

The data in this file provides drinking water results for both Cordova and Yakutat.

Please refer to the sample name to identify samples from each community.

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Sacramento

880 Riverside Parkway

West Sacramento, CA 95605

Tel: (916)373-5600

TestAmerica Job ID: 320-47461-1

Client Project/Site: PFAS, AK - Yakutat/Cordova

For:

Alaska Department of Env. Conservation

Post Office Box 1542

Haines, Alaska 99827

Attn: Anne Marie Palmieri

M. Elaine Walker

Authorized for release by:

2/25/2019 11:05:49 AM

Elaine Walker, Project Manager II

(253)248-4972

elaine.walker@testamericainc.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



Visit us at:

www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	4
Detection Summary	5
Client Sample Results	8
Surrogate Summary	19
QC Sample Results	20
QC Association Summary	24
Lab Chronicle	26
Certification Summary	30
Method Summary	31
Sample Summary	32
Chain of Custody	33
Receipt Checklists	35
Correspondence	36



Definitions/Glossary

Client: Alaska Department of Env. Conservation
Project/Site: PFAS, AK - Yakutat/Cordova

TestAmerica Job ID: 320-47461-1

Qualifiers

LCMS

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
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)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
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)

Case Narrative

Client: Alaska Department of Env. Conservation
Project/Site: PFAS, AK - Yakutat/Cordova

TestAmerica Job ID: 320-47461-1

Job ID: 320-47461-1

Laboratory: TestAmerica Sacramento

Narrative

Job Narrative 320-47461-1

Receipt

Twenty-two samples were received on 2/7/2019 9:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.0° C.

LCMS

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

Organic Prep

Method(s) 537 DW: The following samples were observed to be a yellow color after elution: YK-10 (320-47461-10), YK-11 (320-47461-11), YK-12 (320-47461-12), YK-13 (320-47461-13), CO-01 (320-47461-15) and CO-02 (320-47461-16).

Method(s) 537 DW: Sample CO-03 (320-47461-17) was centrifuged prior to extraction due to having sediment.

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

Detection Summary

Client: Alaska Department of Env. Conservation
Project/Site: PFAS, AK - Yakutat/Cordova

TestAmerica Job ID: 320-47461-1

Client Sample ID: YK-01

Lab Sample ID: 320-47461-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Perfluorooctanesulfonic acid (PFOS)	9.3		2.0	0.97	ng/L	1			537 DW	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	9.3		2.0	0.65	ng/L	1			537 DW	Total/NA
Perfluoroheptanoic acid (PFHpA)	2.4	J	3.1	1.3	ng/L	1			537 DW	Total/NA
Perfluorohexanoic acid	4.6		2.0	0.30	ng/L	1			537 DW	Total/NA

Client Sample ID: YK-02

Lab Sample ID: 320-47461-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Perfluorooctanesulfonic acid (PFOS)	1.7	J	2.1	0.99	ng/L	1			537 DW	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.96	J	2.1	0.67	ng/L	1			537 DW	Total/NA

Client Sample ID: YK-03

Lab Sample ID: 320-47461-3

No Detections.

Client Sample ID: YK-04

Lab Sample ID: 320-47461-4

No Detections.

Client Sample ID: YK-05

Lab Sample ID: 320-47461-5

No Detections.

Client Sample ID: YK-06

Lab Sample ID: 320-47461-6

No Detections.

Client Sample ID: YK-07

Lab Sample ID: 320-47461-7

No Detections.

Client Sample ID: YK-08

Lab Sample ID: 320-47461-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Perfluorooctanesulfonic acid (PFOS)	44		2.1	0.98	ng/L	1			537 DW	Total/NA
Perfluorooctanoic acid (PFOA)	4.1	J	6.2	2.8	ng/L	1			537 DW	Total/NA
Perfluorononanoic acid (PFNA)	0.76	J	2.1	0.49	ng/L	1			537 DW	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	36		2.1	0.66	ng/L	1			537 DW	Total/NA
Perfluoroheptanoic acid (PFHpA)	4.7		3.1	1.3	ng/L	1			537 DW	Total/NA
Perfluorobutanesulfonic acid (PFBS)	2.4		2.1	0.83	ng/L	1			537 DW	Total/NA
Perfluorohexanoic acid	13		2.1	0.30	ng/L	1			537 DW	Total/NA

Client Sample ID: YK-09

Lab Sample ID: 320-47461-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Perfluorooctanesulfonic acid (PFOS)	18		2.0	0.95	ng/L	1			537 DW	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	9.4		2.0	0.64	ng/L	1			537 DW	Total/NA
Perfluoroheptanoic acid (PFHpA)	2.0	J	3.0	1.3	ng/L	1			537 DW	Total/NA
Perfluorobutanesulfonic acid (PFBS)	1.4	J	2.0	0.80	ng/L	1			537 DW	Total/NA
Perfluorohexanoic acid	8.2		2.0	0.29	ng/L	1			537 DW	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Sacramento

Detection Summary

Client: Alaska Department of Env. Conservation
Project/Site: PFAS, AK - Yakutat/Cordova

TestAmerica Job ID: 320-47461-1

Client Sample ID: YK-10

Lab Sample ID: 320-47461-10

No Detections.

Client Sample ID: YK-11

Lab Sample ID: 320-47461-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Perfluorooctanesulfonic acid (PFOS)	11		2.0	0.96	ng/L	1			537 DW	Total/NA
Perfluorooctanoic acid (PFOA)	2.9	J	6.0	2.7	ng/L	1			537 DW	Total/NA
Perfluorononanoic acid (PFNA)	1.4	J	2.0	0.47	ng/L	1			537 DW	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	10		2.0	0.65	ng/L	1			537 DW	Total/NA
Perfluoroheptanoic acid (PFHpA)	1.6	J	3.0	1.3	ng/L	1			537 DW	Total/NA
Perfluorobutanesulfonic acid (PFBS)	1.1	J	2.0	0.81	ng/L	1			537 DW	Total/NA
Perfluorohexanoic acid	2.6		2.0	0.29	ng/L	1			537 DW	Total/NA

Client Sample ID: YK-12

Lab Sample ID: 320-47461-12

No Detections.

Client Sample ID: YK-13

Lab Sample ID: 320-47461-13

No Detections.

Client Sample ID: YK-14

Lab Sample ID: 320-47461-14

No Detections.

Client Sample ID: CO-01

Lab Sample ID: 320-47461-15

No Detections.

Client Sample ID: CO-02

Lab Sample ID: 320-47461-16

No Detections.

Client Sample ID: CO-03

Lab Sample ID: 320-47461-17

No Detections.

Client Sample ID: CO-04

Lab Sample ID: 320-47461-18

No Detections.

Client Sample ID: CO-05

Lab Sample ID: 320-47461-19

No Detections.

Client Sample ID: CO-06

Lab Sample ID: 320-47461-20

No Detections.

Client Sample ID: CO-07

Lab Sample ID: 320-47461-21

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Sacramento

Detection Summary

Client: Alaska Department of Env. Conservation
Project/Site: PFAS, AK - Yakutat/Cordova

TestAmerica Job ID: 320-47461-1

Client Sample ID: CO-08

Lab Sample ID: 320-47461-22

☐ No Detections.

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

This Detection Summary does not include radiochemical test results.

TestAmerica Sacramento

Client Sample Results

Client: Alaska Department of Env. Conservation
Project/Site: PFAS, AK - Yakutat/Cordova

TestAmerica Job ID: 320-47461-1

Client Sample ID: YK-01
Date Collected: 02/04/19 15:45
Date Received: 02/07/19 09:00

Lab Sample ID: 320-47461-1
Matrix: Water

Method: 537 DW - Perfluorinated Alkyl Acids (LC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	9.3		2.0	0.97	ng/L		02/15/19 07:52	02/19/19 14:06	1
Perfluorooctanoic acid (PFOA)	ND		6.1	2.8	ng/L		02/15/19 07:52	02/19/19 14:06	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.48	ng/L		02/15/19 07:52	02/19/19 14:06	1
Perfluorohexanesulfonic acid (PFHxS)	9.3		2.0	0.65	ng/L		02/15/19 07:52	02/19/19 14:06	1
Perfluoroheptanoic acid (PFHpA)	2.4 J		3.1	1.3	ng/L		02/15/19 07:52	02/19/19 14:06	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.82	ng/L		02/15/19 07:52	02/19/19 14:06	1
Perfluorodecanoic acid	ND		2.0	0.54	ng/L		02/15/19 07:52	02/19/19 14:06	1
Perfluorododecanoic acid	ND		2.0	0.84	ng/L		02/15/19 07:52	02/19/19 14:06	1
Perfluorohexanoic acid	4.6		2.0	0.30	ng/L		02/15/19 07:52	02/19/19 14:06	1
Perfluorotetradecanoic acid	ND		2.0	0.91	ng/L		02/15/19 07:52	02/19/19 14:06	1
Perfluorotridecanoic acid	ND		2.0	0.66	ng/L		02/15/19 07:52	02/19/19 14:06	1
Perfluoroundecanoic acid	ND		2.0	0.61	ng/L		02/15/19 07:52	02/19/19 14:06	1
N-ethylperfluorooctanesulfonamidoacetic acid	ND		2.0	0.52	ng/L		02/15/19 07:52	02/19/19 14:06	1
N-methylperfluorooctanesulfonamidoacetic acid	ND		3.1	1.1	ng/L		02/15/19 07:52	02/19/19 14:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C2 PFHxA	93		70 - 130				02/15/19 07:52	02/19/19 14:06	1
13C2 PFDA	103		70 - 130				02/15/19 07:52	02/19/19 14:06	1

Client Sample ID: YK-02
Date Collected: 02/04/19 15:55
Date Received: 02/07/19 09:00

Lab Sample ID: 320-47461-2
Matrix: Water

Method: 537 DW - Perfluorinated Alkyl Acids (LC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	1.7 J		2.1	0.99	ng/L		02/15/19 07:52	02/19/19 14:14	1
Perfluorooctanoic acid (PFOA)	ND		6.3	2.8	ng/L		02/15/19 07:52	02/19/19 14:14	1
Perfluorononanoic acid (PFNA)	ND		2.1	0.49	ng/L		02/15/19 07:52	02/19/19 14:14	1
Perfluorohexanesulfonic acid (PFHxS)	0.96 J		2.1	0.67	ng/L		02/15/19 07:52	02/19/19 14:14	1
Perfluoroheptanoic acid (PFHpA)	ND		3.1	1.4	ng/L		02/15/19 07:52	02/19/19 14:14	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.1	0.83	ng/L		02/15/19 07:52	02/19/19 14:14	1
Perfluorodecanoic acid	ND		2.1	0.55	ng/L		02/15/19 07:52	02/19/19 14:14	1
Perfluorododecanoic acid	ND		2.1	0.86	ng/L		02/15/19 07:52	02/19/19 14:14	1
Perfluorohexanoic acid	ND		2.1	0.30	ng/L		02/15/19 07:52	02/19/19 14:14	1
Perfluorotetradecanoic acid	ND		2.1	0.93	ng/L		02/15/19 07:52	02/19/19 14:14	1
Perfluorotridecanoic acid	ND		2.1	0.68	ng/L		02/15/19 07:52	02/19/19 14:14	1
Perfluoroundecanoic acid	ND		2.1	0.63	ng/L		02/15/19 07:52	02/19/19 14:14	1
N-ethylperfluorooctanesulfonamidoacetic acid	ND		2.1	0.53	ng/L		02/15/19 07:52	02/19/19 14:14	1
N-methylperfluorooctanesulfonamidoacetic acid	ND		3.1	1.1	ng/L		02/15/19 07:52	02/19/19 14:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C2 PFHxA	104		70 - 130				02/15/19 07:52	02/19/19 14:14	1
13C2 PFDA	104		70 - 130				02/15/19 07:52	02/19/19 14:14	1

TestAmerica Sacramento

Client Sample Results

Client: Alaska Department of Env. Conservation
Project/Site: PFAS, AK - Yakutat/Cordova

TestAmerica Job ID: 320-47461-1

Client Sample ID: YK-03
Date Collected: 02/04/19 16:05
Date Received: 02/07/19 09:00

Lab Sample ID: 320-47461-3
Matrix: Water

Method: 537 DW - Perfluorinated Alkyl Acids (LC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	0.93	ng/L		02/15/19 07:52	02/19/19 14:21	1
Perfluorooctanoic acid (PFOA)	ND		5.9	2.7	ng/L		02/15/19 07:52	02/19/19 14:21	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.46	ng/L		02/15/19 07:52	02/19/19 14:21	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	0.63	ng/L		02/15/19 07:52	02/19/19 14:21	1
Perfluoroheptanoic acid (PFHpA)	ND		2.9	1.3	ng/L		02/15/19 07:52	02/19/19 14:21	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.79	ng/L		02/15/19 07:52	02/19/19 14:21	1
Perfluorodecanoic acid	ND		2.0	0.52	ng/L		02/15/19 07:52	02/19/19 14:21	1
Perfluorododecanoic acid	ND		2.0	0.81	ng/L		02/15/19 07:52	02/19/19 14:21	1
Perfluorohexanoic acid	ND		2.0	0.29	ng/L		02/15/19 07:52	02/19/19 14:21	1
Perfluorotetradecanoic acid	ND		2.0	0.87	ng/L		02/15/19 07:52	02/19/19 14:21	1
Perfluorotridecanoic acid	ND		2.0	0.64	ng/L		02/15/19 07:52	02/19/19 14:21	1
Perfluoroundecanoic acid	ND		2.0	0.59	ng/L		02/15/19 07:52	02/19/19 14:21	1
N-ethylperfluorooctanesulfonamidoacetic acid	ND		2.0	0.50	ng/L		02/15/19 07:52	02/19/19 14:21	1
N-methylperfluorooctanesulfonamidoacetic acid	ND		2.9	1.1	ng/L		02/15/19 07:52	02/19/19 14:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C2 PFHxA	101		70 - 130				02/15/19 07:52	02/19/19 14:21	1
13C2 PFDA	98		70 - 130				02/15/19 07:52	02/19/19 14:21	1

Client Sample ID: YK-04
Date Collected: 02/04/19 16:20
Date Received: 02/07/19 09:00

Lab Sample ID: 320-47461-4
Matrix: Water

Method: 537 DW - Perfluorinated Alkyl Acids (LC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	ND		2.1	0.98	ng/L		02/15/19 07:52	02/19/19 14:29	1
Perfluorooctanoic acid (PFOA)	ND		6.2	2.8	ng/L		02/15/19 07:52	02/19/19 14:29	1
Perfluorononanoic acid (PFNA)	ND		2.1	0.49	ng/L		02/15/19 07:52	02/19/19 14:29	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.1	0.66	ng/L		02/15/19 07:52	02/19/19 14:29	1
Perfluoroheptanoic acid (PFHpA)	ND		3.1	1.3	ng/L		02/15/19 07:52	02/19/19 14:29	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.1	0.83	ng/L		02/15/19 07:52	02/19/19 14:29	1
Perfluorodecanoic acid	ND		2.1	0.55	ng/L		02/15/19 07:52	02/19/19 14:29	1
Perfluorododecanoic acid	ND		2.1	0.85	ng/L		02/15/19 07:52	02/19/19 14:29	1
Perfluorohexanoic acid	ND		2.1	0.30	ng/L		02/15/19 07:52	02/19/19 14:29	1
Perfluorotetradecanoic acid	ND		2.1	0.92	ng/L		02/15/19 07:52	02/19/19 14:29	1
Perfluorotridecanoic acid	ND		2.1	0.67	ng/L		02/15/19 07:52	02/19/19 14:29	1
Perfluoroundecanoic acid	ND		2.1	0.62	ng/L		02/15/19 07:52	02/19/19 14:29	1
N-ethylperfluorooctanesulfonamidoacetic acid	ND		2.1	0.53	ng/L		02/15/19 07:52	02/19/19 14:29	1
N-methylperfluorooctanesulfonamidoacetic acid	ND		3.1	1.1	ng/L		02/15/19 07:52	02/19/19 14:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C2 PFHxA	105		70 - 130				02/15/19 07:52	02/19/19 14:29	1
13C2 PFDA	101		70 - 130				02/15/19 07:52	02/19/19 14:29	1

TestAmerica Sacramento

Client Sample Results

Client: Alaska Department of Env. Conservation
Project/Site: PFAS, AK - Yakutat/Cordova

TestAmerica Job ID: 320-47461-1

Client Sample ID: YK-05
Date Collected: 02/04/19 16:30
Date Received: 02/07/19 09:00

Lab Sample ID: 320-47461-5
Matrix: Water

Method: 537 DW - Perfluorinated Alkyl Acids (LC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	ND		2.1	0.98	ng/L		02/15/19 07:52	02/19/19 14:36	1
Perfluorooctanoic acid (PFOA)	ND		6.2	2.8	ng/L		02/15/19 07:52	02/19/19 14:36	1
Perfluorononanoic acid (PFNA)	ND		2.1	0.48	ng/L		02/15/19 07:52	02/19/19 14:36	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.1	0.66	ng/L		02/15/19 07:52	02/19/19 14:36	1
Perfluoroheptanoic acid (PFHpA)	ND		3.1	1.3	ng/L		02/15/19 07:52	02/19/19 14:36	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.1	0.82	ng/L		02/15/19 07:52	02/19/19 14:36	1
Perfluorodecanoic acid	ND		2.1	0.55	ng/L		02/15/19 07:52	02/19/19 14:36	1
Perfluorododecanoic acid	ND		2.1	0.85	ng/L		02/15/19 07:52	02/19/19 14:36	1
Perfluorohexanoic acid	ND		2.1	0.30	ng/L		02/15/19 07:52	02/19/19 14:36	1
Perfluorotetradecanoic acid	ND		2.1	0.92	ng/L		02/15/19 07:52	02/19/19 14:36	1
Perfluorotridecanoic acid	ND		2.1	0.67	ng/L		02/15/19 07:52	02/19/19 14:36	1
Perfluoroundecanoic acid	ND		2.1	0.62	ng/L		02/15/19 07:52	02/19/19 14:36	1
N-ethylperfluorooctanesulfonamidoacetic acid	ND		2.1	0.53	ng/L		02/15/19 07:52	02/19/19 14:36	1
N-methylperfluorooctanesulfonamidoacetic acid	ND		3.1	1.1	ng/L		02/15/19 07:52	02/19/19 14:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C2 PFHxA	100		70 - 130				02/15/19 07:52	02/19/19 14:36	1
13C2 PFDA	97		70 - 130				02/15/19 07:52	02/19/19 14:36	1

Client Sample ID: YK-06
Date Collected: 02/04/19 16:45
Date Received: 02/07/19 09:00

Lab Sample ID: 320-47461-6
Matrix: Water

Method: 537 DW - Perfluorinated Alkyl Acids (LC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	0.96	ng/L		02/15/19 07:52	02/19/19 14:44	1
Perfluorooctanoic acid (PFOA)	ND		6.1	2.7	ng/L		02/15/19 07:52	02/19/19 14:44	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.48	ng/L		02/15/19 07:52	02/19/19 14:44	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	0.65	ng/L		02/15/19 07:52	02/19/19 14:44	1
Perfluoroheptanoic acid (PFHpA)	ND		3.0	1.3	ng/L		02/15/19 07:52	02/19/19 14:44	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.81	ng/L		02/15/19 07:52	02/19/19 14:44	1
Perfluorodecanoic acid	ND		2.0	0.54	ng/L		02/15/19 07:52	02/19/19 14:44	1
Perfluorododecanoic acid	ND		2.0	0.83	ng/L		02/15/19 07:52	02/19/19 14:44	1
Perfluorohexanoic acid	ND		2.0	0.29	ng/L		02/15/19 07:52	02/19/19 14:44	1
Perfluorotetradecanoic acid	ND		2.0	0.90	ng/L		02/15/19 07:52	02/19/19 14:44	1
Perfluorotridecanoic acid	ND		2.0	0.66	ng/L		02/15/19 07:52	02/19/19 14:44	1
Perfluoroundecanoic acid	ND		2.0	0.61	ng/L		02/15/19 07:52	02/19/19 14:44	1
N-ethylperfluorooctanesulfonamidoacetic acid	ND		2.0	0.52	ng/L		02/15/19 07:52	02/19/19 14:44	1
N-methylperfluorooctanesulfonamidoacetic acid	ND		3.0	1.1	ng/L		02/15/19 07:52	02/19/19 14:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C2 PFHxA	102		70 - 130				02/15/19 07:52	02/19/19 14:44	1
13C2 PFDA	101		70 - 130				02/15/19 07:52	02/19/19 14:44	1

TestAmerica Sacramento

Client Sample Results

Client: Alaska Department of Env. Conservation
Project/Site: PFAS, AK - Yakutat/Cordova

TestAmerica Job ID: 320-47461-1

Client Sample ID: YK-07
Date Collected: 02/04/19 17:00
Date Received: 02/07/19 09:00

Lab Sample ID: 320-47461-7
Matrix: Water

Method: 537 DW - Perfluorinated Alkyl Acids (LC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	ND		2.1	1.0	ng/L		02/15/19 07:52	02/19/19 14:51	1
Perfluorooctanoic acid (PFOA)	ND		6.4	2.9	ng/L		02/15/19 07:52	02/19/19 14:51	1
Perfluorononanoic acid (PFNA)	ND		2.1	0.50	ng/L		02/15/19 07:52	02/19/19 14:51	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.1	0.68	ng/L		02/15/19 07:52	02/19/19 14:51	1
Perfluoroheptanoic acid (PFHpA)	ND		3.2	1.4	ng/L		02/15/19 07:52	02/19/19 14:51	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.1	0.85	ng/L		02/15/19 07:52	02/19/19 14:51	1
Perfluorodecanoic acid	ND		2.1	0.56	ng/L		02/15/19 07:52	02/19/19 14:51	1
Perfluorododecanoic acid	ND		2.1	0.87	ng/L		02/15/19 07:52	02/19/19 14:51	1
Perfluorohexanoic acid	ND		2.1	0.31	ng/L		02/15/19 07:52	02/19/19 14:51	1
Perfluorotetradecanoic acid	ND		2.1	0.94	ng/L		02/15/19 07:52	02/19/19 14:51	1
Perfluorotridecanoic acid	ND		2.1	0.69	ng/L		02/15/19 07:52	02/19/19 14:51	1
Perfluoroundecanoic acid	ND		2.1	0.64	ng/L		02/15/19 07:52	02/19/19 14:51	1
N-ethylperfluorooctanesulfonamidoacetic acid	ND		2.1	0.54	ng/L		02/15/19 07:52	02/19/19 14:51	1
N-methylperfluorooctanesulfonamidoacetic acid	ND		3.2	1.2	ng/L		02/15/19 07:52	02/19/19 14:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C2 PFHxA	99		70 - 130				02/15/19 07:52	02/19/19 14:51	1
13C2 PFDA	103		70 - 130				02/15/19 07:52	02/19/19 14:51	1

Client Sample ID: YK-08
Date Collected: 02/04/19 17:25
Date Received: 02/07/19 09:00

Lab Sample ID: 320-47461-8
Matrix: Water

Method: 537 DW - Perfluorinated Alkyl Acids (LC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	44		2.1	0.98	ng/L		02/15/19 07:52	02/19/19 15:14	1
Perfluorooctanoic acid (PFOA)	4.1	J	6.2	2.8	ng/L		02/15/19 07:52	02/19/19 15:14	1
Perfluorononanoic acid (PFNA)	0.76	J	2.1	0.49	ng/L		02/15/19 07:52	02/19/19 15:14	1
Perfluorohexanesulfonic acid (PFHxS)	36		2.1	0.66	ng/L		02/15/19 07:52	02/19/19 15:14	1
Perfluoroheptanoic acid (PFHpA)	4.7		3.1	1.3	ng/L		02/15/19 07:52	02/19/19 15:14	1
Perfluorobutanesulfonic acid (PFBS)	2.4		2.1	0.83	ng/L		02/15/19 07:52	02/19/19 15:14	1
Perfluorodecanoic acid	ND		2.1	0.55	ng/L		02/15/19 07:52	02/19/19 15:14	1
Perfluorododecanoic acid	ND		2.1	0.85	ng/L		02/15/19 07:52	02/19/19 15:14	1
Perfluorohexanoic acid	13		2.1	0.30	ng/L		02/15/19 07:52	02/19/19 15:14	1
Perfluorotetradecanoic acid	ND		2.1	0.92	ng/L		02/15/19 07:52	02/19/19 15:14	1
Perfluorotridecanoic acid	ND		2.1	0.67	ng/L		02/15/19 07:52	02/19/19 15:14	1
Perfluoroundecanoic acid	ND		2.1	0.62	ng/L		02/15/19 07:52	02/19/19 15:14	1
N-ethylperfluorooctanesulfonamidoacetic acid	ND		2.1	0.53	ng/L		02/15/19 07:52	02/19/19 15:14	1
N-methylperfluorooctanesulfonamidoacetic acid	ND		3.1	1.1	ng/L		02/15/19 07:52	02/19/19 15:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C2 PFHxA	104		70 - 130				02/15/19 07:52	02/19/19 15:14	1
13C2 PFDA	94		70 - 130				02/15/19 07:52	02/19/19 15:14	1

TestAmerica Sacramento

Client Sample Results

Client: Alaska Department of Env. Conservation
Project/Site: PFAS, AK - Yakutat/Cordova

TestAmerica Job ID: 320-47461-1

Client Sample ID: YK-09
Date Collected: 02/04/19 17:30
Date Received: 02/07/19 09:00

Lab Sample ID: 320-47461-9
Matrix: Water

Method: 537 DW - Perfluorinated Alkyl Acids (LC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	18		2.0	0.95	ng/L		02/15/19 07:52	02/19/19 15:21	1
Perfluorooctanoic acid (PFOA)	ND		6.0	2.7	ng/L		02/15/19 07:52	02/19/19 15:21	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.47	ng/L		02/15/19 07:52	02/19/19 15:21	1
Perfluorohexanesulfonic acid (PFHxS)	9.4		2.0	0.64	ng/L		02/15/19 07:52	02/19/19 15:21	1
Perfluoroheptanoic acid (PFHpA)	2.0 J		3.0	1.3	ng/L		02/15/19 07:52	02/19/19 15:21	1
Perfluorobutanesulfonic acid (PFBS)	1.4 J		2.0	0.80	ng/L		02/15/19 07:52	02/19/19 15:21	1
Perfluorodecanoic acid	ND		2.0	0.53	ng/L		02/15/19 07:52	02/19/19 15:21	1
Perfluorododecanoic acid	ND		2.0	0.82	ng/L		02/15/19 07:52	02/19/19 15:21	1
Perfluorohexanoic acid	8.2		2.0	0.29	ng/L		02/15/19 07:52	02/19/19 15:21	1
Perfluorotetradecanoic acid	ND		2.0	0.89	ng/L		02/15/19 07:52	02/19/19 15:21	1
Perfluorotridecanoic acid	ND		2.0	0.65	ng/L		02/15/19 07:52	02/19/19 15:21	1
Perfluoroundecanoic acid	ND		2.0	0.60	ng/L		02/15/19 07:52	02/19/19 15:21	1
N-ethylperfluorooctanesulfonamidoacetic acid	ND		2.0	0.51	ng/L		02/15/19 07:52	02/19/19 15:21	1
N-methylperfluorooctanesulfonamidoacetic acid	ND		3.0	1.1	ng/L		02/15/19 07:52	02/19/19 15:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C2 PFHxA	103		70 - 130				02/15/19 07:52	02/19/19 15:21	1
13C2 PFDA	102		70 - 130				02/15/19 07:52	02/19/19 15:21	1

Client Sample ID: YK-10
Date Collected: 02/05/19 09:45
Date Received: 02/07/19 09:00

Lab Sample ID: 320-47461-10
Matrix: Water

Method: 537 DW - Perfluorinated Alkyl Acids (LC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	0.97	ng/L		02/19/19 08:33	02/20/19 19:40	1
Perfluorooctanoic acid (PFOA)	ND		6.1	2.8	ng/L		02/19/19 08:33	02/20/19 19:40	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.48	ng/L		02/19/19 08:33	02/20/19 19:40	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	0.65	ng/L		02/19/19 08:33	02/20/19 19:40	1
Perfluoroheptanoic acid (PFHpA)	ND		3.1	1.3	ng/L		02/19/19 08:33	02/20/19 19:40	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.82	ng/L		02/19/19 08:33	02/20/19 19:40	1
Perfluorodecanoic acid	ND		2.0	0.54	ng/L		02/19/19 08:33	02/20/19 19:40	1
Perfluorododecanoic acid	ND		2.0	0.84	ng/L		02/19/19 08:33	02/20/19 19:40	1
Perfluorohexanoic acid	ND		2.0	0.30	ng/L		02/19/19 08:33	02/20/19 19:40	1
Perfluorotetradecanoic acid	ND		2.0	0.91	ng/L		02/19/19 08:33	02/20/19 19:40	1
Perfluorotridecanoic acid	ND		2.0	0.66	ng/L		02/19/19 08:33	02/20/19 19:40	1
Perfluoroundecanoic acid	ND		2.0	0.61	ng/L		02/19/19 08:33	02/20/19 19:40	1
N-ethylperfluorooctanesulfonamidoacetic acid	ND		2.0	0.52	ng/L		02/19/19 08:33	02/20/19 19:40	1
N-methylperfluorooctanesulfonamidoacetic acid	ND		3.1	1.1	ng/L		02/19/19 08:33	02/20/19 19:40	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C2 PFHxA	96		70 - 130				02/19/19 08:33	02/20/19 19:40	1
13C2 PFDA	89		70 - 130				02/19/19 08:33	02/20/19 19:40	1

TestAmerica Sacramento

Client Sample Results

Client: Alaska Department of Env. Conservation
Project/Site: PFAS, AK - Yakutat/Cordova

TestAmerica Job ID: 320-47461-1

Client Sample ID: YK-11
Date Collected: 02/05/19 10:00
Date Received: 02/07/19 09:00

Lab Sample ID: 320-47461-11
Matrix: Water

Method: 537 DW - Perfluorinated Alkyl Acids (LC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	11		2.0	0.96	ng/L		02/19/19 08:33	02/20/19 19:47	1
Perfluorooctanoic acid (PFOA)	2.9	J	6.0	2.7	ng/L		02/19/19 08:33	02/20/19 19:47	1
Perfluorononanoic acid (PFNA)	1.4	J	2.0	0.47	ng/L		02/19/19 08:33	02/20/19 19:47	1
Perfluorohexanesulfonic acid (PFHxS)	10		2.0	0.65	ng/L		02/19/19 08:33	02/20/19 19:47	1
Perfluoroheptanoic acid (PFHpA)	1.6	J	3.0	1.3	ng/L		02/19/19 08:33	02/20/19 19:47	1
Perfluorobutanesulfonic acid (PFBS)	1.1	J	2.0	0.81	ng/L		02/19/19 08:33	02/20/19 19:47	1
Perfluorodecanoic acid	ND		2.0	0.53	ng/L		02/19/19 08:33	02/20/19 19:47	1
Perfluorododecanoic acid	ND		2.0	0.83	ng/L		02/19/19 08:33	02/20/19 19:47	1
Perfluorohexanoic acid	2.6		2.0	0.29	ng/L		02/19/19 08:33	02/20/19 19:47	1
Perfluorotetradecanoic acid	ND		2.0	0.90	ng/L		02/19/19 08:33	02/20/19 19:47	1
Perfluorotridecanoic acid	ND		2.0	0.66	ng/L		02/19/19 08:33	02/20/19 19:47	1
Perfluoroundecanoic acid	ND		2.0	0.60	ng/L		02/19/19 08:33	02/20/19 19:47	1
N-ethylperfluorooctanesulfonamidoacetic acid	ND		2.0	0.51	ng/L		02/19/19 08:33	02/20/19 19:47	1
N-methylperfluorooctanesulfonamidoacetic acid	ND		3.0	1.1	ng/L		02/19/19 08:33	02/20/19 19:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C2 PFHxA	99		70 - 130				02/19/19 08:33	02/20/19 19:47	1
13C2 PFDA	94		70 - 130				02/19/19 08:33	02/20/19 19:47	1

Client Sample ID: YK-12
Date Collected: 02/05/19 11:00
Date Received: 02/07/19 09:00

Lab Sample ID: 320-47461-12
Matrix: Water

Method: 537 DW - Perfluorinated Alkyl Acids (LC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	0.93	ng/L		02/19/19 08:33	02/20/19 19:55	1
Perfluorooctanoic acid (PFOA)	ND		5.9	2.6	ng/L		02/19/19 08:33	02/20/19 19:55	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.46	ng/L		02/19/19 08:33	02/20/19 19:55	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	0.62	ng/L		02/19/19 08:33	02/20/19 19:55	1
Perfluoroheptanoic acid (PFHpA)	ND		2.9	1.3	ng/L		02/19/19 08:33	02/20/19 19:55	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.78	ng/L		02/19/19 08:33	02/20/19 19:55	1
Perfluorodecanoic acid	ND		2.0	0.52	ng/L		02/19/19 08:33	02/20/19 19:55	1
Perfluorododecanoic acid	ND		2.0	0.80	ng/L		02/19/19 08:33	02/20/19 19:55	1
Perfluorohexanoic acid	ND		2.0	0.28	ng/L		02/19/19 08:33	02/20/19 19:55	1
Perfluorotetradecanoic acid	ND		2.0	0.87	ng/L		02/19/19 08:33	02/20/19 19:55	1
Perfluorotridecanoic acid	ND		2.0	0.63	ng/L		02/19/19 08:33	02/20/19 19:55	1
Perfluoroundecanoic acid	ND		2.0	0.59	ng/L		02/19/19 08:33	02/20/19 19:55	1
N-ethylperfluorooctanesulfonamidoacetic acid	ND		2.0	0.50	ng/L		02/19/19 08:33	02/20/19 19:55	1
N-methylperfluorooctanesulfonamidoacetic acid	ND		2.9	1.1	ng/L		02/19/19 08:33	02/20/19 19:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C2 PFHxA	81		70 - 130				02/19/19 08:33	02/20/19 19:55	1
13C2 PFDA	92		70 - 130				02/19/19 08:33	02/20/19 19:55	1

TestAmerica Sacramento

Client Sample Results

Client: Alaska Department of Env. Conservation
Project/Site: PFAS, AK - Yakutat/Cordova

TestAmerica Job ID: 320-47461-1

Client Sample ID: YK-13
Date Collected: 02/05/19 11:00
Date Received: 02/07/19 09:00

Lab Sample ID: 320-47461-13
Matrix: Water

Method: 537 DW - Perfluorinated Alkyl Acids (LC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	0.97	ng/L		02/19/19 08:33	02/20/19 20:02	1
Perfluorooctanoic acid (PFOA)	ND		6.1	2.8	ng/L		02/19/19 08:33	02/20/19 20:02	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.48	ng/L		02/19/19 08:33	02/20/19 20:02	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	0.65	ng/L		02/19/19 08:33	02/20/19 20:02	1
Perfluoroheptanoic acid (PFHpA)	ND		3.1	1.3	ng/L		02/19/19 08:33	02/20/19 20:02	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.82	ng/L		02/19/19 08:33	02/20/19 20:02	1
Perfluorodecanoic acid	ND		2.0	0.54	ng/L		02/19/19 08:33	02/20/19 20:02	1
Perfluorododecanoic acid	ND		2.0	0.84	ng/L		02/19/19 08:33	02/20/19 20:02	1
Perfluorohexanoic acid	ND		2.0	0.30	ng/L		02/19/19 08:33	02/20/19 20:02	1
Perfluorotetradecanoic acid	ND		2.0	0.91	ng/L		02/19/19 08:33	02/20/19 20:02	1
Perfluorotridecanoic acid	ND		2.0	0.66	ng/L		02/19/19 08:33	02/20/19 20:02	1
Perfluoroundecanoic acid	ND		2.0	0.61	ng/L		02/19/19 08:33	02/20/19 20:02	1
N-ethylperfluorooctanesulfonamidoacetic acid	ND		2.0	0.52	ng/L		02/19/19 08:33	02/20/19 20:02	1
N-methylperfluorooctanesulfonamidoacetic acid	ND		3.1	1.1	ng/L		02/19/19 08:33	02/20/19 20:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C2 PFHxA	85		70 - 130				02/19/19 08:33	02/20/19 20:02	1
13C2 PFDA	93		70 - 130				02/19/19 08:33	02/20/19 20:02	1

Client Sample ID: YK-14
Date Collected: 02/05/19 10:45
Date Received: 02/07/19 09:00

Lab Sample ID: 320-47461-14
Matrix: Water

Method: 537 DW - Perfluorinated Alkyl Acids (LC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	0.93	ng/L		02/19/19 08:33	02/20/19 20:10	1
Perfluorooctanoic acid (PFOA)	ND		5.9	2.7	ng/L		02/19/19 08:33	02/20/19 20:10	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.46	ng/L		02/19/19 08:33	02/20/19 20:10	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	0.63	ng/L		02/19/19 08:33	02/20/19 20:10	1
Perfluoroheptanoic acid (PFHpA)	ND		2.9	1.3	ng/L		02/19/19 08:33	02/20/19 20:10	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.79	ng/L		02/19/19 08:33	02/20/19 20:10	1
Perfluorodecanoic acid	ND		2.0	0.52	ng/L		02/19/19 08:33	02/20/19 20:10	1
Perfluorododecanoic acid	ND		2.0	0.81	ng/L		02/19/19 08:33	02/20/19 20:10	1
Perfluorohexanoic acid	ND		2.0	0.28	ng/L		02/19/19 08:33	02/20/19 20:10	1
Perfluorotetradecanoic acid	ND		2.0	0.87	ng/L		02/19/19 08:33	02/20/19 20:10	1
Perfluorotridecanoic acid	ND		2.0	0.64	ng/L		02/19/19 08:33	02/20/19 20:10	1
Perfluoroundecanoic acid	ND		2.0	0.59	ng/L		02/19/19 08:33	02/20/19 20:10	1
N-ethylperfluorooctanesulfonamidoacetic acid	ND		2.0	0.50	ng/L		02/19/19 08:33	02/20/19 20:10	1
N-methylperfluorooctanesulfonamidoacetic acid	ND		2.9	1.1	ng/L		02/19/19 08:33	02/20/19 20:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C2 PFHxA	77		70 - 130				02/19/19 08:33	02/20/19 20:10	1
13C2 PFDA	97		70 - 130				02/19/19 08:33	02/20/19 20:10	1

TestAmerica Sacramento

Client Sample Results

Client: Alaska Department of Env. Conservation
Project/Site: PFAS, AK - Yakutat/Cordova

TestAmerica Job ID: 320-47461-1

Client Sample ID: CO-01
Date Collected: 02/05/19 13:50
Date Received: 02/07/19 09:00

Lab Sample ID: 320-47461-15
Matrix: Water

Method: 537 DW - Perfluorinated Alkyl Acids (LC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	ND		1.8	0.87	ng/L		02/19/19 08:33	02/20/19 20:17	1
Perfluorooctanoic acid (PFOA)	ND		5.5	2.5	ng/L		02/19/19 08:33	02/20/19 20:17	1
Perfluorononanoic acid (PFNA)	ND		1.8	0.43	ng/L		02/19/19 08:33	02/20/19 20:17	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.8	0.58	ng/L		02/19/19 08:33	02/20/19 20:17	1
Perfluoroheptanoic acid (PFHpA)	ND		2.7	1.2	ng/L		02/19/19 08:33	02/20/19 20:17	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.8	0.73	ng/L		02/19/19 08:33	02/20/19 20:17	1
Perfluorodecanoic acid	ND		1.8	0.48	ng/L		02/19/19 08:33	02/20/19 20:17	1
Perfluorododecanoic acid	ND		1.8	0.75	ng/L		02/19/19 08:33	02/20/19 20:17	1
Perfluorohexanoic acid	ND		1.8	0.26	ng/L		02/19/19 08:33	02/20/19 20:17	1
Perfluorotetradecanoic acid	ND		1.8	0.81	ng/L		02/19/19 08:33	02/20/19 20:17	1
Perfluorotridecanoic acid	ND		1.8	0.59	ng/L		02/19/19 08:33	02/20/19 20:17	1
Perfluoroundecanoic acid	ND		1.8	0.55	ng/L		02/19/19 08:33	02/20/19 20:17	1
N-ethylperfluorooctanesulfonamidoacetic acid	ND		1.8	0.47	ng/L		02/19/19 08:33	02/20/19 20:17	1
N-methylperfluorooctanesulfonamidoacetic acid	ND		2.7	1.0	ng/L		02/19/19 08:33	02/20/19 20:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C2 PFHxA	95		70 - 130				02/19/19 08:33	02/20/19 20:17	1
13C2 PFDA	86		70 - 130				02/19/19 08:33	02/20/19 20:17	1

Client Sample ID: CO-02
Date Collected: 02/05/19 13:50
Date Received: 02/07/19 09:00

Lab Sample ID: 320-47461-16
Matrix: Water

Method: 537 DW - Perfluorinated Alkyl Acids (LC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	ND		2.1	1.0	ng/L		02/19/19 08:33	02/20/19 20:25	1
Perfluorooctanoic acid (PFOA)	ND		6.4	2.9	ng/L		02/19/19 08:33	02/20/19 20:25	1
Perfluorononanoic acid (PFNA)	ND		2.1	0.50	ng/L		02/19/19 08:33	02/20/19 20:25	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.1	0.68	ng/L		02/19/19 08:33	02/20/19 20:25	1
Perfluoroheptanoic acid (PFHpA)	ND		3.2	1.4	ng/L		02/19/19 08:33	02/20/19 20:25	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.1	0.85	ng/L		02/19/19 08:33	02/20/19 20:25	1
Perfluorodecanoic acid	ND		2.1	0.56	ng/L		02/19/19 08:33	02/20/19 20:25	1
Perfluorododecanoic acid	ND		2.1	0.87	ng/L		02/19/19 08:33	02/20/19 20:25	1
Perfluorohexanoic acid	ND		2.1	0.31	ng/L		02/19/19 08:33	02/20/19 20:25	1
Perfluorotetradecanoic acid	ND		2.1	0.94	ng/L		02/19/19 08:33	02/20/19 20:25	1
Perfluorotridecanoic acid	ND		2.1	0.69	ng/L		02/19/19 08:33	02/20/19 20:25	1
Perfluoroundecanoic acid	ND		2.1	0.64	ng/L		02/19/19 08:33	02/20/19 20:25	1
N-ethylperfluorooctanesulfonamidoacetic acid	ND		2.1	0.54	ng/L		02/19/19 08:33	02/20/19 20:25	1
N-methylperfluorooctanesulfonamidoacetic acid	ND		3.2	1.2	ng/L		02/19/19 08:33	02/20/19 20:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C2 PFHxA	95		70 - 130				02/19/19 08:33	02/20/19 20:25	1
13C2 PFDA	93		70 - 130				02/19/19 08:33	02/20/19 20:25	1

TestAmerica Sacramento

Client Sample Results

Client: Alaska Department of Env. Conservation
Project/Site: PFAS, AK - Yakutat/Cordova

TestAmerica Job ID: 320-47461-1

Client Sample ID: CO-03

Date Collected: 02/05/19 14:10

Date Received: 02/07/19 09:00

Lab Sample ID: 320-47461-17

Matrix: Water

Method: 537 DW - Perfluorinated Alkyl Acids (LC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	ND		2.1	0.99	ng/L		02/19/19 08:33	02/20/19 20:47	1
Perfluorooctanoic acid (PFOA)	ND		6.3	2.8	ng/L		02/19/19 08:33	02/20/19 20:47	1
Perfluorononanoic acid (PFNA)	ND		2.1	0.49	ng/L		02/19/19 08:33	02/20/19 20:47	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.1	0.67	ng/L		02/19/19 08:33	02/20/19 20:47	1
Perfluoroheptanoic acid (PFHpA)	ND		3.1	1.4	ng/L		02/19/19 08:33	02/20/19 20:47	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.1	0.84	ng/L		02/19/19 08:33	02/20/19 20:47	1
Perfluorodecanoic acid	ND		2.1	0.55	ng/L		02/19/19 08:33	02/20/19 20:47	1
Perfluorododecanoic acid	ND		2.1	0.86	ng/L		02/19/19 08:33	02/20/19 20:47	1
Perfluorohexanoic acid	ND		2.1	0.30	ng/L		02/19/19 08:33	02/20/19 20:47	1
Perfluorotetradecanoic acid	ND		2.1	0.93	ng/L		02/19/19 08:33	02/20/19 20:47	1
Perfluorotridecanoic acid	ND		2.1	0.68	ng/L		02/19/19 08:33	02/20/19 20:47	1
Perfluoroundecanoic acid	ND		2.1	0.63	ng/L		02/19/19 08:33	02/20/19 20:47	1
N-ethylperfluorooctanesulfonamidoacetic acid	ND		2.1	0.53	ng/L		02/19/19 08:33	02/20/19 20:47	1
N-methylperfluorooctanesulfonamidoacetic acid	ND		3.1	1.2	ng/L		02/19/19 08:33	02/20/19 20:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C2 PFHxA	96		70 - 130				02/19/19 08:33	02/20/19 20:47	1
13C2 PFDA	90		70 - 130				02/19/19 08:33	02/20/19 20:47	1

Client Sample ID: CO-04

Date Collected: 02/05/19 14:20

Date Received: 02/07/19 09:00

Lab Sample ID: 320-47461-18

Matrix: Water

Method: 537 DW - Perfluorinated Alkyl Acids (LC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	ND		2.1	0.98	ng/L		02/19/19 08:33	02/20/19 20:55	1
Perfluorooctanoic acid (PFOA)	ND		6.2	2.8	ng/L		02/19/19 08:33	02/20/19 20:55	1
Perfluorononanoic acid (PFNA)	ND		2.1	0.48	ng/L		02/19/19 08:33	02/20/19 20:55	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.1	0.66	ng/L		02/19/19 08:33	02/20/19 20:55	1
Perfluoroheptanoic acid (PFHpA)	ND		3.1	1.3	ng/L		02/19/19 08:33	02/20/19 20:55	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.1	0.82	ng/L		02/19/19 08:33	02/20/19 20:55	1
Perfluorodecanoic acid	ND		2.1	0.55	ng/L		02/19/19 08:33	02/20/19 20:55	1
Perfluorododecanoic acid	ND		2.1	0.84	ng/L		02/19/19 08:33	02/20/19 20:55	1
Perfluorohexanoic acid	ND		2.1	0.30	ng/L		02/19/19 08:33	02/20/19 20:55	1
Perfluorotetradecanoic acid	ND		2.1	0.92	ng/L		02/19/19 08:33	02/20/19 20:55	1
Perfluorotridecanoic acid	ND		2.1	0.67	ng/L		02/19/19 08:33	02/20/19 20:55	1
Perfluoroundecanoic acid	ND		2.1	0.62	ng/L		02/19/19 08:33	02/20/19 20:55	1
N-ethylperfluorooctanesulfonamidoacetic acid	ND		2.1	0.53	ng/L		02/19/19 08:33	02/20/19 20:55	1
N-methylperfluorooctanesulfonamidoacetic acid	ND		3.1	1.1	ng/L		02/19/19 08:33	02/20/19 20:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C2 PFHxA	98		70 - 130				02/19/19 08:33	02/20/19 20:55	1
13C2 PFDA	96		70 - 130				02/19/19 08:33	02/20/19 20:55	1

TestAmerica Sacramento

Client Sample Results

Client: Alaska Department of Env. Conservation
Project/Site: PFAS, AK - Yakutat/Cordova

TestAmerica Job ID: 320-47461-1

Client Sample ID: CO-05

Date Collected: 02/05/19 14:35

Date Received: 02/07/19 09:00

Lab Sample ID: 320-47461-19

Matrix: Water

Method: 537 DW - Perfluorinated Alkyl Acids (LC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	0.93	ng/L		02/19/19 08:33	02/20/19 21:02	1
Perfluorooctanoic acid (PFOA)	ND		5.9	2.6	ng/L		02/19/19 08:33	02/20/19 21:02	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.46	ng/L		02/19/19 08:33	02/20/19 21:02	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	0.63	ng/L		02/19/19 08:33	02/20/19 21:02	1
Perfluoroheptanoic acid (PFHpA)	ND		2.9	1.3	ng/L		02/19/19 08:33	02/20/19 21:02	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.78	ng/L		02/19/19 08:33	02/20/19 21:02	1
Perfluorodecanoic acid	ND		2.0	0.52	ng/L		02/19/19 08:33	02/20/19 21:02	1
Perfluorododecanoic acid	ND		2.0	0.80	ng/L		02/19/19 08:33	02/20/19 21:02	1
Perfluorohexanoic acid	ND		2.0	0.28	ng/L		02/19/19 08:33	02/20/19 21:02	1
Perfluorotetradecanoic acid	ND		2.0	0.87	ng/L		02/19/19 08:33	02/20/19 21:02	1
Perfluorotridecanoic acid	ND		2.0	0.64	ng/L		02/19/19 08:33	02/20/19 21:02	1
Perfluoroundecanoic acid	ND		2.0	0.59	ng/L		02/19/19 08:33	02/20/19 21:02	1
N-ethylperfluorooctanesulfonamidoacetic acid	ND		2.0	0.50	ng/L		02/19/19 08:33	02/20/19 21:02	1
N-methylperfluorooctanesulfonamidoacetic acid	ND		2.9	1.1	ng/L		02/19/19 08:33	02/20/19 21:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C2 PFHxA	93		70 - 130				02/19/19 08:33	02/20/19 21:02	1
13C2 PFDA	91		70 - 130				02/19/19 08:33	02/20/19 21:02	1

Client Sample ID: CO-06

Date Collected: 02/05/19 14:55

Date Received: 02/07/19 09:00

Lab Sample ID: 320-47461-20

Matrix: Water

Method: 537 DW - Perfluorinated Alkyl Acids (LC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	0.94	ng/L		02/19/19 08:33	02/20/19 21:09	1
Perfluorooctanoic acid (PFOA)	ND		6.0	2.7	ng/L		02/19/19 08:33	02/20/19 21:09	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.47	ng/L		02/19/19 08:33	02/20/19 21:09	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	0.64	ng/L		02/19/19 08:33	02/20/19 21:09	1
Perfluoroheptanoic acid (PFHpA)	ND		3.0	1.3	ng/L		02/19/19 08:33	02/20/19 21:09	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.79	ng/L		02/19/19 08:33	02/20/19 21:09	1
Perfluorodecanoic acid	ND		2.0	0.53	ng/L		02/19/19 08:33	02/20/19 21:09	1
Perfluorododecanoic acid	ND		2.0	0.81	ng/L		02/19/19 08:33	02/20/19 21:09	1
Perfluorohexanoic acid	ND		2.0	0.29	ng/L		02/19/19 08:33	02/20/19 21:09	1
Perfluorotetradecanoic acid	ND		2.0	0.88	ng/L		02/19/19 08:33	02/20/19 21:09	1
Perfluorotridecanoic acid	ND		2.0	0.65	ng/L		02/19/19 08:33	02/20/19 21:09	1
Perfluoroundecanoic acid	ND		2.0	0.60	ng/L		02/19/19 08:33	02/20/19 21:09	1
N-ethylperfluorooctanesulfonamidoacetic acid	ND		2.0	0.51	ng/L		02/19/19 08:33	02/20/19 21:09	1
N-methylperfluorooctanesulfonamidoacetic acid	ND		3.0	1.1	ng/L		02/19/19 08:33	02/20/19 21:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C2 PFHxA	99		70 - 130				02/19/19 08:33	02/20/19 21:09	1
13C2 PFDA	94		70 - 130				02/19/19 08:33	02/20/19 21:09	1

TestAmerica Sacramento

Client Sample Results

Client: Alaska Department of Env. Conservation
Project/Site: PFAS, AK - Yakutat/Cordova

TestAmerica Job ID: 320-47461-1

Client Sample ID: CO-07

Date Collected: 02/05/19 15:15

Date Received: 02/07/19 09:00

Lab Sample ID: 320-47461-21

Matrix: Water

Method: 537 DW - Perfluorinated Alkyl Acids (LC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	ND		1.9	0.91	ng/L		02/19/19 08:33	02/20/19 21:17	1
Perfluorooctanoic acid (PFOA)	ND		5.7	2.6	ng/L		02/19/19 08:33	02/20/19 21:17	1
Perfluorononanoic acid (PFNA)	ND		1.9	0.45	ng/L		02/19/19 08:33	02/20/19 21:17	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.9	0.61	ng/L		02/19/19 08:33	02/20/19 21:17	1
Perfluoroheptanoic acid (PFHpA)	ND		2.9	1.2	ng/L		02/19/19 08:33	02/20/19 21:17	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.9	0.76	ng/L		02/19/19 08:33	02/20/19 21:17	1
Perfluorodecanoic acid	ND		1.9	0.51	ng/L		02/19/19 08:33	02/20/19 21:17	1
Perfluorododecanoic acid	ND		1.9	0.78	ng/L		02/19/19 08:33	02/20/19 21:17	1
Perfluorohexanoic acid	ND		1.9	0.28	ng/L		02/19/19 08:33	02/20/19 21:17	1
Perfluorotetradecanoic acid	ND		1.9	0.85	ng/L		02/19/19 08:33	02/20/19 21:17	1
Perfluorotridecanoic acid	ND		1.9	0.62	ng/L		02/19/19 08:33	02/20/19 21:17	1
Perfluoroundecanoic acid	ND		1.9	0.57	ng/L		02/19/19 08:33	02/20/19 21:17	1
N-ethylperfluorooctanesulfonamidoacetic acid	ND		1.9	0.49	ng/L		02/19/19 08:33	02/20/19 21:17	1
N-methylperfluorooctanesulfonamidoacetic acid	ND		2.9	1.0	ng/L		02/19/19 08:33	02/20/19 21:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C2 PFHxA	91		70 - 130				02/19/19 08:33	02/20/19 21:17	1
13C2 PFDA	96		70 - 130				02/19/19 08:33	02/20/19 21:17	1

Client Sample ID: CO-08

Date Collected: 02/05/19 16:00

Date Received: 02/07/19 09:00

Lab Sample ID: 320-47461-22

Matrix: Water

Method: 537 DW - Perfluorinated Alkyl Acids (LC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	0.96	ng/L		02/19/19 08:34	02/20/19 21:24	1
Perfluorooctanoic acid (PFOA)	ND		6.1	2.7	ng/L		02/19/19 08:34	02/20/19 21:24	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.48	ng/L		02/19/19 08:34	02/20/19 21:24	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	0.65	ng/L		02/19/19 08:34	02/20/19 21:24	1
Perfluoroheptanoic acid (PFHpA)	ND		3.0	1.3	ng/L		02/19/19 08:34	02/20/19 21:24	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.81	ng/L		02/19/19 08:34	02/20/19 21:24	1
Perfluorodecanoic acid	ND		2.0	0.54	ng/L		02/19/19 08:34	02/20/19 21:24	1
Perfluorododecanoic acid	ND		2.0	0.83	ng/L		02/19/19 08:34	02/20/19 21:24	1
Perfluorohexanoic acid	ND		2.0	0.29	ng/L		02/19/19 08:34	02/20/19 21:24	1
Perfluorotetradecanoic acid	ND		2.0	0.90	ng/L		02/19/19 08:34	02/20/19 21:24	1
Perfluorotridecanoic acid	ND		2.0	0.66	ng/L		02/19/19 08:34	02/20/19 21:24	1
Perfluoroundecanoic acid	ND		2.0	0.61	ng/L		02/19/19 08:34	02/20/19 21:24	1
N-ethylperfluorooctanesulfonamidoacetic acid	ND		2.0	0.52	ng/L		02/19/19 08:34	02/20/19 21:24	1
N-methylperfluorooctanesulfonamidoacetic acid	ND		3.0	1.1	ng/L		02/19/19 08:34	02/20/19 21:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C2 PFHxA	95		70 - 130				02/19/19 08:34	02/20/19 21:24	1
13C2 PFDA	86		70 - 130				02/19/19 08:34	02/20/19 21:24	1

TestAmerica Sacramento

Surrogate Summary

Client: Alaska Department of Env. Conservation
Project/Site: PFAS, AK - Yakutat/Cordova

TestAmerica Job ID: 320-47461-1

Method: 537 DW - Perfluorinated Alkyl Acids (LC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	PFHxA (70-130)	PFDA (70-130)
320-47461-1	YK-01	93	103
320-47461-2	YK-02	104	104
320-47461-3	YK-03	101	98
320-47461-4	YK-04	105	101
320-47461-5	YK-05	100	97
320-47461-6	YK-06	102	101
320-47461-7	YK-07	99	103
320-47461-8	YK-08	104	94
320-47461-9	YK-09	103	102
320-47461-10	YK-10	96	89
320-47461-11	YK-11	99	94
320-47461-12	YK-12	81	92
320-47461-13	YK-13	85	93
320-47461-14	YK-14	77	97
320-47461-15	CO-01	95	86
320-47461-16	CO-02	95	93
320-47461-17	CO-03	96	90
320-47461-18	CO-04	98	96
320-47461-19	CO-05	93	91
320-47461-20	CO-06	99	94
320-47461-21	CO-07	91	96
320-47461-22	CO-08	95	86
LCS 320-276178/2-A	Lab Control Sample	97	99
LCSD 320-276178/3-A	Lab Control Sample Dup	109	106
LLCS 320-276777/2-A	Lab Control Sample	96	94
LLCSD 320-276777/3-A	Lab Control Sample Dup	92	95
MB 320-276178/1-A	Method Blank	106	104
MB 320-276777/1-A	Method Blank	115	106

Surrogate Legend

PFHxA = 13C2 PFHxA

PFDA = 13C2 PFDA

QC Sample Results

Client: Alaska Department of Env. Conservation
Project/Site: PFAS, AK - Yakutat/Cordova

TestAmerica Job ID: 320-47461-1

Method: 537 DW - Perfluorinated Alkyl Acids (LC/MS)

Lab Sample ID: MB 320-276178/1-A

Matrix: Water

Analysis Batch: 276787

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 276178

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	0.95	ng/L		02/15/19 07:52	02/19/19 13:44	1
Perfluorooctanoic acid (PFOA)	ND		6.0	2.7	ng/L		02/15/19 07:52	02/19/19 13:44	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.47	ng/L		02/15/19 07:52	02/19/19 13:44	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	0.64	ng/L		02/15/19 07:52	02/19/19 13:44	1
Perfluoroheptanoic acid (PFHpA)	ND		3.0	1.3	ng/L		02/15/19 07:52	02/19/19 13:44	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.80	ng/L		02/15/19 07:52	02/19/19 13:44	1
Perfluorodecanoic acid	ND		2.0	0.53	ng/L		02/15/19 07:52	02/19/19 13:44	1
Perfluorododecanoic acid	ND		2.0	0.82	ng/L		02/15/19 07:52	02/19/19 13:44	1
Perfluorohexanoic acid	ND		2.0	0.29	ng/L		02/15/19 07:52	02/19/19 13:44	1
Perfluorotetradecanoic acid	ND		2.0	0.89	ng/L		02/15/19 07:52	02/19/19 13:44	1
Perfluorotridecanoic acid	ND		2.0	0.65	ng/L		02/15/19 07:52	02/19/19 13:44	1
Perfluoroundecanoic acid	ND		2.0	0.60	ng/L		02/15/19 07:52	02/19/19 13:44	1
N-ethylperfluorooctanesulfonamidoacetic acid	ND		2.0	0.51	ng/L		02/15/19 07:52	02/19/19 13:44	1
N-methylperfluorooctanesulfonamidoacetic acid	ND		3.0	1.1	ng/L		02/15/19 07:52	02/19/19 13:44	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFHxA	106		70 - 130	02/15/19 07:52	02/19/19 13:44	1
13C2 PFDA	104		70 - 130	02/15/19 07:52	02/19/19 13:44	1

Lab Sample ID: LCS 320-276178/2-A

Matrix: Water

Analysis Batch: 276787

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 276178

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorooctanesulfonic acid (PFOS)	92.8	100		ng/L		108	70 - 130
Perfluorooctanoic acid (PFOA)	100	107		ng/L		107	70 - 130
Perfluorononanoic acid (PFNA)	100	105		ng/L		105	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	91.0	92.0		ng/L		101	70 - 130
Perfluoroheptanoic acid (PFHpA)	100	110		ng/L		110	70 - 130
Perfluorobutanesulfonic acid (PFBS)	88.4	69.4		ng/L		78	70 - 130
Perfluorodecanoic acid	100	111		ng/L		111	70 - 130
Perfluorododecanoic acid	100	110		ng/L		110	70 - 130
Perfluorohexanoic acid	100	95.3		ng/L		95	70 - 130
Perfluorotetradecanoic acid	100	93.6		ng/L		94	70 - 130
Perfluorotridecanoic acid	100	110		ng/L		110	70 - 130
Perfluoroundecanoic acid	100	113		ng/L		113	70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid	100	114		ng/L		114	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid	100	107		ng/L		107	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
13C2 PFHxA	97		70 - 130
13C2 PFDA	99		70 - 130

TestAmerica Sacramento

QC Sample Results

Client: Alaska Department of Env. Conservation
Project/Site: PFAS, AK - Yakutat/Cordova

TestAmerica Job ID: 320-47461-1

Lab Sample ID: LCSD 320-276178/3-A

Matrix: Water

Analysis Batch: 276787

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 276178

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorooctanesulfonic acid (PFOS)	92.8	93.6		ng/L		101	70 - 130	7	30
Perfluorooctanoic acid (PFOA)	100	103		ng/L		103	70 - 130	4	30
Perfluorononanoic acid (PFNA)	100	99.0		ng/L		99	70 - 130	6	30
Perfluorohexanesulfonic acid (PFHxS)	91.0	86.3		ng/L		95	70 - 130	6	30
Perfluoroheptanoic acid (PFHpA)	100	102		ng/L		102	70 - 130	8	30
Perfluorobutanesulfonic acid (PFBS)	88.4	78.5		ng/L		89	70 - 130	12	30
Perfluorodecanoic acid	100	99.6		ng/L		100	70 - 130	11	30
Perfluorododecanoic acid	100	107		ng/L		107	70 - 130	3	30
Perfluorohexanoic acid	100	101		ng/L		101	70 - 130	6	30
Perfluorotetradecanoic acid	100	89.4		ng/L		89	70 - 130	5	30
Perfluorotridecanoic acid	100	102		ng/L		102	70 - 130	8	30
Perfluoroundecanoic acid	100	105		ng/L		105	70 - 130	6	30
N-ethylperfluorooctanesulfonamidoacetic acid	100	96.1		ng/L		96	70 - 130	17	30
N-methylperfluorooctanesulfonamidoacetic acid	100	100		ng/L		100	70 - 130	6	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
13C2 PFHxA	109		70 - 130
13C2 PFDA	106		70 - 130

Lab Sample ID: MB 320-276777/1-A

Matrix: Water

Analysis Batch: 277184

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 276777

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	0.95	ng/L		02/19/19 08:33	02/20/19 19:18	1
Perfluorooctanoic acid (PFOA)	ND		6.0	2.7	ng/L		02/19/19 08:33	02/20/19 19:18	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.47	ng/L		02/19/19 08:33	02/20/19 19:18	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	0.64	ng/L		02/19/19 08:33	02/20/19 19:18	1
Perfluoroheptanoic acid (PFHpA)	ND		3.0	1.3	ng/L		02/19/19 08:33	02/20/19 19:18	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.80	ng/L		02/19/19 08:33	02/20/19 19:18	1
Perfluorodecanoic acid	ND		2.0	0.53	ng/L		02/19/19 08:33	02/20/19 19:18	1
Perfluorododecanoic acid	ND		2.0	0.82	ng/L		02/19/19 08:33	02/20/19 19:18	1
Perfluorohexanoic acid	ND		2.0	0.29	ng/L		02/19/19 08:33	02/20/19 19:18	1
Perfluorotetradecanoic acid	ND		2.0	0.89	ng/L		02/19/19 08:33	02/20/19 19:18	1
Perfluorotridecanoic acid	ND		2.0	0.65	ng/L		02/19/19 08:33	02/20/19 19:18	1
Perfluoroundecanoic acid	ND		2.0	0.60	ng/L		02/19/19 08:33	02/20/19 19:18	1
N-ethylperfluorooctanesulfonamidoacetic acid	ND		2.0	0.51	ng/L		02/19/19 08:33	02/20/19 19:18	1
N-methylperfluorooctanesulfonamidoacetic acid	ND		3.0	1.1	ng/L		02/19/19 08:33	02/20/19 19:18	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFHxA	115		70 - 130	02/19/19 08:33	02/20/19 19:18	1
13C2 PFDA	106		70 - 130	02/19/19 08:33	02/20/19 19:18	1

TestAmerica Sacramento

QC Sample Results

Client: Alaska Department of Env. Conservation
Project/Site: PFAS, AK - Yakutat/Cordova

TestAmerica Job ID: 320-47461-1

Method: 537 DW - Perfluorinated Alkyl Acids (LC/MS) (Continued)

Lab Sample ID: LLCS 320-276777/2-A

Matrix: Water

Analysis Batch: 277184

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 276777

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorooctanesulfonic acid (PFOS)	3.71	3.41		ng/L		92	50 - 150
Perfluorooctanoic acid (PFOA)	4.00	3.74	J	ng/L		93	50 - 150
Perfluorononanoic acid (PFNA)	4.00	3.69		ng/L		92	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	3.64	3.33		ng/L		91	50 - 150
Perfluoroheptanoic acid (PFHpA)	4.00	3.79		ng/L		95	50 - 150
Perfluorobutanesulfonic acid (PFBS)	3.54	3.05		ng/L		86	50 - 150
Perfluorodecanoic acid	4.00	3.67		ng/L		92	50 - 150
Perfluorododecanoic acid	4.00	3.57		ng/L		89	50 - 150
Perfluorohexanoic acid	4.00	3.52		ng/L		88	50 - 150
Perfluorotetradecanoic acid	4.00	3.49		ng/L		87	50 - 150
Perfluorotridecanoic acid	4.00	3.74		ng/L		94	50 - 150
Perfluoroundecanoic acid	4.00	3.74		ng/L		93	50 - 150
N-ethylperfluorooctanesulfonamidoacetic acid	4.00	3.76		ng/L		94	50 - 150
N-methylperfluorooctanesulfonamidoacetic acid	4.00	3.98		ng/L		100	50 - 150

Surrogate	LLCS %Recovery	LLCS Qualifier	Limits
13C2 PFHxA	96		70 - 130
13C2 PFDA	94		70 - 130

Lab Sample ID: LLCSD 320-276777/3-A

Matrix: Water

Analysis Batch: 277184

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 276777

Analyte	Spike Added	LLCSD Result	LLCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Perfluorooctanesulfonic acid (PFOS)	3.71	3.64		ng/L		98	50 - 150	6	50
Perfluorooctanoic acid (PFOA)	4.00	3.91	J	ng/L		98	50 - 150	4	50
Perfluorononanoic acid (PFNA)	4.00	3.77		ng/L		94	50 - 150	2	50
Perfluorohexanesulfonic acid (PFHxS)	3.64	3.54		ng/L		97	50 - 150	6	50
Perfluoroheptanoic acid (PFHpA)	4.00	3.82		ng/L		95	50 - 150	0.8	50
Perfluorobutanesulfonic acid (PFBS)	3.54	2.89		ng/L		82	50 - 150	5	50
Perfluorodecanoic acid	4.00	3.78		ng/L		94	50 - 150	3	50
Perfluorododecanoic acid	4.00	3.97		ng/L		99	50 - 150	11	50
Perfluorohexanoic acid	4.00	3.29		ng/L		82	50 - 150	7	50
Perfluorotetradecanoic acid	4.00	3.37		ng/L		84	50 - 150	3	50
Perfluorotridecanoic acid	4.00	4.03		ng/L		101	50 - 150	7	50
Perfluoroundecanoic acid	4.00	3.88		ng/L		97	50 - 150	4	50
N-ethylperfluorooctanesulfonamidoacetic acid	4.00	4.16		ng/L		104	50 - 150	10	50
N-methylperfluorooctanesulfonamidoacetic acid	4.00	4.22		ng/L		105	50 - 150	6	50

TestAmerica Sacramento

QC Sample Results

Client: Alaska Department of Env. Conservation
Project/Site: PFAS, AK - Yakutat/Cordova

TestAmerica Job ID: 320-47461-1

Method: 537 DW - Perfluorinated Alkyl Acids (LC/MS) (Continued)

Lab Sample ID: LLCSD 320-276777/3-A

Matrix: Water

Analysis Batch: 277184

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 276777

Surrogate	LLCSD	LLCSD	Limits
	%Recovery	Qualifier	
13C2 PFHxA	92		70 - 130
13C2 PFDA	95		70 - 130

QC Association Summary

Client: Alaska Department of Env. Conservation
Project/Site: PFAS, AK - Yakutat/Cordova

TestAmerica Job ID: 320-47461-1

LCMS

Prep Batch: 276178

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-47461-1	YK-01	Total/NA	Water	537 DW	
320-47461-2	YK-02	Total/NA	Water	537 DW	
320-47461-3	YK-03	Total/NA	Water	537 DW	
320-47461-4	YK-04	Total/NA	Water	537 DW	
320-47461-5	YK-05	Total/NA	Water	537 DW	
320-47461-6	YK-06	Total/NA	Water	537 DW	
320-47461-7	YK-07	Total/NA	Water	537 DW	
320-47461-8	YK-08	Total/NA	Water	537 DW	
320-47461-9	YK-09	Total/NA	Water	537 DW	
MB 320-276178/1-A	Method Blank	Total/NA	Water	537 DW	
LCS 320-276178/2-A	Lab Control Sample	Total/NA	Water	537 DW	
LCSD 320-276178/3-A	Lab Control Sample Dup	Total/NA	Water	537 DW	

Prep Batch: 276777

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-47461-10	YK-10	Total/NA	Water	537 DW	
320-47461-11	YK-11	Total/NA	Water	537 DW	
320-47461-12	YK-12	Total/NA	Water	537 DW	
320-47461-13	YK-13	Total/NA	Water	537 DW	
320-47461-14	YK-14	Total/NA	Water	537 DW	
320-47461-15	CO-01	Total/NA	Water	537 DW	
320-47461-16	CO-02	Total/NA	Water	537 DW	
320-47461-17	CO-03	Total/NA	Water	537 DW	
320-47461-18	CO-04	Total/NA	Water	537 DW	
320-47461-19	CO-05	Total/NA	Water	537 DW	
320-47461-20	CO-06	Total/NA	Water	537 DW	
320-47461-21	CO-07	Total/NA	Water	537 DW	
320-47461-22	CO-08	Total/NA	Water	537 DW	
MB 320-276777/1-A	Method Blank	Total/NA	Water	537 DW	
LLCS 320-276777/2-A	Lab Control Sample	Total/NA	Water	537 DW	
LLCSD 320-276777/3-A	Lab Control Sample Dup	Total/NA	Water	537 DW	

Analysis Batch: 276787

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-47461-1	YK-01	Total/NA	Water	537 DW	276178
320-47461-2	YK-02	Total/NA	Water	537 DW	276178
320-47461-3	YK-03	Total/NA	Water	537 DW	276178
320-47461-4	YK-04	Total/NA	Water	537 DW	276178
320-47461-5	YK-05	Total/NA	Water	537 DW	276178
320-47461-6	YK-06	Total/NA	Water	537 DW	276178
320-47461-7	YK-07	Total/NA	Water	537 DW	276178
MB 320-276178/1-A	Method Blank	Total/NA	Water	537 DW	276178
LCS 320-276178/2-A	Lab Control Sample	Total/NA	Water	537 DW	276178
LCSD 320-276178/3-A	Lab Control Sample Dup	Total/NA	Water	537 DW	276178

Analysis Batch: 276788

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-47461-8	YK-08	Total/NA	Water	537 DW	276178
320-47461-9	YK-09	Total/NA	Water	537 DW	276178

TestAmerica Sacramento

QC Association Summary

Client: Alaska Department of Env. Conservation
Project/Site: PFAS, AK - Yakutat/Cordova

TestAmerica Job ID: 320-47461-1

LCMS (Continued)

Analysis Batch: 277184

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-47461-10	YK-10	Total/NA	Water	537 DW	276777
320-47461-11	YK-11	Total/NA	Water	537 DW	276777
320-47461-12	YK-12	Total/NA	Water	537 DW	276777
320-47461-13	YK-13	Total/NA	Water	537 DW	276777
320-47461-14	YK-14	Total/NA	Water	537 DW	276777
320-47461-15	CO-01	Total/NA	Water	537 DW	276777
320-47461-16	CO-02	Total/NA	Water	537 DW	276777
MB 320-276777/1-A	Method Blank	Total/NA	Water	537 DW	276777
LLCS 320-276777/2-A	Lab Control Sample	Total/NA	Water	537 DW	276777
LLCSD 320-276777/3-A	Lab Control Sample Dup	Total/NA	Water	537 DW	276777

Analysis Batch: 277185

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-47461-17	CO-03	Total/NA	Water	537 DW	276777
320-47461-18	CO-04	Total/NA	Water	537 DW	276777
320-47461-19	CO-05	Total/NA	Water	537 DW	276777
320-47461-20	CO-06	Total/NA	Water	537 DW	276777
320-47461-21	CO-07	Total/NA	Water	537 DW	276777
320-47461-22	CO-08	Total/NA	Water	537 DW	276777

Lab Chronicle

Client: Alaska Department of Env. Conservation
Project/Site: PFAS, AK - Yakutat/Cordova

TestAmerica Job ID: 320-47461-1

Client Sample ID: YK-01

Date Collected: 02/04/19 15:45

Date Received: 02/07/19 09:00

Lab Sample ID: 320-47461-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	537 DW			244.5 mL	10.0 mL	276178	02/15/19 07:52	HJA	TAL SAC
Total/NA	Analysis	537 DW		1			276787	02/19/19 14:06	AAR	TAL SAC

Client Sample ID: YK-02

Date Collected: 02/04/19 15:55

Date Received: 02/07/19 09:00

Lab Sample ID: 320-47461-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	537 DW			239.7 mL	10.0 mL	276178	02/15/19 07:52	HJA	TAL SAC
Total/NA	Analysis	537 DW		1			276787	02/19/19 14:14	AAR	TAL SAC

Client Sample ID: YK-03

Date Collected: 02/04/19 16:05

Date Received: 02/07/19 09:00

Lab Sample ID: 320-47461-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	537 DW			254.3 mL	10.0 mL	276178	02/15/19 07:52	HJA	TAL SAC
Total/NA	Analysis	537 DW		1			276787	02/19/19 14:21	AAR	TAL SAC

Client Sample ID: YK-04

Date Collected: 02/04/19 16:20

Date Received: 02/07/19 09:00

Lab Sample ID: 320-47461-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	537 DW			241.3 mL	10.0 mL	276178	02/15/19 07:52	HJA	TAL SAC
Total/NA	Analysis	537 DW		1			276787	02/19/19 14:29	AAR	TAL SAC

Client Sample ID: YK-05

Date Collected: 02/04/19 16:30

Date Received: 02/07/19 09:00

Lab Sample ID: 320-47461-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	537 DW			242.6 mL	10.0 mL	276178	02/15/19 07:52	HJA	TAL SAC
Total/NA	Analysis	537 DW		1			276787	02/19/19 14:36	AAR	TAL SAC

Client Sample ID: YK-06

Date Collected: 02/04/19 16:45

Date Received: 02/07/19 09:00

Lab Sample ID: 320-47461-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	537 DW			246.6 mL	10.0 mL	276178	02/15/19 07:52	HJA	TAL SAC
Total/NA	Analysis	537 DW		1			276787	02/19/19 14:44	AAR	TAL SAC

TestAmerica Sacramento

Lab Chronicle

Client: Alaska Department of Env. Conservation
Project/Site: PFAS, AK - Yakutat/Cordova

TestAmerica Job ID: 320-47461-1

Client Sample ID: YK-07

Date Collected: 02/04/19 17:00

Date Received: 02/07/19 09:00

Lab Sample ID: 320-47461-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	537 DW			235.9 mL	10.0 mL	276178	02/15/19 07:52	HJA	TAL SAC
Total/NA	Analysis	537 DW		1			276787	02/19/19 14:51	AAR	TAL SAC

Client Sample ID: YK-08

Date Collected: 02/04/19 17:25

Date Received: 02/07/19 09:00

Lab Sample ID: 320-47461-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	537 DW			241.5 mL	10.0 mL	276178	02/15/19 07:52	HJA	TAL SAC
Total/NA	Analysis	537 DW		1			276788	02/19/19 15:14	AAR	TAL SAC

Client Sample ID: YK-09

Date Collected: 02/04/19 17:30

Date Received: 02/07/19 09:00

Lab Sample ID: 320-47461-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	537 DW			251.2 mL	10.0 mL	276178	02/15/19 07:52	HJA	TAL SAC
Total/NA	Analysis	537 DW		1			276788	02/19/19 15:21	AAR	TAL SAC

Client Sample ID: YK-10

Date Collected: 02/05/19 09:45

Date Received: 02/07/19 09:00

Lab Sample ID: 320-47461-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	537 DW			245 mL	10.0 mL	276777	02/19/19 08:33	HJA	TAL SAC
Total/NA	Analysis	537 DW		1			277184	02/20/19 19:40	GK	TAL SAC

Client Sample ID: YK-11

Date Collected: 02/05/19 10:00

Date Received: 02/07/19 09:00

Lab Sample ID: 320-47461-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	537 DW			248 mL	10.0 mL	276777	02/19/19 08:33	HJA	TAL SAC
Total/NA	Analysis	537 DW		1			277184	02/20/19 19:47	GK	TAL SAC

Client Sample ID: YK-12

Date Collected: 02/05/19 11:00

Date Received: 02/07/19 09:00

Lab Sample ID: 320-47461-12

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	537 DW			256.3 mL	10.0 mL	276777	02/19/19 08:33	HJA	TAL SAC
Total/NA	Analysis	537 DW		1			277184	02/20/19 19:55	GK	TAL SAC

TestAmerica Sacramento

Lab Chronicle

Client: Alaska Department of Env. Conservation
Project/Site: PFAS, AK - Yakutat/Cordova

TestAmerica Job ID: 320-47461-1

Client Sample ID: YK-13

Date Collected: 02/05/19 11:00

Date Received: 02/07/19 09:00

Lab Sample ID: 320-47461-13

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	537 DW			245 mL	10.0 mL	276777	02/19/19 08:33	HJA	TAL SAC
Total/NA	Analysis	537 DW		1			277184	02/20/19 20:02	GK	TAL SAC

Client Sample ID: YK-14

Date Collected: 02/05/19 10:45

Date Received: 02/07/19 09:00

Lab Sample ID: 320-47461-14

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	537 DW			254.6 mL	10.0 mL	276777	02/19/19 08:33	HJA	TAL SAC
Total/NA	Analysis	537 DW		1			277184	02/20/19 20:10	GK	TAL SAC

Client Sample ID: CO-01

Date Collected: 02/05/19 13:50

Date Received: 02/07/19 09:00

Lab Sample ID: 320-47461-15

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	537 DW			273.6 mL	10.0 mL	276777	02/19/19 08:33	HJA	TAL SAC
Total/NA	Analysis	537 DW		1			277184	02/20/19 20:17	GK	TAL SAC

Client Sample ID: CO-02

Date Collected: 02/05/19 13:50

Date Received: 02/07/19 09:00

Lab Sample ID: 320-47461-16

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	537 DW			236.1 mL	10.0 mL	276777	02/19/19 08:33	HJA	TAL SAC
Total/NA	Analysis	537 DW		1			277184	02/20/19 20:25	GK	TAL SAC

Client Sample ID: CO-03

Date Collected: 02/05/19 14:10

Date Received: 02/07/19 09:00

Lab Sample ID: 320-47461-17

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	537 DW			239 mL	10.0 mL	276777	02/19/19 08:33	HJA	TAL SAC
Total/NA	Analysis	537 DW		1			277185	02/20/19 20:47	GK	TAL SAC

Client Sample ID: CO-04

Date Collected: 02/05/19 14:20

Date Received: 02/07/19 09:00

Lab Sample ID: 320-47461-18

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	537 DW			242.7 mL	10.0 mL	276777	02/19/19 08:33	HJA	TAL SAC
Total/NA	Analysis	537 DW		1			277185	02/20/19 20:55	GK	TAL SAC

TestAmerica Sacramento

Lab Chronicle

Client: Alaska Department of Env. Conservation
Project/Site: PFAS, AK - Yakutat/Cordova

TestAmerica Job ID: 320-47461-1

Client Sample ID: CO-05

Date Collected: 02/05/19 14:35

Date Received: 02/07/19 09:00

Lab Sample ID: 320-47461-19

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	537 DW			255.7 mL	10.0 mL	276777	02/19/19 08:33	HJA	TAL SAC
Total/NA	Analysis	537 DW		1			277185	02/20/19 21:02	GK	TAL SAC

Client Sample ID: CO-06

Date Collected: 02/05/19 14:55

Date Received: 02/07/19 09:00

Lab Sample ID: 320-47461-20

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	537 DW			251.8 mL	10.0 mL	276777	02/19/19 08:33	HJA	TAL SAC
Total/NA	Analysis	537 DW		1			277185	02/20/19 21:09	GK	TAL SAC

Client Sample ID: CO-07

Date Collected: 02/05/19 15:15

Date Received: 02/07/19 09:00

Lab Sample ID: 320-47461-21

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	537 DW			262 mL	10.0 mL	276777	02/19/19 08:33	HJA	TAL SAC
Total/NA	Analysis	537 DW		1			277185	02/20/19 21:17	GK	TAL SAC

Client Sample ID: CO-08

Date Collected: 02/05/19 16:00

Date Received: 02/07/19 09:00

Lab Sample ID: 320-47461-22

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	537 DW			246.8 mL	10.0 mL	276777	02/19/19 08:34	HJA	TAL SAC
Total/NA	Analysis	537 DW		1			277185	02/20/19 21:24	GK	TAL SAC

Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Accreditation/Certification Summary

Client: Alaska Department of Env. Conservation
Project/Site: PFAS, AK - Yakutat/Cordova

TestAmerica Job ID: 320-47461-1

Laboratory: TestAmerica Sacramento

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska (UST)	State Program	10	17-020	01-20-21
ANAB	DoD / DOE		L2468	01-20-21
Arizona	State Program	9	AZ0708	08-11-19
Arkansas DEQ	State Program	6	88-0691	06-17-19
California	State Program	9	2897	01-31-20
Colorado	State Program	8	CA00044	08-31-19
Connecticut	State Program	1	PH-0691	06-30-19
Florida	NELAP	4	E87570	06-30-19
Georgia	State Program	4	N/A	01-28-19 *
Hawaii	State Program	9	N/A	01-29-20
Illinois	NELAP	5	200060	03-17-19
Kansas	NELAP	7	E-10375	10-31-19
Louisiana	NELAP	6	30612	06-30-19
Maine	State Program	1	CA0004	04-14-20
Michigan	State Program	5	9947	01-31-20
Nevada	State Program	9	CA00044	07-31-19
New Hampshire	NELAP	1	2997	04-18-19
New Jersey	NELAP	2	CA005	06-30-19
New York	NELAP	2	11666	03-31-19
Oregon	NELAP	10	4040	01-29-20
Pennsylvania	NELAP	3	68-01272	03-31-19
Texas	NELAP	6	T104704399	05-31-19
US Fish & Wildlife	Federal		LE148388-0	07-31-19
USDA	Federal		P330-18-00239	01-17-21
USEPA UCMR	Federal	1	CA00044	12-31-20
Utah	NELAP	8	CA00044	02-28-19
Vermont	State Program	1	VT-4040	04-30-19
Virginia	NELAP	3	460278	03-14-19
Washington	State Program	10	C581	05-05-19
West Virginia (DW)	State Program	3	9930C	12-31-19
Wyoming	State Program	8	8TMS-L	01-28-19 *

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

TestAmerica Sacramento

Method Summary

Client: Alaska Department of Env. Conservation
Project/Site: PFAS, AK - Yakutat/Cordova

TestAmerica Job ID: 320-47461-1

Method	Method Description	Protocol	Laboratory
537 DW	Perfluorinated Alkyl Acids (LC/MS)	EPA	TAL SAC
537 DW	Extraction of Perfluorinated Alkyl Acids	EPA	TAL SAC

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: Alaska Department of Env. Conservation
Project/Site: PFAS, AK - Yakutat/Cordova

TestAmerica Job ID: 320-47461-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
320-47461-1	YK-01	Water	02/04/19 15:45	02/07/19 09:00
320-47461-2	YK-02	Water	02/04/19 15:55	02/07/19 09:00
320-47461-3	YK-03	Water	02/04/19 16:05	02/07/19 09:00
320-47461-4	YK-04	Water	02/04/19 16:20	02/07/19 09:00
320-47461-5	YK-05	Water	02/04/19 16:30	02/07/19 09:00
320-47461-6	YK-06	Water	02/04/19 16:45	02/07/19 09:00
320-47461-7	YK-07	Water	02/04/19 17:00	02/07/19 09:00
320-47461-8	YK-08	Water	02/04/19 17:25	02/07/19 09:00
320-47461-9	YK-09	Water	02/04/19 17:30	02/07/19 09:00
320-47461-10	YK-10	Water	02/05/19 09:45	02/07/19 09:00
320-47461-11	YK-11	Water	02/05/19 10:00	02/07/19 09:00
320-47461-12	YK-12	Water	02/05/19 11:00	02/07/19 09:00
320-47461-13	YK-13	Water	02/05/19 11:00	02/07/19 09:00
320-47461-14	YK-14	Water	02/05/19 10:45	02/07/19 09:00
320-47461-15	CO-01	Water	02/05/19 13:50	02/07/19 09:00
320-47461-16	CO-02	Water	02/05/19 13:50	02/07/19 09:00
320-47461-17	CO-03	Water	02/05/19 14:10	02/07/19 09:00
320-47461-18	CO-04	Water	02/05/19 14:20	02/07/19 09:00
320-47461-19	CO-05	Water	02/05/19 14:35	02/07/19 09:00
320-47461-20	CO-06	Water	02/05/19 14:55	02/07/19 09:00
320-47461-21	CO-07	Water	02/05/19 15:15	02/07/19 09:00
320-47461-22	CO-08	Water	02/05/19 16:00	02/07/19 09:00

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☒ Other: CERCLA

Client Contact		Project Manager: Annemarie Palmieri		Site Contact:		Date:		COC No:	
Company Name: Alaska Dept. of Env. Cons.		Tel/Fax: 907-7146-3184		Lab Contact:		Carrier:		1 of 7 COCs	
Address: 410 Willoughby Ave		Analysis Turnaround Time		Filtered Sample (Y/N) Perform MS/MSD (Y/N) PFAS: 537.1				Sampler:	
City/State/Zip: Juneau, AK 99801		☐ CALENDAR DAYS ☐ WORKING DAYS						For Lab Use Only:	
Phone: 907-7146-3184		TAT if different from Below						Walk-in Client:	
Fax:		☒ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day						Lab Sampling:	
Project Name: Alaska PFAS								Job / SDG No.:	
Site: Yakutat / Cordova									
P.O.#									

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	PFAS	Sample Specific Notes:
YK-01	2/4/19	1545	G	WA	1	N	X		
YK-02	2/4/19	1555	G	WA	1	N	X		
YK-03	2/4/19	1605	G	WA	1	N	X		
YK-04	2/4/19	1620	G	WA	1	N	X		
YK-05	2/4/19	1630	G	WA	1	N	X		
YK-06	2/4/19	1645	G	WA	1	N	X		
YK-07	2/4/19	1700	G	WA	1	N	X		
YK-08	2/4/19	1725	G	WA	1	N	X		
YK-09	2/4/19	1730	G	WA	1	N	X		
YK-10	2/5/19	945	G	WA	1	N	X		
YK-11	2/5/19	1600	G	WA	1	N	X		
YK-12	2/5/19	1600	G	WA	1	N	X		

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

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

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

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:
email results to: annemarie.palmieri@alaska.gov

Custody Seals Intact: ☐ Yes ☐ No

Custody Seal No.:

Cooler Temp. (°C): Obs'd: 1.0 Corr'd: 1.0 Therm ID No.: AK-2

Relinquished by: [Signature]	Company: ADEL	Date/Time: 2/6/19 16:00	Received by: [Signature]	Company: TAWSA	Date/Time: 2/6/19 0900
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

West Sacramento, CA 95605
Phone: 916.373.5600 Fax:

THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (07/13)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☒ Other: CERCLA

Client Contact		Project Manager: <u>AnneMarie Palmieri</u>		Site Contact:		Date:		COC No:	
Company Name: <u>Alaska Dept. of Env. Cons.</u>		Tel/Fax: <u>907-746-3184</u>		Lab Contact:		Carrier:		<u>2</u> of <u>2</u> COCs	
Address: <u>410 Willoughby Ave.</u>		Analysis Turnaround Time		Filtered Sample (Y/N) Perform MS / MSD (Y/N) <u>PFAS-537.1</u>				Sampler: For Lab Use Only: Walk-in Client: Lab Sampling: Job / SDG No.:	
City/State/Zip: <u>Juneau, AK 99801</u>		☐ CALENDAR DAYS ☐ WORKING DAYS							
Phone: <u>907-746-3184</u>		TAT if different from Below							
Fax:		☒ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day							
Project Name: <u>ALASKA PFAS</u>		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)		# of Cont.	
Site: <u>Yakutat / Cordova</u>		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)		# of Cont.	
P O #		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)		# of Cont.	
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)		# of Cont.	
YK-13		2/5/19		1100		G WA		1 N X	
YK-14		2/5/19		1100		G WA		1 N X	
CO-01		2/5/19		1350		G WA		1 N X	
CO-02		2/5/19		1350		G WA		1 N X	
CO-03		2/5/19		1410		G WA		1 N X	
CO-04		2/5/19		1420		G WA		1 N X	
CO-05		2/5/19		1435		G WA		1 N X	
CO-06		2/5/19		1455		G WA		1 N X	
CO-07		2/5/19		1515		G WA		1 N X	
CO-08		2/5/19		1600		G WA		1 N X	
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other									
Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)				
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown					☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months				
Special Instructions/QC Requirements & Comments: <u>email results to: annemarie.palmieri@alaska.gov</u>									
Custody Seals Intact: ☐ Yes ☐ No		Custody Seal No.:		Cooler Temp. (°C): Obs'd: <u>1.0°C</u> Corr'd: <u>1.0°C</u>		Therm ID No.: <u>AK-2</u>			
Relinquished by: <u>[Signature]</u>		Company: <u>APEC</u>		Date/Time: <u>2/6/19 10:00</u>		Received by: <u>[Signature]</u>		Company: <u>TAW SMC</u>	
Relinquished by:		Company:		Date/Time:		Received by:		Company:	
Relinquished by:		Company:		Date/Time:		Received in Laboratory by:		Company:	

Login Sample Receipt Checklist

Client: Alaska Department of Env. Conservation

Job Number: 320-47461-1

Login Number: 47461

List Source: TestAmerica Sacramento

List Number: 1

Creator: McCabe, Nicole M

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	SEAL
Sample custody seals, if present, are intact.	N/A	
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	
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?	False	
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	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	True	

Walker, M Elaine

From: Palmieri, Anne Marie G (DEC) <annemarie.palmieri@alaska.gov>
Sent: Friday, February 08, 2019 10:45 AM
To: Walker, M Elaine
Subject: RE: TestAmerica sample confirmation files from 320-47461-1 PFAS, AK - Yakutat/Cordova

-External Email-

Hi Elaine,
Sorry about the lack of clarity on the COC – YK-12 is 1100 and YK-14 is 1045.
Thanks, Anne Marie.

From: Walker, Elaine [<mailto:elaine.walker@testamericainc.com>]
Sent: Friday, February 8, 2019 9:41 AM
To: Bethe, Amber N (DEC) <amber.bethe@alaska.gov>; Palmieri, Anne Marie G (DEC) <annemarie.palmieri@alaska.gov>; Lomax, Terri J (DEC) <terri.lomax@alaska.gov>
Subject: TestAmerica sample confirmation files from 320-47461-1 PFAS, AK - Yakutat/Cordova

Hello,

Attached please find the sample confirmation files for job 320-47461-1; PFAS, AK - Yakutat/Cordova.

I know these are on hold but can you please check the sample times for YK-12 and YK-14 for me please? The COC is a little unlegible for these two.

Please note that the hold time for these samples expire on 2/18 and 2/19/19.

Please feel free to contact me if you have any questions.

Thank you.

Please let us know if we met your expectations by rating the service you received from TestAmerica on this project by visiting our website at: [Project Feedback](#)

ELAINE M WALKER
Project Manager

TestAmerica Seattle
THE LEADER IN ENVIRONMENTAL TESTING

Tel: 253.248.4972
www.testamericainc.com

Reference: [277178]
Attachments: 2

Walker, M Elaine

From: Palmieri, Anne Marie G (DEC) <annemarie.palmieri@alaska.gov>
Sent: Friday, February 08, 2019 6:01 PM
To: Walker, M Elaine
Cc: Caudill, Gretchen E (DEC)
Subject: RE: TestAmerica sample confirmation files from 320-47461-1 PFAS, AK - Yakutat/Cordova

-External Email-

Hi Elaine,
Please take these samples off of hold and proceed with the analysis.
Thanks, Anne Marie.

Anne Marie Palmieri
ADEC-Contaminated Sites Program
Post Office Box 1542
Haines, Alaska 99827
907.766.3184

From: Walker, Elaine [<mailto:elaine.walker@testamericainc.com>]
Sent: Friday, February 8, 2019 9:41 AM
To: Bethe, Amber N (DEC) <amber.bethe@alaska.gov>; Palmieri, Anne Marie G (DEC) <annemarie.palmieri@alaska.gov>; Lomax, Terri J (DEC) <terri.lomax@alaska.gov>
Subject: TestAmerica sample confirmation files from 320-47461-1 PFAS, AK - Yakutat/Cordova

Hello,

Attached please find the sample confirmation files for job 320-47461-1; PFAS, AK - Yakutat/Cordova.

I know these are on hold but can you please check the sample times for YK-12 and YK-14 for me please? The COC is a little unlegible for these two.

Please note that the hold time for these samples expire on 2/18 and 2/19/19.

Please feel free to contact me if you have any questions.

Thank you.

Please let us know if we met your expectations by rating the service you received from TestAmerica on this project by visiting our website at: [Project Feedback](#)

ELAINE M WALKER
Project Manager

TestAmerica Seattle

THE LEADER IN ENVIRONMENTAL TESTING

Tel: 253.248.4972

www.testamericainc.com

Reference: [277178]

Attachments: 2

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