



Eaton Analytical

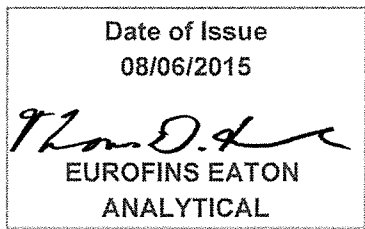
750 Royal Oaks Drive, Suite 100  
Monrovia, California 91016-3629  
Tel: (626) 386-1100  
Fax: (626) 386-1101  
1 800 566 LABS (1 800 566 5227)



## Laboratory Report

for

Aqua Pennsylvania, Inc.  
762 Lancaster Avenue  
Bryn Mawr, PA 19010-3489  
Attention: Chuck Hertz  
Fax: (610) 645-1164



TDF: Thomas.D.French  
Project Manager



Report: 540138  
Project: PFC  
Group: PFC Monitoring Horsham

- \* Accredited in accordance with TNI 2009 and ISO/IEC 17025:2005.
- \* Laboratory certifies that the test results meet all **TNI 2009 and ISO/IEC 17025:2005** requirements unless noted under the individual analysis.
- \* Following the cover page are State Certification List, ISO 17025 Accredited Method List, Acknowledgement of Samples Received, Comments, Hits Report, Data Report, QC Summary, QC Report and Regulatory Forms, as applicable.
- \* Test results relate only to the sample(s) tested.

STATE CERTIFICATION LIST

State	Certification Number	State	Certification Number
Alabama	41060	Mississippi	Certified
Alaska	CA00006	Montana	Cert 0035
Arizona	AZ0778	Nebraska	Certified
Arkansas	Certified	Nevada	CA00006-2015
California-Monrovia-ELAP	2813	New Hampshire *	2959
California-Colton- ELAP	2812	New Jersey *	CA 008
California-Folsom- ELAP	2820	New Mexico	Certified
California-Fresno- ELAP	2966	New York *	11320
Colorado	Certified	North Carolina	06701
Connecticut	PH-0107	North Dakota	R-009
Delaware	CA 006	Oregon (Primary AB) *	ORELAP 4034
Florida *	E871024	Pennsylvania *	68-565
Georgia	947	Rhode Island	LAO00326
Guam	15-003r	South Carolina	87016
Hawaii	Certified	South Dakota	Certified
Idaho	Certified	Tennessee	TN02839
Illinois *	200033	Texas *	T104704230-14-7
Indiana	C-CA-01	Utah *	CA000062015-8
Kansas *	E-10268	Vermont	VT0114
Kentucky	90107	Virginia *	460260
Louisiana *	LA150018	Washington	C838
Maine	CA0006	West Virginia	9943 C
Maryland	224	Wisconsin	998316660
Commonwealth of Northern Marianas Is.	MP0004	Wyoming	8TMS-L
Massachusetts	M-CA006	EPA Region 5	Certified
Michigan	9906	Los Angeles County Sanitation Districts	10264

\* NELAP/TNI Recognized Accreditation Bodies

ISO 17025 Accredited Method List

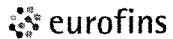
The tests listed below are accredited and meet the requirements of ISO 17025 as verified by the ANSI-ASQ National Accreditation Board/ACLASS.  
Refer to Certificate and scope of accreditation (AT 1807) found at: <http://www.eatonanalytical.com>

SPECIFIC TESTS	METHOD OR TECHNIQUE USED	Drinking Water	Food & Beverage	Waste Water
1,4-Dioxane	EPA 522	x	x	
2,3,7,8-TCDD	Modified EPA 1613B	x	x	
Acrylamide	In House Method	x	x	
Alkalinity	SM 2320B	x	x	x
Ammonia	EPA 350.1		x	x
Ammonia	SM 4500-NH3 H (18th)		x	x
Anions and DBPs by IC	EPA 300.0	x	x	x
Anions and DBPs by IC	EPA 300.1	x	x	
Asbestos	EPA 100.2	x		
Bicarbonate Alkalinity as HCO3	SM 2330B	x	x	x
BOD / CBOD	SM 5210B		x	x
Bromate	In House Method	x	x	
Carbamates	EPA 531.2	x	x	
Carbonate as CO3	SM 2330B	x	x	x
Carbonyls	EPA 556	x	x	
COD	EPA 410.4 / SM 5220D			x
Chloramines	SM 4500-CL G	x	x	x
Chlorinated Acids	EPA 515.4	x	x	
Chlorinated Acids	EPA 555	x	x	
Chlorine Dioxide	SM 4500-CLO2 D	x	x	
Chlorine -Total/Free/Combined Residual	SM 4500-Cl G	x	x	x
Conductivity	EPA 120.1			x
Conductivity	SM 2510B	x	x	x
Corrosivity (Langelier Index)	SM 2330B	x	x	
Cyanide, Amenable	SM 4500-CN G	x		x
Cyanide, Free	SM 4500CN F	x	x	x
Cyanide, Total	EPA 335.4	x	x	x
Cyanogen Chloride (screen)	In House Method	x	x	
Diquat and Paraquat	EPA 549.2	x	x	
DBP/HAA	SM 6251B	x	x	
Dissolved Oxygen	SM 4500-O G		x	x
E. Coli	(MTF/EC+MUG)	x		
E. Coli	CFR 141.21(f)(6)(i)		x	x
E. Coli	SM 9223			x
E. Coli (Enumeration)	SM 9221B.1/ SM 9221F	x	x	
E. Coli (Enumeration)	SM 9223B	x	x	
EDB/DCBP	EPA 504.1	x		
EDB/DCBP and DBP	EPA 551.1	x	x	
EDTA and NTA	In House Method	x	x	
Endothall	EPA 548.1	x	x	
Enterococci	SM 9230B	x		x
Fecal Coliform	SM 9221 E (MTF/EC)	x		
Fecal Coliform	SM 9221 C, E (MTF/EC)			x
Fecal Coliform (Enumeration)	SM 9221E (MTF/EC)	x	x	
Fecal Coliform with Chlorine Present	SM 9221E			x
Fecal Streptococci	SM 9230B	x		x
Fluoride	SM 4500-F C	x	x	x
Glyphosate	EPA 547	x	x	
Gross Alpha/Beta	EPA 900.0	x	x	x
HAA5/ Dalapon	EPA 552.3	x	x	
Hardness	SM 2340B	x	x	x
Heterotrophic Bacteria	In House Method	x	x	
Heterotrophic Bacteria	SM 9215 B	x	x	
Hexavalent Chromium	EPA 218.6	x	x	x
Hexavalent Chromium	EPA 218.7	x	x	
Hexavalent Chromium	SM 3500-Cr B or C (20th)			x

SPECIFIC TESTS	METHOD OR TECHNIQUE USED	Drinking Water	Food & Beverage	Waste Water
Hormones	EPA 539	x	x	
Hydroxide as OH Calc.	SM 2330B	x	x	
Kjeldahl Nitrogen	EPA 351.2			x
Mercury	EPA 245.1	x	x	x
Metals	EPA 200.7 / 200.8	x	x	x
Microcystin LR	ELISA	x	x	
NDMA	EPA 521	x	x	
Nitrate/Nitrite Nitrogen	EPA 353.2	x	x	x
OCL, Pesticides/PCB	EPA 505	x	x	
Ortho Phosphate	EPA 365.1	x	x	
Ortho Phosphate and Total Phosphorous	EPA 365.1/SM 4500-P E			x
Ortho Phosphorous	SM 4500P E	x	x	
Oxyhalides Disinfection Byproducts	EPA 317.0	x	x	
Perchlorate	EPA 331.0	x	x	
Perchlorate	EPA 314.0	x	x	
Perfluorinated Alkyl Acids	EPA 537	x	x	
pH	EPA 150.1	x		
pH	SM 4500-H+B	x	x	x
Phenylurea Pesticides/ Herbicides	In House Method	x	x	
Pseudomonas	IDEXX Pseudalert	x	x	
Radium-226	RA-226 GA	x	x	
Radium-228	RA-228 GA	x	x	
Radon-222	SM 7500RN	x	x	
Residue, Filterable	SM 2540C	x	x	x
Residue, Non-filterable	SM 2540D			x
Residue, Total	SM 2540B		x	x
Residue, Volatile	EPA 160.4			x
Semi-VOC	EPA 525.2	x	x	
Semi-VOC	EPA 625	x	x	x
Silica	SM 4500-Si D	x	x	x
Silica	SM 4500-SiO2 C	x		x
Sulfide	SM 4500-S <sup>2-</sup> D			x
Sulfite	SM 4500-SO <sup>3</sup> B	x	x	x
Surfactants	SM 5540C	x	x	x
Taste and Odor Analytes	SM 6040E	x	x	
Total Coliform	SM 9221 A, B	x	x	
Total Coliform (Enumeration)	SM 9221 A, B, C	x	x	
Total Coliform / E. coli	Colisure	x	x	
Total Coliform	SM 9221B			x
Total Coliform with Chlorine Present	SM 9221B			x
Total Coliform / E.coli	SM 9223	x	x	
TOC	SM 5310C		x	x
TOC/DOC	SM 5310C	x	x	
TOX	SM 5320B			x
Total Phenols	EPA 420.1			x
Total Phenols	EPA 420.4	x	x	x
Total Phosphorous	SM 4500 P F			x
Turbidity	EPA 180.1	x	x	x
Turbidity	SM 2130B	x		x
Uranium by ICP/MS	EPA 200.8	x	x	
UV 254	SM 5910B	x		
VOC	EPA 524.2/EPA 524.3	x	x	
VOC	EPA 624	x	x	x
VOC	EPA SW 846 8260	x	x	
VOC	In House Method	x	x	
Yeast and Mold	SM 9610	x	x	

750 Royal Oaks Dr., Ste 100, Monrovia, CA 91016 Tel (626) 386-1100 Fax (626) 386-1101 <http://www.EatonAnalytical.com>

Version 002. Issued: 06/03/2014



Eaton Analytical

### Acknowledgement of Samples Received

Addr: **Aqua Pennsylvania, Inc.**  
762 Lancaster Avenue  
Bryn Mawr, PA 19010-3489

Client ID: PHILLYSUB  
Folder #: 540138  
Project: PFC  
Sample Group: PFC Monitoring Horsham

Attn: Chuck Hertz  
Phone: (610) 645-1145

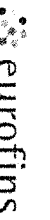
Project Manager: Thomas.D.French  
Phone: (480) 778-1558

The following samples were received from you on **July 31, 2015 at 1055**. They have been scheduled for the tests listed below each sample. If this information is incorrect, please contact your service representative. Thank you for using Eurofins Eaton Analytical.

Sample #	Sample ID	Sample Date
<u>201506230436</u>	Horsham Well # 17	07/22/2015 1130
	@537	
<u>201506230435</u>	Horsham Well # 10	07/22/2015 1205
	@537	
<u>201506230437</u>	Horsham Well # 21	07/22/2015 1025
	@537	

#### Test Description

@537 -- Perfluorinated Alkyl Acids



Eaton Analytical

# CHAIN OF CUSTODY RECORD

EUROFINS EATON ANALYTICAL USE ONLY:

750 Royal Oaks Drive, Suite 100  
Monrovia, CA 91016-3629

Phone: 626 386 1100  
Fax: 626 386 1101  
800 566 LABS (800 566 5227)

LOGIN COMMENTS: #392A  
46-010-45

SAMPLES CHECKED AGAINST COC BY: [Signature]  
SAMPLES LOGGED IN BY: [Signature]

540138  
7/31/15

SAMPLE TEMP RECEIVED AT:  
 Colton / No. California / Arizona  
 Monrovia

CONDITION OF BLUE ICE: Frozen 4.5 °C (Compliance: 4 ± 2 °C)

METHOD OF SHIPMENT: Pick-Up / Walk-In / FedEx / UPS / DHL / Area Fast / Top Line / Other: Partially Frozen Thawed Wet Ice No Ice

TO BE COMPLETED BY SAMPLER:

COMPANY/AGENCY NAME: Aqua Pennsylvania, Inc.

PROJECT CODE:

COMPLIANCE SAMPLES (check for yes)

NON-COMPLIANCE SAMPLES (check for yes)

EEA CLIENT CODE:

COC ID:

SAMPLE GROUP:

REGULATION INVOLVED:

SPECIAL CONFIRMATION (eg. SDWA, Phase V, NPDES, FDA...)

TAT requested: rush by adv notice only

STD:  1 wk  3 day  2 day  1 day

list ANALYSES REQUIRED (enter number of bottles sent for each test for each sample)

SAMPLE DATE	SAMPLE TIME	SAMPLE ID	CLIENT LAB ID	MATRIX *	FIELD DATA	FIELD DATA	EPA 537	COMPLIANCE SAMPLES	NON-COMPLIANCE SAMPLES	SAMPLER COMMENTS
7/22/15	1130	Horsham Well #17		RGW			X		X	Raw Water
7/22/15	1205	Horsham Well #10		RGW			X			Raw Water
7/22/15	1025	Horsham Well #21		RGW			X			Raw Water
										Not for UCMR3

\* MATRIX TYPES: RSW = Raw Surface Water CFW = Chlor(am)inated Finished Water SEAW = Sea Water BW = Bottled Water SO = Soil O = Other - Please Identify  
RGW = Raw Ground Water FW = Other Finished Water WW = Waste Water SW = Storm Water SL = Sludge

SAMPLED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:	SIGNATURE	PRINT NAME	COMPANY/TITLE	DATE	TIME
					BP	Aqua Pennsylvania, Inc.	7/22/15	1300
					Michael Sentf	Aqua Pennsylvania, Inc.	7/22/15	0800
					Michael Sentf	Aqua Pennsylvania, Inc.	7/31/15	1600
					Joe Sanchez	EEA	7/31/15	1055

ORIGIN: D:WAYA (610) 645-1176  
MICHAEL SENFT  
AQUA  
762 WEST LANCASTER AVENUE  
BRYN MAWR, PA 19010  
UNITED STATES US

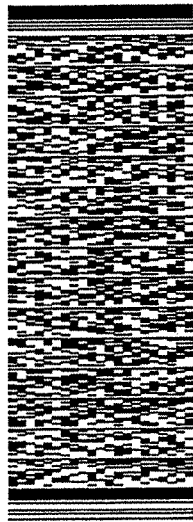
SHIP DATE: 30 JUL 15  
ACT WT: 1.00 LB  
CAD: 100061330INET3670  
DIMS: 24X13X14 IN  
BILL RECIPIENT

TO LOGIN

MWH AMERICAS, INC,  
750 ROYAL OAKS DRIVE  
SUITE 100  
MONROVIA CA 91016  
REF: UCMR3  
(828) 386-1100  
NW: 15-3031  
PO.

DEPT: 15-3031

539.J/1A15/31D0

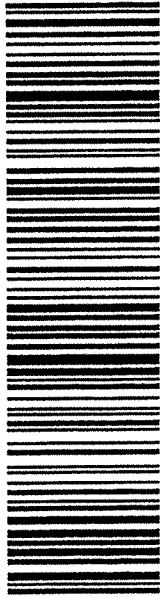


TRK# 7741 7172 0512  
0201

FRI - 31 JUL AA  
STANDARD OVERNIGHT

NH WHPA

91016  
CA-US BUR



**After printing this label:**

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

**Warning:** Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on [fedex.com](http://fedex.com). FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.



Eaton Analytical

750 Royal Oaks Drive, Suite 100  
Monrovia, California 91016-3629  
Tel: (626) 386-1100  
Fax: (626) 386-1101  
1 800 566 LABS (1 800 566 5227)

Laboratory Comments  
Report: 540138

Aqua Pennsylvania, Inc.  
Chuck Hertz  
762 Lancaster Avenue  
Bryn Mawr, PA 19010-3489

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Tel: (626) 386-1100  
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1 800 566 LABS (1 800 566 5227)

Laboratory Hits  
Report: 540138

Aqua Pennsylvania, Inc.  
Chuck Hertz  
762 Lancaster Avenue  
Bryn Mawr, PA 19010-3489

Samples Received on:  
07/31/2015 1055

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
<b>201506230435 <u>Horsham Well # 10</u></b>						
08/05/2015 12:30	Perfluorobutanesulfonic acid		0.0067		ug/L	0.0025
08/05/2015 12:30	Perfluoroheptanoic acid		0.0049		ug/L	0.0025
08/05/2015 12:30	Perfluorohexanesulfonic acid		0.012		ug/L	0.0025
08/05/2015 12:30	Perfluorohexanoic acid		0.0075		ug/L	0.0025
08/05/2015 12:30	Perfluorononanoic acid		0.0039		ug/L	0.0025
08/05/2015 12:30	Perfluorooctanesulfonic acid		0.014		ug/L	0.0025
08/05/2015 12:30	Perfluorooctanoic acid		0.014		ug/L	0.0025
<b>201506230436 <u>Horsham Well # 17</u></b>						
08/05/2015 12:55	Perfluorobutanesulfonic acid		0.0081		ug/L	0.0025
08/05/2015 12:55	Perfluoroheptanoic acid		0.0083		ug/L	0.0025
08/05/2015 12:55	Perfluorohexanesulfonic acid		0.048		ug/L	0.0025
08/05/2015 12:55	Perfluorohexanoic acid		0.018		ug/L	0.0025
08/05/2015 15:29	Perfluorooctanesulfonic acid		0.096		ug/L	0.025
08/05/2015 12:55	Perfluorooctanoic acid		0.026		ug/L	0.0025
<b>201506230437 <u>Horsham Well # 21</u></b>						
08/05/2015 13:21	Perfluorobutanesulfonic acid		0.0050		ug/L	0.0025
08/05/2015 13:21	Perfluoroheptanoic acid		0.0041		ug/L	0.0025
08/05/2015 13:21	Perfluorohexanesulfonic acid		0.0067		ug/L	0.0025
08/05/2015 13:21	Perfluorohexanoic acid		0.0056		ug/L	0.0025
08/05/2015 13:21	Perfluorooctanesulfonic acid		0.013		ug/L	0.0025
08/05/2015 13:21	Perfluorooctanoic acid		0.014		ug/L	0.0025

SUMMARY OF POSITIVE DATA ONLY





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Laboratory Data  
Report: 540138

Aqua Pennsylvania, Inc.  
Chuck Hertz  
762 Lancaster Avenue  
Bryn Mawr, PA 19010-3489

Samples Received on:  
07/31/2015 1055

Prepared	Analyzed	QC Ref #	Method	Analyte	Result	Units	MRL	Dilution
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**Horsham Well # 10 (201506230435)**

Sampled on 07/22/2015 1205

**EPA 537 - Perfluorinated Alkyl Acids**

8/3/2015	08/05/2015	12:30	853914	(EPA 537)	Perfluorobutanesulfonic acid	0.0067	ug/L	0.0025	1
8/3/2015	08/05/2015	12:30	853914	(EPA 537)	Perfluorodecanoic acid	ND	ug/L	0.0025	1
8/3/2015	08/05/2015	12:30	853914	(EPA 537)	Perfluorododecanoic acid	ND	ug/L	0.0025	1
8/3/2015	08/05/2015	12:30	853914	(EPA 537)	Perfluoroheptanoic acid	0.0049	ug/L	0.0025	1
8/3/2015	08/05/2015	12:30	853914	(EPA 537)	Perfluorohexanesulfonic acid	0.012	ug/L	0.0025	1
8/3/2015	08/05/2015	12:30	853914	(EPA 537)	Perfluorohexanoic acid	0.0075	ug/L	0.0025	1
8/3/2015	08/05/2015	12:30	853914	(EPA 537)	Perfluorononanoic acid	0.0039	ug/L	0.0025	1
8/3/2015	08/05/2015	12:30	853914	(EPA 537)	Perfluorooctanesulfonic acid	0.014	ug/L	0.0025	1
8/3/2015	08/05/2015	12:30	853914	(EPA 537)	Perfluorooctanoic acid	0.014	ug/L	0.0025	1
8/3/2015	08/05/2015	12:30	853914	(EPA 537)	Perfluorotetradecanoic acid	ND	ug/L	0.0025	1
8/3/2015	08/05/2015	12:30	853914	(EPA 537)	Perfluorotridecanoic acid	ND	ug/L	0.0025	1
8/3/2015	08/05/2015	12:30	853914	(EPA 537)	Perfluoroundecanoic acid	ND	ug/L	0.0025	1
8/3/2015	08/05/2015	12:30	853914	(EPA 537)	13C-PFDA	89	%		1
8/3/2015	08/05/2015	12:30	853914	(EPA 537)	13C-PFHxA	93	%		1
8/3/2015	08/05/2015	12:30	853914	(EPA 537)	13C-PFOA	105	%		1
8/3/2015	08/05/2015	12:30	853914	(EPA 537)	13C-PFOS	102	%		1

**Horsham Well # 17 (201506230436)**

Sampled on 07/22/2015 1130

**EPA 537 - Perfluorinated Alkyl Acids**

8/3/2015	08/05/2015	12:55	853914	(EPA 537)	Perfluorobutanesulfonic acid	0.0081	ug/L	0.0025	1
8/3/2015	08/05/2015	12:55	853914	(EPA 537)	Perfluorodecanoic acid	ND	ug/L	0.0025	1
8/3/2015	08/05/2015	12:55	853914	(EPA 537)	Perfluorododecanoic acid	ND	ug/L	0.0025	1
8/3/2015	08/05/2015	12:55	853914	(EPA 537)	Perfluoroheptanoic acid	0.0083	ug/L	0.0025	1
8/3/2015	08/05/2015	12:55	853914	(EPA 537)	Perfluorohexanesulfonic acid	0.048	ug/L	0.0025	1
8/3/2015	08/05/2015	12:55	853914	(EPA 537)	Perfluorohexanoic acid	0.018	ug/L	0.0025	1
8/3/2015	08/05/2015	12:55	853914	(EPA 537)	Perfluorononanoic acid	ND	ug/L	0.0025	1
8/3/2015	08/05/2015	15:29	853914	(EPA 537)	Perfluorooctanesulfonic acid	0.096	ug/L	0.025	10
8/3/2015	08/05/2015	12:55	853914	(EPA 537)	Perfluorooctanoic acid	0.026	ug/L	0.0025	1
8/3/2015	08/05/2015	12:55	853914	(EPA 537)	Perfluorotetradecanoic acid	ND	ug/L	0.0025	1
8/3/2015	08/05/2015	12:55	853914	(EPA 537)	Perfluorotridecanoic acid	ND	ug/L	0.0025	1
8/3/2015	08/05/2015	12:55	853914	(EPA 537)	Perfluoroundecanoic acid	ND	ug/L	0.0025	1
8/3/2015	08/05/2015	12:55	853914	(EPA 537)	13C-PFDA	82	%		1
8/3/2015	08/05/2015	12:55	853914	(EPA 537)	13C-PFHxA	89	%		1
8/3/2015	08/05/2015	12:55	853914	(EPA 537)	13C-PFOA	107	%		1

Rounding on totals after summation.  
(c) - indicates calculated results



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Report: 540138

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Samples Received on:  
07/31/2015 1055

Prepared	Analyzed	QC Ref #	Method	Analyte	Result	Units	MRL	Dilution
8/3/2015	08/05/2015	12:55	853914	(EPA 537)	13C-PFOS	106	%	1

**Horsham Well # 21 (201506230437)**

**Sampled on 07/22/2015 1025**

**EPA 537 - Perfluorinated Alkyl Acids**

8/3/2015	08/05/2015	13:21	853914	(EPA 537)	Perfluorobutanesulfonic acid	0.0050	ug/L	0.0025	1
8/3/2015	08/05/2015	13:21	853914	(EPA 537)	Perfluorodecanoic acid	ND	ug/L	0.0025	1
8/3/2015	08/05/2015	13:21	853914	(EPA 537)	Perfluorododecanoic acid	ND	ug/L	0.0025	1
8/3/2015	08/05/2015	13:21	853914	(EPA 537)	Perfluoroheptanoic acid	0.0041	ug/L	0.0025	1
8/3/2015	08/05/2015	13:21	853914	(EPA 537)	Perfluorohexanesulfonic acid	0.0067	ug/L	0.0025	1
8/3/2015	08/05/2015	13:21	853914	(EPA 537)	Perfluorohexanoic acid	0.0056	ug/L	0.0025	1
8/3/2015	08/05/2015	13:21	853914	(EPA 537)	Perfluorononanoic acid	ND	ug/L	0.0025	1
8/3/2015	08/05/2015	13:21	853914	(EPA 537)	Perfluorooctanesulfonic acid	0.013	ug/L	0.0025	1
8/3/2015	08/05/2015	13:21	853914	(EPA 537)	Perfluorooctanoic acid	0.014	ug/L	0.0025	1
8/3/2015	08/05/2015	13:21	853914	(EPA 537)	Perfluorotetradecanoic acid	ND	ug/L	0.0025	1
8/3/2015	08/05/2015	13:21	853914	(EPA 537)	Perfluorotridecanoic acid	ND	ug/L	0.0025	1
8/3/2015	08/05/2015	13:21	853914	(EPA 537)	Perfluoroundecanoic acid	ND	ug/L	0.0025	1
8/3/2015	08/05/2015	13:21	853914	(EPA 537)	13C-PFDA	91	%		1
8/3/2015	08/05/2015	13:21	853914	(EPA 537)	13C-PFHxA	90	%		1
8/3/2015	08/05/2015	13:21	853914	(EPA 537)	13C-PFOA	102	%		1
8/3/2015	08/05/2015	13:21	853914	(EPA 537)	13C-PFOS	106	%		1

Rounding on totals after summation.  
(c) - indicates calculated results



Eaton Analytical

Laboratory  
QC Summary: 540138

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1 800 566 LABS (1 800 566 5227)

Aqua Pennsylvania, Inc.

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**QC Ref # 853914 - Perfluorinated Alkyl Acids**

**Analysis Date: 08/05/2015**

201506230435	Horsham Well # 10
201506230436	Horsham Well # 17
201506230436	Horsham Well # 17
201506230437	Horsham Well # 21

Analyzed by: LHZ
Analyzed by: LHZ
Analyzed by: LHZ
Analyzed by: LHZ



Eaton Analytical

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
<b>QC Ref# 853914 - Perfluorinated Alkyl Acids by EPA 537</b>						<b>Analysis Date: 08/05/2015</b>			
LCS1	13C-PFDA (S)			91.7	%	92	(70-130)		
LCS2	13C-PFDA (S)			91.9	%	92	(70-130)		
MBLK	13C-PFDA (S)			85.6	%	86	(70-130)		
MRL_CHK	13C-PFDA (S)			89.6	%	90	(70-130)		
MS_201508040110	13C-PFDA (S)			91.8	%	92	(70-130)		
MSD_201508040110	13C-PFDA (S)			91.6	%	92	(70-130)		
LCS1	13C-PFHxA (S)			90.6	%	91	(70-130)		
LCS2	13C-PFHxA (S)			94.1	%	94	(70-130)		
MBLK	13C-PFHxA (S)			91.3	%	91	(70-130)		
MRL_CHK	13C-PFHxA (S)			92.1	%	92	(70-130)		
MS_201508040110	13C-PFHxA (S)			94.5	%	95	(70-130)		
MSD_201508040110	13C-PFHxA (S)			94.0	%	94	(70-130)		
LCS1	13C-PFOA (I)			107	%	107	(50-150)		
LCS2	13C-PFOA (I)			104	%	104	(50-150)		
MBLK	13C-PFOA (I)			108	%	108	(50-150)		
MRL_CHK	13C-PFOA (I)			105	%	105	(50-150)		
MS_201508040110	13C-PFOA (I)			106	%	106	(50-150)		
MSD_201508040110	13C-PFOA (I)			104	%	104	(50-150)		
LCS1	13C-PFOS (I)			109	%	109	(50-150)		
LCS2	13C-PFOS (I)			106	%	106	(50-150)		
MBLK	13C-PFOS (I)			110	%	110	(50-150)		
MRL_CHK	13C-PFOS (I)			105	%	105	(50-150)		
MS_201508040110	13C-PFOS (I)			107	%	107	(50-150)		
MSD_201508040110	13C-PFOS (I)			106	%	106	(50-150)		
LCS1	Perfluorobutanesulfonic acid		0.022	0.0198	ug/L	89	(70-130)		
LCS2	Perfluorobutanesulfonic acid		0.022	0.0203	ug/L	92	(70-130)	30	2.5
MBLK	Perfluorobutanesulfonic acid			<0.00074	ug/L				
MRL_CHK	Perfluorobutanesulfonic acid		0.0022	0.00222	ug/L	100	(50-150)		
MS_201508040110	Perfluorobutanesulfonic acid	ND	0.0022	0.00274	ug/L	102	(50-150)		
MSD_201508040110	Perfluorobutanesulfonic acid	ND	0.0022	0.00265	ug/L	98	(50-150)	50	3.3
LCS1	Perfluorodecanoic acid		0.025	0.0226	ug/L	90	(70-130)		
LCS2	Perfluorodecanoic acid		0.025	0.0234	ug/L	94	(70-130)	30	3.5
MBLK	Perfluorodecanoic acid			<0.00083	ug/L				
MRL_CHK	Perfluorodecanoic acid		0.0025	0.00245	ug/L	98	(50-150)		
MS_201508040110	Perfluorodecanoic acid	ND	0.0025	0.00257	ug/L	100	(50-150)		
MSD_201508040110	Perfluorodecanoic acid	ND	0.0025	0.00251	ug/L	97	(50-150)	50	2.4

Spike recovery is already corrected for native results.  
Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.  
Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.  
RPD not calculated for LCS2 when different a concentration than LCS1 is used.  
RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).  
(S) - Indicates surrogate compound.  
(I) - Indicates internal standard compound.



Eaton Analytical

Laboratory QC  
Report: 540138

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Aqua Pennsylvania, Inc.

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
LCS1	Perfluorododecanoic acid		0.025	0.0195	ug/L	78	(70-130)		
LCS2	Perfluorododecanoic acid		0.025	0.0199	ug/L	80	(70-130)	30	2.0
MBLK	Perfluorododecanoic acid			<0.00083	ug/L				
MRL_CHK	Perfluorododecanoic acid		0.0025	0.00209	ug/L	84	(50-150)		
MS_201508040110	Perfluorododecanoic acid	ND	0.0025	0.00192	ug/L	76	(50-150)		
MSD_201508040110	Perfluorododecanoic acid	ND	0.0025	0.00213	ug/L	84	(50-150)	50	10
LCS1	Perfluoroheptanoic acid		0.025	0.0227	ug/L	91	(70-130)		
LCS2	Perfluoroheptanoic acid		0.025	0.0244	ug/L	97	(70-130)	30	7.2
MBLK	Perfluoroheptanoic acid			<0.00083	ug/L				
MRL_CHK	Perfluoroheptanoic acid		0.0025	0.00241	ug/L	96	(50-150)		
MS_201508040110	Perfluoroheptanoic acid	ND	0.0025	0.00284	ug/L	99	(50-150)		
MSD_201508040110	Perfluoroheptanoic acid	ND	0.0025	0.00293	ug/L	102	(50-150)	50	3.1
LCS1	Perfluorohexanesulfonic acid		0.024	0.0227	ug/L	96	(70-130)		
LCS2	Perfluorohexanesulfonic acid		0.024	0.0227	ug/L	96	(70-130)	30	0.0
MBLK	Perfluorohexanesulfonic acid			<0.00079	ug/L				
MRL_CHK	Perfluorohexanesulfonic acid		0.0024	0.00207	ug/L	87	(50-150)		
MS_201508040110	Perfluorohexanesulfonic acid	ND	0.0024	0.00352	ug/L	93	(50-150)		
MSD_201508040110	Perfluorohexanesulfonic acid	ND	0.0024	0.00370	ug/L	101	(50-150)	50	5.0
LCS1	Perfluorohexanoic acid		0.025	0.0226	ug/L	91	(70-130)		
LCS2	Perfluorohexanoic acid		0.025	0.0244	ug/L	97	(70-130)	30	7.7
MBLK	Perfluorohexanoic acid			<0.00083	ug/L				
MRL_CHK	Perfluorohexanoic acid		0.0025	0.00262	ug/L	105	(50-150)		
MS_201508040110	Perfluorohexanoic acid	ND	0.0025	0.00502	ug/L	113	(50-150)		
MSD_201508040110	Perfluorohexanoic acid	ND	0.0025	0.00498	ug/L	111	(50-150)	50	0.80
LCS1	Perfluorononanoic acid		0.025	0.0227	ug/L	91	(70-130)		
LCS2	Perfluorononanoic acid		0.025	0.0250	ug/L	100	(70-130)	30	9.6
MBLK	Perfluorononanoic acid			<0.00083	ug/L				
MRL_CHK	Perfluorononanoic acid		0.0025	0.00257	ug/L	103	(50-150)		
MS_201508040110	Perfluorononanoic acid	ND	0.0025	0.00268	ug/L	99	(50-150)		
MSD_201508040110	Perfluorononanoic acid	ND	0.0025	0.00272	ug/L	101	(50-150)	50	1.5
LCS1	Perfluorooctanesulfonic acid		0.024	0.0214	ug/L	90	(70-130)		
LCS2	Perfluorooctanesulfonic acid		0.024	0.0224	ug/L	94	(70-130)	30	4.6
MBLK	Perfluorooctanesulfonic acid			<0.0008	ug/L				
MRL_CHK	Perfluorooctanesulfonic acid		0.0024	0.00227	ug/L	94	(50-150)		
MS_201508040110	Perfluorooctanesulfonic acid	ND	0.0024	0.00449	ug/L	101	(50-150)		
MSD_201508040110	Perfluorooctanesulfonic acid	ND	0.0024	0.00425	ug/L	91	(50-150)	50	5.5
LCS1	Perfluorooctanoic acid		0.025	0.0235	ug/L	94	(70-130)		
LCS2	Perfluorooctanoic acid		0.025	0.0245	ug/L	98	(70-130)	30	4.2

Spike recovery is already corrected for native results.

Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.

Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MBLK	Perfluorooctanoic acid			<0.00083	ug/L				
MRL_CHK	Perfluorooctanoic acid		0.0025	0.00275	ug/L	110	(50-150)		
MS_201508040110	Perfluorooctanoic acid	ND	0.0025	0.00431	ug/L	107	(50-150)		
MSD_201508040110	Perfluorooctanoic acid	ND	0.0025	0.00440	ug/L	110	(50-150)	50	2.1
LCS1	Perfluorotetradecanoic acid		0.025	0.0199	ug/L	80	(70-130)		
LCS2	Perfluorotetradecanoic acid		0.025	0.0198	ug/L	79	(70-130)	30	0.50
MBLK	Perfluorotetradecanoic acid			<0.00083	ug/L				
MRL_CHK	Perfluorotetradecanoic acid		0.0025	0.00202	ug/L	81	(50-150)		
MS_201508040110	Perfluorotetradecanoic acid	ND	0.0025	0.00233	ug/L	93	(50-150)		
MSD_201508040110	Perfluorotetradecanoic acid	ND	0.0025	0.00210	ug/L	83	(50-150)	50	10
LCS1	Perfluorotridecanoic acid		0.025	0.0218	ug/L	87	(70-130)		
LCS2	Perfluorotridecanoic acid		0.025	0.0233	ug/L	93	(70-130)	30	6.7
MBLK	Perfluorotridecanoic acid			<0.00083	ug/L				
MRL_CHK	Perfluorotridecanoic acid		0.0025	0.00238	ug/L	95	(50-150)		
MS_201508040110	Perfluorotridecanoic acid	ND	0.0025	0.00242	ug/L	97	(50-150)		
MSD_201508040110	Perfluorotridecanoic acid	ND	0.0025	0.00234	ug/L	94	(50-150)	50	3.4
LCS1	Perfluoroundecanoic acid		0.025	0.0226	ug/L	90	(70-130)		
LCS2	Perfluoroundecanoic acid		0.025	0.0232	ug/L	93	(70-130)	30	2.6
MBLK	Perfluoroundecanoic acid			<0.00083	ug/L				
MRL_CHK	Perfluoroundecanoic acid		0.0025	0.00236	ug/L	95	(50-150)		
MS_201508040110	Perfluoroundecanoic acid	ND	0.0025	0.00235	ug/L	92	(50-150)		
MSD_201508040110	Perfluoroundecanoic acid	ND	0.0025	0.00243	ug/L	96	(50-150)	50	3.4

Spike recovery is already corrected for native results.

Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.

Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

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