALYSIS DATA SHEETS

410-15093 Chain of Custody

Chain of Custody Record

eurofins Environment Testing America

Client Contact: Erika Houtz	Sampler: Elysha Nygaard	Lab PM: Moeller, Megan	Carrier Tracking No(s):
Company: ARCADIS U.S., Inc.	Phone: 626-615-0400	E-Mail: meganmoeller@eurofinsus.com	COC No: 410-9821-2936.1
Address: 100 Montgomery Street Suite 300	Due Date Requested:		Page: Page 1 of ~~2~~ 1
City: San Francisco	TAT Requested (days): 10 day		Job #: 30060094
State, Zip: CA, 94104	PO #: See COC		
Phone:	WO #:		
Email: Erika.Houtz@arcadis.com	Project #: 41003765		
Project Name: California Water Board	SSOW#:		
Site: Corona PFAS			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	537_IDA - CAWB 36 Cmpds	Moisture - Percent Moisture	2320B, 2540C_SingleDry, 300_ORGFM_28D, 300_ORGFMS	6010B - 4 metals by ICP Ca, Mg, K, Na	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N	D		
Corona-upstream-sed-092420	9/24/20	0955	G	~~Water~~ S			X	X			2	
Corona-south pond-sed-092420	9/24/20	1130	G	~~Water~~ S			X	X			2	
Corona-EB-092420	9/24/20	1155	G	Water			X				2	
Corona-FB-092420	9/24/20	1151	G	Water			X				2	
Corona-downstream water-092420	9/24/20	1050	G	Water			X				2	
Corona-South pond-water-092420	9/24/20	1123	G	Water			X				2	
Corona-prod well 1-092420	9/24/20	1302	G	Water			X		X	X	5	
Corona-prod well 1-MS-092420	9/24/20	1302	G	Water		X	X				2	
Corona-prod well 1-MSD-092420	9/24/20	1302	G	Water		X	X				2	
Corona-prod well 2-092420	9/24/20	1340	G	Water			X		X	X	5	
Corona-dup-092420	9/24/20	—	G	Water			X		X		4	

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

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

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

Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:	
Relinquished by:	Date/Time: 9-18-20 14:35	Company: ELLE	Received by:		Date/Time:		Company
Relinquished by:	Date/Time: 9/24/20 1552	Company: ANA	Received by:		Date/Time:		Company
Relinquished by:	Date/Time:	Company	Received by:		Date/Time: 9/25/20 1034		Company: ELLE
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 0.4				

Ver: 01/16/2019

10/15/2020

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Moeller, Megan	Carrier Tracking No(s):	COC No: 410-252011.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: meganmoeller@eurofinsus.com	State of Origin: California	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State - California		Job #: 410-15093-1
Address: 10 Hazelwood Drive, ,	Due Date Requested: 10/7/2020			
City: Amherst	TAT Requested (days):			
State, Zip: NY, 14228-2298				
Phone: 716-691-2600(Tel) 716-691-7991(Fax)	PO #:			
Email:	WO #:			
Project Name: California Water Board	Project #: 41003765			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300.0_28D/ Chloride & Sulfate 300.0	6010B/3010A 4 metals by ICP	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
Corona-prod well 1-092420 (410-15093-7)	9/24/20	13:02 Pacific		Water			X	X	2	
Corona-prod well 2-092420 (410-15093-8)	9/24/20	13:40 Pacific		Water			X	X	2	
Corona-dup-092420 (410-15093-9)	9/24/20	Pacific		Water			X		1	

Note: Since laboratory accreditations are subject to change, Eurofins Lancaster Laboratories Env places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Lancaster Laboratories Env laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Lancaster Laboratories Env attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Lancaster Laboratories Env.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

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

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Kristin Zeigler (ELLE)	9/25/20 1549	ELLE		9-26-20 10:30	TAR
2						
3						

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 2.6 ICE #1

Ver: 01/16/2019

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10/15/2020

Definitions/Glossary

Client: ARCADIS U.S., Inc.
Job ID: 410-15093-1
Project/Site: California Water Board

Qualifiers

LCMS

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
*5	Isotope dilution analyte is outside acceptance limits.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
I	Value is EMPC (estimated maximum possible concentration).
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
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

Client: ARCADIS U.S., Inc.
Project/Site: California Water Board

Job ID: 410-15093-1

Client Sample ID: Corona-upstream-sed-092420
Date Collected: 09/24/20 09:55
Date Received: 09/25/20 10:34

Lab Sample ID: 410-15093-1
Matrix: Solid
Percent Solids: 69.0

Method: EPA 537 (Mod) - EPA 537 mod QSM 5.1, Table B-15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroundecanoic acid	ND		0.81	0.27	ng/g	☼	10/01/20 07:11	10/02/20 01:41	1
Perfluorotridecanoic acid	ND		0.81	0.27	ng/g	☼	10/01/20 07:11	10/02/20 01:41	1
Perfluorotetradecanoic acid	ND		0.81	0.27	ng/g	☼	10/01/20 07:11	10/02/20 01:41	1
Perfluoropentanoic acid	ND		0.81	0.27	ng/g	☼	10/01/20 07:11	10/02/20 01:41	1
Perfluoropentanesulfonic acid	ND		4.0	0.27	ng/g	☼	10/01/20 07:11	10/02/20 01:41	1
Perfluorooctanoic acid	**0.31**	**J**	0.81	0.27	ng/g	☼	10/01/20 07:11	10/02/20 01:41	1
Perfluorooctanesulfonic acid	**1.2**		0.81	0.27	ng/g	☼	10/01/20 07:11	10/02/20 01:41	1
Perfluorooctanesulfonamide	**0.34**	**J**	0.81	0.27	ng/g	☼	10/01/20 07:11	10/02/20 01:41	1
Perfluorooctadecanoic acid	ND		0.81	0.27	ng/g	☼	10/01/20 07:11	10/02/20 01:41	1
Perfluorononanoic acid	ND		0.81	0.27	ng/g	☼	10/01/20 07:11	10/02/20 01:41	1
Perfluorononanesulfonic acid	ND		0.81	0.27	ng/g	☼	10/01/20 07:11	10/02/20 01:41	1
Perfluorohexanoic acid	ND		0.81	0.27	ng/g	☼	10/01/20 07:11	10/02/20 01:41	1
Perfluorohexanesulfonic acid	ND		0.81	0.27	ng/g	☼	10/01/20 07:11	10/02/20 01:41	1
Perfluorohexadecanoic acid	ND		0.81	0.27	ng/g	☼	10/01/20 07:11	10/02/20 01:41	1
Perfluoroheptanoic acid	ND		0.81	0.27	ng/g	☼	10/01/20 07:11	10/02/20 01:41	1
Perfluoroheptanesulfonic acid	ND		0.81	0.27	ng/g	☼	10/01/20 07:11	10/02/20 01:41	1
Perfluorododecanoic acid	ND		0.81	0.27	ng/g	☼	10/01/20 07:11	10/02/20 01:41	1
Perfluorodecanoic acid	ND		0.81	0.27	ng/g	☼	10/01/20 07:11	10/02/20 01:41	1
Perfluorodecanesulfonic acid	ND		0.81	0.27	ng/g	☼	10/01/20 07:11	10/02/20 01:41	1
Perfluorobutanoic acid	ND		2.7	0.81	ng/g	☼	10/01/20 07:11	10/02/20 01:41	1
Perfluorobutanesulfonic acid	ND		2.7	0.54	ng/g	☼	10/01/20 07:11	10/02/20 01:41	1
NMeFOSE	ND		2.7	0.67	ng/g	☼	10/01/20 07:11	10/02/20 01:41	1
NMeFOSA	ND		2.7	0.67	ng/g	☼	10/01/20 07:11	10/02/20 01:41	1
NMeFOSAA	ND		2.7	0.27	ng/g	☼	10/01/20 07:11	10/02/20 01:41	1
NEtFOSE	ND		2.7	0.67	ng/g	☼	10/01/20 07:11	10/02/20 01:41	1
NEtFOSA	ND		2.7	0.67	ng/g	☼	10/01/20 07:11	10/02/20 01:41	1
NEtFOSAA	ND		2.7	0.27	ng/g	☼	10/01/20 07:11	10/02/20 01:41	1
HFPODA	ND		4.0	0.54	ng/g	☼	10/01/20 07:11	10/02/20 01:41	1
DONA	ND		0.81	0.27	ng/g	☼	10/01/20 07:11	10/02/20 01:41	1
9Cl-PF3ONS	ND		2.7	0.27	ng/g	☼	10/01/20 07:11	10/02/20 01:41	1
8:2 Fluorotelomer sulfonic acid	ND		4.0	0.81	ng/g	☼	10/01/20 07:11	10/02/20 01:41	1
6:2 Fluorotelomer sulfonic acid	ND		2.7	0.81	ng/g	☼	10/01/20 07:11	10/02/20 01:41	1
4:2 Fluorotelomer sulfonic acid	ND		2.7	0.81	ng/g	☼	10/01/20 07:11	10/02/20 01:41	1
11Cl-PF3OUdS	ND		0.81	0.27	ng/g	☼	10/01/20 07:11	10/02/20 01:41	1
10:2 Fluorotelomer sulfonic acid	ND		2.7	0.81	ng/g	☼	10/01/20 07:11	10/02/20 01:41	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-4:2 FTS	*65*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:41*	*1*
M2-6:2 FTS	*87*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:41*	*1*
M2-8:2 FTS	*88*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:41*	*1*
13C2 PFTeDA	*77*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:41*	*1*
13C3 HFPO-DA	*79*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:41*	*1*
13C3 PFBS	*78*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:41*	*1*
13C4 PFBA	*88*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:41*	*1*
13C4 PFHpA	*79*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:41*	*1*
13C5 PFPeA	*88*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:41*	*1*
13C8 PFOA	*88*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:41*	*1*
13C8 PFOS	*85*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:41*	*1*
13C8 FOSA	*72*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:41*	*1*
d3-NMeFOSAA	*98*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:41*	*1*

Client Sample ID: Corona-upstream-sed-092420

Lab Sample ID: 410-15093-1
Date Collected: 09/24/20 09:55
Matrix: Solid
Date Received: 09/25/20 10:34
Percent Solids: 69.0

Method: EPA 537 (Mod) - EPA 537 mod QSM 5.1, Table B-15 (Continued)

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
d5-NEtFOSAA	*77*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:41*	*1*
d7-N-MeFOSE-M	*66*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:41*	*1*
d9-N-EtFOSE-M	*65*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:41*	*1*
d3-NMePFOSA	*56*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:41*	*1*
13C2-PFDoDA	*79*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:41*	*1*
13C3 PFHxS	*85*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:41*	*1*
13C5 PFHxA	*80*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:41*	*1*
13C6 PFDA	*85*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:41*	*1*
13C7 PFUnA	*77*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:41*	*1*
13C9 PFNA	*91*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:41*	*1*
d5-NEtPFOSA	*60*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:41*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**31.0**		1.0	1.0	%			09/25/20 16:24	1
Percent Solids	**69.0**		1.0	1.0	%			09/25/20 16:24	1

Client Sample ID: Corona-south pond-sed-092420

Lab Sample ID: 410-15093-2
Date Collected: 09/24/20 11:30
Matrix: Solid
Date Received: 09/25/20 10:34
Percent Solids: 44.2

Method: EPA 537 (Mod) - EPA 537 mod QSM 5.1, Table B-15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroundecanoic acid	ND		1.3	0.45	ng/g	☼	10/01/20 07:11	10/02/20 01:50	1
Perfluorotridecanoic acid	ND		1.3	0.45	ng/g	☼	10/01/20 07:11	10/02/20 01:50	1
Perfluorotetradecanoic acid	ND		1.3	0.45	ng/g	☼	10/01/20 07:11	10/02/20 01:50	1
Perfluoropentanoic acid	ND		1.3	0.45	ng/g	☼	10/01/20 07:11	10/02/20 01:50	1
Perfluoropentanesulfonic acid	ND		6.7	0.45	ng/g	☼	10/01/20 07:11	10/02/20 01:50	1
Perfluorooctanoic acid	**0.58**	**J**	1.3	0.45	ng/g	☼	10/01/20 07:11	10/02/20 01:50	1
Perfluorooctanesulfonic acid	**0.90**	**J**	1.3	0.45	ng/g	☼	10/01/20 07:11	10/02/20 01:50	1
Perfluorooctanesulfonamide	**0.67**	**J**	1.3	0.45	ng/g	☼	10/01/20 07:11	10/02/20 01:50	1
Perfluorooctadecanoic acid	ND		1.3	0.45	ng/g	☼	10/01/20 07:11	10/02/20 01:50	1
Perfluorononanoic acid	ND		1.3	0.45	ng/g	☼	10/01/20 07:11	10/02/20 01:50	1
Perfluorononanesulfonic acid	ND		1.3	0.45	ng/g	☼	10/01/20 07:11	10/02/20 01:50	1
Perfluorohexanoic acid	ND		1.3	0.45	ng/g	☼	10/01/20 07:11	10/02/20 01:50	1
Perfluorohexanesulfonic acid	ND		1.3	0.45	ng/g	☼	10/01/20 07:11	10/02/20 01:50	1
Perfluorohexadecanoic acid	ND		1.3	0.45	ng/g	☼	10/01/20 07:11	10/02/20 01:50	1
Perfluoroheptanoic acid	ND		1.3	0.45	ng/g	☼	10/01/20 07:11	10/02/20 01:50	1
Perfluoroheptanesulfonic acid	ND		1.3	0.45	ng/g	☼	10/01/20 07:11	10/02/20 01:50	1
Perfluorododecanoic acid	ND		1.3	0.45	ng/g	☼	10/01/20 07:11	10/02/20 01:50	1
Perfluorodecanoic acid	ND		1.3	0.45	ng/g	☼	10/01/20 07:11	10/02/20 01:50	1
Perfluorodecanesulfonic acid	ND		1.3	0.45	ng/g	☼	10/01/20 07:11	10/02/20 01:50	1
Perfluorobutanoic acid	ND		4.5	1.3	ng/g	☼	10/01/20 07:11	10/02/20 01:50	1
Perfluorobutanesulfonic acid	ND		4.5	0.90	ng/g	☼	10/01/20 07:11	10/02/20 01:50	1
NMeFOSE	ND		4.5	1.1	ng/g	☼	10/01/20 07:11	10/02/20 01:50	1
NMeFOSA	ND		4.5	1.1	ng/g	☼	10/01/20 07:11	10/02/20 01:50	1
NMeFOSAA	ND		4.5	0.45	ng/g	☼	10/01/20 07:11	10/02/20 01:50	1
NEtFOSE	ND		4.5	1.1	ng/g	☼	10/01/20 07:11	10/02/20 01:50	1
NEtFOSA	ND		4.5	1.1	ng/g	☼	10/01/20 07:11	10/02/20 01:50	1
NEtFOSAA	**16**		4.5	0.45	ng/g	☼	10/01/20 07:11	10/02/20 01:50	1

Client Sample ID: Corona-south pond-sed-092420

Lab Sample ID: 410-15093-2

Date Collected: 09/24/20 11:30
Matrix: Solid
Date Received: 09/25/20 10:34
Percent Solids: 44.2

Method: EPA 537 (Mod) - EPA 537 mod QSM 5.1, Table B-15 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HFPODA	ND		6.7	0.90	ng/g	☼	10/01/20 07:11	10/02/20 01:50	1
DONA	ND		1.3	0.45	ng/g	☼	10/01/20 07:11	10/02/20 01:50	1
9Cl-PF3ONS	ND		4.5	0.45	ng/g	☼	10/01/20 07:11	10/02/20 01:50	1
8:2 Fluorotelomer sulfonic acid	ND		6.7	1.3	ng/g	☼	10/01/20 07:11	10/02/20 01:50	1
6:2 Fluorotelomer sulfonic acid	ND		4.5	1.3	ng/g	☼	10/01/20 07:11	10/02/20 01:50	1
4:2 Fluorotelomer sulfonic acid	ND		4.5	1.3	ng/g	☼	10/01/20 07:11	10/02/20 01:50	1
11Cl-PF3OUdS	ND		1.3	0.45	ng/g	☼	10/01/20 07:11	10/02/20 01:50	1
10:2 Fluorotelomer sulfonic acid	ND		4.5	1.3	ng/g	☼	10/01/20 07:11	10/02/20 01:50	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-4:2 FTS	*65*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:50*	*1*
M2-6:2 FTS	*86*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:50*	*1*
M2-8:2 FTS	*87*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:50*	*1*
13C2 PFTeDA	*77*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:50*	*1*
13C3 HFPO-DA	*82*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:50*	*1*
13C3 PFBS	*76*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:50*	*1*
13C4 PFBA	*87*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:50*	*1*
13C4 PFHpA	*77*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:50*	*1*
13C5 PFPeA	*85*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:50*	*1*
13C8 PFOA	*86*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:50*	*1*
13C8 PFOS	*83*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:50*	*1*
13C8 FOSA	*74*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:50*	*1*
d3-NMeFOSAA	*93*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:50*	*1*
d5-NEtFOSAA	*88*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:50*	*1*
d7-N-MeFOSE-M	*67*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:50*	*1*
d9-N-EtFOSE-M	*73*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:50*	*1*
d3-NMePFOSA	*65*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:50*	*1*
13C2-PFDoDA	*78*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:50*	*1*
13C3 PFHxS	*86*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:50*	*1*
13C5 PFHxA	*82*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:50*	*1*
13C6 PFDA	*77*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:50*	*1*
13C7 PFUnA	*83*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:50*	*1*
13C9 PFNA	*88*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:50*	*1*
d5-NEtPFOSA	*66*		*50 - 150*	*10/01/20 07:11*	*10/02/20 01:50*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**55.8**		1.0	1.0	%			09/25/20 16:24	1
Percent Solids	**44.2**		1.0	1.0	%			09/25/20 16:24	1

Client Sample ID: Corona-EB-092420

Lab Sample ID: 410-15093-3

Date Collected: 09/24/20 11:55
Matrix: Water
Date Received: 09/25/20 10:34

Method: EPA 537 (Mod) - EPA 537 mod QSM 5.1, Table B-15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroundecanoic acid	ND		2.4	0.61	ng/L		09/28/20 07:26	09/30/20 04:34	1
Perfluorotridecanoic acid	ND		2.4	0.61	ng/L		09/28/20 07:26	09/30/20 04:34	1
Perfluorotetradecanoic acid	ND		2.4	0.61	ng/L		09/28/20 07:26	09/30/20 04:34	1
Perfluoropentanoic acid	ND		2.4	0.61	ng/L		09/28/20 07:26	09/30/20 04:34	1
Perfluoropentanesulfonic acid	ND		2.4	0.61	ng/L		09/28/20 07:26	09/30/20 04:34	1

Client Sample ID: Corona-EB-092420
Date Collected: 09/24/20 11:55
Date Received: 09/25/20 10:34

Lab Sample ID: 410-15093-3
Matrix: Water

Method: EPA 537 (Mod) - EPA 537 mod QSM 5.1, Table B-15 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanoic acid	ND		2.4	0.61	ng/L		09/28/20 07:26	09/30/20 04:34	1
Perfluorooctanesulfonic acid	ND		2.4	0.61	ng/L		09/28/20 07:26	09/30/20 04:34	1
Perfluorooctanesulfonamide	ND		2.4	0.61	ng/L		09/28/20 07:26	09/30/20 04:34	1
Perfluorooctadecanoic acid	ND		3.7	1.2	ng/L		09/28/20 07:26	09/30/20 04:34	1
Perfluorononanoic acid	ND		2.4	0.61	ng/L		09/28/20 07:26	09/30/20 04:34	1
Perfluorononanesulfonic acid	ND		2.4	0.61	ng/L		09/28/20 07:26	09/30/20 04:34	1
Perfluorohexanoic acid	ND		2.4	0.61	ng/L		09/28/20 07:26	09/30/20 04:34	1
Perfluorohexanesulfonic acid	ND		2.4	0.61	ng/L		09/28/20 07:26	09/30/20 04:34	1
Perfluorohexadecanoic acid	ND		3.7	1.2	ng/L		09/28/20 07:26	09/30/20 04:34	1
Perfluoroheptanoic acid	ND		2.4	0.61	ng/L		09/28/20 07:26	09/30/20 04:34	1
Perfluoroheptanesulfonic acid	ND		2.4	0.61	ng/L		09/28/20 07:26	09/30/20 04:34	1
Perfluorododecanoic acid	ND		2.4	0.61	ng/L		09/28/20 07:26	09/30/20 04:34	1
Perfluorodecanoic acid	ND		2.4	0.61	ng/L		09/28/20 07:26	09/30/20 04:34	1
Perfluorodecanesulfonic acid	ND		2.4	0.61	ng/L		09/28/20 07:26	09/30/20 04:34	1
Perfluorobutanoic acid	ND		6.1	2.4	ng/L		09/28/20 07:26	09/30/20 04:34	1
Perfluorobutanesulfonic acid	ND		2.4	0.61	ng/L		09/28/20 07:26	09/30/20 04:34	1
NMeFOSE	ND		3.7	1.2	ng/L		09/28/20 07:26	09/30/20 04:34	1
NMeFOSA	ND	J	3.7	1.2	ng/L		09/28/20 07:26	09/30/20 04:34	1
NMeFOSAA	ND		2.4	0.73	ng/L		09/28/20 07:26	09/30/20 04:34	1
NEtFOSE	ND		3.7	1.2	ng/L		09/28/20 07:26	09/30/20 04:34	1
NEtFOSA	ND	J	6.1	1.2	ng/L		09/28/20 07:26	09/30/20 04:34	1
NEtFOSAA	ND		3.7	0.61	ng/L		09/28/20 07:26	09/30/20 04:34	1
HFPODA	ND		3.7	0.61	ng/L		09/28/20 07:26	09/30/20 04:34	1
DONA	ND		2.4	0.61	ng/L		09/28/20 07:26	09/30/20 04:34	1
9Cl-PF3ONS	ND		2.4	0.61	ng/L		09/28/20 07:26	09/30/20 04:34	1
8:2 Fluorotelomer sulfonic acid	ND		3.7	1.2	ng/L		09/28/20 07:26	09/30/20 04:34	1
6:2 Fluorotelomer sulfonic acid	ND		6.1	2.4	ng/L		09/28/20 07:26	09/30/20 04:34	1
4:2 Fluorotelomer sulfonic acid	ND		2.4	0.61	ng/L		09/28/20 07:26	09/30/20 04:34	1
11Cl-PF3OUdS	ND		2.4	0.61	ng/L		09/28/20 07:26	09/30/20 04:34	1
10:2 Fluorotelomer sulfonic acid	ND		6.1	1.2	ng/L		09/28/20 07:26	09/30/20 04:34	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-4:2 FTS	*83*		*50 - 150*	*09/28/20 07:26*	*09/30/20 04:34*	*1*
M2-6:2 FTS	*115*		*50 - 150*	*09/28/20 07:26*	*09/30/20 04:34*	*1*
M2-8:2 FTS	*94*		*50 - 150*	*09/28/20 07:26*	*09/30/20 04:34*	*1*
13C2 PFTeDA	*84*		*50 - 150*	*09/28/20 07:26*	*09/30/20 04:34*	*1*
13C3 HFPO-DA	*91*		*50 - 150*	*09/28/20 07:26*	*09/30/20 04:34*	*1*
13C3 PFBS	*86*		*50 - 150*	*09/28/20 07:26*	*09/30/20 04:34*	*1*
13C4 PFBA	*101*		*50 - 150*	*09/28/20 07:26*	*09/30/20 04:34*	*1*
13C4 PFHpA	*97*		*50 - 150*	*09/28/20 07:26*	*09/30/20 04:34*	*1*
13C5 PFPeA	*103*		*50 - 150*	*09/28/20 07:26*	*09/30/20 04:34*	*1*
13C8 PFOA	*106*		*50 - 150*	*09/28/20 07:26*	*09/30/20 04:34*	*1*
13C8 PFOS	*99*		*50 - 150*	*09/28/20 07:26*	*09/30/20 04:34*	*1*
13C8 FOSA	*79*		*50 - 150*	*09/28/20 07:26*	*09/30/20 04:34*	*1*
d3-NMeFOSAA	*111*		*50 - 150*	*09/28/20 07:26*	*09/30/20 04:34*	*1*
d5-NEtFOSAA	*91*		*50 - 150*	*09/28/20 07:26*	*09/30/20 04:34*	*1*
d7-N-MeFOSE-M	*55*		*50 - 150*	*09/28/20 07:26*	*09/30/20 04:34*	*1*
d9-N-EtFOSE-M	*51*		*50 - 150*	*09/28/20 07:26*	*09/30/20 04:34*	*1*
d3-NMePFOSA	*41*	**5*	*50 - 150*	*09/28/20 07:26*	*09/30/20 04:34*	*1*
13C2-PFDoDA	*94*		*50 - 150*	*09/28/20 07:26*	*09/30/20 04:34*	*1*

Client Sample ID: Corona-EB-092420

Lab Sample ID: 410-15093-3

Date Collected: 09/24/20 11:55
Matrix: Water
Date Received: 09/25/20 10:34

Method: EPA 537 (Mod) - EPA 537 mod QSM 5.1, Table B-15 (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 PFHxS	99		50 - 150	09/28/20 07:26	09/30/20 04:34	1
13C5 PFHxA	99		50 - 150	09/28/20 07:26	09/30/20 04:34	1
13C6 PFDA	91		50 - 150	09/28/20 07:26	09/30/20 04:34	1
13C7 PFUnA	93		50 - 150	09/28/20 07:26	09/30/20 04:34	1
13C9 PFNA	106		50 - 150	09/28/20 07:26	09/30/20 04:34	1
d5-NEtPFOSA	34	*5	50 - 150	09/28/20 07:26	09/30/20 04:34	1

Client Sample ID: Corona-FB-092420

Lab Sample ID: 410-15093-4

Date Collected: 09/24/20 11:51
Matrix: Water
Date Received: 09/25/20 10:34

Method: EPA 537 (Mod) - EPA 537 mod QSM 5.1, Table B-15

Analyte		Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroundecanoic acid		ND		1.7	0.42	ng/L		09/28/20 07:26	09/30/20 04:52	1
Perfluorotridecanoic acid		ND		1.7	0.42	ng/L		09/28/20 07:26	09/30/20 04:52	1
Perfluorotetradecanoic acid		ND		1.7	0.42	ng/L		09/28/20 07:26	09/30/20 04:52	1
Perfluoropentanoic acid		ND		1.7	0.42	ng/L		09/28/20 07:26	09/30/20 04:52	1
Perfluoropentanesulfonic acid		ND		1.7	0.42	ng/L		09/28/20 07:26	09/30/20 04:52	1
Perfluorooctanoic acid		ND		1.7	0.42	ng/L		09/28/20 07:26	09/30/20 04:52	1
Perfluorooctanesulfonic acid		ND		1.7	0.42	ng/L		09/28/20 07:26	09/30/20 04:52	1
Perfluorooctanesulfonamide		ND		1.7	0.42	ng/L		09/28/20 07:26	09/30/20 04:52	1
Perfluorooctadecanoic acid		ND		2.5	0.83	ng/L		09/28/20 07:26	09/30/20 04:52	1
Perfluorononanoic acid		ND		1.7	0.42	ng/L		09/28/20 07:26	09/30/20 04:52	1
Perfluorononanesulfonic acid		ND		1.7	0.42	ng/L		09/28/20 07:26	09/30/20 04:52	1
Perfluorohexanoic acid		ND		1.7	0.42	ng/L		09/28/20 07:26	09/30/20 04:52	1
Perfluorohexanesulfonic acid		ND		1.7	0.42	ng/L		09/28/20 07:26	09/30/20 04:52	1
Perfluorohexadecanoic acid		ND		2.5	0.83	ng/L		09/28/20 07:26	09/30/20 04:52	1
Perfluoroheptanoic acid		ND		1.7	0.42	ng/L		09/28/20 07:26	09/30/20 04:52	1
Perfluoroheptanesulfonic acid		ND		1.7	0.42	ng/L		09/28/20 07:26	09/30/20 04:52	1
Perfluorododecanoic acid		ND		1.7	0.42	ng/L		09/28/20 07:26	09/30/20 04:52	1
Perfluorodecanoic acid		ND		1.7	0.42	ng/L		09/28/20 07:26	09/30/20 04:52	1
Perfluorodecanesulfonic acid		ND		1.7	0.42	ng/L		09/28/20 07:26	09/30/20 04:52	1
Perfluorobutanoic acid		ND		4.2	1.7	ng/L		09/28/20 07:26	09/30/20 04:52	1
Perfluorobutanesulfonic acid		ND		1.7	0.42	ng/L		09/28/20 07:26	09/30/20 04:52	1
NMeFOSE	R	ND		2.5	0.83	ng/L		09/28/20 07:26	09/30/20 04:52	1
NMeFOSA	R	ND		2.5	0.83	ng/L		09/28/20 07:26	09/30/20 04:52	1
NMeFOSAA		ND		1.7	0.50	ng/L		09/28/20 07:26	09/30/20 04:52	1
NEtFOSE	R	ND		2.5	0.83	ng/L		09/28/20 07:26	09/30/20 04:52	1
NEtFOSA	R	ND		4.2	0.83	ng/L		09/28/20 07:26	09/30/20 04:52	1
NEtFOSAA		ND		2.5	0.42	ng/L		09/28/20 07:26	09/30/20 04:52	1
HFPODA		ND		2.5	0.42	ng/L		09/28/20 07:26	09/30/20 04:52	1
DONA		ND		1.7	0.42	ng/L		09/28/20 07:26	09/30/20 04:52	1
9Cl-PF3ONS		ND		1.7	0.42	ng/L		09/28/20 07:26	09/30/20 04:52	1
8:2 Fluorotelomer sulfonic acid		ND		2.5	0.83	ng/L		09/28/20 07:26	09/30/20 04:52	1
6:2 Fluorotelomer sulfonic acid		ND		4.2	1.7	ng/L		09/28/20 07:26	09/30/20 04:52	1
4:2 Fluorotelomer sulfonic acid		ND		1.7	0.42	ng/L		09/28/20 07:26	09/30/20 04:52	1
11Cl-PF3OUdS		ND		1.7	0.42	ng/L		09/28/20 07:26	09/30/20 04:52	1
10:2 Fluorotelomer sulfonic acid		ND		4.2	0.83	ng/L		09/28/20 07:26	09/30/20 04:52	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-4:2 FTS	91		50 - 150	09/28/20 07:26	09/30/20 04:52	1

Client Sample ID: Corona-FB-092420

Lab Sample ID: 410-15093-4

Date Collected: 09/24/20 11:51

Matrix: Water

Date Received: 09/25/20 10:34

Method: EPA 537 (Mod) - EPA 537 mod QSM 5.1, Table B-15 (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	118		50 - 150	09/28/20 07:26	09/30/20 04:52	1
M2-8:2 FTS	105		50 - 150	09/28/20 07:26	09/30/20 04:52	1
13C2 PFTeDA	81		50 - 150	09/28/20 07:26	09/30/20 04:52	1
13C3 HFPO-DA	101		50 - 150	09/28/20 07:26	09/30/20 04:52	1
13C3 PFBS	93		50 - 150	09/28/20 07:26	09/30/20 04:52	1
13C4 PFBA	105		50 - 150	09/28/20 07:26	09/30/20 04:52	1
13C4 PFHpA	104		50 - 150	09/28/20 07:26	09/30/20 04:52	1
13C5 PFPeA	98		50 - 150	09/28/20 07:26	09/30/20 04:52	1
13C8 PFOA	112		50 - 150	09/28/20 07:26	09/30/20 04:52	1
13C8 PFOS	102		50 - 150	09/28/20 07:26	09/30/20 04:52	1
13C8 FOSA	85		50 - 150	09/28/20 07:26	09/30/20 04:52	1
d3-NMeFOSAA	128		50 - 150	09/28/20 07:26	09/30/20 04:52	1
d5-NEtFOSAA	104		50 - 150	09/28/20 07:26	09/30/20 04:52	1
d7-N-MeFOSE-M	19	*5	50 - 150	09/28/20 07:26	09/30/20 04:52	1
d9-N-EtFOSE-M	15	*5	50 - 150	09/28/20 07:26	09/30/20 04:52	1
d3-NMePFOSA	24	*5	50 - 150	09/28/20 07:26	09/30/20 04:52	1
13C2-PFDoDA	102		50 - 150	09/28/20 07:26	09/30/20 04:52	1
13C3 PFHxS	102		50 - 150	09/28/20 07:26	09/30/20 04:52	1
13C5 PFHxA	105		50 - 150	09/28/20 07:26	09/30/20 04:52	1
13C6 PFDA	98		50 - 150	09/28/20 07:26	09/30/20 04:52	1
13C7 PFUnA	105		50 - 150	09/28/20 07:26	09/30/20 04:52	1
13C9 PFNA	112		50 - 150	09/28/20 07:26	09/30/20 04:52	1
d5-NEtPFOSA	17	*5	50 - 150	09/28/20 07:26	09/30/20 04:52	1

Client Sample ID: Corona-downstream water-092420

Lab Sample ID: 410-15093-5

Date Collected: 09/24/20 10:50

Matrix: Water

Date Received: 09/25/20 10:34

Method: EPA 537 (Mod) - EPA 537 mod QSM 5.1, Table B-15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroundecanoic acid	**1.1**	**J** J JN	1.9	0.47	ng/L		09/30/20 18:45	10/01/20 22:21	1
Perfluorotridecanoic acid	ND		1.9	0.47	ng/L		09/30/20 18:45	10/01/20 22:21	1
Perfluorotetradecanoic acid R	ND		1.9	0.47	ng/L		09/30/20 18:45	10/01/20 22:21	1
Perfluoropentanoic acid	**83**		1.9	0.47	ng/L		09/30/20 18:45	10/01/20 22:21	1
Perfluorooctanesulfonamide	**67**	J	1.9	0.47	ng/L		09/30/20 18:45	10/01/20 22:21	1
Perfluorooctadecanoic acid	ND		2.8	0.93	ng/L		09/30/20 18:45	10/01/20 22:21	1
Perfluorononanoic acid	**7.6**		1.9	0.47	ng/L		09/30/20 18:45	10/01/20 22:21	1
Perfluorononanesulfonic acid	**0.52**	**J**	1.9	0.47	ng/L		09/30/20 18:45	10/01/20 22:21	1
Perfluorohexadecanoic acid	ND	*	2.8	0.93	ng/L		09/30/20 18:45	10/01/20 22:21	1
Perfluoroheptanesulfonic acid	**30**		1.9	0.47	ng/L		09/30/20 18:45	10/01/20 22:21	1
Perfluorododecanoic acid	ND		1.9	0.47	ng/L		09/30/20 18:45	10/01/20 22:21	1
Perfluorodecanoic acid	**7.7**		1.9	0.47	ng/L		09/30/20 18:45	10/01/20 22:21	1
Perfluorodecanesulfonic acid	ND	J	1.9	0.47	ng/L		09/30/20 18:45	10/01/20 22:21	1
Perfluorobutanoic acid	**88**		4.7	1.9	ng/L		09/30/20 18:45	10/01/20 22:21	1
NMeFOSE R	ND		2.8	0.93	ng/L		09/30/20 18:45	10/01/20 22:21	1
NMeFOSA R	ND		2.8	0.93	ng/L		09/30/20 18:45	10/01/20 22:21	1
NMeFOSAA	**0.84**	**J**	1.9	0.56	ng/L		09/30/20 18:45	10/01/20 22:21	1
NEtFOSE R	ND		2.8	0.93	ng/L		09/30/20 18:45	10/01/20 22:21	1
NEtFOSA	ND		4.7	0.93	ng/L		09/30/20 18:45	10/01/20 22:21	1
NEtFOSAA	**30**		2.8	0.47	ng/L		09/30/20 18:45	10/01/20 22:21	1

Client Sample ID: Corona-downstream water-092420
Date Collected: 09/24/20 10:50
Date Received: 09/25/20 10:34

Lab Sample ID: 410-15093-5
Matrix: Water

Method: EPA 537 (Mod) - EPA 537 mod QSM 5.1, Table B-15 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HFPODA	ND		2.8	0.47	ng/L		09/30/20 18:45	10/01/20 22:21	1
DONA	ND		1.9	0.47	ng/L		09/30/20 18:45	10/01/20 22:21	1
9Cl-PF3ONS	ND		1.9	0.47	ng/L		09/30/20 18:45	10/01/20 22:21	1
8:2 Fluorotelomer sulfonic acid	ND		2.8	0.93	ng/L		09/30/20 18:45	10/01/20 22:21	1
6:2 Fluorotelomer sulfonic acid	ND		4.7	1.9	ng/L		09/30/20 18:45	10/01/20 22:21	1
4:2 Fluorotelomer sulfonic acid	ND		1.9	0.47	ng/L		09/30/20 18:45	10/01/20 22:21	1
11Cl-PF3OUdS	ND		1.9	0.47	ng/L		09/30/20 18:45	10/01/20 22:21	1
10:2 Fluorotelomer sulfonic acid	ND		4.7	0.93	ng/L		09/30/20 18:45	10/01/20 22:21	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-4:2 FTS	*195*	**5*	*50 - 150*	*09/30/20 18:45*	*10/01/20 22:21*	*1*
M2-6:2 FTS	*152*	**5*	*50 - 150*	*09/30/20 18:45*	*10/01/20 22:21*	*1*
M2-8:2 FTS	*126*		*50 - 150*	*09/30/20 18:45*	*10/01/20 22:21*	*1*
13C2 PFTeDA	*7*	**5*	*50 - 150*	*09/30/20 18:45*	*10/01/20 22:21*	*1*
13C3 HFPO-DA	*72*		*50 - 150*	*09/30/20 18:45*	*10/01/20 22:21*	*1*
13C3 PFBS	*187*	**5*	*50 - 150*	*09/30/20 18:45*	*10/01/20 22:21*	*1*
13C4 PFBA	*72*		*50 - 150*	*09/30/20 18:45*	*10/01/20 22:21*	*1*
13C4 PFHpA	*99*		*50 - 150*	*09/30/20 18:45*	*10/01/20 22:21*	*1*
13C5 PFPeA	*137*		*50 - 150*	*09/30/20 18:45*	*10/01/20 22:21*	*1*
13C8 PFOA	*84*		*50 - 150*	*09/30/20 18:45*	*10/01/20 22:21*	*1*
13C8 PFOS	*80*		*50 - 150*	*09/30/20 18:45*	*10/01/20 22:21*	*1*
13C8 FOSA	*18*	**5*	*50 - 150*	*09/30/20 18:45*	*10/01/20 22:21*	*1*
d3-NMeFOSAA	*81*		*50 - 150*	*09/30/20 18:45*	*10/01/20 22:21*	*1*
d5-NEtFOSAA	*80*		*50 - 150*	*09/30/20 18:45*	*10/01/20 22:21*	*1*
d7-N-MeFOSE-M	*2*	**5*	*50 - 150*	*09/30/20 18:45*	*10/01/20 22:21*	*1*
d9-N-EtFOSE-M	*1*	**5*	*50 - 150*	*09/30/20 18:45*	*10/01/20 22:21*	*1*
d3-NMePFOSA	*0.3*	**5*	*50 - 150*	*09/30/20 18:45*	*10/01/20 22:21*	*1*
13C2-PFDoDA	*32*	**5*	*50 - 150*	*09/30/20 18:45*	*10/01/20 22:21*	*1*
13C3 PFHxS	*91*		*50 - 150*	*09/30/20 18:45*	*10/01/20 22:21*	*1*
13C5 PFHxA	*68*		*50 - 150*	*09/30/20 18:45*	*10/01/20 22:21*	*1*
13C6 PFDA	*72*		*50 - 150*	*09/30/20 18:45*	*10/01/20 22:21*	*1*
13C7 PFUnA	*62*		*50 - 150*	*09/30/20 18:45*	*10/01/20 22:21*	*1*
13C9 PFNA	*102*		*50 - 150*	*09/30/20 18:45*	*10/01/20 22:21*	*1*
d5-NEtPFOSA	*0*	**5*	*50 - 150*	*09/30/20 18:45*	*10/01/20 22:21*	*1*

Method: EPA 537 (Mod) - EPA 537 mod QSM 5.1, Table B-15 - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanesulfonic acid	**150**	D	19	4.7	ng/L		09/30/20 18:45	10/02/20 16:52	10
Perfluorooctanoic acid	**1100**	D	19	4.7	ng/L		09/30/20 18:45	10/02/20 16:52	10
Perfluorooctanesulfonic acid	**1200**	D	19	4.7	ng/L		09/30/20 18:45	10/02/20 16:52	10
Perfluorohexanoic acid	**240**	D	19	4.7	ng/L		09/30/20 18:45	10/02/20 16:52	10
Perfluorohexanesulfonic acid	**300**	D	19	4.7	ng/L		09/30/20 18:45	10/02/20 16:52	10
Perfluoroheptanoic acid	**260**	D	19	4.7	ng/L		09/30/20 18:45	10/02/20 16:52	10
Perfluorobutanesulfonic acid	**240**	D	19	4.7	ng/L		09/30/20 18:45	10/02/20 16:52	10

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C3 PFBS	*115*		*50 - 150*	*09/30/20 18:45*	*10/02/20 16:52*	*10*
13C4 PFHpA	*109*		*50 - 150*	*09/30/20 18:45*	*10/02/20 16:52*	*10*
13C8 PFOA	*104*		*50 - 150*	*09/30/20 18:45*	*10/02/20 16:52*	*10*
13C8 PFOS	*96*		*50 - 150*	*09/30/20 18:45*	*10/02/20 16:52*	*10*
13C3 PFHxS	*105*		*50 - 150*	*09/30/20 18:45*	*10/02/20 16:52*	*10*

Client Sample ID: Corona-downstream water-092420

Lab Sample ID: 410-15093-5

Date Collected: 09/24/20 10:50
Matrix: Water
Date Received: 09/25/20 10:34

Method: EPA 537 (Mod) - EPA 537 mod QSM 5.1, Table B-15 - DL (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C5 PFHxA	101		50 - 150	09/30/20 18:45	10/02/20 16:52	10

Client Sample ID: Corona-south pond-water-092420

Lab Sample ID: 410-15093-6

Date Collected: 09/24/20 11:23
Matrix: Water
Date Received: 09/25/20 10:34

Method: EPA 537 (Mod) - EPA 537 mod QSM 5.1, Table B-15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroundecanoic acid	ND		21	5.2	ng/L		09/28/20 07:26	09/30/20 05:10	1
Perfluorotridecanoic acid	ND		21	5.2	ng/L		09/28/20 07:26	09/30/20 05:10	1
Perfluorotetradecanoic acid	ND		21	5.2	ng/L		09/28/20 07:26	09/30/20 05:10	1
Perfluoropentanoic acid	**39**		21	5.2	ng/L		09/28/20 07:26	09/30/20 05:10	1
Perfluoropentanesulfonic acid	**11**	J	21	5.2	ng/L		09/28/20 07:26	09/30/20 05:10	1
Perfluorooctanoic acid	**220**		21	5.2	ng/L		09/28/20 07:26	09/30/20 05:10	1
Perfluorooctanesulfonic acid	**70**		21	5.2	ng/L		09/28/20 07:26	09/30/20 05:10	1
Perfluorooctanesulfonamide	**11**	J	21	5.2	ng/L		09/28/20 07:26	09/30/20 05:10	1
Perfluorooctadecanoic acid	ND		31	10	ng/L		09/28/20 07:26	09/30/20 05:10	1
Perfluorononanoic acid	ND		21	5.2	ng/L		09/28/20 07:26	09/30/20 05:10	1
Perfluorononanesulfonic acid	ND		21	5.2	ng/L		09/28/20 07:26	09/30/20 05:10	1
Perfluorohexanoic acid	**60**		21	5.2	ng/L		09/28/20 07:26	09/30/20 05:10	1
Perfluorohexanesulfonic acid	**30**		21	5.2	ng/L		09/28/20 07:26	09/30/20 05:10	1
Perfluorohexadecanoic acid	ND		31	10	ng/L		09/28/20 07:26	09/30/20 05:10	1
Perfluoroheptanoic acid	**32**		21	5.2	ng/L		09/28/20 07:26	09/30/20 05:10	1
Perfluoroheptanesulfonic acid	ND		21	5.2	ng/L		09/28/20 07:26	09/30/20 05:10	1
Perfluorododecanoic acid	ND		21	5.2	ng/L		09/28/20 07:26	09/30/20 05:10	1
Perfluorodecanoic acid	ND		21	5.2	ng/L		09/28/20 07:26	09/30/20 05:10	1
Perfluorodecanesulfonic acid	ND		21	5.2	ng/L		09/28/20 07:26	09/30/20 05:10	1
Perfluorobutanoic acid	**46**	J	52	21	ng/L		09/28/20 07:26	09/30/20 05:10	1
Perfluorobutanesulfonic acid	**60**		21	5.2	ng/L		09/28/20 07:26	09/30/20 05:10	1
NMeFOSE	ND	J	31	10	ng/L		09/28/20 07:26	09/30/20 05:10	1
NMeFOSA	ND	J	31	10	ng/L		09/28/20 07:26	09/30/20 05:10	1
NMeFOSAA	ND		21	6.2	ng/L		09/28/20 07:26	09/30/20 05:10	1
NEtFOSE	ND	J	31	10	ng/L		09/28/20 07:26	09/30/20 05:10	1
NEtFOSA	ND	J	52	10	ng/L		09/28/20 07:26	09/30/20 05:10	1
NEtFOSAA	**290**		31	5.2	ng/L		09/28/20 07:26	09/30/20 05:10	1
HFPODA	ND	J	31	5.2	ng/L		09/28/20 07:26	09/30/20 05:10	1
DONA	ND		21	5.2	ng/L		09/28/20 07:26	09/30/20 05:10	1
9Cl-PF3ONS	ND		21	5.2	ng/L		09/28/20 07:26	09/30/20 05:10	1
8:2 Fluorotelomer sulfonic acid	ND		31	10	ng/L		09/28/20 07:26	09/30/20 05:10	1
6:2 Fluorotelomer sulfonic acid	ND		52	21	ng/L		09/28/20 07:26	09/30/20 05:10	1
4:2 Fluorotelomer sulfonic acid	ND		21	5.2	ng/L		09/28/20 07:26	09/30/20 05:10	1
11Cl-PF3OUdS	ND		21	5.2	ng/L		09/28/20 07:26	09/30/20 05:10	1
10:2 Fluorotelomer sulfonic acid	ND		52	10	ng/L		09/28/20 07:26	09/30/20 05:10	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-4:2 FTS	67		50 - 150	09/28/20 07:26	09/30/20 05:10	1
M2-6:2 FTS	74		50 - 150	09/28/20 07:26	09/30/20 05:10	1
M2-8:2 FTS	63		50 - 150	09/28/20 07:26	09/30/20 05:10	1
13C2 PFTeDA	55		50 - 150	09/28/20 07:26	09/30/20 05:10	1
13C3 HFPO-DA	38	*5	50 - 150	09/28/20 07:26	09/30/20 05:10	1
13C3 PFBS	56		50 - 150	09/28/20 07:26	09/30/20 05:10	1

Client Sample ID: Corona-south pond-water-092420

Lab Sample ID: 410-15093-6

Date Collected: 09/24/20 11:23
Matrix: Water
Date Received: 09/25/20 10:34

Method: EPA 537 (Mod) - EPA 537 mod QSM 5.1, Table B-15 (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	64		50 - 150	09/28/20 07:26	09/30/20 05:10	1
13C4 PFHpA	62		50 - 150	09/28/20 07:26	09/30/20 05:10	1
13C5 PFPeA	66		50 - 150	09/28/20 07:26	09/30/20 05:10	1
13C8 PFOA	64		50 - 150	09/28/20 07:26	09/30/20 05:10	1
13C8 PFOS	60		50 - 150	09/28/20 07:26	09/30/20 05:10	1
13C8 FOSA	50		50 - 150	09/28/20 07:26	09/30/20 05:10	1
d3-NMeFOSAA	63		50 - 150	09/28/20 07:26	09/30/20 05:10	1
d5-NEtFOSAA	61		50 - 150	09/28/20 07:26	09/30/20 05:10	1
d7-N-MeFOSE-M	41	*5	50 - 150	09/28/20 07:26	09/30/20 05:10	1
d9-N-EtFOSE-M	39	*5	50 - 150	09/28/20 07:26	09/30/20 05:10	1
d3-NMePFOSA	46	*5	50 - 150	09/28/20 07:26	09/30/20 05:10	1
13C2-PFDoDA	60		50 - 150	09/28/20 07:26	09/30/20 05:10	1
13C3 PFHxS	61		50 - 150	09/28/20 07:26	09/30/20 05:10	1
13C5 PFHxA	61		50 - 150	09/28/20 07:26	09/30/20 05:10	1
13C6 PFDA	58		50 - 150	09/28/20 07:26	09/30/20 05:10	1
13C7 PFUnA	57		50 - 150	09/28/20 07:26	09/30/20 05:10	1
13C9 PFNA	71		50 - 150	09/28/20 07:26	09/30/20 05:10	1
d5-NEtPFOSA	44	*5	50 - 150	09/28/20 07:26	09/30/20 05:10	1

Client Sample ID: Corona-prod well 1-092420

Lab Sample ID: 410-15093-7

Date Collected: 09/24/20 13:02
Matrix: Water
Date Received: 09/25/20 10:34

Method: EPA 300.0 R2.1 - Anions, Ion Chromatgraphy

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate	**6.4**		0.50	0.25	mg/L			09/25/20 20:00	5

Method: EPA 537 (Mod) - EPA 537 mod QSM 5.1, Table B-15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroundecanoic acid	ND		2.8	0.70	ng/L		09/30/20 18:45	10/01/20 22:39	1
Perfluorotridecanoic acid	ND		2.8	0.70	ng/L		09/30/20 18:45	10/01/20 22:39	1
Perfluorotetradecanoic acid	ND		2.8	0.70	ng/L		09/30/20 18:45	10/01/20 22:39	1
Perfluoropentanoic acid	**20**		2.8	0.70	ng/L		09/30/20 18:45	10/01/20 22:39	1
Perfluoropentanesulfonic acid	**2.7**	J	2.8	0.70	ng/L		09/30/20 18:45	10/01/20 22:39	1
Perfluorooctanoic acid	**25**		2.8	0.70	ng/L		09/30/20 18:45	10/01/20 22:39	1
Perfluorooctanesulfonic acid	**15**		2.8	0.70	ng/L		09/30/20 18:45	10/01/20 22:39	1
Perfluorooctanesulfonamide	ND		2.8	0.70	ng/L		09/30/20 18:45	10/01/20 22:39	1
Perfluorooctadecanoic acid	ND	F2 F1	4.2	1.4	ng/L		09/30/20 18:45	10/01/20 22:39	1
Perfluorononanoic acid	**2.8**		2.8	0.70	ng/L		09/30/20 18:45	10/01/20 22:39	1
Perfluorononanesulfonic acid	ND		2.8	0.70	ng/L		09/30/20 18:45	10/01/20 22:39	1
Perfluorohexanoic acid	**19**		2.8	0.70	ng/L		09/30/20 18:45	10/01/20 22:39	1
Perfluorohexanesulfonic acid	**9.1**		2.8	0.70	ng/L		09/30/20 18:45	10/01/20 22:39	1
Perfluorohexadecanoic acid	ND	F2	4.2	1.4	ng/L		09/30/20 18:45	10/01/20 22:39	1
Perfluoroheptanoic acid	**7.9**		2.8	0.70	ng/L		09/30/20 18:45	10/01/20 22:39	1
Perfluoroheptanesulfonic acid	ND		2.8	0.70	ng/L		09/30/20 18:45	10/01/20 22:39	1
Perfluorododecanoic acid	ND		2.8	0.70	ng/L		09/30/20 18:45	10/01/20 22:39	1
Perfluorodecanoic acid	ND	F2	2.8	0.70	ng/L		09/30/20 18:45	10/01/20 22:39	1
Perfluorodecanesulfonic acid	ND	F2	2.8	0.70	ng/L		09/30/20 18:45	10/01/20 22:39	1
Perfluorobutanoic acid	**17**		7.0	2.8	ng/L		09/30/20 18:45	10/01/20 22:39	1
Perfluorobutanesulfonic acid	**29**		2.8	0.70	ng/L		09/30/20 18:45	10/01/20 22:39	1

Client Sample ID: Corona-prod well 1-092420

Lab Sample ID: 410-15093-7

Date Collected: 09/24/20 13:02

Matrix: Water

Date Received: 09/25/20 10:34

Method: EPA 537 (Mod) - EPA 537 mod QSM 5.1, Table B-15 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
NMeFOSE	ND	J	4.2	1.4	ng/L		09/30/20 18:45	10/01/20 22:39	1
NMeFOSA	ND	F2 F1 J	4.2	1.4	ng/L		09/30/20 18:45	10/01/20 22:39	1
NMeFOSAA	ND	J	2.8	0.83	ng/L		09/30/20 18:45	10/01/20 22:39	1
NEtFOSE	ND	F2 J	4.2	1.4	ng/L		09/30/20 18:45	10/01/20 22:39	1
NEtFOSA	ND	F1 J	7.0	1.4	ng/L		09/30/20 18:45	10/01/20 22:39	1
NEtFOSAA	ND		4.2	0.70	ng/L		09/30/20 18:45	10/01/20 22:39	1
HFPODA	ND		4.2	0.70	ng/L		09/30/20 18:45	10/01/20 22:39	1
DONA	ND		2.8	0.70	ng/L		09/30/20 18:45	10/01/20 22:39	1
9Cl-PF3ONS	ND		2.8	0.70	ng/L		09/30/20 18:45	10/01/20 22:39	1
8:2 Fluorotelomer sulfonic acid	ND		4.2	1.4	ng/L		09/30/20 18:45	10/01/20 22:39	1
6:2 Fluorotelomer sulfonic acid	ND		7.0	2.8	ng/L		09/30/20 18:45	10/01/20 22:39	1
4:2 Fluorotelomer sulfonic acid	ND		2.8	0.70	ng/L		09/30/20 18:45	10/01/20 22:39	1
11Cl-PF3OUdS	ND		2.8	0.70	ng/L		09/30/20 18:45	10/01/20 22:39	1
10:2 Fluorotelomer sulfonic acid	ND		7.0	1.4	ng/L		09/30/20 18:45	10/01/20 22:39	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-4:2 FTS	*69*		*50 - 150*	*09/30/20 18:45*	*10/01/20 22:39*	*1*
M2-6:2 FTS	*88*		*50 - 150*	*09/30/20 18:45*	*10/01/20 22:39*	*1*
M2-8:2 FTS	*83*		*50 - 150*	*09/30/20 18:45*	*10/01/20 22:39*	*1*
13C2 PFTeDA	*56*		*50 - 150*	*09/30/20 18:45*	*10/01/20 22:39*	*1*
13C3 HFPO-DA	*78*		*50 - 150*	*09/30/20 18:45*	*10/01/20 22:39*	*1*
13C3 PFBS	*77*		*50 - 150*	*09/30/20 18:45*	*10/01/20 22:39*	*1*
13C4 PFBA	*82*		*50 - 150*	*09/30/20 18:45*	*10/01/20 22:39*	*1*
13C4 PFHpA	*77*		*50 - 150*	*09/30/20 18:45*	*10/01/20 22:39*	*1*
13C5 PFPeA	*84*		*50 - 150*	*09/30/20 18:45*	*10/01/20 22:39*	*1*
13C8 PFOA	*87*		*50 - 150*	*09/30/20 18:45*	*10/01/20 22:39*	*1*
13C8 PFOS	*80*		*50 - 150*	*09/30/20 18:45*	*10/01/20 22:39*	*1*
13C8 FOSA	*57*		*50 - 150*	*09/30/20 18:45*	*10/01/20 22:39*	*1*
d3-NMeFOSAA	*97*		*50 - 150*	*09/30/20 18:45*	*10/01/20 22:39*	*1*
d5-NEtFOSAA	*74*		*50 - 150*	*09/30/20 18:45*	*10/01/20 22:39*	*1*
d7-N-MeFOSE-M	*15*	**5*	*50 - 150*	*09/30/20 18:45*	*10/01/20 22:39*	*1*
d9-N-EtFOSE-M	*12*	**5*	*50 - 150*	*09/30/20 18:45*	*10/01/20 22:39*	*1*
d3-NMePFOSA	*1*	**5*	*50 - 150*	*09/30/20 18:45*	*10/01/20 22:39*	*1*
13C2-PFDoDA	*61*		*50 - 150*	*09/30/20 18:45*	*10/01/20 22:39*	*1*
13C3 PFHxS	*86*		*50 - 150*	*09/30/20 18:45*	*10/01/20 22:39*	*1*
13C5 PFHxA	*82*		*50 - 150*	*09/30/20 18:45*	*10/01/20 22:39*	*1*
13C6 PFDA	*76*		*50 - 150*	*09/30/20 18:45*	*10/01/20 22:39*	*1*
13C7 PFUnA	*70*		*50 - 150*	*09/30/20 18:45*	*10/01/20 22:39*	*1*
13C9 PFNA	*85*		*50 - 150*	*09/30/20 18:45*	*10/01/20 22:39*	*1*
d5-NEtPFOSA	*0.8*	**5*	*50 - 150*	*09/30/20 18:45*	*10/01/20 22:39*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**160**		0.50	0.10	mg/L		09/30/20 09:40	09/30/20 23:36	1
Magnesium	**42**		0.20	0.043	mg/L		09/30/20 09:40	09/30/20 23:36	1
Potassium	**5.8**		0.50	0.10	mg/L		09/30/20 09:40	09/30/20 23:36	1
Sodium	**110**		1.0	0.32	mg/L		09/30/20 09:40	09/30/20 23:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**940**	B	120	40	mg/L			09/29/20 12:04	1

Client Sample ID: Corona-prod well 1-092420

Lab Sample ID: 410-15093-7

Date Collected: 09/24/20 13:02
Matrix: Water
Date Received: 09/25/20 10:34

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**270**		10	1.7	mg/L			10/02/20 23:56	5
Chloride	**170**		2.5	1.4	mg/L			10/02/20 23:56	5

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Carbonate Alkalinity as CaCO3	ND		8.0	8.0	mg/L			09/25/20 21:30	1
Bicarbonate Alkalinity as CaCO3	**270**		8.0	8.0	mg/L			09/25/20 21:30	1
Total Alkalinity as CaCO3 to pH 4.5	**270**		8.0	8.0	mg/L			09/25/20 21:30	1
Phenolphthalein Alkalinity as CaCO3 to pH 8.3	ND		8.0	8.0	mg/L			09/25/20 21:30	1

Client Sample ID: Corona-prod well 2-092420

Lab Sample ID: 410-15093-8

Date Collected: 09/24/20 13:40
Matrix: Water
Date Received: 09/25/20 10:34

Method: EPA 300.0 R2.1 - Anions, Ion Chromatgraphy

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate	**5.9**		0.50	0.25	mg/L			09/25/20 20:18	5

Method: EPA 537 (Mod) - EPA 537 mod QSM 5.1, Table B-15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroundecanoic acid	ND		1.7	0.43	ng/L		09/28/20 07:26	09/30/20 05:46	1
Perfluorotridecanoic acid	ND		1.7	0.43	ng/L		09/28/20 07:26	09/30/20 05:46	1
Perfluorotetradecanoic acid	ND		1.7	0.43	ng/L		09/28/20 07:26	09/30/20 05:46	1
Perfluoropentanoic acid	**16**		1.7	0.43	ng/L		09/28/20 07:26	09/30/20 05:46	1
Perfluoropentanesulfonic acid	**2.7**		1.7	0.43	ng/L		09/28/20 07:26	09/30/20 05:46	1
Perfluorooctanoic acid	**23**		1.7	0.43	ng/L		09/28/20 07:26	09/30/20 05:46	1
Perfluorooctanesulfonic acid	**21**		1.7	0.43	ng/L		09/28/20 07:26	09/30/20 05:46	1
Perfluorooctanesulfonamide	ND		1.7	0.43	ng/L		09/28/20 07:26	09/30/20 05:46	1
Perfluorooctadecanoic acid	ND		2.6	0.87	ng/L		09/28/20 07:26	09/30/20 05:46	1
Perfluorononanoic acid	**2.9**		1.7	0.43	ng/L		09/28/20 07:26	09/30/20 05:46	1
Perfluorononanesulfonic acid	ND		1.7	0.43	ng/L		09/28/20 07:26	09/30/20 05:46	1
Perfluorohexanoic acid	**17**		1.7	0.43	ng/L		09/28/20 07:26	09/30/20 05:46	1
Perfluorohexanesulfonic acid	**9.4**		1.7	0.43	ng/L		09/28/20 07:26	09/30/20 05:46	1
Perfluorohexadecanoic acid	ND		2.6	0.87	ng/L		09/28/20 07:26	09/30/20 05:46	1
Perfluoroheptanoic acid	**5.9**		1.7	0.43	ng/L		09/28/20 07:26	09/30/20 05:46	1
Perfluoroheptanesulfonic acid	**0.62**	J	1.7	0.43	ng/L		09/28/20 07:26	09/30/20 05:46	1
Perfluorododecanoic acid	ND		1.7	0.43	ng/L		09/28/20 07:26	09/30/20 05:46	1
Perfluorodecanoic acid	ND		1.7	0.43	ng/L		09/28/20 07:26	09/30/20 05:46	1
Perfluorodecanesulfonic acid	ND		1.7	0.43	ng/L		09/28/20 07:26	09/30/20 05:46	1
Perfluorobutanoic acid	**22**		4.3	1.7	ng/L		09/28/20 07:26	09/30/20 05:46	1
Perfluorobutanesulfonic acid	**31**		1.7	0.43	ng/L		09/28/20 07:26	09/30/20 05:46	1
NMeFOSE	ND	J	2.6	0.87	ng/L		09/28/20 07:26	09/30/20 05:46	1
NMeFOSA	ND	J	2.6	0.87	ng/L		09/28/20 07:26	09/30/20 05:46	1
NMeFOSAA	ND		1.7	0.52	ng/L		09/28/20 07:26	09/30/20 05:46	1
NEtFOSE	ND	J	2.6	0.87	ng/L		09/28/20 07:26	09/30/20 05:46	1
NEtFOSA	ND	J	4.3	0.87	ng/L		09/28/20 07:26	09/30/20 05:46	1
NEtFOSAA	ND		2.6	0.43	ng/L		09/28/20 07:26	09/30/20 05:46	1
HFPODA	ND		2.6	0.43	ng/L		09/28/20 07:26	09/30/20 05:46	1
DONA	ND		1.7	0.43	ng/L		09/28/20 07:26	09/30/20 05:46	1
9Cl-PF3ONS	ND		1.7	0.43	ng/L		09/28/20 07:26	09/30/20 05:46	1
8:2 Fluorotelomer sulfonic acid	ND		2.6	0.87	ng/L		09/28/20 07:26	09/30/20 05:46	1

Client: ARCADIS U.S., Inc.
Project/Site: California Water Board

Job ID: 410-15093-1

Client Sample ID: Corona-prod well 2-092420

Lab Sample ID: 410-15093-8

Date Collected: 09/24/20 13:40

Matrix: Water

Date Received: 09/25/20 10:34

Method: EPA 537 (Mod) - EPA 537 mod QSM 5.1, Table B-15 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
6:2 Fluorotelomer sulfonic acid	ND		4.3	1.7	ng/L		09/28/20 07:26	09/30/20 05:46	1
4:2 Fluorotelomer sulfonic acid	ND		1.7	0.43	ng/L		09/28/20 07:26	09/30/20 05:46	1
11Cl-PF3OUdS	ND		1.7	0.43	ng/L		09/28/20 07:26	09/30/20 05:46	1
10:2 Fluorotelomer sulfonic acid	ND		4.3	0.87	ng/L		09/28/20 07:26	09/30/20 05:46	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-4:2 FTS	*101*		*50 - 150*	*09/28/20 07:26*	*09/30/20 05:46*	*1*
M2-6:2 FTS	*106*		*50 - 150*	*09/28/20 07:26*	*09/30/20 05:46*	*1*
M2-8:2 FTS	*90*		*50 - 150*	*09/28/20 07:26*	*09/30/20 05:46*	*1*
13C2 PFTeDA	*73*		*50 - 150*	*09/28/20 07:26*	*09/30/20 05:46*	*1*
13C3 HFPO-DA	*86*		*50 - 150*	*09/28/20 07:26*	*09/30/20 05:46*	*1*
13C3 PFBS	*107*		*50 - 150*	*09/28/20 07:26*	*09/30/20 05:46*	*1*
13C4 PFBA	*97*		*50 - 150*	*09/28/20 07:26*	*09/30/20 05:46*	*1*
13C4 PFHpA	*92*		*50 - 150*	*09/28/20 07:26*	*09/30/20 05:46*	*1*
13C5 PFPeA	*123*		*50 - 150*	*09/28/20 07:26*	*09/30/20 05:46*	*1*
13C8 PFOA	*98*		*50 - 150*	*09/28/20 07:26*	*09/30/20 05:46*	*1*
13C8 PFOS	*94*		*50 - 150*	*09/28/20 07:26*	*09/30/20 05:46*	*1*
13C8 FOSA	*52*		*50 - 150*	*09/28/20 07:26*	*09/30/20 05:46*	*1*
d3-NMeFOSAA	*119*		*50 - 150*	*09/28/20 07:26*	*09/30/20 05:46*	*1*
d5-NEtFOSAA	*92*		*50 - 150*	*09/28/20 07:26*	*09/30/20 05:46*	*1*
d7-N-MeFOSE-M	*29*	**5*	*50 - 150*	*09/28/20 07:26*	*09/30/20 05:46*	*1*
d9-N-EtFOSE-M	*23*	**5*	*50 - 150*	*09/28/20 07:26*	*09/30/20 05:46*	*1*
d3-NMePFOSA	*4*	**5*	*50 - 150*	*09/28/20 07:26*	*09/30/20 05:46*	*1*
13C2-PFDoDA	*82*		*50 - 150*	*09/28/20 07:26*	*09/30/20 05:46*	*1*
13C3 PFHxS	*92*		*50 - 150*	*09/28/20 07:26*	*09/30/20 05:46*	*1*
13C5 PFHxA	*91*		*50 - 150*	*09/28/20 07:26*	*09/30/20 05:46*	*1*
13C6 PFDA	*81*		*50 - 150*	*09/28/20 07:26*	*09/30/20 05:46*	*1*
13C7 PFUnA	*90*		*50 - 150*	*09/28/20 07:26*	*09/30/20 05:46*	*1*
13C9 PFNA	*100*		*50 - 150*	*09/28/20 07:26*	*09/30/20 05:46*	*1*
d5-NEtPFOSA	*3*	**5*	*50 - 150*	*09/28/20 07:26*	*09/30/20 05:46*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**150**		0.50	0.10	mg/L		09/30/20 09:40	09/30/20 23:40	1
Magnesium	**38**		0.20	0.043	mg/L		09/30/20 09:40	09/30/20 23:40	1
Potassium	**4.1**		0.50	0.10	mg/L		09/30/20 09:40	09/30/20 23:40	1
Sodium	**130**		1.0	0.32	mg/L		09/30/20 09:40	09/30/20 23:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**980**	**B**	120	40	mg/L			09/29/20 12:04	1
Sulfate	**270**		10	1.7	mg/L			10/03/20 00:11	5
Chloride	**170**		2.5	1.4	mg/L			10/03/20 00:11	5

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Carbonate Alkalinity as CaCO3	ND		8.0	8.0	mg/L			09/25/20 21:08	1
Bicarbonate Alkalinity as CaCO3	**260**		8.0	8.0	mg/L			09/25/20 21:08	1
Total Alkalinity as CaCO3 to pH 4.5	**260**	**F1** J	8.0	8.0	mg/L			09/25/20 21:08	1
Phenolphthalein Alkalinity as CaCO3 to pH 8.3	ND		8.0	8.0	mg/L			09/25/20 21:08	1

Client Sample ID: Corona-dup-092420

Lab Sample ID: 410-15093-9

Date Collected: 09/24/20 00:00

Matrix: Water

Date Received: 09/25/20 10:34

Method: EPA 300.0 R2.1 - Anions, Ion Chromatgraphy

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate	**6.0**		0.50	0.25	mg/L			09/25/20 19:06	5

Method: EPA 537 (Mod) - EPA 537 mod QSM 5.1, Table B-15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroundecanoic acid	ND		1.6	0.41	ng/L		09/28/20 07:26	09/30/20 05:56	1
Perfluorotridecanoic acid	ND		1.6	0.41	ng/L		09/28/20 07:26	09/30/20 05:56	1
Perfluorotetradecanoic acid	ND		1.6	0.41	ng/L		09/28/20 07:26	09/30/20 05:56	1
Perfluoropentanoic acid	**17**		1.6	0.41	ng/L		09/28/20 07:26	09/30/20 05:56	1
Perfluoropentanesulfonic acid	**2.8**		1.6	0.41	ng/L		09/28/20 07:26	09/30/20 05:56	1
Perfluorooctanoic acid	**24**		1.6	0.41	ng/L		09/28/20 07:26	09/30/20 05:56	1
Perfluorooctanesulfonic acid	**22**		1.6	0.41	ng/L		09/28/20 07:26	09/30/20 05:56	1
Perfluorooctanesulfonamide	ND		1.6	0.41	ng/L		09/28/20 07:26	09/30/20 05:56	1
Perfluorooctadecanoic acid	ND		2.5	0.82	ng/L		09/28/20 07:26	09/30/20 05:56	1
Perfluorononanoic acid	**3.0**		1.6	0.41	ng/L		09/28/20 07:26	09/30/20 05:56	1
Perfluorononanesulfonic acid	ND		1.6	0.41	ng/L		09/28/20 07:26	09/30/20 05:56	1
Perfluorohexanoic acid	**17**		1.6	0.41	ng/L		09/28/20 07:26	09/30/20 05:56	1
Perfluorohexanesulfonic acid	**9.8**		1.6	0.41	ng/L		09/28/20 07:26	09/30/20 05:56	1
Perfluorohexadecanoic acid	ND		2.5	0.82	ng/L		09/28/20 07:26	09/30/20 05:56	1
Perfluoroheptanoic acid	**6.4**		1.6	0.41	ng/L		09/28/20 07:26	09/30/20 05:56	1
Perfluoroheptanesulfonic acid	**0.71**	J	1.6	0.41	ng/L		09/28/20 07:26	09/30/20 05:56	1
Perfluorododecanoic acid	ND		1.6	0.41	ng/L		09/28/20 07:26	09/30/20 05:56	1
Perfluorodecanoic acid	ND		1.6	0.41	ng/L		09/28/20 07:26	09/30/20 05:56	1
Perfluorodecanesulfonic acid	ND		1.6	0.41	ng/L		09/28/20 07:26	09/30/20 05:56	1
Perfluorobutanoic acid	**23**		4.1	1.6	ng/L		09/28/20 07:26	09/30/20 05:56	1
Perfluorobutanesulfonic acid	**32**		1.6	0.41	ng/L		09/28/20 07:26	09/30/20 05:56	1
NMeFOSE	ND		2.5	0.82	ng/L		09/28/20 07:26	09/30/20 05:56	1
NMeFOSA	ND	J	2.5	0.82	ng/L		09/28/20 07:26	09/30/20 05:56	1
NMeFOSAA	ND		1.6	0.49	ng/L		09/28/20 07:26	09/30/20 05:56	1
NEtFOSE	ND	J	2.5	0.82	ng/L		09/28/20 07:26	09/30/20 05:56	1
NEtFOSA	ND	J	4.1	0.82	ng/L		09/28/20 07:26	09/30/20 05:56	1
NEtFOSAA	ND		2.5	0.41	ng/L		09/28/20 07:26	09/30/20 05:56	1
HFPODA	ND		2.5	0.41	ng/L		09/28/20 07:26	09/30/20 05:56	1
DONA	ND		1.6	0.41	ng/L		09/28/20 07:26	09/30/20 05:56	1
9Cl-PF3ONS	ND		1.6	0.41	ng/L		09/28/20 07:26	09/30/20 05:56	1
8:2 Fluorotelomer sulfonic acid	ND		2.5	0.82	ng/L		09/28/20 07:26	09/30/20 05:56	1
6:2 Fluorotelomer sulfonic acid	ND		4.1	1.6	ng/L		09/28/20 07:26	09/30/20 05:56	1
4:2 Fluorotelomer sulfonic acid	ND		1.6	0.41	ng/L		09/28/20 07:26	09/30/20 05:56	1
11Cl-PF3OUdS	ND		1.6	0.41	ng/L		09/28/20 07:26	09/30/20 05:56	1
10:2 Fluorotelomer sulfonic acid	ND		4.1	0.82	ng/L		09/28/20 07:26	09/30/20 05:56	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
M2-4:2 FTS	*110*		*50 - 150*	*09/28/20 07:26*	*09/30/20 05:56*	*1*
M2-6:2 FTS	*107*		*50 - 150*	*09/28/20 07:26*	*09/30/20 05:56*	*1*
M2-8:2 FTS	*96*		*50 - 150*	*09/28/20 07:26*	*09/30/20 05:56*	*1*
13C2 PFTeDA	*77*		*50 - 150*	*09/28/20 07:26*	*09/30/20 05:56*	*1*
13C3 HFPO-DA	*88*		*50 - 150*	*09/28/20 07:26*	*09/30/20 05:56*	*1*
13C3 PFBS	*110*		*50 - 150*	*09/28/20 07:26*	*09/30/20 05:56*	*1*
13C4 PFBA	*99*		*50 - 150*	*09/28/20 07:26*	*09/30/20 05:56*	*1*
13C4 PFHpA	*96*		*50 - 150*	*09/28/20 07:26*	*09/30/20 05:56*	*1*
13C5 PFPeA	*120*		*50 - 150*	*09/28/20 07:26*	*09/30/20 05:56*	*1*

Client: ARCADIS U.S., Inc.
Project/Site: California Water Board

Job ID: 410-15093-1

Client Sample ID: Corona-dup-092420

Date Collected: 09/24/20 00:00
Date Received: 09/25/20 10:34

Lab Sample ID: 410-15093-9

Matrix: Water

Method: EPA 537 (Mod) - EPA 537 mod QSM 5.1, Table B-15 (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 PFOA	102		50 - 150	09/28/20 07:26	09/30/20 05:56	1
13C8 PFOS	93		50 - 150	09/28/20 07:26	09/30/20 05:56	1
13C8 FOSA	70		50 - 150	09/28/20 07:26	09/30/20 05:56	1
d3-NMeFOSAA	103		50 - 150	09/28/20 07:26	09/30/20 05:56	1
d5-NEtFOSAA	87		50 - 150	09/28/20 07:26	09/30/20 05:56	1
d7-N-MeFOSE-M	54		50 - 150	09/28/20 07:26	09/30/20 05:56	1
d9-N-EtFOSE-M	49	*5	50 - 150	09/28/20 07:26	09/30/20 05:56	1
d3-NMePFOSA	14	*5	50 - 150	09/28/20 07:26	09/30/20 05:56	1
13C2-PFDoDA	84		50 - 150	09/28/20 07:26	09/30/20 05:56	1
13C3 PFHxS	94		50 - 150	09/28/20 07:26	09/30/20 05:56	1
13C5 PFHxA	97		50 - 150	09/28/20 07:26	09/30/20 05:56	1
13C6 PFDA	82		50 - 150	09/28/20 07:26	09/30/20 05:56	1
13C7 PFUnA	90		50 - 150	09/28/20 07:26	09/30/20 05:56	1
13C9 PFNA	103		50 - 150	09/28/20 07:26	09/30/20 05:56	1
d5-NEtPFOSA	11	*5	50 - 150	09/28/20 07:26	09/30/20 05:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1000**	**B**	120	40	mg/L			09/29/20 12:04	1
Sulfate	**280**		10	1.7	mg/L			10/03/20 00:25	5
Chloride	**180**		2.5	1.4	mg/L			10/03/20 00:25	5

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Carbonate Alkalinity as CaCO3	ND		8.0	8.0	mg/L			09/25/20 21:44	1
Bicarbonate Alkalinity as CaCO3	**260**		8.0	8.0	mg/L			09/25/20 21:44	1
Total Alkalinity as CaCO3 to pH 4.5	**260**		8.0	8.0	mg/L			09/25/20 21:44	1
Phenolphthalein Alkalinity as CaCO3 to pH 8.3	ND		8.0	8.0	mg/L			09/25/20 21:44	1