



Eaton Analytical

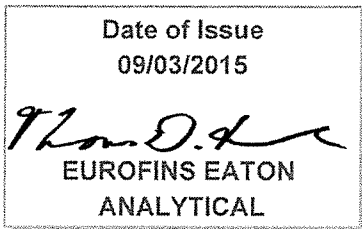
750 Royal Oaks Drive, Suite 100
Monrovia, California 91016-3629
Tel: (626) 386-1100
Fax: (626) 386-1101
1 800 566 LABS (1 800 566 5227)



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: 549004
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

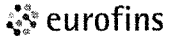
The tests listed below are accredited and meet the requirements of ISO 17025 as verified by the ANSI-ASQ National Accreditation Board/ACLASS.
Refer to Certificate and scope of accreditation (AT 1807) found at: <http://www.eatonanalytical.com>

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 9221C, 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
HAAs/ 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 ²⁻ D			x
Sulfite	SM 4500-SO ³⁻ 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	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 #: 549004
Project: PFC
Sample Group: PFC Monitoring Horsham

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

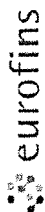
Project Manager: Thomas.D.French
Phone: (480) 778-1558

The following samples were received from you on **August 19, 2015 at 1059**. 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>201508190416</u>	Horsham Well # 17	08/13/2015 0910
	@537	
<u>201508190417</u>	Horsham Well # 10	08/13/2015 1150
	@537	
<u>201508190418</u>	Horsham Well # 21	08/13/2015 0845
	@537	

Test Description

@537 -- Perfluorinated Alkyl Acids



Eaton Analytical

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

CHAIN OF CUSTODY RECORD

5499004

EUROFINS EATON ANALYTICAL USE ONLY:

LOGIN COMMENTS: _____ SAMPLES CHECKED AGAINST COC BY: _____

SAMPLES REC'D DAY OF COLLECTION? (check for yes)

SAMPLES LOGGED IN BY: _____

SAMPLE TEMP RECEIVED AT: _____ °C (Compliance: 4 ± 2 °C)

Colton / No. California / Arizona _____

Monrovia 5.5 °C (Compliance: 4 ± 2 °C) 460A

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

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

TO BE COMPLETED BY SAMPLER:

COMPANY/AGENCY NAME: Aqua Pennsylvania, Inc. PROJECT CODE: _____ (check for yes)

COMPLIANCE SAMPLES NON-COMPLIANCE SAMPLES (check for yes)

- Requires state forms REGULATION INVOLVED: _____

Type of samples (circle one): ROUTINE SPECIAL CONFIRMATION (eg. SDWA, Phase V, NPDES, FDA, ...)

SEE ATTACHED BOTTLE ORDER FOR ANALYSES (check for yes) OR (check for yes)

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	COMPLIANCE SAMPLES	NON-COMPLIANCE SAMPLES	SAMPLER COMMENTS
8/13/15	0910	Horsham Well #17	RGW				X		Raw Water
8/13/15	1150	Horsham Well #10	RGW				X		Raw Water
8/13/15	0845	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 SO = Soil O = Other - Please identify

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:		BP	Aqua Pennsylvania, Inc.	8/13/15	1300
RECEIVED BY:		Michael Senft	Aqua Pennsylvania, Inc.	8/13/15	0800
RELINQUISHED BY:		Michael Senft	Aqua Pennsylvania, Inc.	8/18/15	1600
RECEIVED BY:		Michael Senft	SEA	8-19-15	1059

8/19/15 1445

PAGE 5 OF 14

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

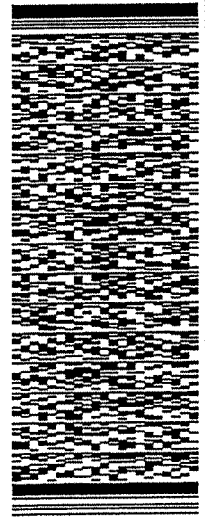
SHIP DATE: 18AUG15
ACT WT: 9.00 LB
CAD: 100061330IN/ET3670
DIMS: 24x15x14 IN
BILL RECIPIENT

TO LOGIN

MWH AMERICAS, INC.,
750 ROYAL OAKS DRIVE
SUITE 100
MONROVIA CA 91016

(626) 386-1100 REF: UCMB3
INV: 15-3031 DEPT: 15-3031

539J1/FECA3100

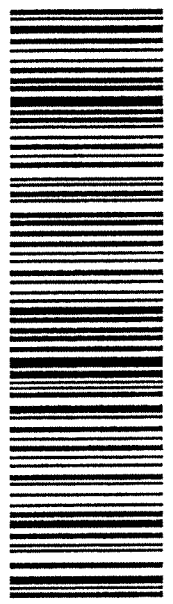


TRK# 7743 0809 3913
0201

WED - 19 AUG AA
STANDARD OVERNIGHT

NH WHPA

CAUS 91016
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. 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.



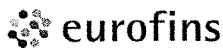
Eaton Analytical

750 Royal Oaks Drive, Suite 100
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Laboratory Comments
Report: 549004

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: 549004

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

Samples Received on:
08/19/2015 1059

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
201508190416 <u>Horsham Well # 17</u>						
09/01/2015 6:00	Perfluorobutanesulfonic acid		0.010		ug/L	0.0025
09/01/2015 6:00	Perfluoroheptanoic acid		0.0091		ug/L	0.0025
09/01/2015 6:00	Perfluorohexanesulfonic acid		0.050		ug/L	0.0025
09/01/2015 6:00	Perfluorohexanoic acid		0.018		ug/L	0.0025
09/01/2015 6:00	Perfluorooctanesulfonic acid		0.068		ug/L	0.0025
09/01/2015 6:00	Perfluorooctanoic acid		0.029		ug/L	0.0025
201508190417 <u>Horsham Well # 10</u>						
09/01/2015 6:21	Perfluorobutanesulfonic acid		0.0083		ug/L	0.0025
09/01/2015 6:21	Perfluoroheptanoic acid		0.0048		ug/L	0.0025
09/01/2015 6:21	Perfluorohexanesulfonic acid		0.029		ug/L	0.0025
09/01/2015 6:21	Perfluorohexanoic acid		0.010		ug/L	0.0025
09/01/2015 6:21	Perfluorooctanesulfonic acid		0.023		ug/L	0.0025
09/01/2015 6:21	Perfluorooctanoic acid		0.022		ug/L	0.0025
201508190418 <u>Horsham Well # 21</u>						
09/01/2015 6:42	Perfluorobutanesulfonic acid		0.0074		ug/L	0.0025
09/01/2015 6:42	Perfluoroheptanoic acid		0.0041		ug/L	0.0025
09/01/2015 6:42	Perfluorohexanesulfonic acid		0.0057		ug/L	0.0025
09/01/2015 6:42	Perfluorohexanoic acid		0.0060		ug/L	0.0025
09/01/2015 6:42	Perfluorooctanesulfonic acid		0.0064		ug/L	0.0025
09/01/2015 6:42	Perfluorooctanoic acid		0.012		ug/L	0.0025

SUMMARY OF POSITIVE DATA ONLY



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Laboratory Data
Report: 549004

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

Samples Received on:
08/19/2015 1059

Prepared	Analyzed	QC Ref #	Method	Analyte	Result	Units	MRL	Dilution	
Horsham Well # 17 (201508190416)					Sampled on 08/13/2015 0910				
EPA 537 - Perfluorinated Alkyl Acids									
8/24/2015	09/01/2015	6:00	859493	(EPA 537)	Perfluorobutanesulfonic acid	0.010	ug/L	0.0025	1
8/24/2015	09/01/2015	6:00	859493	(EPA 537)	Perfluorodecanoic acid	ND	ug/L	0.0025	1
8/24/2015	09/01/2015	6:00	859493	(EPA 537)	Perfluorododecanoic acid	ND	ug/L	0.0025	1
8/24/2015	09/01/2015	6:00	859493	(EPA 537)	Perfluoroheptanoic acid	0.0091	ug/L	0.0025	1
8/24/2015	09/01/2015	6:00	859493	(EPA 537)	Perfluorohexanesulfonic acid	0.050	ug/L	0.0025	1
8/24/2015	09/01/2015	6:00	859493	(EPA 537)	Perfluorohexanoic acid	0.018	ug/L	0.0025	1
8/24/2015	09/01/2015	6:00	859493	(EPA 537)	Perfluorononanoic acid	ND	ug/L	0.0025	1
8/24/2015	09/01/2015	6:00	859493	(EPA 537)	Perfluorooctanesulfonic acid	0.068	ug/L	0.0025	1
8/24/2015	09/01/2015	6:00	859493	(EPA 537)	Perfluorooctanoic acid	0.029	ug/L	0.0025	1
8/24/2015	09/01/2015	6:00	859493	(EPA 537)	Perfluorotetradecanoic acid	ND	ug/L	0.0025	1
8/24/2015	09/01/2015	6:00	859493	(EPA 537)	Perfluorotridecanoic acid	ND	ug/L	0.0025	1
8/24/2015	09/01/2015	6:00	859493	(EPA 537)	Perfluoroundecanoic acid	ND	ug/L	0.0025	1
8/24/2015	09/01/2015	6:00	859493	(EPA 537)	13C-PFDA	90	%		1
8/24/2015	09/01/2015	6:00	859493	(EPA 537)	13C-PFHxA	97	%		1
8/24/2015	09/01/2015	6:00	859493	(EPA 537)	13C-PFOA	118	%		1
8/24/2015	09/01/2015	6:00	859493	(EPA 537)	13C-PFOS	109	%		1
Horsham Well # 10 (201508190417)					Sampled on 08/13/2015 1150				
EPA 537 - Perfluorinated Alkyl Acids									
8/24/2015	09/01/2015	6:21	859493	(EPA 537)	Perfluorobutanesulfonic acid	0.0083	ug/L	0.0025	1
8/24/2015	09/01/2015	6:21	859493	(EPA 537)	Perfluorodecanoic acid	ND	ug/L	0.0025	1
8/24/2015	09/01/2015	6:21	859493	(EPA 537)	Perfluorododecanoic acid	ND	ug/L	0.0025	1
8/24/2015	09/01/2015	6:21	859493	(EPA 537)	Perfluoroheptanoic acid	0.0048	ug/L	0.0025	1
8/24/2015	09/01/2015	6:21	859493	(EPA 537)	Perfluorohexanesulfonic acid	0.029	ug/L	0.0025	1
8/24/2015	09/01/2015	6:21	859493	(EPA 537)	Perfluorohexanoic acid	0.010	ug/L	0.0025	1
8/24/2015	09/01/2015	6:21	859493	(EPA 537)	Perfluorononanoic acid	ND	ug/L	0.0025	1
8/24/2015	09/01/2015	6:21	859493	(EPA 537)	Perfluorooctanesulfonic acid	0.023	ug/L	0.0025	1
8/24/2015	09/01/2015	6:21	859493	(EPA 537)	Perfluorooctanoic acid	0.022	ug/L	0.0025	1
8/24/2015	09/01/2015	6:21	859493	(EPA 537)	Perfluorotetradecanoic acid	ND	ug/L	0.0025	1
8/24/2015	09/01/2015	6:21	859493	(EPA 537)	Perfluorotridecanoic acid	ND	ug/L	0.0025	1
8/24/2015	09/01/2015	6:21	859493	(EPA 537)	Perfluoroundecanoic acid	ND	ug/L	0.0025	1
8/24/2015	09/01/2015	6:21	859493	(EPA 537)	13C-PFDA	87	%		1
8/24/2015	09/01/2015	6:21	859493	(EPA 537)	13C-PFHxA	96	%		1
8/24/2015	09/01/2015	6:21	859493	(EPA 537)	13C-PFOA	121	%		1

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



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Report: 549004

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Bryn Mawr, PA 19010-3489

Samples Received on:
08/19/2015 1059

Prepared	Analyzed	QC Ref #	Method	Analyte	Result	Units	MRL	Dilution
8/24/2015	09/01/2015	6:21 859493	(EPA 537)	13C-PFOS	115	%		1

Horsham Well # 21 (201508190418)

Sampled on 08/13/2015 0845

EPA 537 - Perfluorinated Alkyl Acids

8/24/2015	09/01/2015	6:42 859493	(EPA 537)	Perfluorobutanesulfonic acid	0.0074	ug/L	0.0025	1
8/24/2015	09/01/2015	6:42 859493	(EPA 537)	Perfluorodecanoic acid	ND	ug/L	0.0025	1
8/24/2015	09/01/2015	6:42 859493	(EPA 537)	Perfluorododecanoic acid	ND	ug/L	0.0025	1
8/24/2015	09/01/2015	6:42 859493	(EPA 537)	Perfluoroheptanoic acid	0.0041	ug/L	0.0025	1
8/24/2015	09/01/2015	6:42 859493	(EPA 537)	Perfluorohexanesulfonic acid	0.0057	ug/L	0.0025	1
8/24/2015	09/01/2015	6:42 859493	(EPA 537)	Perfluorohexanoic acid	0.0060	ug/L	0.0025	1
8/24/2015	09/01/2015	6:42 859493	(EPA 537)	Perfluorononanoic acid	ND	ug/L	0.0025	1
8/24/2015	09/01/2015	6:42 859493	(EPA 537)	Perfluorooctanesulfonic acid	0.0064	ug/L	0.0025	1
8/24/2015	09/01/2015	6:42 859493	(EPA 537)	Perfluorooctanoic acid	0.012	ug/L	0.0025	1
8/24/2015	09/01/2015	6:42 859493	(EPA 537)	Perfluorotetradecanoic acid	ND	ug/L	0.0025	1
8/24/2015	09/01/2015	6:42 859493	(EPA 537)	Perfluorotridecanoic acid	ND	ug/L	0.0025	1
8/24/2015	09/01/2015	6:42 859493	(EPA 537)	Perfluoroundecanoic acid	ND	ug/L	0.0025	1
8/24/2015	09/01/2015	6:42 859493	(EPA 537)	13C-PFDA	85	%		1
8/24/2015	09/01/2015	6:42 859493	(EPA 537)	13C-PFHxA	91	%		1
8/24/2015	09/01/2015	6:42 859493	(EPA 537)	13C-PFOA	125	%		1
8/24/2015	09/01/2015	6:42 859493	(EPA 537)	13C-PFOS	114	%		1

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

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Aqua Pennsylvania, Inc.

QC Ref # 859493 - Perfluorinated Alkyl Acids

Analysis Date: 09/01/2015

201508190416	Horsham Well # 17
201508190417	Horsham Well # 10
201508190418	Horsham Well # 21

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



Eaton Analytical

Laboratory QC
Report: 549004

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Aqua Pennsylvania, Inc.

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
QC Ref# 859493 - Perfluorinated Alkyl Acids by EPA 537						Analysis Date: 09/01/2015			
LCS1	13C-PFDA (S)			97.7	%	98	(70-130)		
LCS2	13C-PFDA (S)			97.0	%	97	(70-130)		
MBLK	13C-PFDA (S)			96.4	%	96	(70-130)		
MRL_CHK	13C-PFDA (S)			88.2	%	88	(70-130)		
MS1_201508250164	13C-PFDA (S)			85.6	%	86	(70-130)		
MSD1_201508250164	13C-PFDA (S)			95.2	%	95	(70-130)		
LCS1	13C-PFHxA (S)			99.3	%	99	(70-130)		
LCS2	13C-PFHxA (S)			100	%	100	(70-130)		
MBLK	13C-PFHxA (S)			81.9	%	82	(70-130)		
MRL_CHK	13C-PFHxA (S)			97.4	%	97	(70-130)		
MS1_201508250164	13C-PFHxA (S)			84.2	%	84	(70-130)		
MSD1_201508250164	13C-PFHxA (S)			99.2	%	99	(70-130)		
LCS1	13C-PFOA (I)			114	%	114	(50-150)		
LCS2	13C-PFOA (I)			113	%	113	(50-150)		
MBLK	13C-PFOA (I)			122	%	122	(50-150)		
MRL_CHK	13C-PFOA (I)			118	%	118	(50-150)		
MS1_201508250164	13C-PFOA (I)			121	%	121	(50-150)		
MSD1_201508250164	13C-PFOA (I)			114	%	114	(50-150)		
LCS1	13C-PFOS (I)			107	%	107	(50-150)		
LCS2	13C-PFOS (I)			111	%	111	(50-150)		
MBLK	13C-PFOS (I)			120	%	120	(50-150)		
MRL_CHK	13C-PFOS (I)			112	%	112	(50-150)		
MS1_201508250164	13C-PFOS (I)			112	%	112	(50-150)		
MSD1_201508250164	13C-PFOS (I)			113	%	113	(50-150)		
LCS1	Perfluorobutanesulfonic acid		0.022	0.0240	ug/L	108	(70-130)		
LCS2	Perfluorobutanesulfonic acid		0.022	0.0231	ug/L	104	(70-130)	30	3.8
MBLK	Perfluorobutanesulfonic acid			<0.00074	ug/L				
MRL_CHK	Perfluorobutanesulfonic acid		0.0022	0.00246	ug/L	111	(50-150)		
MS1_201508250164	Perfluorobutanesulfonic acid	ND	0.022	0.0201	ug/L	89	(70-130)		
MSD1_201508250164	Perfluorobutanesulfonic acid	ND	0.022	0.0235	ug/L	104	(70-130)	30	16
LCS1	Perfluorodecanoic acid		0.025	0.0238	ug/L	95	(70-130)		
LCS2	Perfluorodecanoic acid		0.025	0.0234	ug/L	94	(70-130)	30	1.7
MBLK	Perfluorodecanoic acid			<0.00083	ug/L				
MRL_CHK	Perfluorodecanoic acid		0.0025	0.00217	ug/L	87	(50-150)		
MS1_201508250164	Perfluorodecanoic acid	ND	0.025	0.0218	ug/L	87	(70-130)		
MSD1_201508250164	Perfluorodecanoic acid	ND	0.025	0.0235	ug/L	94	(70-130)	30	7.5

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: 549004

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Aqua Pennsylvania, Inc.

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
LCS1	Perfluorododecanoic acid		0.025	0.0246	ug/L	99	(70-130)		
LCS2	Perfluorododecanoic acid		0.025	0.0253	ug/L	101	(70-130)	30	2.8
MBLK	Perfluorododecanoic acid			<0.00083	ug/L				
MRL_CHK	Perfluorododecanoic acid		0.0025	0.00242	ug/L	97	(50-150)		
MS1_201508250164	Perfluorododecanoic acid	ND	0.025	0.0242	ug/L	97	(70-130)		
MSD1_201508250164	Perfluorododecanoic acid	ND	0.025	0.0263	ug/L	105	(70-130)	30	8.3
LCS1	Perfluoroheptanoic acid		0.025	0.0253	ug/L	101	(70-130)		
LCS2	Perfluoroheptanoic acid		0.025	0.0250	ug/L	100	(70-130)	30	1.2
MBLK	Perfluoroheptanoic acid			<0.00083	ug/L				
MRL_CHK	Perfluoroheptanoic acid		0.0025	0.00273	ug/L	109	(50-150)		
MS1_201508250164	Perfluoroheptanoic acid	ND	0.025	0.0217	ug/L	85	(70-130)		
MSD1_201508250164	Perfluoroheptanoic acid	ND	0.025	0.0270	ug/L	106	(70-130)	30	22
LCS1	Perfluorohexanesulfonic acid		0.024	0.0255	ug/L	108	(70-130)		
LCS2	Perfluorohexanesulfonic acid		0.024	0.0242	ug/L	102	(70-130)	30	5.2
MBLK	Perfluorohexanesulfonic acid			<0.00079	ug/L				
MRL_CHK	Perfluorohexanesulfonic acid		0.0024	0.00224	ug/L	94	(50-150)		
MS1_201508250164	Perfluorohexanesulfonic acid	ND	0.024	0.0224	ug/L	91	(70-130)		
MSD1_201508250164	Perfluorohexanesulfonic acid	ND	0.024	0.0248	ug/L	101	(70-130)	30	11
LCS1	Perfluorohexanoic acid		0.025	0.0240	ug/L	96	(70-130)		
LCS2	Perfluorohexanoic acid		0.025	0.0247	ug/L	99	(70-130)	30	2.9
MBLK	Perfluorohexanoic acid			<0.00083	ug/L				
MRL_CHK	Perfluorohexanoic acid		0.0025	0.00266	ug/L	106	(50-150)		
MS1_201508250164	Perfluorohexanoic acid	ND	0.025	0.0218	ug/L	79	(70-130)		
MSD1_201508250164	Perfluorohexanoic acid	ND	0.025	0.0273	ug/L	101	(70-130)	30	22
LCS1	Perfluorononanoic acid		0.025	0.0245	ug/L	98	(70-130)		
LCS2	Perfluorononanoic acid		0.025	0.0256	ug/L	102	(70-130)	30	4.4
MBLK	Perfluorononanoic acid			<0.00083	ug/L				
MRL_CHK	Perfluorononanoic acid		0.0025	0.00256	ug/L	102	(50-150)		
MS1_201508250164	Perfluorononanoic acid	ND	0.025	0.0230	ug/L	90	(70-130)		
MSD1_201508250164	Perfluorononanoic acid	ND	0.025	0.0254	ug/L	100	(70-130)	30	9.9
LCS1	Perfluorooctanesulfonic acid		0.024	0.0225	ug/L	94	(70-130)		
LCS2	Perfluorooctanesulfonic acid		0.024	0.0234	ug/L	98	(70-130)	30	3.9
MBLK	Perfluorooctanesulfonic acid			<0.0008	ug/L				
MRL_CHK	Perfluorooctanesulfonic acid		0.0024	0.00218	ug/L	91	(50-150)		
MS1_201508250164	Perfluorooctanesulfonic acid	ND	0.024	0.0222	ug/L	87	(70-130)		
MSD1_201508250164	Perfluorooctanesulfonic acid	ND	0.024	0.0233	ug/L	91	(70-130)	30	4.8
LCS1	Perfluorooctanoic acid		0.025	0.0252	ug/L	101	(70-130)		
LCS2	Perfluorooctanoic acid		0.025	0.0261	ug/L	105	(70-130)	30	3.5

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).

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Laboratory QC
 Report: 549004

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	0.00290	ug/L	116	(50-150)		
MS1_201508250164	Perfluorooctanoic acid	ND	0.025	0.0237	ug/L	90	(70-130)		
MSD1_201508250164	Perfluorooctanoic acid	ND	0.025	0.0270	ug/L	103	(70-130)	30	13
LCS1	Perfluorotetradecanoic acid		0.025	0.0226	ug/L	90	(70-130)		
LCS2	Perfluorotetradecanoic acid		0.025	0.0234	ug/L	94	(70-130)	30	3.5
MBLK	Perfluorotetradecanoic acid			<0.00083	ug/L				
MRL_CHK	Perfluorotetradecanoic acid		0.0025	0.00216	ug/L	86	(50-150)		
MS1_201508250164	Perfluorotetradecanoic acid	ND	0.025	0.0219	ug/L	87	(70-130)		
MSD1_201508250164	Perfluorotetradecanoic acid	ND	0.025	0.0243	ug/L	97	(70-130)	30	10
LCS1	Perfluorotridecanoic acid		0.025	0.0240	ug/L	96	(70-130)		
LCS2	Perfluorotridecanoic acid		0.025	0.0250	ug/L	100	(70-130)	30	4.1
MBLK	Perfluorotridecanoic acid			<0.00083	ug/L				
MRL_CHK	Perfluorotridecanoic acid		0.0025	0.00257	ug/L	103	(50-150)		
MS1_201508250164	Perfluorotridecanoic acid	ND	0.025	0.0247	ug/L	99	(70-130)		
MSD1_201508250164	Perfluorotridecanoic acid	ND	0.025	0.0262	ug/L	105	(70-130)	30	5.9
LCS1	Perfluoroundecanoic acid		0.025	0.0237	ug/L	95	(70-130)		
LCS2	Perfluoroundecanoic acid		0.025	0.0241	ug/L	96	(70-130)	30	1.7
MBLK	Perfluoroundecanoic acid			<0.00083	ug/L				
MRL_CHK	Perfluoroundecanoic acid		0.0025	0.00237	ug/L	95	(50-150)		
MS1_201508250164	Perfluoroundecanoic acid	ND	0.025	0.0237	ug/L	95	(70-130)		
MSD1_201508250164	Perfluoroundecanoic acid	ND	0.025	0.0252	ug/L	101	(70-130)	30	6.1

Spike recovery is already corrected for native results.

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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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