



Eaton Analytical

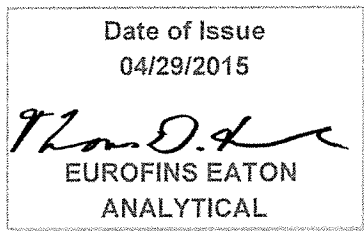
750 Royal Oaks Drive, Suite 100  
Monrovia, California 91016-3629  
Tel: (626) 386-1100  
Fax: (626) 386-1101  
1 800 566 LABS (1 800 566 5227)



## 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: 526975  
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	CA00006-2014-1
California-Monrovia-ELAP	2813	New Hampshire *	2959
California-Colton- ELAP	2812	New Jersey *	CA 008
California-Folsom- ELAP	2820	New Mexico	Certified
Colorado	Certified	New York *	11320
Connecticut	PH-0107	North Carolina	06701
Delaware	CA 006	North Dakota	R-009
Florida *	E871024	Oregon (Primary AB) *	ORELAP 4034
Georgia	947	Pennsylvania *	68-565
Guam	14-003r	Rhode Island	LAO00326
Hawaii	Certified	South Carolina	87016
Idaho	Certified	South Dakota	Certified
Illinois *	200033	Tennessee	TN02839
Indiana	C-CA-01	Texas *	T104704230-14-7
Kansas *	E-10268	Utah *	CA000062014-7
Kentucky	90107	Vermont	VT0114
Louisiana *	LA140009	Virginia *	460260
Maine	CA0006	Washington	C838
Maryland	224	West Virginia	9943 C
Commonwealth of Northern Marianas Is.	MP0004	Wisconsin	998316660
Massachusetts	M-CA006	Wyoming	8TMS-L
Michigan	9906	EPA Region 5	Certified
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 9221 B.1/ SM 9221F	x	x	
E. Coli (Enumeration)	SM 9223B	x	x	
EDB/DCBP	EPA 504.1	x		
EDB/DBCP 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

**Acknowledgement of Samples Received**

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

Client ID: PHILLYSUB  
Folder #: 526975  
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 **April 17, 2015 at 11:45**. 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>201503260495</u>	Horsham Well # 17 @537	04/15/2015 1155
<u>201503260494</u>	Horsham Well # 10 @537	04/15/2015 1240
<u>201503260496</u>	Horsham Well # 21 @537	04/15/2015 1040

**Test Description**

@537 -- Perfluorinated Alkyl Acids

# CHAIN OF CUSTODY RECORD

526975

EUROFINS EATON ANALYTICAL USE ONLY:

LOGIN COMMENTS: 25-3-22  
 SAMPLES CHECKED AGAINST COC BY: [Signature]  
 SAMPLES LOGGED IN BY: JS  
 SAMPLES REC'D DAY OF COLLECTION?  (check for yes)

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

°C (Compliance: 4 ± 2 °C)  
2.2 °C (Compliance: 4 ± 2 °C)

CONDITION OF BLUE ICE: Frozen Partially Frozen Thawed Wet Ice  No Ice

METHOD OF SHIPMENT: Pick-Up / Walk-In / FEDEX / UPS / DHL / Area Fast / Top Line / Other:

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

TO BE COMPLETED BY SAMPLER:		COMPLIANCE SAMPLES		NON-COMPLIANCE SAMPLES		SAMPLER COMMENTS
COMPANY/AGENCY NAME:	PROJECT CODE:	- Requires state forms	REGULATION INVOLVED:	(check for yes)		
Aqua Pennsylvania, Inc.						
EEA CLIENT CODE:	COC ID:	SAMPLE GROUP:	SEE ATTACHED BOTTLE ORDER FOR ANALYSES			
	Aqua pennsylvania, Inc.		list ANALYSES REQUIRED (enter number of bottles sent for each test for each sample)			
SAMPLE DATE	SAMPLE ID	CLIENT LAB ID	MATRIX	FIELD DATA	FIELD DATA	
4/15/15	Horsham Well #17		RGW			Raw Water
4/15/15	Horsham Well #10		RGW			Raw Water
4/15/15	Horsham Well #21		RGW			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  
 RGW = Raw Ground Water FW = Other Finished Water WW = Waste Water SW = Storm Water SL = Sludge

SAMPLED BY:	SIGNATURE	PRINT NAME	COMPANY/TITLE	DATE	TIME
RELINQUISHED BY:	[Signature]	BP	Aqua Pennsylvania, Inc.	4/15/15	1020
RECEIVED BY:	[Signature]	BP	Aqua Pennsylvania, Inc.	4/15/15	1500
RELINQUISHED BY:	[Signature]	Michael Senft	Aqua Pennsylvania, Inc.	4/15/15	1500
RECEIVED BY:	[Signature]	Michael Senft	Aqua Pennsylvania, Inc.	4/16/15	1600



eurofins

Eaton Analytical

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**Laboratory Comments**  
**Report: 526975**

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

---

The Comments Report may be blank if there are no comments for this report.



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Laboratory Hits  
Report: 526975

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

Samples Received on:  
04/17/2015 11:45

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
<b>201503260494      <u>Horsham Well # 10</u></b>						
04/24/2015 17:24	Perfluorobutanesulfonic acid		0.0081		ug/L	0.0025
04/24/2015 17:24	Perfluoroheptanoic acid		0.0046		ug/L	0.0025
04/24/2015 17:24	Perfluorohexanesulfonic acid		0.027		ug/L	0.0025
04/24/2015 17:24	Perfluorohexanoic acid		0.0097		ug/L	0.0025
04/24/2015 17:24	Perfluorooctanesulfonic acid		0.022		ug/L	0.0025
04/24/2015 17:24	Perfluorooctanoic acid		0.020		ug/L	0.0025
<b>201503260495      <u>Horsham Well # 17</u></b>						
04/24/2015 17:45	Perfluorobutanesulfonic acid		0.0083		ug/L	0.0025
04/24/2015 17:45	Perfluoroheptanoic acid		0.0080		ug/L	0.0025
04/24/2015 17:45	Perfluorohexanesulfonic acid		0.043		ug/L	0.0025
04/24/2015 17:45	Perfluorohexanoic acid		0.016		ug/L	0.0025
04/24/2015 17:45	Perfluorooctanesulfonic acid		0.059		ug/L	0.0025
04/24/2015 17:45	Perfluorooctanoic acid		0.024		ug/L	0.0025
<b>201503260496      <u>Horsham Well # 21</u></b>						
04/24/2015 18:05	Perfluorobutanesulfonic acid		0.0046		ug/L	0.0025
04/24/2015 18:05	Perfluoroheptanoic acid		0.0032		ug/L	0.0025
04/24/2015 18:05	Perfluorohexanesulfonic acid		0.0047		ug/L	0.0025
04/24/2015 18:05	Perfluorohexanoic acid		0.0051		ug/L	0.0025
04/24/2015 18:05	Perfluorooctanesulfonic acid		0.0051		ug/L	0.0025
04/24/2015 18:05	Perfluorooctanoic acid		0.010		ug/L	0.0025

SUMMARY OF POSITIVE DATA ONLY



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Laboratory Data  
Report: 526975

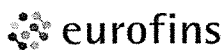
Aqua Pennsylvania, Inc.  
Chuck Hertz  
762 Lancaster Avenue  
Bryn Mawr, PA 19010-3489

Samples Received on:  
04/17/2015 11:45

Prepared	Analyzed	QC Ref #	Method	Analyte	Result	Units	MRL	Dilution	
<b>Horsham Well # 10 (201503260494)</b>					<b>Sampled on 04/15/2015 1240</b>				
<b>EPA 537 - Perfluorinated Alkyl Acids</b>									
4/21/2015	04/24/2015	17:24 835093	(EPA 537)	Perfluorobutanesulfonic acid	0.0081	ug/L	0.0025	1	
4/21/2015	04/24/2015	17:24 835093	(EPA 537)	Perfluorodecanoic acid	ND	ug/L	0.0025	1	
4/21/2015	04/24/2015	17:24 835093	(EPA 537)	Perfluorododecanoic acid	ND	ug/L	0.0025	1	
4/21/2015	04/24/2015	17:24 835093	(EPA 537)	Perfluoroheptanoic acid	0.0046	ug/L	0.0025	1	
4/21/2015	04/24/2015	17:24 835093	(EPA 537)	Perfluorohexanesulfonic acid	0.027	ug/L	0.0025	1	
4/21/2015	04/24/2015	17:24 835093	(EPA 537)	Perfluorohexanoic acid	0.0097	ug/L	0.0025	1	
4/21/2015	04/24/2015	17:24 835093	(EPA 537)	Perfluorononanoic acid	ND	ug/L	0.0025	1	
4/21/2015	04/24/2015	17:24 835093	(EPA 537)	Perfluorooctanesulfonic acid	0.022	ug/L	0.0025	1	
4/21/2015	04/24/2015	17:24 835093	(EPA 537)	Perfluorooctanoic acid	0.020	ug/L	0.0025	1	
4/21/2015	04/24/2015	17:24 835093	(EPA 537)	Perfluorotetradecanoic acid	ND	ug/L	0.0025	1	
4/21/2015	04/24/2015	17:24 835093	(EPA 537)	Perfluorotridecanoic acid	ND	ug/L	0.0025	1	
4/21/2015	04/24/2015	17:24 835093	(EPA 537)	Perfluoroundecanoic acid	ND	ug/L	0.0025	1	
4/21/2015	04/24/2015	17:24 835093	(EPA 537)	13C-PFDA	101	%		1	
4/21/2015	04/24/2015	17:24 835093	(EPA 537)	13C-PFHxA	110	%		1	
4/21/2015	04/24/2015	17:24 835093	(EPA 537)	13C-PFOA	94	%		1	
4/21/2015	04/24/2015	17:24 835093	(EPA 537)	13C-PFOS	97	%		1	
<b>Horsham Well # 17 (201503260495)</b>					<b>Sampled on 04/15/2015 1155</b>				
<b>EPA 537 - Perfluorinated Alkyl Acids</b>									
4/21/2015	04/24/2015	17:45 835093	(EPA 537)	Perfluorobutanesulfonic acid	0.0083	ug/L	0.0025	1	
4/21/2015	04/24/2015	17:45 835093	(EPA 537)	Perfluorodecanoic acid	ND	ug/L	0.0025	1	
4/21/2015	04/24/2015	17:45 835093	(EPA 537)	Perfluorododecanoic acid	ND	ug/L	0.0025	1	
4/21/2015	04/24/2015	17:45 835093	(EPA 537)	Perfluoroheptanoic acid	0.0080	ug/L	0.0025	1	
4/21/2015	04/24/2015	17:45 835093	(EPA 537)	Perfluorohexanesulfonic acid	0.043	ug/L	0.0025	1	
4/21/2015	04/24/2015	17:45 835093	(EPA 537)	Perfluorohexanoic acid	0.016	ug/L	0.0025	1	
4/21/2015	04/24/2015	17:45 835093	(EPA 537)	Perfluorononanoic acid	ND	ug/L	0.0025	1	
4/21/2015	04/24/2015	17:45 835093	(EPA 537)	Perfluorooctanesulfonic acid	0.059	ug/L	0.0025	1	
4/21/2015	04/24/2015	17:45 835093	(EPA 537)	Perfluorooctanoic acid	0.024	ug/L	0.0025	1	
4/21/2015	04/24/2015	17:45 835093	(EPA 537)	Perfluorotetradecanoic acid	ND	ug/L	0.0025	1	
4/21/2015	04/24/2015	17:45 835093	(EPA 537)	Perfluorotridecanoic acid	ND	ug/L	0.0025	1	
4/21/2015	04/24/2015	17:45 835093	(EPA 537)	Perfluoroundecanoic acid	ND	ug/L	0.0025	1	
4/21/2015	04/24/2015	17:45 835093	(EPA 537)	13C-PFDA	91	%		1	
4/21/2015	04/24/2015	17:45 835093	(EPA 537)	13C-PFHxA	99	%		1	
4/21/2015	04/24/2015	17:45 835093	(EPA 537)	13C-PFOA	110	%		1	

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





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Laboratory Data  
Report: 526975

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Chuck Hertz  
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Bryn Mawr, PA 19010-3489

Samples Received on:  
04/17/2015 11:45

Prepared	Analyzed	QC Ref #	Method	Analyte	Result	Units	MRL	Dilution
4/21/2015	04/24/2015	17:45	835093	(EPA 537)	13C-PFOS	107	%	1

**Horsham Well # 21 (201503260496)**

Sampled on 04/15/2015 1040

**EPA 537 - Perfluorinated Alkyl Acids**

4/21/2015	04/24/2015	18:05	835093	(EPA 537)	Perfluorobutanesulfonic acid	0.0046	ug/L	0.0025	1
4/21/2015	04/24/2015	18:05	835093	(EPA 537)	Perfluorodecanoic acid	ND	ug/L	0.0025	1
4/21/2015	04/24/2015	18:05	835093	(EPA 537)	Perfluorododecanoic acid	ND	ug/L	0.0025	1
4/21/2015	04/24/2015	18:05	835093	(EPA 537)	Perfluoroheptanoic acid	0.0032	ug/L	0.0025	1
4/21/2015	04/24/2015	18:05	835093	(EPA 537)	Perfluorohexanesulfonic acid	0.0047	ug/L	0.0025	1
4/21/2015	04/24/2015	18:05	835093	(EPA 537)	Perfluorohexanoic acid	0.0051	ug/L	0.0025	1
4/21/2015	04/24/2015	18:05	835093	(EPA 537)	Perfluorononanoic acid	ND	ug/L	0.0025	1
4/21/2015	04/24/2015	18:05	835093	(EPA 537)	Perfluorooctanesulfonic acid	0.0051	ug/L	0.0025	1
4/21/2015	04/24/2015	18:05	835093	(EPA 537)	Perfluorooctanoic acid	0.010	ug/L	0.0025	1
4/21/2015	04/24/2015	18:05	835093	(EPA 537)	Perfluorotetradecanoic acid	ND	ug/L	0.0025	1
4/21/2015	04/24/2015	18:05	835093	(EPA 537)	Perfluorotridecanoic acid	ND	ug/L	0.0025	1
4/21/2015	04/24/2015	18:05	835093	(EPA 537)	Perfluoroundecanoic acid	ND	ug/L	0.0025	1
4/21/2015	04/24/2015	18:05	835093	(EPA 537)	13C-PFDA	96	%		1
4/21/2015	04/24/2015	18:05	835093	(EPA 537)	13C-PFHxA	101	%		1
4/21/2015	04/24/2015	18:05	835093	(EPA 537)	13C-PFOA	105	%		1
4/21/2015	04/24/2015	18:05	835093	(EPA 537)	13C-PFOS	107	%		1

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



Eaton Analytical

Laboratory  
QC Summary: 526975

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Aqua Pennsylvania, Inc.

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**QC Ref # 835093 - Perfluorinated Alkyl Acids**

**Analysis Date: 04/24/2015**

201503260494	Horsham Well # 10
201503260495	Horsham Well # 17
201503260496	Horsham Well # 21

Analyzed by: 1CL
Analyzed by: 1CL
Analyzed by: 1CL



Eaton Analytical

Laboratory QC  
Report: 526975

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Aqua Pennsylvania, Inc.

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
<b>QC Ref# 835093 - Perfluorinated Alkyl Acids by EPA 537</b>						<b>Analysis Date: 04/24/2015</b>			
LCS1	13C-PFDA (S)			95.7	%	96	(70-130)		
LCS2	13C-PFDA (S)			91.4	%	91	(70-130)		
MBLK	13C-PFDA (S)			89.4	%	89	(70-130)		
MRL_CHK	13C-PFDA (S)			87.5	%	87	(70-130)		
MS_201504160465	13C-PFDA (S)			68.0	%	<u>68</u>	(70-130)		
MSD_201504160465	13C-PFDA (S)			66.3	%	<u>66</u>	(70-130)		
LCS1	13C-PFHxA (S)			98.5	%	99	(70-130)		
LCS2	13C-PFHxA (S)			99.4	%	99	(70-130)		
MBLK	13C-PFHxA (S)			97.8	%	98	(70-130)		
MRL_CHK	13C-PFHxA (S)			93.8	%	94	(70-130)		
MS_201504160465	13C-PFHxA (S)			96.3	%	96	(70-130)		
MSD_201504160465	13C-PFHxA (S)			102	%	102	(70-130)		
LCS1	13C-PFOA (I)			110	%	110	(50-150)		
LCS2	13C-PFOA (I)			108	%	108	(50-150)		
MBLK	13C-PFOA (I)			109	%	109	(50-150)		
MRL_CHK	13C-PFOA (I)			109	%	109	(50-150)		
MS_201504160465	13C-PFOA (I)			107	%	107	(50-150)		
MSD_201504160465	13C-PFOA (I)			103	%	103	(50-150)		
LCS1	13C-PFOS (I)			111	%	111	(50-150)		
LCS2	13C-PFOS (I)			106	%	106	(50-150)		
MBLK	13C-PFOS (I)			111	%	111	(50-150)		
MRL_CHK	13C-PFOS (I)			105	%	105	(50-150)		
MS_201504160465	13C-PFOS (I)			106	%	106	(50-150)		
MSD_201504160465	13C-PFOS (I)			108	%	108	(50-150)		
LCS1	Perfluorobutanesulfonic acid		0.022	0.0225	ug/L	101	(70-130)		
LCS2	Perfluorobutanesulfonic acid		0.022	0.0232	ug/L	105	(70-130)	30	3.0
MBLK	Perfluorobutanesulfonic acid			<0.00074	ug/L				
MRL_CHK	Perfluorobutanesulfonic acid		0.0022	0.00197	ug/L	89	(50-150)		
MS_201504160465	Perfluorobutanesulfonic acid		0.0022	0.00269	ug/L	94	(50-150)		
MSD_201504160465	Perfluorobutanesulfonic acid		0.0022	0.00256	ug/L	88	(50-150)	50	5.0
LCS1	Perfluorodecanoic acid		0.025	0.0251	ug/L	100	(70-130)		
LCS2	Perfluorodecanoic acid		0.025	0.0245	ug/L	98	(70-130)	30	2.5
MBLK	Perfluorodecanoic acid			<0.00083	ug/L				
MRL_CHK	Perfluorodecanoic acid		0.0025	0.00229	ug/L	92	(50-150)		
MS_201504160465	Perfluorodecanoic acid	ND	0.0025	0.00224	ug/L	81	(50-150)		
MSD_201504160465	Perfluorodecanoic acid	ND	0.0025	0.00248	ug/L	91	(50-150)	50	10

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.

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
LCS1	Perfluorododecanoic acid		0.025	0.0245	ug/L	98	(70-130)		
LCS2	Perfluorododecanoic acid		0.025	0.0228	ug/L	91	(70-130)	30	7.1
MBLK	Perfluorododecanoic acid			<0.00083	ug/L				
MRL_CHK	Perfluorododecanoic acid		0.0025	0.00248	ug/L	99	(50-150)		
MS_201504160465	Perfluorododecanoic acid	ND	0.0025	0.00234	ug/L	93	(50-150)		
MSD_201504160465	Perfluorododecanoic acid	ND	0.0025	0.00233	ug/L	93	(50-150)	50	0.43
LCS1	Perfluoroheptanoic acid		0.025	0.0256	ug/L	102	(70-130)		
LCS2	Perfluoroheptanoic acid		0.025	0.0243	ug/L	97	(70-130)	30	5.2
MBLK	Perfluoroheptanoic acid			<0.00083	ug/L				
MRL_CHK	Perfluoroheptanoic acid		0.0025	0.00234	ug/L	94	(50-150)		
MS_201504160465	Perfluoroheptanoic acid		0.0025	0.00438	ug/L	83	(50-150)		
MSD_201504160465	Perfluoroheptanoic acid		0.0025	0.00455	ug/L	90	(50-150)	50	3.8
LCS1	Perfluorohexanesulfonic acid		0.024	0.0234	ug/L	99	(70-130)		
LCS2	Perfluorohexanesulfonic acid		0.024	0.0240	ug/L	101	(70-130)	30	2.4
MBLK	Perfluorohexanesulfonic acid			<0.00079	ug/L				
MRL_CHK	Perfluorohexanesulfonic acid		0.0024	0.00182	ug/L	77	(50-150)		
MS_201504160465	Perfluorohexanesulfonic acid		0.0024	0.00554	ug/L	118	(50-150)		
MSD_201504160465	Perfluorohexanesulfonic acid		0.0024	0.00499	ug/L	95	(50-150)	50	10
LCS1	Perfluorohexanoic acid		0.025	0.0251	ug/L	100	(70-130)		
LCS2	Perfluorohexanoic acid		0.025	0.0250	ug/L	100	(70-130)	30	0.26
MBLK	Perfluorohexanoic acid			<0.00083	ug/L				
MRL_CHK	Perfluorohexanoic acid		0.0025	0.00236	ug/L	94	(50-150)		
MS_201504160465	Perfluorohexanoic acid		0.0025	0.00629	ug/L	90	(50-150)		
MSD_201504160465	Perfluorohexanoic acid		0.0025	0.00661	ug/L	103	(50-150)	50	5.0
LCS1	Perfluorononanoic acid		0.025	0.0248	ug/L	99	(70-130)		
LCS2	Perfluorononanoic acid		0.025	0.0241	ug/L	97	(70-130)	30	2.8
MBLK	Perfluorononanoic acid			<0.00083	ug/L				
MRL_CHK	Perfluorononanoic acid		0.0025	0.00246	ug/L	98	(50-150)		
MS_201504160465	Perfluorononanoic acid	0.0084	0.0025	0.0102	ug/L	72	(50-150)		
MSD_201504160465	Perfluorononanoic acid	0.0084	0.0025	0.0108	ug/L	92	(50-150)	50	5.7
LCS1	Perfluorooctanesulfonic acid		0.024	0.0231	ug/L	96	(70-130)		
LCS2	Perfluorooctanesulfonic acid		0.024	0.0226	ug/L	94	(70-130)	30	2.1
MBLK	Perfluorooctanesulfonic acid			<0.0008	ug/L				
MRL_CHK	Perfluorooctanesulfonic acid		0.0024	0.00171	ug/L	71	(50-150)		
MS_201504160465	Perfluorooctanesulfonic acid	0.0032	0.0024	0.00555	ug/L	98	(50-150)		
MSD_201504160465	Perfluorooctanesulfonic acid	0.0032	0.0024	0.00535	ug/L	89	(50-150)	50	3.7
LCS1	Perfluorooctanoic acid		0.025	0.0253	ug/L	101	(70-130)		
LCS2	Perfluorooctanoic acid		0.025	0.0237	ug/L	95	(70-130)	30	6.6

Spike recovery is already corrected for native results.

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

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Eaton Analytical

Laboratory QC  
Report: 526975

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Aqua Pennsylvania, Inc.

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MBLK	Perfluorooctanoic acid			<0.00083	ug/L				
MRL_CHK	Perfluorooctanoic acid		0.0025	0.00256	ug/L	102	(50-150)		
MS_201504160465	Perfluorooctanoic acid	0.018	0.0025	0.0191	ug/L	60	(50-150)		
MSD_201504160465	Perfluorooctanoic acid	0.018	0.0025	0.0215	ug/L	<u>155</u>	(50-150)	50	12
LCS1	Perfluorotetradecanoic acid		0.025	0.0238	ug/L	95	(70-130)		
LCS2	Perfluorotetradecanoic acid		0.025	0.0229	ug/L	92	(70-130)	30	3.9
MBLK	Perfluorotetradecanoic acid			<0.00083	ug/L				
MRL_CHK	Perfluorotetradecanoic acid		0.0025	0.00226	ug/L	90	(50-150)		
MS_201504160465	Perfluorotetradecanoic acid	ND	0.0025	0.00220	ug/L	85	(50-150)		
MSD_201504160465	Perfluorotetradecanoic acid	ND	0.0025	0.00227	ug/L	87	(50-150)	50	3.1
LCS1	Perfluorotridecanoic acid		0.025	0.0237	ug/L	95	(70-130)		
LCS2	Perfluorotridecanoic acid		0.025	0.0224	ug/L	90	(70-130)	30	5.7
MBLK	Perfluorotridecanoic acid			<0.00083	ug/L				
MRL_CHK	Perfluorotridecanoic acid		0.0025	0.00244	ug/L	98	(50-150)		
MS_201504160465	Perfluorotridecanoic acid	ND	0.0025	0.00206	ug/L	77	(50-150)		
MSD_201504160465	Perfluorotridecanoic acid	ND	0.0025	0.00245	ug/L	93	(50-150)	50	17
LCS1	Perfluoroundecanoic acid		0.025	0.0238	ug/L	95	(70-130)		
LCS2	Perfluoroundecanoic acid		0.025	0.0229	ug/L	92	(70-130)	30	3.9
MBLK	Perfluoroundecanoic acid			<0.00083	ug/L				
MRL_CHK	Perfluoroundecanoic acid		0.0025	0.00250	ug/L	100	(50-150)		
MS_201504160465	Perfluoroundecanoic acid	ND	0.0025	0.00236	ug/L	95	(50-150)		
MSD_201504160465	Perfluoroundecanoic acid	ND	0.0025	0.00254	ug/L	102	(50-150)	50	7.3

Spike recovery is already corrected for native results.

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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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