Analytical Report

Serialized: 07/07/2017 04:42pm QC36

RICK ZEITLER
WARRINGTON TOWNSHIP WATER & SEWER
852 EASTON ROAD

WARRINGTON,PA 18976

Regarding:

WARRINGTON TOWNSHIP WATER & SEWER
852 EASTON ROAD
WARRINGTON, PA 18976

PROJECT ID:

W00674 BRISTOL EPA

LABORATORY REPORT NUMBER:

L6761286

Authorized by: Raphael C. Fratti, Laboratory Director

Eurofins QC, Inc.

Analytical Report

Printed 07/07/17 16:42 QC36

RICK ZEITLER
WARRINGTON TOWNSHIP WATER & SEWER
852 EASTON ROAD
WARRINGTON, PA 18976

Regarding:
RICK ZEITLER
WARRINGTON TOWNSHIP WATER & SEWER
852 EASTON ROAD
WARRINGTON, PA 18976

Account No: W00674, WARRINGTON TWP WATER & SEWER **P.O. No:** **Inv. No:** EOM-07/17
Project No: W00674 BRISTOL EPA, WARRINGTON TOWNSHIP WATER & SEWER **PWSID No:** 1090070

Sample ID	Sample Description	Samp. Date/Time/Temp	Sampled by
L6761286-1	EP104 WELL 5 SINK	05/22/17 08:45am NA C	Suzanne E. Hughes, Eurofins QC, Inc.

Received Date/Time/Temp 05/22/17 02:35pm 3.7 C **Iced (Y/N):** Y

--SUBCONTRACTED RESULT REFERENCES--

See attached reports for the following Subcontract Laboratories:

Eurofins - Lancaster Laboratories, Environmental (ELLE)
PENTADECAFLUORO-OCTANOIC ACID

Sample ID	Sample Description	Samp. Date/Time/Temp	Sampled by
L6761286-2	EP105 WELL 8 SINK	05/22/17 07:50am NA C	Suzanne E. Hughes, Eurofins QC, Inc.

Received Date/Time/Temp 05/22/17 02:35pm 3.7 C **Iced (Y/N):** Y

--SUBCONTRACTED RESULT REFERENCES--

See attached reports for the following Subcontract Laboratories:

Eurofins - Lancaster Laboratories, Environmental (ELLE)
PENTADECAFLUORO-OCTANOIC ACID

Sample ID	Sample Description	Samp. Date/Time/Temp	Sampled by
L6761286-3	EP107 WELL 11 SINK	05/22/17 09:15am NA C	Suzanne E. Hughes, Eurofins QC, Inc.

Received Date/Time/Temp 05/22/17 02:35pm 3.7 C **Iced (Y/N):** Y

--SUBCONTRACTED RESULT REFERENCES--

See attached reports for the following Subcontract Laboratories:

Eurofins - Lancaster Laboratories, Environmental (ELLE)
PENTADECAFLUORO-OCTANOIC ACID

Sample Comments | Result Qualifiers:

PIN: 85448 Serial Number: 6338004

Eurofins QC, Inc.

Analytical Report

Printed 07/07/17 16:42

Account No:W00674, WARRINGTON TWP WATER & SEWER **P.O. No:** **Inv. No:** EOM-07/17
Project No: W00674 BRISTOL EPA, WARRINGTON TOWNSHIP WATER & SEWER **PWSID No:** 1090070

L6761286-1 :

L6761286-2 :

L6761286-3 :

PIN: 85448 Serial Number: 6338004

DEFINITIONS

Eurofins QC, Inc. (EQC) ***The following terms or abbreviations are used in this report:***

MPN	Most probable number		
CFU	Colony forming unit	DF	Dilution Factor (For Microbiology, DF = volume of sample tested)
POS	Positive / Present	QUAL	Qualifier (Q)
NEG	Negative / Absent	NTU	Nephelometric turbidity units
PRES	Presumptive	RL	Laboratory reporting limit or Limit of Quantitation (LOQ)
MF	Membrane Filtration	MCL	EPA recommended "Maximum Contaminant Level"
TNTC	Too numerous to count	MDL	Method Detection Limit
DRY	The result was reported on a dry weight basis.	ND	Analyte concentration not detected greater than the RL / MDL
TON	Threshold Odor Number	ND	For the odor test: No Odor Observed

ppm (mg/l) Parts per million: equivalent to 1 milligram per kilogram (mg/Kg) for solids or one milligram per liter (mg/L) for aqueous samples.

ppb (ug/L) Parts per billion: equivalent to 1 microgram per kilogram (ug/Kg) for solids or one microgram per liter (ug/L) for aqueous samples.

< Less than: In conjunction with a numerical value, indicates a concentration less than RL / MDL.

> Greater than: In conjunction with a numerical value, indicates a concentration greater than RL / MDL.

Data Qualifiers

J	Estimated value ≥ MDL but < RL.
T	Temperature receipt exceedance, refer to Sample Comments/ Results Qualifiers section.
E	Microbiology: estimated CFU count
Q	Qualifier: defined in Sample Comment section on report

Warranties, Terms, and Conditions

- Analyses for Odor and Odor Threshold are performed at the EQCI Southampton facility (1205 Industrial Boulevard, Southampton, PA 18966). Unless otherwise specified in the Parameter field, analyses (excluding "Field Parameters") for environmental microbiology, environmental chemistry, and pharamceutal microbiology are performed at the EQCI Horsham facility (702 Electronic Dr. Horsham, PA 19044).
- The test results meet all TNI or other applicable regulatory agency requirements, including holding times and preservation, unless otherwise indicated.
- The report shall not be reproduced, except in full, without the written consent of the laboratory.
- All samples are collected as "grab" samples unless otherwise identified.
- The reported results relate only to the sample as tested. EQCI is not responsible for sample integrity unless sampling has been performed by a member of our staff.
- EQCI is not responsible for sampling and/or testing omissions. Note that regulatory authorities may assess substantial fines for testing omissions. Please track your sample collection schedules and results on a regular basis (e.g. weekly, monthly, or quarterly) to ensure compliance. EQCI's internet program "LIVE ACCESS" will provide you with real-time access to collection dates and testing results. Please contact Customer Service for further information.
- The following personnel or their deputies have approved the results of the tests performed by EQCI: Nicki Smith (Environmental Chemistry), Amanda Berd (Pharmaceutical), Sue Abbott (EQCI Delaware), and Bhavita Shah (EQCI Horsham, Microbiology).

EQC Accreditations

Southampton, PA	EPA ID:	PA00018	Horsham, PA	NELAP IDs:
	NELAP IDs:	PA 09-00131; NJ PA166; NY 11223		PA: 46-05499
	State IDs:	DE PA-018;		NJ: PA093
	FDA Reg #:	3009048205		
New Castle, DE	State IDs:	DE 00011; MD 138		
Wind Gap, PA	State IDs:	PA 48-01334; NJ PA001		
East Rutherford, NJ	State ID:	NJ 02015		
Vineland, NJ	State ID:	NJ 06005		

EQC Eurofins QC, Inc

Picksheet: P6761286
Cust: W00674 BRISTOL EPA
Schd: 50081

RICK ZEITLER
WARRINGTON TOWNSHIP WATER & SEWER
852 EASTON ROAD

WARRINGTON, PA 18976
(215)343-1800
(215)768-6109 SAM-CELL
(215)768-6103 RICK ZEITLER-CELL

Route: 6 SUE HUGHES

PWSID: 1090070

Expected: MONDAY 05/01/17 - 05/31/17
Project Name: WARRINGTON TOWNSHIP WATER & SEWER
Start Date: 11/17/16 Stop Date:
Comments/Schedule Details:
GF 287218

LAB USE ONLY

#		Bottle Type
# 4	Ascorbic/HCL Vials	# HCL Vials
# 4	NA2S2O3	V, AGS, GLAmber
# 4	NaOH/Zn acetate pH	
#	HNO3 pH	
#	H2SO4 pH	
#	NaOH pH	
# 9	Unpreserved	1L PP, Gallon
#	HCL	
#	NH4CL	
#	MEOH	
#	Na2SO3/HCL	
#	DI Water	

Field Tests By: /Time:

	Pseudo	HPC	eColi	Coli	Collection Date	Collection Time (Military)	# Bottles	Free Cl2 mg/L	pH/TempC	BR2 mg/L	Total CL2 mg/L
6761286-1 PFOA) EP104 WELL 5 SINK PFOA					5-22-17	0845	18				
6761286-2 EP105 WELL 8 SINK PFOA						0750	18				
6761286-3 EP107 WELL 11 SINK PFOA						0915	18				

TCDD Dioxin 549 548

SUB TO ELLE * SPECIAL PURPOSE

504 508 515 525 531 547

FS252194

Cooler ID:

Sample Collected By	Circle One	Initials
	Client EQC	SEH

Required TAT: Standard ___/Rush___# Days ____

Relinquished By	Time	Date	Received By	Time	Date	Temp	Iced Y/N	Site	Initials
Sue Hughes	1435	5-22-17	[illegible]	1435	5/22	3.7	Y	EQC	SEH

Comments (reporting, methods, etc)

Hazardous Y/N

M: 08:00-14:30 T: 08:00-14:30 W: 08:00-14:30 Th: 08:00-14:30 F: 08:00-14:30 St: - Sn: - Printed: 04/12/17 GPS X: -75.14407 Y: 40.27073
M: - T: - W: - Th: - F: - St: - Sn: -
PM: DOUG

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

Eurofins QC Labs
702 Electric Avenue
Horsham PA 19044

Report Date: June 06, 2017

Project: L6761286

Submittal Date: 05/22/2017
Group Number: 1804439
PO Number: L6761286
State of Sample Origin: PA

Client Sample Description	Lancaster Labs (LL) #
L6761286-1 Drinking Water	9008345
L6761286-2 Drinking Water	9008346
L6761286-3 Drinking Water	9008347

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our current scopes of accreditation can be viewed at http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/ . To request copies of prior scopes of accreditation, contact your project manager.

Electronic Copy To Eurofins QC Labs Attn: Nicki Smith

Respectfully Submitted,

Wendy A. Kozma
Principal Specialist Group Leader

Project Name: L6761286
LL Group #: 1804439

General Comments:

See the Laboratory Sample Analysis Record section of the Analysis Report for the method references.

All QC met criteria unless otherwise noted in an Analysis Specific Comment below. Refer to the QC Summary for specific values and acceptance criteria.

Project specific QC samples are not included in this data set

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

Surrogate recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in an Analysis Specific Comment below.

The samples were received at the appropriate temperature and in accordance with the chain of custody unless otherwise noted.

Analysis Specific Comments:

EPA 537 Rev. 1.1 modified, Misc. Organics

Sample #s: 9008345, 9008346, 9008347

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

Batch #: 17145001 (Sample number(s): 9008345-9008347 UNSPK: 9008345)

The recovery(ies) for one or more surrogates were below the acceptance window for sample(s) 9008345, 9008346, 9008347, LCS, LCSD, MS

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Analysis Report

Sample Description: L6761286-1 Drinking Water
EP104 WELL 5 SINK

LL Sample # PW 9008345
LL Group # 1804439
Account # 25996

Project Name: L6761286

Collected: 05/22/2017 08:45

Submitted: 05/22/2017 19:24
Reported: 06/06/2017 12:36

Eurofins QC Labs
702 Electric Avenue
Horsham PA 19044

01010

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
Misc. Organics	**EPA 537 Rev. 1.1 modified**		**ng/l**	**ng/l**	
10954	Perfluorooctanoic acid	335-67-1	12	2	1
10954	Perfluorononanoic acid	375-95-1	N.D.	2	1
10954	Perfluorodecanoic acid	335-76-2	N.D.	2	1
10954	Perfluoroundecanoic acid	2058-94-8	N.D.	3	1
10954	Perfluorododecanoic acid	307-55-1	N.D.	2	1
10954	Perfluorotridecanoic acid	72629-94-8	N.D.	2	1
10954	Perfluorotetradecanoic acid	376-06-7	N.D.	2	1
10954	Perfluorohexanoic acid	307-24-4	5	2	1
10954	Perfluoroheptanoic acid	375-85-9	4	2	1
10954	Perfluorobutanesulfonate	375-73-5	6	3	1
10954	Perfluorohexanesulfonate	355-46-4	4	3	1
10954	Perfluoro-octanesulfonate	1763-23-1	14	6	1
10954	NEtFOSAA	2991-50-6	N.D.	3	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
10954	NMeFOSAA	2355-31-9	N.D.	3	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/18.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10954	PFAS in Water by LC/MS/MS	EPA 537 Rev. 1.1 modified	1	17145001	05/31/2017 21:08	Jason W Knight	1
14091	PFAS Water Prep	EPA 537 Rev. 1.1 modified	1	17145001	05/26/2017 07:30	Pamela Rothharpt	1

Sample Description: L6761286-2 Drinking Water
EP105 WELL 8 SINK

LL Sample # PW 9008346
LL Group # 1804439
Account # 25996

Project Name: L6761286

Collected: 05/22/2017 07:50

Submitted: 05/22/2017 19:24
Reported: 06/06/2017 12:36

Eurofins QC Labs
702 Electric Avenue
Horsham PA 19044

Sample Description: L6761286-2 Drinking Water
EP105 WELL 8 SINK

LL Sample # PW 9008346
LL Group # 1804439
Account # 25996

Project Name: L6761286

02020

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
Misc. Organics	**EPA 537 Rev. 1.1 modified**		**ng/l**	**ng/l**	
10954	Perfluorooctanoic acid	335-67-1	9	2	1
10954	Perfluorononanoic acid	375-95-1	N.D.	2	1
10954	Perfluorodecanoic acid	335-76-2	N.D.	2	1
10954	Perfluoroundecanoic acid	2058-94-8	N.D.	3	1
10954	Perfluorododecanoic acid	307-55-1	N.D.	2	1
10954	Perfluorotridecanoic acid	72629-94-8	N.D.	2	1
10954	Perfluorotetradecanoic acid	376-06-7	N.D.	2	1
10954	Perfluorohexanoic acid	307-24-4	5	2	1
10954	Perfluoroheptanoic acid	375-85-9	3	2	1
10954	Perfluorobutanesulfonate	375-73-5	N.D.	3	1
10954	Perfluorohexanesulfonate	355-46-4	5	3	1
10954	Perfluoro-octanesulfonate	1763-23-1	12	6	1
10954	NEtFOSAA	2991-50-6	N.D.	3	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
10954	NMeFOSAA	2355-31-9	N.D.	3	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/18.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10954	PFAS in Water by LC/MS/MS	EPA 537 Rev. 1.1 modified	1	17145001	05/30/2017 21:33	Devon M Whooley	1
14091	PFAS Water Prep	EPA 537 Rev. 1.1 modified	1	17145001	05/26/2017 07:30	Pamela Rothharpt	1

Sample Description: L6761286-3 Drinking Water
EP107 WELL 11 SINK

LL Sample # PW 9008347
LL Group # 1804439
Account # 25996

Project Name: L6761286

Collected: 05/22/2017 09:15

Submitted: 05/22/2017 19:24
Reported: 06/06/2017 12:36

Eurofins QC Labs
702 Electric Avenue
Horsham PA 19044

10877

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor

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Analysis Report

Sample Description: L6761286-3 Drinking Water
EP107 WELL 11 SINK

LL Sample # PW 9008347
LL Group # 1804439
Account # 25996

Project Name: L6761286

Collected: 05/22/2017 09:15

Submitted: 05/22/2017 19:24
Reported: 06/06/2017 12:36

Eurofins QC Labs
702 Electric Avenue
Horsham PA 19044

10877

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
Misc. Organics	**EPA 537 Rev. 1.1 modified**		**ng/l**	**ng/l**	
10954	Perfluorooctanoic acid	335-67-1	12	2	1
10954	Perfluorononanoic acid	375-95-1	N.D.	2	1
10954	Perfluorodecanoic acid	335-76-2	N.D.	2	1
10954	Perfluoroundecanoic acid	2058-94-8	N.D.	3	1
10954	Perfluorododecanoic acid	307-55-1	N.D.	2	1
10954	Perfluorotridecanoic acid	72629-94-8	N.D.	2	1
10954	Perfluorotetradecanoic acid	376-06-7	N.D.	2	1
10954	Perfluorohexanoic acid	307-24-4	5	2	1
10954	Perfluoroheptanoic acid	375-85-9	4	2	1
10954	Perfluorobutanesulfonate	375-73-5	7	3	1
10954	Perfluorohexanesulfonate	355-46-4	N.D.	3	1
10954	Perfluoro-octanesulfonate	1763-23-1	10	6	1
10954	NEtFOSAA	2991-50-6	N.D.	3	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
10954	NMeFOSAA	2355-31-9	N.D.	3	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/18.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10954	PFAS in Water by LC/MS/MS	EPA 537 Rev. 1.1 modified	1	17145001	05/30/2017 21:53	Devon M Whooley	1
14091	PFAS Water Prep	EPA 537 Rev. 1.1 modified	1	17145001	05/26/2017 07:30	Pamela Rothharpt	1

Quality Control Summary

Client Name: Eurofins QC Labs
Reported: 06/06/2017 12:36

Group Number: 1804439

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 was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result ng/l	LOQ ng/l
Batch number: 17145001	Sample number(s): 9008345-9008347	
Perfluorooctanoic acid	N.D.	2
Perfluorononanoic acid	N.D.	2
Perfluorodecanoic acid	N.D.	2
Perfluoroundecanoic acid	N.D.	3
Perfluorododecanoic acid	N.D.	2
Perfluorotridecanoic acid	N.D.	2
Perfluorotetradecanoic acid	N.D.	2
Perfluorohexanoic acid	N.D.	2
Perfluoroheptanoic acid	N.D.	2
Perfluorobutanesulfonate	N.D.	3
Perfluorohexanesulfonate	N.D.	3
Perfluoro-octanesulfonate	N.D.	6
NEtFOSAA	N.D.	3
NMeFOSAA	N.D.	3

LCS/LCSD

Analysis Name	LCS Spike Added ng/l	LCS Conc ng/l	LCSD Spike Added ng/l	LCSD Conc ng/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 17145001	Sample number(s): 9008345-9008347								
Perfluorooctanoic acid	200	175.37	200	175.16	88	88	70-130	0	30
Perfluorononanoic acid	200	197.08	200	178.13	99	89	70-130	10	30
Perfluorodecanoic acid	200	191.53	200	158.81	96	79	70-130	19	30
Perfluoroundecanoic acid	200	179.25	200	179.46	90	90	70-130	0	30
Perfluorododecanoic acid	200	173.9	200	191.45	87	96	70-130	10	30
Perfluorotridecanoic acid	200	174.21	200	172.42	87	86	70-130	1	30
Perfluorotetradecanoic acid	200	189.95	200	176.89	95	88	70-130	7	30
Perfluorohexanoic acid	200	197.52	200	176.07	99	88	70-130	11	30
Perfluoroheptanoic acid	200	185.22	200	195.57	93	98	70-130	5	30
Perfluorobutanesulfonate	176.8	155.74	176.8	164.33	88	93	70-130	5	30
Perfluorohexanesulfonate	189.2	163.19	189.2	149.4	86	79	70-130	9	30
Perfluoro-octanesulfonate	191.2	169.23	191.2	175.64	89	92	70-130	4	30
NEtFOSAA	200	166.2	200	196.34	83	98	70-130	17	30
NMeFOSAA	200	159.18	200	150.79	80	75	70-130	5	30

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Eurofins QC Labs
Reported: 06/06/2017 12:36

Group Number: 1804439

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ng/l	MS Spike Added ng/l	MS Conc ng/l	MSD Spike Added ng/l	MSD Conc ng/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: 17145001	Sample number(s): 9008345-9008347 UNSPK: 9008345									
Perfluorooctanoic acid	12.43	199.3	188.29			88		70-130		
Perfluorononanoic acid	1.88	199.3	191.95			95		70-130		
Perfluorodecanoic acid	N.D.	199.3	169.93			85		70-130		
Perfluoroundecanoic acid	N.D.	199.3	177.08			89		70-130		
Perfluorododecanoic acid	N.D.	199.3	184.17			92		70-130		
Perfluorotridecanoic acid	N.D.	199.3	167.63			84		70-130		
Perfluorotetradecanoic acid	N.D.	199.3	182.06			91		70-130		
Perfluorohexanoic acid	4.99	199.3	191.29			93		70-130		
Perfluoroheptanoic acid	3.83	199.3	186.63			92		70-130		
Perfluorobutanesulfonate	5.68	176.18	161.22			88		70-130		
Perfluorohexanesulfonate	3.84	188.54	186.56			97		70-130		
Perfluoro-octanesulfonate	13.8	190.53	185.06			90		70-130		
NEtFOSAA	N.D.	199.3	180.15			90		70-130		
NMeFOSAA	N.D.	199.3	164.67			83		70-130		

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: PFAS in Water by LC/MS/MS
Batch number: 17145001

	13C3-PFBS	13C5-PFHxA	13C3-PFHxS	13C4-PFHpA	13C8-PFOA	13C8-PFOS
9008345	85	80	78	79	75	81
9008346	78	68*	75	72	76	76
9008347	86	77	81	76	68*	79
Blank	75	83	85	88	89	91
LCS	74	65*	74	73	66*	78
LCSD	64*	69*	68*	64*	65*	75
MS	71	69*	59*	73	68*	68*
Limits:	70-130	70-130	70-130	70-130	70-130	70-130

	13C9-PFNA	13C6-PFDA	d3-NMeFOSAA	13C7-PFUnDA	d5-NEtFOSAA	13C2-PFDoDA
9008345	75	84	60*	64*	61*	63*
9008346	85	79	77	88	87	96
9008347	71	79	74	83	90	81
Blank	97	91	77	85	80	83
LCS	86	63*	56*	64*	52*	70
LCSD	80	69*	66*	62*	58*	71
MS	75	68*	67*	61*	61*	70

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Eurofins QC Labs
Reported: 06/06/2017 12:36

Group Number: 1804439

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed
unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: PFAS in Water by LC/MS/MS
Batch number: 17145001

Limits:	70-130	70-130	70-130	70-130	70-130	70-130

	13C2-PFTeDA
9008345	54*
9008346	81
9008347	73
Blank	70
LCS	63*
LCSD	64*
MS	67*
Limits:	70-130

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

EQC Eurofins QC, Inc

Picksheet: P6761286
Cust: W00674 BRISTOL EPA
Schd: 50081

RICK ZEITLER
WARRINGTON TOWNSHIP WATER & SEWER
852 EASTON ROAD

WARRINGTON, PA 18976
(215)343-1800
(215)768-6109 SAM-CELL
(215)768-6103 RICK ZEITLER-CELL

Expected: MONDAY 05/01/17 - 05/31/17
Project Name: WARRINGTON TOWNSHIP WATER & SEWER
Start Date: 11/17/16 Stop Date:
Comments/Schedule Details:
GF 287218

1504432

LAB USE ONLY — Bottle Type

#	Ascorbic/HCL Vials	# HCL Vials
# 4	NA2S2O3	VIALS, GLAMET
# 4	NaOH/Zn acetate pH	
#	HNO3 pH	
#	H2SO4 pH	
#	NaOH pH	
# 9	Unpreserved	1L PLAST, GLLET
#	HCL	
#	NH4CL	
#	MEOH	
#	Na2SO3/HCL	
#	DI Water	

Route: 6 SUE HUGHES

PWSID: 1090070

Field Tests By: /Time:

	Pseudo	HPC	eColi	Coli	Collection Date	Collection Time (Military)	Total #.Bottles	Free Cl2 mg/L	pH/TempC	BR2 mg/L	Total CL2 mg/L
6761286-1 PFOA) EP104 WELL 5 SINK PFOA					5-22-17	0845	18				
6761286-2 EP105 WELL 8 SINK PFOA						0750	18				
6761286-3 EP107 WELL 11 SINK PFOA						0915	18				

TCDD DIOXIN 549 548

SUB TO ELLE * SPECIAL PURPOSE

504 508 515 525 531 547

FS252194

Cooler ID

Sample Collected By	Circle One	Initials
	Client EQC	SEH

Required TAT: Standard ___/Rush___# Days _____

Relinquished By	Time	Date	Received By	Time	Date	Temp	Iced Y/N	Site	Initials
Dianne Hughes	1435	5-22-17	[illegible]	1435	5/22	3.7	Y	EQC	SEH
			[illegible]	1924	5/22	4.5	Y	ELLE	KD

Comments (reporting, methods, etc)

Hazardous Y/N

M: 08:00-14:30 T: 08:00-14:30 W: 08:00-14:30 Th: 08:00-14:30 F: 08:00-14:30 St: - Sn: - Printed: 04/12/17 GPS X -75 14407 Y 40 27073
M: - T: - W: - Th: - F: - St: - Sn: -
PM: DOUG

eurofins | Lancaster Laboratories Environmental

Sample Administration Receipt Documentation Log

Doc Log ID: 184359

Group Number(s): 1500439

Client: EQCL

Delivery and Receipt Information

Delivery Method:	EQCL Drop Off	Arrival Timestamp:	05/22/2017 19:24
Number of Packages:	1	Number of Projects:	9

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	Yes	Sample Date/Times match COC:	Yes
Custody Seal Intact:	Yes	VOA Vial Headspace ≥ 6mm:	N/A
Samples Chilled:	Yes	Total Trip Blank Qty:	0
Paperwork Enclosed:	Yes	Air Quality Samples Present:	No
Samples Intact:	Yes		
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Karen Diem (3060) at 20:07 on 05/22/2017

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Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	DT121	4.5	DT	Wet	N	Bagged	N

2425 New Holland Pike
Lancaster, PA 17605-2425

T 717-656-2300
F 717-656-2681
www.LancasterLabs.com

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	**mg**	milligram(s)
C	degrees Celsius	**mL**	milliliter(s)
cfu	colony forming units	**MPN**	Most Probable Number
CP Units	cobalt-chloroplatinate units	**N.D.**	none detected
F	degrees Fahrenheit	**ng**	nanogram(s)
g	gram(s)	**NTU**	nephelometric turbidity units
IU	International Units	**pg/L**	picogram/liter
kg	kilogram(s)	**RL**	Reporting Limit
L	liter(s)	**TNTC**	Too Numerous To Count
lb.	pound(s)	**µg**	microgram(s)
m3	cubic meter(s)	**µL**	microliter(s)
meq	milliequivalents	**umhos/cm**	micromhos/cm

< less than

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Laboratory Data Qualifiers:

C - Result confirmed by reanalysis
E - Concentration exceeds the calibration range
J (or G, I, X) - estimated value ≥ the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P - Concentration difference between the primary and confirmation column >40%. The lower result is reported.
U - Analyte was not detected at the value indicated
V - Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference…
W - The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

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

Tests 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.

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Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as “analyze immediately” are not performed within 15 minutes.

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Additional Data Qualifiers

Qualifier	Definition
B	Detection in the Blank
Q0	LCS/LCSD Low
Q1	LCS/LCSD High
Q4	MS/MSD Out of Range
Q7	LCS/LCSD RPD
Q8	DUP RPD
Q9	MS/MSD RPD