Laboratory Report of Analysis

To: ADEC Contaminated Sites
55 Cordova St
Anchorage, AK 99516
(907)269-8487

Report Number: **1222131**

Client Project: **PSG/WRG PFAS Sampling Event**

Dear Anne Palmieri,

Enclosed are the results of the analytical services performed under the referenced project for the received samples and associated QC as applicable. The samples are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards. Copies of this report and supporting data will be retained in our files for a period of ten years in the event they are required for future reference. All results are intended to be used in their entirety and SGS is not responsible for use of less than the complete report. Any samples submitted to our laboratory will be retained for a maximum of fourteen (14) days from the date of this report unless other archiving requirements were included in the quote.

If there are any questions about the report or services performed during this project, please call Alexandra at (907) 562-2343. We will be happy to answer any questions or concerns which you may have.

Thank you for using SGS North America Inc. for your analytical services. We look forward to working with you again on any additional analytical needs.

Sincerely,
SGS North America Inc.

Allie Lambe
2022.06.06 17:14:29 -08'00'

Alexandra Lambe Date
Project Manager
Alexandra.Lambe@sgs.com

SGS North America Inc. 200 West Potter Drive, Anchorage, AK 99518
t 907.562.2343 f 907.561.5301 www.us.sgs.com

Case Narrative

SGS Client: **ADEC Contaminated Sites**
SGS Project: **1222131**
Project Name/Site: **PSG/WRG PFAS Sampling Event**
Project Contact: **Anne Palmieri**

Refer to sample receipt form for information on sample condition.

EPA 537 PFAS-24 Compound List were analyzed by SGS of Orlando, FL.

*QC comments may be associated with the field samples found in this report. When applicable, comments will be applied to associated field samples.

SGS North America Inc.
200 West Potter Drive, Anchorage, AK 99518
t 907.562.2343 **f** 907.561.5301 www.us.sgs.com

Sample Summary

Client Sample ID	Lab Sample ID	Collected	Received	Matrix
PSG-001-DW	1222131001	05/04/2022	05/09/2022	Drinking Water
PSG-002-DW	1222131002	05/04/2022	05/09/2022	Drinking Water
PSG-003-DW	1222131003	05/04/2022	05/09/2022	Drinking Water

Method	Method Description

SGS North America Inc.
200 West Potter Drive, Anchorage, AK 99518
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SGS

SGS North America Inc.
CHAIN OF CUSTODY RECORD

1222131

sgs.com

Instructions: Sections 1 - 5 must be filled out. Omissions may delay the onset of analysis.

Section 1

CLIENT: Alaska Dept. of Environmental Conservation

CONTACT: Brandi Tolsma — PHONE #: 907-465-5378

PROJECT NAME: PSG/WRG PFAS Sampling Event — PROJECT/ PWSID/ PERMIT#: —

REPORTS TO: Marc Thomas — E-MAIL: Marc.thomas@alaska.gov — Profile #: 384468

INVOICE TO: Alaska Dept. of Environmental Conservation — QUOTE #: — P.O. #:

Section 3 — Preservative

Section 2

RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HH:MM	MATRIX/ MATRIX CODE	# CONTAINERS	Comp / Grab / MI (Multi-incremental)	Trizma — Analysis* PFAS 537.1	REMARKS/LOC ID
1AB	PSG-001-DW	5/4/22	09:13	DW	2	G	X	
2AB	PSG-002-DW	5/4/22	09:15	DW	2	G	X	
3AB	PSG-003-DW	5/4/22	09:17	DW	2	G	X	

NOTE: *The following analyses require specific method and/or compound list: BTEX, Metals, PFAS

Section 5

Relinquished By: (1) Brandi Tolsma	Date 5/6/22	Time 10:00	Received By:
Relinquished By: (2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	Date 5/9/22	Time 8:20	Received For Laboratory By:

Section 4 — DOD Project? Yes No — Data Deliverable Requirements:

Cooler ID:

Requested Turnaround Time and/or Special Instructions:

Temp Blank °C: 0.9 0.3 or Ambient [ ]

Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT

Delivery Method: Hand Delivery[ ] Commerical Delivery [X] Alaska

http://www.sgs.com/terms-and-conditions

027 JNU 9210 2651 COL 027-9210 2651

Shipper's Name and Address
Alaska Department of Envi
410 Willoughby Avenue #303
Juneau, AK 99811
USA
Tel: 9074655066

Shipper's Account Number

Customer's ID Number
54369

Not Negotiable
Air Waybill
Issued By
Alaska AIR CARGO
P.O. BOX 68900 SEATTLE, WA 98168
800-225-2752 ALASKACARGO.COM

Consignee's Name and Address
SGS North America
200 W Potter Drive
Anchorage, AK 99518
USA
Tel: 907-562-2343

Consignee's Account Number
27400215947

Also notify
NTFD
Tel:

Issuing Carrier's Agent and City

Accounting Information
54369
Alaska Department of Environmental
410 Willoughby Avenue #303
Juneau, AK 99811
USA

Agent's IATA Code

Account No.

Airport of Departure (Addr. of First Carrier) and Requested Routing
Juneau International Airport

GoldStreak

To	By First Carrier	To / By		To / By		Currency		WT/VAL		Other		Declared Value For Carriage	Declared Value For Customs
ANC	Alaska Airlines					USD	PZ	X		X		NVD	NCV

Airport of Destination	Flight/Date	Flight/Date	Amount of Insurance
Anchorage	AS 065/06		XXX

Handling Information
STORE IN COOLER WHEN POSSIBLE
NOA 907-562-2343

SCI

No of Pieces	Gross Weight	kg lb	Commodity Item No.	Chargeable Weight	Rate / Charge	Total	Nature and Quantity of Goods (Incl. Dimensions or Volume)
1	34.0	L N		34.0		AS AGREED	WATER SAMPLES Dims: 24 x 13 x14 x 1 GSX COL
1	34.0					AS AGREED	Volume: 2.528

Prepaid	Weight Charge	Collect	Other Charges
AS AGREED			XBC 12.50

Valuation Charge

Tax

Total Other Charges Due Agent

Total Other Charges Due Carrier

Shipper certifies that the particulars on the face hereof are correct and that **insofar as any part of the consignment contains dangerous goods, such part is properly described by name and is in proper condition for carriage by air according to the applicable Dangerous Goods Regulations. I consent to the inspection of this cargo.**

For: Alaska Department of Environmental

Signature of Shipper or his Agent

☑ THIS SHIPMENT DOES NOT CONTAIN DANGEROUS GOODS

☐ THIS SHIPMENT DOES CONTAIN DANGEROUS GOODS

Total Prepaid	Total Collect
AS AGREED	

06 May 2022 10:16 Juneau International Alaska Airlines

Executed On (Date) at (Place) Signature of Issuing Carrier or its Agent

027-9210 2651

Alert Expeditors Inc. **#419176**

Citywide Delivery • 440-3351
8421 Flamingo Drive • Anchorage, Alaska 99502

Date 5-9-22

From ADEC

To SGS Labs Fbks

Collect	Prepay	Advance Charges
Job # SNU	PO# AS 9210-2651	

Samples

Shipped Signature

Total Charge

Received By:

e-Sample Receipt Form

SGS Workorder #:	1222131	1222131

Review Criteria	Condition (Yes, No, N/A)	Exceptions Noted below
Chain of Custody / Temperature Requirements	*Note:* Temperature and COC seal information is found on the chain of custody form	
DOD only: Did all sample coolers have a corresponding COC?	Yes	
If <0°C, were sample containers ice free?	N/A	
Note containers received with ice:		
Identify any containers received at non-compliant temperature: *(Use form FS-0029 if more space is needed)*		
Holding Time / Documentation / Sample Condition Requirements	*Note:* Refer to form F-083 "Sample Guide" for specific holding times and sample containers.	
Were samples received within analytical holding time?	Yes	
Do sample labels match COC? Record discrepancies. ***Note:*** *If information on containers differs from COC, default to COC information for login. If times differ <1hr, record details & login per COC.*	Yes	
Were analytical requests clear? *(i.e. method is specified for analyses with multiple option for method (Eg, BTEX 8021 vs 8260, Metals 6020 vs 200.8)*	Yes	
Were proper containers (type/mass/volume/preservative)used? Note: Exemption for metals analysis by 200.8/6020 in water.	Yes	
Volatile Analysis Requirements (VOC, GRO, LL-Hg, etc.)		
Were all soil VOAs received with a corresponding % solids container?	N/A	
Were Trip Blanks (e.g., VOAs, LL-Hg) in cooler with samples?	N/A	
Were all water VOA vials free of headspace (e.g., bubbles ≤ 6mm)?	N/A	
Were all soil VOAs field extracted with Methanol+BFB?	N/A	
Note to Client: Any "No", answer above indicates non-compliance with standard procedures and may impact data quality.		
Additional notes (if applicable):		

Sample Containers and Preservatives

Container Id	Preservative	Container Condition	Container Id	Preservative	Container Condition
1222131001-A	Trizma	OK			
1222131001-B	Trizma	OK			
1222131002-A	Trizma	OK			
1222131002-B	Trizma	OK			
1222131003-A	Trizma	OK			
1222131003-B	Trizma	OK			

Container Condition Glossary

Containers for bacteriological, low level mercury and VOA vials are not opened prior to analysis and will be assigned condition code OK unless evidence indicates than an inappropriate container was submitted.

OK - The container was received at an acceptable pH for the analysis requested.
BU - The container was received with headspace greater than 6mm.
DM - The container was received damaged.
FR - The container was received frozen and not usable for Bacteria or BOD analyses.
IC - The container provided for microbiology analysis was not a laboratory-supplied, pre-sterilized container and therefore was not suitable for analysis.
NC- The container provided was not preserved or was under-preserved. The method does not allow for additional preservative added after collection.
PA - The container was received outside of the acceptable pH for the analysis requested. Preservative was added upon receipt and the container is now at the correct pH. See the Sample Receipt Form for details on the amount and lot # of the preservative added.
PH - The container was received outside of the acceptable pH for the analysis requested. Preservative was added upon receipt, but was insufficient to bring the container to the correct pH for the analysis requested. See the Sample Receipt Form for details on the amount and lot # of the preservative added.
QN - Insufficient sample quantity provided.

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

SGS North America, Inc

1222131

SGS Job Number: FA95651

Sampling Date: 05/04/22

Report to:

SGS North America, Inc
200 W Potter Dr
Anchorage, AK 99518
julie.shumway@sgs.com

ATTN: Julie Shumway

Total number of pages in report: 33

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.

Norm Farmer
Technical Director

Client Service contact: Andrea Colby 407-425-6700

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

Sections: 1 2 3 4 5 6

Table of Contents

Sample Summary

SGS North America, Inc

1222131

Job No: FA95651

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA95651-1	05/04/22	09:13		05/12/22	AQ	Water	PSG-001-DW
FA95651-2	05/04/22	09:15		05/12/22	AQ	Water	PSG-002-DW
FA95651-3	05/04/22	09:17		05/12/22	AQ	Water	PSG-003-DW

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: SGS North America, Inc **Job No:** FA95651

Site: 1222131 **Report Date** 6/6/2022 12:25:52 PM

On 05/12/2022, 3 Samples were received at SGS North America Inc - Orlando. at a maximum corrected temperature of 5.4 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. - Orlando Job Number of FA95651 was assigned to the project.

Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section. Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

MS Semi-volatiles By Method EPA 537M QSM5.3 B-15

Matrix: AQ **Batch ID:** OP91367

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

Samples FA95677-1MS, FA95677-1MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

Sample FA95651-1 has surrogates outside control limits.

FA95651-1: Confirmation run.

Matrix: AQ **Batch ID:** OP91441

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample FA95651-1 has surrogates outside control limits.

OP91441-BS: Insufficient sample for MS/MSD.

FA95651-1 for Perfluorotetradecanoic acid: Associated ID Standard outside control limits due to matrix interference. Confirmed by re-extraction and reanalysis.

FA95651-1 for 13C2-PFTeDA: Outside control limits.

SGS North America Inc. - Orlando certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted. Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria. SGS North America Inc.- Orlando is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety.

Narrative prepared by:

_____

Gabriela Benitez, Quality Assurance Coordinator *(Signature on File)*

Summary of Hits

Job Number: FA95651
Account: SGS North America, Inc
Project: 1222131
Collected: 05/04/22

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
FA95651-1	**PSG-001-DW**					
Perfluorohexanesulfonic acid		0.0015 J	0.0036	0.0018	ug/l	EPA 537M QSM5.3 B-15
Perfluorooctanesulfonic acid		0.0024 J	0.0036	0.0018	ug/l	EPA 537M QSM5.3 B-15
FA95651-2	**PSG-002-DW**					
Perfluorohexanesulfonic acid		0.0014 J	0.0036	0.0018	ug/l	EPA 537M QSM5.3 B-15
Perfluorooctanesulfonic acid		0.0026 J	0.0036	0.0018	ug/l	EPA 537M QSM5.3 B-15
FA95651-3	**PSG-003-DW**					

No hits reported in this sample.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	PSG-001-DW		
Lab Sample ID:	FA95651-1	**Date Sampled:**	05/04/22
Matrix:	AQ - Water	**Date Received:**	05/12/22
Method:	EPA 537M QSM5.3 B-15 EPA 537 MOD	**Percent Solids:**	n/a
Project:	1222131		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6Q948.D	1	06/02/22 19:52	NG	06/01/22 07:00	OP91441	S6Q16
Run #2 [a]	6Q757.D	1	05/29/22 12:45	JB	05/25/22 09:00	OP91367	S6Q14

	Initial Volume	Final Volume
Run #1	280 ml	1.0 ml
Run #2	280 ml	1.0 ml

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
PERFLUOROALKYLCARBOXYLIC ACIDS							
375-22-4	Perfluorobutanoic acid	0.0036 U	0.0071	0.0036	0.0018	ug/l	
2706-90-3	Perfluoropentanoic acid	0.0018 U	0.0036	0.0018	0.00089	ug/l	
307-24-4	Perfluorohexanoic acid	0.0018 U	0.0036	0.0018	0.00089	ug/l	
375-85-9	Perfluoroheptanoic acid	0.0018 U	0.0036	0.0018	0.00089	ug/l	
335-67-1	Perfluorooctanoic acid	0.0018 U	0.0036	0.0018	0.00089	ug/l	
375-95-1	Perfluorononanoic acid	0.0018 U	0.0036	0.0018	0.00089	ug/l	
335-76-2	Perfluorodecanoic acid	0.0018 U	0.0036	0.0018	0.00089	ug/l	
2058-94-8	Perfluoroundecanoic acid	0.0018 U	0.0036	0.0018	0.00089	ug/l	
307-55-1	Perfluorododecanoic acid	0.0018 U	0.0036	0.0018	0.00089	ug/l	
72629-94-8	Perfluorotridecanoic acid	0.0018 U	0.0036	0.0018	0.00089	ug/l	
376-06-7	Perfluorotetradecanoic acid [b]	0.0018 U	0.0036	0.0018	0.00089	ug/l	
PERFLUOROALKYLSULFONIC ACIDS							
375-73-5	Perfluorobutanesulfonic acid	0.0018 U	0.0036	0.0018	0.00089	ug/l	
2706-91-4	Perfluoropentanesulfonic acid	0.0018 U	0.0036	0.0018	0.00089	ug/l	
355-46-4	Perfluorohexanesulfonic acid	0.0015	0.0036	0.0018	0.00089	ug/l	J
375-92-8	Perfluoroheptanesulfonic acid	0.0018 U	0.0036	0.0018	0.00089	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	0.0024	0.0036	0.0018	0.00089	ug/l	J
68259-12-1	Perfluorononanesulfonic acid	0.0018 U	0.0036	0.0018	0.00089	ug/l	
335-77-3	Perfluorodecanesulfonic acid	0.0018 U	0.0036	0.0018	0.00089	ug/l	
PERFLUOROOCTANESULFONAMIDES							
754-91-6	PFOSA	0.0018 U	0.0036	0.0018	0.00089	ug/l	
PERFLUOROOCTANESULFONAMIDOACETIC ACIDS							
2355-31-9	MeFOSAA	0.0036 U	0.0071	0.0036	0.0018	ug/l	
2991-50-6	EtFOSAA	0.0036 U	0.0071	0.0036	0.0018	ug/l	
FLUOROTELOMER SULFONATES							
757124-72-4	4:2 Fluorotelomer sulfonate	0.0036 U	0.0071	0.0036	0.0018	ug/l	
27619-97-2	6:2 Fluorotelomer sulfonate	0.0036 U	0.0071	0.0036	0.0018	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PSG-001-DW		
Lab Sample ID:	FA95651-1	**Date Sampled:**	05/04/22
Matrix:	AQ - Water	**Date Received:**	05/12/22
Method:	EPA 537M QSM5.3 B-15 EPA 537 MOD	**Percent Solids:**	n/a
Project:	1222131		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
39108-34-4	8:2 Fluorotelomer sulfonate	0.0036 U	0.0071	0.0036	0.0018	ug/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C4-PFBA	67%	85%	50-150%
	13C5-PFPeA	74%	93%	50-150%
	13C5-PFHxA	78%	97%	50-150%
	13C4-PFHpA	78%	98%	50-150%
	13C8-PFOA	80%	95%	50-150%
	13C9-PFNA	78%	95%	50-150%
	13C6-PFDA	75%	89%	50-150%
	13C7-PFUnDA	62%	70%	50-150%
	13C2-PFDoDA	56%	51%	50-150%
	13C2-PFTeDA	47% [c]	28% [c]	50-150%
	13C3-PFBS	75%	100%	50-150%
	13C3-PFHxS	77%	98%	50-150%
	13C8-PFOS	72%	86%	50-150%
	13C8-FOSA	61%	49% [c]	50-150%
	d3-MeFOSAA	66%	73%	50-150%
	d5-EtFOSAA	60%	63%	50-150%
	13C2-4:2FTS	72%	92%	50-150%
	13C2-6:2FTS	70%	89%	50-150%
	13C2-8:2FTS	69%	82%	50-150%

(a) Confirmation run.
(b) Associated ID Standard outside control limits due to matrix interference. Confirmed by re-extraction and reanalysis.
(c) Outside control limits.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PSG-002-DW		
Lab Sample ID:	FA95651-2	**Date Sampled:**	05/04/22
Matrix:	AQ - Water	**Date Received:**	05/12/22
Method:	EPA 537M QSM5.3 B-15 EPA 537 MOD	**Percent Solids:**	n/a
Project:	1222131		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6Q949.D	1	06/02/22 20:07	NG	06/01/22 07:00	OP91441	S6Q16
Run #2							

	Initial Volume	Final Volume
Run #1	280 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
PERFLUOROALKYLCARBOXYLIC ACIDS							
375-22-4	Perfluorobutanoic acid	0.0036 U	0.0071	0.0036	0.0018	ug/l	
2706-90-3	Perfluoropentanoic acid	0.0018 U	0.0036	0.0018	0.00089	ug/l	
307-24-4	Perfluorohexanoic acid	0.0018 U	0.0036	0.0018	0.00089	ug/l	
375-85-9	Perfluoroheptanoic acid	0.0018 U	0.0036	0.0018	0.00089	ug/l	
335-67-1	Perfluorooctanoic acid	0.0018 U	0.0036	0.0018	0.00089	ug/l	
375-95-1	Perfluorononanoic acid	0.0018 U	0.0036	0.0018	0.00089	ug/l	
335-76-2	Perfluorodecanoic acid	0.0018 U	0.0036	0.0018	0.00089	ug/l	
2058-94-8	Perfluoroundecanoic acid	0.0018 U	0.0036	0.0018	0.00089	ug/l	
307-55-1	Perfluorododecanoic acid	0.0018 U	0.0036	0.0018	0.00089	ug/l	
72629-94-8	Perfluorotridecanoic acid	0.0018 U	0.0036	0.0018	0.00089	ug/l	
376-06-7	Perfluorotetradecanoic acid	0.0018 U	0.0036	0.0018	0.00089	ug/l	
PERFLUOROALKYLSULFONIC ACIDS							
375-73-5	Perfluorobutanesulfonic acid	0.0018 U	0.0036	0.0018	0.00089	ug/l	
2706-91-4	Perfluoropentanesulfonic acid	0.0018 U	0.0036	0.0018	0.00089	ug/l	
355-46-4	Perfluorohexanesulfonic acid	0.0014	0.0036	0.0018	0.00089	ug/l	J
375-92-8	Perfluoroheptanesulfonic acid	0.0018 U	0.0036	0.0018	0.00089	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	0.0026	0.0036	0.0018	0.00089	ug/l	J
68259-12-1	Perfluorononanesulfonic acid	0.0018 U	0.0036	0.0018	0.00089	ug/l	
335-77-3	Perfluorodecanesulfonic acid	0.0018 U	0.0036	0.0018	0.00089	ug/l	
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27619-97-2	6:2 Fluorotelomer sulfonate	0.0036 U	0.0071	0.0036	0.0018	ug/l	

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Report of Analysis

Client Sample ID:	PSG-002-DW		
Lab Sample ID:	FA95651-2	**Date Sampled:**	05/04/22
Matrix:	AQ - Water	**Date Received:**	05/12/22
Method:	EPA 537M QSM5.3 B-15 EPA 537 MOD	**Percent Solids:**	n/a
Project:	1222131		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
39108-34-4	8:2 Fluorotelomer sulfonate	0.0036 U	0.0071	0.0036	0.0018	ug/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C4-PFBA	71%		50-150%
	13C5-PFPeA	79%		50-150%
	13C5-PFHxA	81%		50-150%
	13C4-PFHpA	82%		50-150%
	13C8-PFOA	82%		50-150%
	13C9-PFNA	81%		50-150%
	13C6-PFDA	69%		50-150%
	13C7-PFUnDA	66%		50-150%
	13C2-PFDoDA	65%		50-150%
	13C2-PFTeDA	62%		50-150%
	13C3-PFBS	81%		50-150%
	13C3-PFHxS	83%		50-150%
	13C8-PFOS	71%		50-150%
	13C8-FOSA	57%		50-150%
	d3-MeFOSAA	69%		50-150%
	d5-EtFOSAA	64%		50-150%
	13C2-4:2FTS	79%		50-150%
	13C2-6:2FTS	76%		50-150%
	13C2-8:2FTS	68%		50-150%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PSG-003-DW		
Lab Sample ID:	FA95651-3	**Date Sampled:**	05/04/22
Matrix:	AQ - Water	**Date Received:**	05/12/22
Method:	EPA 537M QSM5.3 B-15 EPA 537 MOD	**Percent Solids:**	n/a
Project:	1222131		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6Q759.D	1	05/29/22 13:16	JB	05/25/22 09:00	OP91367	S6Q14
Run #2							

	Initial Volume	Final Volume
Run #1	280 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
PERFLUOROALKYLCARBOXYLIC ACIDS							
375-22-4	Perfluorobutanoic acid	0.0036 U	0.0071	0.0036	0.0018	ug/l	
2706-90-3	Perfluoropentanoic acid	0.0018 U	0.0036	0.0018	0.00089	ug/l	
307-24-4	Perfluorohexanoic acid	0.0018 U	0.0036	0.0018	0.00089	ug/l	
375-85-9	Perfluoroheptanoic acid	0.0018 U	0.0036	0.0018	0.00089	ug/l	
335-67-1	Perfluorooctanoic acid	0.0018 U	0.0036	0.0018	0.00089	ug/l	
375-95-1	Perfluorononanoic acid	0.0018 U	0.0036	0.0018	0.00089	ug/l	
335-76-2	Perfluorodecanoic acid	0.0018 U	0.0036	0.0018	0.00089	ug/l	
2058-94-8	Perfluoroundecanoic acid	0.0018 U	0.0036	0.0018	0.00089	ug/l	
307-55-1	Perfluorododecanoic acid	0.0018 U	0.0036	0.0018	0.00089	ug/l	
72629-94-8	Perfluorotridecanoic acid	0.0018 U	0.0036	0.0018	0.00089	ug/l	
376-06-7	Perfluorotetradecanoic acid	0.0018 U	0.0036	0.0018	0.00089	ug/l	
PERFLUOROALKYLSULFONIC ACIDS							
375-73-5	Perfluorobutanesulfonic acid	0.0018 U	0.0036	0.0018	0.00089	ug/l	
2706-91-4	Perfluoropentanesulfonic acid	0.0018 U	0.0036	0.0018	0.00089	ug/l	
355-46-4	Perfluorohexanesulfonic acid	0.0018 U	0.0036	0.0018	0.00089	ug/l	
375-92-8	Perfluoroheptanesulfonic acid	0.0018 U	0.0036	0.0018	0.00089	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	0.0018 U	0.0036	0.0018	0.00089	ug/l	
68259-12-1	Perfluorononanesulfonic acid	0.0018 U	0.0036	0.0018	0.00089	ug/l	
335-77-3	Perfluorodecanesulfonic acid	0.0018 U	0.0036	0.0018	0.00089	ug/l	
PERFLUOROOCTANESULFONAMIDES							
754-91-6	PFOSA	0.0018 U	0.0036	0.0018	0.00089	ug/l	
PERFLUOROOCTANESULFONAMIDOACETIC ACIDS							
2355-31-9	MeFOSAA	0.0036 U	0.0071	0.0036	0.0018	ug/l	
2991-50-6	EtFOSAA	0.0036 U	0.0071	0.0036	0.0018	ug/l	
FLUOROTELOMER SULFONATES							
757124-72-4	4:2 Fluorotelomer sulfonate	0.0036 U	0.0071	0.0036	0.0018	ug/l	
27619-97-2	6:2 Fluorotelomer sulfonate	0.0036 U	0.0071	0.0036	0.0018	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PSG-003-DW		
Lab Sample ID:	FA95651-3	**Date Sampled:**	05/04/22
Matrix:	AQ - Water	**Date Received:**	05/12/22
Method:	EPA 537M QSM5.3 B-15 EPA 537 MOD	**Percent Solids:**	n/a
Project:	1222131		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
39108-34-4	8:2 Fluorotelomer sulfonate	0.0036 U	0.0071	0.0036	0.0018	ug/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C4-PFBA	92%		50-150%
	13C5-PFPeA	98%		50-150%
	13C5-PFHxA	99%		50-150%
	13C4-PFHpA	99%		50-150%
	13C8-PFOA	93%		50-150%
	13C9-PFNA	96%		50-150%
	13C6-PFDA	87%		50-150%
	13C7-PFUnDA	91%		50-150%
	13C2-PFDoDA	91%		50-150%
	13C2-PFTeDA	93%		50-150%
	13C3-PFBS	97%		50-150%
	13C3-PFHxS	94%		50-150%
	13C8-PFOS	92%		50-150%
	13C8-FOSA	90%		50-150%
	d3-MeFOSAA	85%		50-150%
	d5-EtFOSAA	83%		50-150%
	13C2-4:2FTS	89%		50-150%
	13C2-6:2FTS	86%		50-150%
	13C2-8:2FTS	90%		50-150%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- QC Evaluation: DOD QSM5.x Limits

FA95651

SGS North America Inc.
CHAIN OF CUSTODY RECORD

Locations Nationwide
Alaska Florida
New Jersey Colorado
Texas North Carolina
Virginia Louisiana
www.us.sgs.com

CLIENT:	SGS North America Inc. - Alaska Division	SGS Reference:	SGS, Orlando, FL
CONTACT:	Julie Shumway	PHONE NO: (907) 562-2343	Additional Comments: All soils report out in dry weight unless
PROJECT NAME:	1222131	PWSID#:	
		NPDL#:	
REPORTS TO: Julie Shumway		E-MAIL: Julie.Shumway@sgs.com; Env.Alaska.RefLabTeam@sgs.com	
INVOICE TO: SGS - Alaska		QUOTE #:	
env.alaska.accounting@sgs.com		P.O. #: 1222131	

Page 1 of 1

RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HHMM	MATRIX/ MATRIX CODE	# CONTAINERS	Preservative Used:	EPA 537 PFAS - 24 compound list	MS	MSD	SGS lab #	Location ID
						TYPE C = COMP G = GRAB MI = Multi Incremental Soils	Trizma				
1	PSG-001-DW	05/04/2022	09:13:00	DW	1		X			1222131001	
2	PSG-002-DW	05/04/2022	09:15:00	DW	1		X			1222131002	
3	PSG-003-DW	05/04/2022	09:17:00	DW	1		X			1222131003	

Relinquished By: (1)	Date	Time	Received By:	DOD Project? YES	Data Deliverable Requirements:
[signature]	5/11/22	0907	[signature] 5/12/22 1530	Report to DL (J Flags)? YES (If J- Report as DL/LOD/LOQ.)	Level 2 + SGS EDD
Relinquished By: (2)	Date	Time	Received By:	Cooler ID:	
				Requested Turnaround Time and-or Special Instructions:	
Relinquished By: (3)	Date	Time	Received By:	Temp Blank °C: 5.0 CIM	Chain of Custody Seal: (Circle)
				or Ambient [ ]	INTACT BROKEN ABSENT
Relinquished By: (4)	Date	Time	Received For Laboratory By:		

[X 200 W. Potter Drive Anchorage, AK 99518 Tel: (907) 562-2343 Fax: (907) 561-5301
[ ] 5500 Business Drive Wilmington, NC 28405 Tel: (910) 350-1903 Fax: (910) 350-1557

http://www.sgs.com/terms_and_conditions.htm

INITIAL ASSESSMENT NG

LABEL VERIFICATION CM

F088_COC_REF_LAB_20190411

FA95651: Chain of Custody
Page 1 of 2

SGS Sample Receipt Summary

Job Number: FA95651 **Client:** SGS ALASKA **Project:** 1222131

Date / Time Received: 5/12/2022 3:30:00 PM **Delivery Method:** FEDEX **Airbill #'s:** 1483 4802 2726

Therm ID: IR 1; **Therm CF:** 0.4; **# of Coolers:** 1

Cooler Temps (Raw Measured) °C: Cooler 1: (5.0);

Cooler Temps (Corrected) °C: Cooler 1: (5.4);

Cooler Information	Y	or	N
1. Custody Seals Present	☑		☐
2. Custody Seals Intact	☑		☐
3. Temp criteria achieved	☑		☐
4. Cooler temp verification	IR Gun		
5. Cooler media	Ice (Bag)		

Trip Blank Information	Y	or	N	N/A
1. Trip Blank present / cooler	☐		☐	☑
2. Trip Blank listed on COC	☐		☐	☑

	W	or	S	N/A
3. Type Of TB Received	☐		☐	☑

Sample Information	Y	or	N	N/A
1. Sample labels present on bottles	☑		☐	
2. Samples preserved properly	☑		☐	
3. Sufficient volume/containers recvd for analysis:	☑		☐	
4. Condition of sample	Intact			
5. Sample recvd within HT	☑		☐	
6. Dates/Times/IDs on COC match Sample Label	☑		☐	
7. VOCs have headspace	☐		☐	☑
8. Bottles received for unspecified tests	☐		☑	
9. Compositing instructions clear	☐		☐	☑
10. Voa Soil Kits/Jars received past 48hrs?	☐		☐	☑
11. % Solids Jar received?	☐		☐	☑
12. Residual Chlorine Present?	☐		☐	☑

Misc. Information

Number of Encores: 25-Gram _____ 5-Gram _____ Number of 5035 Field Kits: _____ Number of Lab Filtered Metals: _____

Test Strip Lot #s: pH 0-3 230315 pH 10-12 219813A Other: (Specify) _____ _____

Residual Chlorine Test Strip Lot #: _____

Comments

SM001
Rev. Date 05/24/17

Technician: SAMUELM Date: 5/12/2022 3:30:00 PM Reviewer: _____ Date: _____

FA95651: Chain of Custody
Page 2 of 2

QC Evaluation: DOD QSM5.x Limits

Job Number: FA95651
Account: SGS North America, Inc
Project: 1222131
Collected: 05/04/22

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
OP91367	EPA 537M QSM5.3 B-15						
OP91367-BS	375-22-4	Perfluorobutanoic acid	BSP	REC	94	%	73-129
OP91367-BS	2706-90-3	Perfluoropentanoic acid	BSP	REC	94	%	72-129
OP91367-BS	307-24-4	Perfluorohexanoic acid	BSP	REC	90	%	72-129
OP91367-BS	375-85-9	Perfluoroheptanoic acid	BSP	REC	95	%	72-130
OP91367-BS	335-67-1	Perfluorooctanoic acid	BSP	REC	94	%	71-133
OP91367-BS	375-95-1	Perfluorononanoic acid	BSP	REC	88	%	69-130
OP91367-BS	335-76-2	Perfluorodecanoic acid	BSP	REC	89	%	71-129
OP91367-BS	2058-94-8	Perfluoroundecanoic acid	BSP	REC	99	%	69-133
OP91367-BS	307-55-1	Perfluorododecanoic acid	BSP	REC	99	%	72-134
OP91367-BS	72629-94-8	Perfluorotridecanoic acid	BSP	REC	97	%	65-144
OP91367-BS	376-06-7	Perfluorotetradecanoic acid	BSP	REC	95	%	71-132
OP91367-BS	375-73-5	Perfluorobutanesulfonic acid	BSP	REC	96	%	72-130
OP91367-BS	2706-91-4	Perfluoropentanesulfonic acid	BSP	REC	93	%	71-127
OP91367-BS	355-46-4	Perfluorohexanesulfonic acid	BSP	REC	93	%	68-131
OP91367-BS	375-92-8	Perfluoroheptanesulfonic acid	BSP	REC	91	%	69-134
OP91367-BS	1763-23-1	Perfluorooctanesulfonic acid	BSP	REC	95	%	65-140
OP91367-BS	68259-12-1	Perfluorononanesulfonic acid	BSP	REC	95	%	69-127
OP91367-BS	335-77-3	Perfluorodecanesulfonic acid	BSP	REC	101	%	53-142
OP91367-BS	754-91-6	PFOSA	BSP	REC	91	%	67-137
OP91367-BS	2355-31-9	MeFOSAA	BSP	REC	89	%	65-136
OP91367-BS	2991-50-6	EtFOSAA	BSP	REC	89	%	61-135
OP91367-BS	757124-72-4	4:2 Fluorotelomer sulfonate	BSP	REC	101	%	63-143
OP91367-BS	27619-97-2	6:2 Fluorotelomer sulfonate	BSP	REC	99	%	64-140
OP91367-BS	39108-34-4	8:2 Fluorotelomer sulfonate	BSP	REC	98	%	67-138
OP91367-MS*	375-22-4	Perfluorobutanoic acid	MS	REC	93	%	73-129
OP91367-MS*	2706-90-3	Perfluoropentanoic acid	MS	REC	91	%	72-129
OP91367-MS*	307-24-4	Perfluorohexanoic acid	MS	REC	90	%	72-129
OP91367-MS*	375-85-9	Perfluoroheptanoic acid	MS	REC	93	%	72-130
OP91367-MS*	335-67-1	Perfluorooctanoic acid	MS	REC	96	%	71-133
OP91367-MS*	375-95-1	Perfluorononanoic acid	MS	REC	89	%	69-130
OP91367-MS*	335-76-2	Perfluorodecanoic acid	MS	REC	88	%	71-129
OP91367-MS*	2058-94-8	Perfluoroundecanoic acid	MS	REC	86	%	69-133
OP91367-MS*	307-55-1	Perfluorododecanoic acid	MS	REC	96	%	72-134
OP91367-MS*	72629-94-8	Perfluorotridecanoic acid	MS	REC	99	%	65-144
OP91367-MS*	376-06-7	Perfluorotetradecanoic acid	MS	REC	93	%	71-132
OP91367-MS*	375-73-5	Perfluorobutanesulfonic acid	MS	REC	94	%	72-130
OP91367-MS*	2706-91-4	Perfluoropentanesulfonic acid	MS	REC	92	%	71-127
OP91367-MS*	355-46-4	Perfluorohexanesulfonic acid	MS	REC	92	%	68-131
OP91367-MS*	375-92-8	Perfluoroheptanesulfonic acid	MS	REC	91	%	69-134
OP91367-MS*	1763-23-1	Perfluorooctanesulfonic acid	MS	REC	92	%	65-140
OP91367-MS*	68259-12-1	Perfluorononanesulfonic acid	MS	REC	87	%	69-127
OP91367-MS*	335-77-3	Perfluorodecanesulfonic acid	MS	REC	89	%	53-142

* Sample used for QC is not from job FA95651

QC Evaluation: DOD QSM5.x Limits

Job Number: FA95651
Account: SGS North America, Inc
Project: 1222131
Collected: 05/04/22

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
OP91367-MS*	754-91-6	PFOSA	MS	REC	84	%	67-137
OP91367-MS*	2355-31-9	MeFOSAA	MS	REC	101	%	65-136
OP91367-MS*	2991-50-6	EtFOSAA	MS	REC	93	%	61-135
OP91367-MS*	757124-72-4	4:2 Fluorotelomer sulfonate	MS	REC	98	%	63-143
OP91367-MS*	27619-97-2	6:2 Fluorotelomer sulfonate	MS	REC	96	%	64-140
OP91367-MS*	39108-34-4	8:2 Fluorotelomer sulfonate	MS	REC	99	%	67-138
OP91367-MSD*	375-22-4	Perfluorobutanoic acid	MSD	REC	96	%	73-129
OP91367-MSD*	375-22-4	Perfluorobutanoic acid	MSD	RPD	4	%	30
OP91367-MSD*	2706-90-3	Perfluoropentanoic acid	MSD	REC	94	%	72-129
OP91367-MSD*	2706-90-3	Perfluoropentanoic acid	MSD	RPD	3	%	30
OP91367-MSD*	307-24-4	Perfluorohexanoic acid	MSD	REC	93	%	72-129
OP91367-MSD*	307-24-4	Perfluorohexanoic acid	MSD	RPD	3	%	30
OP91367-MSD*	375-85-9	Perfluoroheptanoic acid	MSD	REC	97	%	72-130
OP91367-MSD*	375-85-9	Perfluoroheptanoic acid	MSD	RPD	4	%	30
OP91367-MSD*	335-67-1	Perfluorooctanoic acid	MSD	REC	98	%	71-133
OP91367-MSD*	335-67-1	Perfluorooctanoic acid	MSD	RPD	3	%	30
OP91367-MSD*	375-95-1	Perfluorononanoic acid	MSD	REC	95	%	69-130
OP91367-MSD*	375-95-1	Perfluorononanoic acid	MSD	RPD	7	%	30
OP91367-MSD*	335-76-2	Perfluorodecanoic acid	MSD	REC	90	%	71-129
OP91367-MSD*	335-76-2	Perfluorodecanoic acid	MSD	RPD	2	%	30
OP91367-MSD*	2058-94-8	Perfluoroundecanoic acid	MSD	REC	96	%	69-133
OP91367-MSD*	2058-94-8	Perfluoroundecanoic acid	MSD	RPD	10	%	30
OP91367-MSD*	307-55-1	Perfluorododecanoic acid	MSD	REC	96	%	72-134
OP91367-MSD*	307-55-1	Perfluorododecanoic acid	MSD	RPD	0	%	30
OP91367-MSD*	72629-94-8	Perfluorotridecanoic acid	MSD	REC	100	%	65-144
OP91367-MSD*	72629-94-8	Perfluorotridecanoic acid	MSD	RPD	1	%	30
OP91367-MSD*	376-06-7	Perfluorotetradecanoic acid	MSD	REC	94	%	71-132
OP91367-MSD*	376-06-7	Perfluorotetradecanoic acid	MSD	RPD	2	%	30
OP91367-MSD*	375-73-5	Perfluorobutanesulfonic acid	MSD	REC	97	%	72-130
OP91367-MSD*	375-73-5	Perfluorobutanesulfonic acid	MSD	RPD	3	%	30
OP91367-MSD*	2706-91-4	Perfluoropentanesulfonic acid	MSD	REC	94	%	71-127
OP91367-MSD*	2706-91-4	Perfluoropentanesulfonic acid	MSD	RPD	3	%	30
OP91367-MSD*	355-46-4	Perfluorohexanesulfonic acid	MSD	REC	93	%	68-131
OP91367-MSD*	355-46-4	Perfluorohexanesulfonic acid	MSD	RPD	1	%	30
OP91367-MSD*	375-92-8	Perfluoroheptanesulfonic acid	MSD	REC	92	%	69-134
OP91367-MSD*	375-92-8	Perfluoroheptanesulfonic acid	MSD	RPD	1	%	30
OP91367-MSD*	1763-23-1	Perfluorooctanesulfonic acid	MSD	REC	93	%	65-140
OP91367-MSD*	1763-23-1	Perfluorooctanesulfonic acid	MSD	RPD	1	%	30
OP91367-MSD*	68259-12-1	Perfluorononanesulfonic acid	MSD	REC	94	%	69-127
OP91367-MSD*	68259-12-1	Perfluorononanesulfonic acid	MSD	RPD	8	%	30
OP91367-MSD*	335-77-3	Perfluorodecanesulfonic acid	MSD	REC	94	%	53-142
OP91367-MSD*	335-77-3	Perfluorodecanesulfonic acid	MSD	RPD	5	%	30
OP91367-MSD*	754-91-6	PFOSA	MSD	REC	96	%	67-137
OP91367-MSD*	754-91-6	PFOSA	MSD	RPD	13	%	30
OP91367-MSD*	2355-31-9	MeFOSAA	MSD	REC	94	%	65-136

* Sample used for QC is not from job FA95651

QC Evaluation: DOD QSM5.x Limits

Job Number: FA95651
Account: SGS North America, Inc
Project: 1222131
Collected: 05/04/22

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
OP91367-MSD*	2355-31-9	MeFOSAA	MSD	RPD	7	%	30
OP91367-MSD*	2991-50-6	EtFOSAA	MSD	REC	88	%	61-135
OP91367-MSD*	2991-50-6	EtFOSAA	MSD	RPD	6	%	30
OP91367-MSD*	757124-72-4	4:2 Fluorotelomer sulfonate	MSD	REC	98	%	63-143
OP91367-MSD*	757124-72-4	4:2 Fluorotelomer sulfonate	MSD	RPD	0	%	30
OP91367-MSD*	27619-97-2	6:2 Fluorotelomer sulfonate	MSD	REC	100	%	64-140
OP91367-MSD*	27619-97-2	6:2 Fluorotelomer sulfonate	MSD	RPD	4	%	30
OP91367-MSD*	39108-34-4	8:2 Fluorotelomer sulfonate	MSD	REC	94	%	67-138
OP91367-MSD*	39108-34-4	8:2 Fluorotelomer sulfonate	MSD	RPD	5	%	30
OP91441	EPA 537M QSM5.3 B-15						
OP91441-BS	375-22-4	Perfluorobutanoic acid	BSP	REC	91	%	73-129
OP91441-BS	2706-90-3	Perfluoropentanoic acid	BSP	REC	90	%	72-129
OP91441-BS	307-24-4	Perfluorohexanoic acid	BSP	REC	89	%	72-129
OP91441-BS	375-85-9	Perfluoroheptanoic acid	BSP	REC	91	%	72-130
OP91441-BS	335-67-1	Perfluorooctanoic acid	BSP	REC	91	%	71-133
OP91441-BS	375-95-1	Perfluorononanoic acid	BSP	REC	92	%	69-130
OP91441-BS	335-76-2	Perfluorodecanoic acid	BSP	REC	85	%	71-129
OP91441-BS	2058-94-8	Perfluoroundecanoic acid	BSP	REC	93	%	69-133
OP91441-BS	307-55-1	Perfluorododecanoic acid	BSP	REC	96	%	72-134
OP91441-BS	72629-94-8	Perfluorotridecanoic acid	BSP	REC	95	%	65-144
OP91441-BS	376-06-7	Perfluorotetradecanoic acid	BSP	REC	94	%	71-132
OP91441-BS	375-73-5	Perfluorobutanesulfonic acid	BSP	REC	94	%	72-130
OP91441-BS	2706-91-4	Perfluoropentanesulfonic acid	BSP	REC	89	%	71-127
OP91441-BS	355-46-4	Perfluorohexanesulfonic acid	BSP	REC	90	%	68-131
OP91441-BS	375-92-8	Perfluoroheptanesulfonic acid	BSP	REC	91	%	69-134
OP91441-BS	1763-23-1	Perfluorooctanesulfonic acid	BSP	REC	87	%	65-140
OP91441-BS	68259-12-1	Perfluorononanesulfonic acid	BSP	REC	89	%	69-127
OP91441-BS	335-77-3	Perfluorodecanesulfonic acid	BSP	REC	89	%	53-142
OP91441-BS	754-91-6	PFOSA	BSP	REC	92	%	67-137
OP91441-BS	2355-31-9	MeFOSAA	BSP	REC	98	%	65-136
OP91441-BS	2991-50-6	EtFOSAA	BSP	REC	86	%	61-135
OP91441-BS	757124-72-4	4:2 Fluorotelomer sulfonate	BSP	REC	96	%	63-143
OP91441-BS	27619-97-2	6:2 Fluorotelomer sulfonate	BSP	REC	97	%	64-140
OP91441-BS	39108-34-4	8:2 Fluorotelomer sulfonate	BSP	REC	92	%	67-138

* Sample used for QC is not from job FA95651

MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

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

Instrument Blank

Job Number: FA95651
Account: SGSAKA SGS North America, Inc
Project: 1222131

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S6Q14-IBLK	6Q751.D	1	05/29/22	JB	n/a	n/a	S6Q14

The QC reported here applies to the following samples: **Method:** EPA 537M QSM5.3 B-15

FA95651-3

CAS No.	Compound	Result	RL	MDL	Units	Q
375-22-4	Perfluorobutanoic acid	ND	0.0080	0.0020	ug/l	
2706-90-3	Perfluoropentanoic acid	ND	0.0040	0.0010	ug/l	
307-24-4	Perfluorohexanoic acid	ND	0.0040	0.0010	ug/l	
375-85-9	Perfluoroheptanoic acid	ND	0.0040	0.0010	ug/l	
335-67-1	Perfluorooctanoic acid	ND	0.0040	0.0010	ug/l	
375-95-1	Perfluorononanoic acid	ND	0.0040	0.0010	ug/l	
335-76-2	Perfluorodecanoic acid	ND	0.0040	0.0010	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	0.0040	0.0010	ug/l	
307-55-1	Perfluorododecanoic acid	ND	0.0040	0.0010	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	0.0040	0.0010	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	0.0040	0.0010	ug/l	
375-73-5	Perfluorobutanesulfonic acid	ND	0.0040	0.0010	ug/l	
2706-91-4	Perfluoropentanesulfonic acid	ND	0.0040	0.0010	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND	0.0040	0.0010	ug/l	
375-92-8	Perfluoroheptanesulfonic acid	ND	0.0040	0.0010	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	0.0040	0.0010	ug/l	
68259-12-1	Perfluorononanesulfonic acid	ND	0.0040	0.0010	ug/l	
335-77-3	Perfluorodecanesulfonic acid	ND	0.0040	0.0010	ug/l	
754-91-6	PFOSA	ND	0.0040	0.0010	ug/l	
2355-31-9	MeFOSAA	ND	0.0080	0.0020	ug/l	
2991-50-6	EtFOSAA	ND	0.0080	0.0020	ug/l	
757124-72-4	4:2 Fluorotelomer sulfonate	ND	0.0080	0.0020	ug/l	
27619-97-2	6:2 Fluorotelomer sulfonate	ND	0.0080	0.0020	ug/l	
39108-34-4	8:2 Fluorotelomer sulfonate	ND	0.0080	0.0020	ug/l	

CAS No.	ID Standard Recoveries		Limits
	13C4-PFBA	107%	50-150%
	13C5-PFPeA	103%	50-150%
	13C5-PFHxA	104%	50-150%
	13C4-PFHpA	105%	50-150%
	13C8-PFOA	103%	50-150%
	13C9-PFNA	103%	50-150%
	13C6-PFDA	108%	50-150%
	13C7-PFUnDA	108%	50-150%

Instrument Blank

Job Number: FA95651
Account: SGSAKA SGS North America, Inc
Project: 1222131

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S6Q14-IBLK	6Q751.D	1	05/29/22	JB	n/a	n/a	S6Q14

The QC reported here applies to the following samples: **Method:** EPA 537M QSM5.3 B-15

FA95651-3

CAS No.	ID Standard Recoveries		Limits
	13C2-PFDoDA	104%	50-150%
	13C2-PFTeDA	107%	50-150%
	13C3-PFBS	103%	50-150%
	13C3-PFHxS	103%	50-150%
	13C8-PFOS	108%	50-150%
	13C8-FOSA	99%	50-150%
	d3-MeFOSA	104%	50-150%
	d3-MeFOSAA	100%	50-150%
	d5-EtFOSAA	95%	50-150%
	13C2-4:2FTS	93%	50-150%
	13C2-6:2FTS	89%	50-150%
	13C2-8:2FTS	95%	50-150%
	13C3-HFPO-DA	101%	50-150%

Instrument Blank

Job Number: FA95651
Account: SGSAKA SGS North America, Inc
Project: 1222131

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S6Q16-IBLK	6Q906.D	1	06/02/22	NG	n/a	n/a	S6Q16

The QC reported here applies to the following samples: **Method:** EPA 537M QSM5.3 B-15

FA95651-1, FA95651-2

CAS No.	Compound	Result	RL	MDL	Units	Q
375-22-4	Perfluorobutanoic acid	ND	0.0080	0.0020	ug/l	
2706-90-3	Perfluoropentanoic acid	ND	0.0040	0.0010	ug/l	
307-24-4	Perfluorohexanoic acid	ND	0.0040	0.0010	ug/l	
375-85-9	Perfluoroheptanoic acid	ND	0.0040	0.0010	ug/l	
335-67-1	Perfluorooctanoic acid	ND	0.0040	0.0010	ug/l	
375-95-1	Perfluorononanoic acid	ND	0.0040	0.0010	ug/l	
335-76-2	Perfluorodecanoic acid	ND	0.0040	0.0010	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	0.0040	0.0010	ug/l	
307-55-1	Perfluorododecanoic acid	ND	0.0040	0.0010	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	0.0040	0.0010	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	0.0040	0.0010	ug/l	
375-73-5	Perfluorobutanesulfonic acid	ND	0.0040	0.0010	ug/l	
2706-91-4	Perfluoropentanesulfonic acid	ND	0.0040	0.0010	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND	0.0040	0.0010	ug/l	
375-92-8	Perfluoroheptanesulfonic acid	ND	0.0040	0.0010	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	0.0040	0.0010	ug/l	
68259-12-1	Perfluorononanesulfonic acid	ND	0.0040	0.0010	ug/l	
335-77-3	Perfluorodecanesulfonic acid	ND	0.0040	0.0010	ug/l	
754-91-6	PFOSA	ND	0.0040	0.0010	ug/l	
2355-31-9	MeFOSAA	ND	0.0080	0.0020	ug/l	
2991-50-6	EtFOSAA	ND	0.0080	0.0020	ug/l	
757124-72-4	4:2 Fluorotelomer sulfonate	ND	0.0080	0.0020	ug/l	
27619-97-2	6:2 Fluorotelomer sulfonate	ND	0.0080	0.0020	ug/l	
39108-34-4	8:2 Fluorotelomer sulfonate	ND	0.0080	0.0020	ug/l	

CAS No.	ID Standard Recoveries		Limits
	13C4-PFBA	84%	50-150%
	13C5-PFPeA	82%	50-150%
	13C5-PFHxA	83%	50-150%
	13C4-PFHpA	83%	50-150%
	13C8-PFOA	85%	50-150%
	13C9-PFNA	81%	50-150%
	13C6-PFDA	79%	50-150%
	13C7-PFUnDA	84%	50-150%

Instrument Blank

Job Number: FA95651
Account: SGSAKA SGS North America, Inc
Project: 1222131

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S6Q16-IBLK	6Q906.D	1	06/02/22	NG	n/a	n/a	S6Q16

The QC reported here applies to the following samples: **Method:** EPA 537M QSM5.3 B-15

FA95651-1, FA95651-2

CAS No.	ID Standard Recoveries		Limits
	13C2-PFDoDA	83%	50-150%
	13C2-PFTeDA	81%	50-150%
	13C3-PFBS	83%	50-150%
	13C3-PFHxS	84%	50-150%
	13C8-PFOS	83%	50-150%
	13C8-FOSA	87%	50-150%
	d3-MeFOSA	75%	50-150%
	d3-MeFOSAA	76%	50-150%
	d5-EtFOSAA	76%	50-150%
	13C2-4:2FTS	75%	50-150%
	13C2-6:2FTS	70%	50-150%
	13C2-8:2FTS	76%	50-150%
	13C3-HFPO-DA	76%	50-150%

Method Blank Summary

Job Number: FA95651
Account: SGSAKA SGS North America, Inc
Project: 1222131

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP91367-MB	6Q756.D	1	05/29/22	JB	05/25/22	OP91367	S6Q14

The QC reported here applies to the following samples: **Method:** EPA 537M QSM5.3 B-15

FA95651-3

CAS No.	Compound	Result	RL	MDL	Units	Q
375-22-4	Perfluorobutanoic acid	ND	0.0080	0.0020	ug/l	
2706-90-3	Perfluoropentanoic acid	ND	0.0040	0.0010	ug/l	
307-24-4	Perfluorohexanoic acid	ND	0.0040	0.0010	ug/l	
375-85-9	Perfluoroheptanoic acid	ND	0.0040	0.0010	ug/l	
335-67-1	Perfluorooctanoic acid	ND	0.0040	0.0010	ug/l	
375-95-1	Perfluorononanoic acid	ND	0.0040	0.0010	ug/l	
335-76-2	Perfluorodecanoic acid	ND	0.0040	0.0010	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	0.0040	0.0010	ug/l	
307-55-1	Perfluorododecanoic acid	ND	0.0040	0.0010	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	0.0040	0.0010	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	0.0040	0.0010	ug/l	
375-73-5	Perfluorobutanesulfonic acid	ND	0.0040	0.0010	ug/l	
2706-91-4	Perfluoropentanesulfonic acid	ND	0.0040	0.0010	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND	0.0040	0.0010	ug/l	
375-92-8	Perfluoroheptanesulfonic acid	ND	0.0040	0.0010	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	0.0040	0.0010	ug/l	
68259-12-1	Perfluorononanesulfonic acid	ND	0.0040	0.0010	ug/l	
335-77-3	Perfluorodecanesulfonic acid	ND	0.0040	0.0010	ug/l	
754-91-6	PFOSA	ND	0.0040	0.0010	ug/l	
2355-31-9	MeFOSAA	ND	0.0080	0.0020	ug/l	
2991-50-6	EtFOSAA	ND	0.0080	0.0020	ug/l	
757124-72-4	4:2 Fluorotelomer sulfonate	ND	0.0080	0.0020	ug/l	
27619-97-2	6:2 Fluorotelomer sulfonate	ND	0.0080	0.0020	ug/l	
39108-34-4	8:2 Fluorotelomer sulfonate	ND	0.0080	0.0020	ug/l	

CAS No.	ID Standard Recoveries		Limits
	13C4-PFBA	99%	50-150%
	13C5-PFPeA	98%	50-150%
	13C5-PFHxA	97%	50-150%
	13C4-PFHpA	99%	50-150%
	13C8-PFOA	95%	50-150%
	13C9-PFNA	98%	50-150%
	13C6-PFDA	97%	50-150%
	13C7-PFUnDA	100%	50-150%

Method Blank Summary

Job Number: FA95651
Account: SGSAKA SGS North America, Inc
Project: 1222131

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP91367-MB	6Q756.D	1	05/29/22	JB	05/25/22	OP91367	S6Q14

The QC reported here applies to the following samples: **Method:** EPA 537M QSM5.3 B-15

FA95651-3

CAS No.	ID Standard Recoveries		Limits
	13C2-PFDoDA	95%	50-150%
	13C2-PFTeDA	89%	50-150%
	13C3-PFBS	97%	50-150%
	13C3-PFHxS	97%	50-150%
	13C8-PFOS	98%	50-150%
	13C8-FOSA	92%	50-150%
	d3-MeFOSAA	91%	50-150%
	d5-EtFOSAA	85%	50-150%
	13C2-4:2FTS	91%	50-150%
	13C2-6:2FTS	87%	50-150%
	13C2-8:2FTS	90%	50-150%

Method Blank Summary

Job Number: FA95651
Account: SGSAKA SGS North America, Inc
Project: 1222131

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP91441-MB	6Q946.D	1	06/02/22	NG	06/01/22	OP91441	S6Q16

The QC reported here applies to the following samples: **Method:** EPA 537M QSM5.3 B-15

FA95651-1, FA95651-2

CAS No.	Compound	Result	RL	MDL	Units	Q
375-22-4	Perfluorobutanoic acid	ND	0.0080	0.0020	ug/l	
2706-90-3	Perfluoropentanoic acid	ND	0.0040	0.0010	ug/l	
307-24-4	Perfluorohexanoic acid	ND	0.0040	0.0010	ug/l	
375-85-9	Perfluoroheptanoic acid	ND	0.0040	0.0010	ug/l	
335-67-1	Perfluorooctanoic acid	ND	0.0040	0.0010	ug/l	
375-95-1	Perfluorononanoic acid	ND	0.0040	0.0010	ug/l	
335-76-2	Perfluorodecanoic acid	ND	0.0040	0.0010	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	0.0040	0.0010	ug/l	
307-55-1	Perfluorododecanoic acid	ND	0.0040	0.0010	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	0.0040	0.0010	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	0.0040	0.0010	ug/l	
375-73-5	Perfluorobutanesulfonic acid	ND	0.0040	0.0010	ug/l	
2706-91-4	Perfluoropentanesulfonic acid	ND	0.0040	0.0010	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND	0.0040	0.0010	ug/l	
375-92-8	Perfluoroheptanesulfonic acid	ND	0.0040	0.0010	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	0.0040	0.0010	ug/l	
68259-12-1	Perfluorononanesulfonic acid	ND	0.0040	0.0010	ug/l	
335-77-3	Perfluorodecanesulfonic acid	ND	0.0040	0.0010	ug/l	
754-91-6	PFOSA	ND	0.0040	0.0010	ug/l	
2355-31-9	MeFOSAA	ND	0.0080	0.0020	ug/l	
2991-50-6	EtFOSAA	ND	0.0080	0.0020	ug/l	
757124-72-4	4:2 Fluorotelomer sulfonate	ND	0.0080	0.0020	ug/l	
27619-97-2	6:2 Fluorotelomer sulfonate	ND	0.0080	0.0020	ug/l	
39108-34-4	8:2 Fluorotelomer sulfonate	ND	0.0080	0.0020	ug/l	

CAS No.	ID Standard Recoveries		Limits
	13C4-PFBA	88%	50-150%
	13C5-PFPeA	87%	50-150%
	13C5-PFHxA	88%	50-150%
	13C4-PFHpA	87%	50-150%
	13C8-PFOA	88%	50-150%
	13C9-PFNA	88%	50-150%
	13C6-PFDA	91%	50-150%
	13C7-PFUnDA	84%	50-150%

Method Blank Summary

Job Number: FA95651
Account: SGSAKA SGS North America, Inc
Project: 1222131

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP91441-MB	6Q946.D	1	06/02/22	NG	06/01/22	OP91441	S6Q16

The QC reported here applies to the following samples: **Method:** EPA 537M QSM5.3 B-15

FA95651-1, FA95651-2

CAS No.	ID Standard Recoveries		Limits
	13C2-PFDoDA	79%	50-150%
	13C2-PFTeDA	74%	50-150%
	13C3-PFBS	83%	50-150%
	13C3-PFHxS	85%	50-150%
	13C8-PFOS	88%	50-150%
	13C8-FOSA	79%	50-150%
	d3-MeFOSA	69%	50-150%
	d3-MeFOSAA	84%	50-150%
	d5-EtFOSAA	79%	50-150%
	13C2-4:2FTS	80%	50-150%
	13C2-6:2FTS	78%	50-150%
	13C2-8:2FTS	77%	50-150%

Blank Spike Summary

Job Number: FA95651
Account: SGSAKA SGS North America, Inc
Project: 1222131

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP91367-BS	6Q755.D	1	05/29/22	JB	05/25/22	OP91367	S6Q14

The QC reported here applies to the following samples: **Method:** EPA 537M QSM5.3 B-15

FA95651-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
375-22-4	Perfluorobutanoic acid	0.08	0.0755	94	73-129
2706-90-3	Perfluoropentanoic acid	0.08	0.0752	94	72-129
307-24-4	Perfluorohexanoic acid	0.08	0.0720	90	72-129
375-85-9	Perfluoroheptanoic acid	0.08	0.0758	95	72-130
335-67-1	Perfluorooctanoic acid	0.08	0.0752	94	71-133
375-95-1	Perfluorononanoic acid	0.08	0.0704	88	69-130
335-76-2	Perfluorodecanoic acid	0.08	0.0715	89	71-129
2058-94-8	Perfluoroundecanoic acid	0.08	0.0792	99	69-133
307-55-1	Perfluorododecanoic acid	0.08	0.0795	99	72-134
72629-94-8	Perfluorotridecanoic acid	0.08	0.0775	97	65-144
376-06-7	Perfluorotetradecanoic acid	0.08	0.0759	95	71-132
375-73-5	Perfluorobutanesulfonic acid	0.08	0.0769	96	72-130
2706-91-4	Perfluoropentanesulfonic acid	0.08	0.0746	93	71-127
355-46-4	Perfluorohexanesulfonic acid	0.08	0.0746	93	68-131
375-92-8	Perfluoroheptanesulfonic acid	0.08	0.0730	91	69-134
1763-23-1	Perfluorooctanesulfonic acid	0.08	0.0757	95	65-140
68259-12-1	Perfluorononanesulfonic acid	0.08	0.0756	95	69-127
335-77-3	Perfluorodecanesulfonic acid	0.08	0.0810	101	53-142
754-91-6	PFOSA	0.08	0.0724	91	67-137
2355-31-9	MeFOSAA	0.08	0.0714	89	65-136
2991-50-6	EtFOSAA	0.08	0.0714	89	61-135
757124-72-4	4:2 Fluorotelomer sulfonate	0.08	0.0807	101	63-143
27619-97-2	6:2 Fluorotelomer sulfonate	0.08	0.0793	99	64-140
39108-34-4	8:2 Fluorotelomer sulfonate	0.08	0.0784	98	67-138

CAS No.	ID Standard Recoveries	BSP	Limits
	13C4-PFBA	107%	50-150%
	13C5-PFPeA	104%	50-150%
	13C5-PFHxA	104%	50-150%
	13C4-PFHpA	103%	50-150%
	13C8-PFOA	101%	50-150%
	13C9-PFNA	105%	50-150%
	13C6-PFDA	105%	50-150%
	13C7-PFUnDA	101%	50-150%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA95651
Account: SGSAKA SGS North America, Inc
Project: 1222131

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP91367-BS	6Q755.D	1	05/29/22	JB	05/25/22	OP91367	S6Q14

The QC reported here applies to the following samples: **Method:** EPA 537M QSM5.3 B-15

FA95651-3

CAS No.	ID Standard Recoveries	BSP	Limits
	13C2-PFDoDA	98%	50-150%
	13C2-PFTeDA	93%	50-150%
	13C3-PFBS	103%	50-150%
	13C3-PFHxS	102%	50-150%
	13C8-PFOS	105%	50-150%
	13C8-FOSA	94%	50-150%
	d3-MeFOSAA	95%	50-150%
	d5-EtFOSAA	89%	50-150%
	13C2-4:2FTS	100%	50-150%
	13C2-6:2FTS	95%	50-150%
	13C2-8:2FTS	103%	50-150%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA95651
Account: SGSAKA SGS North America, Inc
Project: 1222131

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP91441-BS [a]	6Q945.D	1	06/02/22	NG	06/01/22	OP91441	S6Q16

The QC reported here applies to the following samples: **Method:** EPA 537M QSM5.3 B-15

FA95651-1, FA95651-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
375-22-4	Perfluorobutanoic acid	0.08	0.0726	91	73-129
2706-90-3	Perfluoropentanoic acid	0.08	0.0721	90	72-129
307-24-4	Perfluorohexanoic acid	0.08	0.0709	89	72-129
375-85-9	Perfluoroheptanoic acid	0.08	0.0725	91	72-130
335-67-1	Perfluorooctanoic acid	0.08	0.0726	91	71-133
375-95-1	Perfluorononanoic acid	0.08	0.0732	92	69-130
335-76-2	Perfluorodecanoic acid	0.08	0.0681	85	71-129
2058-94-8	Perfluoroundecanoic acid	0.08	0.0740	93	69-133
307-55-1	Perfluorododecanoic acid	0.08	0.0768	96	72-134
72629-94-8	Perfluorotridecanoic acid	0.08	0.0762	95	65-144
376-06-7	Perfluorotetradecanoic acid	0.08	0.0755	94	71-132
375-73-5	Perfluorobutanesulfonic acid	0.08	0.0751	94	72-130
2706-91-4	Perfluoropentanesulfonic acid	0.08	0.0713	89	71-127
355-46-4	Perfluorohexanesulfonic acid	0.08	0.0719	90	68-131
375-92-8	Perfluoroheptanesulfonic acid	0.08	0.0724	91	69-134
1763-23-1	Perfluorooctanesulfonic acid	0.08	0.0697	87	65-140
68259-12-1	Perfluorononanesulfonic acid	0.08	0.0710	89	69-127
335-77-3	Perfluorodecanesulfonic acid	0.08	0.0714	89	53-142
754-91-6	PFOSA	0.08	0.0738	92	67-137
2355-31-9	MeFOSAA	0.08	0.0780	98	65-136
2991-50-6	EtFOSAA	0.08	0.0688	86	61-135
757124-72-4	4:2 Fluorotelomer sulfonate	0.08	0.0771	96	63-143
27619-97-2	6:2 Fluorotelomer sulfonate	0.08	0.0772	97	64-140
39108-34-4	8:2 Fluorotelomer sulfonate	0.08	0.0734	92	67-138

CAS No.	ID Standard Recoveries	BSP	Limits
	13C4-PFBA	87%	50-150%
	13C5-PFPeA	86%	50-150%
	13C5-PFHxA	87%	50-150%
	13C4-PFHpA	86%	50-150%
	13C8-PFOA	85%	50-150%
	13C9-PFNA	84%	50-150%
	13C6-PFDA	87%	50-150%
	13C7-PFUnDA	82%	50-150%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA95651
Account: SGSAKA SGS North America, Inc
Project: 1222131

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP91441-BS [a]	6Q945.D	1	06/02/22	NG	06/01/22	OP91441	S6Q16

The QC reported here applies to the following samples: **Method:** EPA 537M QSM5.3 B-15

FA95651-1, FA95651-2

CAS No.	ID Standard Recoveries	BSP	Limits
	13C2-PFDoDA	71%	50-150%
	13C2-PFTeDA	63%	50-150%
	13C3-PFBS	83%	50-150%
	13C3-PFHxS	83%	50-150%
	13C8-PFOS	87%	50-150%
	13C8-FOSA	67%	50-150%
	d3-MeFOSA	60%	50-150%
	d3-MeFOSAA	74%	50-150%
	d5-EtFOSAA	71%	50-150%
	13C2-4:2FTS	81%	50-150%
	13C2-6:2FTS	78%	50-150%
	13C2-8:2FTS	81%	50-150%

(a) Insufficient sample for MS/MSD.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA95651
Account: SGSAKA SGS North America, Inc
Project: 1222131

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP91367-MS	6Q781.D	1	05/29/22	JB	05/25/22	OP91367	S6Q14
OP91367-MSD	6Q782.D	1	05/29/22	JB	05/25/22	OP91367	S6Q14
FA95677-1	6Q780.D	1	05/29/22	JB	05/25/22	OP91367	S6Q14

The QC reported here applies to the following samples: **Method:** EPA 537M QSM5.3 B-15

FA95651-3

CAS No.	Compound	FA95677-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
375-22-4	Perfluorobutanoic acid	0.016	U	0.16	0.148	93	0.16	0.154	96	4	73-129/30
2706-90-3	Perfluoropentanoic acid	0.0080	U	0.16	0.146	91	0.16	0.151	94	3	72-129/30
307-24-4	Perfluorohexanoic acid	0.0080	U	0.16	0.144	90	0.16	0.149	93	3	72-129/30
375-85-9	Perfluoroheptanoic acid	0.0080	U	0.16	0.149	93	0.16	0.155	97	4	72-130/30
335-67-1	Perfluorooctanoic acid	0.0080	U	0.16	0.153	96	0.16	0.157	98	3	71-133/30
375-95-1	Perfluorononanoic acid	0.0080	U	0.16	0.142	89	0.16	0.152	95	7	69-130/30
335-76-2	Perfluorodecanoic acid	0.0080	U	0.16	0.141	88	0.16	0.144	90	2	71-129/30
2058-94-8	Perfluoroundecanoic acid	0.0080	U	0.16	0.138	86	0.16	0.153	96	10	69-133/30
307-55-1	Perfluorododecanoic acid	0.0080	U	0.16	0.154	96	0.16	0.154	96	0	72-134/30
72629-94-8	Perfluorotridecanoic acid	0.0080	U	0.16	0.158	99	0.16	0.160	100	1	65-144/30
376-06-7	Perfluorotetradecanoic acid	0.0080	U	0.16	0.148	93	0.16	0.151	94	2	71-132/30
375-73-5	Perfluorobutanesulfonic acid	0.0080	U	0.16	0.150	94	0.16	0.155	97	3	72-130/30
2706-91-4	Perfluoropentanesulfonic acid	0.0080	U	0.16	0.147	92	0.16	0.151	94	3	71-127/30
355-46-4	Perfluorohexanesulfonic acid	0.0022	J	0.16	0.149	92	0.16	0.151	93	1	68-131/30
375-92-8	Perfluoroheptanesulfonic acid	0.0080	U	0.16	0.146	91	0.16	0.147	92	1	69-134/30
1763-23-1	Perfluorooctanesulfonic acid	0.0080	U	0.16	0.147	92	0.16	0.148	93	1	65-140/30
68259-12-1	Perfluorononanesulfonic acid	0.0080	U	0.16	0.139	87	0.16	0.151	94	8	69-127/30
335-77-3	Perfluorodecanesulfonic acid	0.0080	U	0.16	0.142	89	0.16	0.150	94	5	53-142/30
754-91-6	PFOSA	0.0080	U	0.16	0.135	84	0.16	0.153	96	13	67-137/30
2355-31-9	MeFOSAA	0.016	U	0.16	0.162	101	0.16	0.151	94	7	65-136/30
2991-50-6	EtFOSAA	0.016	U	0.16	0.148	93	0.16	0.140	88	6	61-135/30
757124-72-4	4:2 Fluorotelomer sulfonate	0.016	U	0.16	0.156	98	0.16	0.156	98	0	63-143/30
27619-97-2	6:2 Fluorotelomer sulfonate	0.016	U	0.16	0.154	96	0.16	0.160	100	4	64-140/30
39108-34-4	8:2 Fluorotelomer sulfonate	0.016	U	0.16	0.158	99	0.16	0.151	94	5	67-138/30

CAS No.	ID Standard Recoveries	MS	MSD	FA95677-1	Limits
	13C4-PFBA	104%	98%	107%	50-150%
	13C5-PFPeA	104%	97%	106%	50-150%
	13C5-PFHxA	103%	97%	105%	50-150%
	13C4-PFHpA	101%	95%	105%	50-150%
	13C8-PFOA	98%	93%	103%	50-150%
	13C9-PFNA	101%	94%	101%	50-150%
	13C6-PFDA	97%	96%	104%	50-150%
	13C7-PFUnDA	101%	91%	103%	50-150%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA95651
Account: SGSAKA SGS North America, Inc
Project: 1222131

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP91367-MS	6Q781.D	1	05/29/22	JB	05/25/22	OP91367	S6Q14
OP91367-MSD	6Q782.D	1	05/29/22	JB	05/25/22	OP91367	S6Q14
FA95677-1	6Q780.D	1	05/29/22	JB	05/25/22	OP91367	S6Q14

The QC reported here applies to the following samples: **Method:** EPA 537M QSM5.3 B-15

FA95651-3

CAS No.	ID Standard Recoveries	MS	MSD	FA95677-1	Limits
	13C2-PFDoDA	98%	91%	99%	50-150%
	13C2-PFTeDA	99%	93%	102%	50-150%
	13C3-PFBS	102%	97%	105%	50-150%
	13C3-PFHxS	99%	94%	100%	50-150%
	13C8-PFOS	99%	94%	99%	50-150%
	13C8-FOSA	105%	90%	103%	50-150%
	d3-MeFOSAA	91%	87%	96%	50-150%
	d5-EtFOSAA	90%	85%	91%	50-150%
	13C2-4:2FTS	101%	95%	98%	50-150%
	13C2-6:2FTS	93%	88%	92%	50-150%
	13C2-8:2FTS	93%	95%	92%	50-150%

* = Outside of Control Limits.

SGS DW Chemistry Certified Analyses
Applicable to PWSID Samples

ADEC DW-Chemical Certificate AK00971, expires 6-30-2022

Method/ Test Name	Reference	Analyte	Method/ Test Name	Reference	Analyte
200.8	EPA	Aluminum	524.2	EPA	Benzene-R
200.8	EPA	Antimony	524.2	EPA	Bromodichloromethane-T
200.8	EPA	Arsenic	524.2	EPA	Bromoform-T
200.8	EPA	Barium	524.2	EPA	Carbon Tetrachloride-R
200.8	EPA	Beryllium	524.2	EPA	Chlorobenzene-R
200.8	EPA	Cadmium	524.2	EPA	Chloroform-T
200.8	EPA	Chromium	524.2	EPA	cis-1,2-Dichloroethylene-R
200.8	EPA	Copper	524.2	EPA	Dibromochloromethane-T
200.8	EPA	Lead	524.2	EPA	Dichloromethane (Methylene Chloride)-R
200.8	EPA	Manganese	524.2	EPA	Ethylbenzene-R
200.8	EPA	Mercury	524.2	EPA	Styrene-R
200.8	EPA	Nickel	524.2	EPA	Tetrachloroethylene-R
200.8	EPA	Selenium	524.2	EPA	Toluene-R
200.8	EPA	Silver	524.2	EPA	Total THM-T
200.8	EPA	Thallium	524.2	EPA	Total Xylenes-R
200.8	EPA	Zinc	524.2	EPA	trans-1,2 Dichloroethylene
300.0	EPA	Chloride	524.2	EPA	Trichloroethylene-R
300.0	EPA	Fluoride	524.2	EPA	Vinyl Chloride-R
300.0	EPA	Nitrate-N	2120B	SM 21st ed	Color
300.0	EPA	Nitrate-Nitrite as N	2130B	SM 21st ed	Turbidity
300.0	EPA	Nitrite-N	2320B	SM 21st ed	Alkalinity
300.0	EPA	Sulfate	2510B	SM 21st ed	Conductivity
524.2	EPA	1,1,1-Trichloroethane-R	2540C	SM 21st ed	TDS
524.2	EPA	1,1,2-Trichloroethane-R	4500-CN-C,E	SM 21st ed	Cyanide
524.2	EPA	1,1-Dichloroethylene-R	4500-H-B	SM 21st ed	pH
524.2	EPA	1,2,4-Trichlorobenzene-R	4500-NO3-F	SM 21st ed	Nitrate-N
524.2	EPA	1,2-Dichlorobenzene-R	4500-NO3-F	SM 21st ed	Nitrite-N
524.2	EPA	1,2-Dichloroethane-R	4500-P-E	SM 21st ed	Ortho-phosphate
524.2	EPA	1,2-Dichloropropane-R	5310B	SM 21st ed	Dissolved Organic Carbon (DOC)
524.2	EPA	1,4-Dichlorobenzene-R	5310B	SM 21st ed	Total Organic Carbon (TOC)

ADEC DW-Micro Certificate AK00971, expires 6-30-2022

Method/ Test Name	Reference	Analyte	Method/ Test Name	Reference	Analyte
9215 B HPC Pour Plate	SM	Heterotrophic	9223 B Colilert-18 MPN	SM	E. coli
9223 B Colilert MPN	SM	E. coli	9223 B Colilert-18 PA	SM	E. coli
9223 B Colilert PA	SM	E. coli	9223 B Colilert-18 PA	SM	Total Coliform
9223 B Colilert PA	SM	Total Coliform			

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