



2045 Mills Road West

TEL: (250) 655-5800

Sidney, BC, Canada V8L5X2

TOLL-FREE: 1-888-373-0881

SGS AXYS Client No.: 4066

Client Address: Tetra Tech, Inc. - Pacific Guardian Ctr.  
737 Bishop St., Suite 2340, Mauka Tower  
Honolulu, HI, US, 96813-3201

The SGS AXYS contact for these data is Dale Robinson.

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*"The sample(s) to which the findings recorded herein (the "Findings") relate was[were] drawn and [or] provided by the Client or by a third party acting at the Client's direction. The Findings constitute no warranty of the sample's representativeness of any goods and strictly relate to the sample(s). The Company accepts no liability with regard to the origin or source from which the sample(s) is[are] said to be extracted."*

## BATCH SUMMARY

|   |  |
|---|--|
| <b>Batch ID:</b> WG89476  | <b>Date:</b> 31-May-2024                                 |
| <b>Analysis Type:</b> Per- and Polyfluoroalkyl Substances (PFAS)  | <b>Matrix Type:</b><br>Biosolids human                   |
| <b>BATCH MAKEUP</b>   |  |
| <b>Contract:</b> 4066<br><b>Samples:</b><br><br>L40547-1 SIWWTP-BIOS_MIS (FC10214-1)<br>L40547-2 HUWWTP-BIOS_MIS (FC10214-2)<br>L40547-3 LAWWTP-BIOS_MIS (FC10214-3)<br>L40547-4 LAWWTP-COMP_MIS (FC10214-4)  | <b>Blank:</b><br>WG89476-101                             |
|   | <b>Reference or Spike:</b><br>WG89476-102<br>WG89476-103 |
|   | <b>Duplicate:</b><br>WG89476-104<br>WG89476-105          |
| <b>Comments:</b> <ol style="list-style-type: none"> <li>1. Data are considered final.</li> <li>2. Data are not blank corrected. Blank data should be taken into consideration when evaluating sample data.</li> <li>3. Blank data should be evaluated against specifications using the same blank sample size as the size of the client samples.</li> <li>4. In the continuing calibration verification (filenames: FC4L_129 S:15) PFPeS and ADONA is observed above the upper method limit. As this analyte was not observed in client samples data is not considered affected.</li> <li>5. In the continuing calibration verification (filenames: FC4L_129 S:15) 7:3 FTCA is observed above the upper method limit. Client data may be similarly affected.</li> <li>6. In the continuing calibration verification (filenames: FC4L_129 S:15) some surrogates are observed above the upper method control limit. As the result for the associated targets are observed within method specifications data is not considered impacted.</li> <li>7. Percent recoveries of several surrogates in the client samples were observed to be outside the method limits and these surrogates have been flagged with a 'V' on the report forms. As the isotope dilution method of quantification produces data that are recovery corrected, the slight variance from the method acceptance criteria is deemed not to affect the quantification of these analytes. Percent surrogate recoveries are used as a general method performance indicator only.</li> <li>8. Samples underwent multi-increment sampling (MIS) at SGS Orlando before coming to SGS AXYS for analysis.</li> <li>9. The reported concentration values represent the acid forms of the compounds.</li> </ol> |  |

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February 2017

**CHAIN OF CUSTODY**

2045 Mills Road West TEL: (250) 655-5800 TOLL FREE 1-888-373-0881  
 Sidney, British Columbia, Canada V8L 5X2 FAX: (250) 655-5811

SGS AXYS CLIENT #: **4066**

|   |  |           |   |                     |  |                                       |         |                       |                                      |   |                 |
|---|--|-----------|---|---------------------|--|---------------------------------------|---------|-----------------------|--------------------------------------|---|-----------------|
| <b>REPORT TO:</b>   |  |           | <b>INVOICE TO:</b>                      |                     |  | <b>ANALYSIS REQUESTED</b>             |         |                       |                                      |   |                 |
| Company <u>Hawaii Doh-HEER Office</u>   |  |           | Company <u>TetraTech</u>                |                     |  | MLA-110                               | MLA-111 | MLA 1119              | SPLP (MLA-110<br>MLA-111<br>MLA-119) | method 1314 - mla-110<br>mla-111<br>mla-119 |                 |
| Address <u>2385 Waimano Home Rd #100</u>  |  |           | Address <u>737 Bishop St Ste 2340</u>   |                     |  |                                       |         |                       |                                      |   |                 |
| Pearl City, HI 96782  |  |           | Honolulu, HI 96813                      |                     |  |                                       |         |                       |                                      |   |                 |
| Contact <u>Roger Brewer</u>   |  |           | Contact <u>Eric Jensen</u>              |                     |  |                                       |         |                       |                                      |   |                 |
| Phone <u>808-586-4249</u>   |  |           | Phone <u>808-225-7084</u>               |                     |  |                                       |         |                       |                                      |   |                 |
| FAX   |  |           | FAX                                     |                     |  |                                       |         |                       |                                      |   |                 |
| E-mail <u>roger.brewer@doh.hawaii.gov</u>   |  |           | E-mail <u>eric.jensen@tetratech.com</u> |                     |  |                                       |         |                       |                                      |   |                 |
| Project Name/Number:  |  |           | Sampler's Name:                         |                     |  |                                       |         |                       |                                      |   |                 |
|   |  |           | Signature:                              |                     |  |                                       |         |                       |                                      |   |                 |
| Client Sample Identification  |  | Matrix    | Sampling Date                           | Sampling Time       | Container Type/No.                         | SGS AXYS Lab Sample ID (Lab use only) |         |                       |                                      |   |                 |
| <del>LAWWTP-BIOS</del>  |  |           |   |                     |  |                                       |         |                       |                                      |   |                 |
| SI WWTP-BIOS 1  |  | biosolids | 9/27/23                                 | 8:00 am             | Freezer bag                                | L40547 - 1                            | X       | X                     | X                                    | X   |                 |
| HU WWTP-BIOS 2  |  | "         | 9/28/23                                 | 11:00 am            | "  | - 2                                   | X       | X                     | X                                    | X   |                 |
| LAWWTP-BIOS 3   |  | "         | 9/20/23                                 | 12:00 pm            | "  | - 3                                   | X       | X                     | X                                    | X   |                 |
| LAWWTP-COMP 4   |  | compost   | 9/20/23                                 | 12:00 pm            | "  | - 4                                   | X       | X                     | X                                    | X   |                 |
|   |  |           |   |                     |  |                                       |         |                       |                                      | INITIAL ASSESSMENT <u>JD</u>                |                 |
|   |  |           |   |                     |  |                                       |         |                       |                                      | LABEL VERIFICATION <u>SP</u>                |                 |
| Relinquished by (Signature) <u>[Signature]</u>  |  |           | Date <u>10/3/23</u>                     | Time <u>9:00 am</u> | Received by (Signature) <u>ASS</u>         |                                       |         | Date <u>15-NOV-23</u> |                                      | Courier                                     | Waybill No.     |
| Relinquished by (Signature) <u>FX</u>   |  |           | Date                                    | Time                | Received by (Signature) <u>[Signature]</u> |                                       |         | Date <u>10/05/23</u>  |                                      | Sample Receipt                              |                 |
| Remarks   |  |           |   |                     |  |                                       |         |                       |                                      | Temp °C                                     | Cooler          |
| - Process using multi-increment sampling procedures (Sievert 22M)   |  |           |   |                     |  |                                       |         |                       |                                      |   | <u>5.2 TR#1</u> |
| - Test minimum 5g subsample <sup>sieved material</sup>  |  |           |   |                     |  |                                       |         |                       |                                      | Custody Seal #                              |                 |
| - Recombine compost sample and send to Rob Caldwell at the Lakeview, Ontario lab for a soil column test. (two leachate samples generated) |  |           |   |                     |  |                                       |         |                       |                                      | Seal Intact Y/N                             |                 |
| - Test leachate samples using MLA-110 and MLA-111 and MLA 119   |  |           |   |                     |  |                                       |         |                       |                                      | Sample Tags                                 | Y/N             |
| - send subsamples of leachate to Eurofins, Sacramento, for PEAS MTA analysis (TOPS + AUF)   |  |           |   |                     |  |                                       |         |                       |                                      |   |                 |
| - SGS-Axys should also test the leachate for TOPS + TOF (filter before testing)   |  |           |   |                     |  |                                       |         |                       |                                      |   |                 |

Eurofins bottles + CDC included with compost sample

SGS AXYS METHOD MLA-110 Rev 02

Form 1A

CLIENT SAMPLE NO.  
SIWWTP-BIOS\_MIS (FC10214-1)  
Sample Collection:  
27-Sep-2023 08:00

## PERFLUORINATED ORGANICS ANALYSIS REPORT

## SGS AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA  
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.: 4066

Project No.

WWTP BIOS AND COMP

Lab Sample I.D.:

L40547-1 (A)

Matrix: BIOSOLIDS HUMAN

Sample Size:

4.60 g (dry)

Sample Receipt Date: 15-Nov-2023

Initial Calibration Date:

01-Mar-2023

Extraction Date: 29-Apr-2024

Instrument ID:

LCMS/MS

Analysis Date: 30-Apr-2024 Time: 19:13:08

Column ID:

C18

Extract Volume (uL): 4000

Sample Data Filename:

FC4L\_129 S: 24

Injection Volume (uL): 2

Blank Data Filename:

FC4L\_129 S: 21

Dilution Factor: N/A

Cal. Ver. Data Filename:

FC4L\_129 S: 15

Concentration Units: ng/g (dry weight basis)

% Moisture:

8.29

This page is part of a total report that contains information necessary for accreditation compliance.  
Results are compliant with NELAP accreditation described in the total report. Sample results relate only to the sample tested.

| COMPOUND     | LAB FLAG <sup>1</sup> | CONC. FOUND | REPORTING LIMIT (RL) <sup>2</sup> | RATIO | RRT   |
|--------------|-----------------------|-------------|-----------------------------------|-------|-------|
| PFBA         | U                     |             | 1.74 (Q)                          |       |       |
| PFPeA        | J                     | 1.01        | 0.869 (Q)                         |       | 1.007 |
| PFHxA        | J                     | 1.13        | 0.434 (Q)                         | 6.07  | 1.000 |
| PFHpA        | U                     |             | 0.434 (Q)                         |       |       |
| PFOA         | J                     | 0.716       | 0.434 (Q)                         | 2.11  |       |
| PFNA         | J                     | 1.17        | 0.434 (Q)                         | 2.82  |       |
| PFDA         | J                     | 1.59        | 0.434 (Q)                         | 3.89  | 1.001 |
| PFUnA        | J                     | 1.56        | 0.434 (Q)                         | 3.85  | 1.000 |
| PFDoA        | J                     | 1.38        | 0.347 (Q)                         | 10.7  | 1.000 |
| PFTTrDA      | J                     | 0.752       | 0.434 (Q)                         | 2.33  | 0.956 |
| PFTeDA       | R J                   | 1.13        | 0.434 (Q)                         | 4.72  | 1.000 |
| PFBS         | R                     | 11.8        | 0.434 (Q)                         | 474   | 0.998 |
| PFPeS        | U                     |             | 1.10 (S)                          |       |       |
| PFHxS        | R                     | 21.3        | 0.816 (S)                         | 101   |       |
| PFHpS        | U                     |             | 0.689 (S)                         |       |       |
| PFOS         | R                     | 21.4        | 0.854 (S)                         | 4.81  |       |
| PFNS         | U                     |             | 0.434 (Q)                         |       |       |
| PFDS         | U                     |             | 0.434 (Q)                         |       |       |
| PFDoS        | R J                   | 1.03        | 0.434 (Q)                         | 43.7  | 1.183 |
| 4:2 FTS      | U                     |             | 1.74 (Q)                          |       |       |
| 6:2 FTS      | U                     |             | 1.57 (Q)                          |       |       |
| 8:2 FTS      | U                     |             | 1.48 (Q)                          |       |       |
| PFOSA        | J                     | 1.12        | 0.434 (Q)                         |       |       |
| N-MeFOSA     | R J                   | 1.30        | 0.434 (Q)                         | 6.68  |       |
| N-EtFOSA     | U                     |             | 1.22 (Q)                          |       |       |
| MeFOSAA      | J                     | 0.548       | 0.434 (Q)                         | 2.96  |       |
| EtFOSAA      | J                     | 1.26        | 0.434 (Q)                         | 1.04  |       |
| N-MeFOSE     | J                     | 5.90        | 4.34 (Q)                          |       |       |
| N-EtFOSE     | U                     |             | 4.34 (Q)                          |       |       |
| HFPO-DA      | U                     |             | 1.74 (Q)                          |       |       |
| ADONA        | U                     |             | 1.74 (Q)                          |       |       |
| 9CI-PF3ONS   | U                     |             | 1.74 (Q)                          |       |       |
| 11CI-PF3OUdS | U                     |             | 1.74 (Q)                          |       |       |
| 3:3 FTCA     | U                     |             | 1.74 (Q)                          |       |       |
| 5:3 FTCA     | J                     | 13.8        | 10.9 (Q)                          | 1.58  | 1.056 |
| 7:3 FTCA     | U                     |             | 10.9 (Q)                          |       |       |
| PFEESA       | U                     |             | 0.434 (Q)                         |       |       |
| PFMPA        | U                     |             | 0.869 (Q)                         |       |       |
| PFMBA        | U                     |             | 0.434 (Q)                         |       |       |
| NFDHA        | U                     |             | 0.869 (Q)                         |       |       |

- (1) Where applicable, custom lab flags have been used on this report; U = not detected at RL; R = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration; J = concentration less than limit of quantification.
- (2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: \_\_\_\_\_Aaron Kyle\_\_\_\_\_

For Axy's Internal Use Only [ XSL Template: FC2-Form1A.xsl; Created: 31-May-2024 11:59:36; Application: XMLTransformer-1.18.50; Report Filename: PFC\_FC\_LC\_PFAS\_L40547-1\_Form1A\_FC4L\_129S24\_SJ3428409.html; Workgroup: WG89476; Design ID: 4411 ]

SGS AXYS METHOD MLA-110 Rev 02

Form 2

CLIENT SAMPLE NO.  
SIWWTP-BIOS\_MIS (FC10214-1)  
Sample Collection:  
27-Sep-2023 08:00

## PERFLUORINATED ORGANICS ANALYSIS REPORT

## SGS AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA  
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.

WWTP BIOS AND COMP

Contract No.: 4066

Lab Sample I.D.:

L40547-1 (A)

Matrix: BIOSOLIDS HUMAN

Sample Size:

4.60 g (dry)

Sample Receipt Date: 15-Nov-2023

Initial Calibration Date:

01-Mar-2023

Extraction Date: 29-Apr-2024

Instrument ID:

LCMS/MS

Analysis Date: 30-Apr-2024 Time: 19:13:08

Column ID:

C18

Extract Volume (uL): 4000

Sample Data Filename:

FC4L\_129 S: 24

Injection Volume (uL): 2

Blank Data Filename:

FC4L\_129 S: 21

Dilution Factor: N/A

Cal. Ver. Data Filename:

FC4L\_129 S: 15

Concentration Units: ng absolute

% Moisture:

8.29

This page is part of a total report that contains information necessary for accreditation compliance.  
Results are compliant with NELAP accreditation described in the total report. Sample results relate only to the sample tested.

| LABELED COMPOUND | LAB FLAG <sup>1</sup> | SPIKE CONC. | CONC. FOUND | R(%) <sup>2</sup> | RATIO | RRT   |
|------------------|-----------------------|-------------|-------------|-------------------|-------|-------|
| 13C4-PFBA        | V                     | 400         | 69.9        | 17.5              |       | 0.996 |
| 13C5-PFPeA       |                       | 200         | 127         | 63.3              |       | 0.852 |
| 13C5-PFHxA       |                       | 100         | 88.8        | 88.8              | 14.1  | 1.000 |
| 13C4-PFHpA       |                       | 100         | 105         | 105               |       | 0.885 |
| 13C8-PFOA        |                       | 100         | 91.5        | 91.5              |       | 1.000 |
| 13C9-PFNA        |                       | 50.0        | 49.4        | 98.8              |       | 1.000 |
| 13C6-PFDA        |                       | 50.0        | 46.5        | 93.0              |       | 1.000 |
| 13C7-PFUnA       |                       | 50.0        | 26.2        | 52.3              |       | 1.040 |
| 13C2-PFDoA       |                       | 50.0        | 18.9        | 37.9              |       | 1.075 |
| 13C2-PFTeDA      |                       | 50.0        | 17.1        | 34.2              |       | 1.173 |
| 13C3-PFBS        |                       | 100         | 104         | 104               | 2.73  | 0.783 |
| 13C3-PFHxS       |                       | 100         | 102         | 102               | 2.63  | 0.999 |
| 13C8-PFOS        |                       | 101         | 88.3        | 87.8              | 2.38  | 1.000 |
| 13C2-4:2 FTS     | V                     | 202         | 471         | 234               | 2.04  | 0.822 |
| 13C2-6:2 FTS     |                       | 200         | 179         | 89.5              | 2.30  | 1.001 |
| 13C2-8:2 FTS     |                       | 200         | 297         | 148               | 3.40  | 1.268 |
| 13C8-PFOA        |                       | 100         | 99.5        | 99.5              |       | 1.167 |
| D3-N-MeFOSA      |                       | 100         | 37.2        | 37.2              |       | 1.351 |
| D5-N-EtFOSA      |                       | 100         | 33.2        | 33.2              |       | 1.385 |
| D3-MeFOSAA       | V                     | 200         | 345         | 172               |       | 1.309 |
| D5-EtFOSAA       |                       | 200         | 175         | 87.6              |       | 1.327 |
| d7-NMe-FOSE      |                       | 1000        | 273         | 27.2              |       | 1.335 |
| d9-NEt-FOSE      |                       | 1000        | 359         | 35.8              |       | 1.371 |
| 13C3-HFPO-DA     |                       | 400         | 206         | 51.4              | 3.08  | 1.032 |

(1) Where applicable, custom lab flags have been used on this report; V = surrogate recovery is not within method/contract control limits.

(2) R(%) = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: \_\_\_\_\_Aaron Kyle\_\_\_\_\_

SGS AXYS METHOD MLA-110 Rev 02

Form 1A

## PERFLUORINATED ORGANICS ANALYSIS REPORT

CLIENT SAMPLE NO.  
SIWWTP-BIOS\_MIS (FC10214-1)  
(Duplicate)  
Sample Collection:  
27-Sep-2023 08:00

## SGS AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA  
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.: 4066

Project No.

WWTP BIOS AND COMP

Lab Sample I.D.:

WG89476-104 (DUP L40547-1)

Matrix: BIOSOLIDS HUMAN

Sample Size:

4.53 g (dry)

Sample Receipt Date: 15-Nov-2023

Initial Calibration Date:

01-Mar-2023

Extraction Date: 29-Apr-2024

Instrument ID:

LCMS/MS

Analysis Date: 30-Apr-2024 Time: 18:46:17

Column ID:

C18

Extract Volume (uL): 4000

Sample Data Filename:

FC4L\_129 S: 22

Injection Volume (uL): 2

Blank Data Filename:

FC4L\_129 S: 21

Dilution Factor: N/A

Cal. Ver. Data Filename:

FC4L\_129 S: 15

Concentration Units: ng/g (dry weight basis)

% Moisture:

10.0

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| COMPOUND     | LAB FLAG <sup>1</sup> | CONC.<br>FOUND | REPORTING<br>LIMIT (RL) <sup>2</sup> | RATIO | RRT   |
|--------------|-----------------------|----------------|--------------------------------------|-------|-------|
| PFBA         | U                     |                | 1.77 (Q)                             |       |       |
| PFPeA        | J                     | 1.05           | 0.884 (Q)                            |       | 1.008 |
| PFHxA        | J                     | 0.825          | 0.442 (Q)                            | 5.29  | 1.001 |
| PFHpA        | U                     |                | 0.442 (Q)                            |       |       |
| PFOA         | J                     | 0.973          | 0.442 (Q)                            | 2.42  |       |
| PFNA         | J                     | 1.40           | 0.442 (Q)                            | 2.65  |       |
| PFDA         | J                     | 1.38           | 0.442 (Q)                            | 3.97  | 1.000 |
| PFUnA        |                       | 1.78           | 0.442 (Q)                            | 5.08  | 1.000 |
| PFDoA        | J                     | 1.28           | 0.353 (Q)                            | 9.61  | 1.000 |
| PFTTrDA      | R J                   | 0.977          | 0.442 (Q)                            | 5.96  | 0.955 |
| PFTeDA       | R J                   | 1.10           | 0.442 (Q)                            | 5.46  | 0.999 |
| PFBS         | R                     | 10.8           | 0.461 (S)                            | 281   | 0.999 |
| PFPeS        | U                     |                | 1.09 (S)                             |       |       |
| PFHxS        | R                     | 24.4           | 1.14 (S)                             | 92.9  |       |
| PFHpS        | U                     |                | 0.828 (S)                            |       |       |
| PFOS         | R                     | 23.4           | 0.607 (S)                            | 7.46  |       |
| PFNS         | U                     |                | 0.442 (Q)                            |       |       |
| PFDS         | U                     |                | 0.442 (Q)                            |       |       |
| PFDoS        | R J                   | 0.925          | 0.442 (Q)                            | 103   | 1.184 |
| 4:2 FTS      | U                     |                | 1.77 (Q)                             |       |       |
| 6:2 FTS      | U                     |                | 1.59 (Q)                             |       |       |
| 8:2 FTS      | U                     |                | 1.50 (Q)                             |       |       |
| PFOSA        | J                     | 0.995          | 0.442 (Q)                            |       |       |
| N-MeFOSA     | R J                   | 1.21           | 0.442 (Q)                            | 7.00  |       |
| N-EtFOSA     | U                     |                | 1.24 (Q)                             |       |       |
| MeFOSAA      | J                     | 0.671          | 0.442 (Q)                            | 1.81  |       |
| EtFOSAA      | J                     | 1.13           | 0.442 (Q)                            | 1.00  |       |
| N-MeFOSE     | J                     | 5.38           | 4.42 (Q)                             |       |       |
| N-EtFOSE     | U                     |                | 4.42 (Q)                             |       |       |
| HFPO-DA      | U                     |                | 1.77 (Q)                             |       |       |
| ADONA        | U                     |                | 1.77 (Q)                             |       |       |
| 9CI-PF3ONS   | U                     |                | 1.77 (Q)                             |       |       |
| 11CI-PF3OUdS | U                     |                | 1.77 (Q)                             |       |       |
| 3:3 FTCA     | U                     |                | 1.77 (Q)                             |       |       |
| 5:3 FTCA     | J                     | 12.1           | 11.0 (Q)                             | 1.23  | 1.057 |
| 7:3 FTCA     | U                     |                | 11.0 (Q)                             |       |       |
| PFEESA       | U                     |                | 0.442 (Q)                            |       |       |
| PFMPA        | U                     |                | 0.884 (Q)                            |       |       |
| PFMBA        | U                     |                | 0.442 (Q)                            |       |       |

**NFDHA**

U

0.884 (Q)

- (1) Where applicable, custom lab flags have been used on this report; U = not detected at RL; R = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration; J = concentration less than limit of quantification.  
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.

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Signed: \_\_\_\_\_Aaron Kyle\_\_\_\_\_

For Axs Internal Use Only [ XSL Template: FC2-Form1A.xsl; Created: 31-May-2024 11:59:36; Application: XMLTransformer-1.18.50;  
Report Filename: PFC\_FC\_LC\_PFAS\_WG89476-104\_Form1A\_FC4L\_129S22\_SJ3428407.html; Workgroup: WG89476; Design ID: 4411 ]

SGS AXYS METHOD MLA-110 Rev 02

Form 2

CLIENT SAMPLE NO.  
SIWWTP-BIOS\_MIS (FC10214-1)  
(Duplicate)  
Sample Collection:  
27-Sep-2023 08:00

## PERFLUORINATED ORGANICS ANALYSIS REPORT

## SGS AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA  
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.: 4066

Project No.

WWTP BIOS AND COMP

Lab Sample I.D.:

WG89476-104 (DUP L40547-1)

Matrix: BIOSOLIDS HUMAN

Sample Size:

4.53 g (dry)

Sample Receipt Date: 15-Nov-2023

Initial Calibration Date:

01-Mar-2023

Extraction Date: 29-Apr-2024

Instrument ID:

LCMS/MS

Analysis Date: 30-Apr-2024 Time: 18:46:17

Column ID:

C18

Extract Volume (uL): 4000

Sample Data Filename:

FC4L\_129 S: 22

Injection Volume (uL): 2

Blank Data Filename:

FC4L\_129 S: 21

Dilution Factor: N/A

Cal. Ver. Data Filename:

FC4L\_129 S: 15

Concentration Units: ng absolute

% Moisture:

10.0

This page is part of a total report that contains information necessary for accreditation compliance.  
Results are compliant with NELAP accreditation described in the total report. Sample results relate only to the sample tested.

| LABELED COMPOUND | LAB FLAG <sup>1</sup> | SPIKE CONC. | CONC. FOUND | R(%) <sup>2</sup> | RATIO | RRT   |
|------------------|-----------------------|-------------|-------------|-------------------|-------|-------|
| 13C4-PFBA        | V                     | 400         | 47.3        | 11.8              |       | 0.996 |
| 13C5-PFPeA       |                       | 200         | 132         | 66.0              |       | 0.852 |
| 13C5-PFHxA       |                       | 100         | 93.4        | 93.4              | 14.1  | 1.000 |
| 13C4-PFHpA       |                       | 100         | 102         | 102               |       | 0.885 |
| 13C8-PFOA        |                       | 100         | 92.6        | 92.6              |       | 1.000 |
| 13C9-PFNA        |                       | 50.0        | 44.5        | 89.0              |       | 1.000 |
| 13C6-PFDA        |                       | 50.0        | 44.4        | 88.9              |       | 1.000 |
| 13C7-PFUnA       |                       | 50.0        | 24.1        | 48.3              |       | 1.040 |
| 13C2-PFDoA       |                       | 50.0        | 18.5        | 37.1              |       | 1.074 |
| 13C2-PFTeDA      |                       | 50.0        | 16.3        | 32.5              |       | 1.173 |
| 13C3-PFBS        |                       | 100         | 102         | 102               | 2.81  | 0.783 |
| 13C3-PFHxS       |                       | 100         | 88.8        | 88.6              | 2.37  | 1.000 |
| 13C8-PFOS        |                       | 101         | 100         | 99.4              | 2.94  | 1.000 |
| 13C2-4:2 FTS     | V                     | 202         | 513         | 254               | 2.01  | 0.823 |
| 13C2-6:2 FTS     |                       | 200         | 181         | 90.4              | 2.23  | 1.002 |
| 13C2-8:2 FTS     |                       | 200         | 291         | 145               | 3.34  | 1.268 |
| 13C8-PFOSA       |                       | 100         | 96.7        | 96.7              |       | 1.168 |
| D3-N-MeFOSA      |                       | 100         | 45.8        | 45.8              |       | 1.352 |
| D5-N-EtFOSA      |                       | 100         | 37.0        | 37.0              |       | 1.386 |
| D3-MeFOSAA       | V                     | 200         | 337         | 169               |       | 1.308 |
| D5-EtFOSAA       |                       | 200         | 164         | 82.1              |       | 1.326 |
| d7-NMe-FOSE      |                       | 1000        | 295         | 29.4              |       | 1.336 |
| d9-NEt-FOSE      |                       | 1000        | 342         | 34.2              |       | 1.372 |
| 13C3-HFPO-DA     |                       | 400         | 221         | 55.2              | 3.08  | 1.033 |

(1) Where applicable, custom lab flags have been used on this report; V = surrogate recovery is not within method/contract control limits.

(2) R(%) = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: \_\_\_\_\_ Aaron Kyle \_\_\_\_\_

## SGS AXYS METHOD MLA-110 Rev 02

PERFLUORINATED ORGANICS ANALYSIS REPORT  
RELATIVE PERCENT DIFFERENCE

## SGS AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA  
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.

WWTP BIOS AND COMP

Contract No.: 4066

Client ID: SIWWTP-BIOS\_MIS (FC10214-1)

Concentration Units: ng/g (dry weight basis)

| COMPOUND     | L40547-1 (A)          |             | WG89476-104           |             | MEAN  | RELATIVE PERCENT DIFFERENCE |
|--------------|-----------------------|-------------|-----------------------|-------------|-------|-----------------------------|
|              | LAB FLAG <sup>1</sup> | CONC. FOUND | LAB FLAG <sup>1</sup> | CONC. FOUND |       |                             |
| PFBA         | U                     |             | U                     |             |       |                             |
| PFPeA        | J                     | 1.01        | J                     | 1.05        | 1.03  | 3.95                        |
| PFHxA        | J                     | 1.13        | J                     | 0.825       | 0.978 | 31.1                        |
| PFHpA        | U                     |             | U                     |             |       |                             |
| PFOA         | J                     | 0.716       | J                     | 0.973       | 0.844 | 30.5                        |
| PFNA         | J                     | 1.17        | J                     | 1.40        | 1.29  | 17.7                        |
| PFDA         | J                     | 1.59        | J                     | 1.38        | 1.49  | 14.4                        |
| PFUnA        | J                     | 1.56        |                       | 1.78        | 1.67  | 13.0                        |
| PFDoA        | J                     | 1.38        | J                     | 1.28        | 1.33  | 7.12                        |
| PFTTrDA      | J                     | 0.752       | R J                   | 0.977       |       |                             |
| PFTeDA       | R J                   | 1.13        | R J                   | 1.10        |       |                             |
| PFBS         | R                     | 11.8        | R                     | 10.8        |       |                             |
| PFPeS        | U                     |             | U                     |             |       |                             |
| PFHxS        | R                     | 21.3        | R                     | 24.4        |       |                             |
| PFHpS        | U                     |             | U                     |             |       |                             |
| PFOS         | R                     | 21.4        | R                     | 23.4        |       |                             |
| PFNS         | U                     |             | U                     |             |       |                             |
| PFDS         | U                     |             | U                     |             |       |                             |
| PFDoS        | R J                   | 1.03        | R J                   | 0.925       |       |                             |
| 4:2 FTS      | U                     |             | U                     |             |       |                             |
| 6:2 FTS      | U                     |             | U                     |             |       |                             |
| 8:2 FTS      | U                     |             | U                     |             |       |                             |
| PFOSA        | J                     | 1.12        | J                     | 0.995       | 1.06  | 11.9                        |
| N-MeFOSA     | R J                   | 1.30        | R J                   | 1.21        |       |                             |
| N-EtFOSA     | U                     |             | U                     |             |       |                             |
| MeFOSAA      | J                     | 0.548       | J                     | 0.671       | 0.610 | 20.3                        |
| EtFOSAA      | J                     | 1.26        | J                     | 1.13        | 1.19  | 11.2                        |
| N-MeFOSE     | J                     | 5.90        | J                     | 5.38        | 5.64  | 9.18                        |
| N-EtFOSE     | U                     |             | U                     |             |       |                             |
| HFPO-DA      | U                     |             | U                     |             |       |                             |
| ADONA        | U                     |             | U                     |             |       |                             |
| 9Cl-PF3ONS   | U                     |             | U                     |             |       |                             |
| 11Cl-PF3OUdS | U                     |             | U                     |             |       |                             |
| 3:3 FTCA     | U                     |             | U                     |             |       |                             |
| 5:3 FTCA     | J                     | 13.8        | J                     | 12.1        | 13.0  | 12.9                        |
| 7:3 FTCA     | U                     |             | U                     |             |       |                             |
| PFEESA       | U                     |             | U                     |             |       |                             |
| PFMPA        | U                     |             | U                     |             |       |                             |
| PFMBA        | U                     |             | U                     |             |       |                             |
| NFDHA        | U                     |             | U                     |             |       |                             |

(1) Where applicable, custom lab flags have been used on this report; U = not detected at RL; R = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration; J = concentration less than limit of quantification.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Aaron Kyle

These pages are part of a larger report that may contain information necessary for full data evaluation. Results reported relate only to the sample tested.

SGS AXYS METHOD MLA-110 Rev 02

Form 1A

CLIENT SAMPLE NO.  
SIWWTP-BIOS\_MIS (FC10214-1)  
(Duplicate2)  
Sample Collection:  
27-Sep-2023 08:00

## PERFLUORINATED ORGANICS ANALYSIS REPORT

## SGS AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA  
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.: 4066

Project No.

WWTP BIOS AND COMP

Lab Sample I.D.:

WG89476-105 (DUP L40547-1)

Matrix: BIOSOLIDS HUMAN

Sample Size:

4.55 g (dry)

Sample Receipt Date: 15-Nov-2023

Initial Calibration Date:

01-Mar-2023

Extraction Date: 29-Apr-2024

Instrument ID:

LCMS/MS

Analysis Date: 30-Apr-2024 Time: 18:59:39

Column ID:

C18

Extract Volume (uL): 4000

Sample Data Filename:

FC4L\_129 S: 23

Injection Volume (uL): 2

Blank Data Filename:

FC4L\_129 S: 21

Dilution Factor: N/A

Cal. Ver. Data Filename:

FC4L\_129 S: 15

Concentration Units: ng/g (dry weight basis)

% Moisture:

9.31

This page is part of a total report that contains information necessary for accreditation compliance.  
Results are compliant with NELAP accreditation described in the total report. Sample results relate only to the sample tested.

| COMPOUND     | LAB FLAG <sup>1</sup> | CONC.<br>FOUND | REPORTING<br>LIMIT (RL) <sup>2</sup> | RATIO | RRT   |
|--------------|-----------------------|----------------|--------------------------------------|-------|-------|
| PFBA         | U                     |                | 1.76 (Q)                             |       |       |
| PFPeA        | U                     |                | 0.879 (Q)                            |       |       |
| PFHxA        | J                     | 0.821          | 0.439 (Q)                            | 5.65  | 1.000 |
| PFHpA        | U                     |                | 0.439 (Q)                            |       |       |
| PFOA         | J                     | 0.793          | 0.439 (Q)                            | 2.06  |       |
| PFNA         | J                     | 1.20           | 0.439 (Q)                            | 2.91  |       |
| PFDA         | J                     | 1.40           | 0.439 (Q)                            | 3.34  | 1.000 |
| PFUnA        | J                     | 1.58           | 0.439 (Q)                            | 5.40  | 1.000 |
| PFDoA        | J                     | 1.40           | 0.352 (Q)                            | 9.66  | 0.999 |
| PFTTrDA      | J                     | 0.771          | 0.439 (Q)                            | 2.43  | 0.956 |
| PFTeDA       | J                     | 1.08           | 0.439 (Q)                            | 3.96  | 1.000 |
| PFBS         | R                     | 15.4           | 0.439 (Q)                            | 282   | 0.998 |
| PFPeS        | U                     |                | 1.48 (S)                             |       |       |
| PFHxS        | R                     | 21.8           | 1.62 (S)                             | 95.0  |       |
| PFHpS        | U                     |                | 1.40 (S)                             |       |       |
| PFOS         | R                     | 25.0           | 0.641 (S)                            | 7.13  |       |
| PFNS         | U                     |                | 0.439 (Q)                            |       |       |
| PFDS         | U                     |                | 0.439 (Q)                            |       |       |
| PFDoS        | R J                   | 1.24           | 0.439 (Q)                            | 45.1  | 1.183 |
| 4:2 FTS      | U                     |                | 1.76 (Q)                             |       |       |
| 6:2 FTS      | U                     |                | 1.58 (Q)                             |       |       |
| 8:2 FTS      | R J                   | 1.97           | 1.49 (Q)                             | 0.18  | 1.000 |
| PFOSA        | J                     | 1.02           | 0.439 (Q)                            |       |       |
| N-MeFOSA     | R J                   | 0.968          | 0.439 (Q)                            | 11.4  |       |
| N-EtFOSA     | U                     |                | 1.23 (Q)                             |       |       |
| MeFOSAA      | J                     | 0.667          | 0.439 (Q)                            | 2.58  |       |
| EtFOSAA      | J                     | 1.51           | 0.439 (Q)                            | 1.31  |       |
| N-MeFOSE     | J                     | 5.70           | 4.39 (Q)                             |       |       |
| N-EtFOSE     | U                     |                | 4.39 (Q)                             |       |       |
| HFPO-DA      | U                     |                | 1.76 (Q)                             |       |       |
| ADONA        | U                     |                | 1.76 (Q)                             |       |       |
| 9CI-PF3ONS   | U                     |                | 1.76 (Q)                             |       |       |
| 11CI-PF3OUdS | U                     |                | 1.76 (Q)                             |       |       |
| 3:3 FTCA     | U                     |                | 1.76 (Q)                             |       |       |
| 5:3 FTCA     | J                     | 12.3           | 11.0 (Q)                             | 1.11  | 1.056 |
| 7:3 FTCA     | U                     |                | 11.0 (Q)                             |       |       |
| PFEESA       | U                     |                | 0.439 (Q)                            |       |       |
| PFMPA        | U                     |                | 0.879 (Q)                            |       |       |
| PFMBA        | U                     |                | 0.439 (Q)                            |       |       |

**NFDHA**

U

0.879 (Q)

- (1) Where applicable, custom lab flags have been used on this report; U = not detected at RL; R = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration; J = concentration less than limit of quantification.
- (2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: \_\_\_\_\_Aaron Kyle\_\_\_\_\_

For Axs Internal Use Only [ XSL Template: FC2-Form1A.xsl; Created: 31-May-2024 11:59:36; Application: XMLTransformer-1.18.50; Report Filename: PFC\_FC\_LC\_PFAS\_WG89476-105\_Form1A\_FC4L\_129S23\_SJ3428408.html; Workgroup: WG89476; Design ID: 4411 ]

SGS AXYS METHOD MLA-110 Rev 02

Form 2

CLIENT SAMPLE NO.  
SIWWTP-BIOS\_MIS (FC10214-1)  
(Duplicate2)  
Sample Collection:  
27-Sep-2023 08:00

## PERFLUORINATED ORGANICS ANALYSIS REPORT

## SGS AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA  
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.: 4066

Project No.

WWTP BIOS AND COMP

Lab Sample I.D.:

WG89476-105 (DUP L40547-1)

Matrix: BIOSOLIDS HUMAN

Sample Size:

4.55 g (dry)

Sample Receipt Date: 15-Nov-2023

Initial Calibration Date:

01-Mar-2023

Extraction Date: 29-Apr-2024

Instrument ID:

LCMS/MS

Analysis Date: 30-Apr-2024 Time: 18:59:39

Column ID:

C18

Extract Volume (uL): 4000

Sample Data Filename:

FC4L\_129 S: 23

Injection Volume (uL): 2

Blank Data Filename:

FC4L\_129 S: 21

Dilution Factor: N/A

Cal. Ver. Data Filename:

FC4L\_129 S: 15

Concentration Units: ng absolute

% Moisture:

9.31

This page is part of a total report that contains information necessary for accreditation compliance.  
Results are compliant with NELAP accreditation described in the total report. Sample results relate only to the sample tested.

| LABELED COMPOUND | LAB FLAG <sup>1</sup> | SPIKE CONC. | CONC. FOUND | R(%) <sup>2</sup> | RATIO | RRT   |
|------------------|-----------------------|-------------|-------------|-------------------|-------|-------|
| 13C4-PFBA        | V                     | 400         | 177         | 44.3              |       | 1.000 |
| 13C5-PFPeA       |                       | 200         | 152         | 75.8              |       | 0.852 |
| 13C5-PFHxA       |                       | 100         | 91.4        | 91.4              | 14.0  | 1.000 |
| 13C4-PFHpA       |                       | 100         | 102         | 102               |       | 0.884 |
| 13C8-PFOA        |                       | 100         | 89.0        | 89.0              |       | 0.998 |
| 13C9-PFNA        |                       | 50.0        | 46.2        | 92.5              |       | 1.000 |
| 13C6-PFDA        |                       | 50.0        | 44.9        | 89.8              |       | 1.000 |
| 13C7-PFUnA       |                       | 50.0        | 25.1        | 50.2              |       | 1.040 |
| 13C2-PFDoA       |                       | 50.0        | 19.6        | 39.3              |       | 1.075 |
| 13C2-PFTeDA      |                       | 50.0        | 19.1        | 38.2              |       | 1.173 |
| 13C3-PFBS        |                       | 100         | 100         | 99.8              | 2.77  | 0.783 |
| 13C3-PFHxS       |                       | 100         | 93.5        | 93.3              | 2.49  | 1.000 |
| 13C8-PFOS        |                       | 101         | 91.1        | 90.6              | 2.96  | 1.000 |
| 13C2-4:2 FTS     | V                     | 202         | 541         | 268               | 2.02  | 0.823 |
| 13C2-6:2 FTS     |                       | 200         | 176         | 87.9              | 2.24  | 1.002 |
| 13C2-8:2 FTS     |                       | 200         | 291         | 145               | 3.46  | 1.269 |
| 13C8-PFOSA       |                       | 100         | 87.5        | 87.5              |       | 1.168 |
| D3-N-MeFOSA      |                       | 100         | 30.4        | 30.4              |       | 1.352 |
| D5-N-EtFOSA      |                       | 100         | 24.4        | 24.4              |       | 1.385 |
| D3-MeFOSAA       | V                     | 200         | 344         | 172               |       | 1.310 |
| D5-EtFOSAA       |                       | 200         | 187         | 93.4              |       | 1.328 |
| d7-NMe-FOSE      |                       | 1000        | 243         | 24.2              |       | 1.336 |
| d9-NEt-FOSE      |                       | 1000        | 292         | 29.1              |       | 1.372 |
| 13C3-HFPO-DA     |                       | 400         | 213         | 53.3              | 3.01  | 1.033 |

(1) Where applicable, custom lab flags have been used on this report; V = surrogate recovery is not within method/contract control limits.

(2) R(%) = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: \_\_\_\_\_ Aaron Kyle \_\_\_\_\_

## SGS AXYS METHOD MLA-110 Rev 02

PERFLUORINATED ORGANICS ANALYSIS REPORT  
RELATIVE PERCENT DIFFERENCE

## SGS AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA  
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.

WWTP BIOS AND COMP

Contract No.: 4066

Client ID: SIWWTP-BIOS\_MIS (FC10214-1)

Concentration Units: ng/g (dry weight basis)

| COMPOUND     | L40547-1 (A)          |             | WG89476-105           |             | MEAN  | RELATIVE PERCENT DIFFERENCE |
|--------------|-----------------------|-------------|-----------------------|-------------|-------|-----------------------------|
|              | LAB FLAG <sup>1</sup> | CONC. FOUND | LAB FLAG <sup>1</sup> | CONC. FOUND |       |                             |
| PFBA         | U                     |             | U                     |             |       |                             |
| PFPeA        | J                     | 1.01        | U                     |             |       |                             |
| PFHxA        | J                     | 1.13        | J                     | 0.821       | 0.975 | 31.7                        |
| PFHpA        | U                     |             | U                     |             |       |                             |
| PFOA         | J                     | 0.716       | J                     | 0.793       | 0.754 | 10.2                        |
| PFNA         | J                     | 1.17        | J                     | 1.20        | 1.19  | 2.43                        |
| PFDA         | J                     | 1.59        | J                     | 1.40        | 1.50  | 13.1                        |
| PFUnA        | J                     | 1.56        | J                     | 1.58        | 1.57  | 0.775                       |
| PFDoA        | J                     | 1.38        | J                     | 1.40        | 1.39  | 1.86                        |
| PFTTrDA      | J                     | 0.752       | J                     | 0.771       | 0.761 | 2.57                        |
| PFTeDA       | R J                   | 1.13        | J                     | 1.08        |       |                             |
| PFBS         | R                     | 11.8        | R                     | 15.4        |       |                             |
| PFPeS        | U                     |             | U                     |             |       |                             |
| PFHxS        | R                     | 21.3        | R                     | 21.8        |       |                             |
| PFHpS        | U                     |             | U                     |             |       |                             |
| PFOS         | R                     | 21.4        | R                     | 25.0        |       |                             |
| PFNS         | U                     |             | U                     |             |       |                             |
| PFDS         | U                     |             | U                     |             |       |                             |
| PFDoS        | R J                   | 1.03        | R J                   | 1.24        |       |                             |
| 4:2 FTS      | U                     |             | U                     |             |       |                             |
| 6:2 FTS      | U                     |             | U                     |             |       |                             |
| 8:2 FTS      | U                     |             | R J                   | 1.97        |       |                             |
| PFOSA        | J                     | 1.12        | J                     | 1.02        | 1.07  | 9.63                        |
| N-MeFOSA     | R J                   | 1.30        | R J                   | 0.968       |       |                             |
| N-EtFOSA     | U                     |             | U                     |             |       |                             |
| MeFOSAA      | J                     | 0.548       | J                     | 0.667       | 0.607 | 19.6                        |
| EtFOSAA      | J                     | 1.26        | J                     | 1.51        | 1.38  | 18.0                        |
| N-MeFOSE     | J                     | 5.90        | J                     | 5.70        | 5.80  | 3.40                        |
| N-EtFOSE     | U                     |             | U                     |             |       |                             |
| HFPO-DA      | U                     |             | U                     |             |       |                             |
| ADONA        | U                     |             | U                     |             |       |                             |
| 9Cl-PF3ONS   | U                     |             | U                     |             |       |                             |
| 11Cl-PF3OUdS | U                     |             | U                     |             |       |                             |
| 3:3 FTCA     | U                     |             | U                     |             |       |                             |
| 5:3 FTCA     | J                     | 13.8        | J                     | 12.3        | 13.0  | 11.4                        |
| 7:3 FTCA     | U                     |             | U                     |             |       |                             |
| PFEESA       | U                     |             | U                     |             |       |                             |
| PFMPA        | U                     |             | U                     |             |       |                             |
| PFMBA        | U                     |             | U                     |             |       |                             |
| NFDHA        | U                     |             | U                     |             |       |                             |

(1) Where applicable, custom lab flags have been used on this report; U = not detected at RL; R = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration; J = concentration less than limit of quantification.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: Aaron Kyle

These pages are part of a larger report that may contain information necessary for full data evaluation. Results reported relate only to the sample tested.

SGS AXYS METHOD MLA-110 Rev 02

Form 1A

CLIENT SAMPLE NO.  
HUWWTP-BIOS\_MIS (FC10214-2)Sample Collection:  
28-Sep-2023 11:00

## PERFLUORINATED ORGANICS ANALYSIS REPORT

## SGS AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA  
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.: 4066

Project No.

WWTP BIOS AND COMP

Lab Sample I.D.:

L40547-2

Matrix: BIOSOLIDS HUMAN

Sample Size:

4.29 g (dry)

Sample Receipt Date: 15-Nov-2023

Initial Calibration Date:

01-Mar-2023

Extraction Date: 29-Apr-2024

Instrument ID:

LCMS/MS

Analysis Date: 30-Apr-2024 Time: 19:26:21

Column ID:

C18

Extract Volume (uL): 4000

Sample Data Filename:

FC4L\_129 S: 25

Injection Volume (uL): 2

Blank Data Filename:

FC4L\_129 S: 21

Dilution Factor: N/A

Cal. Ver. Data Filename:

FC4L\_129 S: 15

Concentration Units: ng/g (dry weight basis)

% Moisture:

14.6

This page is part of a total report that contains information necessary for accreditation compliance.  
Results are compliant with NELAP accreditation described in the total report. Sample results relate only to the sample tested.

| COMPOUND     | LAB FLAG <sup>1</sup> | CONC. FOUND | REPORTING LIMIT (RL) <sup>2</sup> | RATIO | RRT   |
|--------------|-----------------------|-------------|-----------------------------------|-------|-------|
| PFBA         | J                     | 1.95        | 1.86 (Q)                          |       | 1.008 |
| PFPeA        | J                     | 1.60        | 0.932 (Q)                         |       | 1.001 |
| PFHxA        |                       | 5.05        | 0.466 (Q)                         | 4.92  | 1.000 |
| PFHpA        | U                     |             | 0.466 (Q)                         |       |       |
| PFOA         | J                     | 1.67        | 0.466 (Q)                         | 2.17  |       |
| PFNA         | J                     | 0.500       | 0.466 (Q)                         | 2.69  |       |
| PFDA         |                       | 3.23        | 0.466 (Q)                         | 3.22  | 1.000 |
| PFUnA        | J                     | 1.25        | 0.466 (Q)                         | 6.31  | 1.000 |
| PFDoA        |                       | 2.14        | 0.373 (Q)                         | 7.30  | 1.000 |
| PFTTrDA      | R J                   | 1.32        | 0.466 (Q)                         | 4.98  | 0.957 |
| PFTeDA       | R                     | 1.87        | 0.473 (S)                         | 6.00  | 1.001 |
| PFBS         | R                     | 7.40        | 0.466 (Q)                         | 64.0  | 0.998 |
| PFPeS        | U                     |             | 0.468 (Q)                         |       |       |
| PFHxS        | U                     |             | 0.466 (Q)                         |       |       |
| PFHpS        | U                     |             | 0.466 (Q)                         |       |       |
| PFOS         |                       | 8.39        | 0.466 (Q)                         | 3.15  |       |
| PFNS         | U                     |             | 0.466 (Q)                         |       |       |
| PFDS         |                       | 2.11        | 0.466 (Q)                         | 3.40  | 1.081 |
| PFDoS        | U                     |             | 0.466 (Q)                         |       |       |
| 4:2 FTS      | U                     |             | 1.86 (Q)                          |       |       |
| 6:2 FTS      | U                     |             | 1.68 (Q)                          |       |       |
| 8:2 FTS      | U                     |             | 1.58 (Q)                          |       |       |
| PFOSA        | J                     | 0.800       | 0.466 (Q)                         |       |       |
| N-MeFOSA     | R J                   | 0.787       | 0.466 (Q)                         | 1.01  |       |
| N-EtFOSA     | U                     |             | 1.30 (Q)                          |       |       |
| MeFOSAA      |                       | 4.69        | 0.466 (Q)                         | 1.79  |       |
| EtFOSAA      |                       | 3.74        | 0.466 (Q)                         | 1.21  |       |
| N-MeFOSE     | J                     | 6.61        | 4.66 (Q)                          |       |       |
| N-EtFOSE     | U                     |             | 4.66 (Q)                          |       |       |
| HFPO-DA      | U                     |             | 1.86 (Q)                          |       |       |
| ADONA        | U                     |             | 1.86 (Q)                          |       |       |
| 9CI-PF3ONS   | U                     |             | 1.87 (Q)                          |       |       |
| 11CI-PF3OUdS | U                     |             | 1.87 (Q)                          |       |       |
| 3:3 FTCA     | U                     |             | 1.86 (Q)                          |       |       |
| 5:3 FTCA     | J                     | 17.4        | 11.6 (Q)                          | 1.29  | 1.057 |
| 7:3 FTCA     | U                     |             | 11.6 (Q)                          |       |       |
| PFEESA       | U                     |             | 0.466 (Q)                         |       |       |
| PFMPA        | U                     |             | 0.932 (Q)                         |       |       |
| PFMBA        | U                     |             | 0.466 (Q)                         |       |       |

**NFDHA**

U

0.932 (Q)

- (1) Where applicable, custom lab flags have been used on this report; U = not detected at RL; R = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration; J = concentration less than limit of quantification.
- (2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: \_\_\_\_\_Aaron Kyle\_\_\_\_\_

For Axs Internal Use Only [ XSL Template: FC2-Form1A.xsl; Created: 31-May-2024 11:59:36; Application: XMLTransformer-1.18.50; Report Filename: PFC\_FC\_LC\_PFAS\_L40547-2\_Form1A\_FC4L\_129S25\_SJ3428410.html; Workgroup: WG89476; Design ID: 4411 ]

SGS AXYS METHOD MLA-110 Rev 02

Form 2

CLIENT SAMPLE NO.  
HUWWTP-BIOS\_MIS (FC10214-2)Sample Collection:  
28-Sep-2023 11:00

## PERFLUORINATED ORGANICS ANALYSIS REPORT

## SGS AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA  
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.: 4066

Project No.

WWTP BIOS AND COMP

Lab Sample I.D.:

L40547-2

Matrix: BIOSOLIDS HUMAN

Sample Size:

4.29 g (dry)

Sample Receipt Date: 15-Nov-2023

Initial Calibration Date:

01-Mar-2023

Extraction Date: 29-Apr-2024

Instrument ID:

LCMS/MS

Analysis Date: 30-Apr-2024 Time: 19:26:21

Column ID:

C18

Extract Volume (uL): 4000

Sample Data Filename:

FC4L\_129 S: 25

Injection Volume (uL): 2

Blank Data Filename:

FC4L\_129 S: 21

Dilution Factor: N/A

Cal. Ver. Data Filename:

FC4L\_129 S: 15

Concentration Units: ng absolute

% Moisture:

14.6

This page is part of a total report that contains information necessary for accreditation compliance.  
Results are compliant with NELAP accreditation described in the total report. Sample results relate only to the sample tested.

| LABELED COMPOUND | LAB FLAG <sup>1</sup> | SPIKE CONC. | CONC. FOUND | R(%) <sup>2</sup> | RATIO | RRT   |
|------------------|-----------------------|-------------|-------------|-------------------|-------|-------|
| 13C4-PFBA        |                       | 400         | 339         | 84.8              |       | 0.996 |
| 13C5-PFPeA       |                       | 200         | 149         | 74.7              |       | 0.851 |
| 13C5-PFHxA       |                       | 100         | 85.9        | 85.9              | 14.1  | 0.999 |
| 13C4-PFHpA       |                       | 100         | 95.6        | 95.6              |       | 0.884 |
| 13C8-PFOA        |                       | 100         | 80.7        | 80.7              |       | 0.999 |
| 13C9-PFNA        |                       | 50.0        | 46.0        | 92.0              |       | 1.000 |
| 13C6-PFDA        |                       | 50.0        | 42.9        | 85.7              |       | 0.999 |
| 13C7-PFUnA       |                       | 50.0        | 33.4        | 66.7              |       | 1.044 |
| 13C2-PFDoA       |                       | 50.0        | 23.6        | 47.2              |       | 1.078 |
| 13C2-PFTeDA      |                       | 50.0        | 11.5        | 22.9              |       | 1.171 |
| 13C3-PFBS        |                       | 100         | 98.3        | 98.1              | 2.72  | 0.783 |
| 13C3-PFHxS       |                       | 100         | 92.9        | 92.8              | 2.51  | 1.000 |
| 13C8-PFOS        |                       | 101         | 88.2        | 87.7              | 2.12  | 1.000 |
| 13C2-4:2 FTS     | V                     | 202         | 419         | 208               | 1.88  | 0.823 |
| 13C2-6:2 FTS     |                       | 200         | 163         | 81.6              | 2.29  | 1.002 |
| 13C2-8:2 FTS     |                       | 200         | 220         | 110               | 3.24  | 1.269 |
| 13C8-PFOSA       |                       | 100         | 121         | 121               |       | 1.162 |
| D3-N-MeFOSA      |                       | 100         | 37.3        | 37.3              |       | 1.347 |
| D5-N-EtFOSA      |                       | 100         | 28.7        | 28.7              |       | 1.380 |
| D3-MeFOSAA       | V                     | 200         | 486         | 243               |       | 1.313 |
| D5-EtFOSAA       | V                     | 200         | 488         | 244               |       | 1.337 |
| d7-NMe-FOSE      |                       | 1000        | 469         | 46.7              |       | 1.330 |
| d9-NEt-FOSE      |                       | 1000        | 489         | 48.9              |       | 1.366 |
| 13C3-HFPO-DA     |                       | 400         | 211         | 52.7              | 3.06  | 1.032 |

(1) Where applicable, custom lab flags have been used on this report; V = surrogate recovery is not within method/contract control limits.

(2) R(%) = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: \_\_\_\_\_ Aaron Kyle \_\_\_\_\_

SGS AXYS METHOD MLA-110 Rev 02

Form 1A

CLIENT SAMPLE NO.  
LAWWTP-BIOS\_MIS (FC10214-3)Sample Collection:  
20-Sep-2023 12:00

## PERFLUORINATED ORGANICS ANALYSIS REPORT

## SGS AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA  
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.

WWTP BIOS AND COMP

Contract No.: 4066

Lab Sample I.D.:

L40547-3

Matrix: BIOSOLIDS HUMAN

Sample Size:

2.24 g (dry)

Sample Receipt Date: 15-Nov-2023

Initial Calibration Date:

01-Mar-2023

Extraction Date: 29-Apr-2024

Instrument ID:

LCMS/MS

Analysis Date: 30-Apr-2024 Time: 19:39:42

Column ID:

C18

Extract Volume (uL): 4000

Sample Data Filename:

FC4L\_129 S: 26

Injection Volume (uL): 2

Blank Data Filename:

FC4L\_129 S: 21

Dilution Factor: N/A

Cal. Ver. Data Filename:

FC4L\_129 S: 15

Concentration Units: ng/g (dry weight basis)

% Moisture:

55.4

This page is part of a total report that contains information necessary for accreditation compliance.  
Results are compliant with NELAP accreditation described in the total report. Sample results relate only to the sample tested.

| COMPOUND     | LAB FLAG <sup>1</sup> | CONC. FOUND | REPORTING LIMIT (RL) <sup>2</sup> | RATIO | RRT   |
|--------------|-----------------------|-------------|-----------------------------------|-------|-------|
| PFBA         | U                     |             | 3.57 (Q)                          |       |       |
| PFPeA        | J                     | 2.68        | 1.78 (Q)                          |       | 1.001 |
| PFHxA        |                       | 4.57        | 0.891 (Q)                         | 5.28  | 1.000 |
| PFHpA        | U                     |             | 0.891 (Q)                         |       |       |
| PFOA         | J                     | 2.19        | 0.891 (Q)                         | 2.37  |       |
| PFNA         | U                     |             | 0.891 (Q)                         |       |       |
| PFDA         |                       | 5.65        | 0.891 (Q)                         | 2.90  | 1.000 |
| PFUnA        | J                     | 1.23        | 0.891 (Q)                         | 6.61  | 1.000 |
| PFDoA        | J                     | 2.95        | 0.713 (Q)                         | 7.92  | 0.999 |
| PFTTrDA      | U                     |             | 0.891 (Q)                         |       |       |
| PFTTeDA      | J                     | 1.38        | 0.891 (Q)                         | 2.72  | 1.000 |
| PFBS         | J                     | 1.04        | 0.891 (Q)                         | 2.65  | 1.001 |
| PFPeS        | U                     |             | 0.896 (Q)                         |       |       |
| PFHxS        | U                     |             | 0.891 (Q)                         |       |       |
| PFHpS        | U                     |             | 0.891 (Q)                         |       |       |
| PFOS         |                       | 4.73        | 0.891 (Q)                         | 2.59  |       |
| PFNS         | U                     |             | 0.891 (Q)                         |       |       |
| PFDS         | U                     |             | 0.891 (Q)                         |       |       |
| PFDoS        | U                     |             | 0.891 (Q)                         |       |       |
| 4:2 FTS      | U                     |             | 3.57 (Q)                          |       |       |
| 6:2 FTS      | U                     |             | 3.21 (Q)                          |       |       |
| 8:2 FTS      | U                     |             | 3.03 (Q)                          |       |       |
| PFOSA        | U                     |             | 0.891 (Q)                         |       |       |
| N-MeFOSA     | U                     |             | 0.891 (Q)                         |       |       |
| N-EtFOSA     | U                     |             | 2.50 (Q)                          |       |       |
| MeFOSAA      | J                     | 2.90        | 0.891 (Q)                         | 1.85  |       |
| EtFOSAA      | J                     | 1.25        | 0.891 (Q)                         | 1.28  |       |
| N-MeFOSE     | U                     |             | 8.91 (Q)                          |       |       |
| N-EtFOSE     | U                     |             | 8.91 (Q)                          |       |       |
| HFPO-DA      | U                     |             | 3.57 (Q)                          |       |       |
| ADONA        | U                     |             | 3.57 (Q)                          |       |       |
| 9Cl-PF3ONS   | U                     |             | 3.57 (Q)                          |       |       |
| 11Cl-PF3OUdS | U                     |             | 3.57 (Q)                          |       |       |
| 3:3 FTCA     | U                     |             | 3.57 (Q)                          |       |       |
| 5:3 FTCA     | J                     | 28.5        | 22.3 (Q)                          | 1.40  | 1.056 |
| 7:3 FTCA     | U                     |             | 22.3 (Q)                          |       |       |
| PFEESA       | U                     |             | 0.891 (Q)                         |       |       |
| PFMPA        | U                     |             | 1.78 (Q)                          |       |       |
| PFMBA        | U                     |             | 0.891 (Q)                         |       |       |

**NFDHA**

U

1.78 (Q)

- (1) Where applicable, custom lab flags have been used on this report; U = not detected at RL; J = concentration less than limit of quantification.
- (2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: \_\_\_\_\_Aaron Kyle\_\_\_\_\_

For Axy's Internal Use Only [ XSL Template: FC2-Form1A.xsl; Created: 31-May-2024 11:59:36; Application: XMLTransformer-1.18.50; Report Filename: PFC\_FC\_LC\_PFAS\_L40547-3\_Form1A\_FC4L\_129S26\_SJ3428411.html; Workgroup: WG89476; Design ID: 4411 ]

SGS AXYS METHOD MLA-110 Rev 02

Form 2

CLIENT SAMPLE NO.  
LAWWTP-BIOS\_MIS (FC10214-3)Sample Collection:  
20-Sep-2023 12:00

## PERFLUORINATED ORGANICS ANALYSIS REPORT

## SGS AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA  
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.

WWTP BIOS AND COMP

Contract No.: 4066

Lab Sample I.D.:

L40547-3

Matrix: BIOSOLIDS HUMAN

Sample Size:

2.24 g (dry)

Sample Receipt Date: 15-Nov-2023

Initial Calibration Date:

01-Mar-2023

Extraction Date: 29-Apr-2024

Instrument ID:

LCMS/MS

Analysis Date: 30-Apr-2024 Time: 19:39:42

Column ID:

C18

Extract Volume (uL): 4000

Sample Data Filename:

FC4L\_129 S: 26

Injection Volume (uL): 2

Blank Data Filename:

FC4L\_129 S: 21

Dilution Factor: N/A

Cal. Ver. Data Filename:

FC4L\_129 S: 15

Concentration Units: ng absolute

% Moisture:

55.4

This page is part of a total report that contains information necessary for accreditation compliance.  
Results are compliant with NELAP accreditation described in the total report. Sample results relate only to the sample tested.

| LABELED COMPOUND | LAB FLAG <sup>1</sup> | SPIKE CONC. | CONC. FOUND | R(%) <sup>2</sup> | RATIO | RRT   |
|------------------|-----------------------|-------------|-------------|-------------------|-------|-------|
| 13C4-PFBA        |                       | 400         | 343         | 85.6              |       | 0.996 |
| 13C5-PFPeA       |                       | 200         | 154         | 77.2              |       | 0.852 |
| 13C5-PFHxA       |                       | 100         | 89.4        | 89.4              | 15.2  | 1.000 |
| 13C4-PFHpA       |                       | 100         | 98.9        | 98.9              |       | 0.885 |
| 13C8-PFOA        |                       | 100         | 80.6        | 80.6              |       | 1.000 |
| 13C9-PFNA        |                       | 50.0        | 47.7        | 95.4              |       | 1.000 |
| 13C6-PFDA        |                       | 50.0        | 44.3        | 88.5              |       | 1.000 |
| 13C7-PFUnA       |                       | 50.0        | 46.0        | 91.9              |       | 1.046 |
| 13C2-PFDoA       |                       | 50.0        | 42.6        | 85.1              |       | 1.082 |
| 13C2-PFTeDA      |                       | 50.0        | 16.9        | 33.8              |       | 1.171 |
| 13C3-PFBS        |                       | 100         | 94.9        | 94.8              | 2.64  | 0.782 |
| 13C3-PFHxS       |                       | 100         | 89.0        | 88.9              | 2.37  | 1.000 |
| 13C8-PFOS        |                       | 101         | 88.9        | 88.3              | 2.11  | 1.000 |
| 13C2-4:2 FTS     | V                     | 202         | 417         | 207               | 1.92  | 0.822 |
| 13C2-6:2 FTS     |                       | 200         | 163         | 81.4              | 2.11  | 1.001 |
| 13C2-8:2 FTS     |                       | 200         | 215         | 107               | 3.43  | 1.268 |
| 13C8-PFOSA       |                       | 100         | 129         | 129               |       | 1.161 |
| D3-N-MeFOSA      |                       | 100         | 54.5        | 54.5              |       | 1.345 |
| D5-N-EtFOSA      |                       | 100         | 40.6        | 40.6              |       | 1.379 |
| D3-MeFOSAA       | V                     | 200         | 415         | 208               |       | 1.312 |
| D5-EtFOSAA       | V                     | 200         | 477         | 239               |       | 1.336 |
| d7-NMe-FOSE      |                       | 1000        | 745         | 74.3              |       | 1.329 |
| d9-NEt-FOSE      |                       | 1000        | 742         | 74.1              |       | 1.364 |
| 13C3-HFPO-DA     |                       | 400         | 220         | 55.1              | 2.99  | 1.033 |

(1) Where applicable, custom lab flags have been used on this report; V = surrogate recovery is not within method/contract control limits.

(2) R(%) = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: \_\_\_\_\_ Aaron Kyle \_\_\_\_\_

SGS AXYS METHOD MLA-110 Rev 02

Form 1A

## PERFLUORINATED ORGANICS ANALYSIS REPORT

CLIENT SAMPLE NO.  
LAWWTP-COMP\_MIS (FC10214-4)Sample Collection:  
20-Sep-2023 12:00

## SGS AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA  
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.: 4066

Project No.

WWTP BIOS AND COMP

Lab Sample I.D.:

L40547-4

Matrix: COMPOST

Sample Size:

4.42 g (dry)

Sample Receipt Date: 15-Nov-2023

Initial Calibration Date:

01-Mar-2023

Extraction Date: 29-Apr-2024

Instrument ID:

LCMS/MS

Analysis Date: 30-Apr-2024 Time: 19:53:03

Column ID:

C18

Extract Volume (uL): 4000

Sample Data Filename:

FC4L\_129 S: 27

Injection Volume (uL): 2

Blank Data Filename:

FC4L\_129 S: 21

Dilution Factor: N/A

Cal. Ver. Data Filename:

FC4L\_129 S: 15

Concentration Units: ng/g (dry weight basis)

% Moisture:

12.3

This page is part of a total report that contains information necessary for accreditation compliance.  
Results are compliant with NELAP accreditation described in the total report. Sample results relate only to the sample tested.

| COMPOUND     | LAB FLAG <sup>1</sup> | CONC. FOUND | REPORTING LIMIT (RL) <sup>2</sup> | RATIO | RRT   |
|--------------|-----------------------|-------------|-----------------------------------|-------|-------|
| PFBA         | J                     | 4.99        | 1.81 (Q)                          |       | 1.004 |
| PFPeA        |                       | 9.53        | 0.904 (Q)                         |       | 1.000 |
| PFHxA        |                       | 13.5        | 0.452 (Q)                         | 5.17  | 1.000 |
| PFHpA        | J                     | 1.50        | 0.452 (Q)                         | 2.41  | 1.000 |
| PFOA         |                       | 5.46        | 0.452 (Q)                         | 2.06  |       |
| PFNA         | J                     | 1.04        | 0.452 (Q)                         | 3.58  |       |
| PFDA         |                       | 4.37        | 0.452 (Q)                         | 2.78  | 1.000 |
| PFUnA        | J                     | 0.904       | 0.452 (Q)                         | 5.29  | 0.999 |
| PFDoA        |                       | 2.12        | 0.362 (Q)                         | 6.99  | 1.000 |
| PFTTrDA      | U                     |             | 0.452 (Q)                         |       |       |
| PFTTeDA      | J                     | 0.907       | 0.452 (Q)                         | 2.47  | 1.000 |
| PFBS         |                       | 7.77        | 0.452 (Q)                         | 2.77  | 1.000 |
| PFPeS        | U                     |             | 0.454 (Q)                         |       |       |
| PFHxS        | U                     |             | 0.452 (Q)                         |       |       |
| PFHpS        | U                     |             | 0.452 (Q)                         |       |       |
| PFOS         |                       | 4.85        | 0.452 (Q)                         | 3.01  |       |
| PFNS         | U                     |             | 0.452 (Q)                         |       |       |
| PFDS         | U                     |             | 0.452 (Q)                         |       |       |
| PFDoS        | U                     |             | 0.452 (Q)                         |       |       |
| 4:2 FTS      | U                     |             | 1.81 (Q)                          |       |       |
| 6:2 FTS      | U                     |             | 1.63 (Q)                          |       |       |
| 8:2 FTS      | U                     |             | 1.54 (Q)                          |       |       |
| PFOSA        | U                     |             | 0.452 (Q)                         |       |       |
| N-MeFOSA     | R J                   | 0.731       | 0.452 (Q)                         | 1.22  |       |
| N-EtFOSA     | U                     |             | 1.27 (Q)                          |       |       |
| MeFOSAA      | U                     |             | 0.452 (Q)                         |       |       |
| EtFOSAA      | J                     | 0.591       | 0.452 (Q)                         | 1.48  |       |
| N-MeFOSE     | U                     |             | 4.52 (Q)                          |       |       |
| N-EtFOSE     | U                     |             | 4.52 (Q)                          |       |       |
| HFPO-DA      | U                     |             | 1.81 (Q)                          |       |       |
| ADONA        | U                     |             | 1.81 (Q)                          |       |       |
| 9CI-PF3ONS   | U                     |             | 1.81 (Q)                          |       |       |
| 11CI-PF3OUdS | U                     |             | 1.81 (Q)                          |       |       |
| 3:3 FTCA     | U                     |             | 1.81 (Q)                          |       |       |
| 5:3 FTCA     | U                     |             | 11.3 (Q)                          |       |       |
| 7:3 FTCA     | U                     |             | 11.3 (Q)                          |       |       |
| PFEESA       | U                     |             | 0.452 (Q)                         |       |       |
| PFMPA        | U                     |             | 0.904 (Q)                         |       |       |
| PFMBA        | U                     |             | 0.452 (Q)                         |       |       |

**NFDHA**

U

0.904 (Q)

- (1) Where applicable, custom lab flags have been used on this report; U = not detected at RL; R = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration; J = concentration less than limit of quantification.
- (2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: \_\_\_\_\_Aaron Kyle\_\_\_\_\_

For Axs Internal Use Only [ XSL Template: FC2-Form1A.xsl; Created: 31-May-2024 11:59:36; Application: XMLTransformer-1.18.50; Report Filename: PFC\_FC\_LC\_PFAS\_L40547-4\_Form1A\_FC4L\_129S27\_SJ3428412.html; Workgroup: WG89476; Design ID: 4411 ]

SGS AXYS METHOD MLA-110 Rev 02

Form 2

CLIENT SAMPLE NO.  
LAWWTP-COMP\_MIS (FC10214-4)Sample Collection:  
20-Sep-2023 12:00

## PERFLUORINATED ORGANICS ANALYSIS REPORT

## SGS AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA  
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.: 4066

Project No.

WWTP BIOS AND COMP

Lab Sample I.D.:

L40547-4

Matrix: COMPOST

Sample Size:

4.42 g (dry)

Sample Receipt Date: 15-Nov-2023

Initial Calibration Date:

01-Mar-2023

Extraction Date: 29-Apr-2024

Instrument ID:

LCMS/MS

Analysis Date: 30-Apr-2024 Time: 19:53:03

Column ID:

C18

Extract Volume (uL): 4000

Sample Data Filename:

FC4L\_129 S: 27

Injection Volume (uL): 2

Blank Data Filename:

FC4L\_129 S: 21

Dilution Factor: N/A

Cal. Ver. Data Filename:

FC4L\_129 S: 15

Concentration Units: ng absolute

% Moisture:

12.3

This page is part of a total report that contains information necessary for accreditation compliance.  
Results are compliant with NELAP accreditation described in the total report. Sample results relate only to the sample tested.

| LABELED COMPOUND | LAB FLAG <sup>1</sup> | SPIKE CONC. | CONC. FOUND | R(%) <sup>2</sup> | RATIO | RRT   |
|------------------|-----------------------|-------------|-------------|-------------------|-------|-------|
| 13C4-PFBA        |                       | 400         | 354         | 88.4              |       | 1.000 |
| 13C5-PFPeA       |                       | 200         | 153         | 76.5              |       | 0.852 |
| 13C5-PFHxA       |                       | 100         | 89.9        | 89.9              | 15.3  | 1.000 |
| 13C4-PFHpA       |                       | 100         | 97.0        | 97.0              |       | 0.885 |
| 13C8-PFOA        |                       | 100         | 83.3        | 83.3              |       | 1.000 |
| 13C9-PFNA        |                       | 50.0        | 47.2        | 94.4              |       | 1.000 |
| 13C6-PFDA        |                       | 50.0        | 43.3        | 86.5              |       | 0.999 |
| 13C7-PFUnA       |                       | 50.0        | 46.9        | 93.8              |       | 1.046 |
| 13C2-PFDoA       |                       | 50.0        | 43.9        | 87.9              |       | 1.082 |
| 13C2-PFTeDA      |                       | 50.0        | 31.4        | 62.8              |       | 1.171 |
| 13C3-PFBS        |                       | 100         | 96.1        | 95.9              | 2.72  | 0.782 |
| 13C3-PFHxS       |                       | 100         | 87.7        | 87.5              | 2.39  | 1.000 |
| 13C8-PFOS        |                       | 101         | 94.3        | 93.7              | 2.22  | 0.999 |
| 13C2-4:2 FTS     |                       | 202         | 216         | 107               | 1.79  | 0.823 |
| 13C2-6:2 FTS     |                       | 200         | 156         | 78.1              | 2.03  | 1.002 |
| 13C2-8:2 FTS     |                       | 200         | 177         | 88.3              | 3.43  | 1.269 |
| 13C8-PFOSA       |                       | 100         | 129         | 129               |       | 1.161 |
| D3-N-MeFOSA      |                       | 100         | 84.5        | 84.5              |       | 1.345 |
| D5-N-EtFOSA      |                       | 100         | 71.6        | 71.6              |       | 1.379 |
| D3-MeFOSAA       | V                     | 200         | 313         | 157               |       | 1.313 |
| D5-EtFOSAA       | V                     | 200         | 361         | 180               |       | 1.337 |
| d7-NMe-FOSE      |                       | 1000        | 1320        | 131               |       | 1.329 |
| d9-NEt-FOSE      |                       | 1000        | 1210        | 120               |       | 1.365 |
| 13C3-HFPO-DA     |                       | 400         | 225         | 56.3              | 2.94  | 1.033 |

(1) Where applicable, custom lab flags have been used on this report; V = surrogate recovery is not within method/contract control limits.

(2) R(%) = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: \_\_\_\_\_ Aaron Kyle \_\_\_\_\_

SGS AXYS METHOD MLA-110 Rev 02

Form 1A

CLIENT SAMPLE NO.

Lab Blank

Sample Collection:

N/A

## PERFLUORINATED ORGANICS ANALYSIS REPORT

## SGS AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA  
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.: 4066

Project No.

N/A

Lab Sample I.D.:

WG89476-101

Matrix: SOLID

Sample Size:

5.00 g

Sample Receipt Date: N/A

Initial Calibration Date:

01-Mar-2023

Extraction Date: 29-Apr-2024

Instrument ID:

LCMS/MS

Analysis Date: 30-Apr-2024 Time: 18:32:32

Column ID:

C18

Extract Volume (uL): 4000

Sample Data Filename:

FC4L\_129 S: 21

Injection Volume (uL): 2

Blank Data Filename:

FC4L\_129 S: 21

Dilution Factor: N/A

Cal. Ver. Data Filename:

FC4L\_129 S: 15

Concentration Units: ng/g

This page is part of a total report that contains information necessary for accreditation compliance.  
Results are compliant with NELAP accreditation described in the total report. Sample results relate only to the sample tested.

| COMPOUND     | LAB FLAG <sup>1</sup> | CONC. FOUND | REPORTING LIMIT (RL) <sup>2</sup> | RATIO | RRT |
|--------------|-----------------------|-------------|-----------------------------------|-------|-----|
| PFBA         | U                     |             | 1.60 (Q)                          |       |     |
| PFPeA        | U                     |             | 0.800 (Q)                         |       |     |
| PFHxA        | U                     |             | 0.400 (Q)                         |       |     |
| PFHpA        | U                     |             | 0.400 (Q)                         |       |     |
| PFOA         | U                     |             | 0.400 (Q)                         |       |     |
| PFNA         | U                     |             | 0.400 (Q)                         |       |     |
| PFDA         | U                     |             | 0.400 (Q)                         |       |     |
| PFUnA        | U                     |             | 0.400 (Q)                         |       |     |
| PFDoA        | U                     |             | 0.320 (Q)                         |       |     |
| PFTTrDA      | U                     |             | 0.400 (Q)                         |       |     |
| PFTeDA       | U                     |             | 0.400 (Q)                         |       |     |
| PFBS         | U                     |             | 0.400 (Q)                         |       |     |
| PFPeS        | U                     |             | 0.402 (Q)                         |       |     |
| PFHxS        | U                     |             | 0.400 (Q)                         |       |     |
| PFHpS        | U                     |             | 0.400 (Q)                         |       |     |
| PFOS         | U                     |             | 0.400 (Q)                         |       |     |
| PFNS         | U                     |             | 0.400 (Q)                         |       |     |
| PFDS         | U                     |             | 0.400 (Q)                         |       |     |
| PFDoS        | U                     |             | 0.400 (Q)                         |       |     |
| 4:2 FTS      | U                     |             | 1.60 (Q)                          |       |     |
| 6:2 FTS      | U                     |             | 1.44 (Q)                          |       |     |
| 8:2 FTS      | U                     |             | 1.36 (Q)                          |       |     |
| PFOSA        | U                     |             | 0.400 (Q)                         |       |     |
| N-MeFOSA     | U                     |             | 0.400 (Q)                         |       |     |
| N-EtFOSA     | U                     |             | 1.12 (Q)                          |       |     |
| MeFOSAA      | U                     |             | 0.400 (Q)                         |       |     |
| EtFOSAA      | U                     |             | 0.400 (Q)                         |       |     |
| N-MeFOSE     | U                     |             | 4.00 (Q)                          |       |     |
| N-EtFOSE     | U                     |             | 4.00 (Q)                          |       |     |
| HFPO-DA      | U                     |             | 1.60 (Q)                          |       |     |
| ADONA        | U                     |             | 1.60 (Q)                          |       |     |
| 9CI-PF3ONS   | U                     |             | 1.60 (Q)                          |       |     |
| 11CI-PF3OUdS | U                     |             | 1.60 (Q)                          |       |     |
| 3:3 FTCA     | U                     |             | 1.60 (Q)                          |       |     |
| 5:3 FTCA     | U                     |             | 10.0 (Q)                          |       |     |
| 7:3 FTCA     | U                     |             | 10.0 (Q)                          |       |     |
| PFEESA       | U                     |             | 0.400 (Q)                         |       |     |
| PFMPA        | U                     |             | 0.800 (Q)                         |       |     |
| PFMBA        | U                     |             | 0.400 (Q)                         |       |     |
| NFDHA        | U                     |             | 0.800 (Q)                         |       |     |

- (1) Where applicable, custom lab flags have been used on this report; U = not detected at RL.
- (2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: \_\_\_\_\_Aaron Kyle\_\_\_\_\_

For Axs Internal Use Only [ XSL Template: FC2-Form1A.xsl; Created: 31-May-2024 11:59:36; Application: XMLTransformer-1.18.50;  
Report Filename: PFC\_FC\_LC\_PFAS\_WG89476-101\_Form1A\_FC4L\_129S21\_SJ3428405.html; Workgroup: WG89476; Design ID: 4411 ]

SGS AXYS METHOD MLA-110 Rev 02

Form 2

CLIENT SAMPLE NO.

Lab Blank

Sample Collection:

N/A

## PERFLUORINATED ORGANICS ANALYSIS REPORT

## SGS AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA  
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.: 4066

Project No.

N/A

Lab Sample I.D.:

WG89476-101

Matrix: SOLID

Sample Size:

5.00 g

Sample Receipt Date: N/A

Initial Calibration Date:

01-Mar-2023

Extraction Date: 29-Apr-2024

Instrument ID:

LCMS/MS

Analysis Date: 30-Apr-2024 Time: 18:32:32

Column ID:

C18

Extract Volume (uL): 4000

Sample Data Filename:

FC4L\_129 S: 21

Injection Volume (uL): 2

Blank Data Filename:

FC4L\_129 S: 21

Dilution Factor: N/A

Cal. Ver. Data Filename:

FC4L\_129 S: 15

Concentration Units: ng absolute

This page is part of a total report that contains information necessary for accreditation compliance.  
Results are compliant with NELAP accreditation described in the total report. Sample results relate only to the sample tested.

| LABELED COMPOUND | LAB FLAG <sup>1</sup> | SPIKE CONC. | CONC. FOUND | R(%) <sup>2</sup> | RATIO | RRT   |
|------------------|-----------------------|-------------|-------------|-------------------|-------|-------|
| 13C4-PFBA        |                       | 400         | 370         | 92.4              |       | 0.996 |
| 13C5-PFPeA       |                       | 200         | 162         | 81.1              |       | 0.853 |
| 13C5-PFHxA       |                       | 100         | 95.3        | 95.3              | 14.6  | 1.000 |
| 13C4-PFHpA       |                       | 100         | 107         | 107               |       | 0.884 |
| 13C8-PFOA        |                       | 100         | 86.8        | 86.8              |       | 1.000 |
| 13C9-PFNA        |                       | 50.0        | 48.9        | 97.8              |       | 1.000 |
| 13C6-PFDA        |                       | 50.0        | 44.9        | 89.9              |       | 1.000 |
| 13C7-PFUnA       |                       | 50.0        | 45.3        | 90.6              |       | 1.045 |
| 13C2-PFDoA       |                       | 50.0        | 42.7        | 85.4              |       | 1.081 |
| 13C2-PFTeDA      |                       | 50.0        | 29.5        | 59.1              |       | 1.170 |
| 13C3-PFBS        |                       | 100         | 102         | 102               | 2.80  | 0.782 |
| 13C3-PFHxS       |                       | 100         | 95.6        | 95.4              | 2.47  | 1.000 |
| 13C8-PFOS        |                       | 101         | 95.4        | 94.8              | 2.26  | 1.000 |
| 13C2-4:2 FTS     |                       | 202         | 212         | 105               | 1.73  | 0.822 |
| 13C2-6:2 FTS     |                       | 200         | 176         | 87.8              | 2.20  | 1.001 |
| 13C2-8:2 FTS     |                       | 200         | 204         | 102               | 3.68  | 1.268 |
| 13C8-PFOA        |                       | 100         | 111         | 111               |       | 1.162 |
| D3-N-MeFOSA      |                       | 100         | 77.0        | 77.0              |       | 1.346 |
| D5-N-EtFOSA      |                       | 100         | 70.5        | 70.5              |       | 1.379 |
| D3-MeFOSAA       |                       | 200         | 270         | 135               |       | 1.312 |
| D5-EtFOSAA       |                       | 200         | 256         | 128               |       | 1.336 |
| d7-NMe-FOSE      |                       | 1000        | 922         | 91.9              |       | 1.330 |
| d9-NEt-FOSE      |                       | 1000        | 926         | 92.5              |       | 1.366 |
| 13C3-HFPO-DA     |                       | 400         | 240         | 60.0              | 3.05  | 1.033 |

(1) Where applicable, custom lab flags have been used on this report.

(2) R(%) = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: \_\_\_\_\_Aaron Kyle\_\_\_\_\_

## SGS AXYS METHOD MLA-110 Rev 02

## Form 8A

## PERFLUORINATED ORGANICS ONGOING PRECISION AND RECOVERY (OPR)

## SGS AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA  
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

|                        |                            |                           |                |
|------------------------|----------------------------|---------------------------|----------------|
| Contract No.:          | 4066                       | Lab Sample I.D.:          | WG89476-102    |
| Matrix:                | SOLID                      | Initial Calibration Date: | 01-Mar-2023    |
| Extraction Date:       | 29-Apr-2024                | Instrument ID:            | LCMS/MS        |
| Analysis Date:         | 30-Apr-2024 Time: 18:05:33 | Column ID:                | C18            |
| Extract Volume (uL):   | 4000                       | OPR Data Filename:        | FC4L_129 S: 19 |
| Injection Volume (uL): | 2                          | Blank Data Filename:      | FC4L_129 S: 21 |
| Dilution Factor:       | N/A                        | Cal. Ver. Data Filename:  | FC4L_129 S: 15 |

ALL CONCENTRATIONS REPORTED ON THIS FORM ARE CONCENTRATIONS IN EXTRACT, BASED ON A 1 mL EXTRACT VOLUME.

| COMPOUND     | LAB FLAG <sup>1</sup> | RATIO | SPIKE CONC.<br>(ng/mL) | CONC.<br>FOUND<br>(ng/mL) | % RECOVERY | RRT   |
|--------------|-----------------------|-------|------------------------|---------------------------|------------|-------|
| PFBA         |                       |       | 200                    | 204                       | 102        | 1.004 |
| PFPeA        |                       |       | 100                    | 97.7                      | 97.7       | 1.001 |
| PFHxA        |                       | 5.61  | 50.0                   | 46.4                      | 92.9       | 1.000 |
| PFHpA        |                       | 2.27  | 50.0                   | 52.2                      | 104        | 1.000 |
| PFOA         |                       | 2.07  | 50.0                   | 49.9                      | 99.9       |       |
| PFNA         |                       | 2.95  | 50.0                   | 52.3                      | 105        |       |
| PFDA         |                       | 2.84  | 50.0                   | 49.3                      | 98.6       | 1.001 |
| PFUnA        |                       | 4.42  | 50.0                   | 55.2                      | 110        | 1.000 |
| PFDoA        |                       | 7.00  | 40.6                   | 38.4                      | 94.6       | 1.000 |
| PFTTrDA      |                       | 3.04  | 50.0                   | 49.3                      | 98.5       | 0.959 |
| PFTeDA       |                       | 2.55  | 50.0                   | 52.6                      | 105        | 1.000 |
| PFBS         |                       | 2.62  | 50.0                   | 41.8                      | 83.6       | 1.000 |
| PFPeS        |                       | 2.36  | 50.0                   | 59.8                      | 120        | 0.875 |
| PFHxS        |                       | 2.54  | 50.0                   | 45.9                      | 91.7       |       |
| PFHpS        |                       | 2.05  | 50.0                   | 46.0                      | 91.9       | 0.926 |
| PFOS         |                       | 2.67  | 50.0                   | 45.7                      | 91.4       |       |
| PFNS         |                       | 2.20  | 50.0                   | 49.0                      | 98.0       | 1.043 |
| PFDS         |                       | 2.34  | 50.0                   | 50.3                      | 101        | 1.081 |
| PFDoS        |                       | 2.05  | 50.0                   | 41.4                      | 82.8       | 1.176 |
| 4:2 FTS      |                       | 0.45  | 200                    | 211                       | 105        | 1.000 |
| 6:2 FTS      |                       | 0.41  | 180                    | 210                       | 117        | 1.000 |
| 8:2 FTS      |                       | 0.54  | 169                    | 161                       | 94.9       | 1.000 |
| PFOSA        |                       |       | 50.0                   | 50.0                      | 99.9       |       |
| N-MeFOSA     |                       | 0.53  | 50.0                   | 47.4                      | 94.8       |       |
| N-EtFOSA     |                       | 0.54  | 140                    | 133                       | 95.1       |       |
| MeFOSAA      |                       | 1.98  | 50.0                   | 43.9                      | 87.8       |       |
| EtFOSAA      |                       | 1.28  | 50.0                   | 50.9                      | 102        |       |
| N-MeFOSE     |                       |       | 500                    | 446                       | 89.1       |       |
| N-EtFOSE     |                       |       | 500                    | 435                       | 86.9       |       |
| HFPO-DA      |                       | 2.93  | 200                    | 204                       | 102        | 1.000 |
| ADONA        | N                     | 1.21  | 200                    | 274                       | 137        | 1.108 |
| 9CI-PF3ONS   |                       | 3.09  | 200                    | 227                       | 113        | 0.966 |
| 11CI-PF3OUdS |                       | 3.11  | 200                    | 204                       | 102        | 1.039 |
| 3:3 FTCA     |                       | 1.74  | 200                    | 200                       | 99.8       |       |
| 5:3 FTCA     |                       | 1.43  | 1250                   | 1130                      | 90.7       | 1.057 |

| COMPOUND | LAB<br>FLAG <sup>1</sup> | RATIO | SPIKE CONC.<br>(ng/mL) | CONC.<br>FOUND<br>(ng/mL) | % RECOVERY | RRT   |
|----------|--------------------------|-------|------------------------|---------------------------|------------|-------|
| 7:3 FTCA |                          | 0.66  | 1250                   | 709                       | 56.7       | 1.375 |
| PFEESA   |                          | 9.06  | 50.0                   | 45.1                      | 90.2       | 1.038 |
| PFMPA    |                          |       | 100                    | 101                       | 101        |       |
| PFMBA    |                          |       | 50.0                   | 51.4                      | 103        | 1.076 |
| NFDHA    |                          |       | 100                    | 49.5                      | 49.5       |       |

(1) Where applicable, custom lab flags have been used on this report; N = authentic recovery in the OPR is not within method/contract control limits.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: \_\_\_\_\_Aaron Kyle\_\_\_\_\_

These pages are part of a larger report that may contain information necessary for full data evaluation. Results reported relate only to the sample tested.

For Axys Internal Use Only [ XSL Template: FC2-Form8A.xsl; Created: 31-May-2024 11:59:36; Application: XMLTransformer-1.18.50;  
Report Filename: PFC\_FC\_LC\_PFAS\_WG89476-102\_Form8A\_SJ3428402.html; Workgroup: WG89476; Design ID: 4411 ]

## SGS AXYS METHOD MLA-110 Rev 02

## Form 8B

## PERFLUORINATED ORGANICS ONGOING PRECISION AND RECOVERY (OPR)

## SGS AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA  
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

|                               |                            |                                  |                |
|-------------------------------|----------------------------|----------------------------------|----------------|
| <b>Contract No.:</b>          | 4066                       | <b>Lab Sample I.D.:</b>          | WG89476-102    |
| <b>Matrix:</b>                | SOLID                      | <b>Initial Calibration Date:</b> | 01-Mar-2023    |
| <b>Extraction Date:</b>       | 29-Apr-2024                | <b>Instrument ID:</b>            | LCMS/MS        |
| <b>Analysis Date:</b>         | 30-Apr-2024 Time: 18:05:33 | <b>Column ID:</b>                | C18            |
| <b>Extract Volume (uL):</b>   | 4000                       | <b>OPR Data Filename:</b>        | FC4L_129 S: 19 |
| <b>Injection Volume (uL):</b> | 2                          | <b>Blank Data Filename:</b>      | FC4L_129 S: 21 |
| <b>Dilution Factor:</b>       | N/A                        | <b>Cal. Ver. Data Filename:</b>  | FC4L_129 S: 15 |

ALL CONCENTRATIONS REPORTED ON THIS FORM ARE CONCENTRATIONS IN EXTRACT, BASED ON A 1 mL EXTRACT VOLUME.

| LABELLED COMPOUND | LAB FLAG <sup>1</sup> | RATIO | SPIKE CONC. (ng/mL) | CONC. FOUND (ng/mL) | % RECOVERY | RRT   |
|-------------------|-----------------------|-------|---------------------|---------------------|------------|-------|
| 13C4-PFBA         |                       |       | 400                 | 368                 | 92.1       | 0.996 |
| 13C5-PFPeA        |                       |       | 200                 | 159                 | 79.3       | 0.852 |
| 13C5-PFHxA        |                       | 15.9  | 100                 | 95.5                | 95.5       | 1.000 |
| 13C4-PFHpA        |                       |       | 100                 | 106                 | 106        | 0.885 |
| 13C8-PFOA         |                       |       | 100                 | 90.1                | 90.1       | 1.000 |
| 13C9-PFNA         |                       |       | 50.0                | 47.4                | 94.8       | 1.000 |
| 13C6-PFDA         |                       |       | 50.0                | 44.8                | 89.6       | 0.999 |
| 13C7-PFUnA        |                       |       | 50.0                | 46.0                | 91.9       | 1.045 |
| 13C2-PFDoA        |                       |       | 50.0                | 44.8                | 89.5       | 1.081 |
| 13C2-PFTeDA       |                       |       | 50.0                | 28.8                | 57.6       | 1.170 |
| 13C3-PFBS         |                       | 2.75  | 100                 | 102                 | 102        | 0.782 |
| 13C3-PFHxS        |                       | 2.42  | 100                 | 94.3                | 94.2       | 0.999 |
| 13C8-PFOS         |                       | 2.21  | 101                 | 99.9                | 99.3       | 1.000 |
| 13C2-4:2 FTS      |                       | 1.75  | 202                 | 234                 | 116        | 0.823 |
| 13C2-6:2 FTS      |                       | 2.19  | 200                 | 186                 | 93.1       | 1.002 |
| 13C2-8:2 FTS      |                       | 3.45  | 200                 | 221                 | 110        | 1.270 |
| 13C8-PFOSA        |                       |       | 100                 | 112                 | 112        | 1.161 |
| D3-N-MeFOSA       |                       |       | 100                 | 77.3                | 77.3       | 1.345 |
| D5-N-EtFOSA       |                       |       | 100                 | 70.5                | 70.5       | 1.377 |
| D3-MeFOSAA        | V                     |       | 200                 | 306                 | 153        | 1.314 |
| D5-EtFOSAA        |                       |       | 200                 | 281                 | 140        | 1.338 |
| d7-NMe-FOSE       |                       |       | 1000                | 995                 | 99.2       | 1.329 |
| d9-NEt-FOSE       |                       |       | 1000                | 1000                | 100        | 1.364 |
| 13C3-HFPO-DA      |                       | 3.06  | 400                 | 237                 | 59.2       | 1.033 |

(1) Where applicable, custom lab flags have been used on this report; V = surrogate recovery is not within method/contract control limits.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: \_\_\_\_\_Aaron Kyle\_\_\_\_\_

These pages are part of a larger report that may contain information necessary for full data evaluation. Results reported relate only to the sample tested.

## SGS AXYS METHOD MLA-110 Rev 02

## Form 8A

## PERFLUORINATED ORGANICS ONGOING PRECISION AND RECOVERY (OPR)

## SGS AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA  
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

|                        |                            |                           |                |
|------------------------|----------------------------|---------------------------|----------------|
| Contract No.:          | 4066                       | Lab Sample I.D.:          | WG89476-103    |
| Matrix:                | SOLID                      | Initial Calibration Date: | 01-Mar-2023    |
| Extraction Date:       | 29-Apr-2024                | Instrument ID:            | LCMS/MS        |
| Analysis Date:         | 30-Apr-2024 Time: 17:52:04 | Column ID:                | C18            |
| Extract Volume (uL):   | 4000                       | OPR Data Filename:        | FC4L_129 S: 18 |
| Injection Volume (uL): | 2                          | Blank Data Filename:      | FC4L_129 S: 21 |
| Dilution Factor:       | N/A                        | Cal. Ver. Data Filename:  | FC4L_129 S: 15 |

ALL CONCENTRATIONS REPORTED ON THIS FORM ARE CONCENTRATIONS IN EXTRACT, BASED ON A 1 mL EXTRACT VOLUME.

| COMPOUND     | LAB FLAG <sup>1</sup> | RATIO | SPIKE CONC.<br>(ng/mL) | CONC.<br>FOUND<br>(ng/mL) | % RECOVERY | RRT   |
|--------------|-----------------------|-------|------------------------|---------------------------|------------|-------|
| PFBA         |                       |       | 64.0                   | 65.9                      | 103        | 1.004 |
| PFPeA        |                       |       | 32.0                   | 31.6                      | 98.8       | 1.001 |
| PFHxA        |                       | 5.35  | 16.0                   | 15.3                      | 95.8       | 1.000 |
| PFHpA        |                       | 2.10  | 16.0                   | 16.0                      | 100        | 1.001 |
| PFOA         |                       | 2.10  | 16.0                   | 16.6                      | 104        |       |
| PFNA         |                       | 3.70  | 16.0                   | 19.1                      | 119        |       |
| PFDA         |                       | 2.89  | 16.0                   | 15.4                      | 96.1       | 1.000 |
| PFUnA        |                       | 4.35  | 16.0                   | 16.3                      | 102        | 1.000 |
| PFDoA        |                       | 8.98  | 13.0                   | 13.8                      | 106        | 1.000 |
| PFTTrDA      |                       | 3.06  | 16.0                   | 16.3                      | 102        | 0.959 |
| PFTTeDA      |                       | 2.74  | 16.0                   | 17.9                      | 112        | 1.000 |
| PFBS         |                       | 2.74  | 16.0                   | 13.8                      | 86.0       | 1.001 |
| PFPeS        |                       | 2.15  | 16.0                   | 19.6                      | 122        | 0.875 |
| PFHxS        |                       | 2.90  | 16.0                   | 14.5                      | 90.6       |       |
| PFHpS        |                       | 1.66  | 16.0                   | 14.4                      | 89.7       | 0.927 |
| PFOS         |                       | 2.26  | 16.0                   | 13.6                      | 84.9       |       |
| PFNS         |                       | 2.20  | 16.0                   | 16.3                      | 102        | 1.044 |
| PFDS         |                       | 2.69  | 16.0                   | 18.9                      | 118        | 1.082 |
| PFDoS        |                       | 2.18  | 16.0                   | 14.5                      | 90.4       | 1.177 |
| 4:2 FTS      |                       | 0.40  | 64.0                   | 62.3                      | 97.3       | 1.000 |
| 6:2 FTS      |                       | 0.42  | 57.5                   | 70.6                      | 123        | 1.001 |
| 8:2 FTS      |                       | 0.45  | 54.2                   | 42.3                      | 78.0       | 1.000 |
| PFOSA        |                       |       | 16.0                   | 16.2                      | 101        |       |
| N-MeFOSA     |                       | 0.57  | 16.0                   | 14.1                      | 88.2       |       |
| N-EtFOSA     |                       | 0.57  | 44.8                   | 44.2                      | 98.6       |       |
| MeFOSAA      |                       | 2.40  | 16.0                   | 15.8                      | 98.5       |       |
| EtFOSAA      |                       | 1.52  | 16.0                   | 15.0                      | 93.5       |       |
| N-MeFOSE     |                       |       | 160                    | 143                       | 89.2       |       |
| N-EtFOSE     |                       |       | 160                    | 140                       | 87.5       |       |
| HFPO-DA      |                       | 3.19  | 64.0                   | 64.6                      | 101        | 1.000 |
| ADONA        | N                     | 1.21  | 64.0                   | 83.3                      | 130        | 1.108 |
| 9CI-PF3ONS   |                       | 3.29  | 64.0                   | 64.5                      | 101        | 0.966 |
| 11CI-PF3OUdS |                       | 3.02  | 64.0                   | 57.4                      | 89.7       | 1.039 |
| 3:3 FTCA     |                       | 1.23  | 64.0                   | 57.4                      | 89.6       |       |
| 5:3 FTCA     |                       | 1.40  | 400                    | 359                       | 89.6       | 1.057 |

| COMPOUND | LAB FLAG <sup>1</sup> | RATIO | SPIKE CONC.<br>(ng/mL) | CONC. FOUND<br>(ng/mL) | % RECOVERY | RRT   |
|----------|-----------------------|-------|------------------------|------------------------|------------|-------|
| 7:3 FTCA |                       | 0.66  | 400                    | 214                    | 53.5       | 1.375 |
| PFEESA   |                       | 7.56  | 16.0                   | 13.2                   | 82.7       | 1.038 |
| PFMPA    |                       |       | 32.0                   | 31.3                   | 97.8       |       |
| PFMBA    |                       |       | 16.0                   | 15.9                   | 99.2       | 1.076 |
| NFDHA    |                       |       | 32.0                   | 15.2                   | 47.5       |       |

(1) Where applicable, custom lab flags have been used on this report; N = authentic recovery in the OPR is not within method/contract control limits.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: \_\_\_\_\_Aaron Kyle\_\_\_\_\_

These pages are part of a larger report that may contain information necessary for full data evaluation. Results reported relate only to the sample tested.

For Axys Internal Use Only [ XSL Template: FC2-Form8A.xsl; Created: 31-May-2024 11:59:36; Application: XMLTransformer-1.18.50; Report Filename: PFC\_FC\_LC\_PFAS\_WG89476-103\_Form8A\_SJ3428400.html; Workgroup: WG89476; Design ID: 4411 ]

## SGS AXYS METHOD MLA-110 Rev 02

## Form 8B

## PERFLUORINATED ORGANICS ONGOING PRECISION AND RECOVERY (OPR)

## SGS AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA  
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

|                               |                            |                                  |                |
|-------------------------------|----------------------------|----------------------------------|----------------|
| <b>Contract No.:</b>          | 4066                       | <b>Lab Sample I.D.:</b>          | WG89476-103    |
| <b>Matrix:</b>                | SOLID                      | <b>Initial Calibration Date:</b> | 01-Mar-2023    |
| <b>Extraction Date:</b>       | 29-Apr-2024                | <b>Instrument ID:</b>            | LCMS/MS        |
| <b>Analysis Date:</b>         | 30-Apr-2024 Time: 17:52:04 | <b>Column ID:</b>                | C18            |
| <b>Extract Volume (uL):</b>   | 4000                       | <b>OPR Data Filename:</b>        | FC4L_129 S: 18 |
| <b>Injection Volume (uL):</b> | 2                          | <b>Blank Data Filename:</b>      | FC4L_129 S: 21 |
| <b>Dilution Factor:</b>       | N/A                        | <b>Cal. Ver. Data Filename:</b>  | FC4L_129 S: 15 |

ALL CONCENTRATIONS REPORTED ON THIS FORM ARE CONCENTRATIONS IN EXTRACT, BASED ON A 1 mL EXTRACT VOLUME.

| LABELLED COMPOUND | LAB FLAG <sup>1</sup> | RATIO | SPIKE CONC. (ng/mL) | CONC. FOUND (ng/mL) | % RECOVERY | RRT   |
|-------------------|-----------------------|-------|---------------------|---------------------|------------|-------|
| 13C4-PFBA         |                       |       | 400                 | 346                 | 86.4       | 1.000 |
| 13C5-PFPeA        |                       |       | 200                 | 148                 | 74.2       | 0.852 |
| 13C5-PFHxA        |                       | 14.3  | 100                 | 82.3                | 82.3       | 1.000 |
| 13C4-PFHpA        |                       |       | 100                 | 88.1                | 88.1       | 0.885 |
| 13C8-PFOA         |                       |       | 100                 | 72.0                | 72.0       | 1.000 |
| 13C9-PFNA         |                       |       | 50.0                | 36.3                | 72.5       | 1.000 |
| 13C6-PFDA         |                       |       | 50.0                | 36.4                | 72.7       | 1.000 |
| 13C7-PFUnA        |                       |       | 50.0                | 37.3                | 74.6       | 1.046 |
| 13C2-PFDoA        |                       |       | 50.0                | 32.9                | 65.9       | 1.081 |
| 13C2-PFTeDA       |                       |       | 50.0                | 22.8                | 45.5       | 1.170 |
| 13C3-PFBS         |                       | 2.49  | 100                 | 79.6                | 79.4       | 0.782 |
| 13C3-PFHxS        |                       | 2.27  | 100                 | 72.2                | 72.1       | 1.000 |
| 13C8-PFOS         |                       | 2.19  | 101                 | 72.2                | 71.7       | 0.999 |
| 13C2-4:2 FTS      |                       | 1.85  | 202                 | 183                 | 90.9       | 0.823 |
| 13C2-6:2 FTS      |                       | 2.26  | 200                 | 138                 | 69.0       | 1.002 |
| 13C2-8:2 FTS      |                       | 3.62  | 200                 | 161                 | 80.5       | 1.270 |
| 13C8-PFOSA        |                       |       | 100                 | 97.2                | 97.2       | 1.161 |
| D3-N-MeFOSA       |                       |       | 100                 | 68.8                | 68.8       | 1.345 |
| D5-N-EtFOSA       |                       |       | 100                 | 60.8                | 60.8       | 1.377 |
| D3-MeFOSAA        |                       |       | 200                 | 225                 | 112        | 1.314 |
| D5-EtFOSAA        |                       |       | 200                 | 211                 | 106        | 1.338 |
| d7-NMe-FOSE       |                       |       | 1000                | 873                 | 87.0       | 1.329 |
| d9-NEt-FOSE       |                       |       | 1000                | 894                 | 89.4       | 1.363 |
| 13C3-HFPO-DA      |                       | 3.04  | 400                 | 206                 | 51.6       | 1.033 |

(1) Where applicable, custom lab flags have been used on this report.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: \_\_\_\_\_ Aaron Kyle \_\_\_\_\_

These pages are part of a larger report that may contain information necessary for full data evaluation. Results reported relate only to the sample tested.

## SGS AXYS METHOD MLA-110 Rev 02

## Form 3A

## INITIAL CALIBRATION RELATIVE RESPONSES

## SGS AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA  
 V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date: 01-Mar-2023

Instrument ID: LC MS/MS

LC Column ID: C18

CS0 Data Filename: N/A  
 CS1 Data Filename: FC3L\_107 S: 16  
 CS2 Data Filename: FC3L\_107 S: 17  
 CS3 Data Filename: FC3L\_107 S: 18  
 CS4 Data Filename: FC3L\_107 S: 19  
 CS5 Data Filename: FC3L\_107 S: 20  
 CS6 Data Filename: FC3L\_107 S: 21  
 CS7 Data Filename: FC3L\_107 S: 22  
 CS8 Data Filename: FC3L\_107 S: 23

| COMPOUND     | LAB<br>FLAG <sup>1</sup> | RELATIVE RESPONSE (RR) |      |      |      |      |      |      |      | MEAN<br>RR | CV<br>(%RSD) <sup>2</sup> |
|--------------|--------------------------|------------------------|------|------|------|------|------|------|------|------------|---------------------------|
|              |                          | CS0                    | CS1  | CS2  | CS3  | CS4  | CS5  | CS6  | CS7  |            |                           |
| PFBA         |                          | 0.86                   | 0.83 | 0.85 | 0.81 | 0.85 | 0.82 | 0.82 | 0.82 | 0.83       | 2.14                      |
| PFPeA        |                          | 1.14                   | 1.11 | 1.07 | 0.98 | 1.07 | 1.04 | 1.00 | 1.00 | 1.05       | 5.39                      |
| PFHxA        |                          | 1.33                   | 1.23 | 1.13 | 1.03 | 1.04 | 1.00 | 1.01 | 1.05 | 1.10       | 11.0                      |
| PFHpA        |                          | 1.15                   | 1.24 | 1.20 | 1.13 | 1.16 | 1.11 | 1.13 | 1.13 | 1.16       | 3.70                      |
| PFOA         |                          | 1.47                   | 1.32 | 1.34 | 1.34 | 1.26 | 1.29 | 1.28 | 1.27 | 1.32       | 5.22                      |
| PFNA         |                          | 1.08                   | 1.00 | 0.99 | 1.04 | 0.99 | 0.99 | 0.98 | 0.97 | 1.01       | 3.77                      |
| PFDA         |                          | 0.83                   | 0.74 | 0.70 | 0.66 | 0.74 | 0.67 | 0.70 | 0.68 | 0.71       | 7.38                      |
| PFUnA        |                          | 0.78                   | 0.76 | 0.77 | 0.70 | 0.75 | 0.71 | 0.70 | 0.70 | 0.73       | 4.69                      |
| PFDoA        |                          | 1.18                   | 1.14 | 1.11 | 1.12 | 1.17 | 1.09 | 1.07 | 1.02 | 1.11       | 4.78                      |
| PFTrDA       |                          | 0.98                   | 0.92 | 0.84 | 0.81 | 0.83 | 0.80 | 0.80 | 0.75 | 0.84       | 8.87                      |
| PFTeDA       |                          | 0.87                   | 0.83 | 0.77 | 0.75 | 0.78 | 0.76 | 0.74 | 0.68 | 0.77       | 7.62                      |
| PFBS         |                          | 1.14                   | 1.01 | 1.05 | 1.05 | 1.08 | 1.04 | 1.06 | 1.04 | 1.06       | 3.67                      |
| PFPeS        |                          | 1.00                   | 0.92 | 0.99 | 0.95 | 1.01 | 0.94 | 0.96 | 0.91 | 0.96       | 3.99                      |
| PFHxS        |                          | 1.37                   | 1.28 | 1.26 | 1.14 | 1.26 | 1.16 | 1.19 | 1.20 | 1.23       | 6.14                      |
| PFHpS        |                          | 1.11                   | 1.09 | 1.00 | 0.97 | 1.02 | 0.99 | 1.00 | 0.93 | 1.01       | 5.99                      |
| PFOS         |                          | 1.25                   | 1.14 | 1.12 | 1.02 | 1.11 | 1.17 | 1.10 | 1.06 | 1.12       | 6.16                      |
| PFNS         |                          | 1.05                   | 1.00 | 1.02 | 0.97 | 1.01 | 0.96 | 0.99 | 0.97 | 0.99       | 2.96                      |
| PFDS         |                          | 0.93                   | 0.97 | 0.92 | 0.89 | 0.94 | 0.93 | 0.95 | 0.94 | 0.94       | 2.43                      |
| PFDoS        |                          | 0.84                   | 0.82 | 0.86 | 0.79 | 0.86 | 0.84 | 0.87 | 0.87 | 0.85       | 3.31                      |
| 4:2 FTS      |                          | 0.53                   | 0.50 | 0.49 | 0.45 | 0.49 | 0.47 | 0.45 | 0.42 | 0.47       | 7.27                      |
| 6:2 FTS      |                          | 0.51                   | 0.46 | 0.48 | 0.43 | 0.46 | 0.44 | 0.43 | 0.40 | 0.45       | 7.25                      |
| 8:2 FTS      |                          | 0.35                   | 0.30 | 0.32 | 0.30 | 0.32 | 0.30 | 0.30 | 0.25 | 0.31       | 9.70                      |
| PFOSA        |                          | 0.97                   | 0.96 | 0.93 | 0.89 | 0.92 | 0.90 | 0.90 | 0.91 | 0.92       | 3.33                      |
| N-MeFOSA     |                          | 0.90                   | 1.05 | 0.93 | 0.93 | 0.92 | 0.96 | 0.95 | 0.90 | 0.94       | 4.82                      |
| N-EtFOSA     |                          | 1.15                   | 1.14 | 1.08 | 1.10 | 1.18 | 1.10 | 1.18 | 1.13 | 1.13       | 3.25                      |
| MeFOSAA      |                          | 0.87                   | 0.93 | 1.00 | 0.91 | 0.94 | 0.88 | 0.86 |      | 0.91       | 5.56                      |
| EtFOSAA      |                          | 0.77                   | 0.75 | 0.68 | 0.75 | 0.78 | 0.73 | 0.74 |      | 0.74       | 4.16                      |
| N-MeFOSE     |                          | 0.81                   | 0.78 | 0.77 | 0.74 | 0.77 | 0.76 | 0.74 | 0.73 | 0.76       | 3.65                      |
| N-EtFOSE     |                          | 1.08                   | 1.03 | 1.03 | 0.99 | 1.04 | 1.02 | 1.01 | 0.98 | 1.02       | 3.19                      |
| HFPO-DA      |                          | 1.02                   | 0.96 | 0.96 | 0.89 | 0.97 | 0.92 | 0.91 | 0.87 | 0.94       | 5.20                      |
| ADONA        |                          | 4.87                   | 4.87 | 4.83 | 4.56 | 4.86 | 4.80 | 4.80 | 4.74 | 4.79       | 2.17                      |
| 9Cl-PF3ONS   |                          | 1.38                   | 1.26 | 1.35 | 1.28 | 1.34 | 1.29 | 1.31 | 1.19 | 1.30       | 4.43                      |
| 11Cl-PF3OUdS |                          | 0.76                   | 0.73 | 0.75 | 0.71 | 0.78 | 0.74 | 0.77 | 0.71 | 0.74       | 3.36                      |
| 3:3 FTCA     |                          | 0.07                   | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.08 | 0.07       | 8.61                      |
| 5:3 FTCA     |                          | 0.18                   | 0.16 | 0.17 | 0.17 | 0.17 | 0.17 | 0.18 | 0.21 | 0.18       | 7.83                      |
| 7:3 FTCA     |                          | 0.10                   | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.11 | 0.12 | 0.10       | 7.99                      |
| PFEESA       |                          | 2.86                   | 2.57 | 2.60 | 2.50 | 2.56 | 2.51 | 2.57 | 2.87 | 2.63       | 5.64                      |
| PFMPA        |                          | 1.62                   | 1.60 | 1.57 | 1.47 | 1.56 | 1.54 | 1.51 | 1.59 | 1.56       | 3.24                      |

**RELATIVE RESPONSE (RR)**

| COMPOUND | LAB FLAG <sup>1</sup> | RELATIVE RESPONSE (RR) |      |      |      |      |      |      |      | MEAN RR | CV (%RSD) <sup>2</sup> |      |
|----------|-----------------------|------------------------|------|------|------|------|------|------|------|---------|------------------------|------|
|          |                       | CS0                    | CS1  | CS2  | CS3  | CS4  | CS5  | CS6  | CS7  |         |                        | CS8  |
| PFMBA    |                       |                        | 2.14 | 2.14 | 2.16 | 2.06 | 2.17 | 2.09 | 2.14 | 2.30    | 2.15                   | 3.37 |
| NFDHA    |                       |                        | 0.09 | 0.09 | 0.09 | 0.08 | 0.09 | 0.09 | 0.08 | 0.08    | 0.09                   | 5.65 |

(1) Where applicable, custom lab flags have been used on this report.

(2) For contract CV specifications, see SGS AXYS METHOD MLA-110 Rev 02

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: \_\_\_\_\_ Jordan Berends \_\_\_\_\_

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## SGS AXYS METHOD MLA-110 Rev 02

Form 3B  
INITIAL CALIBRATION RELATIVE RESPONSES

## SGS AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA  
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date: 01-Mar-2023

Instrument ID: LC MS/MS

LC Column ID: C18

CS0 Data Filename: N/A  
CS1 Data Filename: FC3L\_107 S: 16  
CS2 Data Filename: FC3L\_107 S: 17  
CS3 Data Filename: FC3L\_107 S: 18  
CS4 Data Filename: FC3L\_107 S: 19  
CS5 Data Filename: FC3L\_107 S: 20  
CS6 Data Filename: FC3L\_107 S: 21  
CS7 Data Filename: FC3L\_107 S: 22  
CS8 Data Filename: FC3L\_107 S: 23

| Labeled Compound | Lab Flag <sup>1</sup> | Relative Response (RR) |      |      |      |      |      |      |      | Mean RR | CV (%RSD) <sup>2</sup> |      |
|------------------|-----------------------|------------------------|------|------|------|------|------|------|------|---------|------------------------|------|
|                  |                       | CS0                    | CS1  | CS2  | CS3  | CS4  | CS5  | CS6  | CS7  |         |                        | CS8  |
| 13C4-PFBA        |                       |                        | 1.07 | 1.11 | 1.08 | 1.05 | 1.08 | 1.09 | 1.09 | 1.07    | 1.08                   | 1.60 |
| 13C5-PFPeA       |                       |                        | 0.93 | 0.95 | 0.93 | 0.92 | 0.94 | 0.93 | 0.95 | 0.90    | 0.93                   | 1.71 |
| 13C5-PFHxA       |                       |                        | 0.65 | 0.70 | 0.66 | 0.64 | 0.69 | 0.66 | 0.66 | 0.63    | 0.66                   | 3.33 |
| 13C4-PFHpA       |                       |                        | 3.41 | 3.65 | 3.45 | 3.36 | 3.21 | 3.53 | 3.36 | 3.31    | 3.41                   | 3.96 |
| 13C8-PFOA        |                       |                        | 3.71 | 3.92 | 3.85 | 3.61 | 3.62 | 3.81 | 3.68 | 3.81    | 3.75                   | 3.04 |
| 13C9-PFNA        |                       |                        | 1.02 | 1.04 | 1.03 | 1.05 | 1.06 | 1.05 | 1.04 | 1.02    | 1.04                   | 1.56 |
| 13C6-PFDA        |                       |                        | 0.99 | 1.10 | 1.05 | 1.02 | 1.02 | 1.04 | 1.00 | 1.01    | 1.03                   | 3.30 |
| 13C7-PFUnA       |                       |                        | 1.07 | 1.14 | 1.11 | 1.07 | 1.10 | 1.09 | 1.06 | 1.04    | 1.08                   | 3.02 |
| 13C2-PFDoA       |                       |                        | 0.88 | 0.94 | 0.91 | 0.85 | 0.87 | 0.90 | 0.88 | 0.95    | 0.90                   | 3.90 |
| 13C2-PFTeDA      |                       |                        | 0.92 | 0.98 | 0.98 | 0.94 | 0.98 | 0.96 | 0.96 | 1.06    | 0.97                   | 4.24 |
| 13C3-PFBS        |                       |                        | 1.31 | 1.40 | 1.31 | 1.24 | 1.37 | 1.30 | 1.25 | 1.08    | 1.28                   | 7.48 |
| 13C3-PFHxS       |                       |                        | 1.10 | 1.15 | 1.12 | 1.07 | 1.12 | 1.11 | 1.12 | 1.10    | 1.11                   | 2.19 |
| 13C8-PFOS        |                       |                        | 1.04 | 1.03 | 1.05 | 1.06 | 1.05 | 1.04 | 0.99 | 1.05    | 1.04                   | 1.93 |
| 13C2-4:2 FTS     |                       |                        | 1.22 | 1.17 | 1.10 | 1.15 | 1.11 | 1.01 | 0.95 | 0.92    | 1.08                   | 9.94 |
| 13C2-6:2 FTS     |                       |                        | 1.00 | 1.00 | 0.94 | 0.97 | 0.98 | 0.93 | 0.97 | 1.01    | 0.98                   | 2.97 |
| 13C2-8:2 FTS     |                       |                        | 1.49 | 1.45 | 1.42 | 1.44 | 1.43 | 1.34 | 1.33 | 1.40    | 1.41                   | 3.76 |
| 13C8-PFOA        |                       |                        | 1.72 | 1.76 | 1.77 | 1.72 | 1.77 | 1.75 | 1.73 | 1.93    | 1.77                   | 3.87 |
| D3-N-MeFOSA      |                       |                        | 0.24 | 0.26 | 0.27 | 0.26 | 0.27 | 0.25 | 0.25 | 0.28    | 0.26                   | 5.17 |
| D5-N-EtFOSA      |                       |                        | 0.25 | 0.26 | 0.26 | 0.25 | 0.25 | 0.26 | 0.24 | 0.26    | 0.25                   | 3.36 |
| D3-MeFOSAA       |                       |                        | 0.45 | 0.45 | 0.46 | 0.42 | 0.47 | 0.50 | 0.62 |         | 0.48                   | 13.6 |
| D5-EtFOSAA       |                       |                        | 0.40 | 0.40 | 0.39 | 0.39 | 0.42 | 0.43 | 0.52 |         | 0.42                   | 10.7 |
| d7-NMe-FOSE      |                       |                        | 2.21 | 2.19 | 2.26 | 2.22 | 2.24 | 2.17 | 2.19 | 2.37    | 2.23                   | 2.77 |
| d9-NEt-FOSE      |                       |                        | 1.85 | 1.84 | 1.90 | 1.88 | 1.88 | 1.83 | 1.80 | 1.95    | 1.87                   | 2.49 |
| 13C3-HFPO-DA     |                       |                        | 0.44 | 0.46 | 0.45 | 0.44 | 0.45 | 0.44 | 0.43 | 0.41    | 0.44                   | 3.38 |

(1) Where applicable, custom lab flags have been used on this report.

(2) For contract CV specifications, see SGS AXYS METHOD MLA-110 Rev 02.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: \_\_\_\_\_ Jordan Berends \_\_\_\_\_

## SGS AXYS METHOD MLA-110 Rev 02

Form 3C  
LC MS/MS INITIAL CALIBRATION RATIOS

## SGS AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA  
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date: 01-Mar-2023

Instrument ID: LC MS/MS

LC Column ID: C18

CS0 Data Filename: N/A  
 CS1 Data Filename: FC3L\_107 S: 16  
 CS2 Data Filename: FC3L\_107 S: 17  
 CS3 Data Filename: FC3L\_107 S: 18  
 CS4 Data Filename: FC3L\_107 S: 19  
 CS5 Data Filename: FC3L\_107 S: 20  
 CS6 Data Filename: FC3L\_107 S: 21  
 CS7 Data Filename: FC3L\_107 S: 22  
 CS8 Data Filename: FC3L\_107 S: 23

| COMPOUND     | LAB<br>FLAG <sup>1</sup> | RATIOS |      |      |      |      |      |      |      |      |
|--------------|--------------------------|--------|------|------|------|------|------|------|------|------|
|              |                          | CS0    | CS1  | CS2  | CS3  | CS4  | CS5  | CS6  | CS7  | CS8  |
| PFBA         |                          |        |      |      |      |      |      |      |      |      |
| PFPeA        |                          |        |      |      |      |      |      |      |      |      |
| PFHxA        |                          |        | 5.24 | 5.95 | 5.71 | 5.10 | 5.29 | 5.21 | 5.37 | 5.23 |
| PFHpA        |                          |        | 2.11 | 2.24 | 2.38 | 2.36 | 2.23 | 2.23 | 2.23 | 2.21 |
| PFOA         |                          |        | 2.14 | 1.90 | 2.05 | 2.03 | 1.95 | 1.99 | 2.00 | 1.99 |
| PFNA         |                          |        | 2.97 | 2.71 | 2.79 | 2.82 | 2.69 | 2.84 | 2.83 | 2.78 |
| PFDA         |                          |        | 3.28 | 3.99 | 2.90 | 3.07 | 3.10 | 2.98 | 3.12 | 3.01 |
| PFUnA        |                          |        | 5.66 | 5.27 | 4.47 | 4.61 | 4.63 | 4.60 | 4.49 | 4.49 |
| PFDoA        |                          |        | 7.35 | 7.43 | 7.38 | 7.72 | 7.38 | 7.27 | 7.30 | 7.39 |
| PFTTrDA      |                          |        | 3.39 | 3.56 | 3.13 | 3.19 | 3.16 | 3.16 | 3.17 | 3.20 |
| PFTeDA       |                          |        | 2.56 | 2.87 | 2.55 | 2.81 | 2.83 | 2.83 | 2.78 | 2.79 |
| PFBS         |                          |        | 2.64 | 2.75 | 2.72 | 2.70 | 2.75 | 2.74 | 2.76 | 2.72 |
| PFPeS        |                          |        | 2.35 | 2.06 | 2.47 | 2.30 | 2.27 | 2.33 | 2.37 | 2.34 |
| PFHxS        |                          |        | 2.33 | 2.29 | 2.49 | 2.42 | 2.61 | 2.44 | 2.50 | 2.45 |
| PFHpS        |                          |        | 2.38 | 2.02 | 2.09 | 2.03 | 2.15 | 2.08 | 2.09 | 2.07 |
| PFOS         |                          |        | 2.07 | 2.49 | 2.62 | 2.63 | 2.60 | 2.67 | 2.61 | 2.60 |
| PFNS         |                          |        | 2.39 | 2.19 | 2.34 | 2.41 | 2.27 | 2.28 | 2.24 | 2.30 |
| PFDS         |                          |        | 2.05 | 2.40 | 2.30 | 2.33 | 2.30 | 2.30 | 2.31 | 2.30 |
| PFDoS        |                          |        | 1.86 | 2.05 | 2.15 | 2.13 | 2.14 | 2.23 | 2.18 | 2.21 |
| 4:2 FTS      |                          |        | 0.45 | 0.45 | 0.45 | 0.43 | 0.45 | 0.45 | 0.44 | 0.45 |
| 6:2 FTS      |                          |        | 0.44 | 0.42 | 0.43 | 0.40 | 0.41 | 0.41 | 0.41 | 0.42 |
| 8:2 FTS      |                          |        | 0.55 | 0.48 | 0.51 | 0.53 | 0.52 | 0.53 | 0.53 | 0.54 |
| PFOSA        |                          |        |      |      |      |      |      |      |      |      |
| N-MeFOSA     |                          |        | 0.48 | 0.60 | 0.52 | 0.53 | 0.53 | 0.53 | 0.54 | 0.53 |
| N-EtFOSA     |                          |        | 0.49 | 0.53 | 0.49 | 0.51 | 0.52 | 0.53 | 0.54 | 0.53 |
| MeFOSAA      |                          |        | 1.36 | 2.00 | 2.51 | 2.02 | 1.92 | 1.89 | 1.91 |      |
| EtFOSAA      |                          |        | 1.43 | 1.05 | 1.05 | 1.25 | 1.14 | 1.12 | 1.15 |      |
| N-MeFOSE     |                          |        |      |      |      |      |      |      |      |      |
| N-EtFOSE     |                          |        |      |      |      |      |      |      |      |      |
| HFPO-DA      |                          |        | 2.92 | 2.68 | 2.91 | 2.82 | 2.91 | 2.81 | 2.89 | 2.83 |
| ADONA        |                          |        | 1.15 | 1.21 | 1.19 | 1.19 | 1.20 | 1.18 | 1.18 | 1.19 |
| 9CI-PF3ONS   |                          |        | 3.15 | 2.99 | 3.20 | 3.26 | 3.20 | 3.15 | 3.15 | 3.18 |
| 11CI-PF3OUdS |                          |        | 3.16 | 3.03 | 3.18 | 3.12 | 3.25 | 3.11 | 3.16 | 3.14 |
| 3:3 FTCA     |                          |        | 1.60 | 1.42 | 1.60 | 1.50 | 1.59 | 1.60 | 1.57 | 1.60 |
| 5:3 FTCA     |                          |        | 1.37 | 1.31 | 1.40 | 1.40 | 1.39 | 1.40 | 1.41 | 1.41 |

| COMPOUND | LAB<br>FLAG <sup>1</sup> | RATIOS |      |      |      |      |      |      |      |      |
|----------|--------------------------|--------|------|------|------|------|------|------|------|------|
|          |                          | CS0    | CS1  | CS2  | CS3  | CS4  | CS5  | CS6  | CS7  | CS8  |
| 7:3 FTCA |                          |        | 0.62 | 0.67 | 0.65 | 0.68 | 0.66 | 0.64 | 0.66 | 0.66 |
| PFEESA   |                          |        | 7.86 | 9.04 | 8.42 | 8.79 | 8.42 | 8.33 | 8.40 | 8.78 |
| PFMPA    |                          |        |      |      |      |      |      |      |      |      |
| PFMBA    |                          |        |      |      |      |      |      |      |      |      |
| NFDHA    |                          |        |      |      |      |      |      |      |      |      |

(1) Where applicable, custom lab flags have been used on this report.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: \_\_\_\_\_ Jordan Berends \_\_\_\_\_

For Axys Internal Use Only [ XSL Template: FC2-Form3C.xsl; Created: 31-May-2024 11:59:36; Application: XMLTransformer-1.18.50; Report Filename: PFOA\_FC\_LC\_01-Mar-2023\_FC3L\_Form3C\_GS109059.html; Workgroup: WG89476; Design ID: 4411 ]

## SGS AXYS METHOD MLA-110 Rev 02

Form 3D  
LC MS/MS INITIAL CALIBRATION RATIOS

## SGS AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA  
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date: 01-Mar-2023

Instrument ID: LC MS/MS

LC Column ID: C18

CS0 Data Filename: N/A  
 CS1 Data Filename: FC3L\_107 S: 16  
 CS2 Data Filename: FC3L\_107 S: 17  
 CS3 Data Filename: FC3L\_107 S: 18  
 CS4 Data Filename: FC3L\_107 S: 19  
 CS5 Data Filename: FC3L\_107 S: 20  
 CS6 Data Filename: FC3L\_107 S: 21  
 CS7 Data Filename: FC3L\_107 S: 22  
 CS8 Data Filename: FC3L\_107 S: 23

| LABELED COMPOUND | LAB<br>FLAG <sup>1</sup> | RATIOS |      |      |      |      |      |      |      |      |
|------------------|--------------------------|--------|------|------|------|------|------|------|------|------|
|                  |                          | CS0    | CS1  | CS2  | CS3  | CS4  | CS5  | CS6  | CS7  | CS8  |
| 13C4-PFBA        |                          |        |      |      |      |      |      |      |      |      |
| 13C5-PFPeA       |                          |        |      |      |      |      |      |      |      |      |
| 13C5-PFHxA       |                          |        | 14.8 | 14.6 | 14.9 | 13.9 | 14.9 | 15.4 | 16.1 | 14.7 |
| 13C4-PFHpA       |                          |        |      |      |      |      |      |      |      |      |
| 13C8-PFOA        |                          |        |      |      |      |      |      |      |      |      |
| 13C9-PFNA        |                          |        |      |      |      |      |      |      |      |      |
| 13C6-PFDA        |                          |        |      |      |      |      |      |      |      |      |
| 13C7-PFUnA       |                          |        |      |      |      |      |      |      |      |      |
| 13C2-PFDoA       |                          |        |      |      |      |      |      |      |      |      |
| 13C2-PFTeDA      |                          |        |      |      |      |      |      |      |      |      |
| 13C3-PFBS        |                          |        | 2.83 | 2.71 | 2.68 | 2.63 | 2.82 | 2.82 | 2.70 | 2.77 |
| 13C3-PFHxS       |                          |        | 2.45 | 2.41 | 2.44 | 2.36 | 2.39 | 2.49 | 2.50 | 2.50 |
| 13C8-PFOS        |                          |        | 2.24 | 2.18 | 2.09 | 2.25 | 2.16 | 2.28 | 2.19 | 2.17 |
| 13C2-4:2 FTS     |                          |        | 1.85 | 1.81 | 1.78 | 1.77 | 1.74 | 1.51 | 1.22 | 0.55 |
| 13C2-6:2 FTS     |                          |        | 2.22 | 2.19 | 2.07 | 2.13 | 2.03 | 1.83 | 1.52 | 0.74 |
| 13C2-8:2 FTS     |                          |        | 3.37 | 3.31 | 3.31 | 3.25 | 3.06 | 2.99 | 2.34 | 1.27 |
| 13C8-PFOSA       |                          |        |      |      |      |      |      |      |      |      |
| D3-N-MeFOSA      |                          |        |      |      |      |      |      |      |      |      |
| D5-N-EtFOSA      |                          |        |      |      |      |      |      |      |      |      |
| D3-MeFOSAA       |                          |        |      |      |      |      |      |      |      |      |
| D5-EtFOSAA       |                          |        |      |      |      |      |      |      |      |      |
| d7-NMe-FOSE      |                          |        |      |      |      |      |      |      |      |      |
| d9-NEt-FOSE      |                          |        |      |      |      |      |      |      |      |      |
| 13C3-HFPO-DA     |                          |        | 2.93 | 2.85 | 2.85 | 2.92 | 2.92 | 2.87 | 2.94 | 3.04 |

(1) Where applicable, custom lab flags have been used on this report.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: \_\_\_\_\_ Jordan Berends \_\_\_\_\_

## SGS AXYS METHOD MLA-110 Rev 02

## Form 4A

## LC MS/MS CALIBRATION VERIFICATION

## SGS AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA  
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date: 01-Mar-2023

VER Data Filename: FC4L\_129 S: 15

Instrument ID: LCMS/MS

Analysis Date: 30-Apr-2024

LC Column ID: C18

Analysis Time: 17:11:28

| COMPOUND     | LAB FLAG <sup>1</sup> | RRT   | QUANT TRANSITION | RATIO | EXPECTED CONC. (ng) | CONC. FOUND (ng) | RECOVERY (%) |
|--------------|-----------------------|-------|------------------|-------|---------------------|------------------|--------------|
| PFBA         |                       | 1.004 | 213 > 169        |       | 20.0                | 21.9             | 110          |
| PFPeA        |                       | 1.000 | 263 > 219        |       | 10.0                | 9.98             | 99.8         |
| PFHxA        |                       | 1.000 | 313 > 269        | 5.42  | 5.00                | 4.95             | 99.1         |
| PFHpA        |                       | 1.001 | 363 > 319        | 2.26  | 5.00                | 5.43             | 109          |
| PFOA         |                       | 1.001 | 413 > 369        | 1.95  | 5.00                | 5.06             | 101          |
| PFNA         |                       | 1.000 | 463 > 419        | 2.82  | 5.00                | 5.62             | 112          |
| PFDA         |                       | 1.000 | 513 > 469        | 2.81  | 5.00                | 4.93             | 98.6         |
| PFUnA        |                       | 1.000 | 563 > 519        | 4.75  | 5.00                | 5.67             | 113          |
| PFDoA        |                       | 1.000 | 613 > 569        | 7.56  | 4.06                | 4.27             | 105          |
| PFTTrDA      |                       | 0.958 | 663 > 619        | 3.16  | 5.00                | 5.44             | 109          |
| PFTTeDA      |                       | 1.000 | 713 > 669        | 2.65  | 5.00                | 5.23             | 105          |
| PFBS         |                       | 1.000 | 299 > 80         | 2.47  | 5.00                | 4.48             | 89.5         |
| PFPeS        |                       | 0.875 | 349 > 80         | 2.31  | 5.00                | 6.54             | 131          |
| PFHxS        |                       | 1.001 | 399 > 80         | 2.57  | 5.00                | 5.14             | 103          |
| PFHpS        |                       | 0.927 | 449 > 80         | 2.34  | 5.00                | 5.51             | 110          |
| PFOS         |                       | 1.001 | 499 > 80         | 2.42  | 5.00                | 5.13             | 103          |
| PFNS         |                       | 1.044 | 549 > 80         | 2.17  | 5.00                | 5.32             | 106          |
| PFDS         |                       | 1.082 | 599 > 80         | 2.23  | 5.00                | 5.49             | 110          |
| PFDoS        |                       | 1.177 | 699 > 80         | 2.23  | 5.00                | 4.63             | 92.5         |
| 4:2 FTS      |                       | 1.000 | 327 > 307        | 0.43  | 20.0                | 21.6             | 108          |
| 6:2 FTS      |                       | 1.000 | 427 > 407        | 0.40  | 18.0                | 18.7             | 104          |
| 8:2 FTS      |                       | 1.000 | 527 > 507        | 0.55  | 17.0                | 16.8             | 99.2         |
| PFOSA        |                       | 1.000 | 498 > 78         |       | 5.00                | 5.20             | 104          |
| N-MeFOSA     |                       | 1.000 | 512 > 219        | 0.57  | 5.00                | 5.99             | 120          |
| N-EtFOSA     |                       | 1.001 | 526 > 219        | 0.54  | 14.0                | 13.8             | 98.8         |
| MeFOSAA      |                       | 1.000 | 570 > 419        | 1.87  | 5.00                | 4.96             | 99.1         |
| EtFOSAA      |                       | 1.001 | 584 > 419        | 1.32  | 5.00                | 5.82             | 116          |
| N-MeFOSE     |                       | 1.002 | 616 > 59         |       | 50.0                | 52.9             | 106          |
| N-EtFOSE     |                       | 1.001 | 630 > 59         |       | 50.0                | 51.1             | 102          |
| HFPO-DA      |                       | 1.001 | 285 > 169        | 2.90  | 20.0                | 20.9             | 105          |
| ADONA        |                       | 1.109 | 377 > 251        | 1.21  | 20.0                | 28.3             | 142          |
| 9CI-PF3ONS   |                       | 0.966 | 531 > 351        | 3.19  | 20.0                | 23.2             | 116          |
| 11CI-PF3OUdS |                       | 1.040 | 631 > 451        | 3.25  | 20.0                | 21.6             | 108          |
| 3:3 FTCA     |                       |       | 241 > 177        | 1.47  | 20.0                | 17.3             | 86.4         |
| 5:3 FTCA     |                       | 1.057 | 341 > 237        | 1.39  | 125                 | 104              | 82.9         |
| 7:3 FTCA     |                       | 1.376 | 441 > 317        | 0.63  | 125                 | 72.1             | 57.7         |
| PFEESA       |                       | 1.038 | 315 > 135        | 8.78  | 5.00                | 4.56             | 91.2         |
| PFMPA        |                       |       | 229 > 85         |       | 10.0                | 9.50             | 95.0         |
| PFMBA        |                       | 1.074 | 279 > 85         |       | 5.00                | 5.11             | 102          |
| NFDHA        |                       |       | 295 > 201        |       | 10.0                | 5.98             | 59.8         |

(1) Where applicable, custom lab flags have been used on this report.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: \_\_\_\_\_ Aaron Kyle \_\_\_\_\_

## SGS AXYS METHOD MLA-110 Rev 02

## Form 4B

## LC MS/MS CALIBRATION VERIFICATION

## SGS AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA  
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date: 01-Mar-2023

VER Data Filename: FC4L\_129 S: 15

Instrument ID: LCMS/MS

Analysis Date: 30-Apr-2024

LC Column ID: C18

Analysis Time: 17:11:28

| LABELLED COMPOUND | LAB FLAG <sup>1</sup> | RRT   | QUANT TRANSITION | RATIO | EXPECTED CONC. (ng) | CONC. FOUND (ng) | RECOVERY (%) |
|-------------------|-----------------------|-------|------------------|-------|---------------------|------------------|--------------|
| 13C4-PFBA         |                       | 1.000 | 217 > 172        |       | 40.0                | 38.8             | 97.0         |
| 13C5-PFPeA        |                       | 0.853 | 268 > 223        |       | 20.0                | 17.9             | 89.3         |
| 13C5-PFHxA        |                       | 1.000 | 318 > 273        | 16.6  | 10.0                | 10.0             | 100          |
| 13C4-PFHpA        |                       | 0.885 | 367 > 322        |       | 10.0                | 11.5             | 115          |
| 13C8-PFOA         |                       | 1.000 | 421 > 376        |       | 10.0                | 9.66             | 96.6         |
| 13C9-PFNA         |                       | 1.000 | 472 > 427        |       | 5.00                | 4.80             | 95.9         |
| 13C6-PFDA         |                       | 1.000 | 519 > 474        |       | 5.00                | 4.99             | 99.8         |
| 13C7-PFUnA        |                       | 1.045 | 570 > 525        |       | 5.00                | 4.82             | 96.4         |
| 13C2-PFDoA        |                       | 1.081 | 615 > 570        |       | 5.00                | 4.59             | 91.9         |
| 13C2-PFTeDA       |                       | 1.170 | 715 > 670        |       | 5.00                | 3.31             | 66.3         |
| 13C3-PFBS         |                       | 0.782 | 302 > 80         | 2.66  | 10.0                | 11.4             | 114          |
| 13C3-PFHxS        |                       | 0.999 | 402 > 80         | 2.39  | 10.0                | 10.2             | 102          |
| 13C8-PFOS         |                       | 0.999 | 507 > 80         | 2.06  | 10.1                | 11.0             | 109          |
| 13C2-4:2 FTS      |                       | 0.822 | 329 > 81         | 1.70  | 20.2                | 23.1             | 115          |
| 13C2-6:2 FTS      |                       | 1.002 | 429 > 81         | 2.12  | 20.0                | 20.4             | 102          |
| 13C2-8:2 FTS      |                       | 1.271 | 529 > 81         | 3.42  | 20.0                | 23.0             | 115          |
| 13C8-PFOSA        |                       | 1.161 | 506 > 78         |       | 10.0                | 12.3             | 123          |
| D3-N-MeFOSA       |                       | 1.344 | 515 > 219        |       | 10.0                | 10.2             | 102          |
| D5-N-EtFOSA       |                       | 1.377 | 531 > 219        |       | 10.0                | 11.2             | 112          |
| D3-MeFOSAA        |                       | 1.314 | 573 > 419        |       | 20.0                | 32.5             | 162          |
| D5-EtFOSAA        |                       | 1.338 | 589 > 419        |       | 20.0                | 31.0             | 155          |
| d7-NMe-FOSE       |                       | 1.328 | 623 > 59         |       | 100                 | 118              | 118          |
| d9-NEt-FOSE       |                       | 1.363 | 639 > 59         |       | 100                 | 114              | 114          |
| 13C3-HFPO-DA      |                       | 1.033 | 287 > 169        | 3.09  | 40.0                | 26.1             | 65.2         |

(1) Where applicable, custom lab flags have been used on this report.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: \_\_\_\_\_Aaron Kyle\_\_\_\_\_













































































**Accreditation Scope**

SGS AXYS Analytical Services Ltd.  
file ref.: ACC-103 Rev. 73

| Compound Class | Compound | Accredited Method ID | SGS AXYS Method ID | Serum | Solids   | Tissue and Tissue Flora   | Urine | Water | Water, Non-Portable  |
|----------------|----------|----------------------|--------------------|-------|--|---|-------|-------|--|
|                |          |                      |                    | CALA  | Alaska DEC<br>ANAB DoD/DOE **<br>ANAB ISO 17025<br>CALA<br>California WB<br>Florida DOH<br>Maine DOH<br>Minnesota DOH<br>New Jersey DEP<br>New York DOH<br>Virginia DGS<br>Washington DE | ANAB DoD/DOE **<br>ANAB ISO 17025<br>CALA<br>Florida DOH<br>Minnesota DOH<br>New Jersey DEP<br>Virginia DGS | CALA  | CALA  | Alaska DEC<br>ANAB DoD/DOE **<br>ANAB ISO 17025<br>California WB<br>Florida DOH<br>Maine DOH<br>Minnesota DOH<br>New Jersey DEP<br>New York DOH<br>Pennsylvania DEP<br>Virginia DGS<br>Washington DE * |
|                |          |                      |                    |       |  |   |       |       | ANAB DoD/DOE **<br>ANAB ISO 17025  |

**Legend**

- Y Accreditation scope
- AFFF Aqueous film forming foam
- AO Antiozonants
- BFR Brominated flame retardants (non-PBDPE)
- BPA and mPE Bisphenol A and mono-Phthalate Esters
- OC Pesticides Organochlorine Pesticides
- PAH Polycyclic Aromatic Hydrocarbons
- PBDPE Polybrominated diphenylethers
- PCB Polychlorinated Biphenyls
- PCDDF Polychlorinated dibenzodioxins/furans
- PFAS Per- and Polyfluoroalkyl Substances
- PPCP Pharmaceutical and Personal Care Products
- TOP Total Oxidizable Precursors
- California WB California Water Boards, Lab ID 2911
- Florida DOH Florida Department of Health, Lab ID E871007, (NELAC Standard)
- Pennsylvania DEP Pennsylvania Department of Environmental Protection
- Minnesota DOH Minnesota Department of Health, Lab ID 232-999-430, (NELAC Standard)
- New Jersey DEP New Jersey Department of Environmental Protection, Lab ID CANA005, (NELAC Standard)
- New York DOH New York Department of Health, Lab ID 11674, (NELAC Standard)
- Washington DE Washington Department of Ecology, Lab ID C404
- Virginia DGS Virginia Department of General Services, Division of Consolidated Laboratory Services, Lab ID 460224, (NELAC Standard)
- Alaska DEC Alaska Department of Environmental Conservation, Contaminated Sites Laboratory Approval 17-014
- Maine DOH Maine Center for Disease Control and Prevention, Department of Health and Human Services, Lab ID CN00003

ANAB DoD ANSI National Accreditation Board, certificate ADE-1861, (US DoD QSM 5.3, 5.4, US DoD/DOE QSM 6.0 Standard)



CALA Canadian Association for Laboratory Accreditation Inc., Lab ID A2637, (ISO/IEC 17025:2017 Standard)

