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## Technical Report for

### City of Cocoa Beach Water Reclamation

#### PFOS/PFOA Testing

SGS Job Number: FA58511

Sampling Date: 10/16/18

#### Report to:

City of Cocoa Beach Water Reclamation  
1600 Minutemen Causeway  
Cocoa Beach, FL 32931  
brad.blais@meadhunt.com

ATTN: Christopher Krick

Total number of pages in report: 20



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

A handwritten signature in black ink that reads 'Caitlin Brice'.

Caitlin Brice, M.S.  
General Manager

Client Service contact: Heather Wandrey 407-425-6700

Certifications: FL(E83510), LA(03051), KS(E-10327), IL(200063), NC(573), NJ(FL002), NY(12022), SC(96038001)  
DoD ELAP(ANAB L2229), AZ(AZ0806), CA(2937), TX(T104704404), PA(68-03573), VA(460177),  
AK, AR, IA, KY, MA, MS, ND, NH, NV, OK, OR, UT, WA, WV

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Test results relate only to samples analyzed.



November 30, 2018

Mr. Christopher Krick  
City of Cocoa Beach  
1600 Minutemen Causeway  
Cocoa Beach, FL 32931

RE: SGS North America Inc. - Orlando job FA58511 Reissue

Dear Mr. Krick,

The final report for job number FA58511 has been edited to reflect requested corrections. These edits have been incorporated into the revised report.

Additional PFAS compounds have been reported.

SGS North America Inc. - Orlando apologies for any inconvenience this may have caused. Please feel free to contact us if we can be of further assistance.

Sincerely,

SGS North America Inc. - Orlando

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## Sample Summary

City of Cocoa Beach Water Reclamation

Job No: FA58511

PFOS/PFOA Testing

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
FA58511-1	10/16/18	09:08	CK	10/18/18	AQ Water	101718SZMW-1/S2MW-1
FA58511-2	10/16/18	10:23	CK	10/18/18	AQ Ground Water	101718SMW-1/SMW-1

## Summary of Hits

Job Number: FA58511  
Account: City of Cocoa Beach Water Reclamation  
Project: PFOS/PFOA Testing  
Collected: 10/16/18

Lab Sample ID	Client Sample ID	Result/ Analyte	Qual	PQL	MDL	Units	Method
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FA58511-1      101718SZMW-1/S2MW-1

Perfluorohexanoic acid	0.0140	0.0077	0.0019	ug/l	EPA 537M BY ID
Perfluoroheptanoic acid	0.00532 I	0.0077	0.0019	ug/l	EPA 537M BY ID
Perfluorooctanoic acid	0.00722 I	0.0077	0.0019	ug/l	EPA 537M BY ID
Perfluorobutanesulfonic acid	0.00458 I	0.0077	0.0019	ug/l	EPA 537M BY ID
Perfluorohexanesulfonic acid	0.0114	0.0077	0.0019	ug/l	EPA 537M BY ID
Perfluorooctanesulfonic acid	0.0381	0.0077	0.0029	ug/l	EPA 537M BY ID

FA58511-2      101718SMW-1/SMW-1

No hits reported in this sample.

**Sample Results**

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**Report of Analysis**

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# Report of Analysis

3.1  
3

<b>Client Sample ID:</b> 101718SZMW-1/S2MW-1	
<b>Lab Sample ID:</b> FA58511-1	<b>Date Sampled:</b> 10/16/18
<b>Matrix:</b> AQ - Water	<b>Date Received:</b> 10/18/18
<b>Method:</b> EPA 537M BY ID EPA 537 MOD	<b>Percent Solids:</b> n/a
<b>Project:</b> PFOS/PFOA Testing	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Q23054.D	1	11/02/18 01:11	NG	10/23/18 13:00	OP72307	S2Q359
Run #2							

Run #	Initial Volume	Final Volume
Run #1	130 ml	1.0 ml
Run #2		

### EPA 537 Method List

CAS No.	Compound	Result	PQL	MDL	Units	Q
<b>PERFLUOROALKYL CARBOXYLIC ACIDS</b>						
307-24-4	Perfluorohexanoic acid	0.0140	0.0077	0.0019	ug/l	
375-85-9	Perfluoroheptanoic acid	0.00532	0.0077	0.0019	ug/l	I
335-67-1	Perfluorooctanoic acid	0.00722	0.0077	0.0019	ug/l	I
375-95-1	Perfluorononanoic acid	0.0019 U	0.0077	0.0019	ug/l	
335-76-2	Perfluorodecanoic acid	0.0019 U	0.0077	0.0019	ug/l	
2058-94-8	Perfluoroundecanoic acid	0.0019 U	0.0077	0.0019	ug/l	
307-55-1	Perfluorododecanoic acid	0.0029 U	0.0077	0.0029	ug/l	
72629-94-8	Perfluorotridecanoic acid	0.0019 U	0.0077	0.0019	ug/l	
376-06-7	Perfluorotetradecanoic acid	0.0019 U	0.0077	0.0019	ug/l	

<b>PERFLUOROALKYL SULFONATES</b>						
375-73-5	Perfluorobutanesulfonic acid	0.00458	0.0077	0.0019	ug/l	I
355-46-4	Perfluorohexanesulfonic acid	0.0114	0.0077	0.0019	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	0.0381	0.0077	0.0029	ug/l	

<b>PERFLUORO OCTANESULFONAMIDOACETIC ACIDS</b>						
2355-31-9	MeFOSAA	0.0077 U	0.038	0.0077	ug/l	
2991-50-6	EiFOSAA	0.0077 U	0.038	0.0077	ug/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C4-PFBA	128%		30-140%
	13C5-PFPeA	132%		40-140%
	13C5-PFHxA	134%		50-150%
	13C4-PFHpA	134%		50-150%
	13C8-PFOA	136%		50-150%
	13C9-PFNA	129%		50-150%
	13C6-PFDA	130%		50-150%
	13C7-PFUnDA	109%		50-150%
	13C2-PFDoDA	98%		50-150%
	13C2-PFTeDA	88%		40-150%

U = Not detected      MDL = Method Detection Limit      I = Result >= MDL but < PQL      J = Estimated value  
 PQL = Practical Quantitation Limit      V = Indicates analyte found in associated method blank  
 L = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

## Report of Analysis

3.1  
3

<b>Client Sample ID:</b> 101718SZMW-1/S2MW-1	<b>Date Sampled:</b> 10/16/18
<b>Lab Sample ID:</b> FA58511-1	<b>Date Received:</b> 10/18/18
<b>Matrix:</b> AQ - Water	<b>Percent Solids:</b> n/a
<b>Method:</b> EPA 537M BY ID EPA 537 MOD	
<b>Project:</b> PFOS/PFOA Testing	

**EPA 537 Method List**

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C3-PFBS	118%		50-150%
	13C3-PFHxS	121%		50-150%
	13C8-PFOS	102%		50-150%
	13C8-FOSA	43%		30-140%
	d3-MeFOSAA	110%		50-150%
	13C2-4:2FTS	128%		50-150%
	13C2-6:2FTS	139%		50-150%
	13C2-8:2FTS	116%		50-150%

U = Not detected      MDL = Method Detection Limit  
 PQL = Practical Quantitation Limit  
 L = Indicates value exceeds calibration range

I = Result >= MDL but < PQL    J = Estimated value  
 V = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



# Report of Analysis

<b>Client Sample ID:</b> 101718SMW-1/SMW-1	
<b>Lab Sample ID:</b> FA58511-2	<b>Date Sampled:</b> 10/16/18
<b>Matrix:</b> AQ - Ground Water	<b>Date Received:</b> 10/18/18
<b>Method:</b> EPA 537M BY ID EPA 537 MOD	<b>Percent Solids:</b> n/a
<b>Project:</b> PFOS/PFOA Testing	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Q23056.D	1	11/02/18 01:47	NG	10/23/18 13:00	OP72307	S2Q359
Run #2							

Run #	Initial Volume	Final Volume
Run #1	130 ml	1.0 ml
Run #2		

### EPA 537 Method List

CAS No.	Compound	Result	PQL	MDL	Units	Q
<b>PERFLUOROALKYL CARBOXYLIC ACIDS</b>						
307-24-4	Perfluorohexanoic acid	0.0019 U	0.0077	0.0019	ug/l	
375-85-9	Perfluoroheptanoic acid	0.0019 U	0.0077	0.0019	ug/l	
335-67-1	Perfluorooctanoic acid	0.0019 U	0.0077	0.0019	ug/l	
375-95-1	Perfluorononanoic acid	0.0019 U	0.0077	0.0019	ug/l	
335-76-2	Perfluorodecanoic acid	0.0019 U	0.0077	0.0019	ug/l	
2058-94-8	Perfluoroundecanoic acid	0.0019 U	0.0077	0.0019	ug/l	
307-55-1	Perfluorododecanoic acid	0.0029 U	0.0077	0.0029	ug/l	
72629-94-8	Perfluorotridecanoic acid	0.0019 U	0.0077	0.0019	ug/l	
376-06-7	Perfluorotetradecanoic acid	0.0019 U	0.0077	0.0019	ug/l	
<b>PERFLUOROALKYL SULFONATES</b>						
375-73-5	Perfluorobutanesulfonic acid	0.0019 U	0.0077	0.0019	ug/l	
355-46-4	Perfluorohexanesulfonic acid	0.0019 U	0.0077	0.0019	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	0.0029 U	0.0077	0.0029	ug/l	
<b>PERFLUORO OCTANESULFONAMIDOACETIC ACIDS</b>						
2355-31-9	MeFOSAA	0.0077 U	0.038	0.0077	ug/l	
2991-50-6	EiFOSAA	0.0077 U	0.038	0.0077	ug/l	
CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits		
	13C4-PFBA	120%		30-140%		
	13C5-PFPeA	124%		40-140%		
	13C5-PFHxA	129%		50-150%		
	13C4-PFHpA	132%		50-150%		
	13C8-PFOA	130%		50-150%		
	13C9-PFNA	117%		50-150%		
	13C6-PFDA	104%		50-150%		
	13C7-PFUnDA	92%		50-150%		
	13C2-PFDoDA	81%		50-150%		
	13C2-PFTeDA	68%		40-150%		

U = Not detected      MDL = Method Detection Limit      I = Result >= MDL but < PQL      J = Estimated value  
 PQL = Practical Quantitation Limit      V = Indicates analyte found in associated method blank  
 L = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> 101718SMW-1/SMW-1	
<b>Lab Sample ID:</b> FA58511-2	<b>Date Sampled:</b> 10/16/18
<b>Matrix:</b> AQ - Ground Water	<b>Date Received:</b> 10/18/18
<b>Method:</b> EPA 537M BY ID EPA 537 MOD	<b>Percent Solids:</b> n/a
<b>Project:</b> PFOS/PFOA Testing	

### EPA 537 Method List

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C3-PFBS	112%		50-150%
	13C3-PFHxS	111%		50-150%
	13C8-PFOS	85%		50-150%
	13C8-FOSA	11%		30-140%
	d3-MeFOSAA	97%		50-150%
	13C2-4:2FTS	125%		50-150%
	13C2-6:2FTS	137%		50-150%
	13C2-8:2FTS	106%		50-150%

U = Not detected      MDL = Method Detection Limit  
 PQL = Practical Quantitation Limit  
 L = Indicates value exceeds calibration range

I = Result >= MDL but < PQL    J = Estimated value  
 V = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Misc. Forms

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### Custody Documents and Other Forms

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**Includes the following where applicable:**

- Chain of Custody





**Job Change Order: FA58511**

<b>Requested Date:</b>	11/30/2018	<b>Received Date:</b>	10/18/2018
<b>Account Name:</b>	City of Cocoa Beach Water Recla	<b>Due Date:</b>	11/1/2018
<b>Project Description:</b>	PFOS/PFOA Testing	<b>Deliverable:</b>	COMMB
<b>CSR:</b>	MM	<b>TAT (Days):</b>	10

=====  
**Sample #:** FA58511-1 & 2      **Change:**  
**Dept:**                                      Per client request report compound list LCID537LIST.  
**TAT:**                                      10  
=====

**FA58511: Chain of Custody**

**Page 3 of 3**

**Above Changes Per:** Chris Krick

**Date/Time:** 11/30/2018 3:48:55 PM

To Client: This Change Order is confirmation of the revisions, previously discussed with the Client Service Representative.

Page 1 of 1

## MS Semi-volatiles

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### QC Data Summaries

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#### Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

# Method Blank Summary

Job Number: FA58511  
 Account: COCBFL City of Cocoa Beach Water Reclamation  
 Project: PFOS/PFOA Testing

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP72307-MB	2Q23053.D	1	11/02/18	NG	10/23/18	OP72307	S2Q359

The QC reported here applies to the following samples:

Method: EPA 537M BY ID

FA58511-1, FA58511-2

CAS No.	Compound	Result	RL	MDL	Units	Q
307-24-4	Perfluorohexanoic acid	ND	0.0077	0.0019	ug/l	
375-85-9	Perfluoroheptanoic acid	ND	0.0077	0.0019	ug/l	
335-67-1	Perfluorooctanoic acid	ND	0.0077	0.0019	ug/l	
375-95-1	Perfluorononanoic acid	ND	0.0077	0.0019	ug/l	
335-76-2	Perfluorodecanoic acid	ND	0.0077	0.0019	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	0.0077	0.0019	ug/l	
307-55-1	Perfluorododecanoic acid	ND	0.0077	0.0029	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	0.0077	0.0019	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	0.0077	0.0019	ug/l	
375-73-5	Perfluorobutanesulfonic acid	ND	0.0077	0.0019	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND	0.0077	0.0019	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	0.0077	0.0029	ug/l	
2355-31-9	MeFOSAA	ND	0.038	0.0077	ug/l	
2991-50-6	EtFOSAA	ND	0.038	0.0077	ug/l	

CAS No.	ID Standard Recoveries	Limits
	13C8-PFOA	126% 50-150%
	13C8-PFOS	119% 50-150%

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# Instrument Blank

Job Number: FA58511  
 Account: COCBFL City of Cocoa Beach Water Reclamation  
 Project: PFOS/PFOA Testing

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S2Q359-IBLK	2Q23035.D	1	11/01/18	NG	n/a	n/a	S2Q359

The QC reported here applies to the following samples:

Method: EPA 537M QSM5.1 B-15

FA58511-1, FA58511-2

CAS No.	Compound	Result	RL	MDL	Units	Q
307-24-4	Perfluorohexanoic acid	ND	0.0080	0.0020	ug/l	
375-85-9	Perfluoroheptanoic acid	ND	0.0080	0.0020	ug/l	
335-67-1	Perfluorooctanoic acid	ND	0.0080	0.0020	ug/l	
375-95-1	Perfluorononanoic acid	ND	0.0080	0.0020	ug/l	
335-76-2	Perfluorodecanoic acid	ND	0.0080	0.0020	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	0.0080	0.0020	ug/l	
307-55-1	Perfluorododecanoic acid	ND	0.0080	0.0030	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	0.0080	0.0020	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	0.0080	0.0020	ug/l	
375-73-5	Perfluorobutanesulfonic acid	ND	0.0080	0.0020	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND	0.0080	0.0020	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	0.016	0.0040	ug/l	
2355-31-9	MeFOSAA	ND	0.040	0.0080	ug/l	
2991-50-6	EtFOSAA	ND	0.040	0.0080	ug/l	

CAS No.	ID Standard Recoveries	Limits
	13C5-PFHxA	111% 50-150%
	13C4-PFHpA	110% 50-150%
	13C8-PFOA	111% 50-150%
	13C9-PFNA	111% 50-150%
	13C6-PFDA	116% 50-150%
	13C7-PFUnDA	114% 50-150%
	13C2-PFDoDA	111% 50-150%
	13C2-PFTeDA	109% 50-150%
	13C3-PFBS	110% 50-150%
	13C3-PFHxS	111% 50-150%
	13C8-PFOS	110% 50-150%
	d3-MeFOSAA	112% 50-150%

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# Blank Spike Summary

Job Number: FA58511  
 Account: COCBFL City of Cocoa Beach Water Reclamation  
 Project: PFOS/PFOA Testing

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP72307-BS	2Q23052.D	1	11/02/18	NG	10/23/18	OP72307	S2Q359

The QC reported here applies to the following samples:

Method: EPA 537M BY ID

FA58511-1, FA58511-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
307-24-4	Perfluorohexanoic acid	0.154	0.116	75	70-130
375-85-9	Perfluoroheptanoic acid	0.154	0.135	88	71-130
335-67-1	Perfluorooctanoic acid	0.154	0.133	86	74-130
375-95-1	Perfluorononanoic acid	0.154	0.126	82	76-130
335-76-2	Perfluorodecanoic acid	0.154	0.121	79	70-130
2058-94-8	Perfluoroundecanoic acid	0.154	0.131	85	70-130
307-55-1	Perfluorododecanoic acid	0.154	0.139	90	70-130
72629-94-8	Perfluorotridecanoic acid	0.154	0.152	99	70-139
376-06-7	Perfluorotetradecanoic acid	0.154	0.123	80	70-130
375-73-5	Perfluorobutanesulfonic acid	0.136	0.114	84	73-130
355-46-4	Perfluorohexanesulfonic acid	0.14	0.114	81	74-130
1763-23-1	Perfluorooctanesulfonic acid	0.142	0.129	91	70-130
2355-31-9	MeFOSAA	0.154	0.132	86	70-130
2991-50-6	EtFOSAA	0.154	0.132	86	70-130

CAS No.	ID Standard Recoveries	BSP	Limits
	13C8-PFOA	124%	50-150%
	13C8-PFOS	119%	50-150%

\* = Outside of Control Limits.

# Matrix Spike Summary

Job Number: FA58511  
 Account: COCBFL City of Cocoa Beach Water Reclamation  
 Project: PFOS/PFOA Testing

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP72307-MS	2Q23055.D	1	11/02/18	NG	10/23/18	OP72307	S2Q359
FA58511-1	2Q23054.D	1	11/02/18	NG	10/23/18	OP72307	S2Q359

The QC reported here applies to the following samples:

Method: EPA 537M BY ID

FA58511-1, FA58511-2

CAS No.	Compound	FA58511-1 ug/l	Spike Q	MS ug/l	MS %	Limits
307-24-4	Perfluorohexanoic acid	0.0140		0.154	85	70-130
375-85-9	Perfluoroheptanoic acid	0.00532 I		0.154	96	71-130
335-67-1	Perfluorooctanoic acid	0.00722 I		0.154	93	74-130
375-95-1	Perfluorononanoic acid	0.0077 U		0.154	93	76-130
335-76-2	Perfluorodecanoic acid	0.0077 U		0.154	89	70-130
2058-94-8	Perfluoroundecanoic acid	0.0077 U		0.154	96	70-130
307-55-1	Perfluorododecanoic acid	0.0077 U		0.154	102	70-130
72629-94-8	Perfluorotridecanoic acid	0.0077 U		0.154	110	70-139
376-06-7	Perfluorotetradecanoic acid	0.0077 U		0.154	89	70-130
375-73-5	Perfluorobutanesulfonic acid	0.00458 I		0.136	94	73-130
355-46-4	Perfluorohexanesulfonic acid	0.0114		0.14	90	74-130
1763-23-1	Perfluorooctanesulfonic acid	0.0381		0.142	103	70-130
2355-31-9	MeFOSAA	0.038 U		0.154	100	70-130
2991-50-6	EtFOSAA	0.038 U		0.154	99	70-130

CAS No.	ID Standard Recoveries	MS	FA58511-1	Limits
	13C4-PFBA		128%	30-140%
	13C5-PFPeA		132%	40-140%
	13C5-PFHxA		134%	50-150%
	13C4-PFHpA		134%	50-150%
	13C8-PFOA	132%	136%	50-150%
	13C9-PFNA		129%	50-150%
	13C6-PFDA		130%	50-150%
	13C7-PFUnDA		109%	50-150%
	13C2-PFDoDA		98%	50-150%
	13C2-PFTeDA		88%	40-150%
	13C3-PFBS		118%	50-150%
	13C3-PFHxS		121%	50-150%
	13C8-PFOS	105%	102%	50-150%
	13C8-FOSA		43%	30-140%
	d3-MeFOSAA		110%	50-150%
	13C2-4:2FTS		128%	50-150%
	13C2-6:2FTS		139%	50-150%
	13C2-8:2FTS		116%	50-150%

\* = Outside of Control Limits.

5.3.1  
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# Duplicate Summary

Job Number: FA58511  
 Account: COCBFL City of Cocoa Beach Water Reclamation  
 Project: PFOS/PFOA Testing

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP72307-DUP	2Q23057.D	1	11/02/18	NG	10/23/18	OP72307	S2Q359
FA58511-2	2Q23056.D	1	11/02/18	NG	10/23/18	OP72307	S2Q359

The QC reported here applies to the following samples:

Method: EPA 537M BY ID

FA58511-1, FA58511-2

CAS No.	Compound	FA58511-2 ug/l	DUP Q ug/l	Q	RPD	Limits
307-24-4	Perfluorohexanoic acid	0.0077 U	ND		nc	30
375-85-9	Perfluoroheptanoic acid	0.0077 U	ND		nc	30
335-67-1	Perfluorooctanoic acid	0.0077 U	ND		nc	30
375-95-1	Perfluorononanoic acid	0.0077 U	ND		nc	30
335-76-2	Perfluorodecanoic acid	0.0077 U	ND		nc	30
2058-94-8	Perfluoroundecanoic acid	0.0077 U	ND		nc	30
307-55-1	Perfluorododecanoic acid	0.0077 U	ND		nc	30
72629-94-8	Perfluorotridecanoic acid	0.0077 U	ND		nc	30
376-06-7	Perfluorotetradecanoic acid	0.0077 U	ND		nc	30
375-73-5	Perfluorobutanesulfonic acid	0.0077 U	ND		nc	30
355-46-4	Perfluorohexanesulfonic acid	0.0077 U	ND		nc	30
1763-23-1	Perfluorooctanesulfonic acid	0.0077 U	ND		nc	30
2355-31-9	MeFOSAA	0.038 U	ND		nc	30
2991-50-6	EtFOSAA	0.038 U	ND		nc	30

CAS No.	ID Standard Recoveries	DUP	FA58511-2	Limits
	13C4-PFBA		120%	30-140%
	13C5-PFPeA		124%	40-140%
	13C5-PFHxA		129%	50-150%
	13C4-PFHpA		132%	50-150%
	13C8-PFOA	142%	130%	50-150%
	13C9-PFNA		117%	50-150%
	13C6-PFDA		104%	50-150%
	13C7-PFUnDA		92%	50-150%
	13C2-PFDoDA		81%	50-150%
	13C2-PFTeDA		68%	40-150%
	13C3-PFBS		112%	50-150%
	13C3-PFHxS		111%	50-150%
	13C8-PFOS	101%	85%	50-150%
	13C8-FOSA		11%*	30-140%
	d3-MeFOSAA		97%	50-150%
	13C2-4:2FTS		125%	50-150%
	13C2-6:2FTS		137%	50-150%
	13C2-8:2FTS		106%	50-150%

\* = Outside of Control Limits.

5.4.1  
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