

ANALYTICAL REPORT

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Laboratory Job ID: 410-33064-1
Client Project/Site: Newberry System
Sampling Event: Newberry System

For:
SUEZ Water Environmental Services Inc
6310 Allentown Blvd
Suite 104
Harrisburg, Pennsylvania 17112

Attn: Penny Bumbarger



Authorized for release by:
3/31/2021 4:32:15 PM

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



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 results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
 - 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 and/or isotope dilution analyte 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.

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Elizabeth Zanar
Project Manager
3/31/2021 4:32:15 PM



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Definitions/Glossary

Client: SUEZ Water Environmental Services Inc
Project/Site: Newberry System

Job ID: 410-33064-1

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
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

Case Narrative

Client: SUEZ Water Environmental Services Inc
Project/Site: Newberry System

Job ID: 410-33064-1

Job ID: 410-33064-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

**Job Narrative
410-33064-1**

Receipt

The samples were received on 3/19/2021 3:23 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.5°C

LCMS

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

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Detection Summary

Client: SUEZ Water Environmental Services Inc
Project/Site: Newberry System

Job ID: 410-33064-1

Client Sample ID: 7670061 005 Conley Well

Lab Sample ID: 410-33064-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanoic acid	5.4		1.7	0.42	ng/L	1		EPA 537 Ver 1.1	Total/NA
Perfluorooctanoic acid	2.9		1.7	0.42	ng/L	1		EPA 537 Ver 1.1	Total/NA
Perfluorobutanesulfonic acid	2.2		1.7	0.42	ng/L	1		EPA 537 Ver 1.1	Total/NA
Perfluorohexanesulfonic acid	3.3		1.7	0.42	ng/L	1		EPA 537 Ver 1.1	Total/NA
Perfluorooctanesulfonic acid	5.4		1.7	0.42	ng/L	1		EPA 537 Ver 1.1	Total/NA

Client Sample ID: 7670061 005 Conley Well FB

Lab Sample ID: 410-33064-2

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC



Client Sample Results

Client: SUEZ Water Environmental Services Inc
Project/Site: Newberry System

Job ID: 410-33064-1

Client Sample ID: 7670061 005 Conley Well

Lab Sample ID: 410-33064-1

Date Collected: 03/17/21 09:00

Matrix: Drinking Water

Date Received: 03/19/21 15:23

Method: EPA 537 Ver 1.1 - EPA 537 Version 1.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	5.4		1.7	0.42	ng/L		03/23/21 06:59	03/27/21 12:52	1
Perfluoroheptanoic acid	<1.7		1.7	0.42	ng/L		03/23/21 06:59	03/27/21 12:52	1
Perfluorooctanoic acid	2.9		1.7	0.42	ng/L		03/23/21 06:59	03/27/21 12:52	1
Perfluorononanoic acid	<1.7		1.7	0.42	ng/L		03/23/21 06:59	03/27/21 12:52	1
Perfluorodecanoic acid	<1.7		1.7	0.42	ng/L		03/23/21 06:59	03/27/21 12:52	1
Perfluorotridecanoic acid	<1.7		1.7	0.42	ng/L		03/23/21 06:59	03/27/21 12:52	1
Perfluorotetradecanoic acid	<1.7		1.7	0.42	ng/L		03/23/21 06:59	03/27/21 12:52	1
Perfluorobutanesulfonic acid	2.2		1.7	0.42	ng/L		03/23/21 06:59	03/27/21 12:52	1
Perfluorohexanesulfonic acid	3.3		1.7	0.42	ng/L		03/23/21 06:59	03/27/21 12:52	1
Perfluorooctanesulfonic acid	5.4		1.7	0.42	ng/L		03/23/21 06:59	03/27/21 12:52	1
NEtFOSAA	<1.7		1.7	0.42	ng/L		03/23/21 06:59	03/27/21 12:52	1
NMeFOSAA	<1.7		1.7	0.42	ng/L		03/23/21 06:59	03/27/21 12:52	1
Perfluoroundecanoic acid	<1.7		1.7	0.42	ng/L		03/23/21 06:59	03/27/21 12:52	1
Perfluorododecanoic acid	<1.7		1.7	0.42	ng/L		03/23/21 06:59	03/27/21 12:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	124		70 - 130				03/23/21 06:59	03/27/21 12:52	1
13C2 PFDA	117		70 - 130				03/23/21 06:59	03/27/21 12:52	1
13C2 PFHxA	121		70 - 130				03/23/21 06:59	03/27/21 12:52	1

Client Sample ID: 7670061 005 Conley Well FB

Lab Sample ID: 410-33064-2

Date Collected: 03/17/21 09:00

Matrix: Potable Water

Date Received: 03/19/21 15:23

Method: EPA 537 Ver 1.1 - EPA 537 Version 1.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	<1.8		1.8	0.45	ng/L		03/30/21 08:34	03/31/21 11:03	1
Perfluoroheptanoic acid	<1.8		1.8	0.45	ng/L		03/30/21 08:34	03/31/21 11:03	1
Perfluorooctanoic acid	<1.8		1.8	0.45	ng/L		03/30/21 08:34	03/31/21 11:03	1
Perfluorononanoic acid	<1.8		1.8	0.45	ng/L		03/30/21 08:34	03/31/21 11:03	1
Perfluorodecanoic acid	<1.8		1.8	0.45	ng/L		03/30/21 08:34	03/31/21 11:03	1
Perfluorotridecanoic acid	<1.8		1.8	0.45	ng/L		03/30/21 08:34	03/31/21 11:03	1
Perfluorotetradecanoic acid	<1.8		1.8	0.45	ng/L		03/30/21 08:34	03/31/21 11:03	1
Perfluorobutanesulfonic acid	<1.8		1.8	0.45	ng/L		03/30/21 08:34	03/31/21 11:03	1
Perfluorohexanesulfonic acid	<1.8		1.8	0.45	ng/L		03/30/21 08:34	03/31/21 11:03	1
Perfluorooctanesulfonic acid	<1.8		1.8	0.45	ng/L		03/30/21 08:34	03/31/21 11:03	1
NEtFOSAA	<1.8		1.8	0.45	ng/L		03/30/21 08:34	03/31/21 11:03	1
NMeFOSAA	<1.8		1.8	0.45	ng/L		03/30/21 08:34	03/31/21 11:03	1
Perfluoroundecanoic acid	<1.8		1.8	0.45	ng/L		03/30/21 08:34	03/31/21 11:03	1
Perfluorododecanoic acid	<1.8		1.8	0.45	ng/L		03/30/21 08:34	03/31/21 11:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	107		70 - 130				03/30/21 08:34	03/31/21 11:03	1
13C2 PFDA	101		70 - 130				03/30/21 08:34	03/31/21 11:03	1
13C2 PFHxA	95		70 - 130				03/30/21 08:34	03/31/21 11:03	1

Surrogate Summary

Client: SUEZ Water Environmental Services Inc
 Project/Site: Newberry System

Job ID: 410-33064-1

Method: EPA 537 Ver 1.1 - EPA 537 Version 1.1

Matrix: Drinking Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		d5NEFOS (70-130)	PFDA (70-130)	PFHxA (70-130)
410-33064-1	7670061 005 Conley Well	124	117	121
LCS 410-105954/2-A	Lab Control Sample	90	104	89
LCS D 410-105954/3-A	Lab Control Sample Dup	83	95	85
LLCS 410-105954/4-A	Lab Control Sample	95	104	90
MB 410-105954/1-A	Method Blank	95	99	85

Surrogate Legend

d5NEFOS = d5-NEtFOSAA
 PFDA = 13C2 PFDA
 PFHxA = 13C2 PFHxA

Method: EPA 537 Ver 1.1 - EPA 537 Version 1.1

Matrix: Potable Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		d5NEFOS (70-130)	PFDA (70-130)	PFHxA (70-130)
410-33064-2	7670061 005 Conley Well FB	107	101	95

Surrogate Legend

d5NEFOS = d5-NEtFOSAA
 PFDA = 13C2 PFDA
 PFHxA = 13C2 PFHxA

Method: EPA 537 Ver 1.1 - EPA 537 Version 1.1

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		d5NEFOS (70-130)	PFDA (70-130)	PFHxA (70-130)
LCS 410-108760/2-A	Lab Control Sample	113	106	102
LCS D 410-108760/3-A	Lab Control Sample Dup	110	101	95
LLCS 410-108760/4-A	Lab Control Sample	112	99	99
MB 410-108760/1-A	Method Blank	114	108	106

Surrogate Legend

d5NEFOS = d5-NEtFOSAA
 PFDA = 13C2 PFDA
 PFHxA = 13C2 PFHxA

QC Sample Results

Client: SUEZ Water Environmental Services Inc
Project/Site: Newberry System

Job ID: 410-33064-1

Method: EPA 537 Ver 1.1 - EPA 537 Version 1.1

Lab Sample ID: MB 410-105954/1-A
Matrix: Drinking Water
Analysis Batch: 106803

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 105954

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Perfluorohexanoic acid	<2.0		2.0	0.50	ng/L		03/23/21 06:59	03/25/21 19:14	1
Perfluoroheptanoic acid	<2.0		2.0	0.50	ng/L		03/23/21 06:59	03/25/21 19:14	1
Perfluorooctanoic acid	<2.0		2.0	0.50	ng/L		03/23/21 06:59	03/25/21 19:14	1
Perfluorononanoic acid	<2.0		2.0	0.50	ng/L		03/23/21 06:59	03/25/21 19:14	1
Perfluorodecanoic acid	<2.0		2.0	0.50	ng/L		03/23/21 06:59	03/25/21 19:14	1
Perfluorotridecanoic acid	<2.0		2.0	0.50	ng/L		03/23/21 06:59	03/25/21 19:14	1
Perfluorotetradecanoic acid	<2.0		2.0	0.50	ng/L		03/23/21 06:59	03/25/21 19:14	1
Perfluorobutanesulfonic acid	<2.0		2.0	0.50	ng/L		03/23/21 06:59	03/25/21 19:14	1
Perfluorohexanesulfonic acid	<2.0		2.0	0.50	ng/L		03/23/21 06:59	03/25/21 19:14	1
Perfluorooctanesulfonic acid	<2.0		2.0	0.50	ng/L		03/23/21 06:59	03/25/21 19:14	1
NEtFOSAA	<2.0		2.0	0.50	ng/L		03/23/21 06:59	03/25/21 19:14	1
NMeFOSAA	<2.0		2.0	0.50	ng/L		03/23/21 06:59	03/25/21 19:14	1
Perfluoroundecanoic acid	<2.0		2.0	0.50	ng/L		03/23/21 06:59	03/25/21 19:14	1
Perfluorododecanoic acid	<2.0		2.0	0.50	ng/L		03/23/21 06:59	03/25/21 19:14	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
d5-NEtFOSAA	95		70 - 130	03/23/21 06:59	03/25/21 19:14	1
13C2 PFDA	99		70 - 130	03/23/21 06:59	03/25/21 19:14	1
13C2 PFHxA	85		70 - 130	03/23/21 06:59	03/25/21 19:14	1

Lab Sample ID: LCS 410-105954/2-A
Matrix: Drinking Water
Analysis Batch: 106803

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 105954

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Perfluorohexanoic acid	80.0	61.6		ng/L		77	70 - 130
Perfluoroheptanoic acid	80.0	61.9		ng/L		77	70 - 130
Perfluorooctanoic acid	80.0	62.2		ng/L		78	70 - 130
Perfluorononanoic acid	80.0	65.4		ng/L		82	70 - 130
Perfluorodecanoic acid	80.0	66.9		ng/L		84	70 - 130
Perfluorotridecanoic acid	80.0	68.9		ng/L		86	70 - 130
Perfluorotetradecanoic acid	80.0	71.8		ng/L		90	70 - 130
Perfluorobutanesulfonic acid	70.8	52.2		ng/L		74	70 - 130
Perfluorohexanesulfonic acid	73.0	55.9		ng/L		77	70 - 130
Perfluorooctanesulfonic acid	74.0	56.4		ng/L		76	70 - 130
NEtFOSAA	80.0	64.3		ng/L		80	70 - 130
NMeFOSAA	80.0	60.6		ng/L		76	70 - 130
Perfluoroundecanoic acid	80.0	68.2		ng/L		85	70 - 130
Perfluorododecanoic acid	80.0	69.3		ng/L		87	70 - 130

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
d5-NEtFOSAA	90		70 - 130
13C2 PFDA	104		70 - 130
13C2 PFHxA	89		70 - 130

QC Sample Results

Client: SUEZ Water Environmental Services Inc
Project/Site: Newberry System

Job ID: 410-33064-1

Method: EPA 537 Ver 1.1 - EPA 537 Version 1.1 (Continued)

Lab Sample ID: LCSD 410-105954/3-A

Matrix: Drinking Water

Analysis Batch: 106803

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 105954

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorohexanoic acid	80.0	60.8		ng/L		76	70 - 130	1	30
Perfluoroheptanoic acid	80.0	61.3		ng/L		77	70 - 130	1	30
Perfluorooctanoic acid	80.0	61.6		ng/L		77	70 - 130	1	30
Perfluorononanoic acid	80.0	64.9		ng/L		81	70 - 130	1	30
Perfluorodecanoic acid	80.0	64.1		ng/L		80	70 - 130	4	30
Perfluorotridecanoic acid	80.0	62.7		ng/L		78	70 - 130	9	30
Perfluorotetradecanoic acid	80.0	67.3		ng/L		84	70 - 130	6	30
Perfluorobutanesulfonic acid	70.8	51.9		ng/L		73	70 - 130	1	30
Perfluorohexanesulfonic acid	73.0	54.8		ng/L		75	70 - 130	2	30
Perfluorooctanesulfonic acid	74.0	53.8		ng/L		73	70 - 130	5	30
NEtFOSAA	80.0	60.5		ng/L		76	70 - 130	6	30
NMeFOSAA	80.0	58.5		ng/L		73	70 - 130	4	30
Perfluoroundecanoic acid	80.0	63.0		ng/L		79	70 - 130	8	30
Perfluorododecanoic acid	80.0	61.6		ng/L		77	70 - 130	12	30

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
d5-NEtFOSAA	83		70 - 130
13C2 PFDA	95		70 - 130
13C2 PFHxA	85		70 - 130

Lab Sample ID: LLCS 410-105954/4-A

Matrix: Drinking Water

Analysis Batch: 106803

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 105954

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorohexanoic acid	1.92	1.62	J	ng/L		85	50 - 150
Perfluoroheptanoic acid	1.92	1.69	J	ng/L		88	50 - 150
Perfluorooctanoic acid	1.92	1.71	J	ng/L		89	50 - 150
Perfluorononanoic acid	1.92	1.74	J	ng/L		91	50 - 150
Perfluorodecanoic acid	1.92	1.73	J	ng/L		90	50 - 150
Perfluorotridecanoic acid	1.92	1.72	J	ng/L		89	50 - 150
Perfluorotetradecanoic acid	1.92	1.86	J	ng/L		97	50 - 150
Perfluorobutanesulfonic acid	1.70	1.48	J	ng/L		87	50 - 150
Perfluorohexanesulfonic acid	1.75	1.42	J	ng/L		81	50 - 150
Perfluorooctanesulfonic acid	1.78	1.46	J	ng/L		82	50 - 150
NEtFOSAA	1.92	1.75	J	ng/L		91	50 - 150
NMeFOSAA	1.92	1.63	J	ng/L		85	50 - 150
Perfluoroundecanoic acid	1.92	1.79	J	ng/L		93	50 - 150
Perfluorododecanoic acid	1.92	1.67	J	ng/L		87	50 - 150

Surrogate	LLCS LLCS		Limits
	%Recovery	Qualifier	
d5-NEtFOSAA	95		70 - 130
13C2 PFDA	104		70 - 130
13C2 PFHxA	90		70 - 130

QC Sample Results

Client: SUEZ Water Environmental Services Inc
Project/Site: Newberry System

Job ID: 410-33064-1

Method: EPA 537 Ver 1.1 - EPA 537 Version 1.1 (Continued)

Lab Sample ID: MB 410-108760/1-A

Matrix: Water

Analysis Batch: 109282

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 108760

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Perfluorohexanoic acid	<2.0		2.0	0.50	ng/L		03/30/21 08:34	03/31/21 10:15	1
Perfluoroheptanoic acid	<2.0		2.0	0.50	ng/L		03/30/21 08:34	03/31/21 10:15	1
Perfluorooctanoic acid	<2.0		2.0	0.50	ng/L		03/30/21 08:34	03/31/21 10:15	1
Perfluorononanoic acid	<2.0		2.0	0.50	ng/L		03/30/21 08:34	03/31/21 10:15	1
Perfluorodecanoic acid	<2.0		2.0	0.50	ng/L		03/30/21 08:34	03/31/21 10:15	1
Perfluorotridecanoic acid	<2.0		2.0	0.50	ng/L		03/30/21 08:34	03/31/21 10:15	1
Perfluorotetradecanoic acid	<2.0		2.0	0.50	ng/L		03/30/21 08:34	03/31/21 10:15	1
Perfluorobutanesulfonic acid	<2.0		2.0	0.50	ng/L		03/30/21 08:34	03/31/21 10:15	1
Perfluorohexanesulfonic acid	<2.0		2.0	0.50	ng/L		03/30/21 08:34	03/31/21 10:15	1
Perfluorooctanesulfonic acid	<2.0		2.0	0.50	ng/L		03/30/21 08:34	03/31/21 10:15	1
NEtFOSAA	<2.0		2.0	0.50	ng/L		03/30/21 08:34	03/31/21 10:15	1
NMeFOSAA	<2.0		2.0	0.50	ng/L		03/30/21 08:34	03/31/21 10:15	1
Perfluoroundecanoic acid	<2.0		2.0	0.50	ng/L		03/30/21 08:34	03/31/21 10:15	1
Perfluorododecanoic acid	<2.0		2.0	0.50	ng/L		03/30/21 08:34	03/31/21 10:15	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
d5-NEtFOSAA	114		70 - 130	03/30/21 08:34	03/31/21 10:15	1
13C2 PFDA	108		70 - 130	03/30/21 08:34	03/31/21 10:15	1
13C2 PFHxA	106		70 - 130	03/30/21 08:34	03/31/21 10:15	1

Lab Sample ID: LCS 410-108760/2-A

Matrix: Water

Analysis Batch: 109282

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 108760

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec.
		Result	Qualifier				Limits
Perfluorohexanoic acid	20.5	18.4		ng/L		90	70 - 130
Perfluoroheptanoic acid	20.5	17.4		ng/L		85	70 - 130
Perfluorooctanoic acid	20.5	17.7		ng/L		87	70 - 130
Perfluorononanoic acid	20.5	19.0		ng/L		93	70 - 130
Perfluorodecanoic acid	20.5	18.0		ng/L		88	70 - 130
Perfluorotridecanoic acid	20.5	16.9		ng/L		82	70 - 130
Perfluorotetradecanoic acid	20.5	17.0		ng/L		83	70 - 130
Perfluorobutanesulfonic acid	18.1	15.0		ng/L		83	70 - 130
Perfluorohexanesulfonic acid	18.7	15.6		ng/L		84	70 - 130
Perfluorooctanesulfonic acid	19.0	16.0		ng/L		84	70 - 130
NEtFOSAA	20.5	20.3		ng/L		99	70 - 130
NMeFOSAA	20.5	17.6		ng/L		86	70 - 130
Perfluoroundecanoic acid	20.5	18.7		ng/L		91	70 - 130
Perfluorododecanoic acid	20.5	18.1		ng/L		88	70 - 130

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
d5-NEtFOSAA	113		70 - 130
13C2 PFDA	106		70 - 130
13C2 PFHxA	102		70 - 130

QC Sample Results

Client: SUEZ Water Environmental Services Inc
Project/Site: Newberry System

Job ID: 410-33064-1

Method: EPA 537 Ver 1.1 - EPA 537 Version 1.1 (Continued)

Lab Sample ID: LCSD 410-108760/3-A

Matrix: Water

Analysis Batch: 109282

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 108760

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	
								RPD	Limit
Perfluorohexanoic acid	20.5	17.3		ng/L		84	70 - 130	6	30
Perfluoroheptanoic acid	20.5	16.9		ng/L		83	70 - 130	3	30
Perfluorooctanoic acid	20.5	17.3		ng/L		84	70 - 130	3	30
Perfluorononanoic acid	20.5	18.0		ng/L		88	70 - 130	5	30
Perfluorodecanoic acid	20.5	17.5		ng/L		85	70 - 130	3	30
Perfluorotridecanoic acid	20.5	16.3		ng/L		79	70 - 130	4	30
Perfluorotetradecanoic acid	20.5	16.3		ng/L		80	70 - 130	4	30
Perfluorobutanesulfonic acid	18.1	14.6		ng/L		80	70 - 130	3	30
Perfluorohexanesulfonic acid	18.7	15.6		ng/L		84	70 - 130	0	30
Perfluorooctanesulfonic acid	19.0	15.8		ng/L		83	70 - 130	1	30
NEtFOSAA	20.5	19.2		ng/L		94	70 - 130	6	30
NMeFOSAA	20.5	16.3		ng/L		80	70 - 130	8	30
Perfluoroundecanoic acid	20.5	18.3		ng/L		90	70 - 130	2	30
Perfluorododecanoic acid	20.5	17.6		ng/L		86	70 - 130	2	30

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
d5-NEtFOSAA	110		70 - 130
13C2 PFDA	101		70 - 130
13C2 PFHxA	95		70 - 130

Lab Sample ID: LLCS 410-108760/4-A

Matrix: Water

Analysis Batch: 109282

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 108760

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	
								RPD	Limit
Perfluorohexanoic acid	1.92	2.11		ng/L		110	50 - 150		
Perfluoroheptanoic acid	1.92	1.87	J	ng/L		97	50 - 150		
Perfluorooctanoic acid	1.92	2.02		ng/L		105	50 - 150		
Perfluorononanoic acid	1.92	2.00		ng/L		104	50 - 150		
Perfluorodecanoic acid	1.92	1.99	J	ng/L		103	50 - 150		
Perfluorotridecanoic acid	1.92	1.77	J	ng/L		92	50 - 150		
Perfluorotetradecanoic acid	1.92	1.88	J	ng/L		98	50 - 150		
Perfluorobutanesulfonic acid	1.70	1.73	J	ng/L		102	50 - 150		
Perfluorohexanesulfonic acid	1.75	1.70	J	ng/L		97	50 - 150		
Perfluorooctanesulfonic acid	1.78	1.78	J	ng/L		100	50 - 150		
NEtFOSAA	1.92	2.19		ng/L		114	50 - 150		
NMeFOSAA	1.92	1.83	J	ng/L		95	50 - 150		
Perfluoroundecanoic acid	1.92	2.14		ng/L		111	50 - 150		
Perfluorododecanoic acid	1.92	1.93	J	ng/L		101	50 - 150		

Surrogate	LLCS		Limits
	%Recovery	Qualifier	
d5-NEtFOSAA	112		70 - 130
13C2 PFDA	99		70 - 130
13C2 PFHxA	99		70 - 130

QC Association Summary

Client: SUEZ Water Environmental Services Inc
 Project/Site: Newberry System

Job ID: 410-33064-1

LCMS

Prep Batch: 105954

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-33064-1	7670061 005 Conley Well	Total/NA	Drinking Water	EPA 537 Ver 1.1	
MB 410-105954/1-A	Method Blank	Total/NA	Drinking Water	EPA 537 Ver 1.1	
LCS 410-105954/2-A	Lab Control Sample	Total/NA	Drinking Water	EPA 537 Ver 1.1	
LCSD 410-105954/3-A	Lab Control Sample Dup	Total/NA	Drinking Water	EPA 537 Ver 1.1	
LLCS 410-105954/4-A	Lab Control Sample	Total/NA	Drinking Water	EPA 537 Ver 1.1	

Analysis Batch: 106803

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-105954/1-A	Method Blank	Total/NA	Drinking Water	EPA 537 Ver 1.1	105954
LCS 410-105954/2-A	Lab Control Sample	Total/NA	Drinking Water	EPA 537 Ver 1.1	105954
LCSD 410-105954/3-A	Lab Control Sample Dup	Total/NA	Drinking Water	EPA 537 Ver 1.1	105954
LLCS 410-105954/4-A	Lab Control Sample	Total/NA	Drinking Water	EPA 537 Ver 1.1	105954

Analysis Batch: 107966

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-33064-1	7670061 005 Conley Well	Total/NA	Drinking Water	EPA 537 Ver 1.1	105954

Prep Batch: 108760

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-33064-2	7670061 005 Conley Well FB	Total/NA	Potable Water	EPA 537 Ver 1.1	
MB 410-108760/1-A	Method Blank	Total/NA	Water	EPA 537 Ver 1.1	
LCS 410-108760/2-A	Lab Control Sample	Total/NA	Water	EPA 537 Ver 1.1	
LCSD 410-108760/3-A	Lab Control Sample Dup	Total/NA	Water	EPA 537 Ver 1.1	
LLCS 410-108760/4-A	Lab Control Sample	Total/NA	Water	EPA 537 Ver 1.1	

Analysis Batch: 109282

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-33064-2	7670061 005 Conley Well FB	Total/NA	Potable Water	EPA 537 Ver 1.1	108760
MB 410-108760/1-A	Method Blank	Total/NA	Water	EPA 537 Ver 1.1	108760
LCS 410-108760/2-A	Lab Control Sample	Total/NA	Water	EPA 537 Ver 1.1	108760
LCSD 410-108760/3-A	Lab Control Sample Dup	Total/NA	Water	EPA 537 Ver 1.1	108760
LLCS 410-108760/4-A	Lab Control Sample	Total/NA	Water	EPA 537 Ver 1.1	108760

Lab Chronicle

Client: SUEZ Water Environmental Services Inc
 Project/Site: Newberry System

Job ID: 410-33064-1

Client Sample ID: 7670061 005 Conley Well

Lab Sample ID: 410-33064-1

Date Collected: 03/17/21 09:00

Matrix: Drinking Water

Date Received: 03/19/21 15:23

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	EPA 537 Ver 1.1			105954	03/23/21 06:59	W5MU	ELLE
Total/NA	Analysis	EPA 537 Ver 1.1		1	107966	03/27/21 12:52	PY4D	ELLE

Client Sample ID: 7670061 005 Conley Well FB

Lab Sample ID: 410-33064-2

Date Collected: 03/17/21 09:00

Matrix: Potable Water

Date Received: 03/19/21 15:23

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	EPA 537 Ver 1.1			108760	03/30/21 08:34	S7AC	ELLE
Total/NA	Analysis	EPA 537 Ver 1.1		1	109282	03/31/21 11:03	Y6ZN	ELLE

Laboratory References:

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



Accreditation/Certification Summary

Client: SUEZ Water Environmental Services Inc
Project/Site: Newberry System

Job ID: 410-33064-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	36-00037	01-31-22

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Method Summary

Client: SUEZ Water Environmental Services Inc
Project/Site: Newberry System

Job ID: 410-33064-1

Method	Method Description	Protocol	Laboratory
EPA 537 Ver 1.1	EPA 537 Version 1.1	EPA	ELLE
EPA 537 Ver 1.1	EPA 537 Version 1.1	EPA	ELLE

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

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



Sample Summary

Client: SUEZ Water Environmental Services Inc
Project/Site: Newberry System

Job ID: 410-33064-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
410-33064-1	7670061 005 Conley Well	Drinking Water	03/17/21 09:00	03/19/21 15:23	
410-33064-2	7670061 005 Conley Well FB	Potable Water	03/17/21 09:00	03/19/21 15:23	

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Environmental Analysis Requisition



410-33064 Chain of Custody



Lancaster Laboratories
Environmental

Acct. # 44297 Group # _____

Sample # _____

Client: SUEZ WATER PA		Project Name: Newberry System		Site ID #:		Matrix		Analyses Requested										For Lab Use Only											
Project Manager: Elizabeth Zanar		Sampler: Penny Bumbarger		P.O. #:		PWSID #: 7670061		Preservation and Filtration Codes		SF #:		SCR #:		Preservation Codes															
Phone #: 717-773-0185		Quote #: 219948A		State where samples were collected: PA		For Compliance: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Soil <input type="checkbox"/> Sediment <input type="checkbox"/> Tissue <input type="checkbox"/>		Potable <input type="checkbox"/> Ground <input type="checkbox"/> Surface <input type="checkbox"/>		Water <input type="checkbox"/> NPDES <input type="checkbox"/>		Other: GAC Filtered Water		Total # of Containers		PFAS (14) 537 v 1.1		H = HCl		T = Thiosulfate							
Date		Time		Grab		Composite		Soil <input type="checkbox"/>		Water <input type="checkbox"/>		Other: <input type="checkbox"/>		Total # of Containers		PFAS (14) 537 v 1.1		N = HNO ₃		B = NaOH		S = H ₂ SO ₄		P = H ₃ PO ₄					
Sample Identification		Date		Time		Grab		Composite		Soil <input type="checkbox"/>		Water <input type="checkbox"/>		Other: <input type="checkbox"/>		Total # of Containers		PFAS (14) 537 v 1.1		F = Field Filtered		O = Other		Remarks					
006 Eden Well		3/17/21		0925		X				X				2		X								Quarterly Compliance					
FB - Eden Well		3/17/21		0925										2		X													
Batch QC - Eden Well		3/17/21		0925		X				X				1		X													
005 Conley Well		3/17/21		0900		X				X				2		X								Monthly Compliance					
FB - Conley Well		3/17/21		0900										2		X													
Batch QC - Conley Well		3/17/21		0900		X				X				1		X													
Turnaround Time Requested (TAT) (please check):		Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/>		(Rush TAT is subject to laboratory approval and surcharges.)		Relinquished by:		Date		Time		Received by:		Date		Time		Relinquished by:		Date		Time		Relinquished by:		Date		Time	
Date results are needed:		Rush results requested by (please check):		E-Mail <input checked="" type="checkbox"/> Phone <input type="checkbox"/>		Penny Bumbarger		3/19/21		0912		D. A.		3/19/21		912		D. A.		3/19/21		912		D. A.		3/19/21		912	
E-mail Address: penny.bumbarger@suez.com		Phone: 717-773-0185		Data Package Options (please check if required)		Relinquished by:		Date		Time		Received by:		Date		Time		Relinquished by:		Date		Time		Relinquished by:		Date		Time	
Type I (Validation/non-CLP) <input type="checkbox"/> MA MCP <input type="checkbox"/>		Type III (Reduced non-CLP) <input type="checkbox"/> CT RCP <input type="checkbox"/>		Type VI (Raw Data Only) <input type="checkbox"/> TX TRRP-13 <input type="checkbox"/>		Relinquished by:		Date		Time		Received by:		Date		Time		Relinquished by:		Date		Time		Relinquished by:		Date		Time	
NJ DKQP <input type="checkbox"/> NYSDEC Category <input type="checkbox"/> A or <input type="checkbox"/> B		EDD Required? Yes <input type="checkbox"/> No <input type="checkbox"/> If yes, format: _____		Relinquished by:		Date		Time		Received by:		Date		Time		Relinquished by:		Date		Time		Relinquished by:		Date		Time			
UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Other <input checked="" type="checkbox"/>		Temperature upon receipt 0.5 °C		Relinquished by:		Date		Time		Received by:		Date		Time		Relinquished by:		Date		Time		Relinquished by:		Date		Time			

CB

Login Sample Receipt Checklist

Client: SUEZ Water Environmental Services Inc

Job Number: 410-33064-1

Login Number: 33064

List Source: Eurofins Lancaster Laboratories Env

List Number: 1

Creator: Barns, Christopher

Question	Answer	Comment
Radioactivity wasn't checked or is \leq 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 ($\leq 6^{\circ}\text{C}$, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable ($\leq 6^{\circ}\text{C}$, 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	