Groundwater Sample Results,<br>Level 4 Laboratory Report, Electronic Data<br>Deliverable, Data Validation Report, Sample Location<br>Report, SDG 1701439<br>NAS<br>Chase Field TX<br>December 2020

November 10, 2017

## Vista Work Order No. 1701439

Ms. Nia Nikmanesh
KMEA
2423 Hoover Avenue
National City, CA 91950
Dear Ms. Nikmanesh,
Enclosed are the additional results for the sample set received at Vista Analytical Laboratory on October 07, 2017. This sample set was analyzed on a rush turn-around time, under your Project Name 'BRAC PFAS,NAS Chase Field,TX-TO 0008'.

Vista Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at mmaier@vista-analytical.com.

Thank you for choosing Vista as part of your analytical support team.

Sincerely,

Martha Maier<br>Laboratory Director



Vista Analytical Laboratory certifies that the report herein meets all the requirements set forth by NELAP for those applicable test methods. Results relate only to the samples as received by the laboratory. This report should not be reproduced except in full without the written approval of Vista.

## Vista Work Order No. 1701439

Case Narrative

## Sample Condition on Receipt:

Two groundwater samples and three blank water samples were received in good condition and within the method temperature requirements. The samples were received and stored securely in accordance with Vista standard operating procedures and EPA methodology. As requested, the date was added after each of the blank samples as _YYYMMDD.

As requested on the CoC, the following samples were placed on extract and hold: "FRB05_20171005", "FRB04_20171005", and "FRB06_20171006".

As requested on November 2, 2017, samples "FRB05_20171005" and "FRB06_20171006" were removed from hold. The results for these samples are included within this report.

## Analytical Notes:

## Modified EPA Method 537

The samples were extracted and analyzed for a selected list of PFAS using Modified EPA Method 537.

## Holding Times

The samples were extracted and analyzed within the method hold times.

## Quality Control

The Initial Calibration met the method acceptance criteria. The concentrations of PFDA and MeFOSAA were $139.6 \%$ and $133.5 \%$, respectively, of the true values in the Continuing Calibration Verification; however, these analytes were not detected in the sample "FRB05_20171005".

A Method Blank and Ongoing Precision and Recovery (OPR) sample were extracted and analyzed with the preparation batch. No analytes were detected in the Method Blank above $1 / 2$ the LOQ. The OPR recoveries were within the method acceptance criteria

The labeled standard recoveries for all QC and field samples were within the acceptance criteria.

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## Sample Inventory Report

| Vista <br> Sample ID | Client <br> Sample ID | Sampled | Received | Components/Containers |
| :---: | :---: | :---: | :---: | :---: |
| 1701439-01 | FRB05_20171005 | 05-Oct-17 13:15 | 07-Oct-17 09:23 | HDPE Bottle, 125 mL |
|  |  |  |  | HDPE Bottle, 125 mL |
| 1701439-02 | Site 3-GW-03GW02-20171005 | 05-Oct-17 16:30 | 07-Oct-17 09:23 | HDPE Bottle, 125 mL |
|  |  |  |  | HDPE Bottle, 125 mL |
| 1701439-03 | FRB04_20171005 | 05-Oct-17 16:35 | 07-Oct-17 09:23 | HDPE Bottle, 125 mL |
|  |  |  |  | HDPE Bottle, 125 mL |
| 1701439-04 | Site 4-GW-04GW01-20171006 | 06-Oct-17 08:00 | 07-Oct-17 09:23 | HDPE Bottle, 125 mL |
|  |  |  |  | HDPE Bottle, 125 mL |
| 1701439-05 | FRB06_20171006 | 06-Oct-17 08:08 | 07-Oct-17 09:23 | HDPE Bottle, 125 mL |
|  |  |  |  | HDPE Bottle, 125 mL |

## ANALYTICAL RESULTS

| Sample ID: Method Blank |  |  |  |  |  |  |  | Modified EPA Method 537 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Client Data | Matrix: |  |  |  | tory Data mple: | B7J0092- |  | Column: | BEH C18 |  |
| Analyte | Conc. (ug/L) | DL | LOD | LOQ | Qualifiers | Batch | Extracted | Samp Size | Analyzed | Dilution |
| PFBA | ND | 0.000729 | 0.00500 | 0.00800 |  | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 13:10 | 1 |
| PFPeA | ND | 0.00128 | 0.00500 | 0.00800 |  | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 13:10 | 1 |
| PFBS | ND | 0.00179 | 0.00500 | 0.00800 |  | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 13:10 | 1 |
| PFHxA | ND | 0.00218 | 0.00500 | 0.00800 |  | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 13:10 | 1 |
| PFHpA | ND | 0.000591 | 0.00500 | 0.00800 |  | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 13:10 | 1 |
| PFHxS | ND | 0.000947 | 0.00500 | 0.00800 |  | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 13:10 | 1 |
| PFOA | ND | 0.000651 | 0.00500 | 0.00800 |  | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 13:10 | 1 |
| PFOS | ND | 0.000807 | 0.00500 | 0.00800 |  | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 13:10 | 1 |
| PFNA | ND | 0.000810 | 0.00500 | 0.00800 |  | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 13:10 | 1 |
| PFDA | ND | 0.00149 | 0.00500 | 0.00800 |  | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 13:10 | 1 |
| PFOSA | ND | 0.00177 | 0.00500 | 0.00800 |  | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 13:10 | 1 |
| MeFOSAA | ND | 0.00165 | 0.00500 | 0.00800 |  | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 13:10 | 1 |
| PFDS | ND | 0.00123 | 0.00500 | 0.00800 |  | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 13:10 | 1 |
| PFUnA | ND | 0.00105 | 0.00500 | 0.00800 |  | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 13:10 | 1 |
| EtFOSAA | ND | 0.00137 | 0.00500 | 0.00800 |  | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 13:10 | 1 |
| PFDoA | ND | 0.000792 | 0.00500 | 0.00800 |  | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 13:10 | 1 |
| PFTrDA | ND | 0.000494 | 0.00500 | 0.00800 |  | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 13:10 | 1 |
| PFTeDA | ND | 0.000755 | 0.00500 | 0.00800 |  | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 13:10 | 1 |
| Labeled Standards Type | \% Recovery |  | Limits |  | Qualifiers | Batch | Extracted | Samp Size | Analyzed | Dilution |
| 13C3-PFBA IS | 89.9 |  | 50-150 |  |  | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 13:10 | 1 |
| 13C3-PFPeA IS | 82.8 |  | 50-150 |  |  | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 13:10 | 1 |
| 13C3-PFBS IS | 95.4 |  | 50-150 |  |  | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 13:10 | 1 |
| 13C2-PFHxA IS | 87.5 |  | 50-150 |  |  | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 13:10 | 1 |
| 13C4-PFHpA IS | 86.9 |  | 50-150 |  |  | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 13:10 | 1 |
| 18O2-PFHxS IS | 89.9 |  | 50-150 |  |  | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 13:10 | 1 |
| 13C2-PFOA IS | 82.4 |  | 50-150 |  |  | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 13:10 | 1 |
| 13C8-PFOS IS | 102 |  | 50-150 |  |  | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 13:10 | 1 |
| 13C5-PFNA IS | 83.4 |  | 50-150 |  |  | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 13:10 | 1 |
| 13C2-PFDA IS | 72.7 |  | 50-150 |  |  | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 13:10 | 1 |
| 13C8-PFOSA IS | 53.6 |  | 50-150 |  |  | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 13:10 | 1 |
| d3-MeFOSAA IS | 64.4 |  | 50-150 |  |  | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 13:10 | 1 |
| 13C2-PFUnA IS | 70.7 |  | 50-150 |  |  | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 13:10 | 1 |
| d5-EtFOSAA IS | 73.0 |  | 50-150 |  |  | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 13:10 | 1 |
| 13C2-PFDoA IS | 62.0 |  | 50-150 |  |  | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 13:10 | 1 |
| 13C2-PFTeDA IS | 63.1 |  | 50-150 |  |  | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 13:10 | 1 |

LCL-UCL- Lower control limit - upper control limit
Results reported to the DL
When reported, PFHxS, PFOA and PFOS include both linear and branched isomers.
Only the linear isomer is reported for all other analytes.

Vista
Analytical Laboratory


Work Order 1701439 Revision 1
$\mathcal{Y}_{V i s t a}$
Analytical Laboratory

| Sample ID: FRB05_20171005 |  |  |  |  |  |  |  |  | Modified EPA Method 537 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Client Data <br> Name: <br> Project: | KMEA BRAC PFAS,NAS Chase Field,TX-TO 0008 | Matrix: Blank Water <br> Date Collected: 05-Oct-17 13: |  |  | Laboratory Data <br> Lab Sample: <br> Date Received: |  | $\begin{aligned} & 1701439-01 \\ & 07 \text {-Oct-17 09:23 } \end{aligned}$ |  | Column: | BEH C18 | Dilution |
| Analyte |  | Conc. (ug/L) | DL | LOD | LOQ | Qualifiers | Batch | Extracted | Samp Size | Analyzed |  |
| PFBA |  | ND | 0.000759 | 0.00521 | 0.00833 |  | B7J0092 | 17-Oct-17 | 0.120 L | 07-Nov-17 22:17 | 1 |
| PFPeA |  | ND | 0.00133 | 0.00521 | 0.00833 |  | B7J0092 | 17-Oct-17 | 0.120 L | 07-Nov-17 22:17 | 1 |
| PFBS |  | ND | 0.00186 | 0.00521 | 0.00833 |  | B7J0092 | 17-Oct-17 | 0.120 L | 07-Nov-17 22:17 | 1 |
| PFHxA |  | ND | 0.00227 | 0.00521 | 0.00833 |  | B7J0092 | 17-Oct-17 | 0.120 L | 07-Nov-17 22:17 | 1 |
| PFHpA |  | ND | 0.000615 | 0.00521 | 0.00833 |  | B7J0092 | 17-Oct-17 | 0.120 L | 07-Nov-17 22:17 | 1 |
| PFHxS |  | ND | 0.000986 | 0.00521 | 0.00833 |  | B7J0092 | 17-Oct-17 | 0.120 L | 07-Nov-17 22:17 | 1 |
| PFOA |  | ND | 0.000678 | 0.00521 | 0.00833 |  | B7J0092 | 17-Oct-17 | 0.120 L | 07-Nov-17 22:17 | 1 |
| PFOS |  | ND | 0.000840 | 0.00521 | 0.00833 |  | B7J0092 | 17-Oct-17 | 0.120 L | 07-Nov-17 22:17 | 1 |
| PFNA |  | ND | 0.000843 | 0.00521 | 0.00833 |  | B7J0092 | 17-Oct-17 | 0.120 L | 07-Nov-17 22:17 | 1 |
| PFDA |  | ND | 0.00155 | 0.00521 | 0.00833 |  | B7J0092 | 17-Oct-17 | 0.120 L | 07-Nov-17 22:17 | 1 |
| PFOSA |  | ND | 0.00184 | 0.00521 | 0.00833 |  | B7J0092 | 17-Oct-17 | 0.120 L | 07-Nov-17 22:17 | 1 |
| MeFOSAA |  | ND | 0.00172 | 0.00521 | 0.00833 |  | B7J0092 | 17-Oct-17 | 0.120 L | 07-Nov-17 22:17 | 1 |
| PFDS |  | ND | 0.00128 | 0.00521 | 0.00833 |  | B7J0092 | 17-Oct-17 | 0.120 L | 07-Nov-17 22:17 | 1 |
| PFUnA |  | ND | 0.00109 | 0.00521 | 0.00833 |  | B7J0092 | 17-Oct-17 | 0.120 L | 07-Nov-17 22:17 | 1 |
| EtFOSAA |  | ND | 0.00143 | 0.00521 | 0.00833 |  | B7J0092 | 17-Oct-17 | 0.120 L | 07-Nov-17 22:17 | 1 |
| PFDoA |  | ND | 0.000825 | 0.00521 | 0.00833 |  | B7J0092 | 17-Oct-17 | 0.120 L | 07-Nov-17 22:17 | 1 |
| PFTrDA |  | ND | 0.000514 | 0.00521 | 0.00833 |  | B7J0092 | 17-Oct-17 | 0.120 L | 07-Nov-17 22:17 | 1 |
| PFTeDA |  | ND | 0.000786 | 0.00521 | 0.00833 |  | B7J0092 | 17-Oct-17 | 0.120 L | 07-Nov-17 22:17 | 1 |
| Labeled Standards | s Type | \% Recovery |  | Limits |  | Qualifiers | Batch | Extracted | Samp Size | Analyzed | Dilution |
| 13C3-PFBA | IS | 84.5 |  | 50-150 |  |  | B7J0092 | 17-Oct-17 | 0.120 L | 07-Nov-17 22:17 | 1 |
| 13C3-PFPeA | IS | 83.5 |  | 50-150 |  |  | B7J0092 | 17-Oct-17 | 0.120 L | 07-Nov-17 22:17 | 1 |
| 13C3-PFBS | IS | 88.1 |  | 50-150 |  |  | B7J0092 | 17-Oct-17 | 0.120 L | 07-Nov-17 22:17 | 1 |
| 13C2-PFHxA | IS | 82.8 |  | 50-150 |  |  | B7J0092 | 17-Oct-17 | 0.120 L | 07-Nov-17 22:17 | 1 |
| 13C4-PFHpA | IS | 82.1 |  | 50-150 |  |  | B7J0092 | 17-Oct-17 | 0.120 L | 07-Nov-17 22:17 | 1 |
| 1802-PFHxS | IS | 80.2 |  | 50-150 |  |  | B7J0092 | 17-Oct-17 | 0.120 L | 07-Nov-17 22:17 | 1 |
| 13C2-PFOA | IS | 78.2 |  | 50-150 |  |  | B7J0092 | 17-Oct-17 | 0.120 L | 07-Nov-17 22:17 | 1 |
| 13C8-PFOS | IS | 98.7 |  | 50-150 |  |  | B7J0092 | 17-Oct-17 | 0.120 L | 07-Nov-17 22:17 | 1 |
| 13C5-PFNA | IS | 78.6 |  | 50-150 |  |  | B7J0092 | 17-Oct-17 | 0.120 L | 07-Nov-17 22:17 | 1 |
| 13C2-PFDA | IS | 57.3 |  | 50-150 |  |  | B7J0092 | 17-Oct-17 | 0.120 L | 07-Nov-17 22:17 | 1 |
| 13C8-PFOSA | IS | 82.8 |  | 50-150 |  |  | B7J0092 | 17-Oct-17 | 0.120 L | 07-Nov-17 22:17 | 1 |
| d3-MeFOSAA | IS | 68.8 |  | 50-150 |  |  | B7J0092 | 17-Oct-17 | 0.120 L | 07-Nov-17 22:17 | 1 |
| 13C2-PFUnA | IS | 69.9 |  | 50-150 |  |  | B7J0092 | 17-Oct-17 | 0.120 L | 07-Nov-17 22:17 | 1 |
| d5-EtFOSAA | IS | 71.0 |  | 50-150 |  |  | B7J0092 | 17-Oct-17 | 0.120 L | 07-Nov-17 22:17 | 1 |
| 13C2-PFDoA | IS | 95.4 |  | 50-150 |  |  | B7J0092 | 17-Oct-17 | 0.120 L | 07-Nov-17 22:17 | 1 |
| 13C2-PFTeDA | IS | 105 |  | 50-150 |  |  | B7J0092 | 17-Oct-17 | 0.120 L | 07-Nov-17 22:17 | 1 |

LCL-UCL- Lower control limit - upper control limit
Results reported to the DL
When reported, PFHxS, PFOA and PFOS include both linear and branched isomers.
Only the linear isomer is reported for all other analytes.


LCL-UCL- Lower control limit - upper control limit
Results reported to the DL
When reported, PFHxS, PFOA and PFOS include both linear and branched isomers.
Only the linear isomer is reported for all other analytes.

## DATA QUALIFIERS \& ABBREVIATIONS

B This compound was also detected in the method blank.
D Dilution
E The associated compound concentration exceeded the calibration range of the instrument.

H Recovery and/or RPD was outside laboratory acceptance limits.
I Chemical Interference
J The amount detected is below the Reporting Limit/LOQ.
M Estimated Maximum Possible Concentration. (CA Region 2 projects only)

* See Cover Letter

Conc. Concentration
NA Not applicable
ND Not Detected

TEQ Toxic Equivalency
U Not Detected (specific projects only)

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.

## CERTIFICATIONS

| Accrediting Authority | Certificate Number |
| :--- | :---: |
| Arkansas Department of Environmental Quality | $17-015-0$ |
| California Department of Health - ELAP | 2892 |
| DoD ELAP - A2LA Accredited - ISO/IEC 17025:2005 | 3091.01 |
| Florida Department of Health | E87777-18 |
| Hawaii Department of Health | N/A |
| Louisiana Department of Environmental Quality | 01977 |
| Maine Department of Health | 2016026 |
| Minnesota Department of Health | 1175673 |
| New Hampshire Environmental Accreditation Program | 207716 |
| New Jersey Department of Environmental Protection | CA003 |
| New York Department of Health | 11411 |
| Oregon Laboratory Accreditation Program | $4042-008$ |
| Pennsylvania Department of Environmental Protection | 013 |
| Texas Commission on Environmental Quality | T104704189-17-8 |
| Virginia Department of General Services | 8621 |
| Washington Department of Ecology | C584 |
| Wisconsin Department of Natural Resources | 998036160 |

Current certificates and lists of licensed parameters are located in the Quality Assurance office and are available upon request.

## NELAP Accredited Test Methods

| MATRIX: Air |  |
| :--- | :--- |
| Description of Test | Method |
| Determination of Polychlorinated p-Dioxins \& Polychlorinated <br> Dibenzofurans | EPA 23 |


| MATRIX: Biological Tissue |  |
| :--- | :--- |
| Description of Test | Method |
| Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope <br> Dilution GC/HRMS | EPA 1613B |
| Brominated Diphenyl Ethers by HRGC/HRMS | EPA 1614A |
| Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue <br> by GC/HRMS | EPA 1668A/C |
| Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by <br> HRGC/HRMS | EPA 1699 |
| Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS | EPA 537 |
| Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by <br> GC/HRMS | EPA 8280A/B |
| Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated <br> Dibenzofurans (PCDFs) by GC/HRMS | EPA <br> $8290 / 8290 A$ |


| MATRIX: Drinking Water |  |
| :--- | :--- |
| Description of Test | Method |
| 2,3,7,8-Tetrachlorodibenzo- p-dioxin (2,3,7,8-TCDD) GC/HRMS | EPA 1613 |
| Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS | EPA 537 |


| MATRIX: Non-Potable Water |  |
| :--- | :--- |
| Description of Test | Method |
| Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope <br> Dilution GC/HRMS | EPA 1613B |
| Brominated Diphenyl Ethers by HRGC/HRMS | EPA 1614A |
| Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue <br> by GC/HRMS | EPA 1668A/C |
| Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS | EPA 1699 |
| Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS | EPA 537 |
| Dioxin by GC/HRMS | EPA 613 |
| Polychlorinated Dibenzo-p-Dioxins and Polychlorinated <br> Dibenzofurans by GC/HRMS | EPA 8280A/B |
| Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated <br> Dibenzofurans (PCDFs) by GC/HRMS | EPA |


| MATRIX: Solids |  |
| :--- | :--- |
| Description of Test | Method |
| Tetra-Octa Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS | EPA 1613 |
| Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope | EPA 1613B |


| Dilution GC/HRMS |  |
| :--- | :--- |
| Brominated Diphenyl Ethers by HRGC/HRMS | EPA 1614A |
| Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue <br> by GC/HRMS | EPA 1668A/C |
| Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS | EPA 537 |
| Polychlorinated Dibenzo-p-Dioxins and Polychlorinated <br> Dibenzofurans by GC/HRMS | EPA 8280A/B |
| Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated <br> Dibenzofurans (PCDFs) by GC/HRMS | EPA |

$\qquad$


Vista Analytical

1104 Windfietd Way E1 Dorado Hills, CA 95762

TEL: 916-873-1520

1701439
Vista PM: Karen Volpendesta
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$\square$
CHAIN OF CUSTODY RECORD
DATE: $\square$ 51201 - $10 / 6 / 2017$
PAGE: of $\qquad$ 3

| Vista Work Order \#: 178432 1701431$\qquad$ TAT 10 business days |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Samples Arrival: | $\begin{aligned} & \text { Date/Time } \\ & 10 / 07 / 17 \quad 0923 \end{aligned}$ |  | Initials: UulS |  | Location: WR-2 <br> Shelf/Rack: N/a |  |
| Logged In: | Date/Time BAB $1010 / 17$ 10107117 <br> $110110 / 171025$ |  | Initials: <br> mis BAB |  | $\begin{aligned} & \text { Location: WR-2 } \\ & \text { Shelf/Rack: } B-5 \end{aligned}$ |  |
| Delivered | FedEx UPS | On Trac | GSO | DHL | Hand Delivered | Other |
| Preservatio |  | Blue |  |  | y lce | None |
| Temp ${ }^{\circ} \mathrm{C}$ : $0_{0} 9$ (uncorrected) |  | Time: 0936 <br> Probe used: Yes口 No风 |  |  | Thermometer ID: IR-1 |  |
| Temp ${ }^{\circ} \mathrm{C}$ : | (corrected) |  |  |  |  |  |


| Adequate Sample Volume Received? | $\checkmark$ |  |  |
| :--- | :---: | :---: | :---: |
| Holding Time Acceptable? | $\checkmark$ |  |  |
| Shipping Container(s) Intact? | $\checkmark$ |  |  |
| Shipping Custody Seals Intact? | $\checkmark$ |  |  |
| Shipping Documentation Present? | Trk\# 8081 9079 | S264 | $\checkmark$ |
| Airbill | $\checkmark$ |  |  |
| Sample Container Intact? | $\checkmark$ |  |  |
| Sample Custody Seals Intact? |  |  | $\checkmark$ |
| Chain of Custody / Sample Documentation Present? | $\checkmark$ |  |  |
| coc Anomaly/Sample Acceptance Form completed? |  | $\checkmark$ | $\checkmark$ |
| If Chlorinated or Drinking Water Samples, Acceptable Preservation? | $\checkmark$ |  |  |
| Preservation Documented: | Na $2 \mathrm{~S}_{2} \mathrm{O}_{3}$ | Trizma | None |
| Shipping Container | Yes | No | NA |

Comments: samples received in 125 mh HDPE tottles with an exception of semples:


## EXTRACTION INFORMATION

Prep Expiration: 2017-Oct-19
Client: KMEA

Method: 537M PFAS DOD (LOQ as mR) Matrix: Aqueous

Workorder Due:23-Oct-17 00:00
TAT: 16

Prep Batch:
B750092
Prep Data Entered: $\frac{10-18.1771}{\text { Date and Initials }}$
Initial Sequence: $\qquad$ DoD: DoD QSM 5.1

|  |  | Prep <br> Rec | Spike <br> Rec | ClientSamplelD | Comments | Location |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | Container



Prep Check in: NA

Prep Reconciled inialsodeat: KC 10116117


Matrix: Aqueous
Method: 537M PFAS DOD (LOQ as mRL)

PREPARATION BENCH SHEET

| B7J0092 |
| :---: |

Prepared using: LCMS - SPE Extraction-LCMS

Chemist: $\quad 17$
Prep Date/Time: 16-pct-17 08:43
10.17 .17

|  |  |  |  |  |  |  |  |  | $\begin{gathered} \text { IHNS } \\ \text { CHEMTIT } \\ \text { DATTE } \end{gathered}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Cen |  | ${ }_{\text {Bectre }}^{\text {phe }}$ | ${ }_{\text {Afer }}^{\substack{\text { PH } \\ \\ \hline}}$ | $\begin{aligned} & \text { Chlorine } \\ & (\mathrm{Cl}) \end{aligned}$ | $\begin{array}{\|l\|l\|} \hline \text { Props } \\ \text { Hedded } \end{array}$ |  | $\begin{gathered} \text { Bottle } \\ \text { Only } \\ (\mathrm{g}) \end{gathered}$ | $\begin{aligned} & \text { sample } \\ & \text { Ant } \\ & \hline(L) \end{aligned}$ |  |  |  |
| $\square$ | B7J092-BIK1 | 5 | 2 | 0 | 2 | NA | NA | (0.125) | 74 KC 10.12. | KC | 1t KC 10.17.17 |
| $\square$ | ${ }^{\text {B70009-ESI }}$ | 5 | 2 | 0 | 2 | I | I | (0125) | - | T | - |
| $\square$ | ${ }^{1701432-088 E 1 / A}$ | 7 | 2 | 0 | 3 | 88.07 | 27.17 | 0.06090 |  |  |  |
| $\square$ | ${ }^{1701}$ | 5 | 2 | 0 | 2 | 14.33 | 27.27 | 0.12006 | , |  |  |
| $\square$ | 17014 | 6 | 2 | 0 | 3 | 142.96 | 27.18 | 0.1678 | ) |  |  |
| $\square$ | ${ }^{1701439-03}$ | 4 | 2 | 0 | 2 | 147.58 | 27.17 | 0.12041 | X |  |  |
| $\square$ | ${ }^{1701439-04}$ | 5 | 2 | 0 | 4 | 146.69 | 27.09 | 0.11960 |  |  |  |
| $\square$ | ${ }^{1701439.05}$ | 5 | 2 | 0 | 2 | 146.65 | 27.18 | 0.11947 | $\downarrow$ | J | + |


|  | SPe Chem: Strata $\times$ AW 33 uin 20 mm Ele solv: Medtel. $5 \%$ NHyut inmedt Final Volume(s) $\qquad$ $1 m$ | Notes:(A)Spilled whiteprepping, low volume . KC $10116 / 17$ |
| :---: | :---: | :---: |

## Batch: B7J0092

Matrix: Aqueous



## SAMPLE DATA - MODIFIED EPA METHOD 537

## Quantify Sample Summary Report

MassLynx MassLynx V4.1 SCN 945

U:\Q4.PRO\results\171026M1\171026M1-22.qld

| Dataset: | U:IQ4.PRO\results\|171026M11171026M1-22.qld |
| :--- | :--- |
| Last Altered: | Friday, October 27, 2017 13:08:18 Pacific Daylight Time |
| Printed: | Friday, October 27, 2017 13:09:01 Pacific Daylight Time |

## Method: U:\Q4.PRO\MethDB|PFAS_FULL_80C_102517.mdb 27 Oct 2017 11:45:01

 Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_10-26-17-FULL_NOPFODA.cdb 27 Oct 2017 10:26:14Name: 171026M1_22, Date: 26-Oct-2017, Time: 13:10:47, ID: B7J0092-BLK1 Method Blank 0.125, Description: Method Blank

|  | \# Name | Trace | Area | IS Area | Wt./Vol. | RRF | Pred.RT | RT | y Axis Resp. | Conc. | \%Rec |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 PFBA | $213.0>168.8$ |  | 6.75 e 3 | 0.125 |  | 1.32 |  |  |  |  |
| 2 | 2 PFPeA | $263.1>218.9$ |  | 7.35 e 3 | 0.125 |  | 2.31 |  |  |  |  |
| 3 | 3 PFBS | $299.0>79.7$ |  | 1.02 e 3 | 0.125 |  | 2.59 |  |  |  |  |
| 4 | 4 PFHxA | $313.2>268.9$ |  | 3.04 e 3 | 0.125 |  | 3.08 |  |  |  |  |
| 5 | 5 PFHpA | 363.0 > 318.9 |  | 6.97e3 | 0.125 |  | 3.70 |  |  |  |  |
| 6 | 6 L-PFHxS | $398.9>79.6$ | 4.23 e 0 | 8.55 e 2 | 0.125 |  | 3.86 | 3.76 | 0.0619 | 0.849 |  |
| 7 | 9 L-PFOA | $413>368.7$ | 2.11 e 2 | 1.05 e 4 | 0.125 |  | 4.23 | 4.15 | 0.252 |  |  |
| 8 | 12 PFNA | $463.0>418.8$ |  | 9.67 e 3 | 0.125 |  | 4.67 |  |  |  |  |
| 9 | 13 PFOSA | $498.1>77.8$ |  | 2.01 e3 | 0.125 |  | 4.72 |  |  |  |  |
| 10 | 14 L-PFOS | $499>79.9$ |  | 2.53 e3 | 0.125 |  | 4.76 |  |  |  |  |
| 11 | 16 PFDA | $513>468.8$ |  | 9.48 e 3 | 0.125 |  | 5.05 |  |  |  |  |
| 12 | 18 N-MeFOSAA | $570.1>419$ |  | 3.51 e 3 | 0.125 |  | 5.21 |  |  |  |  |
| 13 | $19 \mathrm{~N}-\mathrm{EtFOSAA}$ | $584.2>419$ |  | 3.99 e 3 | 0.125 |  | 5.37 |  |  |  |  |
| 14 | 20 PFUnA | $563.0>518.9$ | 4.71 e 1 | 1.12 e 4 | 0.125 |  | 5.38 | 5.30 | 0.0523 | 0.140 |  |
| 15 | 21 PFDS | $598.8>80$ |  | 1.12 e 4 | 0.125 |  | 5.43 |  |  |  |  |
| 16 | 22 PFDoA | $612.9>569.0$ |  | 1.08 e 4 | 0.125 |  | 5.67 |  |  |  |  |
| 17 | 24 PFTrDA | $662.9>618.9$ |  | 1.08 e 4 | 0.125 |  | 5.92 |  |  |  |  |


| Dataset: | U:IQ4.PRO\results\171026M1\171026M1-22.qld |
| :--- | :--- |
| Last Altered: | Friday, October 27, 2017 13:08:18 Pacific Daylight Time |
| Printed: | Friday, October 27, 2017 13:09:15 Pacific Daylight Time |

## Method: U:\Q4.PRO\MethDB|PFAS_FULL_80C_102517.mdb 27 Oct 2017 11:45:01

 Calibration: U:\Q4.PRO\CurveDBIC18_VAL-PFĀ_Q4_10-26-17-FULL_NOPFODA.cdb 27 Oct 2017 10:26:14Name: 171026M1_22, Date: 26-Oct-2017, Time: 13:10:47, ID: B7J0092-BLK1 Method Blank 0.125, Description: Method Blank

|  | \# Name | Trace | Area | IS Area | Wt./Vol. | RRF | Pred.RT | RT | y Axis Resp. | Conc. | \%Rec |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 25 PFTeDA | $712.9>668.8$ |  | 8.97e3 | 0.125 |  | 6.13 |  |  |  |  |
| 2 | 31 13C3-PFBA | $216.1>171.8$ | 6.75 e3 | 8.09e3 | 0.125 | 0.928 | 1.33 | 1.23 | 10.4 | 89.9 | 89.9 |
| 3 | 32 13C3-PFPeA | 266. $>221.8$ | 7.35 e 3 | 1.17 e 4 | 0.125 | 0.757 | 2.31 | 2.21 | 7.83 | 82.8 | 82.8 |
| 4 | 33 13C3-PFBS | 302. > 98.8 | 1.02 e 3 | 1.17 e 4 | 0.125 | 0.091 | 2.59 | 2.50 | 1.08 | 95.4 | 95.4 |
| 5 | 34 13C2-PFHxA | $315>269.8$ | 3.04e3 | 1.17 e 4 | 0.125 | 0.739 | 3.08 | 2.99 | 3.23 | 35.0 | 87.5 |
| 6 | 35 13C4-PFHpA | $367.2>321.8$ | 6.97e3 | 1.17 e 4 | 0.125 | 0.684 | 3.70 | 3.62 | 7.43 | 86.9 | 86.9 |
| 7 | 36 1802-PFHxS | 403.0 > 102.6 | 8.55 e 2 | 2.31 e 3 | 0.125 | 0.412 | 3.85 | 3.78 | 4.63 | 89.9 | 89.9 |
| 8 | 37 13C2-6:2 FTS | $429.1>408.9$ | 2.40 e 3 | 1.13 e 4 | 0.125 | 0.248 | 4.18 | 4.09 | 2.65 | 85.4 | 85.4 |
| 9 | 38 13C2-PFOA | $414.9>369.7$ | 1.05 e 4 | 1.13 e 4 | 0.125 | 1.120 | 4.23 | 4.15 | 11.5 | 82.4 | 82.4 |
| 10 | 39 13C5-PFNA | 468.2 > 422.9 | 9.67e3 | 1.25 e 4 | 0.125 | 0.929 | 4.67 | 4.59 | 9.68 | 83.4 | 83.4 |
| 11 | 40 13C8-PFOSA | $506.1>77.7$ | 2.01 e 3 | 1.52 e 4 | 0.125 | 0.246 | 4.72 | 4.64 | 1.65 | 53.6 | 53.6 |
| 12 | 41 13C8-PFOS | $507.0>79.9$ | 2.53 e 3 | 2.41 e 3 | 0.125 | 1.027 | 4.76 | 4.68 | 13.1 | 102 | 102.2 |
| 13 | 42 13C2-PFDA | $515.1>469.9$ | 9.48 e 3 | 1.38 e 4 | 0.125 | 0.946 | 5.05 | 4.98 | 8.59 | 72.7 | 72.7 |
| 14 | 43 13C2-8:2 FTS | $529.1>508.7$ | 2.05 e 3 | 1.38 e 4 | 0.125 | 0.171 | 5.03 | 4.95 | 1.86 | 86.8 | 86.8 |
| 15 | 44 d3-N-MeFOSAA | $573.3>419$ | 3.51 e 3 | 1.52 e 4 | 0.125 | 0.358 | 5.20 | 5.13 | 2.88 | 64.4 | 64.4 |
| 16 | $45 \mathrm{d5}-\mathrm{N}$-EtFOSAA | $589.3>419$ | 3.99 e 3 | 1.52 e 4 | 0.125 | 0.360 | 5.36 | 5.28 | 3.28 | 73.0 | 73.0 |
| 17 | 46 13C2-PFUdA | $565>519.8$ | 1.12 e 4 | 1.52 e 4 | 0.125 | 1.045 | 5.38 | 5.31 | 9.24 | 70.7 | 70.7 |
| 18 | 47 13C2-PFDoA | $615.0>569.7$ | 1.08e4 | 1.52 e 4 | 0.125 | 1.141 | 5.67 | 5.60 | 8.84 | 62.0 | 62.0 |
| 19 | 49 13C2-PFTeDA | $714.8>669.6$ | 8.97 e 3 | 1.52 e 4 | 0.125 | 0.934 | 6.13 | 6.07 | 7.37 | 63.1 | 63.1 |
| 20 | 54 13C4-PFBA | $217 .>171.8$ | 8.09 e 3 | 8.09 e 3 | 0.125 | 1.000 | 1.33 | 1.23 | 12.5 | 100 | 100.0 |
| 21 | 55 13C5-PFHxA | $318>272.9$ | 1.17 e 4 | 1.17 e 4 | 0.125 | 1.000 | 3.08 | 2.99 | 12.5 | 100 | 100.0 |
| 22 | 56 13C3-PFHxS | $401.9>79.9$ | 2.31 e 3 | 2.31 e 3 | 0.125 | 1.000 | 3.85 | 3.77 | 12.5 | 100 | 100.0 |
| 23 | 57 13C8-PFOA | $421.3>376$ | 1.13 e 4 | 1.13 e 4 | 0.125 | 1.000 | 4.23 | 4.15 | 12.5 | 100 | 100.0 |
| 24 | 58 13C9-PFNA | $472.2>426.9$ | 1.25 e 4 | 1.25 e 4 | 0.125 | 1.000 | 4.67 | 4.59 | 12.5 | 100 | 100.0 |
| 25 | 59 13C4-PFOS | $503>79.9$ | 2.41 e 3 | 2.41 e 3 | 0.125 | 1.000 | 4.76 | 4.68 | 12.5 | 100 | 100.0 |
| 26 | 60 13C6-PFDA | $519.1>473.7$ | 1.38 e 4 | 1.38 e 4 | 0.125 | 1.000 | 5.05 | 4.97 | 12.5 | 100 | 100.0 |
| 27 | 61 13C7-PFUnA | $570.1>524.8$ | 1.52 e 4 | 1.52 e 4 | 0.125 | 1.000 | 5.38 | 5.31 | 12.5 | 100 | 100.0 |
| 28 | 62 Total PFHxS | $398.9>79.6$ |  | 8.55 e 2 |  |  |  |  |  | 0.849 |  |
| 29 | 63 Total PFOA | $413>368.7$ | 2.11 e 2 | 1.05 e 4 | 0.125 |  | 4.23 |  | 0.000 |  |  |
| 30 | 64 Total PFOS | $499>79.9$ | 0.00e0 | 2.53 e 3 | 0.125 |  | 4.67 |  | 0.000 |  |  |
| 31 | 65 Total N-MeFOSAA | $570.1>419$ | 0.00e0 | 3.51 e 3 | 0.125 |  | 5.21 |  | 0.000 |  |  |
| 32 | 66 Total N-EtFOSAA | $584.2>419$ | 0.00e0 | 3.99 e 3 | 0.125 |  | 5.37 |  | 0.000 |  |  |

AC 10/27/17
Work Order 1701439 Revision 1

## Dataset:

U:IQ4.PROIresults 1 171026M11171026M1-22.qld
Last Altered: Friday, October 27, 2017 13:08:18 Pacific Daylight Time Printed: Friday, October 27, 2017 13:09:15 Pacific Daylight Time

## Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_102517.mdb 27 Oct 2017 11:45:01

## Calibration: U:\Q4.PRO\CurveDBIC18_VAL-PFĀ_Q4_10-26-17-FULL_NOPFODA.cdb 27 Oct 2017 10:26:14

## Name: 171026M1_22, Date: 26-Oct-2017, Time: 13:10:47, ID: B7J0092-BLK1 Method Blank 0.125, Description: Method Blank



## 13C3-PFBA




13C3-PFPeA


## PFBS




13C3-PFBS



## Dataset:

U:IQ4.PRO|results1171026M11171026M1-22.qld

## Last Altered: Friday, October 27, 2017 13:08:18 Pacific Daylight Time

 Printed: Friday, October 27, 2017 13:09:15 Pacific Daylight Time
## Name: 171026M1_22, Date: 26-Oct-2017, Time: 13:10:47, ID: B7J0092-BLK1 Method Blank 0.125, Description: Method Blank

## PFHpA

F13:MRM of 2 channels,ES-
$363.0>318.9$
$6.698 \mathrm{e}+002$


13C4-PFHpA

## Total PFHxS



1802-PFHxS


## Total PFOA

| F18:MRM of 2 channels,ES- |
| ---: | ---: |
| $413>368.7$ |



13C2-PFOA


PFNA
F24:MRM of 2 channels,ES-
$463.0>418.8$
$9.275 \mathrm{e}+002$

F24:MRM of 2 channels,ES463.0 > 219.0 $1.000 \mathrm{e}-003$


13C5-PFNA


## Dataset: <br> U:IQ4.PRO|results1171026M11171026M1-22.qld

## Last Altered: Friday, October 27, 2017 13:08:18 Pacific Daylight Time

 Printed: Friday, October 27, 2017 13:09:15 Pacific Daylight Time
## Name: 171026M1_22, Date: 26-Oct-2017, Time: 13:10:47, ID: B7J0092-BLK1 Method Blank 0.125, Description: Method Blank



F27:MRM of 2 channels,ES$498.1>478$ $1.000 \mathrm{e}-003$


## 13C8-PFOSA

Total PFOS


F29:MRM of 2 channels,ES-


13C8-PFOS


## PFDA




13C2-PFDA


## N-MeFOSAA



F44:MRM of 2 channels,ES-
570.1 > 483.0 $1.000 \mathrm{e}-003$

d3-N-MeFOSAA


## Dataset: <br> U:IQ4.PRO|results1171026M11171026M1-22.qld

Last Altered: Friday, October 27, 2017 13:08:18 Pacific Daylight Time Printed: Friday, October 27, 2017 13:09:15 Pacific Daylight Time

## Name: 171026M1_22, Date: 26-Oct-2017, Time: 13:10:47, ID: B7J0092-BLK1 Method Blank 0.125, Description: Method Blank

| N-EtFOSAA |  |
| ---: | ---: |
|  | F47:MRM of 2 channels,ES- |
|  | $584.2>419$ |
| 100 |  |



13C2-PFUdA
F43:MRM of 1 channel,ES$565>519.8$ $2.999 \mathrm{e}+005$ $589.3>419$ $1.079 \mathrm{e}+005$



13C2-PFUdA



13C2-PFDoA


## Dataset:

U:IQ4.PRO|results $1171026 \mathrm{M} 11171026 \mathrm{M} 1-22$. qld

## Last Altered: Friday, October 27, 2017 13:08:18 Pacific Daylight Time

 Printed: Friday, October 27, 2017 13:09:15 Pacific Daylight Time
## Name: 171026M1_22, Date: 26-Oct-2017, Time: 13:10:47, ID: B7J0092-BLK1 Method Blank 0.125, Description: Method Blank

## PFTrDA



F56:MRM of 2 channels,ES662.9 > 319 $1.000 \mathrm{e}-003$


## 13C2-PFTeDA



13C2-PFTeDA



13C8-PFOS


13C4-PFBA


13C5-PFHxA


U:IQ4.PROIresults 1 171026M11171026M1-22.qld

## Last Altered: Friday, October 27, 2017 13:08:18 Pacific Daylight Time

 Printed: Friday, October 27, 2017 13:09:15 Pacific Daylight Time
## Name: 171026M1_22, Date: 26-Oct-2017, Time: 13:10:47, ID: B7J0092-BLK1 Method Blank 0.125, Description: Method Blank

## 13C3-PFHxS




13C9-PFNA


## 13C8-PFOS



13C4-PFOS


## Quantify Sample Summary Report

MassLynx MassLynx V4.1 SCN 945

| Dataset: | U:IQ4.PRO\results\171026M11171026M1-16.qld |
| :--- | :--- |
| Last Altered: | Friday, October 27, 2017 12:58:27 Paciific Daylight Time |
| Printed: | Friday, October 27, 2017 13:05:00 Pacific Daylight Time |

## Method: U:\Q4.PRO\MethDB|PFAS_FULL_80C_102517.mdb 27 Oct 2017 11:45:01

 Calibration: U:|Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_10-26-17-FULL_NOPFODA.cdb 27 Oct 2017 10:26:14Name: 171026M1_16, Date: 26-Oct-2017, Time: 12:03:33, ID: B7J0092-BS1 OPR 0.125, Description: OPR

|  | \# Name | Trace | Area | IS Area | Wt./Vol. | RRF | Pred.RT | RT | y Axis Resp. | Conc. | \%Rec |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 PFBA | $213.0>168.8$ | 6.57e3 | 7.51e3 | 0.125 |  | 1.32 | 1.23 | 10.9 | 69.9 | 87.3 |
| 2 | 2 PFPeA | $263.1>218.9$ | 6.52 e 3 | 8.00 e 3 | 0.125 |  | 2.31 | 2.21 | 10.2 | 70.7 | 88.3 |
| 3 | 3 PFBS | $299.0>79.7$ | 1.72 e 3 | 9.89 e 2 | 0.125 |  | 2.59 | 2.51 | 21.7 | 71.4 | 89.2 |
| 4 | 4 PFHxA | $313.2>268.9$ | 1.01 e 4 | 3.27 e 3 | 0.125 |  | 3.08 | 3.00 | 15.5 | 74.1 | 92.7 |
| 5 | 5 PFHpA | $363.0>318.9$ | 8.27 e 3 | 7.73 e3 | 0.125 |  | 3.70 | 3.62 | 13.4 | 70.8 | 88.5 |
| 6 | 6 L-PFHxS | $398.9>79.6$ | 1.46 e 3 | 8.12 e 2 | 0.125 |  | 3.86 | 3.78 | 22.5 | 74.3 | 92.9 |
| 7 | 9 L-PFOA | $413>368.7$ | 8.48 e 3 | 1.09 e 4 | 0.125 |  | 4.23 | 4.15 | 9.69 | 66.7 | 83.4 |
| 8 | 12 PFNA | $463.0>418.8$ | 9.89 e 3 | 9.79e3 | 0.125 |  | 4.67 | 4.59 | 12.6 | 69.6 | 87.1 |
| 9 | 13 PFOSA | $498.1>77.8$ | 1.50 e 3 | 2.15 e 3 | 0.125 |  | 4.72 | 4.64 | 8.70 | 59.6 | 74.6 |
| 10 | 14 L-PFOS | $499>79.9$ | 1.95 e 3 | 2.79e3 | 0.125 |  | 4.76 | 4.68 | 8.73 | 60.6 | 75.7 |
| 11 | 16 PFDA | $513>468.8$ | 1.03 e 4 | 9.27e3 | 0.125 |  | 5.05 | 4.98 | 13.8 | 81.8 | 102.2 |
| 12 | 18 N-MeFOSAA | $570.1>419$ | 3.52 e 3 | 3.11 e 3 | 0.125 |  | 5.21 | 5.13 | 14.2 | 71.5 | 89.4 |
| 13 | $19 \mathrm{~N}-\mathrm{EtFOSAA}$ | $584.2>419$ | 2.66 e 3 | 3.36 e 3 | 0.125 |  | 5.37 | 5.29 | 9.87 | 62.2 | 77.8 |
| 14 | 20 PFUnA | $563.0>518.9$ | 8.48 e 3 | 1.05 e 4 | 0.125 |  | 5.38 | 5.31 | 10.1 | 70.7 | 88.3 |
| 15 | 21 PFDS | $598.8>80$ | 2.05 e 3 | 1.05 e 4 | 0.125 |  | 5.43 | 5.36 | 2.44 | 99.7 | 124.6 |
| 16 | 22 PFDoA | $612.9>569.0$ | 1.12 e 4 | 1.15 e 4 | 0.125 |  | 5.67 | 5.60 | 12.2 | 76.6 | 95.7 |
| 17 | 24 PFTrDA | $662.9>618.9$ | 1.41 e 4 | 1.15 e 4 | 0.125 |  | 5.92 | 5.86 | 15.4 | 91.7 | 114.6 |


| Dataset: | U:IQ4.PROYresults\171026M1\171026M1-16.qld |
| :--- | :--- |
| Last Altered: | Friday, October 27, 2017 12:58:27 Pacific Daylight Time |
| Printed: | Friday, October 27, 2017 13:12:38 Pacific Daylight Time |

## Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_102517.mdb 27 Oct 2017 11:45:01

 Calibration: U:IQ4.PRO\CurveDBIC18_VAL-PFĀS_Q4_10-26-17-FULL_NOPFODA.cdb 27 Oct 2017 10:26:14Name: 171026M1_16, Date: 26-Oct-2017, Time: 12:03:33, ID: B7J0092-BS1 OPR 0.125, Description: OPR

|  | \# Name | Trace | Area | IS Area | Wt./Vol. | RRF | Pred.RT | RT | y Axis Resp. | Conc. | \%Rec |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 25 PFTeDA | $712.9>668.8$ | 1.25 e 4 | 1.30 e 4 | 0.125 |  | 6.13 | 6.07 | 12.1 | 58.2 | 72.8 |
| 2 | 31 13C3-PFBA | $216.1>171.8$ | 7.51 e 3 | 9.00 e 3 | 0.125 | 0.928 | 1.33 | 1.23 | 10.4 | 89.9 | 89.9 |
| 3 | 32 13C3-PFPeA | 266. $>221.8$ | 8.00 e 3 | 1.33 e 4 | 0.125 | 0.757 | 2.31 | 2.21 | 7.50 | 79.3 | 79.3 |
| 4 | 33 13C3-PFBS | 302. > 98.8 | 9.89 e 2 | 1.33 e 4 | 0.125 | 0.091 | 2.59 | 2.50 | 0.928 | 81.8 | 81.8 |
| 5 | 34 13C2-PFHxA | $315>269.8$ | 3.27e3 | 1.33 e 4 | 0.125 | 0.739 | 3.08 | 3.00 | 3.07 | 33.2 | 83.1 |
| 6 | 35 13C4-PFHpA | $367.2>321.8$ | 7.73 e 3 | 1.33 e 4 | 0.125 | 0.684 | 3.70 | 3.62 | 7.25 | 84.8 | 84.8 |
| 7 | 36 1802-PFHxS | 403.0 > 102.6 | 8.12 e 2 | 2.39 e 3 | 0.125 | 0.412 | 3.85 | 3.78 | 4.25 | 82.4 | 82.4 |
| 8 | 37 13C2-6:2 FTS | $429.1>408.9$ | 2.57 e 3 | 1.18 e 4 | 0.125 | 0.248 | 4.18 | 4.10 | 2.71 | 87.6 | 87.6 |
| 9 | 38 13C2-PFOA | $414.9>369.7$ | 1.09 e 4 | 1.18 e 4 | 0.125 | 1.120 | 4.23 | 4.15 | 11.6 | 82.5 | 82.5 |
| 10 | 39 13C5-PFNA | 468.2 > 422.9 | 9.79 e 3 | 1.29 e 4 | 0.125 | 0.929 | 4.67 | 4.59 | 9.49 | 81.7 | 81.7 |
| 11 | 40 13C8-PFOSA | $506.1>77.7$ | 2.15 e 3 | 1.51 e 4 | 0.125 | 0.246 | 4.72 | 4.65 | 1.78 | 57.8 | 57.8 |
| 12 | 41 13C8-PFOS | $507.0>79.9$ | 2.79 e 3 | 2.78 e 3 | 0.125 | 1.027 | 4.76 | 4.68 | 12.5 | 97.7 | 97.7 |
| 13 | 42 13C2-PFDA | $515.1>469.9$ | 9.27 e 3 | 1.43 e 4 | 0.125 | 0.946 | 5.05 | 4.98 | 8.12 | 68.7 | 68.7 |
| 14 | 43 13C2-8:2 FTS | $529.1>508.7$ | 2.36 e 3 | 1.43 e 4 | 0.125 | 0.171 | 5.03 | 4.95 | 2.07 | 96.6 | 96.6 |
| 15 | 44 d3-N-MeFOSAA | $573.3>419$ | 3.11 e 3 | 1.51 e 4 | 0.125 | 0.358 | 5.20 | 5.13 | 2.57 | 57.6 | 57.6 |
| 16 | $45 \mathrm{d5}-\mathrm{N}$-EtFOSAA | $589.3>419$ | 3.36 e 3 | 1.51 e 4 | 0.125 | 0.360 | 5.36 | 5.29 | 2.78 | 61.9 | 61.9 |
| 17 | 46 13C2-PFUdA | $565>519.8$ | 1.05 e 4 | 1.51 e 4 | 0.125 | 1.045 | 5.38 | 5.31 | 8.68 | 66.4 | 66.4 |
| 18 | 47 13C2-PFDoA | $615.0>569.7$ | 1.15 e 4 | 1.51 e 4 | 0.125 | 1.141 | 5.67 | 5.60 | 9.50 | 66.6 | 66.6 |
| 19 | 49 13C2-PFTeDA | $714.8>669.6$ | 1.30 e 4 | 1.51 e 4 | 0.125 | 0.934 | 6.13 | 6.07 | 10.7 | 92.0 | 92.0 |
| 20 | 54 13C4-PFBA | $217 .>171.8$ | 9.00 e 3 | 9.00 e 3 | 0.125 | 1.000 | 1.33 | 1.23 | 12.5 | 100 | 100.0 |
| 21 | 55 13C5-PFHxA | $318>272.9$ | 1.33 e 4 | 1.33 e 4 | 0.125 | 1.000 | 3.08 | 2.99 | 12.5 | 100 | 100.0 |
| 22 | 56 13C3-PFHxS | $401.9>79.9$ | 2.39 e3 | 2.39 e 3 | 0.125 | 1.000 | 3.85 | 3.78 | 12.5 | 100 | 100.0 |
| 23 | 57 13C8-PFOA | $421.3>376$ | 1.18 e 4 | 1.18 e 4 | 0.125 | 1.000 | 4.23 | 4.15 | 12.5 | 100 | 100.0 |
| 24 | 58 13C9-PFNA | $472.2>426.9$ | 1.29 e 4 | 1.29 e 4 | 0.125 | 1.000 | 4.67 | 4.59 | 12.5 | 100 | 100.0 |
| 25 | 59 13C4-PFOS | $503>79.9$ | 2.78 e 3 | 2.78 e 3 | 0.125 | 1.000 | 4.76 | 4.68 | 12.5 | 100 | 100.0 |
| 26 | 60 13C6-PFDA | $519.1>473.7$ | 1.43 e 4 | 1.43 e 4 | 0.125 | 1.000 | 5.05 | 4.98 | 12.5 | 100 | 100.0 |
| 27 | 61 13C7-PFUnA | $570.1>524.8$ | 1.51 e 4 | 1.51 e 4 | 0.125 | 1.000 | 5.38 | 5.31 | 12.5 | 100 | 100.0 |
| 28 | 62 Total PFHxS | $398.9>79.6$ |  | 8.12 e 2 |  |  |  |  |  |  |  |
| 29 | 63 Total PFOA | $413>368.7$ | 8.48 e 3 | 1.09 e 4 | 0.125 |  | 4.23 |  | 9.69 | 66.7 |  |
| 30 | 64 Total PFOS | $499>79.9$ | 1.95 e 3 | 2.79 e 3 | 0.125 |  | 4.67 |  | 8.73 | 60.6 |  |
| 31 | 65 Total N-MeFOSAA | $570.1>419$ | 3.52e3 | 3.11 e 3 | 0.125 |  | 5.21 |  | 14.2 | 71.5 |  |
| 32 | 66 Total N-EtFOSAA | $584.2>419$ | 2.66 e 3 | 3.36 e 3 | 0.125 |  | 5.37 |  | 9.87 | 62.2 |  |

## Dataset:

U:IQ4.PROIresults 1 171026M11171026M1-16.qld
Last Altered: Friday, October 27, 2017 12:58:27 Pacific Daylight Time Printed: Friday, October 27, 2017 13:05:00 Pacific Daylight Time

## Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_102517.mdb 27 Oct 2017 11:45:01

## Calibration: U:|Q4.PRO\CurveDBIC18_VAL̄-PFĀ_Q4_10-26-17-FULL_NOPFODA.cdb 27 Oct 2017 10:26:14

## Name: 171026M1_16, Date: 26-Oct-2017, Time: 12:03:33, ID: B7J0092-BS1 OPR 0.125, Description: OPR



13C3-PFBA


13C3-PFPeA


## PFBS




13C3-PFBS


## PFHxA




## Dataset: <br> U:IQ4.PRO|results $1171026 \mathrm{M} 11171026 \mathrm{M} 1-16 . q$ qld

Last Altered: Friday, October 27, 2017 12:58:27 Pacific Daylight Time Printed: Friday, October 27, 2017 13:05:00 Pacific Daylight Time

## Name: 171026M1_16, Date: 26-Oct-2017, Time: 12:03:33, ID: B7J0092-BS1 OPR 0.125, Description: OPR

## PFHpA




13C4-PFHpA

## Total PFHxS



1802-PFHxS


Total PFOA



13C2-PFOA


## PFNA



13C5-PFNA


## Dataset: <br> U:IQ4.PRO|results1171026M11171026M1-16.qld

Last Altered: Friday, October 27, 2017 12:58:27 Pacific Daylight Time Printed: Friday, October 27, 2017 13:05:00 Pacific Daylight Time

## Name: 171026M1_16, Date: 26-Oct-2017, Time: 12:03:33, ID: B7J0092-BS1 OPR 0.125, Description: OPR

## PFOSA

| F27:MRM of 2 channels,ES- |
| ---: |
| $498.1>77.8$ |
| $4.126 e+004$ |
| 100 |



13C8-PFOSA

## Total PFOS




13C8-PFOS


## PFDA

| F34:MRM of 2 channels,ES- |
| ---: |
|  |
|  |
| 100 |



13C2-PFDA


## N-MeFOSAA


d3-N-MeFOSAA


## Dataset: <br> U:IQ4.PRO|results $1171026 \mathrm{M} 11171026 \mathrm{M} 1-16 . q$ qld

Last Altered: Friday, October 27, 2017 12:58:27 Pacific Daylight Time Printed: Friday, October 27, 2017 13:05:00 Pacific Daylight Time

## Name: 171026M1_16, Date: 26-Oct-2017, Time: 12:03:33, ID: B7J0092-BS1 OPR 0.125, Description: OPR

## N-EtFOSAA

| F47:MRM of 2 channels,ES- |
| :--- |
| $584.2>419$ |
|  |
| 100 |

F47:MRM of 2 channels,ES-


## d5-N-EtFOSAA




13C2-PFUdA
F43:MRM of 1 channel,ES$565>519.8$ $2.722 \mathrm{e}+005$


## PFDS




13C2-PFUdA


## PFDoA



13C2-PFDoA


## Dataset: <br> U:IQ4.PRO|results $1171026 \mathrm{M} 11171026 \mathrm{M} 1-16 . q$ qld

Last Altered: Friday, October 27, 2017 12:58:27 Pacific Daylight Time Printed: Friday, October 27, 2017 13:05:00 Pacific Daylight Time

## Name: 171026M1_16, Date: 26-Oct-2017, Time: 12:03:33, ID: B7J0092-BS1 OPR 0.125, Description: OPR

## PFTrDA

| F56:MRM of 2 channels,ES- |  |  |
| :---: | :---: | :---: |
|  |  |  |
|  | PFTrDA | $3.719 \mathrm{e}+005$ |
| 1007 | 5.86 |  |
|  | 1.41 e 4 |  |
| \% | 370209 |  |
| \% | bb |  |

F56:MRM of 2 channels,ES-


13C2-PFTeDA



13C2-PFTeDA


## TCDA



13C8-PFOS


13C4-PFBA


13C5-PFHxA


## Dataset:

U:IQ4.PRO|results 1 171026M11171026M1-16.qld

## Last Altered: Friday, October 27, 2017 12:58:27 Pacific Daylight Time

 Printed: Friday, October 27, 2017 13:05:00 Pacific Daylight Time
## Name: 171026M1_16, Date: 26-Oct-2017, Time: 12:03:33, ID: B7J0092-BS1 OPR 0.125, Description: OPR

## 13C3-PFHxS



## 13C6-PFDA



13C7-PFUnA
F45:MRM of 1 channel,ES-
F45:MRM of 1 channel,ES-
$570.1>524.8$


13C9-PFNA


13C8-PFOS


13C4-PFOS


## Quantify Sample Summary Repor

Last Altered: Wednesday, November 08, 2017 10:31:11 Pacific Standard Time
Printed: Wednesday, November 08, 2017 16:13:39 Pacific Standard Time

## Method: U:|Q4.PRO\MethDB\PFAS_FULL_80C_110617_AC.mdb 07 Nov 2017 07:51:36

## Calibration: U:|Q4.PRO\CurveDBIC18_VAL-PFAS_Q4_10-31-17-FULL_OLD.cdb 01 Nov 2017 08:42:13

Name: 171107M2_4, Date: 07-Nov-2017, Time: 22:17:55, ID: 1701439-01 FRB05_20171005 0.125, Description: FRB05_20171005

|  | \# Name | Trace | Area | IS Area | Wt./Vol. | RRF | Pred.RT | RT | y Axis Resp. | Conc. | \%Rec |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 PFBA | $213.0>168.8$ |  | 5.56 e 3 | 0.1201 |  | 1.64 |  |  |  |  |
| 2 | 2 PFPeA | $263.1>218.9$ |  | 6.35 e 3 | 0.1201 |  | 2.63 |  |  |  |  |
| 3 | 3 PFBS | 299.0 > 79.7 |  | 7.60 e 2 | 0.1201 |  | 2.89 |  |  |  |  |
| 4 | 4 PFHxA | $313.2>268.9$ |  | 2.44 e 3 | 0.1201 |  | 3.39 |  |  |  |  |
| 5 | 5 PFHpA | $363.0>318.9$ |  | 5.68 e 3 | 0.1201 |  | 4.02 |  |  |  |  |
| 6 | 6 L-PFHxS | $398.9>79.6$ | 1.24 eO | 5.56 e 2 | 0.1201 |  | 4.16 | 3.95 | 0.0278 |  |  |
| 7 | 9 L-PFOA | $413>368.7$ |  | 7.95 e 3 | 0.1201 |  | 4.53 |  |  |  |  |
| 8 | 12 PFNA | $463.0>418.8$ |  | 6.45 e 3 | 0.1201 |  | 4.96 |  |  |  |  |
| 9 | 13 PFOSA | $498.1>77.8$ |  | 1.66 e 3 | 0.1201 |  | 5.01 |  |  |  |  |
| 10 | 14 L-PFOS | $499>79.9$ |  | 1.67 e 3 | 0.1201 |  | 5.03 |  |  |  |  |
| 11 | 16 PFDA | $513>468.8$ |  | 5.46e3 | 0.1201 |  | 5.33 |  |  |  |  |
| 12 | $18 \mathrm{~N}-\mathrm{MeFOSAA}$ | $570.1>419$ |  | 2.46 e 3 | 0.1201 |  | 5.48 |  |  |  |  |
| 13 | $19 \mathrm{~N}-\mathrm{EtFOSAA}$ | $584.2>419$ |  | 2.68 e 3 | 0.1201 |  | 5.63 |  |  |  |  |
| 14 | 20 PFUdA | $563.0>518.9$ |  | 6.67 e 3 | 0.1201 |  | 5.65 |  |  |  |  |
| 15 | 21 PFDS | $598.8>80$ |  | 6.67e3 | 0.1201 |  | 5.70 |  |  |  |  |
| 16 | 22 PFDoA | $612.9>569.0$ |  | 9.23 e 3 | 0.1201 |  | 5.92 |  |  |  |  |
| 17 | 24 PFTrDA | $662.9>618.9$ |  | 9.23 e 3 | 0.1201 |  | 6.16 |  |  |  |  |

## Quantify Sample Summary Report

MassLynx MassLynx V4.1 SCN 945

Method: U:|Q4.PRO\MethDB\PFAS_FULL_80C_110617_AC.mdb 07 Nov 2017 07:51:36

## Calibration: U:|Q4.PRO\CurveDBIC18_VAL-PFAS_Q4_10-31-17-FULL_OLD.cdb 01 Nov 2017 08:42:13

Name: 171107M2_4, Date: 07-Nov-2017, Time: 22:17:55, ID: 1701439-01 FRB05_20171005 0.125, Description: FRB05_20171005

|  | \# Name | Trace | Area | IS Area | Wt./Vol. | RRF | Pred.RT | RT | y Axis Resp. | Conc. | \%Rec |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 25 PFTeDA | $712.9>668.8$ |  | 1.06e4 | 0.1201 |  | 6.36 |  |  |  |  |
| 2 | 31 13C3-PFBA | $216.1>171.8$ | 5.56 e 3 | 6.93 e3 | 0.1201 | 0.949 | 1.64 | 1.43 | 10.0 | 87.985 | 84.5 |
| 3 | 32 13C3-PFPeA | 266. > 221.8 | 6.35 e 3 | 9.74 e 3 | 0.1201 | 0.781 | 2.63 | 2.41 | 8.16 | 86.959 | 83.5 |
| 4 | 33 13C3-PFBS | 302. > 98.8 | 7.60 e 2 | 9.74 e 3 | 0.1201 | 0.089 | 2.89 | 2.69 | 0.975 | 91.705 | 88.1 |
| 5 | 34 13C2-PFHxA | $315>269.8$ | 2.44 e 3 | 9.74 e 3 | 0.1201 | 0.755 | 3.39 | 3.18 | 3.13 | 34.482 | 82.8 |
| 6 | 35 13C4-PFHpA | $367.2>321.8$ | 5.68 e 3 | 9.74 e 3 | 0.1201 | 0.711 | 4.02 | 3.81 | 7.29 | 85.435 | 82.1 |
| 7 | 36 1802-PFHxS | 403.0 > 102.6 | 5.56 e 2 | 1.64 e 3 | 0.1201 | 0.423 | 4.16 | 3.96 | 4.24 | 83.500 | 80.2 |
| 8 | 38 13C2-PFOA | $414.9>369.7$ | 7.95 e 3 | 7.77e3 | 0.1201 | 1.310 | 4.53 | 4.33 | 12.8 | 81.393 | 78.2 |
| 9 | 39 13C5-PFNA | 468.2 > 422.9 | 6.45 e 3 | 8.38 e 3 | 0.1201 | 0.979 | 4.96 | 4.76 | 9.63 | 81.872 | 78.6 |
| 10 | 40 13C8-PFOSA | $506.1>77.7$ | 1.66 e 3 | 9.71 e 3 | 0.1201 | 0.207 | 5.01 | 4.82 | 2.14 | 86.222 | 82.8 |
| 11 | 41 13C8-PFOS | $507.0>79.9$ | 1.67 e 3 | 1.58 e 3 | 0.1201 | 1.072 | 5.03 | 4.85 | 13.2 | 102.788 | 98.7 |
| 12 | 42 13C2-PFDA | $515.1>469.9$ | 5.46 e 3 | 9.41 e 3 | 0.1201 | 1.014 | 5.33 | 5.14 | 7.26 | 59.607 | 57.3 |
| 13 | $44 \mathrm{~d} 3-\mathrm{N}-\mathrm{MeFOSAA}$ | $573.3>419$ | 2.46 e 3 | 9.71 e 3 | 0.1201 | 0.368 | 5.48 | 5.29 | 3.16 | 71.609 | 68.8 |
| 14 | 45 d5-N-EtFOSAA | $589.3>419$ | 2.68 e 3 | 9.71 e 3 | 0.1201 | 0.389 | 5.63 | 5.44 | 3.45 | 73.908 | 71.0 |
| 15 | 46 13C2-PFUdA | $565>519.8$ | 6.67 e 3 | 9.71 e 3 | 0.1201 | 0.983 | 5.65 | 5.46 | 8.59 | 72.764 | 69.9 |
| 16 | 47 13C2-PFDoA | $615.0>569.7$ | 9.23 e 3 | 9.71 e 3 | 0.1201 | 0.997 | 5.92 | 5.74 | 11.9 | 99.319 | 95.4 |
| 17 | 49 13C2-PFTeDA | $714.8>669.6$ | 1.06 e 4 | 9.71 e 3 | 0.1201 | 1.039 | 6.36 | 6.20 | 13.7 | 109.750 | 105.4 |

## Quantify Sample Summary Repo

| Dataset: | U:\Q4.PRO\results\171107M2\171107M2-4.qld |
| :--- | :--- |
|  | Last Altered: |
| Wednesday, November 08, 2017 10:31:11 Pacific Standard Time |  |
| Printed: | Wednesday, November 08, 2017 16:14:07 Pacific Standard Time |

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_110617_AC.mdb 07 Nov 2017 07:51:36

## Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFĀS_Q4_10-31-17-FULL_OLD.cdb 01 Nov 2017 08:42:13

Name: 171107M2_4, Date: 07-Nov-2017, Time: 22:17:55, ID: 1701439-01 FRB05_20171005 0.125, Description: FRB05_20171005

|  | \# Name | Trace | Area | IS Area | Wt./Vol. | RRF | Pred.RT | RT | y Axis Resp. | Conc. | \%Rec |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 54 13C4-PFBA | 217. > 171.8 | 6.93e3 | 6.93e3 | 0.1201 | 1.000 | 1.64 | 1.43 | 12.5 | 104.115 | 100.0 |
| 2 | 55 13C5-PFHxA | $318>272.9$ | 9.74 e 3 | 9.74 e 3 | 0.1201 | 1.000 | 3.39 | 3.18 | 12.5 | 104.115 | 100.0 |
| 3 | 56 13C3-PFHxS | $401.9>79.9$ | 1.64 e 3 | 1.64 e 3 | 0.1201 | 1.000 | 4.16 | 3.95 | 12.5 | 104.115 | 100.0 |
| 4 | 57 13C8-PFOA | $421.3>376$ | 7.77 e 3 | 7.77 e 3 | 0.1201 | 1.000 | 4.53 | 4.33 | 12.5 | 104.115 | 100.0 |
| 5 | 58 13C9-PFNA | $472.2>426.9$ | 8.38 e 3 | 8.38 e 3 | 0.1201 | 1.000 | 4.96 | 4.76 | 12.5 | 104.115 | 100.0 |
| 6 | 59 13C4-PFOS | $503>79.9$ | 1.58 e 3 | 1.58 e 3 | 0.1201 | 1.000 | 5.03 | 4.85 | 12.5 | 104.115 | 100.0 |
| 7 | 60 13C6-PFDA | $519.1>473.7$ | 9.41 e 3 | 9.41 e 3 | 0.1201 | 1.000 | 5.33 | 5.14 | 12.5 | 104.115 | 100.0 |
| 8 | 61 13C7-PFUdA | $570.1>524.8$ | 9.71 e 3 | 9.71 e 3 | 0.1201 | 1.000 | 5.65 | 5.46 | 12.5 | 104.115 | 100.0 |
| 9 | 62 Total PFHxS | $398.9>79.6$ | 1.24 e 0 | 5.56 e 2 | 0.1201 |  | 4.16 |  | 0.000 |  |  |
| 10 | 63 Total PFOA | $413>368.7$ | 0.00e0 | 7.95e3 | 0.1201 |  | 4.53 |  | 0.000 |  |  |
| 11 | 64 Total PFOS | $499>79.9$ | 0.00e0 | 1.67 e 3 | 0.1201 |  | 5.03 |  | 0.000 |  |  |
| 12 | 65 Total N-MeFOSAA | $570.1>419$ | 0.00e0 | 2.46 e 3 | 0.1201 |  | 5.48 |  | 0.000 |  |  |
| 13 | 66 Total N-EtFOSAA | $584.2>419$ | 0.00 e 0 | 2.68 e3 | 0.1201 |  | 5.63 |  | 0.000 |  |  |
| 14 | 67 TCDA | $498.3>106.9$ |  |  | 0.1201 |  | 4.76 |  |  |  |  |


| Dataset: | U:\Q4.PRO\results\171107M2\171107M2-4.qld |
| :--- | :--- |
|  |  |
| Last Altered: | Wednesday, November 08, 2017 10:31:11 Pacific Standard Time |
| Printed: | Wednesday, November 08, 2017 16:14:07 Pacific Standard Time |

## Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_110617_AC.mdb 07 Nov 2017 07:51:36

## Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFĀS_Q4_10-31-17-FULL_OLD.cdb 01 Nov 2017 08:42:13

Name: 171107M2_4, Date: 07-Nov-2017, Time: 22:17:55, ID: 1701439-01 FRB05_20171005 0.125, Description: FRB05_20171005


## 13C3-PFBA




13C3-PFPeA


## PFBS



13C3-PFBS



13C2-PFHxA


## Dataset: U:\Q4.PRO|results\171107M2\171107M2-4.qld

Last Altered: Wednesday, November 08, 2017 10:31:11 Pacific Standard Time Printed: $\quad$ Wednesday, November 08, 2017 16:14:07 Pacific Standard Time

## Name: 171107M2_4, Date: 07-Nov-2017, Time: 22:17:55, ID: 1701439-01 FRB05_20171005 0.125, Description: FRB05_20171005

## PFHpA

PFHPA
F13:MRM of 2 channels,ES-
$363.0>318.9$
$7.759 e+002$


## 13C4-PFHpA



## Total PFHxS



1802-PFHxS


## Total PFOA

Total PFOA
F18:MRM of 2 channels,ES-
$413>368.7$
$4.475 \mathrm{e}+003$


13C2-PFOA




13C5-PFNA


| Dataset: | U:\Q4.PRO\results\171107M2\171107M2-4.qld |
| :--- | :--- |
|  |  |
| Last Altered: | Wednesday, November 08, 2017 10:31:11 Pacific Standard Time |
| Printed: | Wednesday, November 08, 2017 16:14:07 Pacific Standard Time |

## Name: 171107M2_4, Date: 07-Nov-2017, Time: 22:17:55, ID: 1701439-01 FRB05_20171005 0.125, Description: FRB05_20171005




13C8-PFOSA




13C8-PFOS


PFDA
F34:MRM of 2 channels,ES-
$513>468.8$
$9.286 \mathrm{e}+002$


13C2-PFDA


## N-MeFOSAA


d3-N-MeFOSAA


| Dataset: | U:\Q4.PRO\results\171107M2\171107M2-4.qld |
| :--- | :--- |
|  |  |
| Last Altered: | Wednesday, November 08, 2017 10:31:11 Pacific Standard Time |
| Printed: | Wednesday, November 08, 2017 16:14:07 Pacific Standard Time |

## Name: 171107M2_4, Date: 07-Nov-2017, Time: 22:17:55, ID: 1701439-01 FRB05_20171005 0.125, Description: FRB05_20171005


d5-N-EtFOSAA
F48:MRM of 1 channel,ES-
13C2-PFUdA




13C2-PFUdA


PFDoA


F50:MRM of 2 channels,ES$612.9>318.8$ $1.000 \mathrm{e}-003$


13C2-PFDoA

Dataset:
U:\Q4.PRO\results\171107M2\171107M2-4.qld
Last Altered: Wednesday, November 08, 2017 10:31:11 Pacific Standard Time
Printed:
Wednesday, November 08, 2017 16:14:07 Pacific Standard Time

## Name: 171107M2_4, Date: 07-Nov-2017, Time: 22:17:55, ID: 1701439-01 FRB05_20171005 0.125, Description: FRB05_20171005




13C2-PFTeDA


## PFTrDA



13C2-PFTeDA



13C8-PFOS


## 13C4-PFBA



13C5-PFHxA


| Dataset: | U:\Q4.PRO\results\171107M2\171107M2-4.qld |
| :--- | :--- |
| Last Altered: | Wednesday, November 08, 2017 10:31:11 Pacific Standard Time |
| Printed: | Wednesday, November 08, 2017 16:14:07 Pacific Standard Time |

## Name: 171107M2_4, Date: 07-Nov-2017, Time: 22:17:55, ID: 1701439-01 FRB05_20171005 0.125, Description: FRB05_20171005


13C4-PFOS


13C6-PFDA
F37:MRM of 1 channel,ES-
$519.1>473.7$
$2.328 \mathrm{e}+005$
$13 \mathrm{C} 6-\mathrm{PFDA}$
5.14
9.41 e 3
231765
bb

## Quantify Sample Summary Report

MassLynx MassLynx V4.1 SCN945 SCN960

| Dataset: | U:\Q4.PRO\results\171103M1\171103M1-5.qld |
| :--- | :--- |
|  |  |
| Last Altered: | Friday, November 03, 2017 16:03:56 Pacific Daylight Time |
| Printed: | Friday, November 03, 2017 16:04:20 Pacific Daylight Time |

## Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_102717.mdb 01 Nov 2017 11:32:51

 Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFĀS_Q4_10-31-17-FULL_OLD.cdb 01 Nov 2017 09:42:13Name: 171103M1_5, Date: 03-Nov-2017, Time: 14:08:50, ID: 1701439-05 FRB06_20171006 0.125, Description: FRB06_20171006

|  | \# Name | Trace | Area | IS Area | Wt./Vol. | RRF | Pred.RT | RT | y Axis Resp. | Conc. | \%Rec |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 PFBA | $213.0>168.8$ |  | 6.04 e 3 | 0.1195 |  | 1.17 |  |  |  |  |
| 2 | 2 PFPeA | $263.1>218.9$ |  | 6.30 e 3 | 0.1195 |  | 2.15 |  |  |  |  |
| 3 | 3 PFBS | $299.0>79.7$ |  | 7.82e2 | 0.1195 |  | 2.44 |  |  |  |  |
| 4 | 4 PFHxA | $313.2>268.9$ |  | 2.41 e 3 | 0.1195 |  | 2.93 |  |  |  |  |
| 5 | 5 PFHpA | $363.0>318.9$ |  | 5.87e3 | 0.1195 |  | 3.56 |  |  |  |  |
| 6 | 6 L-PFHxS | $398.9>79.6$ | 2.29 e 0 | 6.18 e 2 | 0.1195 |  | 3.71 | 3.59 | 0.0462 |  |  |
| 7 | 9 L-PFOA | $413>368.7$ |  | 7.84e3 | 0.1195 |  | 4.05 |  |  |  |  |
| 8 | 12 PFNA | $463.0>418.8$ |  | 6.26e3 | 0.1195 |  | 4.55 |  |  |  |  |
| 9 | 13 PFOSA | $498.1>77.8$ |  | 1.20 e 3 | 0.1195 |  | 4.59 |  |  |  |  |
| 10 | 14 L-PFOS | $499>79.9$ |  | 1.60 e 3 | 0.1195 |  | 4.63 |  |  |  |  |
| 11 | 16 PFDA | $513>468.8$ |  | 6.06e3 | 0.1195 |  | 4.92 |  |  |  |  |
| 12 | $18 \mathrm{~N}-\mathrm{MeFOSAA}$ | $570.1>419$ |  | 2.47 e 3 | 0.1195 |  | 5.08 |  |  |  |  |
| 13 | $19 \mathrm{~N}-\mathrm{EtFOSAA}$ | $584.2>419$ |  | 2.61e3 | 0.1195 |  | 5.24 |  |  |  |  |
| 14 | 20 PFUdA | $563.0>518.9$ |  | 7.33e3 | 0.1195 |  | 5.25 |  |  |  |  |
| 15 | 21 PFDS | $598.8>80$ |  | 7.33e3 | 0.1195 |  | 5.31 |  |  |  |  |
| 16 | 22 PFDoA | $612.9>569.0$ |  | 8.18 e 3 | 0.1195 |  | 5.55 |  |  |  |  |
| 17 | 24 PFTrDA | $662.9>618.9$ |  | 8.18 e 3 | 0.1195 |  | 5.80 |  |  |  |  |

# Dataset: <br> U:IQ4.PROTresults\171103M1\171103M1-5.qld <br> Last Altered: Friday, November 03, 2017 16:03:56 Pacific Daylight Time <br> Printed: <br> Friday, November 03, 2017 16:04:28 Pacific Daylight Time 

## Method: U:IQ4.PRO\MethDB|PFAS_FULL_80C_102717.mdb 01 Nov 2017 11:32:51 Calibration: U:|Q4.PRO\CurveDBIC18_VAL-PFAS_Q4_10-31-17-FULL_OLD.cdb 01 Nov 2017 09:42:13

## Name: 171103M1 5, Date: 03-Nov-2017, Time: 14:08:50, ID: 1701439-05 FRB06_20171006 0.125, Description: FRB06_20171006

|  | \# Name | Trace | Area | IS Area | Wt./Vol. | RRF | Pred.RT | RT | y Axis Resp. | Conc. | \%Rec |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 25 PFTeDA | $712.9>668.8$ |  | 5.82e3 | 0.1195 |  | 6.02 |  |  |  |  |
| 2 | 31 13C3-PFBA | $216.1>171.8$ | 6.04e3 | 7.38 e 3 | 0.1195 | 0.949 | 1.17 | 1.07 | 10.2 | 90.229 | 86.2 |
| 3 | 32 13C3-PFPeA | 266. > 221.8 | 6.30 e 3 | 9.34 e 3 | 0.1195 | 0.781 | 2.15 | 2.02 | 8.43 | 90.342 | 86.3 |
| 4 | 33 13C3-PFBS | 302. $>98.8$ | 7.82e2 | 9.34 e 3 | 0.1195 | 0.089 | 2.44 | 2.31 | 1.05 | 98.952 | 94.6 |
| 5 | 34 13C2-PFHxA | $315>269.8$ | 2.41 e 3 | 9.34 e 3 | 0.1195 | 0.755 | 2.93 | 2.81 | 3.23 | 35.812 | 85.6 |
| 6 | 35 13C4-PFHpA | $367.2>321.8$ | 5.87 e 3 | 9.34 e 3 | 0.1195 | 0.711 | 3.56 | 3.43 | 7.85 | 92.422 | 88.3 |
| 7 | 36 1802-PFHxS | $403.0>102.6$ | 6.18 e 2 | 1.69 e 3 | 0.1195 | 0.423 | 3.71 | 3.59 | 4.57 | 90.316 | 86.3 |
| 8 | 37 13C2-6:2 FTS | $429.1>408.9$ | 1.93 e3 | 8.18 e 3 | 0.1195 | 0.286 | 4.03 | 3.91 | 2.95 | 86.382 | 82.6 |
| 9 | 38 13C2-PFOA | 414.9 > 369.7 | 7.84 e 3 | 8.18 e 3 | 0.1195 | 1.310 | 4.05 | 3.96 | 12.0 | 76.597 | 73.2 |
| 10 | 39 13C5-PFNA | 468.2 > 422.9 | $6.26 e 3$ | 8.53 e 3 | 0.1195 | 0.979 | 4.55 | 4.41 | 9.17 | 78.373 | 74.9 |
| 11 | 40 13C8-PFOSA | $506.1>77.7$ | 1.20 e 3 | 1.03 e 4 | 0.1195 | 0.207 | 4.59 | 4.47 | 1.45 | 58.733 | 56.1 |
| 12 | 41 13C8-PFOS | $507.0>79.9$ | 1.60 e3 | 2.00 e3 | 0.1195 | 1.072 | 4.63 | 4.50 | 10.0 | 78.088 | 74.6 |
| 13 | 42 13C2-PFDA | $515.1>469.9$ | 6.06e3 | 1.06 e 4 | 0.1195 | 1.014 | 4.92 | 4.80 | 7.12 | 58.767 | 56.2 |
| 14 | 43 13C2-8:2 FTS | $529.1>508.7$ | 1.98 e 3 | 1.06 e 4 | 0.1195 | 0.216 | 4.89 | 4.76 | 2.33 | 90.286 | 86.3 |
| 15 | $44 \mathrm{~d} 3-\mathrm{N}-\mathrm{MeFOSAA}$ | $573.3>419$ | 2.47 e 3 | 1.03 e 4 | 0.1195 | 0.368 | 5.08 | 4.95 | 2.98 | 67.821 | 64.8 |
| 16 | 45 d5-N-EtFOSAA | $589.3>419$ | 2.61 e 3 | 1.03 e 4 | 0.1195 | 0.389 | 5.24 | 5.11 | 3.15 | 67.850 | 64.8 |
| 17 | 46 13C2-PFUdA | $565>519.8$ | 7.33 e 3 | 1.03 e 4 | 0.1195 | 0.983 | 5.25 | 5.13 | 8.87 | 75.499 | 72.2 |
| 18 | 47 13C2-PFDoA | $615.0>569.7$ | 8.18 e 3 | 1.03 e 4 | 0.1195 | 0.997 | 5.55 | 5.42 | 9.89 | 83.023 | 79.3 |
| 19 | 49 13C2-PFTeDA | $714.8>669.6$ | 5.82e3 | 1.03 e 4 | 0.1195 | 1.039 | 6.02 | 5.90 | 7.03 | 56.616 | 54.1 |
| 20 | 54 13C4-PFBA | 217. $>171.8$ | 7.38 e 3 | 7.38 e 3 | 0.1195 | 1.000 | 1.17 | 1.07 | 12.5 | 104.629 | 100.0 |
| 21 | 55 13C5-PFHxA | $318>272.9$ | 9.34 e 3 | 9.34 e 3 | 0.1195 | 1.000 | 2.93 | 2.81 | 12.5 | 104.629 | 100.0 |
| 22 | 56 13C3-PFHxS | $401.9>79.9$ | 1.69 e 3 | 1.69 e 3 | 0.1195 | 1.000 | 3.71 | 3.59 | 12.5 | 104.629 | 100.0 |
| 23 | 57 13C8-PFOA | $421.3>376$ | 8.18 e 3 | 8.18 e 3 | 0.1195 | 1.000 | 4.05 | 3.96 | 12.5 | 104.629 | 100.0 |
| 24 | 58 13C9-PFNA | $472.2>426.9$ | 8.53 e 3 | 8.53 e 3 | 0.1195 | 1.000 | 4.55 | 4.41 | 12.5 | 104.629 | 100.0 |
| 25 | 59 13C4-PFOS | $503>79.9$ | 2.00 e 3 | 2.00 e 3 | 0.1195 | 1.000 | 4.63 | 4.50 | 12.5 | 104.629 | 100.0 |
| 26 | 60 13C6-PFDA | $519.1>473.7$ | 1.06 e 4 | 1.06 e 4 | 0.1195 | 1.000 | 4.92 | 4.80 | 12.5 | 104.629 | 100.0 |
| 27 | 61 13C7-PFUdA | $570.1>524.8$ | 1.03 e 4 | 1.03 e 4 | 0.1195 | 1.000 | 5.25 | 5.13 | 12.5 | 104.629 | 100.0 |
| 28 | 62 Total PFHxS | $398.9>79.6$ | 2.29 e 0 | 6.18 e 2 | 0.1195 |  | 3.71 |  | 0.000 |  |  |
| 29 | 63 Total PFOA | $413>368.7$ | 0.00 e 0 | 7.84e3 | 0.1195 |  | 4.05 |  | 0.000 |  |  |
| 30 | 64 Total PFOS | $499>79.9$ | 0.00 e 0 | 1.60 e 3 | 0.1195 |  | 4.63 |  | 0.000 |  |  |
| 31 | 65 Total N-MeFOSAA | $570.1>419$ | 0.00 e 0 | 2.47 e 3 | 0.1195 |  | 5.08 |  | 0.000 |  |  |
| 32 | 66 Total N-EtFOSAA | $584.2>419$ | 0.00 e 0 | 2.61 e 3 | 0.1195 |  | 5.24 |  | 0.000 |  |  |

Dataset: U:\Q4.PRO\results\171103M1\171103M1-5.qld
Last Altered: Friday, November 03, 2017 16:03:56 Pacific Daylight Time
Printed: $\quad$ Friday, November 03, 2017 16:04:28 Pacific Daylight Time

## Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_102717.mdb 01 Nov 2017 11:32:51

## Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_10-31-17-FULL_OLD.cdb 01 Nov 2017 09:42:13

Name: 171103M1_5, Date: 03-Nov-2017, Time: 14:08:50, ID: 1701439-05 FRB06_20171006 0.125, Description: FRB06_20171006


## 13C3-PFBA



PFPeA


13C3-PFPeA


PFBS


13C3-PFBS


PFHxA


13C2-PFHxA


## Dataset: <br> U:\Q4.PRO\results\171103M1\171103M1-5.qld

Last Altered: Friday, November 03, 2017 16:03:56 Pacific Daylight Time
Printed:
Friday, November 03, 2017 16:04:28 Pacific Daylight Time

## Name: 171103M1_5, Date: 03-Nov-2017, Time: 14:08:50, ID: 1701439-05 FRB06_20171006 0.125, Description: FRB06_20171006

## PFHpA



F13:MRM of 2 channels,ES$363.0>169.0$
 13C4-PFHpA

F14:MRM of 1 channel,ES




18O2-PFHxS


## Total PFOA




13C2-PFOA



13C5-PFNA
F25:MRM of 1 channel,ES468.2 > 422.9


## Dataset: <br> U:\Q4.PRO\results\171103M1\171103M1-5.qld

Last Altered: Friday, November 03, 2017 16:03:56 Pacific Daylight Time
Printed:
Friday, November 03, 2017 16:04:28 Pacific Daylight Time

## Name: 171103M1_5, Date: 03-Nov-2017, Time: 14:08:50, ID: 1701439-05 FRB06_20171006 0.125, Description: FRB06_20171006

\section*{PFOSA <br> | F27:MRM of 2 channels,ES- |
| ---: |
| $498.1>77.8$ |
| $1.000 \mathrm{e}-003$ |}

F27:MRM of 2 channels,ES$498.1>478$


13C8-PFOSA


Total PFOS



13C8-PFOS


## PFDA



13C2-PFDA


## N-MeFOSAA


d3-N-MeFOSAA
F46:MRM of 1 channel,ES $573.3>419$


## Dataset: <br> U:\Q4.PRO\results\171103M1\171103M1-5.qld

Last Altered: Friday, November 03, 2017 16:03:56 Pacific Daylight Time
Printed: Friday, November 03, 2017 16:04:28 Pacific Daylight Time

## Name: 171103M1_5, Date: 03-Nov-2017, Time: 14:08:50, ID: 1701439-05 FRB06_20171006 0.125, Description: FRB06_20171006



d5-N-EtFOSAA


## PFUdA




13C2-PFUdA


## PFDS




13C2-PFUdA



13C2-PFDoA
F51:MRM of 1 channel,ES$615.0>569.7$


## Dataset: <br> U:\Q4.PRO\results\171103M1\171103M1-5.qld

Last Altered: Friday, November 03, 2017 16:03:56 Pacific Daylight Time
Printed:
Friday, November 03, 2017 16:04:28 Pacific Daylight Time

## Name: 171103M1_5, Date: 03-Nov-2017, Time: 14:08:50, ID: 1701439-05 FRB06_20171006 0.125, Description: FRB06_20171006

## PFTeDA <br> 

F57:MRM of 2 channels,ES-
 13C2-PFTeDA

F58:MRM of 2 channels,ES $714.8>669.6$


PFTrDA



13C2-PFTeDA



13C8-PFOS


13C4-PFBA


13C5-PFHxA
F10:MRM of 1 channel,ES-


Quantify Sample Report
Vista Analytical Laboratory
MassLynx MassLynx V4.1 SCN945 SCN960

## Dataset: <br> U:\Q4.PRO\results\171103M1\171103M1-5.qld

Last Altered: Friday, November 03, 2017 16:03:56 Pacific Daylight Time
Printed: Friday, November 03, 2017 16:04:28 Pacific Daylight Time

## Name: 171103M1_5, Date: 03-Nov-2017, Time: 14:08:50, ID: 1701439-05 FRB06_20171006 0.125, Description: FRB06_20171006

## 13C3-PFHxS



13C4-PFOS


13C9-PFNA

| F26:MRM of 1 channel,ES- |
| :---: |
| $472.2>426.9$ |
| $2.433 e^{2}$ |

13C6-PFDA


# INJECTION INTERNAL STANDARD (IIS) AREAS, 

## INSTRUMENT BLANKS (IB)

## AND

## CONTINUTING CALIBRATION VERIFICATIONS CCV)

# Quantify Sample Summary Report 

Dataset: Untitled
Last Altered: Friday, October 27, 2017 15:35:32 Pacific Daylight Time Printed: $\quad$ Friday, October 27, 2017 15:36:12 Pacific Daylight Time

Method: U:\Q4.PRO\MethDB\PFAS_RS-10-27-17.mdb 27 Oct 2017 15:32:48 Calibration: 27 Oct 2017 15:35:32

Name: 171026M1_7, Date: 26-Oct-2017, Time: 10:22:11, ID: ST171026M1-6 PFC CS3 17J1806, Description: PFC CS3 17J1806

|  | \# Name | ID | Area | \%Rec | Area Out |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | 1 13C4-PFBA | ST171026M1-6 PFC CS3 17J1806 | 9.46 e 3 | 100.0 | NO |
| 2 | 2 13C5-PFHxA | ST171026M1-6 PFC CS3 17J1806 | 1.31 e 4 | 100.0 | NO |
| 3 | $313 C 3-P F H x S$ | ST171026M1-6 PFC CS3 17J1806 | 2.28 e 3 | 100.0 | NO |
| 4 | $413 C 8-P F O A$ | ST171026M1-6 PFC CS3 17J1806 | 1.18 e 4 | 100.0 | NO |
| 5 | $513 C 9-P F N A$ | ST171026M1-6 PFC CS3 17J1806 | 1.12 e 4 | 100.0 | NO |
| 6 | $613 C 4-P F O S$ | ST171026M1-6 PFC CS3 17J1806 | 2.51 e 3 | 100.0 | NO |
| 7 | $713 C 6-P F D A$ | ST171026M1-6 PFC CS3 17J1806 | 1.20 e 4 | 100.0 | NO |
| 8 | $813 C 7-P F U n A ~$ | ST171026M1-6 PFC CS3 17J1806 | 1.38 e 4 | 100.0 | NO |

Name: 171026M1_8, Date: 26-Oct-2017, Time: 10:33:24, ID: ST171026M1-7 PFC CS4 17J2102, Description: PFC CS4 17 J 2102

|  | \# Name | ID | Area | \%Rec | Area Out |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | 1 13C4-PFBA | ST171026M1-7 PFC CS4 17J2102 | 8.00 e 3 | 84.5 | NO |
| 2 | 2 13C5-PFHxA | ST171026M1-7 PFC CS4 17J2102 | 1.17 e 4 | 89.3 | NO |
| 3 | $313 C 3-P F H x S$ | ST171026M1-7 PFC CS4 17J2102 | 1.96 e 3 | 85.7 | NO |
| 4 | $413 C 8-P F O A$ | ST171026M1-7 PFC CS4 17J2102 | 9.34 e 3 | 79.4 | NO |
| 5 | $513 C 9-P F N A$ | ST171026M1-7 PFC CS4 17J2102 | 1.05 e 4 | 94.3 | NO |
| 6 | $613 C 4-P F O S$ | ST171026M1-7 PFC CS4 17J2102 | 2.33 e 3 | 92.9 | NO |
| 7 | $713 C 6-P F D A$ | ST171026M1-7 PFC CS4 17J2102 | 1.10 e 4 | 91.9 | NO |
| 8 | $813 C 7-P F U n A$ | ST171026M1-7 PFC CS4 17J2102 | 1.30 e 4 | 94.1 | NO |

Name: 171026M1_9, Date: 26-Oct-2017, Time: 10:44:36, ID: ST171026M1-8 PFC CS5 17J2101, Description: PFC CS5 $17 J 2101$

|  | \# Name | ID | Area | \%Rec | Area Out |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | $113 C 4-P F B A$ | ST171026M1-8 PFC CS5 17J2101 | 7.89 e 3 | 83.3 | NO |
| 2 | 2 13C5-PFHxA | ST171026M1-8 PFC CS5 17J2101 | 9.83 e 3 | 75.0 | NO |
| 3 | $313 C 3-P F H x S$ | ST171026M1-8 PFC CS5 17J2101 | 1.91 e 3 | 83.6 | NO |
| 4 | $413 C 8-P F O A$ | ST171026M1-8 PFC CS5 17J2101 | 9.00 e 3 | 76.5 | NO |
| 5 | $513 C 9-P F N A$ | ST171026M1-8 PFC CS5 17J2101 | 9.96 e 3 | 89.1 | NO |
| 6 | $613 C 4-P F O S$ | ST171026M1-8 PFC CS5 17J2101 | 2.00 e 3 | 80.0 | NO |
| 7 | $713 C 6-P F D A$ | ST171026M1-8 PFC CS5 17J2101 | 1.03 e 4 | 86.1 | NO |
| 8 | $813 C 7-P F U n A$ | ST171026M1-8 PFC CS5 17J2101 | 1.00 e 4 | 72.3 | NO |

Name: 171026M1_10, Date: 26-Oct-2017, Time: 10:55:46, ID: ST171026M1-9 PFC CS6 17J2517, Description: PFC CS6 17 J 2517

|  | \# Name | ID | Area | \%Rec | Area Out |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | 1 13C4-PFBA | ST171026M1-9 PFC CS6 17J2517 | 7.54 e 3 | 79.6 | NO |
| 2 | 2 13C5-PFHxA | ST171026M1-9 PFC CS6 17J2517 | 9.52 e 3 | 72.6 | NO |
| 3 | $313 C 3-P F H x S$ | ST171026M1-9 PFC CS6 17J2517 | 1.81 e 3 | 79.2 | NO |
| 4 | $413 C 8-P F O A$ | ST171026M1-9 PFC CS6 17J2517 | 8.18 e 3 | 69.5 | NO |
| 5 | $513 C 9-P F N A$ | ST171026M1-9 PFC CS6 17J2517 | 9.05 e 3 | 81.0 | NO |
| 6 | $613 C 4-P F O S$ | ST171026M1-9 PFC CS6 17J2517 | 1.94 e 3 | 77.3 | NO |
| 7 | $713 C 6-P F D A$ | ST171026M1-9 PFC CS6 17J2517 | 8.81 e 3 | 73.4 | NO |
| 8 | $813 C 7-P F U n A ~$ | ST171026M1-9 PFC CS6 17J2517 | 9.76 e 3 | 70.5 | NO |

Quantify Sample Summary Report
Vista Analytical Laboratory
Dataset: Untitled
Last Altered: Friday, October 27, 2017 15:35:32 Pacific Daylight Time
Printed: Friday, October 27, 2017 15:36:12 Pacific Daylight Time

Name: 171026M1_11, Date: 26-Oct-2017, Time: 11:07:20, ID: ST171026M1-10 PFC CS7 17J2518, Description: PFC CS7 17J2518

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | ST171026M1-10 PFC CS7 17J2518 | 7.99e3 | 84.5 | NO |
| 2 | 2 13C5-PFHxA | ST171026M1-10 PFC CS7 17J2518 | 9.61 e3 | 73.3 | NO |
| 3 | 3 13C3-PFHxS | ST171026M1-10 PFC CS7 17J2518 | 1.76 e 3 | 77.0 | NO |
| 4 | 4 13C8-PFOA | ST171026M1-10 PFC CS7 17J2518 | 9.10 e 3 | 77.3 | NO |
| 5 | 5 13C9-PFNA | ST171026M1-10 PFC CS7 17J2518 | 9.34 e 3 | 83.5 | NO |
| 6 | 6 13C4-PFOS | ST171026M1-10 PFC CS7 17J2518 | 1.80 e 3 | 72.0 | NO |
| 7 | 7 13C6-PFDA | ST171026M1-10 PFC CS7 17J2518 | 1.02 e 4 | 85.1 | NO |
| 8 | 8 13C7-PFUnA | ST171026M1-10 PFC CS7 17J2518 | 1.04 e 4 | 74.8 | NO |

Name: 171026M1_12, Date: 26-Oct-2017, Time: 11:18:50, ID: IPA, Description: IPA

|  | \# Name | ID | Area |
| :--- | :--- | :--- | :--- |
| 1 | $113 C 4-P F B A$ | IPA | \%Rec |
| 2 | $213 C 5-P F H x A$ | IPA | Area Out |
| 3 | $313 C 3-P F H x S$ | IPA | NO |
| 4 | $413 C 8-P F O A$ | IPA | NO |
| 5 | $513 C 9-P F N A$ | IPA | NO |
| 6 | $613 C 4-P F O S$ | IPA | NO |
| 7 | $713 C 6-P F D A$ | IPA | NO |
| 8 | $813 C 7-P F U n A$ | IPA | NO |

Name: 171026M1_13, Date: 26-Oct-2017, Time: 11:30:01, ID: ICV171026M1-1 PFC ICV 17I3003, Description: PFC ICV $17 I 3003$

|  | \# Name | ID | Area | \%Rec | Area Out |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | $113 C 4-P F B A$ | ICV171026M1-1 PFC ICV 17I3003 | 8.85 e 3 | 93.5 | NO |
| 2 | $213 C 5-P F H x A$ | ICV171026M1-1 PFC ICV 17I3003 | 1.20 e 4 | 91.7 | NO |
| 3 | $313 C 3-P F H x S$ | ICV171026M1-1 PFC ICV 17I3003 | 2.17 e 3 | 94.8 | NO |
| 4 | $413 C 8-P F O A$ | ICV171026M1-1 PFC ICV 17I3003 | 1.14 e 4 | 96.5 | NO |
| 5 | $513 C 9-P F N A$ | ICV171026M1-1 PFC ICV 17I3003 | 1.20 e 4 | 107.0 | NO |
| 6 | $613 C 4-P F O S$ | ICV171026M1-1 PFC ICV 17I3003 | 2.51 e 3 | 100.0 | NO |
| 7 | $713 C 6-P F D A$ | ICV171026M1-1 PFC ICV 17I3003 | 1.25 e 4 | 104.5 | NO |
| 8 | $813 C 7-P F U n A$ | ICV171026M1-1 PFC ICV 17I3003 | 1.46 e 4 | 105.8 | NO |

Name: 171026M1_14, Date: 26-Oct-2017, Time: 11:41:12, ID: IPA, Description: IPA

|  | \# | Name | ID | Area |
| :--- | :--- | :--- | :--- | :--- |
| 1 | 1 | $13 C 4-P F B A$ | IPA |  |
| 2 | 2 | $13 C 5-P F H x A$ | IPA | Area Out |
| 3 | 3 | $13 C 3-P F H x S$ | IPA | NO |
| 4 | 4 | $13 C 8-P F O A$ | IPA | NO |
| 5 | 5 | $13 C 9-P F N A$ | IPA | NO |
| 6 | 6 | $13 C 4-P F O S$ | IPA | NO |
| 7 | 7 | $13 C 6-P F D A$ | IPA | NO |
| 8 | 8 | $13 C 7-P F U n A$ | IPA | NO |

Quantify Sample Summary Report
Vista Analytical Laboratory

Dataset: Untitled
Last Altered: Friday, October 27, 2017 15:35:32 Pacific Daylight Time
Printed: Friday, October 27, 2017 15:36:12 Pacific Daylight Time

Name: 171026M1_15, Date: 26-Oct-2017, Time: 11:52:22, ID: B7J0122-BS1 OPR 0.125, Description: OPR

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | B7J0122-BS1 OPR 0.125 | 8.21 e 3 | 86.7 | NO |
| 2 | 2 13C5-PFHxA | B7J0122-BS1 OPR 0.125 | 1.13 e 4 | 86.5 | NO |
| 3 | 3 13C3-PFHxS | B7J0122-BS1 OPR 0.125 | 2.22 e 3 | 97.1 | NO |
| 4 | 4 13C8-PFOA | B7J0122-BS1 OPR 0.125 | 1.05 e 4 | 89.6 | NO |
| 5 | 5 13C9-PFNA | B7J0122-BS1 OPR 0.125 | 1.16 e 4 | 104.1 | NO |
| 6 | 6 13C4-PFOS | B7J0122-BS1 OPR 0.125 | 2.60 e 3 | 103.6 | NO |
| 7 | 7 13C6-PFDA | B7J0122-BS1 OPR 0.125 | 1.19 e 4 | 99.2 | NO |
| 8 | 8 13C7-PFUnA | B7J0122-BS1 OPR 0.125 | 1.39 e 4 | 100.6 | NO |

Name: 171026M1_16, Date: 26-Oct-2017, Time: 12:03:33, ID: B7J0092-BS1 OPR 0.125, Description: OPR

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | B7J0092-BS1 OPR 0.125 | 9.00 e 3 | 95.2 | NO |
| 2 | 2 13C5-PFHxA | B7J0092-BS1 OPR 0.125 | 1.33 e 4 | 101.6 | NO |
| 3 | 3 13C3-PFHxS | B7J0092-BS1 OPR 0.125 | 2.39 e 3 | 104.7 | NO |
| 4 | 4 13C8-PFOA | B7J0092-BS1 OPR 0.125 | 1.18 e 4 | 100.5 | NO |
| 5 | 5 13C9-PFNA | B7J0092-BS1 OPR 0.125 | 1.29 e 4 | 115.4 | NO |
| 6 | 6 13C4-PFOS | B7J0092-BS1 OPR 0.125 | 2.78 e 3 | 111.1 | NO |
| 7 | 7 13C6-PFDA | B7J0092-BS1 OPR 0.125 | 1.43 e 4 | 118.8 | NO |
| 8 | 8 13C7-PFUnA | B7J0092-BS1 OPR 0.125 | 1.51 e 4 | 109.0 | NO |

Name: 171026M1_17, Date: 26-Oct-2017, Time: 12:14:43, ID: B7J0152-BS1 OPR 0.005, Description: OPR

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | B7J0152-BS1 OPR 0.005 | 7.91e3 | 83.6 | NO |
| 2 | 2 13C5-PFHxA | B7J0152-BS1 OPR 0.005 | 1.03 e 4 | 78.7 | NO |
| 3 | 3 13C3-PFHxS | B7J0152-BS1 OPR 0.005 | 2.04 e 3 | 89.3 | NO |
| 4 | 4 13C8-PFOA | B7J0152-BS1 OPR 0.005 | 9.39 e 3 | 79.8 | NO |
| 5 | 5 13C9-PFNA | B7J0152-BS1 OPR 0.005 | 9.53 e 3 | 85.3 | NO |
| 6 | 6 13C4-PFOS | B7J0152-BS1 OPR 0.005 | 1.51 e 3 | 60.1 | NO |
| 7 | 7 13C6-PFDA | B7J0152-BS1 OPR 0.005 | 7.87e3 | 65.6 | NO |
| 8 | 8 13C7-PFUnA | B7J0152-BS1 OPR 0.005 | 4.15 e 3 | 29.9 | YES |

Name: 171026M1_18, Date: 26-Oct-2017, Time: 12:25:54, ID: B7J0136-BS1 OPR 1, Description: OPR

|  | \# Name | ID | Area | \%Rec | Area Out |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | $113 C 4-P F B A$ | B7J0136-BS1 OPR 1 | 7.43 e 3 | 78.5 | NO |
| 2 | $213 C 5-P F H x A$ | B7J0136-BS1 OPR 1 | 1.02 e 4 | 78.2 | NO |
| 3 | $313 C 3-P F H x S$ | B7J0136-BS1 OPR 1 | 2.04 e 3 | 89.4 | NO |
| 4 | $413 C 8-P F O A$ | B7J0136-BS1 OPR 1 | 9.77 e 3 | 83.0 | NO |
| 5 | $513 C 9-P F N A$ | B7J0136-BS1 OPR 1 | 1.04 e 4 | 93.3 | NO |
| 6 | $613 C 4-P F O S$ | B7J0136-BS1 OPR 1 | 1.91 e 3 | 76.3 | NO |
| 7 | $713 C 6-P F D A$ | B7J0136-BS1 OPR 1 | 9.16 e 3 | 76.4 | NO |
| 8 | $813 C 7-P F U n A$ | B7J0136-BS1 OPR 1 | 6.42 e 3 | 46.4 | YES |

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Name: 171026M1_19, Date: 26-Oct-2017, Time: 12:37:09, ID: B7J0136-BSD1 LCS Dup 1, Description: LCS Dup

|  | \# Name | ID | Area | \%Rec | Area Out |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | 1 13C4-PFBA | B7J0136-BSD1 LCS Dup 1 | 6.85 e 3 | 72.4 | NO |
| 2 | 2 13C5-PFHxA | B7J0136-BSD1 LCS Dup 1 | 9.37 e 3 | 71.5 | NO |
| 3 | $313 C 3-P F H x S$ | B7J0136-BSD1 LCS Dup 1 | 1.86 e 3 | 81.3 | NO |
| 4 | $413 C 8-P F O A$ | B7J0136-BSD1 LCS Dup 1 | 8.53 e 3 | 72.5 | NO |
| 5 | $513 C 9-P F N A$ | B7J0136-BSD1 LCS Dup 1 | 9.09 e 3 | 81.3 | NO |
| 6 | $613 C 4-P F O S$ | B7J0136-BSD1 LCS Dup 1 | 1.68 e 3 | 66.9 | NO |
| 7 | $713 C 6-P F D A$ | B7J0136-BSD1 LCS Dup 1 | 7.63 e 3 | 63.6 | NO |
| 8 | $813 C 7-P F U n A$ | B7J0136-BSD1 LCS Dup 1 | 4.59 e 3 | 33.1 | YES |

Name: 171026M1_20, Date: 26-Oct-2017, Time: 12:48:25, ID: IPA, Description: IPA

|  | \# Name | ID | Area |
| :--- | :--- | :--- | :---: |
| 1 | $113 C 4-P F B A$ | IPA | \%Rec |
| 2 | $213 C 5-P F H x A$ | IPA | NO |
| 3 | $313 C 3-P F H x S$ | IPA | NO |
| 4 | $413 C 8-P F O A$ | IPA | NO |
| 5 | $513 C 9-P F N A$ | IPA | NO |
| 6 | $613 C 4-P F O S$ | IPA | NO |
| 7 | $713 C 6-P F D A$ | IPA | NO |
| 8 | $813 C 7-P F U n A$ | IPA | NO |

Name: 171026M1_21, Date: 26-Oct-2017, Time: 12:59:36, ID: B7J0122-BLK1 Method Blank 0.125, Description: Method Blank

|  | \# Name | ID | Area | \%Rec | Area Out |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | $113 C 4-P F B A$ | B7J0122-BLK1 Method Blank 0.125 | 7.89 e 3 | 83.4 | NO |
| 2 | $213 C 5-P F H x A$ | B7J0122-BLK1 Method Blank 0.125 | 1.07 e 4 | 81.3 | NO |
| 3 | $313 C 3-P F H x S$ | B7J0122-BLK1 Method Blank 0.125 | 1.95 e 3 | 85.4 | NO |
| 4 | $413 C 8-P F O A$ | B7J0122-BLK1 Method Blank 0.125 | 9.63 e 3 | 81.9 | NO |
| 5 | $513 C 9-P F N A$ | B7J0122-BLK1 Method Blank 0.125 | 1.09 e 4 | 97.8 | NO |
| 6 | $613 C 4-P F O S$ | B7J0122-BLK1 Method Blank 0.125 | 2.37 e 3 | 94.7 | NO |
| 7 | $713 C 6-P F D A$ | B7J0122-BLK1 Method Blank 0.125 | $1.12 e 4$ | 93.3 | NO |
| 8 | $813 C 7-P F U n A$ | B7J0122-BLK1 Method Blank 0.125 | 1.44 e 4 | 103.8 | NO |

Name: 171026M1_22, Date: 26-Oct-2017, Time: 13:10:47, ID: B7J0092-BLK1 Method Blank 0.125, Description: Method Blank

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | B7J0092-BLK1 Method Blank 0.125 | 8.09e3 | 85.5 | NO |
| 2 | 2 13C5-PFHxA | B7J0092-BLK1 Method Blank 0.125 | 1.17 e 4 | 89.5 | NO |
| 3 | 3 13C3-PFHxS | B7J0092-BLK1 Method Blank 0.125 | 2.31 e 3 | 101.0 | NO |
| 4 | 4 13C8-PFOA | B7J0092-BLK1 Method Blank 0.125 | 1.13 e 4 | 96.4 | NO |
| 5 | 5 13C9-PFNA | B7J0092-BLK1 Method Blank 0.125 | 1.25 e 4 | 111.8 | NO |
| 6 | 6 13C4-PFOS | B7J0092-BLK1 Method Blank 0.125 | 2.41 e 3 | 96.1 | NO |
| 7 | 7 13C6-PFDA | B7J0092-BLK1 Method Blank 0.125 | 1.38 e 4 | 114.9 | NO |
| 8 | 8 13C7-PFUnA | B7J0092-BLK1 Method Blank 0.125 | 1.52 e 4 | 109.9 | NO |

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Name: 171026M1_23, Date: 26-Oct-2017, Time: 13:21:58, ID: B7J0152-BLK1 Method Blank 0.005, Description: Method Blank

|  | \# Name | ID | Area | \%Rec | Area Out |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | 1 13C4-PFBA | B7J0152-BLK1 Method Blank 0.005 | 6.71 e 3 | 70.9 | NO |
| 2 | $213 C 5-P F H x A$ | B7J0152-BLK1 Method Blank 0.005 | 9.43 e 3 | 71.9 | NO |
| 3 | $313 C 3-P F H x S$ | B7J0152-BLK1 Method Blank 0.005 | 1.81 e 3 | 79.2 | NO |
| 4 | $413 C 8-P F O A$ | B7J0152-BLK1 Method Blank 0.005 | 8.55 e 3 | 72.7 | NO |
| 5 | $513 C 9-P F N A$ | B7J0152-BLK1 Method Blank 0.005 | 8.47 e 3 | 75.8 | NO |
| 6 | $613 C 4-P F O S$ | B7J0152-BLK1 Method Blank 0.005 | 1.69 e 3 | 67.6 | NO |
| 7 | $713 C 6-P F D A$ | B7J0152-BLK1 Method Blank 0.005 | 7.70 e 3 | 64.1 | NO |
| 8 | $813 C 7-P F U n A ~$ | B7J0152-BLK1 Method Blank 0.005 | 5.27 e 3 | 38.0 | YES |

Name: 171026M1_24, Date: 26-Oct-2017, Time: 13:33:09, ID: B7J0136-BLK1 Method Blank 1, Description: Method Blank

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | B7J0136-BLK1 Method Blank 1 | 7.31 e 3 | 77.3 | NO |
| 2 | 2 13C5-PFHxA | B7J0136-BLK1 Method Blank 1 | 1.01 e 4 | 76.9 | NO |
| 3 | 3 13C3-PFHxS | B7J0136-BLK1 Method Blank 1 | 2.16 e 3 | 94.5 | NO |
| 4 | 4 13C8-PFOA | B7J0136-BLK1 Method Blank 1 | 9.47 e 3 | 80.5 | NO |
| 5 | 5 13C9-PFNA | B7J0136-BLK1 Method Blank 1 | 9.36 e 3 | 83.7 | NO |
| 6 | 6 13C4-PFOS | B7J0136-BLK1 Method Blank 1 | 1.84 e 3 | 73.4 | NO |
| 7 | 7 13C6-PFDA | B7J0136-BLK1 Method Blank 1 | 8.57 e 3 | 71.4 | NO |
| 8 | 8 13C7-PFUnA | B7J0136-BLK1 Method Blank 1 | 5.54 e 3 | 40.0 | YES |

Name: 171026M1_25, Date: 26-Oct-2017, Time: 13:44:19, ID: B7J0136-MS1 Matrix Spike 1.1, Description: Matrix Spike

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | B7J0136-MS1 Matrix Spike 1.1 | 7.03e3 | 74.3 | NO |
| 2 | 2 13C5-PFHxA | B7J0136-MS1 Matrix Spike 1.1 | 9.40 e 3 | 71.7 | NO |
| 3 | 3 13C3-PFHxS | B7J0136-MS1 Matrix Spike 1.1 | 1.95 e 3 | 85.5 | NO |
| 4 | 4 13C8-PFOA | B7J0136-MS1 Matrix Spike 1.1 | 8.98 e 3 | 76.3 | NO |
| 5 | 5 13C9-PFNA | B7J0136-MS1 Matrix Spike 1.1 | 1.04 e 4 | 93.1 | NO |
| 6 | 6 13C4-PFOS | B7J0136-MS1 Matrix Spike 1.1 | 2.08 e 3 | 83.0 | NO |
| 7 | 7 13C6-PFDA | B7J0136-MS1 Matrix Spike 1.1 | 1.24 e 4 | 103.3 | NO |
| 8 | 8 13C7-PFUnA | B7J0136-MS1 Matrix Spike 1.1 | 1.16 e 4 | 83.5 | NO |

Name: 171026M1_26, Date: 26-Oct-2017, Time: 13:55:30, ID: B7J0136-MSD1 Matrix Spike Dup 1.1, Description: Matrix Spike Dup

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | B7J0136-MSD1 Matrix Spike Dup 1.1 | 7.63 e 3 | 80.6 | NO |
| 2 | 2 13C5-PFHxA | B7J0136-MSD1 Matrix Spike Dup 1.1 | 1.04 e 4 | 79.4 | NO |
| 3 | 3 13C3-PFHxS | B7J0136-MSD1 Matrix Spike Dup 1.1 | 2.36 e 3 | 103.4 | NO |
| 4 | 4 13C8-PFOA | B7J0136-MSD1 Matrix Spike Dup 1.1 | 1.05 e 4 | 89.2 | NO |
| 5 | 5 13C9-PFNA | B7J0136-MSD1 Matrix Spike Dup 1.1 | 1.06 e 4 | 95.0 | NO |
| 6 | 6 13C4-PFOS | B7J0136-MSD1 Matrix Spike Dup 1.1 | 2.23 e 3 | 89.1 | NO |
| 7 | 7 13C6-PFDA | B7J0136-MSD1 Matrix Spike Dup 1.1 | 1.12 e 4 | 93.0 | NO |
| 8 | 8 13C7-PFUnA | B7J0136-MSD1 Matrix Spike Dup 1.1 | 1.01 e 4 | 72.8 | NO |

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Name: 171026M1_27, Date: 26-Oct-2017, Time: 14:06:41, ID: B7J0136-MS2 Matrix Spike 1.12, Description: Matrix Spike

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | B7J0136-MS2 Matrix Spike 1.12 | 8.42e3 | 89.0 | NO |
| 2 | 2 13C5-PFHxA | B7J0136-MS2 Matrix Spike 1.12 | 1.05 e 4 | 80.3 | NO |
| 3 | 3 13C3-PFHxS | B7J0136-MS2 Matrix Spike 1.12 | 2.27 e 3 | 99.4 | NO |
| 4 | 4 13C8-PFOA | B7J0136-MS2 Matrix Spike 1.12 | 7.89e3 | 67.1 | NO |
| 5 | 5 13C9-PFNA | B7J0136-MS2 Matrix Spike 1.12 | 1.17 e 4 | 105.0 | NO |
| 6 | 6 13C4-PFOS | B7J0136-MS2 Matrix Spike 1.12 | 2.32 e 3 | 92.4 | NO |
| 7 | 7 13C6-PFDA | B7J0136-MS2 Matrix Spike 1.12 | 6.49 e 3 | 54.1 | NO |
| 8 | 8 13C7-PFUnA | B7J0136-MS2 Matrix Spike 1.12 | 1.47 e 4 | 105.8 | NO |

Name: 171026M1_28, Date: 26-Oct-2017, Time: 14:17:51, ID: B7J0136-MSD2 Matrix Spike Dup 1.18, Description: Matrix Spike Dup

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | B7J0136-MSD2 Matrix Spike Dup 1.18 | 7.00 e 3 | 74.0 | NO |
| 2 | 2 13C5-PFHxA | B7J0136-MSD2 Matrix Spike Dup 1.18 | 8.82e3 | 67.3 | NO |
| 3 | 3 13C3-PFHxS | B7J0136-MSD2 Matrix Spike Dup 1.18 | 1.95 e 3 | 85.3 | NO |
| 4 | 4 13C8-PFOA | B7J0136-MSD2 Matrix Spike Dup 1.18 | 6.71 e 3 | 57.0 | NO |
| 5 | 5 13C9-PFNA | B7J0136-MSD2 Matrix Spike Dup 1.18 | 9.22 e 3 | 82.4 | NO |
| 6 | 6 13C4-PFOS | B7J0136-MSD2 Matrix Spike Dup 1.18 | 1.77 e 3 | 70.7 | NO |
| 7 | 7 13C6-PFDA | B7J0136-MSD2 Matrix Spike Dup 1.18 | 5.29 e 3 | 44.1 | YES |
| 8 | 8 13C7-PFUnA | B7J0136-MSD2 Matrix Spike Dup 1.18 | 9.79 e 3 | 70.7 | NO |

Name: 171026M1_29, Date: 26-Oct-2017, Time: 14:29:02, ID: 1701430-02RE2@20X Foam-6603 Loud 0.04537, Description: Foam-6603 Loud

|  | \# Name | ID | Area | \%Rec | Area Out |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | 1 13C4-PFBA | 1701430-02RE2@20X Foam-6603 Lou... | 3.54 e 2 | 3.7 | YES |
| 2 | 2 13C5-PFHxA | 1701430-02RE2@20X Foam-6603 Lou... | 5.28 e 2 | 4.0 | YES |
| 3 | $313 C 3-P F H x S$ | $1701430-02 R E 2 @ 20 X$ Foam-6603 Lou... | 9.71 e 1 | 4.3 | YES |
| 4 | $413 C 8-P F O A$ | $1701430-02 R E 2 @ 20 X$ Foam-6603 Lou... | 4.96 e 2 | 4.2 | YES |
| 5 | $513 C 9-P F N A$ | $1701430-02 R E 2 @ 20 X$ Foam-6603 Lou... | 5.35 e 2 | 4.8 | YES |
| 6 | $613 C 4-P F O S$ | $1701430-02 R E 2 @ 20 X$ Foam-6603 Lou... | $1.13 e 2$ | 4.5 | YES |
| 7 | $713 C 6-P F D A$ | $1701430-02 R E 2 @ 20 X$ Foam-6603 Lou... | 5.45 e 2 | 4.5 | YES |
| 8 | $813 C 7-P F U n A$ | $1701430-02 R E 2 @ 20 X$ Foam-6603 Lou... | 6.74 e 2 | 4.9 | YES |

Name: 171026M1_30, Date: 26-Oct-2017, Time: 14:40:13, ID: 1701430-02RE2 Foam-6603 Loud 0.04537,
Description: Foam-6603 Loud

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1701430-02RE2 Foam-6603 Loud 0.045... | 7.69e3 | 81.2 | NO |
| 2 | 2 13C5-PFHxA | 1701430-02RE2 Foam-6603 Loud 0.045... | 1.06 e 4 | 81.1 | NO |
| 3 | 3 13C3-PFHxS | 1701430-02RE2 Foam-6603 Loud 0.045... | 1.98 e 3 | 86.7 | NO |
| 4 | 4 13C8-PFOA | 1701430-02RE2 Foam-6603 Loud 0.045... | 9.21 e 3 | 78.3 | NO |
| 5 | 5 13C9-PFNA | 1701430-02RE2 Foam-6603 Loud 0.045... | 1.06 e 4 | 95.0 | NO |
| 6 | 6 13C4-PFOS | 1701430-02RE2 Foam-6603 Loud 0.045... | 2.04 e 3 | 81.5 | NO |
| 7 | 7 13C6-PFDA | 1701430-02RE2 Foam-6603 Loud 0.045... | 1.20 e 4 | 100.1 | NO |
| 8 | 8 13C7-PFUnA | 1701430-02RE2 Foam-6603 Loud 0.045... | 1.44 e 4 | 103.8 | NO |

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Name: 171026M1_31, Date: 26-Oct-2017, Time: 14:51:24, ID: IPA, Description: IPA

|  | \# Name | ID | Area |
| :--- | :--- | :--- | :--- |
| 1 | $113 C 4-P F B A$ | IPA | \%Rec |
| 2 | $213 C 5-P F H x A$ | IPA | Area Out |
| 3 | $313 C 3-P F H x S$ | IPA | NO |
| 4 | $413 C 8-P F O A$ | IPA | NO |
| 5 | $513 C 9-P F N A$ | IPA | NO |
| 6 | $613 C 4-P F O S$ | IPA | NO |
| 7 | $713 C 6-P F D A$ | IPA | NO |
| 8 | $813 C 7-P F U n A$ | IPA | NO |

Name: 171026M1_32, Date: 26-Oct-2017, Time: 15:02:34, ID: 1701432-08RE1 Site 4-GW-04GW03-20171004 0.11516, Description: Site 4-GW-04GW03-20171004

|  | \# Name | ID | Area | \%Rec | Area Out |
| :--- | :--- | :--- | :--- | ---: | :--- |
| 1 | $113 C 4-P F B A$ | 1701432-08RE1 Site 4-GW-04GW03-2... | 7.96 e 3 | 84.1 | NO |
| 2 | $213 C 5-P F H x A$ | 1701432-08RE1 Site 4-GW-04GW03-2... | 1.08 e 4 | 82.5 | NO |
| 3 | $313 C 3-P F H x S$ | 1701432-08RE1 Site 4-GW-04GW03-2... | 1.93 e 3 | 84.6 | NO |
| 4 | $413 C 8-P F O A$ | $1701432-08 R E 1$ Site 4-GW-04GW03-2... | 9.84 e 3 | 83.6 | NO |
| 5 | $513 C 9-P F N A$ | $1701432-08 R E 1$ Site 4-GW-04GW03-2... | 1.16 e 4 | 103.5 | NO |
| 6 | $613 C 4-P F O S$ | $1701432-08 R E 1$ Site 4-GW-04GW03-2... | 2.44 e 3 | 97.3 | NO |
| 7 | $713 C 6-P F D A$ | $1701432-08 R E 1$ Site 4-GW-04GW03-2... | $1.22 e 4$ | 101.7 | NO |
| 8 | $813 C 7-P F U n A$ | $1701432-08 R E 1$ Site 4-GW-04GW03-2... | $1.22 e 4$ | 87.9 | NO |

Name: 171026M1_33, Date: 26-Oct-2017, Time: 15:13:45, ID: 1701384-01@10X MW-6 0.125, Description: MW-6

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1701384-01@10X MW-6 0.125 | 3.54 e 3 | 18.7 | YES |
| 2 | 2 13C5-PFHxA | 1701384-01@10X MW-6 0.125 | 5.19 e 3 | 19.8 | YES |
| 3 | 3 13C3-PFHxS | 1701384-01@10X MW-6 0.125 | 1.01 e 3 | 22.1 | YES |
| 4 | 4 13C8-PFOA | 1701384-01@10X MW-6 0.125 | 4.96 e 3 | 21.1 | YES |
| 5 | 5 13C9-PFNA | 1701384-01@10X MW-6 0.125 | 5.68 e 3 | 25.4 | YES |
| 6 | 6 13C4-PFOS | 1701384-01@10X MW-6 0.125 | 1.21 e 3 | 24.1 | YES |
| 7 | 7 13C6-PFDA | 1701384-01@10X MW-6 0.125 | 5.36 e 3 | 22.3 | YES |
| 8 | 8 13C7-PFUnA | 1701384-01@10X MW-6 0.125 | 6.05 e 3 | 21.9 | YES |

Name: 171026M1_34, Date: 26-Oct-2017, Time: 15:24:56, ID: 1701385-05@10X B-E-GW 0.11326, Description: B-E-GW

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1701385-05@10X B-E-GW 0.11326 | 3.69e3 | 19.5 | YES |
| 2 | 2 13C5-PFHxA | 1701385-05@10X B-E-GW 0.11326 | 4.71 e 3 | 18.0 | YES |
| 3 | 3 13C3-PFHxS | 1701385-05@10X B-E-GW 0.11326 | 9.70 e 2 | 21.2 | YES |
| 4 | 4 13C8-PFOA | 1701385-05@10X B-E-GW 0.11326 | 4.34 e 3 | 18.4 | YES |
| 5 | 5 13C9-PFNA | 1701385-05@10X B-E-GW 0.11326 | 4.74 e 3 | 21.2 | YES |
| 6 | 6 13C4-PFOS | 1701385-05@10X B-E-GW 0.11326 | 9.47 e 2 | 18.9 | YES |
| 7 | 7 13C6-PFDA | 1701385-05@10X B-E-GW 0.11326 | 4.73 e 3 | 19.7 | YES |
| 8 | 8 13C7-PFUnA | 1701385-05@10X B-E-GW 0.11326 | 5.45 e 3 | 19.7 | YES |

Quantify Sample Summary Report
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Name: 171026M1_35, Date: 26-Oct-2017, Time: 15:36:06, ID: 1701385-06@10X B-H-GW 0.11258, Description: B-H-GW

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1701385-06@10X B-H-GW 0.11258 | 3.34 e 3 | 17.6 | YES |
| 2 | 2 13C5-PFHxA | 1701385-06@10X B-H-GW 0.11258 | 4.43 e 3 | 16.9 | YES |
| 3 | 3 13C3-PFHxS | 1701385-06@10X B-H-GW 0.11258 | 8.81 e 2 | 19.3 | YES |
| 4 | 4 13C8-PFOA | 1701385-06@10X B-H-GW 0.11258 | 4.20 e 3 | 17.8 | YES |
| 5 | 5 13C9-PFNA | 1701385-06@10X B-H-GW 0.11258 | 4.08 e 3 | 18.2 | YES |
| 6 | 6 13C4-PFOS | 1701385-06@10X B-H-GW 0.11258 | 9.42 e 2 | 18.8 | YES |
| 7 | 7 13C6-PFDA | 1701385-06@10X B-H-GW 0.11258 | 5.26 e 3 | 21.9 | YES |
| 8 | 8 13C7-PFUnA | 1701385-06@10X B-H-GW 0.11258 | 5.48 e 3 | 19.8 | YES |

Name: 171026M1_36, Date: 26-Oct-2017, Time: 15:47:17, ID: 1701385-07@10X B-I-GW 0.11542, Description: B-I-GW

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1701385-07@10X B-I-GW 0.11542 | 2.92e3 | 15.4 | YES |
| 2 | 2 13C5-PFHxA | 1701385-07@10X B-I-GW 0.11542 | 3.99 e 3 | 15.2 | YES |
| 3 | 3 13C3-PFHxS | 1701385-07@10X B-I-GW 0.11542 | 7.76 e 2 | 17.0 | YES |
| 4 | 4 13C8-PFOA | 1701385-07@10X B-I-GW 0.11542 | 3.57 e 3 | 15.2 | YES |
| 5 | 5 13C9-PFNA | 1701385-07@10X B-I-GW 0.11542 | 3.96 e 3 | 17.7 | YES |
| 6 | 6 13C4-PFOS | 1701385-07@10X B-I-GW 0.11542 | 7.93 e 2 | 15.8 | YES |
| 7 | 7 13C6-PFDA | 1701385-07@10X B-I-GW 0.11542 | 3.99 e 3 | 16.6 | YES |
| 8 | 8 13C7-PFUnA | 1701385-07@10X B-I-GW 0.11542 | 4.70 e 3 | 17.0 | YES |

Name: 171026M1_37, Date: 26-Oct-2017, Time: 15:58:27, ID: 1701385-08@10X B-J-GW 0.11666, Description: B-J-GW

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1701385-08@10X B-J-GW 0.11666 | 3.84 e 3 | 20.3 | YES |
| 2 | 2 13C5-PFHxA | 1701385-08@10X B-J-GW 0.11666 | 5.15 e 3 | 19.6 | YES |
| 3 | 3 13C3-PFHxS | 1701385-08@10X B-J-GW 0.11666 | 9.41 e 2 | 20.6 | YES |
| 4 | 4 13C8-PFOA | 1701385-08@10X B-J-GW 0.11666 | 4.93 e 3 | 20.9 | YES |
| 5 | 5 13C9-PFNA | 1701385-08@10X B-J-GW 0.11666 | 4.54 e 3 | 20.3 | YES |
| 6 | 6 13C4-PFOS | 1701385-08@10X B-J-GW 0.11666 | 1.07 e 3 | 21.4 | YES |
| 7 | 7 13C6-PFDA | 1701385-08@10X B-J-GW 0.11666 | 5.06 e 3 | 21.1 | YES |
| 8 | 8 13C7-PFUnA | 1701385-08@10X B-J-GW 0.11666 | 5.13 e3 | 18.5 | YES |

Name: 171026M1_38, Date: 26-Oct-2017, Time: 16:09:38, ID: IPA, Description: IPA

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | IPA |  |  | NO |
| 2 | 2 13C5-PFHxA | IPA |  |  | NO |
| 3 | 3 13C3-PFHxS | IPA |  |  | NO |
| 4 | 4 13C8-PFOA | IPA |  |  | NO |
| 5 | 5 13C9-PFNA | IPA |  |  | NO |
| 6 | 6 13C4-PFOS | IPA |  |  | NO |
| 7 | 7 13C6-PFDA | IPA |  |  | NO |
| 8 | 8 13C7-PFUnA | IPA |  |  | NO |

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Name: 171026M1_39, Date: 26-Oct-2017, Time: 16:20:49, ID: 1701505-01 Breastmilk \#1 0.005, Description: Breastmilk \#1

|  | \# Name | ID | Area | \%Rec | Area Out |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | 1 13C4-PFBA | $1701505-01$ Breastmilk \#1 0.005 | 7.46 e 3 | 78.9 | NO |
| 2 | 2 13C5-PFHxA | $1701505-01$ Breastmilk \#1 0.005 | 1.09 e 4 | 83.2 | NO |
| 3 | $313 C 3-P F H x S$ | $1701505-01$ Breastmilk \#1 0.005 | 2.00 e 3 | 87.5 | NO |
| 4 | $413 C 8-P F O A$ | $1701505-01$ Breastmilk \#1 0.005 | 8.60 e 3 | 73.1 | NO |
| 5 | $513 C 9-P F N A$ | $1701505-01$ Breastmilk \#1 0.005 | 8.27 e 3 | 74.0 | NO |
| 6 | $613 C 4-P F O S$ | $1701505-01$ Breastmilk \#1 0.005 | 1.57 e 3 | 62.8 | NO |
| 7 | $713 C 6-P F D A$ | $1701505-01$ Breastmilk \#1 0.005 | 5.84 e 3 | 48.6 | YES |
| 8 | $813 C 7-P F U n A$ | $1701505-01$ Breastmilk \#1 0.005 | 6.79 e 3 | 49.0 | YES |

Name: 171026M1_40, Date: 26-Oct-2017, Time: 16:32:00, ID: 1701505-02 Breastmilk \#2 0.005, Description: Breastmilk \#2

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1701505-02 Breastmilk \#2 0.005 | 7.65e3 | 80.9 | NO |
| 2 | 2 13C5-PFHxA | 1701505-02 Breastmilk \#2 0.005 | 1.06 e 4 | 81.0 | NO |
| 3 | 3 13C3-PFHxS | 1701505-02 Breastmilk \#2 0.005 | 1.89 e 3 | 82.6 | NO |
| 4 | 4 13C8-PFOA | 1701505-02 Breastmilk \#2 0.005 | 9.51 e 3 | 80.8 | NO |
| 5 | 5 13C9-PFNA | 1701505-02 Breastmilk \#2 0.005 | 7.59e3 | 67.9 | NO |
| 6 | 6 13C4-PFOS | 1701505-02 Breastmilk \#2 0.005 | 1.35 e 3 | 53.9 | NO |
| 7 | 7 13C6-PFDA | 1701505-02 Breastmilk \#2 0.005 | 4.96 e 3 | 41.4 | YES |
| 8 | 8 13C7-PFUnA | 1701505-02 Breastmilk \#2 0.005 | 4.45 e 3 | 32.1 | YES |

Name: 171026M1_41, Date: 26-Oct-2017, Time: 16:43:10, ID: IPA, Description: IPA

| \# Name | ID | Area | \%Rec |
| :--- | :--- | :--- | :---: |
| 1 | $113 C 4-P F B A$ | IPA | Area Out |
| 2 | $213 C 5-P F H x A$ | IPA | NO |
| 3 | $313 C 3-P F H x S$ | IPA | NO |
| 4 | $413 C 8-P F O A$ | IPA | NO |
| 5 | $513 C 9-P F N A$ | IPA | NO |
| 6 | $613 C 4-P F O S$ | IPA | NO |
| 7 | $713 C 6-P F D A$ | IPA | NO |
| 8 | $813 C 7-P F U n A$ | IPA | NO |

Name: 171026M1_42, Date: 26-Oct-2017, Time: 16:54:21, ID: ST171026M1-11 PFC CS3 17J1806, Description: PFC CS3 17J1806

|  | \# Name | ID | Area | \%Rec | Area Out |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | $113 C 4-P F B A$ | ST171026M1-11 PFC CS3 17J1806 | 9.63 e 3 | 101.8 | NO |
| 2 | 2 13C5-PFHxA | ST171026M1-11 PFC CS3 17J1806 | 1.29 e 4 | 98.3 | NO |
| 3 | $313 C 3-P F H x S$ | ST171026M1-11 PFC CS3 17J1806 | 2.20 e 3 | 96.3 | NO |
| 4 | $413 C 8-P F O A$ | ST171026M1-11 PFC CS3 17J1806 | 1.15 e 4 | 98.0 | NO |
| 5 | $513 C 9-P F N A$ | ST171026M1-11 PFC CS3 17J1806 | 1.30 e 4 | 116.5 | NO |
| 6 | $613 C 4-P F O S$ | ST171026M1-11 PFC CS3 17J1806 | 2.66 e 3 | 105.9 | NO |
| 7 | $713 C 6-P F D A$ | ST171026M1-11 PFC CS3 17J1806 | 1.49 e 4 | 124.3 | NO |
| 8 | $813 C 7-P F U n A$ | ST171026M1-11 PFC CS3 17J1806 | 1.77 e 4 | 127.5 | NO |

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Name: 171026M1_43, Date: 26-Oct-2017, Time: 17:05:32, ID: IPA, Description: IPA

|  | \# Name | ID | Area |
| :--- | :--- | :--- | :--- |
| 1 | $113 C 4-P F B A$ | IPA | \%Rec |
| 2 | $213 C 5-P F H x A$ | IPA | Area Out |
| 3 | $313 C 3-P F H x S$ | IPA | NO |
| 4 | $413 C 8-P F O A$ | IPA | NO |
| 5 | $513 C 9-P F N A$ | IPA | NO |
| 6 | $613 C 4-P F O S$ | IPA | NO |
| 7 | $713 C 6-P F D A$ | IPA | NO |
| 8 | $813 C 7-P F U n A$ | IPA | NO |

Name: 171026M1_44, Date: 26-Oct-2017, Time: 17:16:50, ID: 1701378-01 BRDLY-02-SB01-0-2 1.07, Description: BRDLY-02-SB01-0-2

|  | \# Name | ID | Area | \%Rec | Area Out |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | $113 C 4-P F B A$ | $1701378-01$ BRDLY-02-SB01-0-2 1.07 | 7.82 e 3 | 82.7 | NO |
| 2 | $213 C 5-P F H x A$ | $1701378-01$ BRDLY-02-SB01-0-2 1.07 | 1.13 e 4 | 86.0 | NO |
| 3 | $313 C 3-P F H x S$ | $1701378-01$ BRDLY-02-SB01-0-2 1.07 | 2.11 e 3 | 92.4 | NO |
| 4 | $413 C 8-P F O A$ | $1701378-01$ BRDLY-02-SB01-0-2 1.07 | 9.27 e 3 | 78.8 | NO |
| 5 | $513 C 9-P F N A$ | $1701378-01$ BRDLY-02-SB01-0-2 1.07 | 9.39 e 3 | 84.0 | NO |
| 6 | $613 C 4-P F O S$ | $1701378-01$ BRDLY-02-SB01-0-2 1.07 | 1.95 e 3 | 77.7 | NO |
| 7 | $713 C 6-P F D A$ | $1701378-01$ BRDLY-02-SB01-0-2 1.07 | 8.88 e 3 | 74.0 | NO |
| 8 | $813 C 7-P F U n A$ | $1701378-01$ BRDLY-02-SB01-0-2 1.07 | 6.13 e 3 | 44.2 | YES |

Name: 171026M1_45, Date: 26-Oct-2017, Time: 17:28:15, ID: 1701378-02 BRDLY-02-SB01-13-15 1.2, Description: BRDLY-02-SB01-13-15

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1701378-02 BRDLY-02-SB01-13-15 1.2 | 7.63 e 3 | 80.7 | NO |
| 2 | 2 13C5-PFHxA | 1701378-02 BRDLY-02-SB01-13-15 1.2 | 1.06 e 4 | 80.9 | NO |
| 3 | 3 13C3-PFHxS | 1701378-02 BRDLY-02-SB01-13-15 1.2 | 1.97 e 3 | 86.2 | NO |
| 4 | 4 13C8-PFOA | 1701378-02 BRDLY-02-SB01-13-15 1.2 | 9.38 e 3 | 79.7 | NO |
| 5 | 5 13C9-PFNA | 1701378-02 BRDLY-02-SB01-13-15 1.2 | 9.54 e 3 | 85.3 | NO |
| 6 | 6 13C4-PFOS | 1701378-02 BRDLY-02-SB01-13-15 1.2 | 1.81 e 3 | 72.3 | NO |
| 7 | 7 13C6-PFDA | 1701378-02 BRDLY-02-SB01-13-15 1.2 | 8.33 e 3 | 69.4 | NO |
| 8 | 8 13C7-PFUnA | 1701378-02 BRDLY-02-SB01-13-15 1.2 | 4.69 e 3 | 33.9 | YES |

Name: 171026M1_46, Date: 26-Oct-2017, Time: 17:39:56, ID: 1701378-03 BRDLY-02-SB02-0-2 1.08, Description: BRDLY-02-SB02-0-2

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1701378-03 BRDLY-02-SB02-0-2 1.08 | 7.13 e 3 | 75.3 | NO |
| 2 | 2 13C5-PFHxA | 1701378-03 BRDLY-02-SB02-0-2 1.08 | 1.02 e 4 | 77.7 | NO |
| 3 | 3 13C3-PFHxS | 1701378-03 BRDLY-02-SB02-0-2 1.08 | 2.15 e 3 | 94.0 | NO |
| 4 | 4 13C8-PFOA | 1701378-03 BRDLY-02-SB02-0-2 1.08 | 1.07 e 4 | 90.6 | NO |
| 5 | 5 13C9-PFNA | 1701378-03 BRDLY-02-SB02-0-2 1.08 | 9.78 e 3 | 87.5 | NO |
| 6 | 6 13C4-PFOS | 1701378-03 BRDLY-02-SB02-0-2 1.08 | 2.59 e 3 | 103.4 | NO |
| 7 | 7 13C6-PFDA | 1701378-03 BRDLY-02-SB02-0-2 1.08 | 1.07 e 4 | 89.3 | NO |
| 8 | 8 13C7-PFUnA | 1701378-03 BRDLY-02-SB02-0-2 1.08 | 1.09 e 4 | 79.1 | NO |

# Quantify Sample Summary Report 

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Name: 171026M1_47, Date: 26-Oct-2017, Time: 17:51:07, ID: 1701378-04 BRDLY-02-SB02-13-15 1.29, Description: BRDLY-02-SB02-13-15

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1701378-04 BRDLY-02-SB02-13-15 1.29 | 8.42e3 | 88.9 | NO |
| 2 | 2 13C5-PFHxA | 1701378-04 BRDLY-02-SB02-13-15 1.29 | 1.13 e 4 | 86.4 | NO |
| 3 | 3 13C3-PFHxS | 1701378-04 BRDLY-02-SB02-13-15 1.29 | 2.37 e 3 | 103.9 | NO |
| 4 | 4 13C8-PFOA | 1701378-04 BRDLY-02-SB02-13-15 1.29 | 1.07 e 4 | 91.1 | NO |
| 5 | 5 13C9-PFNA | 1701378-04 BRDLY-02-SB02-13-15 1.29 | 1.17 e 4 | 104.6 | NO |
| 6 | 6 13C4-PFOS | 1701378-04 BRDLY-02-SB02-13-15 1.29 | 1.99 e 3 | 79.3 | NO |
| 7 | 7 13C6-PFDA | 1701378-04 BRDLY-02-SB02-13-15 1.29 | 1.02 e 4 | 85.0 | NO |
| 8 | 8 13C7-PFUnA | 1701378-04 BRDLY-02-SB02-13-15 1.29 | 6.58 e 3 | 47.5 | YES |

Name: 171026M1_48, Date: 26-Oct-2017, Time: 18:02:17, ID: 1701378-05 BRDLY-02-SB03-0-2 1.08, Description: BRDLY-02-SB03-0-2

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1701378-05 BRDLY-02-SB03-0-2 1.08 | 7.98e3 | 84.3 | NO |
| 2 | 2 13C5-PFHxA | 1701378-05 BRDLY-02-SB03-0-2 1.08 | 1.07 e 4 | 81.9 | NO |
| 3 | 3 13C3-PFHxS | 1701378-05 BRDLY-02-SB03-0-2 1.08 | 2.01 e 3 | 87.8 | NO |
| 4 | 4 13C8-PFOA | 1701378-05 BRDLY-02-SB03-0-2 1.08 | 9.50 e 3 | 80.8 | NO |
| 5 | 5 13C9-PFNA | 1701378-05 BRDLY-02-SB03-0-2 1.08 | 9.92 e 3 | 88.8 | NO |
| 6 | 6 13C4-PFOS | 1701378-05 BRDLY-02-SB03-0-2 1.08 | 2.12 e 3 | 84.7 | NO |
| 7 | 7 13C6-PFDA | 1701378-05 BRDLY-02-SB03-0-2 1.08 | 8.99e3 | 74.9 | NO |
| 8 | 8 13C7-PFUnA | 1701378-05 BRDLY-02-SB03-0-2 1.08 | 6.93 e 3 | 50.0 | NO |

Name: 171026M1_49, Date: 26-Oct-2017, Time: 18:13:28, ID: 1701378-06 BRDLY-02-SB03-13-15 1.17, Description: BRDLY-02-SB03-13-15

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1701378-06 BRDLY-02-SB03-13-15 1.17 | 7.11 e 3 | 75.2 | NO |
| 2 | 2 13C5-PFHxA | 1701378-06 BRDLY-02-SB03-13-15 1.17 | 9.68 e 3 | 73.9 | NO |
| 3 | 3 13C3-PFHxS | 1701378-06 BRDLY-02-SB03-13-15 1.17 | 2.01 e 3 | 88.1 | NO |
| 4 | 4 13C8-PFOA | 1701378-06 BRDLY-02-SB03-13-15 1.17 | 9.18 e 3 | 78.1 | NO |
| 5 | 5 13C9-PFNA | 1701378-06 BRDLY-02-SB03-13-15 1.17 | 8.22 e 3 | 73.5 | NO |
| 6 | 6 13C4-PFOS | 1701378-06 BRDLY-02-SB03-13-15 1.17 | 1.55 e 3 | 62.0 | NO |
| 7 | 7 13C6-PFDA | 1701378-06 BRDLY-02-SB03-13-15 1.17 | 8.42 e 3 | 70.2 | NO |
| 8 | 8 13C7-PFUnA | 1701378-06 BRDLY-02-SB03-13-15 1.17 | 5.47 e 3 | 39.5 | YES |

Name: 171026M1_50, Date: 26-Oct-2017, Time: 18:24:38, ID: 1701378-07 BRDLY-05-SB01-0-2 1.08, Description: BRDLY-05-SB01-0-2

|  | \# Name | ID | Area | \%Rec | Area Out |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | $113 C 4-P F B A$ | $1701378-07$ BRDLY-05-SB01-0-2 1.08 | 7.93 e 3 | 83.8 | NO |
| 2 | $213 C 5-P F H x A$ | $1701378-07$ BRDLY-05-SB01-0-2 1.08 | 1.07 e 4 | 81.5 | NO |
| 3 | $313 C 3-P F H x S$ | $1701378-07$ BRDLY-05-SB01-0-2 1.08 | 2.22 e 3 | 97.1 | NO |
| 4 | $413 C 8-P F O A$ | $1701378-07$ BRDLY-05-SB01-0-2 1.08 | 1.03 e 4 | 87.6 | NO |
| 5 | $513 C 9-P F N A$ | $1701378-07$ BRDLY-05-SB01-0-2 1.08 | 1.03 e 4 | 92.1 | NO |
| 6 | $613 C 4-P F O S$ | $1701378-07$ BRDLY-05-SB01-0-2 1.08 | 2.29 e 3 | 91.2 | NO |
| 7 | $713 C 6-P F D A$ | $1701378-07$ BRDLY-05-SB01-0-2 1.08 | 1.01 e 4 | 83.9 | NO |
| 8 | $813 C 7-P F U n A$ | $1701378-07$ BRDLY-05-SB01-0-2 1.08 | 9.15 e 3 | 66.1 | NO |

Quantify Sample Summary Report
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Name: 171026M1_51, Date: 26-Oct-2017, Time: 18:35:49, ID: 1701378-08 BRDLY-05-SB02-0-2 1.07, Description: BRDLY-05-SB02-0-2

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1701378-08 BRDLY-05-SB02-0-2 1.07 | 7.24e3 | 76.5 | NO |
| 2 | 2 13C5-PFHxA | 1701378-08 BRDLY-05-SB02-0-2 1.07 | 9.77 e 3 | 74.6 | NO |
| 3 | 3 13C3-PFHxS | 1701378-08 BRDLY-05-SB02-0-2 1.07 | 1.87 e 3 | 81.8 | NO |
| 4 | 4 13C8-PFOA | 1701378-08 BRDLY-05-SB02-0-2 1.07 | 8.59e3 | 73.0 | NO |
| 5 | 5 13C9-PFNA | 1701378-08 BRDLY-05-SB02-0-2 1.07 | 1.12 e 4 | 100.4 | NO |
| 6 | 6 13C4-PFOS | 1701378-08 BRDLY-05-SB02-0-2 1.07 | 2.22 e 3 | 88.5 | NO |
| 7 | 7 13C6-PFDA | 1701378-08 BRDLY-05-SB02-0-2 1.07 | 9.53 e 3 | 79.4 | NO |
| 8 | 8 13C7-PFUnA | 1701378-08 BRDLY-05-SB02-0-2 1.07 | 9.29 e 3 | 67.1 | NO |

Name: 171026M1_52, Date: 26-Oct-2017, Time: 18:47:00, ID: 1701378-09 BRDLY-05-SB02-9-11 1.07, Description: BRDLY-05-SB02-9-11

|  | \# Name | ID | Area | \%Rec | Area Out |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | 1 13C4-PFBA | $1701378-09$ BRDLY-05-SB02-9-111.07 | 8.09 e 3 | 85.5 | NO |
| 2 | 2 13C5-PFHxA | $1701378-09$ BRDLY-05-SB02-9-111.07 | 1.08 e 4 | 82.4 | NO |
| 3 | $313 C 3-P F H x S$ | $1701378-09$ BRDLY-05-SB02-9-111.07 | 1.97 e 3 | 86.4 | NO |
| 4 | $413 C 8-P F O A$ | $1701378-09$ BRDLY-05-SB02-9-111.07 | 9.21 e 3 | 78.3 | NO |
| 5 | $513 C 9-P F N A$ | $1701378-09$ BRDLY-05-SB02-9-111.07 | 1.03 e 4 | 91.7 | NO |
| 6 | $613 C 4-P F O S$ | $1701378-09$ BRDLY-05-SB02-9-111.07 | 2.06 e 3 | 82.1 | NO |
| 7 | $713 C 6-P F D A$ | $1701378-09$ BRDLY-05-SB02-9-111.07 | 9.53 e 3 | 79.4 | NO |
| 8 | $813 C 7-P F U n A$ | $1701378-09$ BRDLY-05-SB02-9-111.07 | 5.93 e 3 | 42.9 | YES |

Name: 171026M1_53, Date: 26-Oct-2017, Time: 18:58:11, ID: 1701378-10 BRDLY-05-SB03-0-2 1.05, Description: BRDLY-05-SB03-0-2

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1701378-10 BRDLY-05-SB03-0-2 1.05 | 7.07e3 | 74.7 | NO |
| 2 | 2 13C5-PFHxA | 1701378-10 BRDLY-05-SB03-0-2 1.05 | 9.56 e 3 | 72.9 | NO |
| 3 | 3 13C3-PFHxS | 1701378-10 BRDLY-05-SB03-0-2 1.05 | 1.84 e 3 | 80.5 | NO |
| 4 | 4 13C8-PFOA | 1701378-10 BRDLY-05-SB03-0-2 1.05 | 8.19 e 3 | 69.6 | NO |
| 5 | 5 13C9-PFNA | 1701378-10 BRDLY-05-SB03-0-2 1.05 | 9.31 e 3 | 83.3 | NO |
| 6 | 6 13C4-PFOS | 1701378-10 BRDLY-05-SB03-0-2 1.05 | 2.04 e 3 | 81.4 | NO |
| 7 | 7 13C6-PFDA | 1701378-10 BRDLY-05-SB03-0-2 1.05 | 1.01 e 4 | 84.1 | NO |
| 8 | 8 13C7-PFUnA | 1701378-10 BRDLY-05-SB03-0-2 1.05 | 9.38 e 3 | 67.8 | NO |

Name: 171026M1_54, Date: 26-Oct-2017, Time: 19:09:21, ID: IPA, Description: IPA

|  | \# Name | ID | Area |
| :--- | :--- | :--- | :--- |
| 1 | $113 C 4-P F B A$ | IPA |  |
| 2 | $213 C 5-P F H x A$ | IPA | Area Out |
| 3 | $313 C 3-P F H x S$ | IPA | NO |
| 4 | $413 C 8-P F O A$ | IPA | NO |
| 5 | $513 C 9-P F N A$ | IPA | NO |
| 6 | $613 C 4-P F O S$ | IPA | NO |
| 7 | $713 C 6-P F D A$ | IPA | NO |
| 8 | $813 C 7-P F U n A$ | IPA | NO |

Quantify Sample Summary Report
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Name: 171026M1_55, Date: 26-Oct-2017, Time: 19:20:33, ID: ST171026M1-12 PFC CS3 17J1806, Description: PFC CS3 17J1806

|  | \# Name | ID | Area | \%Rec | Area Out |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | 1 13C4-PFBA | ST171026M1-12 PFC CS3 17J1806 | 9.88 e 3 | 104.4 | NO |
| 2 | 2 13C5-PFHxA | ST171026M1-12 PFC CS3 17J1806 | 1.32 e 4 | 100.7 | NO |
| 3 | $313 C 3-P F H x S$ | ST171026M1-12 PFC CS3 17J1806 | 2.41 e 3 | 105.5 | NO |
| 4 | $413 C 8-P F O A$ | ST171026M1-12 PFC CS3 17J1806 | 1.20 e 4 | 102.1 | NO |
| 5 | $513 C 9-P F N A$ | ST171026M1-12 PFC CS3 17J1806 | 1.30 e 4 | 116.2 | NO |
| 6 | $613 C 4-P F O S$ | ST171026M1-12 PFC CS3 17J1806 | 2.89 e 3 | 115.2 | NO |
| 7 | $713 C 6-P F D A$ | ST171026M1-12 PFC CS3 17J1806 | 1.50 e 4 | 124.7 | NO |
| 8 | $813 C 7-P F U n A ~$ | ST171026M1-12 PFC CS3 17J1806 | 1.91 e 4 | 137.9 | NO |

Name: 171026M1_56, Date: 26-Oct-2017, Time: 19:31:43, ID: IPA, Description: IPA

|  | \# Name | ID | Area |
| :--- | :--- | :--- | :---: |
| 1 | $113 C 4-P F B A$ | IPA | \%Rec |
| 2 | $213 C 5-P F H x A$ | IPA | NO |
| 3 | $313 C 3-P F H x S$ | IPA | NO |
| 4 | $413 C 8-P F O A$ | IPA | NO |
| 5 | $513 C 9-P F N A$ | IPA | NO |
| 6 | $613 C 4-P F O S$ | IPA | NO |
| 7 | $713 C 6-P F D A$ | IPA | NO |
| 8 | $813 C 7-P F U n A$ | IPA | NO |

Name: 171026M1_57, Date: 26-Oct-2017, Time: 19:42:53, ID: 1701378-11 BRDLY-05-SB03-9-11 1.38, Description: BRDLY-05-SB03-9-11

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1701378-11 BRDLY-05-SB03-9-11 1.38 | 6.92 e 3 | 73.2 | NO |
| 2 | 2 13C5-PFHxA | 1701378-11 BRDLY-05-SB03-9-11 1.38 | 9.77 e 3 | 74.6 | NO |
| 3 | 3 13C3-PFHxS | 1701378-11 BRDLY-05-SB03-9-11 1.38 | 1.96 e 3 | 85.6 | NO |
| 4 | 4 13C8-PFOA | 1701378-11 BRDLY-05-SB03-9-11 1.38 | 7.62 e 3 | 64.8 | NO |
| 5 | 5 13C9-PFNA | 1701378-11 BRDLY-05-SB03-9-11 1.38 | 9.02e3 | 80.7 | NO |
| 6 | 6 13C4-PFOS | 1701378-11 BRDLY-05-SB03-9-11 1.38 | 1.54 e 3 | 61.5 | NO |
| 7 | 7 13C6-PFDA | 1701378-11 BRDLY-05-SB03-9-11 1.38 | 5.96 e 3 | 49.6 | YES |
| 8 | 8 13C7-PFUnA | 1701378-11 BRDLY-05-SB03-9-11 1.38 | 3.42 e 3 | 24.7 | YES |

Name: 171026M1_58, Date: 26-Oct-2017, Time: 19:54:04, ID: 1701378-13 BRDLY-03-SB03-0-2 1.13, Description: BRDLY-03-SB03-0-2

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1701378-13 BRDLY-03-SB03-0-2 1.13 | 7.09e3 | 75.0 | NO |
| 2 | 2 13C5-PFHxA | 1701378-13 BRDLY-03-SB03-0-2 1.13 | 9.41 e 3 | 71.8 | NO |
| 3 | 3 13C3-PFHxS | 1701378-13 BRDLY-03-SB03-0-2 1.13 | 1.98 e 3 | 86.6 | NO |
| 4 | 4 13C8-PFOA | 1701378-13 BRDLY-03-SB03-0-2 1.13 | 9.65 e 3 | 82.0 | NO |
| 5 | 5 13C9-PFNA | 1701378-13 BRDLY-03-SB03-0-2 1.13 | 1.10 e 4 | 98.8 | NO |
| 6 | 6 13C4-PFOS | 1701378-13 BRDLY-03-SB03-0-2 1.13 | 2.15 e 3 | 85.9 | NO |
| 7 | 7 13C6-PFDA | 1701378-13 BRDLY-03-SB03-0-2 1.13 | 1.13 e 4 | 94.3 | NO |
| 8 | 8 13C7-PFUnA | 1701378-13 BRDLY-03-SB03-0-2 1.13 | 1.23 e 4 | 88.6 | NO |

# Quantify Sample Summary Report 

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Name: 171026M1_59, Date: 26-Oct-2017, Time: 20:05:15, ID: 1701378-14 BRDLY-05-SB01-9-11 1.15, Description: BRDLY-05-SB01-9-11

|  | \# Name | ID | Area | \%Rec | Area Out |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | 1 13C4-PFBA | $1701378-14$ BRDLY-05-SB01-9-111.15 | 7.71 e 3 | 81.4 | NO |
| 2 | 2 13C5-PFHxA | $1701378-14$ BRDLY-05-SB01-9-111.15 | 1.03 e 4 | 78.2 | NO |
| 3 | $313 C 3-P F H x S$ | $1701378-14$ BRDLY-05-SB01-9-111.15 | 2.14 e 3 | 93.5 | NO |
| 4 | $413 C 8-P F O A$ | $1701378-14$ BRDLY-05-SB01-9-111.15 | 9.66 e 3 | 82.1 | NO |
| 5 | $513 C 9-P F N A$ | $1701378-14$ BRDLY-05-SB01-9-111.15 | 1.10 e 4 | 98.0 | NO |
| 6 | $613 C 4-P F O S$ | $1701378-14$ BRDLY-05-SB01-9-111.15 | 2.09 e 3 | 83.3 | NO |
| 7 | $713 C 6-P F D A$ | $1701378-14$ BRDLY-05-SB01-9-111.15 | 9.36 e 3 | 78.0 | NO |
| 8 | $813 C 7-P F U n A$ | $1701378-14$ BRDLY-05-SB01-9-111.15 | 7.46 e 3 | 53.9 | NO |

Name: 171026M1_60, Date: 26-Oct-2017, Time: 20:16:25, ID: 1701411-01 BRDLY-03-SB03-11-13 1.21, Description: BRDLY-03-SB03-11-13

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1701411-01 BRDLY-03-SB03-11-13 1.21 | 8.44e3 | 89.2 | NO |
| 2 | 2 13C5-PFHxA | 1701411-01 BRDLY-03-SB03-11-13 1.21 | 1.14 e 4 | 87.2 | NO |
| 3 | 3 13C3-PFHxS | 1701411-01 BRDLY-03-SB03-11-13 1.21 | 2.17 e 3 | 95.2 | NO |
| 4 | 4 13C8-PFOA | 1701411-01 BRDLY-03-SB03-11-13 1.21 | 1.00 e 4 | 85.2 | NO |
| 5 | 5 13C9-PFNA | 1701411-01 BRDLY-03-SB03-11-13 1.21 | 1.06 e 4 | 94.6 | NO |
| 6 | 6 13C4-PFOS | 1701411-01 BRDLY-03-SB03-11-13 1.21 | 2.01 e 3 | 80.2 | NO |
| 7 | 7 13C6-PFDA | 1701411-01 BRDLY-03-SB03-11-13 1.21 | 1.04 e 4 | 86.7 | NO |
| 8 | 8 13C7-PFUnA | 1701411-01 BRDLY-03-SB03-11-13 1.21 | 9.15 e 3 | 66.1 | NO |

Name: 171026M1_61, Date: 26-Oct-2017, Time: 20:27:36, ID: 1701429-02 H1-SB-135-0'-2'-1017 1.2, Description: H1-SB-135-0'-2'-1017

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1701429-02 H1-SB-135-0'-2'-1017 1.2 | 7.05 e 3 | 74.5 | NO |
| 2 | 2 13C5-PFHxA | 1701429-02 H1-SB-135-0'-2'-1017 1.2 | 9.42 e 3 | 71.8 | NO |
| 3 | 3 13C3-PFHxS | 1701429-02 H1-SB-135-0'-2'-1017 1.2 | 1.99 e 3 | 87.2 | NO |
| 4 | 4 13C8-PFOA | 1701429-02 H1-SB-135-0'-2'-1017 1.2 | 9.33 e 3 | 79.3 | NO |
| 5 | 5 13C9-PFNA | 1701429-02 H1-SB-135-0'-2'-1017 1.2 | 1.07 e 4 | 95.6 | NO |
| 6 | 6 13C4-PFOS | 1701429-02 H1-SB-135-0'-2'-1017 1.2 | 2.26 e 3 | 90.2 | NO |
| 7 | 7 13C6-PFDA | 1701429-02 H1-SB-135-0'-2'-1017 1.2 | 1.02 e 4 | 85.3 | NO |
| 8 | 8 13C7-PFUnA | 1701429-02 H1-SB-135-0'-2'-1017 1.2 | 1.03 e 4 | 74.3 | NO |

Name: 171026M1_62, Date: 26-Oct-2017, Time: 20:38:47, ID: 1701429-03 H1-SB-136-0'-2'-1017 1.14, Description: H1-SB-136-0'-2'-1017

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1701429-03 H1-SB-136-0'-2'-1017 1.14 | 7.97e3 | 84.2 | NO |
| 2 | 2 13C5-PFHxA | 1701429-03 H1-SB-136-0'-2'-1017 1.14 | 1.06 e 4 | 80.5 | NO |
| 3 | 3 13C3-PFHxS | 1701429-03 H1-SB-136-0'-2'-1017 1.14 | 2.02 e 3 | 88.5 | NO |
| 4 | 4 13C8-PFOA | 1701429-03 H1-SB-136-0'-2'-1017 1.14 | 9.70 e 3 | 82.4 | NO |
| 5 | 5 13C9-PFNA | 1701429-03 H1-SB-136-0'-2'-1017 1.14 | 1.04 e 4 | 93.3 | NO |
| 6 | 6 13C4-PFOS | 1701429-03 H1-SB-136-0'-2'-1017 1.14 | 2.10 e 3 | 83.7 | NO |
| 7 | 7 13C6-PFDA | 1701429-03 H1-SB-136-0'-2'-1017 1.14 | 1.04 e 4 | 86.5 | NO |
| 8 | 8 13C7-PFUnA | 1701429-03 H1-SB-136-0'-2'-1017 1.14 | 1.02 e 4 | 73.6 | NO |

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Name: 171026M1_63, Date: 26-Oct-2017, Time: 20:49:57, ID: 1701429-04 H1-SB-137-0'-2'-1017 1.18, Description: H1-SB-137-0'-2'-1017

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1701429-04 H1-SB-137-0'-2'-1017 1.18 | 7.73e3 | 81.7 | NO |
| 2 | 2 13C5-PFHxA | 1701429-04 H1-SB-137-0'-2'-1017 1.18 | 1.11 e 4 | 84.6 | NO |
| 3 | 3 13C3-PFHxS | 1701429-04 H1-SB-137-0'-2'-1017 1.18 | 2.16 e 3 | 94.7 | NO |
| 4 | 4 13C8-PFOA | 1701429-04 H1-SB-137-0'-2'-1017 1.18 | 9.70 e 3 | 82.4 | NO |
| 5 | 5 13C9-PFNA | 1701429-04 H1-SB-137-0'-2'-1017 1.18 | 1.07 e 4 | 95.7 | NO |
| 6 | 6 13C4-PFOS | 1701429-04 H1-SB-137-0'-2'-1017 1.18 | 1.97 e 3 | 78.7 | NO |
| 7 | 7 13C6-PFDA | 1701429-04 H1-SB-137-0'-2'-1017 1.18 | 9.87 e 3 | 82.2 | NO |
| 8 | 8 13C7-PFUnA | 1701429-04 H1-SB-137-0'-2'-1017 1.18 | 6.98 e 3 | 50.4 | NO |

Name: 171026M1_64, Date: 26-Oct-2017, Time: 21:01:09, ID: 1701429-05 H1-SB-138-0'-2'-1017 1.1, Description: H1-SB-138-0'-2'-1017

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1701429-05 H1-SB-138-0'-2'-1017 1.1 | 6.86 e 3 | 72.5 | NO |
| 2 | 2 13C5-PFHxA | 1701429-05 H1-SB-138-0'-2'-1017 1.1 | 9.17 e 3 | 70.0 | NO |
| 3 | 3 13C3-PFHxS | 1701429-05 H1-SB-138-0'-2'-1017 1.1 | 1.88 e 3 | 82.4 | NO |
| 4 | 4 13C8-PFOA | 1701429-05 H1-SB-138-0'-2'-1017 1.1 | 7.11 e 3 | 60.4 | NO |
| 5 | 5 13C9-PFNA | 1701429-05 H1-SB-138-0'-2'-1017 1.1 | 9.04 e 3 | 80.9 | NO |
| 6 | 6 13C4-PFOS | 1701429-05 H1-SB-138-0'-2'-1017 1.1 | 1.87 e 3 | 74.8 | NO |
| 7 | 7 13C6-PFDA | 1701429-05 H1-SB-138-0'-2'-1017 1.1 | 6.33 e 3 | 52.7 | NO |
| 8 | 8 13C7-PFUnA | 1701429-05 H1-SB-138-0'-2'-1017 1.1 | 1.15 e 4 | 83.3 | NO |

Name: 171026M1_65, Date: 26-Oct-2017, Time: 21:12:19, ID: 1701426-05RE1@5x FOAM1710050900JNR 0.00104, Description: FOAM1710050900JNR

|  | \# Name | ID | Area | \%Rec | Area Out |
| :--- | :--- | :--- | :--- | :--- | ---: |
| 1 | 1 13C4-PFBA | 1701426-05RE1@5x FOAM171005090... | 4.24 e 3 | 44.9 | YES |
| 2 | 2 13C5-PFHxA | 1701426-05RE1@5x FOAM171005090... | 5.65 e 3 | 43.1 | YES |
| 3 | $313 C 3-P F H x S$ | $1701426-05 R E 1 @ 5 x$ FOAM171005090... | 1.09 e 3 | 47.8 | YES |
| 4 | $413 C 8-P F O A$ | $1701426-05 R E 1 @ 5 x$ FOAM171005090... | 5.30 e 3 | 45.1 | YES |
| 5 | $513 C 9-P F N A$ | $1701426-05 R E 1 @ 5 x$ FOAM171005090... | 5.85 e 3 | 52.3 | NO |
| 6 | $613 C 4-P F O S$ | $1701426-05 R E 1 @ 5 x$ FOAM171005090... | $1.12 e 3$ | 44.6 | YES |
| 7 | $713 C 6-P F D A$ | $1701426-05 R E 1 @ 5 x$ FOAM171005090... | 5.94 e 3 | 49.5 | YES |
| 8 | $813 C 7-P F U n A$ | $1701426-05 R E 1 @ 5 x$ FOAM171005090... | 7.58 e 3 | 54.8 | NO |

Name: 171026M1_66, Date: 26-Oct-2017, Time: 21:23:30, ID: IPA, Description: IPA

|  | \# Name | ID | Area |
| :--- | :--- | :--- | :--- |
| 1 | $113 C 4-P F B A$ | IPA |  |
| 2 | $213 C 5-P F H x A$ | IPA | Area Out |
| 3 | $313 C 3-P F H x S$ | IPA | NO |
| 4 | $413 C 8-P F O A$ | IPA | NO |
| 5 | $513 C 9-P F N A$ | IPA | NO |
| 6 | $613 C 4-P F O S$ | IPA | NO |
| 7 | $713 C 6-P F D A$ | IPA | NO |
| 8 | $813 C 7-P F U n A$ | IPA | NO |

Quantify Sample Summary Report
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Dataset: Untitled
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Name: 171026M1_67, Date: 26-Oct-2017, Time: 21:34:41, ID: ST171026M1-13 PFC CS3 17J1806, Description: PFC CS3 $17 J 1806$

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | ST171026M1-13 PFC CS3 17J1806 | 1.02 e 4 | 108.3 | NO |
| 2 | 2 13C5-PFHxA | ST171026M1-13 PFC CS3 17J1806 | 1.37 e 4 | 104.2 | NO |
| 3 | 3 13C3-PFHxS | ST171026M1-13 PFC CS3 17J1806 | 2.65 e 3 | 116.0 | NO |
| 4 | 4 13C8-PFOA | ST171026M1-13 PFC CS3 17J1806 | 1.25 e 4 | 105.9 | NO |
| 5 | 5 13C9-PFNA | ST171026M1-13 PFC CS3 17J1806 | 1.35 e 4 | 121.1 | NO |
| 6 | 6 13C4-PFOS | ST171026M1-13 PFC CS3 17J1806 | 2.64 e 3 | 105.3 | NO |
| 7 | 7 13C6-PFDA | ST171026M1-13 PFC CS3 17J1806 | 1.39 e 4 | 116.2 | NO |
| 8 | 8 13C7-PFUnA | ST171026M1-13 PFC CS3 17J1806 | 1.73 e 4 | 124.8 | NO |

Name: 171026M1_68, Date: 26-Oct-2017, Time: 21:45:51, ID: IPA, Description: IPA

|  | \# Name | ID | Area |
| :--- | :--- | :--- | :--- |
| 1 | $113 C 4-P F B A$ | IPA |  |
| 2 | $213 C 5-P F H x A$ | IPA | Area Out |
| 3 | $313 C 3-P F H x S$ | IPA | NO |
| 4 | $413 C 8-P F O A$ | IPA | NO |
| 5 | $513 C 9-P F N A$ | IPA | NO |
| 6 | $613 C 4-P F O S$ | IPA | NO |
| 7 | $713 C 6-P F D A$ | IPA | NO |
| 8 | 8 | $13 C 7-P F U n A$ | IPA |


| Dataset: | Untitled |
| :--- | :--- |
| Last Altered: | Thursday, October 26, 2017 16:58:39 Pacific Daylight Time |
| Printed: | Thursday, October 26, 2017 16:59:18 Pacific Daylight Time |

## Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_102517.mdb 26 Oct 2017 08:20:12

## Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_10-26-17-FULL_NOPFODA.cdb 26 Oct 2017 16:54:06

Name: 171026M1_12, Date: 26-Oct-2017, Time: 11:18:50, ID: IPA, Description: IPA



## PFHxA

F8:MRM of 2 channels,ES-
$313.2>268.9$

2.8003 .0003 .2003 .400

## 13C2-PFHxA



## PFHpA

F13:MRM of 2 channels,ES-
$363.0>318.9$
$5.068 \mathrm{e}+002$


## 13C4-PFHpA




## Dataset: Untitled

Last Altered: Thursday, October 26, 2017 16:58:39 Pacific Daylight Time
Printed: Thursday, October 26, 2017 16:59:18 Pacific Daylight Time

## Name: 171026M1_12, Date: 26-Oct-2017, Time: 11:18:50, ID: IPA, Description: IPA



13C2-6:2 FTS



13C2-PFOA


13C3-PFBS
F7:MRM of 1 channel,ES-
302. $>98.8$


PFNA
F24:MRM of 2 channels,ES-
$463.0>418.8$
$5.118 \mathrm{e}+002$


13C5-PFNA
F25:MRM of 1 channel,ES-
$-\quad 468.2>422.9$



## Dataset: Untitled

Last Altered: Thursday, October 26, 2017 16:58:39 Pacific Daylight Time
Printed: $\quad$ Thursday, October 26, 2017 16:59:18 Pacific Daylight Time

## Name: 171026M1_12, Date: 26-Oct-2017, Time: 11:18:50, ID: IPA, Description: IPA



## 13C2-PFDA




## 13C2-8:2 FTS






13C2-PFUdA


## Dataset: Untitled <br> Last Altered: Thursday, October 26, 2017 16:58:39 Pacific Daylight Time <br> Printed: Thursday, October 26, 2017 16:59:18 Pacific Daylight Time

## Name: 171026M1_12, Date: 26-Oct-2017, Time: 11:18:50, ID: IPA, Description: IPA



## 13C2-PFDoA

F51:MRM of 1 channel,ES-
$\begin{array}{rr}- & 615.0>569.7 \\ 1.000 \mathrm{e}-003\end{array}$


d3-N-MeFOSA
F36:MRM of 1 channel,ES-
$515.2>168.9$



F56:MRM of 2 channels,ES-


13C2-PFTeDA
F58:MRM of 2 channels,ES-
$\quad \begin{aligned} & 714.8>669.6\end{aligned}$



13C2-PFTeDA


d5-N-ETFOSA



## Dataset: Untitled

Last Altered: Thursday, October 26, 2017 16:58:39 Pacific Daylight Time
Printed: $\quad$ Thursday, October 26, 2017 16:59:18 Pacific Daylight Time

## Name: 171026M1_12, Date: 26-Oct-2017, Time: 11:18:50, ID: IPA, Description: IPA



## 13C2-PFHxDA



d7-N-MeFOSE

d9-N-EtFOSE
F55:MRM of 1 channel,ES-
$639.2>58.8$




## 13C5-PFHxA





13C4-PFOS


Quantify Sample Report
Vista Analytical Laboratory

| Dataset: | Untitled |
| :--- | :--- |
| Last Altered: | Thursday, October 26, 2017 16:58:39 Pacific Daylight Time |
| Printed: | Thursday, October 26, 2017 16:59:18 Pacific Daylight Time |

## Name: 171026M1_12, Date: 26-Oct-2017, Time: 11:18:50, ID: IPA, Description: IPA

| 13C6-PFDA | 13C7-PFUnA |
| ---: | ---: |
| F37:MRM of 1 channel,ES- |  |
| $519.1>473.7$ |  |
| $1.000 \mathrm{e}-003$ |  |

Method: U:IQ4.PROIMethDBIPFAS_FULL_80C_102517.mdb 27 Oct 2017 10:03:44 Calibration: U:IQ4.PROICurveDBIC18_VAL-PFAS_Q4_10-26-17-FULL_NOPFODA.cdb 27 Oct 2017 10:26:14

Name: 171026M1_42, Date: 26-Oct-2017, Time: 16:54:21, ID: ST171026M1-11 PFC CS3 17J1806, Description: PFC CS3 17J1806


Last Altered: Friday, October 27, 2017 10:51:51 Pacific Daylight Time
Printed: Friday, October 27, 2017 10:52:07 Pacific Daylight Time

Name: 171026M1_42, Date: 26-Oct-2017, Time: 16:54:21, ID: ST171026M1-11 PFC CS3 17J1806, Description: PFC CS3 17J1806


| Dataset: | Untitled |
| :--- | :--- |
| Last Altered: | Friday, October 27, 2017 09:45:04 Pacific Daylight Time |
| Printed: | Friday, October 27, 2017 09:46:52 Pacific Daylight Time |

Method: U:IQ4.PROMMethDBIPFAS_FULL_80C_102517.mdb 26 Oct 2017 08:20:12 Calibration: U:IQ4.PROICurveDBIC18_VAL-PFAS_Q4_10-26-17-FULL_NOPFODA.cdb 26 Oct 2017 16:54:06

Compound name: PFBA


Work Order 1701439 Revision 1

| Dataset: | Untitled |
| :--- | :--- |
| Last Altered: | Friday, October 27, 2017 09:45:04 Pacific Daylight Time |
| Printed: | Friday, October 27, 2017 09:46:52 Pacific Daylight Time |

Compound name: PFBA


## Vista Analytical Laboratory

## Dataset: Untitled

Last Altered: Friday, October 27, 2017 09:45:04 Pacific Daylight Time
Printed: Friday, October 27, 2017 09:46:52 Pacific Daylight Time

## Compound name: PFBA

| \% | Name | ID | Acq. Date | Acq. Time |
| :---: | :---: | :---: | :---: | :---: |
| 66 | 171026M1_66 | IPA | 26-Oct-17 | 21:23:30 |
| 67 | 171026M1_67 | ST171026M1-13 PFC CS3 17J1806 | 26-Oct-17 | 21:34:41 |

LC Calibration Standards Review Checklist $\qquad$


Full Mass Cal. Date: $6 / 21117$
Run Log Present:
\# of Samples per Sequence Checked:
Reviewed By: ff l, ito 0712017

| Comments: $P 11$ |
| :--- |
| (A) PADS $=137.8 \%$ |
| (B) $B C 2$ PF $4 \times D A \quad 40.2 \%$ |
| (C) 8.2 FTC $=149.8 \% \quad B C 2 P F H \times D A: 35.3 \%$ |


| Dataset: | U:\Q4.PRO\results\171026M11171026M1-42.qld |
| :--- | :--- |
| Last Altered: | Friday, October 27, 2017 10:51:51 Pacific Daylight Time |
| Printed: | Friday, October 27, 2017 10:52:07 Pacific Daylight Time |

Method: U:IQ4.PRO\MethDBIPFAS_FULL_80C_102517.mdb 27 Oct 2017 10:03:44
Calibration: U:IQ4.PROICurveDBIC18_VAL-PFAS_Q4_10-26-17-FULL_NOPFODA.cdb 27 Oct 2017 10:26:14

## Name: 171026M1_42, Date: 26-Oct-2017, Time: 16:54:21, ID: ST171026M1-11 PFC CS3 17J1806, Description: PFC CS3 17J1806





13C3-PFPeA
F5:MRM of 1 channel,ES-
$266 .>221.8$


## PFBS



F6:MRM of 2 channels,ES-


## PFHxA


 3.0003 .250



F13:MRM of 2 channels,ES$363.0>169.0$


13C4-PFHpA
F14:MRM of 1 channel,ES-
$367.2>321.8$



1802-PFHxS
F17:MRM of 1 channel,ES-


| Dataset: | U:\Q4.PRO\results\171026M1\171026M1-42.qld |
| :--- | :--- |
|  |  |
| Last Altered: | Friday, October 27, 2017 10:51:51 Pacific Daylight Time |
| Printed: | Friday, October 27, 2017 10:52:07 Pacific Daylight Time |

Name: 171026M1_42, Date: 26-Oct-2017, Time: 16:54:21, ID: ST171026M1-11 PFC CS3 17J1806, Description: PFC CS3 17 J1806


F21:MRM of 2 channels, ES-
$427.1>80$

4.0004 .2004 .400


| L-PFOA |  |
| :---: | :---: |
| F18:MRM of 2 channels,ES- |  |
|  | $413>368.7$ |
| $100 \mathrm{~L}-\mathrm{PFOA}$ | $3.876 \mathrm{e}+005$ |
| $100{ }^{\text {L-PFOA }}$ - ${ }^{\text {L }}$ | = 4.14 |
| 1.35e4 |  |
| \%-384910 |  |
|  |  |
|  |  |
|  |  |

F18:MRM of 2 channels,ES-


## 13C2-PFOA

F19:MRM of 1 channel,ES$414.9>369.7$ $3.690 \mathrm{e}+005$


## PFHpS




13C2-PFOA
F19:MRM of 1 channel,ES-
$414.9>369.7$



## 13C5-PFNA




F27:MRM of 2 channels,ES-



13C8-PFOSA
F31:MRM of 1 channel,ES-
$506.1>77.7$



F29:MRM of 2 channels,ES-
$499>99$


13C8-PFOS


Dataset: U:\Q4.PRO\results\171026M1\171026M1-42.qld

| Last Altered: | Friday, October 27, 2017 10:51:51 Pacific Daylight Time |
| :--- | :--- |
| Printed: | Friday, October 27, 2017 10:52:07 Pacific Daylight Time |

Name: 171026M1_42, Date: 26-Oct-2017, Time: 16:54:21, ID: ST171026M1-11 PFC CS3 17J1806, Description: PFC CS3 17J1806


F34:MRM of 2 channels,ES-
$513>219$
$5.631 \mathrm{e}+004$


F39:MRM of 2 channels,ES-
$527>80$


13C2-8:2 FTS
F40:MRM of 1 channel,ES$529.1>508.7$


## N-MeFOSAA <br>  <br>  <br> $570.1>483.0$ <br> 

d3-N-MeFOSAA
F46:MRM of 1 channel,ES-




d5-N-EtFOSAA








| Dataset: | U:IQ4.PRO\results\171026M11171026M1-42.qld |
| :--- | :--- |
| Last Altered: | Friday, October 27, 2017 10:51:51 Pacific Daylight Time |
| Printed: | Friday, October 27, 2017 10:52:07 Pacific Daylight Time |

Name: 171026M1_42, Date: 26-Oct-2017, Time: 16:54:21, ID: ST171026M1-11 PFC CS3 17J1806, Description: PFC CS3 17J1806


| Dataset: | U:IQ4.PRO\|results\171026M1\171026M1-42.qld |
| :--- | :--- |
| Last Altered: | Friday, October 27, 2017 10:51:51 Pacific Daylight Time |
| Printed: | Friday, October 27, 2017 10:52:07 Pacific Daylight Time |

Name: 171026M1_42, Date: 26-Oct-2017, Time: 16:54:21, ID: ST171026M1-11 PFC CS3 17J1806, Description: PFC CS3 17J1806


13C2-PFHxDA
F60:MRM of 1 channel,ES$815>769.7$ $7.633 e+004$


d7-N-MeFOSE
F53:MRM of 1 channel,ES-
$623.1>58.9$
$5.921 \mathrm{e}+005$


d9-N-EtFOSE
F55:MRM of 1 channel,ES-
$639.2>58.8$







13C4-PFOS
F30:MRM of 1 channel,ES$503>79.9$ $7.897 \mathrm{e}+004$


13C9-PFNA
F26:MRM of 1 channel,ES$472.2>426.9$


| Dataset: | U:IQ4.PROIresults 1171026 M1 1171026M1-42.qld |
| :--- | :--- |
| Last Altered: | Friday, October 27, 2017 10:51:51 Pacific Daylight Time |
| Printed: | Friday, October 27, 2017 10:52:07 Pacific Daylight Time |

## Name: 171026M1_42, Date: 26-Oct-2017, Time: 16:54:21, ID: ST171026M1-11 PFC CS3 17J1806, Description: PFC CS3 17J1806



Dataset: Untitled
Last Altered: Friday, November 03, 2017 15:35:49 Pacific Daylight Time
Printed: $\quad$ Friday, November 03, 2017 15:36:06 Pacific Daylight Time

Method: U:\Q4.PRO\MethDB\PFAS_RS-10-27-17.mdb 27 Oct 2017 15:32:48 Calibration: 03 Nov 2017 15:35:49

Name: 171103M1_2, Date: 03-Nov-2017, Time: 13:35:14, ID: ST171103M1-1 PFC CS0 17J2807, Description: PFC CS0 17J2807

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | ST171103M1-1 PFC CS0 17J2807 | 7.33 e 3 | 100.0 | NO |
| 2 | 2 13C5-PFHxA | ST171103M1-1 PFC CS0 17J2807 | 9.41 e 3 | 100.0 | NO |
| 3 | 3 13C3-PFHxS | ST171103M1-1 PFC CS0 17J2807 | 1.71 e 3 | 100.0 | NO |
| 4 | 4 13C8-PFOA | ST171103M1-1 PFC CS0 17J2807 | 7.90 e 3 | 100.0 | NO |
| 5 | 5 13C9-PFNA | ST171103M1-1 PFC CS0 17J2807 | 8.20 e 3 | 100.0 | NO |
| 6 | 6 13C4-PFOS | ST171103M1-1 PFC CS0 17J2807 | 2.24 e 3 | 100.0 | NO |
| 7 | 7 13C6-PFDA | ST171103M1-1 PFC CS0 17J2807 | 8.32 e 3 | 100.0 | NO |
| 8 | 8 13C7-PFUnA | ST171103M1-1 PFC CS0 17J2807 | 9.08 e 3 | 100.0 | NO |

Name: 171103M1_3, Date: 03-Nov-2017, Time: 13:46:25, ID: IPA, Description: IPA

|  | \# Name | ID | Area |
| :--- | :--- | :--- | :--- |
| 1 | $113 C 4-P F B A$ | IPA | \%Rec |
| 2 | $213 C 5-P F H x A$ | IPA | Area Out |
| 3 | $313 C 3-P F H x S$ | IPA | NO |
| 4 | $413 C 8-P F O A$ | IPA | NO |
| 5 | $513 C 9-P F N A$ | IPA | NO |
| 6 | $613 C 4-P F O S$ | IPA | NO |
| 7 | $713 C 6-P F D A$ | IPA | NO |
| 8 | $813 C 7-P F U n A$ | IPA | NO |

Name: 171103M1_4, Date: 03-Nov-2017, Time: 13:57:38, ID: 1701439-03 FRB04_20171005 0.125, Description: FRB04_20171005

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1701439-03 FRB04_20171005 0.125 | 7.15 e 3 | 97.6 | NO |
| 2 | 2 13C5-PFHxA | 1701439-03 FRB04_20171005 0.125 | 8.79e3 | 93.5 | NO |
| 3 | 3 13C3-PFHxS | 1701439-03 FRB04_20171005 0.125 | 1.66 e 3 | 96.9 | NO |
| 4 | 4 13C8-PFOA | 1701439-03 FRB04_20171005 0.125 | 8.11 e 3 | 102.7 | NO |
| 5 | 5 13C9-PFNA | 1701439-03 FRB04_20171005 0.125 | 9.94 e 3 | 121.3 | NO |
| 6 | 6 13C4-PFOS | 1701439-03 FRB04_20171005 0.125 | 1.78 e 3 | 79.3 | NO |
| 7 | 7 13C6-PFDA | 1701439-03 FRB04_20171005 0.125 | 8.94 e 3 | 107.5 | NO |
| 8 | 8 13C7-PFUnA | 1701439-03 FRB04_20171005 0.125 | 8.91 e 3 | 98.1 | NO |

Name: 171103M1_5, Date: 03-Nov-2017, Time: 14:08:50, ID: 1701439-05 FRB06_20171006 0.125, Description: FRB06_20171006

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1701439-05 FRB06_20171006 0.125 | 7.38 e 3 | 100.7 | NO |
| 2 | 2 13C5-PFHxA | 1701439-05 FRB06_20171006 0.125 | 9.34 e 3 | 99.3 | NO |
| 3 | 3 13C3-PFHxS | 1701439-05 FRB06_20171006 0.125 | 1.69 e 3 | 98.8 | NO |
| 4 | 4 13C8-PFOA | 1701439-05 FRB06_20171006 0.125 | 8.18 e 3 | 103.5 | NO |
| 5 | 5 13C9-PFNA | 1701439-05 FRB06_20171006 0.125 | 8.53 e 3 | 104.1 | NO |
| 6 | 6 13C4-PFOS | 1701439-05 FRB06_20171006 0.125 | 2.00 e 3 | 89.3 | NO |
| 7 | 7 13C6-PFDA | 1701439-05 FRB06_20171006 0.125 | 1.06 e 4 | 127.9 | NO |
| 8 | 8 13C7-PFUnA | 1701439-05 FRB06_20171006 0.125 | 1.03 e 4 | 113.9 | NO |

# Quantify Sample Summary Report 

Dataset: Untitled
Last Altered: Friday, November 03, 2017 15:35:49 Pacific Daylight Time
Printed: Friday, November 03, 2017 15:36:06 Pacific Daylight Time

Name: 171103M1_6, Date: 03-Nov-2017, Time: 14:20:00, ID: B7J0136-MS2@5X Matrix Spike 1.12, Description: Matrix Spike

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | B7J0136-MS2@5X Matrix Spike 1.12 | 1.60 e 3 | 21.8 | YES |
| 2 | 2 13C5-PFHxA | B7J0136-MS2@5X Matrix Spike 1.12 | 2.32 e 3 | 24.7 | YES |
| 3 | 3 13C3-PFHxS | B7J0136-MS2@5X Matrix Spike 1.12 | 3.50 e 2 | 20.5 | YES |
| 4 | 4 13C8-PFOA | B7J0136-MS2@5X Matrix Spike 1.12 | 1.69 e 3 | 21.3 | YES |
| 5 | 5 13C9-PFNA | B7J0136-MS2@5X Matrix Spike 1.12 | 1.91 e 3 | 23.3 | YES |
| 6 | 6 13C4-PFOS | B7J0136-MS2@5X Matrix Spike 1.12 | 3.83 e 2 | 17.1 | YES |
| 7 | 7 13C6-PFDA | B7J0136-MS2@5X Matrix Spike 1.12 | 2.07 e 3 | 24.9 | YES |
| 8 | 8 13C7-PFUnA | B7J0136-MS2@5X Matrix Spike 1.12 | 2.30 e 3 | 25.4 | YES |

Name: 171103M1_7, Date: 03-Nov-2017, Time: 14:31:11, ID: B7J0136-MSD2@5X Matrix Spike Dup 1.18, Description: Matrix Spike Dup

|  | \# Name | ID | Area | \%Rec | Area Out |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | 1 13C4-PFBA | B7J0136-MSD2@5X Matrix Spike Dup ... | 1.35 e 3 | 18.4 | YES |
| 2 | $213 C 5-P F H x A$ | B7J0136-MSD2@5X Matrix Spike Dup ... | 2.00 e 3 | 21.3 | YES |
| 3 | $313 C 3-P F H x S$ | B7J0136-MSD2@5X Matrix Spike Dup ... | 3.50 e 2 | 20.4 | YES |
| 4 | $413 C 8-P F O A$ | B7J0136-MSD2@5X Matrix Spike Dup ... | 1.49 e 3 | 18.8 | YES |
| 5 | $513 C 9-P F N A$ | B7J0136-MSD2@5X Matrix Spike Dup ... | 1.59 e 3 | 19.4 | YES |
| 6 | $613 C 4-P F O S$ | B7J0136-MSD2@5X Matrix Spike Dup ... | 5.34 e 2 | 23.8 | YES |
| 7 | $713 C 6-P F D A$ | B7J0136-MSD2@5X Matrix Spike Dup ... | 2.03 e 3 | 24.4 | YES |
| 8 | $813 C 7-P F U n A$ | B7J0136-MSD2@5X Matrix Spike Dup ... | 2.94 e 3 | 32.4 | YES |

Name: 171103M1_8, Date: 03-Nov-2017, Time: 14:42:22, ID: B7J0136-MSD2 Matrix Spike Dup 1.18, Description: Matrix Spike Dup

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | B7J0136-MSD2 Matrix Spike Dup 1.18 | 6.81 e 3 | 93.0 | NO |
| 2 | 2 13C5-PFHxA | B7J0136-MSD2 Matrix Spike Dup 1.18 | 8.60 e 3 | 91.5 | NO |
| 3 | 3 13C3-PFHxS | B7J0136-MSD2 Matrix Spike Dup 1.18 | 1.69 e 3 | 98.8 | NO |
| 4 | 4 13C8-PFOA | B7J0136-MSD2 Matrix Spike Dup 1.18 | 6.59 e 3 | 83.5 | NO |
| 5 | 5 13C9-PFNA | B7J0136-MSD2 Matrix Spike Dup 1.18 | 1.10 e 4 | 134.7 | NO |
| 6 | 6 13C4-PFOS | B7J0136-MSD2 Matrix Spike Dup 1.18 | 3.13 e 3 | 139.4 | NO |
| 7 | 7 13C6-PFDA | B7J0136-MSD2 Matrix Spike Dup 1.18 | 7.31 e 3 | 87.9 | NO |
| 8 | 8 13C7-PFUnA | B7J0136-MSD2 Matrix Spike Dup 1.18 | 1.76 e 4 | 194.2 | YES |

Name: 171103M1_9, Date: 03-Nov-2017, Time: 14:54:57, ID: 1701528-05@30X STWRT-RPTSW01 0.11748,
Description: STWRT-RPTSW01

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1701528-05@30X STWRT-RPTSW01... | 2.01 e 2 | 2.7 | YES |
| 2 | 2 13C5-PFHxA | 1701528-05@30X STWRT-RPTSW01... | 2.76 e 2 | 2.9 | YES |
| 3 | 3 13C3-PFHxS | 1701528-05@30X STWRT-RPTSW01 ... | 3.55 e 1 | 2.1 | YES |
| 4 | 4 13C8-PFOA | 1701528-05@30X STWRT-RPTSW01... | 2.02 e 2 | 2.6 | YES |
| 5 | 5 13C9-PFNA | 1701528-05@30X STWRT-RPTSW01... | 2.43 e 2 | 3.0 | YES |
| 6 | 6 13C4-PFOS | 1701528-05@30X STWRT-RPTSW01... | 3.43 e 1 | 1.5 | YES |
| 7 | 7 13C6-PFDA | 1701528-05@30X STWRT-RPTSW01... | 3.45 e 2 | 4.1 | YES |
| 8 | 8 13C7-PFUnA | 1701528-05@30X STWRT-RPTSW01 ... | 2.51 e 2 | 2.8 | YES |

Quantify Sample Summary Report
Vista Analytical Laboratory
Dataset: Untitled
Last Altered: Friday, November 03, 2017 15:35:49 Pacific Daylight Time
Printed: Friday, November 03, 2017 15:36:06 Pacific Daylight Time

Name: 171103M1_10, Date: 03-Nov-2017, Time: 15:06:05, ID: IPA, Description: IPA

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | IPA |  |  | NO |
| 2 | 2 13C5-PFHxA | IPA |  |  | NO |
| 3 | 3 13C3-PFHxS | IPA |  |  | NO |
| 4 | 4 13C8-PFOA | IPA |  |  | NO |
| 5 | 5 13C9-PFNA | IPA |  |  | NO |
| 6 | 6 13C4-PFOS | IPA |  |  | NO |
| 7 | 7 13C6-PFDA | IPA |  |  | NO |
| 8 | 8 13C7-PFUnA | IPA |  |  | NO |

Name: 171103M1_11, Date: 03-Nov-2017, Time: 15:17:27, ID: ST171103M1-2 PFC CS3 17J2810, Description: PFC CS3 17J2810

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | ST171103M1-2 PFC CS3 17J2810 | 7.57 e 3 | 103.3 | NO |
| 2 | 2 13C5-PFHxA | ST171103M1-2 PFC CS3 17J2810 | 1.06 e 4 | 112.2 | NO |
| 3 | 3 13C3-PFHxS | ST171103M1-2 PFC CS3 17J2810 | 1.82 e 3 | 106.4 | NO |
| 4 | 4 13C8-PFOA | ST171103M1-2 PFC CS3 17 J 2810 | 6.90 e3 | 87.3 | NO |
| 5 | 5 13C9-PFNA | ST171103M1-2 PFC CS3 17J2810 | 9.52e3 | 116.1 | NO |
| 6 | 6 13C4-PFOS | ST171103M1-2 PFC CS3 17J2810 | 2.00 e 3 | 89.1 | NO |
| 7 | 7 13C6-PFDA | ST171103M1-2 PFC CS3 17J2810 | 8.56 e 3 | 102.9 | NO |
| 8 | 8 13C7-PFUnA | ST171103M1-2 PFC CS3 17J2810 | 9.81 e 3 | 108.1 | NO |

Dataset: Untitled
Last Altered: Friday, November 03, 2017 15:35:49 Pacific Daylight Time
Printed: Friday, November 03, 2017 15:36:06 Pacific Daylight Time

Method: U:\Q4.PRO\MethDB\PFAS_RS-10-27-17.mdb 27 Oct 2017 15:32:48 Calibration: 03 Nov 2017 15:35:49

Name: 171103M1_2, Date: 03-Nov-2017, Time: 13:35:14, ID: ST171103M1-1 PFC CS0 17J2807, Description: PFC CS0 17J2807

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | ST171103M1-1 PFC CS0 17J2807 | 7.33 e 3 | 100.0 | NO |
| 2 | 2 13C5-PFHxA | ST171103M1-1 PFC CS0 17J2807 | 9.41 e 3 | 100.0 | NO |
| 3 | 3 13C3-PFHxS | ST171103M1-1 PFC CS0 17J2807 | 1.71 e 3 | 100.0 | NO |
| 4 | 4 13C8-PFOA | ST171103M1-1 PFC CS0 17J2807 | 7.90 e 3 | 100.0 | NO |
| 5 | 5 13C9-PFNA | ST171103M1-1 PFC CS0 17J2807 | 8.20 e 3 | 100.0 | NO |
| 6 | 6 13C4-PFOS | ST171103M1-1 PFC CS0 17J2807 | 2.24 e 3 | 100.0 | NO |
| 7 | 7 13C6-PFDA | ST171103M1-1 PFC CS0 17J2807 | 8.32 e 3 | 100.0 | NO |
| 8 | 8 13C7-PFUnA | ST171103M1-1 PFC CS0 17J2807 | 9.08 e 3 | 100.0 | NO |

Name: 171103M1_3, Date: 03-Nov-2017, Time: 13:46:25, ID: IPA, Description: IPA

|  | \# Name | ID | Area |
| :--- | :--- | :--- | :---: |
| 1 | $113 C 4-P F B A$ | IPA | \%Rec |
| 2 | $213 C 5-P F H x A$ | IPA | NO |
| 3 | $313 C 3-P F H x S$ | IPA | NO |
| 4 | $413 C 8-P F O A$ | IPA | NO |
| 5 | $513 C 9-P F N A$ | IPA | NO |
| 6 | $613 C 4-P F O S$ | IPA | NO |
| 7 | $713 C 6-P F D A$ | IPA | NO |
| 8 | $813 C 7-P F U n A$ | IPA | NO |

Name: 171103M1_4, Date: 03-Nov-2017, Time: 13:57:38, ID: 1701439-03 FRB04_20171005 0.125, Description: FRB04_20171005

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1701439-03 FRB04_20171005 0.125 | 7.15 e 3 | 97.6 | NO |
| 2 | 2 13C5-PFHxA | 1701439-03 FRB04_20171005 0.125 | 8.79e3 | 93.5 | NO |
| 3 | 3 13C3-PFHxS | 1701439-03 FRB04_20171005 0.125 | 1.66 e 3 | 96.9 | NO |
| 4 | 4 13C8-PFOA | 1701439-03 FRB04_20171005 0.125 | 8.11 e 3 | 102.7 | NO |
| 5 | 5 13C9-PFNA | 1701439-03 FRB04_20171005 0.125 | 9.94 e 3 | 121.3 | NO |
| 6 | 6 13C4-PFOS | 1701439-03 FRB04_20171005 0.125 | 1.78 e 3 | 79.3 | NO |
| 7 | 7 13C6-PFDA | 1701439-03 FRB04_20171005 0.125 | 8.94 e 3 | 107.5 | NO |
| 8 | 8 13C7-PFUnA | 1701439-03 FRB04_20171005 0.125 | 8.91 e 3 | 98.1 | NO |

Name: 171103M1_5, Date: 03-Nov-2017, Time: 14:08:50, ID: 1701439-05 FRB06_20171006 0.125, Description: FRB06_20171006

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1701439-05 FRB06_20171006 0.125 | 7.38 e 3 | 100.7 | NO |
| 2 | 2 13C5-PFHxA | 1701439-05 FRB06_20171006 0.125 | 9.34 e 3 | 99.3 | NO |
| 3 | 3 13C3-PFHxS | 1701439-05 FRB06_20171006 0.125 | 1.69 e 3 | 98.8 | NO |
| 4 | 4 13C8-PFOA | 1701439-05 FRB06_20171006 0.125 | 8.18 e 3 | 103.5 | NO |
| 5 | 5 13C9-PFNA | 1701439-05 FRB06_20171006 0.125 | 8.53 e 3 | 104.1 | NO |
| 6 | 6 13C4-PFOS | 1701439-05 FRB06_20171006 0.125 | 2.00 e 3 | 89.3 | NO |
| 7 | 7 13C6-PFDA | 1701439-05 FRB06_20171006 0.125 | 1.06 e 4 | 127.9 | NO |
| 8 | 8 13C7-PFUnA | 1701439-05 FRB06_20171006 0.125 | 1.03 e 4 | 113.9 | NO |

# Quantify Sample Summary Report 

Dataset: Untitled
Last Altered: Friday, November 03, 2017 15:35:49 Pacific Daylight Time
Printed: Friday, November 03, 2017 15:36:06 Pacific Daylight Time

Name: 171103M1_6, Date: 03-Nov-2017, Time: 14:20:00, ID: B7J0136-MS2@5X Matrix Spike 1.12, Description: Matrix Spike

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | B7J0136-MS2@5X Matrix Spike 1.12 | 1.60 e 3 | 21.8 | YES |
| 2 | 2 13C5-PFHxA | B7J0136-MS2@5X Matrix Spike 1.12 | 2.32 e 3 | 24.7 | YES |
| 3 | 3 13C3-PFHxS | B7J0136-MS2@5X Matrix Spike 1.12 | 3.50 e 2 | 20.5 | YES |
| 4 | 4 13C8-PFOA | B7J0136-MS2@5X Matrix Spike 1.12 | 1.69 e 3 | 21.3 | YES |
| 5 | 5 13C9-PFNA | B7J0136-MS2@5X Matrix Spike 1.12 | 1.91 e 3 | 23.3 | YES |
| 6 | 6 13C4-PFOS | B7J0136-MS2@5X Matrix Spike 1.12 | 3.83 e 2 | 17.1 | YES |
| 7 | 7 13C6-PFDA | B7J0136-MS2@5X Matrix Spike 1.12 | 2.07 e 3 | 24.9 | YES |
| 8 | 8 13C7-PFUnA | B7J0136-MS2@5X Matrix Spike 1.12 | 2.30 e 3 | 25.4 | YES |

Name: 171103M1_7, Date: 03-Nov-2017, Time: 14:31:11, ID: B7J0136-MSD2@5X Matrix Spike Dup 1.18, Description: Matrix Spike Dup

|  | \# Name | ID | Area | \%Rec | Area Out |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | 1 13C4-PFBA | B7J0136-MSD2@5X Matrix Spike Dup ... | 1.35 e 3 | 18.4 | YES |
| 2 | $213 C 5-P F H x A$ | B7J0136-MSD2@5X Matrix Spike Dup ... | 2.00 e 3 | 21.3 | YES |
| 3 | $313 C 3-P F H x S$ | B7J0136-MSD2@5X Matrix Spike Dup ... | 3.50 e 2 | 20.4 | YES |
| 4 | $413 C 8-P F O A$ | B7J0136-MSD2@5X Matrix Spike Dup ... | 1.49 e 3 | 18.8 | YES |
| 5 | $513 C 9-P F N A$ | B7J0136-MSD2@5X Matrix Spike Dup ... | 1.59 e 3 | 19.4 | YES |
| 6 | $613 C 4-P F O S$ | B7J0136-MSD2@5X Matrix Spike Dup ... | 5.34 e 2 | 23.8 | YES |
| 7 | $713 C 6-P F D A$ | B7J0136-MSD2@5X Matrix Spike Dup ... | 2.03 e 3 | 24.4 | YES |
| 8 | $813 C 7-P F U n A$ | B7J0136-MSD2@5X Matrix Spike Dup ... | 2.94 e 3 | 32.4 | YES |

Name: 171103M1_8, Date: 03-Nov-2017, Time: 14:42:22, ID: B7J0136-MSD2 Matrix Spike Dup 1.18, Description: Matrix Spike Dup

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | B7J0136-MSD2 Matrix Spike Dup 1.18 | 6.81 e 3 | 93.0 | NO |
| 2 | 2 13C5-PFHxA | B7J0136-MSD2 Matrix Spike Dup 1.18 | 8.60 e 3 | 91.5 | NO |
| 3 | 3 13C3-PFHxS | B7J0136-MSD2 Matrix Spike Dup 1.18 | 1.69 e 3 | 98.8 | NO |
| 4 | 4 13C8-PFOA | B7J0136-MSD2 Matrix Spike Dup 1.18 | 6.59 e 3 | 83.5 | NO |
| 5 | 5 13C9-PFNA | B7J0136-MSD2 Matrix Spike Dup 1.18 | 1.10 e 4 | 134.7 | NO |
| 6 | 6 13C4-PFOS | B7J0136-MSD2 Matrix Spike Dup 1.18 | 3.13 e 3 | 139.4 | NO |
| 7 | 7 13C6-PFDA | B7J0136-MSD2 Matrix Spike Dup 1.18 | 7.31 e 3 | 87.9 | NO |
| 8 | 8 13C7-PFUnA | B7J0136-MSD2 Matrix Spike Dup 1.18 | 1.76 e 4 | 194.2 | YES |

Name: 171103M1_9, Date: 03-Nov-2017, Time: 14:54:57, ID: 1701528-05@30X STWRT-RPTSW01 0.11748,
Description: STWRT-RPTSW01

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | 1701528-05@30X STWRT-RPTSW01... | 2.01 e 2 | 2.7 | YES |
| 2 | 2 13C5-PFHxA | 1701528-05@30X STWRT-RPTSW01... | 2.76 e 2 | 2.9 | YES |
| 3 | 3 13C3-PFHxS | 1701528-05@30X STWRT-RPTSW01 ... | 3.55 e 1 | 2.1 | YES |
| 4 | 4 13C8-PFOA | 1701528-05@30X STWRT-RPTSW01... | 2.02 e 2 | 2.6 | YES |
| 5 | 5 13C9-PFNA | 1701528-05@30X STWRT-RPTSW01... | 2.43 e 2 | 3.0 | YES |
| 6 | 6 13C4-PFOS | 1701528-05@30X STWRT-RPTSW01... | 3.43 e 1 | 1.5 | YES |
| 7 | 7 13C6-PFDA | 1701528-05@30X STWRT-RPTSW01... | 3.45 e 2 | 4.1 | YES |
| 8 | 8 13C7-PFUnA | 1701528-05@30X STWRT-RPTSW01 ... | 2.51 e 2 | 2.8 | YES |

Quantify Sample Summary Report
Vista Analytical Laboratory
Dataset: Untitled
Last Altered: Friday, November 03, 2017 15:35:49 Pacific Daylight Time
Printed: Friday, November 03, 2017 15:36:06 Pacific Daylight Time

Name: 171103M1_10, Date: 03-Nov-2017, Time: 15:06:05, ID: IPA, Description: IPA

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | IPA |  |  | NO |
| 2 | 2 13C5-PFHxA | IPA |  |  | NO |
| 3 | 3 13C3-PFHxS | IPA |  |  | NO |
| 4 | 4 13C8-PFOA | IPA |  |  | NO |
| 5 | 5 13C9-PFNA | IPA |  |  | NO |
| 6 | 6 13C4-PFOS | IPA |  |  | NO |
| 7 | 7 13C6-PFDA | IPA |  |  | NO |
| 8 | 8 13C7-PFUnA | IPA |  |  | NO |

Name: 171103M1_11, Date: 03-Nov-2017, Time: 15:17:27, ID: ST171103M1-2 PFC CS3 17J2810, Description: PFC CS3 17J2810

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | ST171103M1-2 PFC CS3 17J2810 | 7.57 e 3 | 103.3 | NO |
| 2 | 2 13C5-PFHxA | ST171103M1-2 PFC CS3 17J2810 | 1.06 e 4 | 112.2 | NO |
| 3 | 3 13C3-PFHxS | ST171103M1-2 PFC CS3 17J2810 | 1.82 e 3 | 106.4 | NO |
| 4 | 4 13C8-PFOA | ST171103M1-2 PFC CS3 17 J 2810 | 6.90 e3 | 87.3 | NO |
| 5 | 5 13C9-PFNA | ST171103M1-2 PFC CS3 17J2810 | 9.52e3 | 116.1 | NO |
| 6 | 6 13C4-PFOS | ST171103M1-2 PFC CS3 17J2810 | 2.00 e 3 | 89.1 | NO |
| 7 | 7 13C6-PFDA | ST171103M1-2 PFC CS3 17J2810 | 8.56 e 3 | 102.9 | NO |
| 8 | 8 13C7-PFUnA | ST171103M1-2 PFC CS3 17J2810 | 9.81 e 3 | 108.1 | NO |


| Dataset: | Untitled |
| :--- | :--- |
| Last Altered: | Friday, November 03, 2017 15:14:25 Pacific Daylight Time |
| Printed: | Friday, November 03, 2017 15:15:10 Pacific Daylight Time |

## \section*{Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_102717.mdb 01 Nov 2017 11:32:51} <br> Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_10-31-17-FULL_OLD.cdb 01 Nov 2017 09:42:13

Name: 171103M1_3, Date: 03-Nov-2017, Time: 13:46:25, ID: IPA, Description: IPA


## 13C3-PFBA

F2:MRM of 1 channel,ES$216.1>171.8$


## 13C3-PFPeA

F5:MRM of 1 channel,ES266. > 221.8




L-PFHxS
F15:MRM of 2 channels,ES$398.9>79.6$
100


## 1802-PFHxS

F17:MRM of 1 channel,ES$403.0>102.6$


## Dataset: Untitled

Last Altered: Friday, November 03, 2017 15:14:25 Pacific Daylight Time
Printed: Friday, November 03, 2017 15:15:10 Pacific Daylight Time

## Name: 171103M1_3, Date: 03-Nov-2017, Time: 13:46:25, ID: IPA, Description: IPA



13C2-6:2 FTS
F22:MRM of 1 channel,ES-
$429.1>408.9$
$1.000 \mathrm{e}-003$


## 13C2-PFOA





F7:MRM of 1 channel,ES-
$302 .>98.8$
$1.000 \mathrm{e}-003$

## PFNA

PFNA
F24:MRM of 2 channels,ES-
$463.0>418.8$
$4.423 \mathrm{e}+002$


13C5-PFNA
F25:MRM of 1 channel,ES-
$-\quad 468.2>422.9$



## Dataset: Untitled

Last Altered: Friday, November 03, 2017 15:14:25 Pacific Daylight Time
Printed: Friday, November 03, 2017 15:15:10 Pacific Daylight Time

Name: 171103M1_3, Date: 03-Nov-2017, Time: 13:46:25, ID: IPA, Description: IPA


## 13C2-PFDA

F35:MRM of 1 channel,ES-



13C2-8:2 FTS
F40:MRM of 1 channel,ES-







## 13C2-PFUdA




13C2-PFUdA


## Dataset: Untitled <br> Last Altered: Friday, November 03, 2017 15:14:25 Pacific Daylight Time <br> Printed: Friday, November 03, 2017 15:15:10 Pacific Daylight Time

## Name: 171103M1_3, Date: 03-Nov-2017, Time: 13:46:25, ID: IPA, Description: IPA



## 13C2-PFDoA

F51:MRM of 1 channel,ES-




F56:MRM of 2 channels,ES$662.9>319$
$1.000 \mathrm{e}-003$


## 13C2-PFTeDA




## 13C2-PFTeDA



## Dataset: Untitled

Last Altered: Friday, November 03, 2017 15:14:25 Pacific Daylight Time
Printed: Friday, November 03, 2017 15:15:10 Pacific Daylight Time

## Name: 171103M1_3, Date: 03-Nov-2017, Time: 13:46:25, ID: IPA, Description: IPA



## 13C2-PFHxDA




## d7-N-MeFOSE




## 13C8-PFOA



## 13C5-PFHxA



## 13C9-PFNA




13C4-PFOS

## Quantify Sample Report

MassLynx MassLynx V4.1 SCN945 SCN960

```
Dataset: Untitled
Last Altered: Friday, November 03, 2017 15:14:25 Pacific Daylight Time
Printed: Friday, November 03, 2017 15:15:10 Pacific Daylight Time
```


## Name: 171103M1_3, Date: 03-Nov-2017, Time: 13:46:25, ID: IPA, Description: IPA

13C6-PFDA
F37-MRM of 1 channel, ES
of 1 channel,ES-
$519.1>473.7$
100- $519.1>473.7$


| Dataset: | U:IQ4.PRO\results\171103M11171103M1-2.qld |
| :--- | :--- |
|  |  |
| Last Altered: | Friday, November 03, 2017 14:24:40 Pacific Daylight Time |
| Printed: | Friday, November 03, 2017 14:26:24 Pacific Daylight Time |

Method: U:IQ4.PRO\MethDB\PFAS_FULL_80C_102717.mdb 01 Nov 2017 11:32:51
Calibration: U:IQ4.PROICurveDBIC18_VAL-PFAS_Q4_10-31-17-FULL_OLD.cdb 01 Nov 2017 09:42:13
Name: 171103M1_2, Date: 03-Nov-2017, Time: 13:35:14, ID: ST171103M1-1 PFC CS0 17J2807, Description: PFC CSO 17J2807


Last Altered: Friday, November 03, 2017 14:24:40 Pacific Daylight Time
Printed: $\quad$ Friday, November 03, 2017 14:26:24 Pacific Daylight Time

Name: 171103M1_2, Date: 03-Nov-2017, Time: 13:35:14, ID: ST171103M1-1 PFC CS0 17J2807, Description: PFC CS0 17J2807

|  |  | \# Name | Trace | Area | IS Area | RRF | Pred.RT | RT | y Axis Resp. | Conc: | \%Rec |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 32 |  | 35 13C4-PFHpA | 367.2 > 321.8 | 6.96 e 3 | 9.41 e 3 | 0.711 | 3.56 | 3.43 | 9.25 | 13.0 | 104.1 | 00750 |
| 33 |  | 36 1802-PFHxS | $403.0>102.6$ | 7.00 e 2 | 1.71 e3 | 0.423 | 3.71 | 3.59 | 5.11 | 12.1 | 96.6 |  |
| 34 |  | 37 13C2-6:2 FTS | $429.1>408.9$ | 2.04 e 3 | 7.90 e 3 | 0.286 | 4.03 | 3.90 | 3.23 | 11.3 | 90.4 |  |
| 35 |  | 38 13C2-PFOA | $414.9>369.7$ | 9.65 e 3 | 7.90 e 3 | 1.310 | 4.05 | 3.96 | 15.3 | 11.7 | 93.3 |  |
| 36 | - | 39 13C5-PFNA | $468.2>422.9$ | 9.25 e 3 | 8.20 e 3 | 0.979 | 4.55 | 4.41 | 14.1 | 14.4 | 115.3 |  |
| 37 |  | 40 13C8-PFOSA | $506.1>77.7$ | 2.10 e 3 | 9.08 e 3 | 0.207 | 4.59 | 4.46 | 2.89 | 14.0 | 111.7 |  |
| 38 |  | 41 13C8-PFOS | $507.0>79.9$ | 2.39 e 3 | 2.24 e3 | 1.072 | 4.63 | 4.50 | 13.3 | 12.4 | 99.3 |  |
| 39 | Hill | 42 13C2-PFDA | $515.1>469.9$ | 8.85 e 3 | 8.30 e 3 | 1.014 | 4.92 | 4.80 | 13.3 | 13.1 | 105.1 |  |
| 40 |  | 43 13C2-8:2 FTS | $529.1>508.7$ | 1.32 e 3 | 8.30 e 3 | 0.216 | 4.89 | 4.76 | 1.99 | 9.20 | 73.6 |  |
| 41 |  | $44 \mathrm{~d} 3-\mathrm{N}-\mathrm{MeFOSAA}$ | $573.3>419$ | 3.36 e 3 | 9.08 e 3 | 0.368 | 5.08 | 4.95 | 4.62 | 12.6 | 100.5 |  |
| 42 |  | 45 d5-N-EtFOSAA | $589.3>419$ | 4.06 e 3 | 9.08 e3 | 0.389 | 5.24 | 5.11 | 5.59 | 14.4 | 115.1 |  |
| 43 |  | 46 13C2-PFUdA | $565>519.8$ | 1.05 e 4 | 9.08 e 3 | 0.983 | 5.25 | 5.13 | 14.4 | 14.7 | 117.6 |  |
| 44 | $\pm$ | 47 13C2-PFDoA | $615.0>569.7$ | 9.87 e 3 | 9.08 e 3 | 0.997 | 5.55 | 5.42 | 13.6 | 13.6 | 109.1 |  |
| 45 |  | 48 d3-N-MeFOSA | $515.2>168.9$ | 1.08 e 4 | 9.08 e 3 | 0.096 | 5.56 | 5.53 | 14.9 | 156 | 103.7 |  |
| 46 |  | 49 13C2-PFTeDA | $714.8>669.6$ | 9.54 e 3 | 9.08 e 3 | 1.039 | 6.02 | 5.90 | 13.1 | 12.6 | 101.1 |  |
| 47 | - | 50 d5-N-ETFOSA | $531.1>168.9$ | 1.72 e 4 | 9.08 e 3 | 0.144 | 6.01 | 5.98 | 23.7 | 165 | 109.8 |  |
| 48 |  | 51 13C2-PFHxDA | $815>769.7$ | 3.74 e 3 | 9.08 e 3 | 1.032 | 6.32 | 6.27 | 5.16 | 4.99 | 99.9 |  |
| 49 |  | $52 \mathrm{d7}$-N-MeFOSE | $623.1>58.9$ | 1.52 e 4 | 9.08 e 3 | 0.133 | 6.23 | 6.19 | 21.0 | 158 | 105.2 |  |
| 50 |  | 53 d9-N-EtFOSE | $639.2>58.8$ | 1.44 e 4 | 9.08 e 3 | 0.128 | 6.39 | 6.34 | 19.8 | 155 | 103.2 | $\checkmark$ |
| 51 |  | 54 13C4-PFBA | $217 .>171.8$ | 7.34 e 3 | 7.34 e 3 | 1.000 | 1.17 | 1.07 | 12.5 | 12.5 | 100.0 |  |
| 52 |  | 55 13C5-PFHxA | $318>272.9$ | 9.41 e 3 | 9.41 e 3 | 1.000 | 2.93 | 2.81 | 12.5 | 12.5 | 100.0 |  |
| 53 |  | 56 13C3-PFHxS | $401.9>79.9$ | 1.71 e 3 | 1.71 e 3 | 1.000 | 3.71 | 3.59 | 12.5 | 12.5 | 100.0 |  |
| 54 |  | 57 13C8-PFOA | $421.3>376$ | 7.90 e 3 | 7.90 e 3 | 1.000 | 4.05 | 3.96 | 12.5 | 12.5 | 100.0 |  |
| 55 |  | 58 13C9-PFNA | $472.2>426.9$ | 8.20 e 3 | 8.20 e 3 | 1.000 | 4.55 | 4.41 | 12.5 | 12.5 | 100.0 |  |
| 56 |  | 59 13C4-PFOS | $503>79.9$ | 2.24 e3 | 2.24 e 3 | 1.000 | 4.63 | 4.50 | 12.5 | 12.5 | 100.0 |  |
| 57 |  | 60 13C6-PFDA | $519.1>473.7$ | 8.30 e 3 | 8.30 e 3 | 1.000 | 4.92 | 4.80 | 12.5 | 12.5 | 100.0 |  |
| 58 | - | 61 13C7-PFUdA | $570.1>524.8$ | 9.08 e 3 | 9.08 e 3 | 1.000 | 5.25 | 5.13 | 12.5 | 12.5 | 100.0 |  |


| Dataset: | Untitled |
| :--- | :--- |
| Last Altered: | Friday, November 03, 2017 15:33:44 Pacific Daylight Time |
| Printed: | Friday, November 03, 2017 15:34:28 Pacific Daylight Time |

Method: U:IQ4.PROIMethDBIPFAS_FULL_80C_102717.mdb 01 Nov 2017 11:32:51 Calibration: U:IQ4.PROICurveDBIC18_VAL-PFAS_Q4_10-31-17-FULL_OLD.cdb 01 Nov 2017 09:42:13

## Compound name: PFBA

| 5-3time | Name | 10.2030 | Acq. Date | Acg. Time |
| :---: | :---: | :---: | :---: | :---: |
| \% | 171103M1_1 | IPA | 03-Nov-17 | 13:24:06 |
| 2 | 171103M1_2 | ST171103M1-1 PFC CSO 17J2807 | 03-Nov-17 | 13:35:14 |
| 3 3 | 171103M1_3 | IPA | 03-Nov-17 | 13:46:25 |
| 4 [ | 171103M1_4 | 1701439-03 FRB04_20171005 0.125 | 03-Nov-17 | 13:57:38 |
| 5 | 171103M1_5 | 1701439-05 FRB06_20171006 0.125 | 03-Nov-17 | 14:08:50 |
| \% | 171103M1_6 | B7J0136-MS2@5X Matrix Spike 1.12 | 03-Nov-17 | 14:20:00 |
| 7 7-3 | 171103M1_7 | B7J0136-MSD2@5X Matrix Spike Dup 1.18 | 03-Nov-17 | 14:31:11 |
| 8 ${ }^{\text {\% }}$ | 171103M1_8 | B7J0136-MSD2 Matrix Spike Dup 1.18 | 03-Nov-17 | 14:42:22 |
| \% | 171103M1_9 | 1701528-05@30X STWRT-RPTSW01 0.11748 | 03-Nov-17 | 14:54:57 |
| $10$ | 171103M1_10 | IPA | 03-Nov-17 | 15:06:05 |
| 11 | 171103M1_11 | ST171103M1-2 PFC CS3 17J2810 | 03-Nov-17 | 15:17:27 |
| $12 \times$ | 171103M1_12 | IPA | 03-Nov-17 | 15:28:59 |

LC Calibration Standards Review Checklist $\qquad$


Run Log Present: $\triangle$
\# of Samples per Sequence Checked:

Reviewed By: $\nmid A \cdot 11 / 03 / 2017$

| Comments: |
| :---: |
| Full_OLD |
|  |

Dataset: U:IQ4.PROIresults\171103M1\171103M1-2.qld

Last Altered: Friday, November 03, 2017 14:24:40 Pacific Daylight Time
Printed: $\quad$ Friday, November 03, 2017 14:26:24 Pacific Daylight Time

Method: U:\Q4.PROMMethDBIPFAS_FULL_80C_102717.mdb 01 Nov 2017 11:32:51

## Calibration: U:IQ4.PROICurveDBIC18_VAL-PFAS_Q4_10-31-17-FULL_OLD.cdb 01 Nov 2017 09:42:13

Name: 171103M1_2, Date: 03-Nov-2017, Time: 13:35:14, ID: ST171103M1-1 PFC CS0 17J2807, Description: PFC CS0 17J2807


## 13C3-PFBA

F2:MRM of 1 channel,ES-
$216.1>171.8$ $1.175 \mathrm{e}+005$



13C3-PFPeA
F5:MRM of 1 channel,ES-
266. $>221.8$ $2.242 \mathrm{e}+005$



F6:MRM of 2 channels,ES-







F13:MRM of 2 channels,ES


13C4-PFHpA



F15:MRM of 2 channels,ES-


1802-PFHxS
F17:MRM of 1 channel,ES $403.0>102.6$ $2.381 e+004$

| Dataset: | U:\Q4.PRO\results\171103M1 |
| :--- | :--- |
|  |  |
| Last Altered: | Friday, November 03, 2017 14:24:40 Pacific Daylight Time |
| Printed: | Friday, November 03, 2017 14:26:24 Pacific Daylight Time |

Name: 171103M1_2, Date: 03-Nov-2017, Time: 13:35:14, ID: ST171103M1-1 PFC CS0 17J2807, Description: PFC CS0 17J2807



## 13C5-PFNA



F27:MRM of 2 channels,ES
$498.1>478$



F29:MRM of 2 channels, ES-
$499>99$
F29:MRM of 2 channels, ES-
$499>99$


13C8-PFOS


| Dataset: | U:IQ4.PROlresults\171103M1\171103M1-2.qld |
| :--- | :--- |
|  |  |
| Last Altered: | Friday, November 03, 2017 14:24:40 Pacific Daylight Time |
| Printed: | Friday, November 03, 2017 14:26:24 Pacific Daylight Time |

Name: 171103M1_2, Date: 03-Nov-2017, Time: 13:35:14, ID: ST171103M1-1 PFC CS0 17J2807, Description: PFC CS0 17J2807



F44:MRM of 2 channels,ES 570.1 > 483.0 $100-4.95 \quad 8.538 \mathrm{e}+002$


## d3-N-MeFOSAA




## d5-N-EtFOSAA



F47:MRM of 2 channels,ES
5.500


F42:MRM of 2 channels,ES$563.0>269$


## 13C2-PFUdA




| Dataset: | U:\Q4.PRO\results\171103M1 |
| :--- | :--- |
|  |  |
| Last Altered: | Friday, November 03, 2017 14:24:40 Pacific Daylight Time |
| Printed: | Friday, November 03, 2017 14:26:24 Pacific Daylight Time |

## Name: 171103M1_2, Date: 03-Nov-2017, Time: 13:35:14, ID: ST171103M1-1 PFC CS0 17J2807, Description: PFC CS0 17 J2807




## 13C2-PFDoA




F33:MRM of 2 channels,ES$512.1>219$



F56:MRM of 2 channels,ES662.9 > 319


## 13C2-PFTeDA

F58:MRM of 2 channels,ES-
2 channels,ES-
$714.8>669.6$


F57:MRM of 2 channels,ES $712.9>369$


## 13C2-PFTeDA

F58:MRM of 2 channels, ES
$714.8>669.6$



F38:MRM of 2 channels,ES $526.1>219$


## d5-N-ETFOSA

F41:MRM of 1 channel,ES



F59:MRM of 2 channels,ES813.1 > 219


13C2-PFHxDA


| Dataset: | U:IQ4.PRO\results\171103M1\171103M1-2.qld |
| :--- | :--- |
| Last Altered: | Friday, November 03, 2017 14:24:40 Pacific Daylight Time |
| Printed: | Friday, November 03, 2017 14:26:24 Pacific Daylight Time |

Name: 171103M1_2, Date: 03-Nov-2017, Time: 13:35:14, ID: ST171103M1-1 PFC CS0 17J2807, Description: PFC CS0 17J2807













| Dataset: | U:\Q4.PRO\results\171103M1\171103M1-2.qld |
| :--- | :--- |
|  |  |
| Last Altered: | Friday, November 03, 2017 14:24:40 Pacific Daylight Time |
| Printed: | Friday, November 03, 2017 14:26:24 Pacific Daylight Time |

Name: 171103M1_2, Date: 03-Nov-2017, Time: 13:35:14, ID: ST171103M1-1 PFC CS0 17J2807, Description: PFC CS0 17J2807


13C7-PFUdA
F45:MRM of 1 channel,ES-


Method: U:IQ4.PROIMethDBIPFAS_FULL_80C_102717.mdb 01 Nov 2017 11:32:51
Calibration: U:IQ4.PROICurveDBIC18_VAL-PFĀS_Q4_10-31-17-FULL_OLD.cdb 01 Nov 2017 09:42:13
Name: 171103M1_11, Date: 03-Nov-2017, Time: 15:17:27, ID: ST171103M1-2 PFC CS3 17J2810, Description: PFC CS3 17J2810


| Dataset: | U:IQ4.PRO\results\171103M11171103M1-113.qld |
| :--- | :--- |
| Last Altered: | Friday, November 03, 2017 15:31:35 Pacific Daylight Time |
| Printed: | Friday, November 03, 2017 15:31:46 Pacific Daylight Time |

Name: 171103M1_11, Date: 03-Nov-2017, Time: 15:17:27, ID: ST171103M1-2 PFC CS3 17J2810, Description: PFC CS3 17J2810

| - | \# Name | Trace | ¢ Area | IS Area | RRF | Pred.RT | RT | y Axis Resp. | Conc: | \%Rec |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 32 | 35 13C4-PFHpA | 367.2 > 321.8 | 6.76e3 | 1.06 e 4 | 0.711 | 3.56 | 3.44 | 8.00 | 11.3 | 90.0 | 50-150 |
| 33 | 36 1802-PFHxS | $403.0>102.6$ | 7.49 e 2 | 1.82e3 | 0.423 | 3.71 | 3.59 | 5.13 | 12.1 | 97.0 |  |
| 34 | 37 13C2-6:2 FTS | $429.1>408.9$ | 2.26 e 3 | 6.90 e 3 | 0.286 | 4.03 | 3.91 | 4.10 | 14.3 | 114.8 |  |
| 35 | 38 13C2-PFOA | 414.9 > 369.7 | 9.99 e 3 | 6.90 e 3 | 1.310 | 4.05 | 3.96 | 18.1 | 13.8 | 110.6 |  |
| 36 | 39 13C5-PFNA | 468.2 > 422.9 | 9.14 e3 | 9.52 e 3 | 0.979 | 4.55 | 4.41 | 12.0 | 12.3 | 98.0 |  |
| 37 | 40 13C8-PFOSA | $506.1>77.7$ | 1.95 e 3 | 9.81 e 3 | 0.207 | 4.59 | 4.47 | 2.49 | 12.0 | 96.3 |  |
| 38 | 41 13C8-PFOS | $507.0>79.9$ | 2.20 e 3 | 2.00 e 3 | 1.072 | 4.63 | 4.50 | 13.8 | 12.9 | 102.9 |  |
| 39 | 42 13C2-PFDA | $515.1>469.9$ | 9.08 e 3 | 8.56 e 3 | 1.014 | 4.92 | 4.80 | 13.3 | 13.1 | 104.6 |  |
| 40 | 43 13C2-8:2 FTS | $529.1>508.7$ | 1.98 e 3 | 8.56 e 3 | 0.216 | 4.89 | 4.76 | 2.89 | 13.4 | 107.0 |  |
| 41 | 44 d3-N-MeFOSAA | $573.3>419$ | 4.45 e 3 | 9.81 e 3 | 0.368 | 5.08 | 4.95 | 5.66 | 15.4 | 123.1 |  |
| 42 | 45 d5-N-EtFOSAA | $589.3>419$ | 4.01 e 3 | 9.81 e 3 | 0.389 | 5.24 | 5.11 | 5.10 | 13.1 | 105.1 |  |
| 43 | 46 13C2-PFUdA | $565>519.8$ | 9.91 e 3 | 9.81 e 3 | 0.983 | 5.25 | 5.13 | 12.6 | 12.8 | 102.8 |  |
| 44 | 47 13C2-PFDoA | $615.0>569.7$ | 1.08 e 4 | 9.81 e 3 | 0.997 | 5.55 | 5.42 | 13.7 | 13.8 | 110.0 |  |
| 45 | 48 d3-N-MeFOSA | $515.2>168.9$ | 9.84 e 3 | 9.81 e 3 | 0.096 | 5.56 | 5.53 | 12.5 | 131 | 87.4 |  |
| 46 | 49 13C2-PFTeDA | $714.8>669.6$ | 8.60 e 3 | 9.81 e 3 | 1.039 | 6.02 | 5.91 | 10.9 | 10.5 | 84.3 |  |
| 47 | $50 \mathrm{~d} 5-\mathrm{N}$-ETFOSA | $531.1>168.9$ | 1.56 e4 | 9.81 e 3 | 0.144 | 6.01 | 5.98 | 19.9 | 138 | 92.1 |  |
| 48 | 51 13C2-PFHxDA | $815>769.7$ | 3.68 e 3 | 9.81 e3 | 1.032 | 6.32 | 6.27 | 4.69 | 4.54 | 90.8 |  |
| 49 | $52 \mathrm{~d} 7-\mathrm{N}-\mathrm{MeFOSE}$ | $623.1>58.9$ | 1.71e4 | 9.81 e 3 | 0.133 | 6.23 | 6.19 | 21.7 | 163 | 108.9 |  |
| 50 | 53 d9-N-EtFOSE | $639.2>58.8$ | 1.52 e 4 | 9.81 e 3 | 0.128 | 6.39 | 6.34 | 19.4 | 152 | 101.2 | V |
| 51 | 54 13C4-PFBA | 217. $>171.8$ | 7.57 e 3 | 7.57 e 3 | 1.000 | 1.17 | 1.07 | 12.5 | 12.5 | 100.0 |  |
| 52 | 55 13C5-PFHXA | $318>272.9$ | 1.06 e 4 | 1.06 e 4 | 1.000 | 2.93 | 2.81 | 12.5 | 12.5 | 100.0 |  |
| 53 | 56 13C3-PFHxS | $401.9>79.9$ | 1.82 e 3 | 1.82 e 3 | 1.000 | 3.71 | 3.59 | 12.5 | 12.5 | 100.0 |  |
| 54 | 57 13C8-PFOA | $421.3>376$ | 6.90 e 3 | 6.90 e 3 | 1.000 | 4.05 | 3.96 | 12.5 | 12.5 | 100.0 |  |
| 55 | 58 13C9-PFNA | $472.2>426.9$ | 9.52 e 3 | 9.52 e 3 | 1.000 | 4.55 | 4.41 | 12.5 | 12.5 | 100.0 |  |
| 56 | 59 13C4-PFOS | $503>79.9$ | 2.00 e 3 | 2.00 e 3 | 1.000 | 4.63 | 4.50 | 12.5 | 12.5 | 100.0 |  |
| 57 2ink | 60 13C6-PFDA | $519.1>473.7$ | 8.56 e 3 | 8.56 e 3 | 1.000 | 4.92 | 4.79 | 12.5 | 12.5 | 100.0 |  |
| 58 - | 61 13C7-PFUdA | $570.1>524.8$ | 9.81 e 3 | 9.81 e 3 | 1.000 | 5.25 | 5.13 | 12.5 | 12.5 | 100.0 |  |


| Dataset: | Untitled |
| :--- | :--- |
| Last Altered: | Friday, November 03, 2017 15:33:44 Pacific Daylight Time |
| Printed: | Friday, November 03, 2017 15:34:28 Pacific Daylight Time |

Method: U:\Q4.PROIMethDBIPFAS_FULL_80C_102717.mdb 01 Nov 2017 11:32:51 Calibration: U:IQ4.PROICurveDBIC18_VAL-PFAS_Q4_10-31-17-FULL_OLD.cdb 01 Nov 2017 09:42:13

## Compound name: PFBA



Dataset: U:IQ4.PROVresults $1171103 \mathrm{M} 1 \backslash 171103 \mathrm{M} 1-113$.qld

Last Altered: Friday, November 03, 2017 15:31:35 Pacific Daylight Time
Printed: Friday, November 03, 2017 15:31:46 Pacific Daylight Time

## Method: U:IQ4.PROIMethDBIPFAS_FULL_80C_102717.mdb 01 Nov 2017 11:32:51

## Calibration: U:IQ4.PROICurveDBIC18_VAL-PFAS_Q4_10-31-17-FULL_OLD.cdb 01 Nov 2017 09:42:13

Name: 171103M1_11, Date: 03-Nov-2017, Time: 15:17:27, ID: ST171103M1-2 PFC CS3 17J2810, Description: PFC CS3 17 J2810

## PFBA F1:MRM of 1 channel,ES- $213.0>168.8$ 100

13C3-PFBA
F2:MRM of 1 channel,ES-
$216.1>171.8$ $1.286 \mathrm{e}+005$



13C3-PFPeA
F5:MRM of 1 channel,ES
266. > 221.8 $2.344 e+005$





F15:MRM of 2 channels,ES-


1802-PFHxS
 $403.0>102.6$
$2.570 \mathrm{e}+004$

Dataset: U:IQ4.PROIresults\171103M11171103M1-113.qld

| Last Altered: | Friday, November 03, 2017 15:31:35 Pacific Daylight Time |
| :--- | :--- |
| Printed: | Friday, November 03, 2017 15:31:46 Pacific Daylight Time |

## Name: 171103M1_11, Date: 03-Nov-2017, Time: 15:17:27, ID: ST171103M1-2 PFC CS3 17J2810, Description: PFC CS3 $17 J 2810$

## 6:2 FTS



F21:MRM of 2 channels,ES-
$427.1>80$


13C2-6:2 FTS
F22:MRM of 1 channel,ES$429.1>408.9$ $6.587 \mathrm{e}+004$

3.7504 .0004 .250

$\begin{aligned} & \text { Fhanne }, \text { ES } \\ & 413>169 \\ & 5.046 \mathrm{e}+004\end{aligned}$


## 13C2-PFOA

F19:MRM of 1 channel,ES$414.9>369.7$


## PFHpS

F23:MRM of 2 channels,ES-
( $449>80.0$


F23:MRM of 2 channels,ES-
$449>98.7$


## 13C2-PFOA



## PFNA

F24:MRM of 2 channels,ES- $\begin{array}{r}463.0>418.8 \\ 2.687 \mathrm{e}+005\end{array}$
F24:MRM of 2 channels,ES-
$463.0>219.0$


## 13C5-PFNA




F27:MRM of 2 channels,ES-


13C8-PFOSA
F31:MRM of 1 channel,ES-




F29:MRM of 2 channels,ES-
$499>99$


13C8-PFOS
F32:MRM of 1 channel,ES-
$507.0>79.9$
$6.742 \mathrm{e}+004$

Last Altered: Friday, November 03, 2017 15:31:35 Pacific Daylight Time

Name: 171103M1_11, Date: 03-Nov-2017, Time: 15:17:27, ID: ST171103M1-2 PFC CS3 17J2810, Description: PFC CS3 17 J 2810


F34:MRM of 2 channels,ES$513>219$ 100



F39:MRM of 2 channels,ES-


## 13C2-8:2 FTS

F40:MRM of 1 channel,ES-



## d3-N-MeFOSAA

F46:MRM of 1 channel,ES$573.3>419$ $1.096 \mathrm{e}+005$




## d5-N-EtFOSAA




F42:MRM of 2 channels,ES-
$563.0>269$ $1.612 \mathrm{e}+004$



## PFDS



F49:MRM of 2 channels,ES$598.8>98.7$


## 13C2-PFUdA



Name: 171103M1_11, Date: 03-Nov-2017, Time: 15:17:27, ID: ST171103M1-2 PFC CS3 17J2810, Description: PFC CS3 17J2810


Dataset: U:\Q4.PRO\results\171103M1\171103M1-113.qld
Last Altered: Friday, November 03, 2017 15:31:35 Pacific Daylight Time
Printed: $\quad$ Friday, November 03, 2017 15:31:46 Pacific Daylight Time

Name: 171103M1_11, Date: 03-Nov-2017, Time: 15:17:27, ID: ST171103M1-2 PFC CS3 17J2810, Description: PFC CS3 $17 J 2810$


## 13C2-PFHxDA

F60:MRM of 1 channel,ES$815>769.7$ $9.925 \mathrm{e}+004$


d7-N-MeFOSE
F53:MRM of 1 channel,ES-


d9-N-EtFOSE



13C3-PFHxS



## Dataset: U:IQ4.PRO\results\171103M11171103M1-113.qld

Last Altered: Friday, November 03, 2017 15:31:35 Pacific Daylight Time
Printed: Friday, November 03, 2017 15:31:46 Pacific Daylight Time

Name: 171103M1_11, Date: 03-Nov-2017, Time: 15:17:27, ID: ST171103M1-2 PFC CS3 17J2810, Description: PFC CS3 $17 J 2810$


Quantify Sample Summary Report
Vista Analytical Laboratory
Dataset: Untitled
Last Altered: Wednesday, November 08, 2017 09:31:13 Pacific Standard Time
Printed: $\quad$ Wednesday, November 08, 2017 09:33:03 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_RS-11-08-17.mdb 08 Nov 2017 09:01:48 Calibration: 08 Nov 2017 09:31:13

Name: 171107M2_2, Date: 07-Nov-2017, Time: 21:55:33, ID: ST171107M2-1 PFC CS0 17J2707, Description: PFC CS0 17 J 2707

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | ST171107M2-1 PFC CS0 17J2707 | 8.42e3 | 100.0 | NO |
| 2 | 2 13C5-PFHxA | ST171107M2-1 PFC CS0 17J2707 | 1.10 e 4 | 100.0 | NO |
| 3 | 3 13C3-PFHxS | ST171107M2-1 PFC CS0 17J2707 | 2.06 e 3 | 100.0 | NO |
| 4 | 4 13C8-PFOA | ST171107M2-1 PFC CS0 17J2707 | 9.95 e 3 | 100.0 | NO |
| 5 | 5 13C9-PFNA | ST171107M2-1 PFC CS0 17J2707 | 1.03 e 4 | 100.0 | NO |
| 6 | 6 13C4-PFOS | ST171107M2-1 PFC CS0 17J2707 | 2.03e3 | 100.0 | NO |
| 7 | 7 13C6-PFDA | ST171107M2-1 PFC CS0 17J2707 | 1.19 e 4 | 100.0 | NO |
| 8 | 8 13C7-PFUnA | ST171107M2-1 PFC CS0 17J2707 | 1.25 e 4 | 100.0 | NO |

Name: 171107M2_3, Date: 07-Nov-2017, Time: 22:06:44, ID: IPA, Description: IPA

|  | \# Name | ID | Area | \%Rec |
| :--- | :--- | :--- | :--- | :--- |
| 1 | $113 C 4-P F B A$ | IPA | Area Out |  |
| 2 | $213 C 5-P F H x A$ | IPA | NO |  |
| 3 | $313 C 3-P F H x S$ | IPA | NO |  |
| 4 | $413 C 8-P F O A$ | IPA | NO |  |
| 5 | $513 C 9-P F N A$ | IPA | NO |  |
| 6 | $613 C 4-P F O S$ | IPA | NO |  |
| 7 | $713 C 6-P F D A$ | IPA | NO |  |
| 8 | $813 C 7-P F U n A$ | IPA | NO |  |

Name: 171107M2_4, Date: 07-Nov-2017, Time: 22:17:55, ID: 1701439-01 FRB05_20171005 0.125, Description: FRB05_20171005

|  | \# Name | ID | Area | \%Rec | Area Out |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | 1 13C4-PFBA | $1701439-01$ FRB05_201710050.125 | 6.93 e 3 | 82.4 | NO |
| 2 | 2 13C5-PFHxA | $1701439-01$ FRB05_201710050.125 | 9.74 e 3 | 88.5 | NO |
| 3 | $313 C 3-P F H x S$ | $1701439-01$ FRB05_201710050.125 | 1.64 e 3 | 79.6 | NO |
| 4 | $413 C 8-P F O A$ | $1701439-01$ FRB05_201710050.125 | 7.77 e 3 | 78.0 | NO |
| 5 | $513 C 9-P F N A$ | $1701439-01$ FRB05_201710050.125 | 8.38 e 3 | 81.5 | NO |
| 6 | $613 C 4-P F O S$ | $1701439-01$ FRB05_201710050.125 | 1.58 e 3 | 77.8 | NO |
| 7 | $713 C 6-P F D A$ | $1701439-01$ FRB05_201710050.125 | 9.41 e 3 | 79.0 | NO |
| 8 | $813 C 7-P F U n A ~$ | $1701439-01$ FRB05_201710050.125 | 9.71 e 3 | 77.6 | NO |

Name: 171107M2_5, Date: 07-Nov-2017, Time: 22:29:06, ID: IPA, Description: IPA

|  | \# Name | ID | Area | \%Rec | Area Out |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 13C4-PFBA | IPA |  |  | NO |
| 2 | 2 13C5-PFHxA | IPA |  |  | NO |
| 3 | 3 13C3-PFHxS | IPA |  |  | NO |
| 4 | 4 13C8-PFOA | IPA |  |  | NO |
| 5 | 5 13C9-PFNA | IPA |  |  | NO |
| 6 | 6 13C4-PFOS | IPA |  |  | NO |
| 7 | 7 13C6-PFDA | IPA |  |  | NO |
| 8 | 8 13C7-PFUnA | IPA |  |  | NO |

# Quantify Sample Summary Report 

Vista Analytical Laboratory
Dataset: Untitled
Last Altered: Wednesday, November 08, 2017 09:31:13 Pacific Standard Time
Printed: Wednesday, November 08, 2017 09:33:03 Pacific Standard Time

Name: 171107M2_6, Date: 07-Nov-2017, Time: 22:40:16, ID: ST171107M2-2 PFC CS3 17J2710, Description: PFC CS3 $17 J 28710$

|  | \# Name | ID | Area | \%Rec | Area Out |
| :--- | :--- | :--- | ---: | ---: | ---: |
| 1 | $113 C 4-P F B A$ | ST171107M2-2 PFC CS3 17J2710 | 9.02 e 3 | 107.2 | NO |
| 2 | $213 C 5-P F H x A$ | ST171107M2-2 PFC CS3 17J2710 | 1.11 e 4 | 100.5 | NO |
| 3 | $313 C 3-P F H x S$ | ST171107M2-2 PFC CS3 17J2710 | 2.09 e 3 | 101.6 | NO |
| 4 | $413 C 8-P F O A$ | ST171107M2-2 PFC CS3 17J2710 | 9.94 e 3 | 99.9 | NO |
| 5 | $513 C 9-P F N A$ | ST171107M2-2 PFC CS3 17J2710 | 1.06 e 4 | 103.1 | NO |
| 6 | $613 C 4-P F O S$ | ST171107M2-2 PFC CS3 17J2710 | 2.24 e 3 | 110.2 | NO |
| 7 | $713 C 6-P F D A$ | ST171107M2-2 PFC CS3 17J2710 | 1.09 e 4 | 91.4 | NO |
| 8 | $813 C 7-P F U n A$ | ST171107M2-2 PFC CS3 17J2710 | 1.25 e 4 | 100.0 | NO |


| Dataset: | Untitled |
| :--- | :--- |
| Last Altered: | Tuesday, November 07, 2017 16:39:55 Pacific Standard Time |
| Printed: | Tuesday, November 07, 2017 16:41:03 Pacific Standard Time |

## Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_110617_AC.mdb 07 Nov 2017 07:51:36

## Calibration: U:|Q4.PRO|CurveDBIC18_VAL-PFĀS_Q4_11-06-17-FULL_NOPFDS.cdb 07 Nov 2017 09:14:26

Name: 171107M1_7, Date: 07-Nov-2017, Time: 13:41:03, ID: blk tester, Description: 17k0701



L-PFHxS
F15:MRM of 2 channels,ES-
$398.9>79.6$
F15:MRM of 2 channels,ES-
$398.9>79.6$
100


1802-PFHxS
F17:MRM of 1 channel,ES



## Dataset: Untitled

Last Altered: Tuesday, November 07, 2017 16:39:55 Pacific Standard Time Printed: Tuesday, November 07, 2017 16:41:03 Pacific Standard Time

## Name: 171107M1_7, Date: 07-Nov-2017, Time: 13:41:03, ID: blk tester, Description: 17k0701

6:2 FTS
F21:MRM of 2 channels,ES-
$427.1>407$
$1.000 \mathrm{e}-003$
F21:MRM of 2 channels,ES-
$427.1>80$

| $100{ }^{-}$ | $1.000 \mathrm{e}-003$ |
| :---: | :---: |
|  |  |
|  |  |

## 13C2-6:2 FTS




## 13C2-PFOA



13C3-PFBS



## 13C5-PFNA

F25:MRM of 1 channel,ES-
$-\quad 468.2>422.9$


PFOSA
F27:MRM of 2 channels,ES-




## 13C8-PFOSA



| Dataset: | Untitled |
| :--- | :--- |
|  |  |
| Last Altered: | Tuesday, November 07, 2017 16:39:55 Pacific Standard Time |
| Printed: | Tuesday, November 07, 2017 16:41:03 Pacific Standard Time |

Name: 171107M1_7, Date: 07-Nov-2017, Time: 13:41:03, ID: blk tester, Description: 17k0701


## 13C2-PFDA




13C2-8:2 FTS






## 13C2-PFUdA




| Dataset: | Untitled |
| :--- | :--- |
|  |  |
| Last Altered: | Tuesday, November 07, 2017 16:39:55 Pacific Standard Time |
| Printed: | Tuesday, November 07, 2017 16:41:03 Pacific Standard Time |

Name: 171107M1_7, Date: 07-Nov-2017, Time: 13:41:03, ID: blk tester, Description: 17k0701


## 13C2-PFDoA

F51:MRM of 1 channel,ES-



## d3-N-MeFOSA





13C2-PFTeDA



F57:MRM of 2 channels,ES-


## 13C2-PFTeDA



## Dataset: Untitled

Last Altered: Tuesday, November 07, 2017 16:39:55 Pacific Standard Time Printed: Tuesday, November 07, 2017 16:41:03 Pacific Standard Time

Name: 171107M1_7, Date: 07-Nov-2017, Time: 13:41:03, ID: blk tester, Description: 17k0701


## 13C2-PFHxDA



d7-N-MeFOSE



13C8-PFOA
F20:MRM of 1 channel,ES-
$421.3>376$
1.000


13C5-PFHxA


13C9-PFNA
F26:MRM of 1 channel,ES-
$-\quad 472.2>426.9$


13C4-PFOS


## Quantify Sample Report

MassLynx MassLynx V4.1 SCN945 SCN960

```
Dataset: Untitled
Last Altered: Tuesday, November 07, 2017 16:39:55 Pacific Standard Time
Printed: Tuesday, November 07, 2017 16:41:03 Pacific Standard Time
```


## Name: 171107M1_7, Date: 07-Nov-2017, Time: 13:41:03, ID: blk tester, Description: 17k0701



Method: U:IQ4.PRO\MethDBIPFAS FULL 80C 110617 AC.mdb 07 Nov 2017 07:51:36 Calibration: U:IQ4.PROICurveDBIC18_VAL-PFĀS_Q4_10-31-17-FULL_OLD.cdb 01 Nov 2017 08:42:13
(4)

Name: 171107M2_2, Date: 07-Nov-2017, Time: 21:55:33, ID: ST171107M2-1 PFC CS0 17J2707, Description: PFC CS0 17J2707


Dataset: U:IQ4.PRO\results1171107M21171107M2-2.qld
Last Altered: Wednesday, November 08, 2017 09:24:49 Pacific Standard Time
Printed: Wednesday, November 08, 2017 09:27:10 Pacific Standard Time

Name: 171107M2_2, Date: 07-Nov-2017, Time: 21:55:33, ID: ST171107M2-1 PFC CS0 17J2707, Description: PFC CS0 17J2707

|  | I. |  | Name | Trace | Area | IS Area | RRF | PredRT | RT | Y Axis Resp. | Conc: | \%Rec |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 32 |  |  | 13C4-PFHpA | $367.2>321.8$ | 7.07 e 3 | 1.10 e 4 | 0.711 | 4.02 | 3.81 | 8.03 | 11.3 | 90.4 | 20180 |
| 33 |  |  | 1802-PFHxS | $403.0>102.6$ | 8.13 e 2 | 2.07e3 | 0.423 | 4.16 | 3.96 | 4.92 | 11.6 | 92.9 |  |
| 34 |  |  | 13C2-6:2 FTS | $429.1>408.9$ | 2.49 e 3 | 9.95 e 3 | 0.286 | 4.48 | 4.28 | 3.13 | 10.9 | 87.5 |  |
| 35 |  |  | 13C2-PFOA | $414.9>369.7$ | 1.12 e 4 | 9.95 e 3 | 1.310 | 4.53 | 4.33 | 14.1 | 10.7 | 86.0 |  |
| 36 |  |  | 13C5-PFNA | $468.2>422.9$ | 8.92e3 | 1.03 e 4 | 0.979 | 4.96 | 4.76 | 10.8 | 11.1 | 88.6 |  |
| 37. |  |  | 13C8-PFOSA | $506.1>77.7$ | 2.93 e 3 | 1.25 e 4 | 0.207 | 5.01 | 4.82 | 2.93 | 14.2 | 113.5 |  |
| 38 |  |  | 13C8-PFOS | $507.0>79.9$ | 2.39 e 3 | 2.03 e 3 | 1.072 | 5.03 | 4.85 | 14.7 | 13.7 | 109.9 |  |
| 39 |  |  | 13C2-PFDA | $515.1>469.9$ | 1.00 e 4 | 1.19 e 4 | 1.014 | 5.33 | 5.14 | 10.5 | 10.4 | 82.8 |  |
| 40 | \# |  | 13C2-8:2 FTS | $529.1>508.7$ | 1.76 e 3 | 1.19 e 4 | 0.216 | 5.30 | 5.11 | 1.85 | 8.57 | 68.5 |  |
| 41 |  |  | d3-N-MeFOSAA | $573.3>419$ | 4.37 e 3 | 1.25 e 4 | 0.368 | 5.48 | 5.29 | 4.36 | 11.9 | 94.9 |  |
| 42 |  |  | d5-N-EtFOSAA | $589.3>419$ | 4.17 e 3 | 1.25 e 4 | 0.389 | 5.63 | 5.45 | 4.17 | 10.7 | 85.8 |  |
| 43 |  |  | 13C2-PFUdA | $565>519.8$ | 1.16 e 4 | 1.25 e 4 | 0.983 | 5.65 | 5.47 | 11.6 | 11.8 | 94.7 |  |
| 44 |  |  | 13C2-PFDoA | $615.0>569.7$ | 1.35 e 4 | 1.25 e 4 | 0.997 | 5.92 | 5.75 | 13.5 | 13.6 | 108.4 |  |
| 45 | I\% |  | d3-N-MeFOSA | $515.2>168.9$ | 1.23 e 4 | 1.25 e 4 | 0.096 | 5.84 | 5.75 | 12.3 | 128 | 85.5 |  |
| 46 |  |  | 13C2-PFTeDA | $714.8>669.6$ | 1.47 e 4 | 1.25 e 4 | 1.039 | 6.36 | 6.21 | 14.7 | 14.1 | 113.1 |  |
| 47 |  |  | d5-N-ETFOSA | $531.1>168.9$ | 1.75 e 4 | 1.25 e 4 | 0.144 | 6.19 | 6.13 | 17.5 | 122 | 81.1 |  |
| 48 |  |  | 13C2-PFHxDA | $815>769.7$ | 5.45 e 3 | 1.25 e 4 | 1.032 | 6.65 | 6.52 | 5.44 | 5.27 | 105.5 |  |
| 49 |  |  | d7-N-MeFOSE | $623.1>58.9$ | 1.57 e 4 | 1.25 e 4 | 0.133 | 6.30 | 6.27 | 15.7 | 118 | 78.9 | 1 |
| 50 |  |  | d9-N-EtFOSE | $639.2>58.8$ | 1.66 e 4 | 1.25 e 4 | 0.128 | 6.45 | 6.42 | 16.6 | 130 | 86.8 | $\checkmark$ |
| 51 | \% |  | 13C4-PFBA | 217. $>171.8$ | 8.42 e 3 | 8.42 e 3 | 1.000 | 1.64 | 1.44 | 12.5 | 12.5 | 100.0 |  |
| 52 |  |  | 13C5-PFHxA | $318>272.9$ | 1.10 e 4 | 1.10 e 4 | 1.000 | 3.39 | 3.18 | 12.5 | 12.5 | 100.0 |  |
| 53 |  |  | 13C3-PFHxS | $401.9>79.9$ | 2.07 e 3 | 2.07e3 | 1.000 | 4.16 | 3.96 | 12.5 | 12.5 | 100.0 |  |
| 54 |  |  | 13C8-PFOA | $421.3>376$ | 9.95 e 3 | 9.95 e 3 | 1.000 | 4.53 | 4.33 | 12.5 | 12.5 | 100.0 |  |
| 55 | \#, |  | 13C9-PFNA | $472.2>426.9$ | 1.03 e 4 | 1.03 e 4 | 1.000 | 4.96 | 4.76 | 12.5 | 12.5 | 100.0 |  |
| 56 |  |  | 13C4-PFOS | $503>79.9$ | 2.03 e 3 | 2.03 e 3 | 1.000 | 5.03 | 4.85 | 12.5 | 12.5 | 100.0 |  |
| 57. | 4intim |  | 13C6-PFDA | $519.1>473.7$ | 1.19 e 4 | 1.19 e 4 | 1.000 | 5.33 | 5.14 | 12.5 | 12.5 | 100.0 |  |
| 58 | ITIX |  | 13C7-PFUdA | $570.1>524.8$ | 1.25 e 4 | 1.25 e 4 | 1.000 | 5.65 | 5.47 | 12.5 | 12.5 | 100.0 |  |

Dataset:
Untitled
Last Altered: Wednesday, November 08, 2017 09:31:13 Pacific Standard Time
Printed: Wednesday, November 08, 2017 09:32:12 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_RS-11-08-17.mdb 08 Nov 2017 09:01:48
Calibration: 08 Nov 2017 09:31:13
Compound name: 13C4-PFBA

|  |  | Name | 10 | Acq, Date | Acq. Time |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 |  | 171107M2_2 | ST171107M2-1 PFC CS0 17J2707 | 07-Nov-17 | 21:55:33 |
| 2 | \% | 171107M2_3 | IPA | 07-Nov-17 | 22:06:44 |
| 3 | 14tatis | 171107M2_4 | 1701439-01 FRB05_20171005 0.125 | 07-Nov-17 | 22:17:55 |
| 4 | 4. | 171107M2_5 | IPA | 07-Nov-17 | 22:29:06 |
| 5 | MWM\% | 171107M2_6 | ST171107M2-2 PFC CS3 17 J 2710 | 07-Nov-17 | 22:40:16 |



Run Log Present: $\square$

$\square$

## Method: U:IQ4.PROMMethDBIPFAS FULL 80C 110617 AC.mdb 07 Nov 2017 07:51:36

## Calibration: U:IQ4.PRO\CurveDBIC18_VAL-PFAS_Q4_10-31-17-FULL_OLD.cdb 01 Nov 2017 08:42:13

Name: 171107M2_2, Date: 07-Nov-2017, Time: 21:55:33, ID: ST171107M2-1 PFC CS0 17J2707, Description: PFC CS0 17 J 2707


## 13C3-PFBA

F2:MRM of 1 channel,ES$216.1>171.8$ $1.627 \mathrm{e}+005$



13C3-PFPeA
F5:MRM of 1 channel,ES-


## PFBS

$\begin{array}{r}\text { F6:MRM of } 2 \text { channels,ES- } \\ 299.0>79.7 \\ 100 \\ \hline\end{array}$

## F6:MRM of 2 channels,ES-



## 13C3-PFBS



## PFHXA




## 13C2-PFHxA



## PFHpA

F13:MRM of 2 channels,ES-


F13:MRM of 2 channels,ES


13C4-PFHpA


1802-PFHxS

$$
\begin{array}{r}
\text { F17:MRM of } 1 \text { channel,ES- } \\
403.0>102.6 \\
2.274 \mathrm{e}+004
\end{array}
$$

$$
\begin{gathered}
100 \\
\hline
\end{gathered} \begin{array}{r}
403.0>102.6 \\
2.274 \mathrm{e}+004
\end{array}
$$

| Dataset: | U:\Q4.PRO\results\171107M21171107M2-2.qld |
| :--- | :--- |
|  |  |
| Last Altered: | Wednesday, November 08, 2017 09:24:49 Pacific Standard Time |
| Printed: | Wednesday, November 08, 2017 09:27:10 Pacific Standard Time |

Name: 171107M2_2, Date: 07-Nov-2017, Time: 21:55:33, ID: ST171107M2-1 PFC CS0 17J2707, Description: PFC CS0 17J2707

## 6:2 FTS



F21:MRM of 2 channels,ES-



F18:MRM of 2 channels,ES-


## 13C2-PFOA

F19:MRM of 1 channel,ES-
$414.9>3697$


F23:MRM of 2 channels,ES-


13C2-PFOA



F24:MRM of 2 channels,ES-


## 13C5-PFNA



## L-PFOS

F29:MRM of 2 channels,ES


F29:MRM of 2 channels,ES-
$499>99$


13C8-PFOS


| Dataset: | U:IQ4.PRO\results\171107M2\171107M2-2.qld |
| :--- | :--- |
|  |  |
| Last Altered: | Wednesday, November 08, 2017 09:24:49 Pacific Standard Time |
| Printed: | Wednesday, November 08, 2017 09:27:10 Pacific Standard Time |

Name: 171107M2_2, Date: 07-Nov-2017, Time: 21:55:33, ID: ST171107M2-1 PFC CS0 17J2707, Description: PFC CS0 17J2707

| F34:MRM of 2 channels, ES- |  |  |
| :---: | :---: | :---: |
|  | PFDA $\quad 2.820 \mathrm{e}+004$ |  |
| 100 | 5.14 |  |
|  | 1.19e3 |  |
| \%- | 27716 |  |
|  | bb |  |
|  | 5.00 |  |

F34:MRM of 2 channels,ES-
$513>219$


## 13C2-PFDA




F39:MRM of 2 channels,ES-


## 13C2-8:2 FTS



F44:MRM of 2 channels,ES


## d3-N-MeFOSAA




F47:MRM of 2 channels,ES-


## d5-N-EtFOSAA




## PFDS



F42:MRM of 2 channels,ES-
$563.0>269$


3C2-PFUdA


| Dataset: | U:IQ4.PRO\results\171107M2\171107M2-2.qld |
| :--- | :--- |
|  |  |
| Last Altered: | Wednesday, November 08, 2017 09:24:49 Pacific Standard Time |
| Printed: | Wednesday, November 08, 2017 09:27:10 Pacific Standard Time |

Name: 171107M2_2, Date: 07-Nov-2017, Time: 21:55:33, ID: ST171107M2-1 PFC CS0 17J2707, Description: PFC CS0 17J2707



F56:MRM of 2 channels, ES$662.9>319$


## 13C2-PFTeDA

F58:MRM of 2 channels, ES



F57:MRM of 2 channels,ES


## 13C2-PFTeDA

F58:MRM of 2 channels,ES-



F38:MRM of 2 channels,ES-
$526.1>219$

d5-N-ETFOSA


PFHxDA
F59:MRM of 2 channels,ES


F59:MRM of 2 channels,ES$813.1>219$


13C2-PFHxDA


| Dataset: | U:IQ4.PRO\results\171107M2\171107M2-2.qld |
| :--- | :--- |
| Last Altered: | Wednesday, November 08, 2017 09:24:49 Pacific Standard Time |
| Printed: | Wednesday, November 08, 2017 09:27:10 Pacific Standard Time |

Name: 171107M2_2, Date: 07-Nov-2017, Time: 21:55:33, ID: ST171107M2-1 PFC CS0 17J2707, Description: PFC CS0 17J2707


## 13C2-PFHxDA

F60:MRM of 1 channel,ES $815>769.7$ $1.576 \mathrm{e}+005$


d7-N-MeFOSE



## d9-N-EtFOSE




13C4-PFOS
F30:MRM of 1 channel,ES-
$503>79.9$
$4.635 \mathrm{e}+004$

## 13C9-PFNA



| Datase:: | U:IQ4.PROIresults1171107M21171107M2-2.qld |
| :--- | :--- |
| Last Altered: | Wednesday, November 08, 2017 09:24:49 Pacific Standard Time |
| Printed: | Wednesday, November 08, 2017 09:27:10 Pacific Standard Time |

Name: 171107M2_2, Date: 07-Nov-2017, Time: 21:55:33, ID: ST171107M2-1 PFC CS0 17J2707, Description: PFC CS0 17J2707


13C7-PFUdA
F45:MRM of 1 channel,ES-
$570.1>524.8$


| Dataset: | U:IQ4.PROIresults\171107M21171107M2-6.qld |
| :--- | :--- |
| Last Altered: | Wednesday, November 08, 2017 09:28:29 Pacific Standard Time |
| Printed: | Wednesday, November 08, 2017 09:29:08 Pacific Standard Time |

## Method: U:IQ4.PROMMethDBIPFAS_FULL_80C_110617_AC.mdb 07 Nov 2017 07:51:36

Calibration: U:IQ4.PROICurveDBIC18_VAL-PFĀS_Q4_10-31-17-FULL_OLD.cdb 01 Nov 2017 08:42:13
Name: 171107M2_6, Date: 07-Nov-2017, Time: 22:40:16, ID: ST171107M2-2 PFC CS3 17J2710, Description: PFC CS3 17J28710


Last Altered: Wednesday, November 08, 2017 09:28:29 Pacific Standard Time
Printed:
Wednesday, November 08, 2017 09:29:08 Pacific Standard Time

Name: 171107M2_6, Date: 07-Nov-2017, Time: 22:40:16, ID: ST171107M2-2 PFC CS3 17J2710, Description: PFC CS3 17J28710


Dataset: Untitled
Last Altered: Wednesday, November 08, 2017 09:31:13 Pacific Standard Time
Printed: $\quad$ Wednesday, November 08, 2017 09:32:12 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_RS-11-08-17.mdb 08 Nov 2017 09:01:48
Calibration: 08 Nov 2017 09:31:13

## Compound name: 13C4-PFBA


Printed: Wednesday, November 08, 2017 09:29:08 Pacific Standard Time

Method: U:IQ4.PRO\MethDBIPFAS_FULL_80C_110617_AC.mdb 07 Nov 2017 07:51:36
Calibration: U:IQ4.PROICurveDBIC18_VAL-PFAS_Q4_10-31-17-FULL_OLD.cdb 01 Nov 2017 08:42:13
Name: 171107M2_6, Date: 07-Nov-2017, Time: 22:40:16, ID: ST171107M2-2 PFC CS3 17J2710, Description: PFC CS3 17 J 28710




13C3-PFPeA




13C3-PFBS



F13:MRM of 2 channels,ES-



## L-PFHxS

F15:MRM of 2 channels,ES 398.9 > 79.6
100


## 1802-PFHXS

F17:MRM of 1 channel,ES 403.0 > 102.6


Last Altered: Wednesday, November 08, 2017 09:28:29 Pacific Standard Time
Printed:
Wednesday, November 08, 2017 09:29:08 Pacific Standard Time

## Name: 171107M2_6, Date: 07-Nov-2017, Time: 22:40:16, ID: ST171107M2-2 PFC CS3 17J2710, Description: PFC CS3 17J28710




## 13C2-6:2 FTS

F22:MRM of 1 channel,ES-




F23:MRM of 2 channels,ES-


13C2-PFOA



## 13C5-PFNA




F27:MRM of 2 channels,ES-
$498.1>478$


## 13C8-PFOSA




F29:MRM of 2 channels,ES
$499>99$


13C8-PFOS

| Last Altered: | Wednesday, November 08, 2017 09:28:29 Pacific Standard Time |
| :--- | :--- |
| Printed: | Wednesday, November 08, 2017 09:29:08 Pacific Standard Time |

Name: 171107M2_6, Date: 07-Nov-2017, Time: 22:40:16, ID: ST171107M2-2 PFC CS3 17J2710, Description: PFC CS3 17 J 28710



F47:MRM of 2 channels,ES$584.2>483.0$

d5-N-EtFOSAA
F48:MRM of 1 channel,ES-


PFUdA


F42:MRM of 2 channels,ES-


13C2-PFUdA
F43:MRM of 1 channel,ES$565>519.8$
$00-12 \mathrm{e}+005$


PFDS
F49:MRM of 2 channels,ES
$598.8>80$


F49:MRM of 2 channels,ES-


13C2-PFUdA
F43:MRM of 1 channel,ES-


## Dataset:

U:\Q4.PROVresults $1171107 \mathrm{M} 21171107 \mathrm{M} 2-6 . q$ qld
Last Altered: Wednesday, November 08, 2017 09:28:29 Pacific Standard Time
Printed: Wednesday, November 08, 2017 09:29:08 Pacific Standard Time

## Name: 171107M2_6, Date: 07-Nov-2017, Time: 22:40:16, ID: ST171107M2-2 PFC CS3 17J2710, Description: PFC CS3 17 J 28710



13C2-PFDoA



13C2-PFTeDA



## 13C2-PFTeDA



F38:MRM of 2 channels, ES-

d5-N-ETFOSA



F59:MRM of 2 channels,ES-
$813.1>219$ $4.954 \mathrm{e}+003$


13C2-PFHxDA
F60:MRM of 1 channel,ES-
$815>769.7$
$1.720 \mathrm{e}+005$

Dataset: U:\Q4.PRO\results\171107M21171107M2-6.qld

Last Altered: Wednesday, November 08, 2017 09:28:29 Pacific Standard Time
Printed: Wednesday, November 08, 2017 09:29:08 Pacific Standard Time

Name: 171107M2_6, Date: 07-Nov-2017, Time: 22:40:16, ID: ST171107M2-2 PFC CS3 17J2710, Description: PFC CS3 $17 J 28710$



d7-N-MeFOSE
F53:MRM of 1 channel,ES-



## d9-N-EtFOSE

F55:MRM of 1 channel,ES-



13C3-PFHxS
F16:MRM of 1 channel,ES-




## 13C4-PFOS

F30:MRM of 1 channel,ES-
$503>79.9$
$5.725 \mathrm{e}+004$


## 13C9-PFNA



Vista Analytical Laboratory
Dataset: U:IQ4.PRO\results\171107M21171107M2-6.qld
Last Altered: Wednesday, November 08, 2017 09:28:29 Pacific Standard Time
Printed: Wednesday, November 08, 2017 09:29:08 Pacific Standard Time

Name: 171107M2_6, Date: 07-Nov-2017, Time: 22:40:16, ID: ST171107M2-2 PFC CS3 17J2710, Description: PFC CS3 17 J 28710


# INITIAL CALIBRATION (ICAL) <br> INCLUDING ASSOCIATED 

INITIAL CALIBRATION VERIFICATION (ICV) AND INSTRUMENT BLANK (IB)

Last Altered: Friday, October 27, 2017 10:24:20 Pacific Daylight Time
Printed: Friday, October 27, 2017 10:25:44 Pacific Daylight Time

Method: U:IQ4.PROMMethDBIPFAS_FULL_80C_102517.mdb 26 Oct 2017 08:20:12
Calibration: U:IQ4.PROICurveDBIC18_VAL-PFAS_Q4_10-26-17-FULL_NOPFODA.cdb 27 Oct 2017 10:24:20

## Compound name: PFBA

Correlation coefficient: $\mathrm{r}=0.999162, \mathrm{r}^{\wedge} 2=0.998324$
Calibration curve: $1.25384^{*} x+-0.0149356$
Response type: Internal Std ( Ref 31 ), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None

/jA ${ }_{1012712017}$


## Compound name: PFPeA

Correlation coefficient: $\mathrm{r}=0.999675, \mathrm{r}^{\wedge} 2=0.999351$
Calibration curve: 1.1515 * $x+0.0271081$
Response type: Internal Std (Ref 32 ), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None


## Quantify Compound Summary Report

## Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171026M11171026M1-CRV.qld
Last Altered: Friday, October 27, 2017 10:24:20 Pacific Daylight Time
Printed:
Friday, October 27, 2017 10:25:44 Pacific Daylight Time

## Compound name: PFBS

Correlation coefficient: $\mathrm{r}=0.998426, \mathrm{r}^{\wedge} 2=0.996854$
Calibration curve: 2.43502 * $x+0.00496287$
Response type: Internal Std (Ref 33 ), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

|  | \# Name | Type | Std. Conc | RT | 314. Area | IS Area | Response | Conc. | \%Dev | Conc. Flag | CoD | CoD Flag | $x=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 171026M1_2 | Standard | 0.250 | 2.51 | 56.109 | 942.759 | 0.744 | 0.3 | 21.4 | NO | 0.997 | NO | MM |
| $2$ | 2 171026M1_3 | Standard | 0.500 | 2.50 | 109.096 | 1150.455 | 1.185 | 0.5 | -3.0 | NO | 0.997 | NO | bb |
| $3$ | 3 171026M1_4 | Standard | 1.000 | 2.51 | 246.749 | 1085.497 | 2.841 | 1.2 | 16.5 | NO | 0.997 | NO | bb |
| $4$ | 4 171026M1_5 | Standard | 2.000 | 2.51 | 350.747 | 1130.237 | 3.879 | 1.6 | -20.4 | NO | 0.997 | NO | bb |
| $5$ | 5 171026M1_6 | Standard | 5.000 | 2.51 | 808.830 | 946.956 | 10.677 | 4.4 | -12.3 | NO | 0.997 | NO | bb |
| $6$ | 6 171026M1_7 | Standard | 10.000 | 2.51 | 2276.402 | 1107.306 | 25.698 | 10.6 | 5.5 | NO | 0.997 | NO | bb |
| $7$ | 7 171026M1_8 | Standard | 50.000 | 2.51 | 8724.820 | 930.832 | 117.164 | 48.1 | -3.8 | NO | 0.997 | NO | bb |
| 8 | 8 171026M1_9 | Standard | 100.000 | 2.51 | 16856.811 | 937.808 | 224.684 | 92.3 | -7.7 | NO | 0.997 | NO | bb |
| 9:W: | 9 171026M1_10 | Standard | 250.000 | 2.51 | 41762.863 | 824.913 | 632.837 | 259.9 | 4.0 | NO | 0.997 | NO | bb |

## Compound name: PFHxA

Correlation coefficient: $\mathrm{r}=0.999732, \mathrm{r}^{\wedge} 2=0.999465$
Calibration curve: 1.66208 * x +0.0769658
Response type: Internal Std (Ref 34), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

| S | \# Name. | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | \%Dev | Conc. Flag | CoD | F | $x=e x c l u d e d$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. | 1 171026M1_2 | Standard | 0.250 | 3.00 | 283.989 | 2942.526 | 0.483 | 0.2 | -2.4 | NO | 0.999 | NO | bb |
| $2$ | 2 171026M1_3 | Standard | 0.500 | 3.00 | 587.805 | 3685.471 | 0.797 | 0.4 | -13.3 | NO | 0.999 | NO | MM |
| 3 3: | 3 171026M1_4 | Standard | 1.000 | 3.00 | 1424.702 | 3516.192 | 2.026 | 1.2 | 17.3 | NO | 0.999 | NO | MM |
| $4$ | 4 171026M1_5 | Standard | 2.000 | 3.00 | 2232.012 | 3262.653 | 3.421 | 2.0 | 0.6 | NO | 0.999 | NO | bb |
| $5$ | 5 171026M1_6 | Standard | 5.000 | 3.00 | 4890.172 | 2910.139 | 8.402 | 5.0 | 0.2 | NO | 0.999 | NO | bb |
| $6$ | 6171026 M 1 _7 | Standard | 10.000 | 3.00 | 13203.137 | 3962.694 | 16.659 | 10.0 | -0.2 | NO | 0.999 | NO | bb |
| $7$ | 7 171026M1_8 | Standard | 50.000 | 3.00 | 54375.723 | 3263.629 | 83.306 | 50.1 | 0.1 | NO | 0.999 | NO | bb |
| $8$ | 8 171026M1_9 | Standard | 100.000 | 3.00 | 99396.352 | 3101.273 | 160.251 | 96.4 | -3.6 | NO | 0.999 | NO | bb |
| 9, ${ }^{2}$ | 9 171026M1_10 | Standard | 250.000 | 3.00 | 243237.984 | 2886.449 | 421.345 | 253.5 | 1.4 | NO | 0.999 | NO | bb |

## Vista Analytical Laboratory

Dataset:
U:IQ4.PRO\results\171026M11171026M1-CRV.qld
Last Altered: Friday, October 27, 2017 10:24:20 Pacific Daylight Time
Printed: Friday, October 27, 2017 10:25:44 Pacific Daylight Time

## Compound name: PFHpA

Correlation coefficient: $\mathrm{r}=0.998813, \mathrm{r}^{\wedge} 2=0.997628$
Calibration curve: 1.51217 * $x+-0.00204214$
Response type: Internal Std (Ref 35), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None


## Compound name: L-PFHxS

Correlation coefficient: $\mathrm{r}=0.998527, \mathrm{r}^{\wedge} 2=0.997056$
Calibration curve: 2.44187 * $x+-0.197337$
Response type: Internal Std (Ref 36), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None


## Vista Analytical Laboratory

Dataset: U:IQ4.PROIresults 1171026 M11171026M1-CRV.qld
Last Altered: Friday, October 27, 2017 10:24:20 Pacific Daylight Time
Printed: Friday, October 27, 2017 10:25:44 Pacific Daylight Time

Compound name: 6:2 FTS
Coefficient of Determination: $R^{\wedge} 2=0.990378$
Calibration curve: -0.00338904 * $x^{\wedge} 2+1.06688$ * $x+-0.0276541$
Response type: Internal Std (Ref 37 ), Area * (IS Conc. /IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

|  |  | \# Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | \% Dev | Conc, Flag | COD | CoD Flag | $x=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $1{ }^{1}$ | \%tatutut | 1 171026M1_2 | Standard | 0.250 | 4.10 | 38.764 | 2164.565 | 0.224 | 0.2 | -5.6 | NO | 0.990 | NO | MM |
| 2 | \% | 2 171026M1_3 | Standard | 0.500 | 4.09 | 76.205 | 2370.950 | 0.402 | 0.4 | -19.4 | NO | 0.990 | NO | MM |
| 3 | 32\% | 3 171026M1_4 | Standard | 1.000 | 4.10 | 260.433 | 2607.028 | 1.249 | 1.2 | 20.1 | NO | 0.990 | NO | MM |
| 4 | 4. | 4 171026M1_5 | Standard | 2.000 | 4.10 | 371.059 | 2213.204 | 2.096 | 2.0 | 0.2 | NO | 0.990 | NO | MM |
| 5 | W\%ex | 5 171026M1_6 | Standard | 5.000 | 4.10 | 723.532 | 2011.325 | 4.497 | 4.3 | -14.0 | NO | 0.990 | NO | bb |
| 6 | (\%)2mix | 6 171026M1_7 | Standard | 10.000 | 4.10 | 2375.465 | 2322.365 | 12.786 | 12.5 | 25.1 | NO | 0.990 | NO | bb |
| 7. | : ${ }^{\text {\% }}$ | 7 171026M1_8 | Standard | 50.000 | 4.10 | 8057.026 | 2423.382 | 41.559 | 45.6 | -8.8 | NO | 0.990 | NO | MM |
| 8 |  | 8 171026M1_9 | Standard | 100.000 | 4.10 | 16916.268 | 2849.847 | 74.198 | 103.8 | 3.8 | NO | 0.990 | NO | MM |
| 9 | ! M | 9 171026M1_10 | Standard | 250.000 | 4.10 | 42048.867 | 3989.678 | 131.743 |  |  | NO | 0.990 | NO | MMXI |

## Compound name: L-PFOA

Correlation coefficient: $\mathrm{r}=0.999419, \mathrm{r}^{\wedge} 2=0.998838$
Calibration curve: $1.12797 * x+0.284504$
Response type: Internal Std ( Ref 38 ), Area * (IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

|  | \# Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | \%Dev | Conc. Flag | Cob | CoD Flag | $x=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 171026M1_2 | Standard | 0.250 | 4.15 | 471.538 | 9078.071 | 0.649 | 0.3 | 29.4 | NO | 0.999 | NO | bb |
| 2 | 2 171026M1_3 | Standard | 0.500 | 4.15 | 637.530 | 11620.861 | 0.686 | 0.4 | -28.9 | NO | 0.999 | NO | bb |
| 3 | 3 171026M1_4 | Standard | 1.000 | 4.15 | 1432.158 | 11362.964 | 1.575 | 1.1 | 14.5 | NO | 0.999 | NO | bb |
| $4{ }^{4}+3$ | 4 171026M1_5 | Standard | 2.000 | 4.15 | 2028.134 | 10917.326 | 2.322 | 1.8 | -9.7 | NO | 0.999 | NO | bb |
| 5.4 | 5 171026M1_6 | Standard | 5.000 | 4.15 | 4240.121 | 9732.542 | 5.446 | 4.6 | -8.5 | NO | 0.999 | NO | bb |
| 6: | 6 171026M1_7 | Standard | 10.000 | 4.16 | 12624.870 | 12620.936 | 12.504 | 10.8 | 8.3 | NO | 0.999 | NO | bb |
| $7$ | 7 171026M1_8 | Standard | 50.000 | 4.15 | 46626.160 | 10698.399 | 54.478 | 48.0 | -3.9 | NO | 0.999 | NO | bb |
| $8$ | 8 171026M1_9 | Standard | 100.000 | 4.15 | 87781.883 | 10016.809 | 109.543 | 96.9 | -3.1 | NO | 0.999 | NO | bb |
| 9 ${ }^{\text {a }}$ | 9 171026M1_10 | Standard | 250.000 | 4.15 | 215229.203 | 9351.515 | 287.693 | 254.8 | 1.9 | NO | 0.999 | NO | bb |

Dataset:
U:\Q4.PRO\results\171026M11171026M1-CRV.qld
Last Altered: Friday, October 27, 2017 10:24:20 Pacific Daylight Time
Printed: $\quad$ Friday, October 27, 2017 10:25:44 Pacific Daylight Time

## Compound name: PFHpS

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.998365$
Calibration curve: $4.65786 \mathrm{e}-005$ * $x^{\wedge} 2+0.203609$ * $x+0.0252184$
Response type: Internal Std (Ref 38 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


## Compound name: PFNA

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.997109$
Calibration curve: $-0.000379675^{*} x^{\wedge} 2+1.44302{ }^{*} x+0.0895267$
Response type: Internal Std ( Ref 39 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

|  | \# Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | \%Dev | Conc. Flag | COD | CoD Flag | $x=e x$ cluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 171026M1_2 | Standard | 0.250 | 4.59 | 298.739 | 10432.768 | 0.358 | 0.2 | -25.6 | NO | 0.997 | NO | bb |
| 2 | 2 171026M1_3 | Standard | 0.500 | 4.59 | 616.104 | 10776.714 | 0.715 | 0.4 | -13.4 | NO | 0.997 | NO | bb |
| 3 | 3 171026M1_4 | Standard | 1.000 | 4.59 | 1536.325 | 10136.376 | 1.895 | 1.3 | 25.1 | NO | 0.997 | NO | bb |
| 4 | 4 171026M1_5 | Standard | 2.000 | 4.59 | 2228.166 | 9401.615 | 2.962 | 2.0 | -0.4 | NO | 0.997 | NO | bb |
| 5. | 5 171026M1_6 | Standard | 5.000 | 4.59 | 4653.905 | 8632.302 | 6.739 | 4.6 | -7.7 | NO | 0.997 | NO | bb |
| - | 6 171026M1_7 | Standard | 10.000 | 4.60 | 15142.974 | 10614.531 | 17.833 | 12.3 | 23.4 | NO | 0.997 | NO | bb |
| 7 | 7 171026M1_8 | Standard | 50.000 | 4.59 | 54084.996 | 9136.932 | 73.992 | 51.9 | 3.8 | NO | 0.997 | NO | bb |
| 8 - | 8 171026M1_9 | Standard | 100.000 | 4.59 | 99947.945 | 9445.277 | 132.272 | 93.9 | -6.1 | NO | 0.997 | NO | bb |
| 9 9 | 9 171026M1_10 | Standard | 250.000 | 4.59 | 241162.719 | 8871.991 | 339.781 | 252.1 | 0.9 | NO | 0.997 | NO | bb |

Dataset: U:IQ4.PROIresults1171026M11171026M1-CRV.qld
Last Altered: Friday, October 27, 2017 10:24:20 Pacific Daylight Time
Printed:
Friday, October 27, 2017 10:25:44 Pacific Daylight Time

## Compound name: PFOSA

Correlation coefficient: $\mathrm{r}=0.998461, \mathrm{r}^{\wedge} 2=0.996924$
Calibration curve: 1.16388 * x +0.0273367
Response type: Internal Std (Ref 40), Area * (IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

|  |  | \# Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | \% Dev | Conc. Fla | CoD | Cob Flag | x=excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. |  | 1 171026M1_2 | Standard | 0.250 | 4.64 | 67.667 | 2860.033 | 0.296 | 0.2 | -7.8 | NO | 0.997 | NO | bb |
| 2 |  | 2 171026M1_3 | Standard | 0.500 | 4.64 | 160.843 | 2971.727 | 0.677 | 0.6 | 11.6 | NO | 0.997 | NO | bb |
| 3. |  | 3 171026M1_4 | Standard | 1.000 | 4.64 | 330.443 | 3347.137 | 1.234 | 1.0 | 3.7 | NO | 0.997 | NO | bb |
| $4$ |  | 4 171026M1_5 | Standard | 2.000 | 4.64 | 583.434 | 3119.570 | 2.338 | 2.0 | -0.7 | NO | 0.997 | NO | bb |
| 5. | \#12 | 5 171026M1_6 | Standard | 5.000 | 4.64 | 1163.094 | 2616.420 | 5.557 | 4.8 | -5.0 | NO | 0.997 | NO | bb |
| 6 |  | 6 171026M1_7 | Standard | 10.000 | 4.65 | 3486.776 | 3417.714 | 12.753 | 10.9 | 9.3 | NO | 0.997 | NO | bb |
| 7. | 4 | 7 171026M1_8 | Standard | 50.000 | 4.64 | 12015.530 | 3010.790 | 49.885 | 42.8 | -14.3 | NO | 0.997 | NO | bb |
| 8 | \% | 8 171026M1_9 | Standard | 100.000 | 4.64 | 25235.262 | 2679.938 | 117.705 | 101.1 | 1.1 | NO | 0.997 | NO | bb |
| 9*\% | Wrixek | 9 171026M1_10 | Standard | 250.000 | 4.64 | 59672.262 | 2509.948 | 297.179 | 255.3 | 2.1 | NO | 0.997 | NO | bb |

## Compound name: L-PFOS

Correlation coefficient: $\mathrm{r}=0.997357, \mathrm{r}^{\wedge} 2=0.994721$
Calibration curve: 1.1564 * $x+-0.0243452$
Response type: Internal Std (Ref 41 ), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None

|  | \# Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | \%Dev | Cone. Flag | Cob | CoD Flag | x=excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 171026M1_2 | Standard | 0.250 | 4.68 | 53.751 | 2514.781 | 0.267 | 0.3 | 0.8 | NO | 0.995 | NO | MM |
| 2 2\% | 2 171026M1_3 | Standard | 0.500 | 4.68 | 89.260 | 2269.787 | 0.492 | 0.4 | -10.8 | NO | 0.995 | NO | MM |
| 3 | 3 171026M1_4 | Standard | 1.000 | 4.68 | 259.248 | 2388.392 | 1.357 | 1.2 | 19.4 | NO | 0.995 | NO | MM |
| 4 | 4 171026M1_5 | Standard | 2.000 | 4.68 | 404.457 | 2373.570 | 2.130 | 1.9 | -6.9 | NO | 0.995 | NO | MM |
| $5$ | 5 171026M1_6 | Standard | 5.000 | 4.68 | 742.283 | 2090.799 | 4.438 | 3.9 | -22.8 | NO | 0.995 | NO | MM |
| $6$ | 6 171026M1_7 | Standard | 10.000 | 4.68 | 2830.883 | 2570.850 | 13.764 | 11.9 | 19.2 | NO | 0.995 | NO | MM |
| 7.W\% | 7 171026M1_8 | Standard | 50.000 | 4.68 | 9432.499 | 2064.157 | 57.121 | 49.4 | -1.2 | NO | 0.995 | NO | MM |
| $8$ | 8 171026M1_9 | Standard | 100.000 | 4.68 | 18509.137 | 2233.150 | 103.604 | 89.6 | -10.4 | NO | 0.995 | NO | MM |
| 9 9, ${ }^{\text {atw }}$ | 9 171026M1_10 | Standard | 250.000 | 4.68 | 47303.645 | 1965.412 | 300.851 | 260.2 | 4.1 | NO | 0.995 | NO | MM |

## Vista Analytical Laboratory

Dataset:
U:IQ4.PRO|results\171026M1\171026M1-CRV.qld
Last Altered: Friday, October 27, 2017 10:24:20 Pacific Daylight Time
Printed:
Friday, October 27, 2017 10:25:44 Pacific Daylight Time

## Compound name: PFDA

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.998744$
Calibration curve: 0.000670409 * $x^{\wedge} 2+1.3303^{*} x+0.180081$
Response type: Internal Std (Ref 42 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

|  | \# Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | \%Dev | Conc Flag | CoD | CoDFlag | x=excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $1{ }^{1 / 3}$ | 1 171026M1_2 | Standard | 0.250 | 4.97 | 372.370 | 9937.673 | 0.468 | 0.2 | -13.3 | NO | 0.999 | NO | MM |
| 2. | 2 171026M1_3 | Standard | 0.500 | 4.97 | 652.787 | 10867.054 | 0.751 | 0.4 | -14.2 | NO | 0.999 | NO | MM |
| 3. | 3 171026M1_4 | Standard | 1.000 | 4.97 | 1419.549 | 10060.540 | 1.764 | 1.2 | 19.0 | NO | 0.999 | NO | bb |
| 4 4. | 4 171026M1_5 | Standard | 2.000 | 4.97 | 2263.442 | 10558.938 | 2.680 | 1.9 | -6.1 | NO | 0.999 | NO | bb |
| $5$ | 5 171026M1_6 | Standard | 5.000 | 4.97 | 4849.386 | 9200.564 | 6.588 | 4.8 | -3.9 | NO | 0.999 | NO | bb |
| $6$ | 6 171026M1_7 | Standard | 10.000 | 4.98 | 15897.714 | 12043.707 | 16.500 | 12.2 | 21.9 | NO | 0.999 | NO | bb |
| $7$ | 7 171026M1_8 | Standard | 50.000 | 4.97 | 50889.750 | 9506.485 | 66.915 | 49.0 | -2.1 | NO | 0.999 | NO | bb |
| $8$ | 8 171026M1_9 | Standard | 100.000 | 4.97 | 100970.852 | 9169.604 | 137.643 | 98.4 | -1.6 | NO | 0.999 | NO | bb |
| 9 | 9 171026M1_10 | Standard | 250.000 | 4.97 | 271550.188 | 9033.771 | 375.743 | 250.7 | 0.3 | NO | 0.999 | NO | bb |

## Compound name: 8:2 FTS

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.995715$
Calibration curve: $-0.00382414^{*} x^{\wedge} 2+1.3379 * x+0.459132$
Response type: Internal Std (Ref 43 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

|  |  |  | Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | \%Dev | Conc. Flag | CoD | D Fl | $x=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 |  |  | 171026M1_2 | Standard | 0.250 | 4.94 | 81.448 | 1790.163 | 0.569 | 0.1 | -67.2 | NO | 0.996 | NO | bbX |
| 2 | (tm) |  | 171026M1_3 | Standard | 0.500 | 4.94 | 132.352 | 1649.670 | 1.003 | 0.4 | -18.6 | NO | 0.996 | NO | bb |
| 3 |  |  | 171026M1_4 | Standard | 1.000 | 4.94 | 279.093 | 1643.484 | 2.123 | 1.2 | 24.8 | NO | 0.996 | NO | bb |
| $4$ |  |  | 171026M1_5 | Standard | 2.000 | 4.94 | 305.201 | 1512.175 | 2.523 | 1.5 | -22.5 | NO | 0.996 | NO | bb |
| 5 |  |  | 171026M1_6 | Standard | 5.000 | 4.94 | 1052.290 | 1698.864 | 7.743 | 5.5 | 10.6 | NO | 0.996 | NO | bb |
| 6 | \#\%凹! |  | 171026M1_7 | Standard | 10.000 | 4.94 | 2300.402 | 1959.247 | 14.677 | 11.0 | 9.7 | NO | 0.996 | NO | bb |
| 7 | T\# |  | 171026M1_8 | Standard | 50.000 | 4.94 | 9184.235 | 2085.414 | 55.050 | 47.2 | -5.7 | NO | 0.996 | NO | bb |
| 8 |  |  | 171026M1_9 | Standard | 100.000 | 4.94 | 18972.119 | 2439.029 | 97.232 | 102.2 | 2.2 | NO | 0.996 | NO | bb |
| 9 |  |  | 171026M1_10 | Standard | 250.000 | 4.94 | 47933.313 | 3475.574 | 172.394 |  |  | NO | 0.996 | NO | bbXI |


| Dataset: | U:IQ4.PRO\results\171026M11171026M1-CRV.qld |
| :--- | :--- |
| Last Altered: | Friday, October 27, 2017 10:24:20 Pacific Daylight Time |
| Printed: | Friday, October 27, 2017 10:25:44 Pacific Daylight Time |

## Compound name: PFDA

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.998744$
Calibration curve: 0.000670409 * $x^{\wedge} 2+1.3303$ * $x+0.180081$
Response type: Internal Std (Ref 42 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

|  | \# Name | Type | Sta. Conc | RT | Area | IS Area | Response | Conc. | \%Dev | Cone. Flag | CoD | CoD Flag | x=excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1-3: | 1 171026M1_2 | Standard | 0.250 | 4.97 | 372.370 | 9937.673 | 0.468 | 0.2 | -13.3 | NO | 0.999 | NO | MM |
| 2, | 2 171026M1_3 | Standard | 0.500 | 4.97 | 652.787 | 10867.054 | 0.751 | 0.4 | -14.2 | NO | 0.999 | NO | MM |
| 3 | 3 171026M1_4 | Standard | 1.000 | 4.97 | 1419.549 | 10060.540 | 1.764 | 1.2 | 19.0 | NO | 0.999 | NO | bb |
| $4$ | 4 171026M1_5 | Standard | 2.000 | 4.97 | 2263.442 | 10558.938 | 2.680 | 1.9 | -6.1 | NO | 0.999 | NO | bb |
| 5 | 5 171026M1_6 | Standard | 5.000 | 4.97 | 4849.386 | 9200.564 | 6.588 | 4.8 | -3.9 | NO | 0.999 | NO | bb |
| $6$ | $6171026 \mathrm{M1}$-7 | Standard | 10.000 | 4.98 | 15897.714 | 12043.707 | 16.500 | 12.2 | 21.9 | NO | 0.999 | NO | bb |
| $7$ | 7 171026M1_8 | Standard | 50.000 | 4.97 | 50889.750 | 9506.485 | 66.915 | 49.0 | -2.1 | NO | 0.999 | NO | bb |
|  | 8 171026M1_9 | Standard | 100.000 | 4.97 | 100970.852 | 9169.604 | 137.643 | 98.4 | -1.6 | NO | 0.999 | NO | bb |
|  | 9 171026M1_10 | Standard | 250.000 | 4.97 | 271550.188 | 9033.771 | 375.743 | 250.7 | 0.3 | NO | 0.999 | NO | bb |

## Compound name: 8:2 FTS

Coefficient of Determination: $\mathbf{R}^{\wedge} 2=0.995715$
Calibration curve: $-0.003824144^{*} x^{\wedge} 2+1.3379 * x+0.459132$
Response type: Internal Std (Ref 43 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


| Dataset: | U:IQ4.PRO\results\171026M1\171026M1-CRV.qld |
| :--- | :--- |
| Last Altered: | Friday, October 27, 2017 10:24:20 Pacific Daylight Time |
| Printed: | Friday, October 27, 2017 10:25:44 Pacific Daylight Time |

Compound name: N-MeFOSAA
Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.997869$
Calibration curve: -0.000267179 * ${ }^{\wedge} 2+1.57739$ * $x+0.0787904$
Response type: Internal Std (Ref 44 ), Area * (IS Conc. I IS Area )
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

| $\|E\| x$ | \# Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | \%Dev | Conc. Flag | CoD | CoD Flag | $x=e x c l u d e d$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| \% | 1 171026M1_2 | Standard | 0.250 | 5.12 | 171.157 | 4283.565 | 0.499 | 0.3 | 6.7 | NO | 0.998 | NO | bb |
| $2$ | 2 171026M1_3 | Standard | 0.500 | 5.12 | 251.886 | 4531.096 | 0.695 | 0.4 | -21.9 | NO | 0.998 | NO | bb |
| $3$ | 3 171026M1_4 | Standard | 1.000 | 5.13 | 611.555 | 4244.738 | 1.801 | 1.1 | 9.2 | NO | 0.998 | NO | bb |
| 4 | 4 171026M1_5 | Standard | 2.000 | 5.13 | 1014.820 | 4230.691 | 2.998 | 1.9 | -7.4 | NO | 0.998 | NO | bb |
| $5$ | 5 171026M1_6 | Standard | 5.000 | 5.13 | 2286.861 | 3763.122 | 7.596 | 4.8 | -4.6 | NO | 0.998 | NO | bb |
| $6$ | 6 171026M1_7 | Standard | 10.000 | 5.13 | 7505.110 | 5027.620 | 18.660 | 11.8 | 18.0 | NO | 0.998 | NO | bb |
| $7$ | 7 171026M1_8 | Standard | 50.000 | 5.13 | 26761.980 | 4070.543 | 82.182 | 52.5 | 5.0 | NO | 0.998 | NO | bb |
| $8$ | 8 171026M1_9 | Standard | 100.000 | 5.13 | 48675.637 | 4156.273 | 146.392 | 94.3 | -5.7 | NO | 0.998 | NO | bb |
| $9{ }^{9+3 \% \%}$ | 9 171026M1_10 | Standard | 250.000 | 5.13 | 120635.273 | 3964.672 | 380.344 | 251.8 | 0.7 | NO | 0.998 | NO | bb |

## Compound name: N-EtFOSAA

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.994831$
Calibration curve: $5.282 \mathrm{e}-005$ * $x^{\wedge} 2+1.26472{ }^{*} x+0.0301259$
Response type: Internal Std (Ref 45), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None

|  | \# Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc: | \% Dev | Conc. Flag | CoD | CoDFlag | $x=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 171026M1_2 | Standard | 0.250 | 5.28 | 128.703 | 4328.346 | 0.372 | 0.3 | 8.0 | NO | 0.995 | NO | bb |
| 2 | 2 171026M1_3 | Standard | 0.500 | 5.28 | 245.150 | 4608.545 | 0.665 | 0.5 | 0.4 | NO | 0.995 | NO | bb |
| 3. ${ }^{\text {W.ET}}$ | 3 171026M1_4 | Standard | 1.000 | 5.29 | 479.197 | 4596.165 | 1.303 | 1.0 | 0.7 | NO | 0.995 | NO | bb |
| 4**E! | 4 171026M1_5 | Standard | 2.000 | 5.29 | 807.240 | 4598.011 | 2.195 | 1.7 | -14.4 | NO | 0.995 | NO | bb |
| 5 | 5 171026M1_6 | Standard | 5.000 | 5.28 | 1751.644 | 4056.309 | 5.398 | 4.2 | -15.1 | NO | 0.995 | NO | bb |
| 6. | 6 171026M1_7 | Standard | 10.000 | 5.29 | 6279.174 | 4795.402 | 16.368 | 12.9 | 29.1 | NO | 0.995 | NO | bb |
| $7$ | 7 171026M1_8 | Standard | 50.000 | 5.29 | 21268.102 | 3860.981 | 68.856 | 54.3 | 8.6 | NO | 0.995 | NO | bb |
| 8**:W!\|\% | 8 171026M1_9 | Standard | 100.000 | 5.29 | 38943.199 | 4197.738 | 115.965 | 91.3 | -8.7 | NO | 0.995 | NO | bb |
| 9\%:Wせ! | 9 171026M1_10 | Standard | 250.000 | 5.28 | 91337.641 | 3537.789 | 322.721 | 252.5 | 1.0 | NO | 0.995 | NO | bb |


| Dataset: | U:\Q4.PRO\results\171026M11171026M1-CRV.qld |
| :--- | :--- |
| Last Altered: | Friday, October 27, 2017 10:24:20 Pacific Daylight Time |
| Printed: | Friday, October 27, 2017 10:25:44 Pacific Daylight Time |

## Compound name: PFUnA

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.998990$
Calibration curve: -0.000325839 * $x^{\wedge} 2+1.14375$ * x + 0.032356
Response type: Internal Std (Ref 46 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

|  | \# Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | \%Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 171026M1_2 | Standard | 0.250 | 5.30 | 333.859 | 11922.407 | 0.350 | 0.3 | 11.1 | NO | 0.999 | NO | MM |
| 2 | 2 171026M1_3 | Standard | 0.500 | 5.30 | 604.879 | 14098.658 | 0.536 | 0.4 | -11.9 | NO | 0.999 | NO | MM |
| 3 | 3 171026M1_4 | Standard | 1.000 | 5.30 | 1430.892 | 14676.305 | 1.219 | 1.0 | 3.8 | NO | 0.999 | NO | bb |
| 4 4. | 4 171026M1_5 | Standard | 2.000 | 5.30 | 2224.770 | 13559.280 | 2.051 | 1.8 | -11.7 | NO | 0.999 | NO | bb |
| $5$ | 5 171026M1_6 | Standard | 5.000 | 5.30 | 5026.863 | 11695.059 | 5.373 | 4.7 | -6.5 | NO | 0.999 | NO | bb |
| $6$ | 6 171026M1_7 | Standard | 10.000 | 5.30 | 13767.616 | 12899.332 | 13.341 | 11.7 | 16.8 | NO | 0.999 | NO | MM |
| $7$ | 7 171026M1_8 | Standard | 50.000 | 5.30 | 56903.492 | 12601.697 | 56.444 | 50.0 | 0.1 | NO | 0.999 | NO | bb |
| $8$ | 8 171026M1_9 | Standard | 100.000 | 5.30 | 91266.719 | 10458.104 | 109.086 | 98.1 | -1.9 | NO | 0.999 | NO | bb |
| 9.4trime | 9 171026M1_10 | Standard | 250.000 | 5.30 | 226259.609 | 10618.298 | 266.356 | 250.8 | 0.3 | NO | 0.999 | NO | bb |

## Compound name: PFDS

Coefficient of Determination: R^2 $=0.994206$
Calibration curve: 0.195972 * $x$
Response type: Internal Std ( Ref 46 ), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: Null, Axis trans: None

| 4. | \# Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | 9 \% Dev | Conc. Flag | CoD | Coblag | $x=e x$ cluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1\% | 1 171026M1_2 | Standard | 0.250 | 5.35 | 45.020 | 11922.407 | 0.047 | 0.2 | -3.7 | NO | 0.994 | NO | MMX |
| 2 | 2 171026M1_3 | Standard | 0.500 | 5.35 | 151.486 | 14098.658 | 0.134 | 0.7 | 37.1 | NO | 0.994 | NO | MMX |
| 3.\% | 3 171026M1_4 | Standard | 1.000 | 5.36 | 213.721 | 14676.305 | 0.182 | 0.9 | -7.1 | NO | 0.994 | NO | MM |
| 4 | 4 171026M1_5 | Standard | 2.000 | 5.35 | 460.999 | 13559.280 | 0.425 | 2.2 | 8.4 | NO | 0.994 | NO | MM |
| 5 | 5 171026M1_6 | Standard | 5.000 | 5.35 | 810.285 | 11695.059 | 0.866 | 4.4 | -11.6 | NO | 0.994 | NO | MM |
| 6 | 6 171026M1_7 | Standard | 10.000 | 5.36 | 2627.442 | 12899.332 | 2.546 | 13.0 | 29.9 | NO | 0.994 | NO | MM |
| 7 7: | 7 171026M1_8 | Standard | 50.000 | 5.35 | 9770.502 | 12601.697 | 9.692 | 49.5 | -1.1 | NO | 0.994 | NO | MM |
| $8$ | 8 171026M1_9 | Standard | 100.000 | 5.35 | 22998.344 | 10458.104 | 27.489 | 140.3 | 40.3 | NO | 0.994 | NO | MMX |
| 9 ${ }^{\text {andmex }}$ | 9 171026M1_10 | Standard | 250.000 | 5.35 | 45583.809 | 10618.298 | 53.662 | 273.8 | 9.5 | NO | 0.994 | NO | MMX |

## Vista Analytical Laboratory

Dataset: U:IQ4.PROVresults\171026M11171026M1-CRV.qld
Last Altered: Friday, October 27, 2017 10:24:20 Pacific Daylight Time
Printed:
Friday, October 27, 2017 10:25:44 Pacific Daylight Time

## Compound name: PFDoA

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.997953$
Calibration curve: $-0.000109132{ }^{*} x^{\wedge} 2+1.24453 * x+0.293856$
Response type: Internal Std (Ref 47), Area * (IS Conc. / IS Area )
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

|  | \# Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | \%Dev | Conc. Flag | CoD | CoD Flag | $\mathrm{x}=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $1 \pm$ | 1 171026M1_2 | Standard | 0.250 | 5.59 | 431.656 | 13820.625 | 0.390 | 0.1 | -69.0 | NO | 0.998 | NO | bbX |
| $2$ | 2 171026M1_3 | Standard | 0.500 | 5.59 | 915.266 | 14554.974 | 0.786 | 0.4 | -20.9 | NO | 0.998 | NO | MM |
| 3 | 3 171026M1_4 | Standard | 1.000 | 5.59 | 1861.279 | 14053.078 | 1.656 | 1.1 | 9.4 | NO | 0.998 | NO | bb |
| $4$ | 4 171026M1_5 | Standard | 2.000 | 5.59 | 3205.994 | 13740.559 | 2.917 | 2.1 | 5.4 | NO | 0.998 | NO | bb |
| 5 | 5 171026M1_6 | Standard | 5.000 | 5.59 | 6002.763 | 12183.269 | 6.159 | 4.7 | -5.7 | NO | 0.998 | NO | bb |
| $6$ | 6 171026M1_7 | Standard | 10.000 | 5.59 | 19185.148 | 16125.540 | 14.872 | 11.7 | 17.3 | NO | 0.998 | NO | bb |
| 7. | 7 171026M1_8 | Standard | 50.000 | 5.59 | 65903.305 | 14441.244 | 57.044 | 45.8 | -8.4 | NO | 0.998 | NO | bb |
| 8 | 8 171026M1_9 | Standard | 100.000 | 5.59 | 124742.266 | 12225.404 | 127.544 | 103.2 | 3.2 | NO | 0.998 | NO | bb |
| 9 | 9 171026M1_10 | Standard | 250.000 | 5.59 | 282094.188 | 11598.803 | 304.012 | 249.5 | -0.2 | NO | 0.998 | NO | bb |

## Compound name: N-MeFOSA

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999297$
Calibration curve: $-0.0001498777^{*} x^{\wedge} 2+1.218777^{*} x+0.0856513$
Response type: Internal Std (Ref 48 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None

|  | \# Name | Type | Std. Conc | RT. | Area | IS Area | Response | Conc. | $\% \mathrm{Dev}$ | Cone Flag | CoD | CoDFlag | $x=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $1{ }^{1 / 4}$ | 1 171026M1_2 | Standard | 1.250 | 5.59 | 150.739 | 13893.939 | 1.627 | 1.3 | 1.2 | NO | 0.999 | NO | bb |
| 2 2. | 2 171026M1_3 | Standard | 2.500 | 5.59 | 289.176 | 15405.037 | 2.816 | 2.2 | -10.4 | NO | 0.999 | NO | bb |
| 3 | $3171026 \mathrm{M1}$ _4 | Standard | 5.000 | 5.60 | 725.535 | 14020.292 | 7.762 | 6.3 | 26.1 | NO | 0.999 | NO | bb |
| $4$ | 4 171026M1_5 | Standard | 10.000 | 5.60 | 1026.968 | 13929.710 | 11.059 | 9.0 | -9.9 | NO | 0.999 | NO | bb |
| 5. | 5 171026M1_6 | Standard | 25.000 | 5.59 | 2433.160 | 12908.811 | 28.273 | 23.2 | -7.2 | NO | 0.999 | NO | bb |
| 6. | 6 171026M1_7 | Standard | 50.000 | 5.60 | 5717.728 | 13491.567 | 63.570 | 52.4 | 4.9 | NO | 0.999 | NO | bb |
| $7$ | 7 171026M1_8 | Standard | 250.000 | 5.60 | 25214.387 | 12434.965 | 304.155 | 257.7 | 3.1 | NO | 0.999 | NO | bb |
| $8$ | 8 171026M1_9 | Standard | 500.000 | 5.60 | 44827.070 | 12026.860 | 559.087 | 487.9 | -2.4 | NO | 0.999 | NO | bb |
| $9$ | 9 171026M1_10 | Standard | 1250.000 | 5.60 | 102687.719 | 11915.382 | 1292.712 | 1254.0 | 0.3 | NO | 0.999 | NO | bb |

Dataset: U:IQ4.PRO\results\171026M11171026M1-CRV.gld
Last Altered: Friday, October 27, 2017 10:24:20 Pacific Daylight Time
Printed:
Friday, October 27, 2017 10:25:44 Pacific Daylight Time

## Compound name: PFTrDA

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.998625$
Calibration curve: 0.000400269 * $x^{\wedge} 2+1.32903$ * $x+0.10057$
Response type: Internal Std (Ref 47 ), Area * (IS Conc. / IS Area )
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

|  | \# Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | \%Dev | Conc. Flag | CoD | Cob Flag | $x=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 171026M1_2 | Standard | 0.250 | 5.84 | 421.703 | 13820.625 | 0.381 | 0.2 | -15.5 | NO | 0.999 | NO | MM |
| 2 | 2 171026M1_3 | Standard | 0.500 | 5.84 | 788.318 | 14554.974 | 0.677 | 0.4 | -13.3 | NO | 0.999 | NO | bb |
| $3$ | 3 171026M1_4 | Standard | 1.000 | 5.85 | 1764.051 | 14053.078 | 1.569 | 1.1 | 10.5 | NO | 0.999 | NO | bb |
| $4$ | 4 171026M1_5 | Standard | 2.000 | 5.85 | 2983.976 | 13740.559 | 2.715 | 2.0 | -1.7 | NO | 0.999 | NO | bb |
| $5$ | 5 171026M1_6 | Standard | 5.000 | 5.84 | 6940.688 | 12183.269 | 7.121 | 5.3 | 5.5 | NO | 0.999 | NO | bb |
| 6 | 6 171026M1_7 | Standard | 10.000 | 5.85 | 20751.439 | 16125.540 | 16.086 | 12.0 | 19.8 | NO | 0.999 | NO | bb |
| $17$ | 7 171026M1_8 | Standard | 50.000 | 5.85 | 73393.203 | 14441.244 | 63.527 | 47.1 | -5.9 | NO | 0.999 | NO | bb |
| $8$ | 8 171026M1_9 | Standard | 100.000 | 5.85 | 134583.125 | 12225.404 | 137.606 | 100.4 | 0.4 | NO | 0.999 | NO | bb |
| 9. | 9 171026M1_10 | Standard | 250.000 | 5.84 | 332029.500 | 11598.803 | 357.827 | 250.3 | 0.1 | NO | 0.999 | NO | bb |

## Compound name: PFTeDA

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.990408$
Calibration curve: -0.0116096 * $x^{\wedge} 2+1.77597$ * $x+-0.229836$
Response type: Internal Std (Ref 49), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


| Dataset: | U:IQ4.PROVresults\171026M11171026M1-CRV.qld |
| :--- | :--- |
| Last Altered: | Friday, October 27, 2017 10:24:20 Pacific Daylight Time |
| Printed: | Friday, October 27, 2017 10:25:44 Pacific Daylight Time |

## Compound name: N-EtFOSA

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999879$
Calibration curve: $1.51717 \mathrm{e}-005^{*} x^{\wedge} 2+1.00753^{*} x+0.283778$
Response type: Internal Std (Ref 50 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


## Compound name: PFHxDA

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999290$
Calibration curve: $-0.0004841899^{*} x^{\wedge} 2+0.723946$ * $x+0.0537259$
Response type: Internal Std (Ref 51), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

| $5$ | \#Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | 9 ODev | Conc. Flag | COD | 3 Fl |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 11: | 1 171026M1_2 | Standard | 0.250 | 6.39 | 213.157 | 4102.797 | 0.260 | 0.3 | 13.9 | NO | 0.999 | NO | bb |
| 2 ${ }^{\text {2 }}$ | 2 171026M1_3 | Standard | 0.500 | 6.40 | 292.271 | 4597.595 | 0.318 | 0.4 | -27.0 | NO | 0.999 | NO | MM |
| 3. | 3 171026M1_4 | Standard | 1.000 | 6.39 | 624.552 | 3582.335 | 0.872 | 1.1 | 13.1 | NO | 0.999 | NO | bb |
| $4{ }^{4}$ | 4 171026M1_5 | Standard | 2.000 | 6.40 | 1095.076 | 3826.472 | 1.431 | 1.9 | -4.8 | NO | 0.999 | NO | bb |
| 5 | 5 171026M1_6 | Standard | 5.000 | 6.39 | 2960.819 | 4271.142 | 3.466 | 4.7 | -5.4 | NO | 0.999 | NO | bb |
| $6$ | 6 171026M1_7 | Standard | 10.000 | 6.40 | 5007.562 | 3093.651 | 8.093 | 11.2 | 11.9 | NO | 0.999 | NO | bb |
| 7. | 7 171026M1_8 | Standard | 50.000 | 6.40 | 27038.670 | 3894.998 | 34.709 | 49.5 | -1.0 | NO | 0.999 | NO | bb |
| $8$ | 8 171026M1_9 | Standard | 100.000 | 6.40 | 52087.980 | 3882.136 | 67.087 | 99.2 | -0.8 | NO | 0.999 | NO | bb |
| 9 | 9 171026M1_10 | Standard | 250.000 | 6.40 | 137320.813 | 4546.360 | 151.023 | 250.5 | 0.2 | NO | 0.999 | NO | bb |


| Dataset: | U:\Q4.PRO\results1171026M11171026M1-CRV.qld |
| :--- | :--- |
| Last Altered: | Friday, October 27, 2017 10:24:20 Pacific Daylight Time |
| Printed: | Friday, October 27, 2017 10:25:44 Pacific Daylight Time |

## Compound name: N-MeFOSE

Correlation coefficient: $\mathrm{r}=0.999413, \mathrm{r}^{\wedge} 2=0.998826$
Calibration curve: 1.06845 * $x+0.279364$
Response type: Internal Std (Ref 52 ), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

|  | \# Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | 9 Dev | Conc. Flag | CoD | CoDFla | $x=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 171026M1_2 | Standard | 1.250 | 6.23 | 204.517 | 20802.461 | 1.475 | 1.1 | -10.5 | NO | 0.999 | NO | bb |
| 2 2, | 2 171026M1_3 | Standard | 2.500 | 6.23 | 398.669 | 23510.152 | 2.544 | 2.1 | -15.2 | NO | 0.999 | NO | bb |
| $3$ | 3 171026M1_4 | Standard | 5.000 | 6.23 | 978.670 | 21267.461 | 6.903 | 6.2 | 24.0 | NO | 0.999 | NO | bb |
| 4*凹KW | 4 171026M1_5 | Standard | 10.000 | 6.23 | 1444.513 | 21867.092 | 9.909 | 9.0 | -9.9 | NO | 0.999 | NO | bb |
| $5$ | 5 171026M1_6 | Standard | 25.000 | 6.23 | 3483.212 | 20238.715 | 25.816 | 23.9 | -4.4 | NO | 0.999 | NO | bb |
| $6$ | $6171026 \mathrm{M1}$ _7 | Standard | 50.000 | 6.23 | 9478.513 | 22323.734 | 63.689 | 59.3 | 18.7 | NO | 0.999 | NO | bb |
| $7$ | 7 171026M1_8 | Standard | 250.000 | 6.23 | 32783.449 | 18689.719 | 263.113 | 246.0 | -1.6 | NO | 0.999 | NO | bb |
| $18$ | 8 171026M1_9 | Standard | 500.000 | 6.23 | 62656.301 | 17806.627 | 527.806 | 493.7 | -1.3 | NO | 0.999 | NO | bb |
| 9\%entum | 9 171026M1_10 | Standard | 1250.000 | 6.23 | 147733.016 | 16557.975 | 1338.325 | 1252.3 | 0.2 | NO | 0.999 | NO | bb |

## Compound name: N-EtFOSE

Correlation coefficient: $\mathrm{r}=0.996094, \mathrm{r}^{\wedge} 2=0.992203$
Calibration curve: 1.29546 * $\mathrm{x}+-0.281193$
Response type: Internal Std (Ref 53 ), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

|  |  | \# Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | \%Dev | Conc. Flag | CoD | CoDFlag | $x=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | WWW: | 1 171026M1_2 | Standard | 1.250 | 6.38 | 185.001 | 18723.795 | 1.482 | 1.4 | 8.9 | NO | 0.992 | NO | bb |
| 2 |  | 2 171026M1_3 | Standard | 2.500 | 6.38 | 430.795 | 21507.340 | 3.005 | 2.5 | 1.5 | NO | 0.992 | NO | bb |
| 3 |  | 3 171026M1_4 | Standard | 5.000 | 6.38 | 1034.048 | 19338.682 | 8.021 | 6.4 | 28.2 | NO | 0.992 | NO | bb |
| 4 | W\% | 4 171026M1_5 | Standard | 10.000 | 6.38 | 1584.456 | 20850.943 | 11.398 | 9.0 | -9.8 | NO | 0.992 | NO | bb |
| 5 |  | 5 171026M1_6 | Standard | 25.000 | 6.38 | 3160.580 | 19199.350 | 24.693 | 19.3 | -22.9 | NO | 0.992 | NO | bb |
| 6 | 1\%2\%\%\% | $6171026 \mathrm{M1}$ _7 | Standard | 50.000 | 6.38 | 9352.294 | 21197.688 | 66.179 | 51.3 | 2.6 | NO | 0.992 | NO | bb |
| 7 |  | 7 171026M1_8 | Standard | 250.000 | 6.38 | 34461.918 | 16038.620 | 322.303 | 249.0 | -0.4 | NO | 0.992 | NO | bb |
| 8 |  | 8 171026M1_9 | Standard | 500.000 | 6.38 | 62399.871 | 16802.908 | 557.045 | 430.2 | -14.0 | NO | 0.992 | NO | bb |
| 9 | \% | 9 171026M1_10 | Standard | 1250.000 | 6.38 | 169561.797 | 14824.236 | 1715.722 | 1324.6 | 6.0 | NO | 0.992 | NO | bb |

## Vista Analytical Laboratory

Dataset: U:IQ4.PROVresults\171026M1\171026M1-CRV.qld
Last Altered: Friday, October 27, 2017 10:24:20 Pacific Daylight Time
Printed:
Friday, October 27, 2017 10:25:44 Pacific Daylight Time

Compound name: 13C3-PFBA
Response Factor: 0.927532
RRF SD: 0.0280799, Relative SD: 3.02738
Response type: Internal Std (Ref 54 ), Area * (IS Conc. / IS Area )
Curve type: RF

|  | \# Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | \%Dev | Conc Flag | CoD | CoD Flag | $x=e x c l u d e d$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $1{ }^{1+3}$ | 1 171026M1_2 | Standard | 12.500 | 1.24 | 7808.215 | 8131.078 | 12.004 | 12.9 | 3.5 | NO |  | NO | MM |
| $2$ | 2 171026M1_3 | Standard | 12.500 | 1.25 | 8572.229 | 9182.603 | 11.669 | 12.6 | 0.6 | NO |  | NO | MM |
| $3$ | 3 171026M1_4 | Standard | 12.500 | 1.25 | 7984.760 | 8448.222 | 11.814 | 12.7 | 1.9 | NO |  | NO | MM |
| $4$ | 4 171026M1_5 | Standard | 12.500 | 1.25 | 8054.466 | 8533.363 | 11.798 | 12.7 | 1.8 | NO |  | NO | MM |
| $5$ | 5 171026M1_6 | Standard | 12.500 | 1.25 | 6778.724 | 7846.642 | 10.799 | 11.6 | -6.9 | NO |  | NO | bb |
| $6$ | 6 171026M1_7 | Standard | 12.500 | 1.23 | 8629.076 | 9461.365 | 11.400 | 12.3 | -1.7 | NO |  | NO | MM |
| $7$ | 7 171026M1_8 | Standard | 12.500 | 1.25 | 7455.317 | 7997.517 | 11.653 | 12.6 | 0.5 | NO |  | NO | MM |
| 8:3 | 8 171026M1_9 | Standard | 12.500 | 1.25 | 7419.347 | 7885.960 | 11.760 | 12.7 | 1.4 | NO |  | NO | bb |
| 9 ${ }^{\text {a }}$ | 9 171026M1_10 | Standard | 12.500 | 1.25 | 6902.076 | 7535.223 | 11.450 | 12.3 | -1.2 | NO |  | NO | MM |

## Compound name: 13C3-PFPeA

Response Factor: 0.756774
RRF SD: 0.0472101, Relative SD: 6.23833
Response type: Internal Std (Ref 55 ), Area * (IS Conc. / IS Area)
Curve type: RF

| $4 \mathrm{Fiz}$ | \# Name | Type | Std. Cone | RT | Area | IS Area | Response | Conc. | $\%$ Dev | Conc. Flag | CoD CoD Flag | x=excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 171026M1_2 | Standard | 12.500 | 2.22 | 8408.983 | 10203.109 | 10.302 | 13.6 | 8.9 | NO | NO | MM |
| 2 | 2 171026M1_3 | Standard | 12.500 | 2.22 | 8868.642 | 12595.204 | 8.802 | 11.6 | -7.0 | NO | NO | MM |
| $3$ | 3 171026M1_4 | Standard | 12.500 | 2.22 | 8877.859 | 11545.891 | 9.611 | 12.7 | 1.6 | NO | NO | MM |
| $4$ | 4 171026M1_5 | Standard | 12.500 | 2.23 | 8596.897 | 11375.869 | 9.446 | 12.5 | -0.1 | NO | NO | MM |
| $5$ | 5 171026M1_6 | Standard | 12.500 | 2.22 | 7755.411 | 10076.924 | 9.620 | 12.7 | 1.7 | NO | NO | MM |
| 6 | $6171026 \mathrm{M} 1 \_7$ | Standard | 12.500 | 2.22 | 9337.942 | 13109.532 | 8.904 | 11.8 | -5.9 | NO | NO | MM |
| $7$ | 7 171026M1_8 | Standard | 12.500 | 2.22 | 8015.438 | 11706.181 | 8.559 | 11.3 | -9.5 | NO | NO | MM |
| 8 | 8 171026M1_9 | Standard | 12.500 | 2.22 | 7838.237 | 9834.428 | 9.963 | 13.2 | 5.3 | NO | NO | MM |
| 92tretumW | 9 171026M1_10 | Standard | 12.500 | 2.23 | 7562.272 | 9519.610 | 9.930 | 13.1 | 5.0 | NO | NO | MM |


| Dataset: | U:IQ4.PRO\results\171026M1\171026M1-CRV.qld |
| :--- | :--- |
| Last Altered: | Friday, October 27, 2017 10:24:20 Pacific Daylight Time |
| Printed: | Friday, October 27, 2017 10:25:44 Pacific Daylight Time |

Compound name: 13C3-PFBS
Response Factor: 0.0907865
RRF SD: 0.00614258 , Relative SD: 6.76596
Response type: Internal Std (Ref 55 ), Area * (IS Conc. / IS Area)
Curve type: RF

|  | \# Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | \% Dev | Conc. Flag | CoD CoD Flag | x=excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 171026M1_2 | Standard | 12.500 | 2.51 | 942.759 | 10203.109 | 1.155 | 12.7 | 1.8 | NO | NO | bb |
| $2$ | 2 171026M1_3 | Standard | 12.500 | 2.50 | 1150.455 | 12595.204 | 1.142 | 12.6 | 0.6 | NO | NO | MM |
| 3. | 3 171026M1_4 | Standard | 12.500 | 2.51 | 1085.497 | 11545.891 | 1.175 | 12.9 | 3.6 | NO | NO | MM |
| $4$ | 4 171026M1_5 | Standard | 12.500 | 2.51 | 1130.237 | 11375.869 | 1.242 | 13.7 | 9.4 | NO | NO | MM |
| $5$ | 5 171026M1_6 | Standard | 12.500 | 2.51 | 946.956 | 10076.924 | 1.175 | 12.9 | 3.5 | NO | NO | bb |
| $6$ | 6 171026M1_7 | Standard | 12.500 | 2.51 | 1107.306 | 13109.532 | 1.056 | 11.6 | -7.0 | NO | NO | bb |
| $7$ | 7 171026M1_8 | Standard | 12.500 | 2.51 | 930.832 | 11706.181 | 0.994 | 10.9 | -12.4 | NO | NO | bb |
| $8$ | 8 171026M1_9 | Standard | 12.500 | 2.51 | 937.808 | 9834.428 | 1.192 | 13.1 | 5.0 | NO | NO | bb |
|  | 9 171026M1_10 | Standard | 12.500 | 2.51 | 824.913 | 9519.610 | 1.083 | 11.9 | -4.6 | NO | NO | bb |

## Compound name: 13C2-PFHxA

Response Factor: 0.739103
RRF SD: 0.0284957, Relative SD: 3.85545
Response type: Internal Std (Ref 55 ), Area * (IS Conc. / IS Area)
Curve type: RF

|  | \# Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | \%Dev | Conc. Flag | CoD | CoD Flag | $x=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1\%th\%\%ter | 1 171026M1_2 | Standard | 5.000 | 3.00 | 2942.526 | 10203.109 | 3.605 | 4.9 | -2.5 | NO |  | NO | bb |
| $2{ }^{2}$ | 2 171026M1_3 | Standard | 5.000 | 3.00 | 3685.471 | 12595.204 | 3.658 | 4.9 | -1.0 | NO |  | NO | bb |
| 3: | 3 171026M1_4 | Standard | 5.000 | 3.00 | 3516.192 | 11545.891 | 3.807 | 5.2 | 3.0 | NO |  | NO | bb |
| $4$ | 4 171026M1_5 | Standard | 5.000 | 3.00 | 3262.653 | 11375.869 | 3.585 | 4.9 | -3.0 | NO |  | NO | bb |
| 5.\% | 5 171026M1_6 | Standard | 5.000 | 3.00 | 2910.139 | 10076.924 | 3.610 | 4.9 | -2.3 | NO |  | NO | bb |
| 6 | 6 171026M1_7 | Standard | 5.000 | 3.00 | 3962.694 | 13109.532 | 3.778 | 5.1 | 2.2 | NO |  | NO | bb |
| $7$ | 7 171026M1_8 | Standard | 5.000 | 3.00 | 3263.629 | 11706.181 | 3.485 | 4.7 | -5.7 | NO |  | NO | bb |
| $8$ | 8 171026M1_9 | Standard | 5.000 | 3.00 | 3101.273 | 9834.428 | 3.942 | 5.3 | 6.7 | NO |  | NO | MM |
| 9\% | 9 171026M1_10 | Standard | 5.000 | 3.00 | 2886.449 | 9519.610 | 3.790 | 5.1 | 2.6 | NO |  | NO | bb |


| Dataset: | U:IQ4.PRO\results1171026M11171026M1-CRV.qld |
| :--- | :--- |
| Last Altered: | Friday, October 27, 2017 10:24:20 Pacific Daylight Time |
| Printed: | Friday, October 27, 2017 10:25:44 Pacific Daylight Time |

## Compound name: 13C4-PFHpA

Response Factor: 0.683724
RRF SD: 0.0365931, Relative SD: 5.35203
Response type: Internal Std (Ref 55 ), Area * (IS Conc. / IS Area)
Curve type: RF

|  |  |  | Name | Type | Std. Conc | RT | \& Area | IS Area | Response | Conc. | \% Dey | Conc. Flag | CoD | CoDFlag | $x=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 |  |  | 171026M1_2 | Standard | 12.500 | 3.62 | 6975.456 | 10203.109 | 8.546 | 12.5 | -0.0 | NO |  | NO | bb |
| 2 | Wertme |  | 171026M1_3 | Standard | 12.500 | 3.62 | 8073.077 | 12595.204 | 8.012 | 11.7 | -6.3 | NO |  | NO | bb |
| 3 | $5$ |  | 171026M1_4 | Standard | 12.500 | 3.62 | 7874.637 | 11545.891 | 8.525 | 12.5 | -0.2 | NO |  | NO | bb |
| 4 |  |  | 171026M1_5 | Standard | 12.500 | 3.62 | 7732.312 | 11375.869 | 8.496 | 12.4 | -0.6 | NO |  | NO | bb |
| 5 | 9\% |  | 171026M1_6 | Standard | 12.500 | 3.62 | 7137.554 | 10076.924 | 8.854 | 12.9 | 3.6 | NO |  | NO | bb |
| 6. | 4 |  | 171026M1_7 | Standard | 12.500 | 3.63 | 8761.563 | 13109.532 | 8.354 | 12.2 | -2.3 | NO |  | NO | bb |
| 7. |  |  | 171026M1_8 | Standard | 12.500 | 3.62 | 7381.024 | 11706.181 | 7.882 | 11.5 | -7.8 | NO |  | NO | bb |
| 8. | Hitut |  | 171026M1_9 | Standard | 12.500 | 3.62 | 7389.083 | 9834.428 | 9.392 | 13.7 | 9.9 | NO |  | NO | bb |
| 9 | ! |  | 171026M1_10 | Standard | 12.500 | 3.62 | 6745.937 | 9519.610 | 8.858 | 13.0 | 3.6 | NO |  | NO | MM |

## Compound name: 1802-PFHxS

Response Factor: 0.412387
RRF SD: 0.0275105, Relative SD: 6.67104
Response type: Internal Std (Ref 56 ), Area * ( IS Conc. / IS Area)
Curve type: RF


| Dataset: | U:IQ4.PRO\results\171026M11171026M1-CRV.ald |
| :--- | :--- |
| Last Altered: | Friday, October 27, 2017 10:24:20 Pacific Daylight Time |
| Printed: | Friday, October 27, 2017 10:25:44 Pacific Daylight Time |

Compound name: 13C2-6:2 FTS
Response Factor: 0.247918
RRF SD: 0.0352641, Relative SD: 14.2241
Response type: Internal Std ( Ref 57 ), Area * (IS Conc. / IS Area)
Curve type: RF

|  | \# Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | \%Dev | Conc Flag | CoD | CoD Flag | $x=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 171026M1_2 | Standard | 12.500 | 4.09 | 2164.565 | 9163.441 | 2.953 | 11.9 | -4.7 | NO |  | NO | MM |
| 2 | 2 171026M1_3 | Standard | 12.500 | 4.09 | 2370.950 | 9974.912 | 2.971 | 12.0 | -4.1 | NO |  | NO | MM |
| 3 | 3 171026M1_4 | Standard | 12.500 | 4.10 | 2607.028 | 9625.220 | 3.386 | 13.7 | 9.3 | NO |  | NO | MM |
| 4 | 4 171026M1_5 | Standard | 12.500 | 4.10 | 2213.204 | 9702.345 | 2.851 | 11.5 | -8.0 | NO |  | NO | MM |
| 5 | 5 171026M1_6 | Standard | 12.500 | 4.09 | 2011.325 | 8490.614 | 2.961 | 11.9 | -4.4 | NO |  | NO | MM |
| $6$ | 6 171026M1_7 | Standard | 12.500 | 4.10 | 2322.365 | 11764.812 | 2.467 | 10.0 | -20.4 | NO |  | NO | bb |
| $7$ | 7 171026M1_8 | Standard | 12.500 | 4.10 | 2423.382 | 9341.111 | 3.243 | 13.1 | 4.6 | NO |  | NO | bb |
| $8$ | 8 171026M1_9 | Standard | 12.500 | 4.10 | 2849.847 | 8996.989 | 3.959 | 16.0 | 27.8 | NO |  | NO | MM |
| 9 | 9 171026M1_10 | Standard | 12.500 | 4.10 | 3989.678 | 8181.460 | 6.096 | 24.6 | 96.7 | NO |  | NO | bbX |

## Compound name: 13C2-PFOA

Response Factor: 1.12024
RRF SD: 0.0576361, Relative SD: 5.14497
Response type: Internal Std ( Ref 57 ), Area * (IS Conc. / IS Area)
Curve type: RF

|  | \# Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | \%Dev | Conc. Flag | CoD | CoD Flag $x=$ excluded |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 171026M1_2 | Standard | 12.500 | 4.15 | 9078.071 | 9163.441 | 12.384 | 11.1 | -11.6 | NO |  | NO | bb |
| $2$ | 2 171026M1_3 | Standard | 12.500 | 4.15 | 11620.861 | 9974.912 | 14.563 | 13.0 | 4.0 | NO |  | NO | bb |
| $3$ | 3 171026M1_4 | Standard | 12.500 | 4.15 | 11362.964 | 9625.220 | 14.757 | 13.2 | 5.4 | NO |  | NO | bb |
| 4 | 4 171026M1_5 | Standard | 12.500 | 4.15 | 10917.326 | 9702.345 | 14.065 | 12.6 | 0.4 | NO |  | NO | bb |
| $5$ | 5 171026M1_6 | Standard | 12.500 | 4.15 | 9732.542 | 8490.614 | 14.328 | 12.8 | 2.3 | NO |  | NO | bb |
| $6$ | 6 171026M1_7 | Standard | 12.500 | 4.15 | 12620.936 | 11764.812 | 13.410 | 12.0 | -4.2 | NO |  | NO | bb |
| $7$ | 7 171026M1_8 | Standard | 12.500 | 4.15 | 10698.399 | 9341.111 | 14.316 | 12.8 | 2.2 | NO |  | NO | bb |
| $8$ | 8 171026M1_9 | Standard | 12.500 | 4.15 | 10016.809 | 8996.989 | 13.917 | 12.4 | -0.6 | NO |  | NO | bb |
| 9.! | 9 171026M1_10 | Standard | 12.500 | 4.15 | 9351.515 | 8181.460 | 14.288 | 12.8 | 2.0 | NO |  | NO | bb |

Last Altered: Friday, October 27, 2017 10:26:14 Pacific Daylight Time
Printed: $\quad$ Friday, October 27, 2017 10:36:18 Pacific Daylight Time

## Method: U:IQ4.PROMMethDBIPFAS_FULL_80C_102517.mdb 26 Oct 2017 08:20:12

Calibration: U:\Q4.PROICurveDBIC18_VAL-PFĀS_Q4_10-26-17-FULL_NOPFODA.cdb 27 Oct 2017 10:26:14

## Compound name: 13C5-PFNA

Response Factor: 0.92855
RRF SD: 0.0475421, Relative SD: 5.12003
Response type: Internal Std (Ref 58 ), Area * (IS Conc. / IS Area)
Curve type: RF

|  | \# Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | 9 PDev | Conc. Flag | CoD ${ }^{\text {cod Flag }}$ | $x=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 171026M1_2 | Standard | 12.500 | 4.59 | 10432.768 | 11155.522 | 11.690 | 12.6 | 0.7 | NO | NO | bb |
| 2: | 2 171026M1_3 | Standard | 12.500 | 4.59 | 10776.714 | 11986.115 | 11.239 | 12.1 | -3.2 | NO | NO | bb |
| 3:W\#k | 3 171026M1_4 | Standard | 12.500 | 4.59 | 10136.376 | 10054.865 | 12.601 | 13.6 | 8.6 | NO | NO | bb |
| 4) | 4 171026M1_5 | Standard | 12.500 | 4.59 | 9401.615 | 10542.347 | 11.147 | 12.0 | -4.0 | NO | NO | bb |
| 5. | 5 171026M1_6 | Standard | 12.500 | 4.59 | 8632.302 | 9806.811 | 11.003 | 11.8 | -5.2 | NO | NO | bb |
| $6$ | 6 171026M1_7 | Standard | 12.500 | 4.59 | 10614.531 | 11208.414 | 11.838 | 12.7 | 2.0 | NO | NO | bb |
| $7$ | 7 171026M1_8 | Standard | 12.500 | 4.59 | 9136.932 | 10537.382 | 10.839 | 11.7 | -6.6 | NO | NO | bb |
| 8, | 8 171026M1_9 | Standard | 12.500 | 4.59 | 9445.277 | 9958.859 | 11.855 | 12.8 | 2.1 | NO | NO | bb |
| 9「\%:M\% | 9 171026M1_10 | Standard | 12.500 | 4.59 | 8871.991 | 9053.401 | 12.250 | 13.2 | 5.5 | NO | NO | bb |

## Compound name: 13C8-PFOSA

Response Factor: 0.24645
RRF SD: 0.0130448, Relative SD: 5.29309
Response type: Internal Std (Ref 61 ), Area * (IS Conc. / IS Area )
Curve type: RF

|  | \# Name | Type | Sto. Conc | RT | Area | IS Area | Response | Conc. | \%Dev | Conc Flag | CoD | CoD Flag | x=excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 171026M1_2 | Standard | 12.500 | 4.64 | 2860.033 | 11341.706 | 3.152 | 12.8 | 2.3 | NO |  | NO | bb |
| 2 | 2 171026M1_3 | Standard | 12.500 | 4.64 | 2971.727 | 12520.988 | 2.967 | 12.0 | -3.7 | NO |  | NO | bb |
| 34: | 3 171026M1_4 | Standard | 12.500 | 4.65 | 3347.137 | 13233.268 | 3.162 | 12.8 | 2.6 | NO |  | NO | bb |
| $4$ | 4 171026M1_5 | Standard | 12.500 | 4.65 | 3119.570 | 13777.145 | 2.830 | 11.5 | -8.1 | NO |  | NO | bb |
| $5$ | 5 171026M1_6 | Standard | 12.500 | 4.64 | 2616.420 | 10608.499 | 3.083 | 12.5 | 0.1 | NO |  | NO | bb |
| 6 | 6 171026M1_7 | Standard | 12.500 | 4.65 | 3417.714 | 13855.948 | 3.083 | 12.5 | 0.1 | NO |  | NO | bb |
| $7$ | 7 171026M1_8 | Standard | 12.500 | 4.65 | 3010.790 | 13032.397 | 2.888 | 11.7 | -6.3 | NO |  | NO | bb |
| $8$ | 8 171026M1_9 | Standard | 12.500 | 4.65 | 2679.938 | 10013.455 | 3.345 | 13.6 | 8.6 | NO |  | NO | bb |
|  | 9 171026M1_10 | Standard | 12.500 | 4.64 | 2509.948 | 9757.946 | 3.215 | 13.0 | 4.4 | NO |  | NO | bb |

Dataset: U:IQ4.PRO\results\171026M11171026M1-CRV.qld
Last Altered: Friday, October 27, 2017 10:26:14 Pacific Daylight Time
Printed: $\quad$ Friday, October 27, 2017 10:36:18 Pacific Daylight Time

## Compound name: 13C8-PFOS

Response Factor: 1.02732
RRF SD: 0.0754427, Relative SD: 7.34362
Response type: Internal Std (Ref 59 ), Area * (IS Conc. / IS Area)
Curve type: RF

|  | \# Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | \%Dev | Conc. Flag | COD | CoBFla | $x=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 171026M1_2 | Standard | 12.500 | 4.68 | 2514.781 | 2234.531 | 14.068 | 13.7 | 9.5 | NO |  | NO | bb |
| 2 2- | 2 171026M1_3 | Standard | 12.500 | 4.68 | 2269.787 | 2402.855 | 11.808 | 11.5 | -8.1 | NO |  | NO | bb |
|  | 3 171026M1_4 | Standard | 12.500 | 4.68 | 2388.392 | 2260.597 | 13.207 | 12.9 | 2.8 | NO |  | NO | bb |
| 4.5\%: | 4 171026M1_5 | Standard | 12.500 | 4.68 | 2373.570 | 2315.592 | 12.813 | 12.5 | -0.2 | NO |  | NO | bb |
| $5{ }^{\text {P }}$ | 5 171026M1_6 | Standard | 12.500 | 4.68 | 2090.799 | 1986.232 | 13.158 | 12.8 | 2.5 | NO |  | NO | bb |
| 6 | 6 171026M1_7 | Standard | 12.500 | 4.68 | 2570.850 | 2506.243 | 12.822 | 12.5 | -0.2 | NO |  | NO | bb |
| $7$ | 7 171026M1_8 | Standard | 12.500 | 4.68 | 2064.157 | 2328.353 | 11.082 | 10.8 | -13.7 | NO |  | NO | bb |
|  | 8 171026M1_9 | Standard | 12.500 | 4.68 | 2233.150 | 2003.810 | 13.931 | 13.6 | 8.5 | NO |  | NO | bb |
| 9 9:W\#W: | 9 171026M1_10 | Standard | 12.500 | 4.68 | 1965.412 | 1936.583 | 12.686 | 12.3 | -1.2 | NO |  | NO | bb |

## Compound name: 13C2-PFDA

Response Factor: 0.945709
RRF SD: 0.0821174, Relative SD: 8.68316
Response type: Internal Std ( Ref 60 ), Area * ( IS Conc. / IS Area)
Curve type: RF

|  | \# Name | Type | Std. Conc | RT | Area | IS Area | Response | Cone: | \%Dev | Conc. Flag | CoD | CoD Flag | $x=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 171026M1_2 | Standard | 12.500 | 4.97 | 9937.673 | 9533.811 | 13.030 | 13.8 | 10.2 | NO |  | NO | bb |
| 2. | 2 171026M1_3 | Standard | 12.500 | 4.97 | 10867.054 | 12756.174 | 10.649 | 11.3 | -9.9 | NO |  | NO | bb |
| $3$ | 3 171026M1_4 | Standard | 12.500 | 4.97 | 10060.540 | 9677.285 | 12.995 | 13.7 | 9.9 | NO |  | NO | bb |
| $4$ | 4 171026M1_5 | Standard | 12.500 | 4.97 | 10558.938 | 11273.634 | 11.708 | 12.4 | -1.0 | NO |  | NO | bb |
| 5 \% | 5 171026M1_6 | Standard | 12.500 | 4.97 | 9200.564 | 10655.413 | 10.793 | 11.4 | -8.7 | NO |  | NO | bb |
| 6 | 6 171026M1_7 | Standard | 12.500 | 4.98 | 12043.707 | 12000.405 | 12.545 | 13.3 | 6.1 | NO |  | NO | bb |
| $7$ | 7 171026M1_8 | Standard | 12.500 | 4.97 | 9506.485 | 11033.647 | 10.770 | 11.4 | -8.9 | NO |  | NO | bb |
| $8$ | 8 171026M1_9 | Standard | 12.500 | 4.97 | 9169.604 | 10335.311 | 11.090 | 11.7 | -6.2 | NO |  | NO | bb |
| 9 \% Whuterim | 9 171026M1_10 | Standard | 12.500 | 4.97 | 9033.771 | 8813.177 | 12.813 | 13.5 | 8.4 | NO |  | NO | bb |

## Vista Analytical Laboratory

Dataset：
U：IQ4．PRO\resultsI171026M11171026M1－CRV．qld
Last Altered：Friday，October 27， 2017 10：26：14 Pacific Daylight Time
Printed：$\quad$ Friday，October 27， 2017 10：36：18 Pacific Daylight Time

## Compound name：13C2－8：2 FTS

Response Factor： 0.171094
RRF SD： 0.0340588 ，Relative SD： 19.9065
Response type：Internal Std（Ref 60 ），Area＊（IS Conc．／IS Area）
Curve type：RF

|  | \＃Name | Type | Std．Conc | RT | Area | IS Area | Response | Conc． | \％Dev | Conc．Flag | CoD | CoD Flag | $x=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 171026M1＿2 | Standard | 12.500 | 4.94 | 1790.163 | 9533.811 | 2.347 | 13.7 | 9.7 | NO |  | NO | MM |
| 2\％HEthtr | 2 171026M1＿3 | Standard | 12.500 | 4.94 | 1649.670 | 12756.174 | 1.617 | 9.4 | －24．4 | NO |  | NO | bb |
| 3 | 3 171026M1＿4 | Standard | 12.500 | 4.94 | 1643.484 | 9677.285 | 2.123 | 12.4 | －0．7 | NO |  | NO | bb |
| 4 | 4 171026M1＿5 | Standard | 12.500 | 4.94 | 1512.175 | 11273.634 | 1.677 | 9.8 | －21．6 | NO |  | NO | bb |
| $5$ | 5 171026M1＿6 | Standard | 12.500 | 4.94 | 1698.864 | 10655.413 | 1.993 | 11.6 | －6．8 | NO |  | NO | bb |
| $6$ | 6 171026M1＿7 | Standard | 12.500 | 4.94 | 1959.247 | 12000.405 | 2.041 | 11.9 | －4．6 | NO |  | NO | bb |
| $7$ | 7 171026M1＿8 | Standard | 12.500 | 4.94 | 2085.414 | 11033.647 | 2.363 | 13.8 | 10.5 | NO |  | NO | bb |
| 8 | 8 171026M1＿9 | Standard | 12.500 | 4.94 | 2439.029 | 10335.311 | 2.950 | 17.2 | 37.9 | NO |  | NO | MM |
| 9そそぞ䜌 | 9 171026M1＿10 | Standard | 12.500 | 4.94 | 3475.574 | 8813.177 | 4.930 | 28.8 | 130.5 | NO |  | NO | bbX |

## Compound name：d3－N－MeFOSAA

Response Factor： 0.357633
RRF SD：0．0388742，Relative SD： 10.8699
Response type：Internal Std（ Ref 61），Area＊（IS Conc．／IS Area ）
Curve type：RF

|  | \＃Name | Type | Std．Conc | RT | Area | IS Area | Response | Conc． | \％Dev | Conc．Flag | CoD | CoDFlag | x＝excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1：W\％ | 1 171026M1＿2 | Standard | 12.500 | 5.12 | 4283.565 | 11341.706 | 4.721 | 13.2 | 5.6 | NO |  | NO | bb |
| $2$ | 2 171026M1＿3 | Standard | 12.500 | 5.12 | 4531.096 | 12520.988 | 4.524 | 12.6 | 1.2 | NO |  | NO | bb |
| $3 \times 1$ | 3 171026M1＿4 | Standard | 12.500 | 5.12 | 4244.738 | 13233.268 | 4.010 | 11.2 | －10．3 | NO |  | NO | bb |
| 4 | $4171026 \mathrm{M1}$＿ 5 | Standard | 12.500 | 5.12 | 4230.691 | 13777.145 | 3.839 | 10.7 | －14．1 | NO |  | NO | bb |
| 5 | 5 171026M1＿6 | Standard | 12.500 | 5.12 | 3763.122 | 10608.499 | 4.434 | 12.4 | －0．8 | NO |  | NO | bb |
|  | $6171026 \mathrm{M1} 1$ 7 | Standard | 12.500 | 5.13 | 5027.620 | 13855.948 | 4.536 | 12.7 | 1.5 | NO |  | NO | bb |
| $7$ | 7 171026M1＿8 | Standard | 12.500 | 5.13 | 4070.543 | 13032.397 | 3.904 | 10.9 | －12．7 | NO |  | NO | bb |
| 8 | 8 171026M1＿9 | Standard | 12.500 | 5.13 | 4156.273 | 10013.455 | 5.188 | 14.5 | 16.1 | NO |  | NO | bb |
| 9 9！ | 9 171026M1＿10 | Standard | 12.500 | 5.12 | 3964.672 | 9757.946 | 5.079 | 14.2 | 13.6 | NO |  | NO | bb |

Dataset: U:IQ4.PRO\results\171026M11171026M1-CRV.qld
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## Compound name: d5-N-EtFOSAA

Response Factor: 0.359693
RRF SD: 0.0347331, Relative SD: 9.65633
Response type: Internal Std ( Ref 61 ), Area * (IS Conc. / IS Area)
Curve type: RF


## Compound name: 13C2-PFUdA

Response Factor: 1.04482
RRF SD: 0.0695142, Relative SD: 6.65325
Response type: Internal Std ( Ref 61 ), Area * (IS Conc. / IS Area )
Curve type: RF

|  | \# Name | Type | Sta. Conc | RT | Area | IS Area | Response | Conc. | \%Dev | Conc. Flag | CoD | CoDFlag | $x=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1\% | 1 171026M1_2 | Standard | 12.500 | 5.30 | 11922.407 | 11341.706 | 13.140 | 12.6 | 0.6 | NO |  | NO | bb |
| 2 | 2 171026M1_3 | Standard | 12.500 | 5.30 | 14098.658 | 12520.988 | 14.075 | 13.5 | 7.8 | NO |  | NO | MM |
| 3. | 3 171026M1_4 | Standard | 12.500 | 5.30 | 14676.305 | 13233.268 | 13.863 | 13.3 | 6.1 | NO |  | NO | MM |
|  | 4 171026M1_5 | Standard | 12.500 | 5.30 | 13559.280 | 13777.145 | 12.302 | 11.8 | -5.8 | NO |  | NO | MM |
| $5$ | 5 171026M1_6 | Standard | 12.500 | 5.30 | 11695.059 | 10608.499 | 13.780 | 13.2 | 5.5 | NO |  | NO | MM |
| $6$ | 6 171026M1_7 | Standard | 12.500 | 5.30 | 12899.332 | 13855.948 | 11.637 | 11.1 | -10.9 | NO |  | NO | MM |
| $7$ | 7 171026M1_8 | Standard | 12.500 | 5.30 | 12601.697 | 13032.397 | 12.087 | 11.6 | -7.5 | NO |  | NO | bb |
|  | 8 171026M1_9 | Standard | 12.500 | 5.30 | 10458.104 | 10013.455 | 13.055 | 12.5 | -0.0 | NO |  | NO | bb |
| 9\%\#\#\% Mim | 9 171026M1_10 | Standard | 12.500 | 5.30 | 10618.298 | 9757.946 | 13.602 | 13.0 | 4.1 | NO |  | NO | bb |


| Dataset: | U:\Q4.PRO\results\171026M1\171026M1-CRV.qld |
| :--- | :--- |
| Last Altered: | Friday, October 27, 2017 10:26:14 Pacific Daylight Time |
| Printed: | Friday, October 27, 2017 10:36:18 Pacific Daylight Time |

## Compound name: 13C2-PFDoA

## Response Factor: 1.14113

RRF SD: 0.0738866, Relative SD: 6.47484
Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)
Curve type: RF

|  | \# Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc: | \%Dev | Conc. Flag | CoD | CoD Flag | $x=e x$ eluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. | 1 171026M1_2 | Standard | 12.500 | 5.59 | 13820.625 | 11341.706 | 15.232 | 13.3 | 6.8 | NO |  | NO | bb |
| 2 | 2 171026M1_3 | Standard | 12.500 | 5.59 | 14554.974 | 12520.988 | 14.531 | 12.7 | 1.9 | NO |  | NO | bb |
| 3 | 3 171026M1_4 | Standard | 12.500 | 5.59 | 14053.078 | 13233.268 | 13.274 | 11.6 | -6.9 | NO |  | NO | bb |
| 4 | 4 171026M1_5 | Standard | 12.500 | 5.59 | 13740.559 | 13777.145 | 12.467 | 10.9 | -12.6 | NO |  | NO | bb |
| 5 | 5 171026M1_6 | Standard | 12.500 | 5.59 | 12183.269 | 10608.499 | 14.356 | 12.6 | 0.6 | NO |  | NO | bb |
| 6 | 6 171026M1_7 | Standard | 12.500 | 5.59 | 16125.540 | 13855.948 | 14.547 | 12.7 | 2.0 | NO |  | NO | bb |
| 7 | 7 171026M1_8 | Standard | 12.500 | 5.59 | 14441.244 | 13032.397 | 13.851 | 12.1 | -2.9 | NO |  | NO | bb |
| 8 | 8 171026M1_9 | Standard | 12.500 | 5.59 | 12225.404 | 10013.455 | 15.261 | 13.4 | 7.0 | NO |  | NO | bb |
| 9 9 | 9 171026M1_10 | Standard | 12.500 | 5.59 | 11598.803 | 9757.946 | 14.858 | 13.0 | 4.2 | NO |  | NO | bb |

## Compound name: d3-N-MeFOSA

## Response Factor: 0.0934516

RRF SD: 0.00993873 , Relative SD: 10.6352
Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)
Curve type: RF

|  | \# Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | \%Dev | Conc. Flag | CoD Flag | $\mathrm{x}=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 171026M1_2 | Standard | 150.000 | 5.62 | 13893.939 | 11341.706 | 15.313 | 163.9 | 9.2 | NO | NO | bb |
| 2 \% | 2 171026M1_3 | Standard | 150.000 | 5.62 | 15405.037 | 12520.988 | 15.379 | 164.6 | 9.7 | NO | NO | bb |
| 3.1\% | 3 171026M1_4 | Standard | 150.000 | 5.62 | 14020.292 | 13233.268 | 13.243 | 141.7 | -5.5 | NO | NO | bb |
| 4 | 4 171026M1_5 | Standard | 150.000 | 5.63 | 13929.710 | 13777.145 | 12.638 | 135.2 | -9.8 | NO | NO | bb |
|  | 5 171026M1_6 | Standard | 150.000 | 5.62 | 12908.811 | 10608.499 | 15.210 | 162.8 | 8.5 | NO | NO | bd |
| $6$ | 6 171026M1_7 | Standard | 150.000 | 5.63 | 13491.567 | 13855.948 | 12.171 | 130.2 | -13.2 | NO | NO | bb |
| $17$ | 7 171026M1_8 | Standard | 150.000 | 5.63 | 12434.965 | 13032.397 | 11.927 | 127.6 | -14.9 | NO | NO | bb |
| $8$ | 8 171026M1_9 | Standard | 150.000 | 5.63 | 12026.860 | 10013.455 | 15.013 | 160.7 | 7.1 | NO | NO | bb |
| 9\%』E! | 9 171026M1_10 | Standard | 150.000 | 5.63 | 11915.382 | 9757.946 | 15.264 | 163.3 | 8.9 | NO | NO | bb |

## Quantify Compound Summary Report MassLynx MassLynx V4.1 SCN945 SCN960

## Vista Analytical Laboratory

| Dataset: | U:IQ4.PRO\results\171026M11171026M1-CRV.qld |
| :--- | :--- |
| Last Altered: | Friday, October 27, 2017 10:26:14 Pacific Daylight Time |
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Compound name: 13C2-PFTeDA
Response Factor: 0.933898
RRF SD: 0.108658, Relative SD: 11.6349
Response type: Internal Std (Ref 61 ), Area * ( IS Conc. / IS Area )
Curve type: RF

|  | \# Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc: | \%Dev | Conc, Flag | CoD | CoDFlag | $x=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| \# | 1 171026M1_2 | Standard | 12.500 | 6.06 | 9377.037 | 11341.706 | 10.335 | 11.1 | -11.5 | NO |  | NO | bb |
| ETHW | 2 171026M1_3 | Standard | 12.500 | 6.06 | 10575.495 | 12520.988 | 10.558 | 11.3 | -9.6 | NO |  | NO | bb |
| $3$ | 3 171026M1_4 | Standard | 12.500 | 6.06 | 10644.371 | 13233.268 | 10.055 | 10.8 | -13.9 | NO |  | NO | bb |
| $4$ | 4 171026M1_5 | Standard | 12.500 | 6.06 | 11884.834 | 13777.145 | 10.783 | 11.5 | -7.6 | NO |  | NO | bb |
| $5$ | 5 171026M1_6 | Standard | 12.500 | 6.06 | 10706.537 | 10608.499 | 12.616 | 13.5 | 8.1 | NO |  | NO | bb |
| $6$ | 6 171026M1_7 | Standard | 12.500 | 6.06 | 12533.464 | 13855.948 | 11.307 | 12.1 | -3.1 | NO |  | NO | bb |
| $7$ | 7 171026M1_8 | Standard | 12.500 | 6.06 | 13048.656 | 13032.397 | 12.516 | 13.4 | 7.2 | NO |  | NO | bb |
| $8$ | 8 171026M1_9 | Standard | 12.500 | 6.07 | 11072.916 | 10013.455 | 13.823 | 14.8 | 18.4 | NO |  | NO | bb |
| 9 cma | 9 171026M1_10 | Standard | 12.500 | 6.06 | 10205.076 | 9757.946 | 13.073 | 14.0 | 12.0 | NO |  | NO | bb |

## Compound name: d5-N-ETFOSA

Response Factor: 0.132054
RRF SD: 0.0131962 , Relative SD: 9.99304
Response type: Internal Std (Ref 61 ), Area * ( IS Conc. / IS Area )
Curve type: RF

|  | \# Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | \%Dev | Conc Flag | CoD | CoD Flag | $x=e x c l u d e d$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 171026M1_2 | Standard | 150.000 | 6.04 | 19832.848 | 11341.706 | 21.858 | 165.5 | 10.4 | NO |  | NO | bb |
| 2 | 2 171026M1_3 | Standard | 150.000 | 6.04 | 21744.625 | 12520.988 | 21.708 | 164.4 | 9.6 | NO |  | NO | bb |
| 3. | 3 171026M1_4 | Standard | 150.000 | 6.04 | 20019.549 | 13233.268 | 18.910 | 143.2 | -4.5 | NO |  | NO | bb |
| 4 | 4 171026M1_5 | Standard | 150.000 | 6.04 | 19708.096 | 13777.145 | 17.881 | 135.4 | -9.7 | NO |  | NO | bb |
| 5 | 5 171026M1_6 | Standard | 150.000 | 6.04 | 19092.957 | 10608.499 | 22.497 | 170.4 | 13.6 | NO |  | NO | bb |
| 6 \% | $6171026 \mathrm{M1}$-7 | Standard | 150.000 | 6.04 | 19619.416 | 13855.948 | 17.699 | 134.0 | -10.6 | NO |  | NO | bb |
| $7$ | 7 171026M1_8 | Standard | 150.000 | 6.04 | 18301.496 | 13032.397 | 17.554 | 132.9 | -11.4 | NO |  | NO | bb |
| $8$ | 8 171026M1_9 | Standard | 150.000 | 6.04 | 16908.625 | 10013.455 | 21.107 | 159.8 | 6.6 | NO |  | NO | bb |
| 9\%:3! | 9 171026M1_10 | Standard | 150.000 | 6.04 | 14876.408 | 9757.946 | 19.057 | 144.3 | -3.8 | NO |  | NO | bb |

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## Compound name: 13C2-PFHxDA

Response Factor: 0.809323
RRF SD: 0.161699, Relative SD: 19.9795
Response type: Internal Std (Ref 61 ), Area * (IS Conc. / IS Area)
Curve type: RF

|  | \# Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | \%Dev | Conc. Flag | CoD | CoDFlag | $\mathrm{x}=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 171026M1_2 | Standard | 5.000 | 6.39 | 4102.797 | 11341.706 | 4.522 | 5.6 | 11.7 | NO |  | NO | MM |
| 2 | 2 171026M1_3 | Standard | 5.000 | 6.39 | 4597.595 | 12520.988 | 4.590 | 5.7 | 13.4 | NO |  | NO | MM |
|  | 3 171026M1_4 | Standard | 5.000 | 6.39 | 3582.335 | 13233.268 | 3.384 | 4.2 | -16.4 | NO |  | NO | MM |
| 4 4 | 4 171026M1_5 | Standard | 5.000 | 6.40 | 3826.472 | 13777.145 | 3.472 | 4.3 | -14.2 | NO |  | NO | MM |
| 5 . ${ }^{\text {2 }}$ | 5 171026M1_6 | Standard | 5.000 | 6.39 | 4271.142 | 10608.499 | 5.033 | 6.2 | 24.4 | NO |  | NO | MM |
| 6 | 6 171026M1_7 | Standard | 5.000 | 6.40 | 3093.651 | 13855.948 | 2.791 | 3.4 | -31.0 | NO |  | NO | MM |
| 7.MEMEME | 7 171026M1_8 | Standard | 5.000 | 6.39 | 3894.998 | 13032.397 | 3.736 | 4.6 | -7.7 | NO |  | NO | MM |
| 8 | 8 171026M1_9 | Standard | 5.000 | 6.40 | 3882.136 | 10013.455 | 4.846 | 6.0 | 19.8 | NO |  | NO | MM |
| 9.2. | 9 171026M1_10 | Standard | 5.000 | 6.40 | 4546.360 | 9757.946 | 5.824 | 7.2 | 43.9 | NO |  | NO | MMX |

## Compound name: d7-N-MeFOSE

Response Factor: 0.141984
RRF SD: 0.013133, Relative SD: 9.24964
Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)
Curve type: RF

|  | \# Name | Type | Std: Conc | RT | Area | IS Area | Response | Conc. | \%Dev | Conc. Flag | CoD | CoDFlag | $x=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 171026M1_2 | Standard | 150.000 | 6.22 | 20802.461 | 11341.706 | 22.927 | 161.5 | 7.7 | NO |  | NO | bb |
| $2$ | 2 171026M1_3 | Standard | 150.000 | 6.22 | 23510.152 | 12520.988 | 23.471 | 165.3 | 10.2 | NO |  | NO | bb |
|  | 3 171026M1_4 | Standard | 150.000 | 6.22 | 21267.461 | 13233.268 | 20.089 | 141.5 | -5.7 | NO |  | NO | bb |
| 4 | 4 171026M1_5 | Standard | 150.000 | 6.22 | 21867.092 | 13777.145 | 19.840 | 139.7 | -6.8 | NO |  | NO | bb |
| 5. | 5 171026M1_6 | Standard | 150.000 | 6.22 | 20238.715 | 10608.499 | 23.847 | 168.0 | 12.0 | NO |  | NO | bb |
| $6$ | 6 171026M1_7 | Standard | 150.000 | 6.22 | 22323.734 | 13855.948 | 20.139 | 141.8 | -5.4 | NO |  | NO | bb |
| $7$ | 7 171026M1_8 | Standard | 150.000 | 6.22 | 18689.719 | 13032.397 | 17.926 | 126.3 | -15.8 | NO |  | NO | bb |
| $8$ | 8 171026M1_9 | Standard | 150.000 | 6.22 | 17806.627 | 10013.455 | 22.228 | 156.6 | 4.4 | NO |  | NO | bb |
| 9.? | 9 171026M1_10 | Standard | 150.000 | 6.22 | 16557.975 | 9757.946 | 21.211 | 149.4 | -0.4 | NO |  | NO | bb |


| Dataset: | U:IQ4.PRO\results\171026M11171026M1-CRV.qld |
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## Compound name: d9-N-EtFOSE

Response Factor: 0.130657
RRF SD: 0.014186, Relative SD: 10.8574
Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)
Curve type: RF


## Compound name: 13C4-PFBA

Response Factor: 1
RRF SD: $8.77708 \mathrm{e}-017$, Relative SD: $8.77708 \mathrm{e}-015$
Response type: Internal Std (Ref 54 ), Area * (IS Conc. / IS Area)
Curve type: RF


| Dataset: | U:IQ4.PROIresults\171026M11171026M1-CRV.qld |
| :--- | :--- |
| Last Altered: | Friday, October 27, 2017 10:26:14 Pacific Daylight Time |
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Compound name: 13C5-PFHxA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 55 ), Area * (IS Conc. / IS Area )
Curve type: RF


## Compound name: 13C3-PFHxS

Response Factor: 1
RRF SD: 7.85046e-017, Relative SD: 7.85046e-015
Response type: Internal Std (Ref 56 ), Area * (IS Conc. / IS Area)
Curve type: RF

|  | \# Name | Type | Std. Cone | RT | Area | IS Area | Response | Conc. | 9Dev | Conc. Flag | CoD | CoD Flag | $x=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1\% | 1 171026M1_2 | Standard | 12.500 | 3.77 | 2092.944 | 2092.944 | 12.500 | 12.5 | 0.0 | NO |  | NO | bb |
| $2$ | 2 171026M1_3 | Standard | 12.500 | 3.78 | 2304.136 | 2304.136 | 12.500 | 12.5 | 0.0 | NO |  | NO | bb |
| $3$ | 3 171026M1_4 | Standard | 12.500 | 3.77 | 2153.796 | 2153.796 | 12.500 | 12.5 | 0.0 | NO |  | NO | bb |
| $4$ | 4 171026M1_5 | Standard | 12.500 | 3.78 | 2054.447 | 2054.447 | 12.500 | 12.5 | 0.0 | NO |  | NO | bb |
| $5$ | 5 171026M1_6 | Standard | 12.500 | 3.78 | 1888.806 | 1888.806 | 12.500 | 12.5 | 0.0 | NO |  | NO | bb |
| $6$ | 6 171026M1_7 | Standard | 12.500 | 3.78 | 2284.629 | 2284.629 | 12.500 | 12.5 | 0.0 | NO |  | NO | bb |
| 7 | 7 171026M1_8 | Standard | 12.500 | 3.78 | 1956.825 | 1956.825 | 12.500 | 12.5 | 0.0 | NO |  | NO | bb |
| $8$ | 8 171026M1_9 | Standard | 12.500 | 3.78 | 1910.957 | 1910.957 | 12.500 | 12.5 | 0.0 | NO |  | NO | bb |
| 9\%M\#\# | 9 171026M1_10 | Standard | 12.500 | 3.78 | 1808.740 | 1808.740 | 12.500 | 12.5 | 0.0 | NO |  | NO | bb |

Dataset: U:IQ4.PROIresults|171026M11171026M1-CRV.qld
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## Compound name: 13C8-PFOA

Response Factor: 1
RRF SD: 0 , Relative SD: 0
Response type: Internal Std (Ref 57), Area * (IS Conc. / IS Area)
Curve type: RF

|  | \# Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | \%Dev | Conc. Fla | CoDFlag | $x=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. | 1 171026M1_2 | Standard | 12.500 | 4.15 | 9163.441 | 9163.441 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 2. | 2 171026M1_3 | Standard | 12.500 | 4.15 | 9974.912 | 9974.912 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| $3$ | 3 171026M1_4 | Standard | 12.500 | 4.15 | 9625.220 | 9625.220 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| $4$ | 4 171026M1_5 | Standard | 12.500 | 4.15 | 9702.345 | 9702.345 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| $5$ | 5 171026M1_6 | Standard | 12.500 | 4.15 | 8490.614 | 8490.614 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| $6$ | 6 171026M1_7 | Standard | 12.500 | 4.15 | 11764.812 | 11764.812 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| $7$ | 7 171026M1_8 | Standard | 12.500 | 4.15 | 9341.111 | 9341.111 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
|  | 8 171026M1_9 | Standard | 12.500 | 4.15 | 8996.989 | 8996.989 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 9\% | 9 171026M1_10 | Standard | 12.500 | 4.15 | 8181.460 | 8181.460 | 12.500 | 12.5 | 0.0 | NO | NO | bb |

## Compound name: 13C9-PFNA

Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 58 ), Area * (IS Conc. / IS Area)
Curve type: RF

|  | \# Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | \%Dev | Conc. Flag | COD | CoD Flag | $x=$ excluded: |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 171026M1_2 | Standard | 12.500 | 4.59 | 11155.522 | 11155.522 | 12.500 | 12.5 | 0.0 | NO |  | NO | bb |
| 2\% | 2 171026M1_3 | Standard | 12.500 | 4.59 | 11986.115 | 11986.115 | 12.500 | 12.5 | 0.0 | NO |  | NO | bb |
| $3$ | 3 171026M1_4 | Standard | 12.500 | 4.59 | 10054.865 | 10054.865 | 12.500 | 12.5 | 0.0 | NO |  | NO | bb |
| $4{ }^{\text {4 }}$ | 4 171026M1_5 | Standard | 12.500 | 4.59 | 10542.347 | 10542.347 | 12.500 | 12.5 | 0.0 | NO |  | NO | bb |
| $5$ | 5 171026M1_6 | Standard | 12.500 | 4.59 | 9806.811 | 9806.811 | 12.500 | 12.5 | 0.0 | NO |  | NO | bb |
| $6$ | 6 171026M1_7 | Standard | 12.500 | 4.59 | 11208.414 | 11208.414 | 12.500 | 12.5 | 0.0 | NO |  | NO | bb |
| 7 | 7 171026M1_8 | Standard | 12.500 | 4.59 | 10537.382 | 10537.382 | 12.500 | 12.5 | 0.0 | NO |  | NO | bb |
| 8 | $8171026 \mathrm{M1}$ ¢ 9 | Standard | 12.500 | 4.59 | 9958.859 | 9958.859 | 12.500 | 12.5 | 0.0 | NO |  | NO | bb |
|  | 9 171026M1_10 | Standard | 12.500 | 4.59 | 9053.401 | 9053.401 | 12.500 | 12.5 | 0.0 | NO |  | NO | bb |

## Vista Analytical Laboratory

| Dataset: | U:IQ4.PRO\results\171026M11171026M1-CRV.qld |
| :--- | :--- |
| Last Altered: | Friday, October 27, 2017 10:26:14 Pacific Daylight Time |
| Printed: | Friday, October 27, 2017 10:36:18 Pacific Daylight Time |

Compound name: 13C4-PFOS
Response Factor: 1
RRF SD: 1.17757e-016, Relative SD: 1.17757e-014
Response type: Internal Std (Ref 59 ), Area * (IS Conc. I IS Area)
Curve type: RF

|  | \# Name | Type | Sta Conc | RT | Area | IS Area | Response | Conc. | \%Dev | Conc. Flag | COD | CoD Flag | $x=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 12 | 1 171026M1_2 | Standard | 12.500 | 4.68 | 2234.531 | 2234.531 | 12.500 | 12.5 | 0.0 | NO |  | NO | bb |
| $2=$ | 2 171026M1_3 | Standard | 12.500 | 4.68 | 2402.855 | 2402.855 | 12.500 | 12.5 | 0.0 | NO |  | NO | bb |
| 3 | 3 171026M1_4 | Standard | 12.500 | 4.68 | 2260.597 | 2260.597 | 12.500 | 12.5 | 0.0 | NO |  | NO | bb |
| 4 | 4 171026M1_5 | Standard | 12.500 | 4.68 | 2315.592 | 2315.592 | 12.500 | 12.5 | 0.0 | NO |  | NO | bb |
| 5 | 5 171026M1_6 | Standard | 12.500 | 4.68 | 1986.232 | 1986.232 | 12.500 | 12.5 | 0.0 | NO |  | NO | bb |
| $6$ | 6 171026M1_7 | Standard | 12.500 | 4.68 | 2506.243 | 2506.243 | 12.500 | 12.5 | 0.0 | NO |  | NO | bb |
| 7 7- | 7 171026M1_8 | Standard | 12.500 | 4.68 | 2328.353 | 2328.353 | 12.500 | 12.5 | 0.0 | NO |  | NO | bb |
| 8 | 8 171026M1_9 | Standard | 12.500 | 4.68 | 2003.810 | 2003.810 | 12.500 | 12.5 | 0.0 | NO |  | NO | bb |
| 9 9-9 | 9 171026M1_10 | Standard | 12.500 | 4.68 | 1936.583 | 1936.583 | 12.500 | 12.5 | 0.0 | NO |  | NO | bb |

## Compound name: 13C6-PFDA

Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 60 ), Area * (IS Conc. / IS Area)
Curve type: RF


| Quantify Compound Summary Report <br> Vista Analytical Laboratory |
| :--- | :--- |
| Dataset: U:IQ4.PROIresults 1171026 M11171026M1-CRV.qld <br> Last Altered: Friday, October 27, 2017 10:26:14 Pacific Daylight Time <br> Printed: Friday, October 27, 2017 10:36:18 Pacific Daylight Time |

Compound name: 13C7-PFUnA
Response Factor: 1
RRF SD: 5.55112e-017, Relative SD: 5.55112e-015
Response type: Internal Std (Ref 61 ), Area * (IS Conc. / IS Area)
Curve type: RF

| - | \# Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | \%Dev | Conc. Flag | CoD | CoD Flag | $x=e x c l u d e d$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 1\% | 1 171026M1_2 | Standard | 12.500 | 5.30 | 11341.706 | 11341.706 | 12.500 | 12.5 | 0.0 | NO |  | NO | bb |
| $2{ }^{2}$ | 2 171026M1_3 | Standard | 12.500 | 5.30 | 12520.988 | 12520.988 | 12.500 | 12.5 | 0.0 | NO |  | NO | bb |
| 3 \% | 3 171026M1_4 | Standard | 12.500 | 5.30 | 13233.268 | 13233.268 | 12.500 | 12.5 | 0.0 | NO |  | NO | bb |
| $4 \geq$ | 4 171026M1_5 | Standard | 12.500 | 5.30 | 13777.145 | 13777.145 | 12.500 | 12.5 | 0.0 | NO |  | NO | bb |
| 5 | 5 171026M1_6 | Standard | 12.500 | 5.30 | 10608.499 | 10608.499 | 12.500 | 12.5 | 0.0 | NO |  | NO | bb |
| 6 | $6171026 \mathrm{M1}$ _ 7 | Standard | 12.500 | 5.30 | 13855.948 | 13855.948 | 12.500 | 12.5 | 0.0 | NO |  | NO | MM |
| 7 | 7 171026M1_8 | Standard | 12.500 | 5.30 | 13032.397 | 13032.397 | 12.500 | 12.5 | 0.0 | NO |  | NO | MM |
| 8 | 8 171026M1_9 | Standard | 12.500 | 5.30 | 10013.455 | 10013.455 | 12.500 | 12.5 | 0.0 | NO |  | NO | MM |
| 9 9 | 9 171026M1_10 | Standard | 12.500 | 5.30 | 9757.946 | 9757.946 | 12.500 | 12.5 | 0.0 | NO |  | NO | bb |

Dataset: Untitled
Last Altered: Friday, October 27, 2017 08:48:34 Pacific Daylight Time
Printed:
Friday, October 27, 2017 08:48:47 Pacific Daylight Time

Method: U:IQ4.PROIMethDBIPFAS_FULL_80C_102517.mdb 26 Oct 2017 08:20:12
Calibration: U:IQ4.PROICurveDBIC18_VAL-PFAS_Q4_10-26-17-FULL_NOPFODA.cdb 26 Oct 2017 16:54:06
Compound name: PFBA


Dataset: U:IQ4.PRO\results\171026M11171026M1-CRV.qld

Last Altered: Printed:

Friday, October 27, 2017 10:26:14 Pacific Daylight Time Friday, October 27, 2017 10:38:18 Pacific Daylight Time

Method: U:IQ4.PROIMethDB\PFAS_FULL_80C_102517.mdb 26 Oct 2017 08:20:12
Calibration: U:\Q4.PROICurveDBIC18_VAL-PFAS_Q4_10-26-17-FULL_NOPFODA.cdb 27 Oct 2017 10:26:14
Compound name: PFBA
Correlation coefficient: $\mathrm{r}=0.999162, \mathrm{r}^{\wedge} 2=0.998324$
Calibration curve: 1.25384 * $x+-0.0149356$
Response type: Internal Std (Ref 31), Area * (IS Conc. I IS Area)
Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None


| Dataset: | U:IQ4.PRO\results\171026M11171026M1-CRV.qld |
| :--- | :--- |
| Last Altered: | Friday, October 27, 2017 10:26:14 Pacific Daylight Time |
| Printed: | Friday, October 27, 2017 10:38:18 Pacific Daylight Time |

Compound name: PFPeA
Correlation coefficient: $\mathrm{r}=0.999675, \mathrm{r}^{\wedge} 2=0.999351$
Calibration curve: $1.1515^{*} x+0.0271081$
Response type: Internal Std (Ref 32 ), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None


| Dataset: | U:\Q4.PRO\results1171026M11171026M1-CRV.qld |
| :--- | :--- |
| Last Altered: | Friday, October 27, 2017 10:26:14 Pacific Daylight Time |
| Printed: | Friday, October 27, 2017 10:38:18 Pacific Daylight Time |

Compound name: PFBS
Correlation coefficient: $\mathrm{r}=0.998426, \mathrm{r}^{\wedge} 2=0.996854$
Calibration curve: 2.43502 * x + 0.00496287
Response type: Internal Std (Ref 33 ), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None


## Vista Analytical Laboratory Q1

## Dataset: U:IQ4.PRO\results\171026M11171026M1-CRV.qld

Last Altered: Friday, October 27, 2017 10:26:14 Pacific Daylight Time
Printed:
Friday, October 27, 2017 10:38:18 Pacific Daylight Time

## Compound name: PFHxA

Correlation coefficient: $\mathrm{r}=0.999732, \mathrm{r}^{\wedge} 2=0.999465$
Calibration curve: 1.66208 * $x+0.0769658$
Response type: Internal Std (Ref 34 ), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None


## Vista Analytical Laboratory Q1

## Dataset: U:IQ4.PRO\results\171026M11171026M1-CRV.qld

Last Altered: Friday, October 27, 2017 10:26:14 Pacific Daylight Time
Printed: Friday, October 27, 2017 10:38:18 Pacific Daylight Time

## Compound name: PFHpA

Correlation coefficient: $\mathrm{r}=0.998813, \mathrm{r}^{\wedge} 2=0.997628$
Calibration curve: 1.51217 * $x+-0.00204214$
Response type: Internal Std (Ref 35), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None


Dataset: U:IQ4.PRO\results\171026M1\171026M1-CRV.qld
Last Altered: Friday, October 27, 2017 10:26:14 Pacific Daylight Time
Printed: Friday, October 27, 2017 10:38:18 Pacific Daylight Time

Compound name: L-PFHxS
Correlation coefficient: $\mathrm{r}=0.998527, \mathrm{r}^{\wedge} 2=0.997056$
Calibration curve: $2.44187^{*} x+-0.197337$
Response type: Internal Std (Ref 36 ), Area * (IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None


Dataset: U:IQ4.PROVresults\171026M11171026M1-CRV.qld
$\begin{array}{ll}\text { Last Altered: } & \text { Friday, October 27, } 2017 \text { 10:26:14 Pacific Daylight Time } \\ \text { Printed: } & \text { Friday, October 27, 2017 10:38:18 Pacific Daylight Time }\end{array}$

Compound name: 6:2 FTS
Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.990378$
Calibration curve: -0.00338904 * $x^{\wedge} 2+1.06688^{*} x+-0.0276541$
Response type: Internal Std (Ref 37 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


Dataset:
Last Altered:
Printed:

Compound name: L-PFOA
Correlation coefficient: $\mathrm{r}=0.999419, \mathrm{r}^{\wedge} 2=0.998838$
Calibration curve: 1.12797 * x + 0.284504
Response type: Internal Std (Ref 38 ), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None


| Dataset: | U:\Q4.PRO\results\171026M1\171026M1-CRV.qld |
| :--- | :--- |
| Last Altered: | Friday, October 27, 2017 10:26:14 Pacific Daylight Time |
| Printed: | Friday, October 27, 2017 10:38:18 Pacific Daylight Time |

Compound name: PFHpS
Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.998365$
Calibration curve: $4.65786 e-005^{*} x^{\wedge} 2+0.203609$ * $x+0.0252184$
Response type: Internal Std ( Ref 38 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


| Dataset: | U:IQ4.PRO\results\171026M11171026M1-CRV.qld |
| :--- | :--- |
| Last Altered: | Friday, October 27, 2017 10:26:14 Pacific Daylight Time |
| Printed: | Friday, October 27, 2017 10:38:18 Pacific Daylight Time |

Compound name: PFNA
Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.997109$
Calibration curve: $-0.000379675^{*} x^{\wedge} 2+1.44302$ * $x+0.0895267$
Response type: Internal Std (Ref 39 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


| Dataset: | U:IQ4.PRO\results\171026M11171026M1-CRV.qld |
| :--- | :--- |
| Last Altered: | Friday, October 27, 2017 10:26:14 Pacific Daylight Time |
| Printed: | Friday, October 27, 2017 10:38:18 Pacific Daylight Time |

Compound name: PFOSA
Correlation coefficient: $r=0.998461, r^{\wedge} 2=0.996924$
Calibration curve: 1.16388 * $x+0.0273367$
Response type: Internal Std (Ref 40 ), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None


## Vista Analytical Laboratory Q1

Dataset:
U:IQ4.PRO\results\171026M11171026M1-CRV.qld
Last Altered:
Friday, October 27, 2017 10:26:14 Pacific Daylight Time
Printed: Friday, October 27, 2017 10:38:18 Pacific Daylight Time

Compound name: L-PFOS
Correlation coefficient: $\mathrm{r}=0.997357, \mathrm{r}^{\wedge} 2=0.994721$
Calibration curve: 1.1564 * $x+-0.0243452$
Response type: Internal Std ( Ref 41 ), Area * (IS Conc. / IS Area )
Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None


| Dataset: | U:IQ4.PRO\results1171026M11171026M1-CRV.qld |
| :--- | :--- |
| Last Altered: | Friday, October 27, 2017 10:26:14 Pacific Daylight Time |
| Printed: | Friday, October 27, 2017 10:38:18 Pacific Daylight Time |

Compound name: PFDA
Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.998744$
Calibration curve: 0.000670409 * $x^{\wedge} 2+1.3303^{*} x+0.180081$
Response type: Internal Std (Ref 42 ), Area * (IS Conc. / IS Area )
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


| Dataset: | U:IQ4.PRO\results\171026M1\171026M1-CRV.qld |
| :--- | :--- |
| Last Altered: | Friday, October 27, 2017 10:26:14 Pacific Daylight Time |
| Printed: | Friday, October 27, 2017 10:38:18 Pacific Daylight Time |

Compound name: 8:2 FTS
Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.995715$
Calibration curve: $-0.00382414{ }^{*} x^{\wedge} 2+1.3379$ * $x+0.459132$
Response type: Internal Std (Ref 43 ), Area * (IS Conc. I IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

Dataset:
Last Altered:
Printed:

U:IQ4.PRO\results\171026M11171026M1-CRV.qid
Last Altered:
Friday, October 27, 2017 10:26:14 Pacific Daylight Time
Printed: Friday, October 27, 2017 10:38:18 Pacific Daylight Time

Compound name: N-MeFOSAA
Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.997869$
Calibration curve: $-0.000267179{ }^{*} x^{\wedge} 2+1.57739$ * $x+0.0787904$
Response type: Internal Std (Ref 44 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


Dataset:
U:IQ4.PROVresults\171026M11171026M1-CRV.qld
Last Altered:
Friday, October 27, 2017 10:26:14 Pacific Daylight Time
Printed: Friday, October 27, 2017 10:38:18 Pacific Daylight Time

Compound name: N-EtFOSAA
Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.994831$
Calibration curve: $5.282 \mathrm{e}-005^{*} \mathrm{x}^{\wedge} 2+1.26472$ * x + 0.0301259
Response type: Internal Std (Ref 45 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None


Dataset: U:IQ4.PRO\results\171026M1\171026M1-CRV.qld
Last Altered: Friday, October 27, 2017 10:26:14 Pacific Daylight Time
Printed: $\quad$ Friday, October 27, 2017 10:38:18 Pacific Daylight Time

## Compound name: PFUnA

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.998990$
Calibration curve: $-0.000325839^{*} x^{\wedge} 2+1.14375^{*} x+0.032356$
Response type: Internal Std (Ref 46 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


## Dataset:

U:IQ4.PRO\results\171026M11171026M1-CRV.qld
Last Altered:
Friday, October 27, 2017 10:26:14 Pacific Daylight Time
Printed: Friday, October 27, 2017 10:38:18 Pacific Daylight Time

Compound name: PFDS
Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.994206$
Calibration curve: 0.195972 *
Response type: Internal Std (Ref 46 ), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: Null, Axis trans: None


Dataset: U:IQ4.PRO\results\171026M11171026M1-CRV.qid
Last Altered: Friday, October 27, 2017 10:26:14 Pacific Daylight Time
Printed: Friday, October 27, 2017 10:38:18 Pacific Daylight Time

Compound name: PFDoA
Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.997953$
Calibration curve: $-0.000109132{ }^{*} x^{\wedge} 2+1.244533^{*} x+0.293856$
Response type: Internal Std (Ref 47 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


## Vista Analytical Laboratory Q1

| Dataset: | U:IQ4.PRO\results1171026M11171026M1-CRV.qld |
| :--- | :--- |
| Last Altered: | Friday, October 27, 2017 10:26:14 Pacific Daylight Time |
| Printed: | Friday, October 27, 2017 10:38:18 Pacific Daylight Time |

Compound name: N-MeFOSA
Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999297$
Calibration curve: $-0.000149877{ }^{*} x^{\wedge} 2+1.21877{ }^{*} x+0.0856513$
Response type: Internal Std (Ref 48), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None


| Dataset: | U:IQ4.PRO\results\171026M11171026M1-CRV.qld |
| :--- | :--- |
| Last Altered: | Friday, October 27, 2017 10:26:14 Pacific Daylight Time |
| Printed: | Friday, October 27, 2017 10:38:18 Pacific Daylight Time |

## Compound name: PFTrDA

Coefficient of Determination: $R^{\wedge} 2=0.998625$
Calibration curve: 0.000400269 * $x^{\wedge} 2+1.32903^{*} x+0.10057$
Response type: Internal Std (Ref 47 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


| Dataset: | U:IQ4.PRO\results\171026M11171026M1-CRV.qld |
| :--- | :--- |
| Last Altered: | Friday, October 27, 2017 10:26:14 Pacific Daylight Time |
| Printed: | Friday, October 27, 2017 10:38:18 Pacific Daylight Time |

Compound name: PFTeDA
Coefficient of Determination: $R^{\wedge} 2=0.990408$
Calibration curve: $-0.0116096{ }^{*} x^{\wedge} 2+1.77597^{*} x+-0.229836$
Response type: Internal Std (Ref 49 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


Dataset:
Last Altered:
Printed:

Compound name: N-EtFOSA
Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999879$
Calibration curve: $1.51717 \mathrm{e}-005^{*} \mathrm{x}^{\wedge} 2+1.00753^{*} \mathrm{x}+0.283778$
Response type: Internal Std (Ref 50 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


## Vista Analytical Laboratory Q1

| Dataset: | U:IQ4.PRO\results1171026M11171026M1-CRV.qld |
| :--- | :--- |
|  |  |
| Last Altered: | Friday, October 27, 2017 10:26:14 Pacific Daylight Time |
| Printed: | Friday, October 27, 2017 10:38:18 Pacific Daylight Time |

Compound name: PFHxDA
Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.998601$
Calibration curve: -0.000754699 * $x^{\wedge} 2+0.743417$ * $x+0.0395372$
Response type: Internal Std (Ref 51 ), Area * ( IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


Dataset: U:IQ4.PRO\results\171026M1\171026M1-CRV.qld
Last Altered: Friday, October 27, 2017 10:26:14 Pacific Daylight Time

## Printed:

 Friday, October 27, 2017 10:38:18 Pacific Daylight TimeCompound name: N-MeFOSE
Correlation coefficient: $r=0.999413, r^{\wedge} 2=0.998826$
Calibration curve: 1.06845 * x + 0.279364
Response type: Internal Std (Ref 52 ), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None


Dataset: U:IQ4.PRO\results 1171026 M11171026M1-CRV.qld
Last Altered: Friday, October 27, 2017 10:26:14 Pacific Daylight Time
Printed: Friday, October 27, 2017 10:38:18 Pacific Daylight Time

Compound name: N-EtFOSE
Correlation coefficient: $\mathrm{r}=0.996094, \mathrm{r}^{\wedge} 2=0.992203$
Calibration curve: 1.29546 * x + -0.281193
Response type: Internal Std (Ref 53), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None


Method: U:IQ4.PROMMethDBIPFAS_FULL_80C_102517.mdb 26 Oct 2017 08:20:12
Calibration: 26 Oct 2017 15:43:46
I (A)
Name: 171026M1_2, Date: 26-Oct-2017, Time: 09:26:00, ID: ST171026M1-1 PFC CS-2 17 13006 , Description: PFC CS-2 17 J3006


## 13C3-PFBA



## PFBS

PFPeA


## 13C3-PFPeA

F5:MRM of 1 channel,ES-
$266 .>221.8$


F6:MRM of 2 channels,ES-
299.0 > 99.0


## 13C3-PFBS 13C2-PFHxA



## PFHxA

F8:MRM of 2 channels,ES$313.2>268.9$ $9.571 \mathrm{e}+003$



## F9:MRM of 1 channel,ES- $315>269.8$



PFHpA
F13:MRM of 2 channels,ES$6.984 \mathrm{e}+003$


F13:MRM of 2 channels,ES$363.0>169.0$


## 13C4-PFHpA

F14:MRM of 1 channel,ES
367.2 > 321.8



Dataset:
U:IQ4.PROIresults\171026M11171026M1-CRV.qld
Last Altered: Thursday, October 26, 2017 15:43:46 Pacific Daylight Time
Printed: Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

## $1(4$

Name: 171026M1_2, Date: 26-Oct-2017, Time: 09:26:00, ID: ST171026M1-1 PFC CS-2 17 $\neq 3006$, Description: PFC CS-2 17J3006

6:2 FTS


F21:MRM of 2 channels,ES-
annels,ES-
$427.1>80$


13C2-6:2 FTS
F22:MRM of 1 channel,ES$429.1>408.9$ $5.799 \mathrm{e}+004$


L-PFOA


F18:MRM of 2 channels,ES-


13C2-PFOA
F19:MRM of 1 channel,ES-


PFHpS


F23:MRM of 2 channels,ES-


13C3-PFBS
F7:MRM of 1 channel,ES-


## PFNA



F24:MRM of 2 channels,ES-


13C5-PFNA
F25:MRM of 1 channel,ES-


PFOSA



13C8-PFOSA
F31:MRM of 1 channel,ES-


L-PFOS
F29:MRM of 2 channels,ES-


F29:MRM of 2 channels,ES-


13C8-PFOS
F32:MRM of 1 channel,ES-
$507.0>79.9$


Dataset: U:\Q4.PRO\results\171026M1\171026M1-CRV.qid
Last Altered: Thursday, October 26, 2017 15:43:46 Pacific Daylight Time
Printed: $\quad$ Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

Name: 171026M1_2, Date: 26-Oct-2017, Time: 09:26:00, ID: ST171026M1-1 PFC CS-2 17 $\sqrt{3} \mathbf{3 0 0 6}$, Description: PFC CS-2 17J3006
PFDA
F34:MRM of 2 channels,ES-
$513>468.8$
$9.889 \mathrm{e}+003$




F39:MRM of 2 channels,ES-


13C2-8:2 FTS
F40:MRM of 1 channel,ES-



F44:MRM of 2 channels,ES-

d3-N-MeFOSAA
F46:MRM of 1 channel, ES-
$573.3>419$

d5-N-EtFOSAA



F42:MRM of 2 channels, ES-


## 13C2-PFUdA




F49:MRM of 2 channels,ES-


## 13C2-PFUdA

| Dataset: | U:IQ4.PROIresults\171026M11171026M1-CRV.qld |
| :--- | :--- |
|  |  |
| Last Altered: | Thursday, October 26, 2017 15:43:46 Pacific Daylight Time |
| Printed: | Thursday, October 26, 2017 15:44:32 Pacific Daylight Time |

Printed: $\quad$ Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

Name: 171026M1_2, Date: 26-Oct-2017, Time: 09:26:00, ID: ST171026M1-1 PFC CS-2 17 $\frac{1}{3} 3006$, Description: PFC CS-2 17 J3006



F56:MRM of 2 channels,ES-




F57:MRM of 2 channels,ES-




Dataset:
U:\Q4.PRO\results\171026M1\171026M1-CRV.qld

Last Altered: Thursday, October 26, 2017 15:43:46 Pacific Daylight Time
Printed: Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

Name: 171026M1_2, Date: 26-Oct-2017, Time: 09:26:00, ID: ST171026M1-1 PFC CS-2 17/3006, Description: PFC CS-2 17 J3006


13C2-PFHxDA
F60:MRM of 1 channel,ES$815>769.7$ $1.062 \mathrm{e}+005$


d7-N-MeFOSE
F53:MRM of 1 channel,ES-
$623.1>58.9$ $5.317 \mathrm{e}+005$







13C8-PFOA
F20:MRM of 1 channel,ES
$421.3>376$





Dataset: U:IQ4.PROIresults|171026M11171026M1-CRV.qld
Last Altered: Thursday, October 26, 2017 15:43:46 Pacific Daylight Time
Printed: Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

Name: 171026M1_2, Date: 26-Oct-2017, Time: 09:26:00, ID: ST171026M1-1 PFC CS-2 17, 3006 , Description: PFC CS-2 17J3006


| Dataset: | U:IQ4.PRO\results\171026M1\171026M1-CRV.qld |
| :--- | :--- |
| Last Altered: | Thursday, October 26, 2017 15:43:46 Pacific Daylight Time |
| Printed: | Thursday, October 26, 2017 15:44:32 Pacific Daylight Time |

## I (A)

Name: 171026M1_3, Date: 26-Oct-2017, Time: 09:37:20, ID: ST171026M1-2 PFC CS-1 17, $3 \mathbf{3 0 0 7}$, Description: PFC CS-1 17J3007








PFHxA


F8:MRM of 2 channels,ES-



PFHpA


F13:MRM of 2 channels,ES-


## 13C4-PFHpA

F14:MRM of 1 channel,ES-



Dataset: U:\Q4.PRO\results\171026M1\171026M1-CRV.qld
Last Altered: Thursday, October 26, 2017 15:43:46 Pacific Daylight Time
Printed: $\quad$ Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

## 1 (A)

Name: 171026M1_3, Date: 26-Oct-2017, Time: 09:37:20, ID: ST171026M1-2 PFC CS-1 170́3007, Description: PFC CS-1 $17 J 3007$


F21:MRM of 2 channels,ES-


13C2-6:2 FTS
F22:MRM of 1 channel,ES-
$429.1>408.9$



13C2-PFOA



13C3-PFBS





13C8-PFOSA



F29:MRM of 2 channels,ES-


13C8-PFOS
F32:MRM of 1 channel,ES$507.0>79.9$ $6.396 \mathrm{e}+004$

Dataset: U:\Q4.PRO\results\171026M1\171026M1-CRV.qld
Last Altered: Thursday, October 26, 2017 15:43:46 Pacific Daylight Time
Printed: Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

Name: 171026M1_3, Date: 26-Oct-2017, Time: 09:37:20, ID: ST171026M1-2 PFC CS-1 17 ${ }^{\frac{7}{2} 3007 \text {, Description: PFC CS-1 17J3007 }}$
PFDA
F34:MRM of 2 channels,ES-
$513>468.8$
$1.607 \mathrm{e}+004$
100

| 8:2 FTS |
| ---: |
| F39:MRM of 2 channels,ES- |
| $527>506.9$ |
| 100 |



13C2-8:2 FTS
F40:MRM of 1 channel,ES-
$529.1>508.7$





Dataset:
U:IQ4.PRO\results\171026M11171026M1-CRV.qld
Last Altered:
Thursday, October 26, 2017 15:43:46 Pacific Daylight Time
Printed:
Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

Name: 171026M1_3, Date: 26-Oct-2017, Time: 09:37:20, ID: ST171026M1-2 PFC CS-1 17 33007 , Description: PFC CS-1 17 J3007




13C2-PFTeDA
F58:MRM of 2 channels,ES-
$714.8>669.6$



F57:MRM of 2 channels,ES-






Dataset:
U:\Q4.PRO\results\171026M1\171026M1-CRV.qld

Last Altered: Thursday, October 26, 2017 15:43:46 Pacific Daylight Time
Printed:
Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

## Name: 171026M1_3, Date: 26-Oct-2017, Time: 09:37:20, ID: ST171026M1-2 PFC CS-1 17 13007 , Description: PFC CS-1 17J3007

## PFODA <br> 





F53:MRM of 1 channel,ES-
$623.1>58.9$


d9-N-EtFOSE



13C8-PFOA 13C9-PFNA
F20:MRM of 1 channel,ES$421.3>376$ $2.932 \mathrm{e}+005$





Dataset: U:\Q4.PRO\results\171026M1\171026M1-CRV.qld
Last Altered: Thursday, October 26, 2017 15:43:46 Pacific Daylight Time
Printed: Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

Name: 171026M1_3, Date: 26-Oct-2017, Time: 09:37:20, ID: ST171026M1-2 PFC CS-1 17, 3007 , Description: PFC CS-1 17J3007


Dataset:
U:\Q4.PRO\results\171026M1\171026M1-CRV.qld
Last Altered: Thursday, October 26, 2017 15:43:46 Pacific Daylight Time
Printed:
Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

Name: 171026M1_4, Date: 26-Oct-2017, Time: 09:48:39, ID: ST171026M1-3 PFC CS0 17 1805, Description: PFC CS0 17J1805
PFBA


## 13C3-PFBA

F2:MRM of 1 channel,ES-
$216.1>171.8$



13C3-PFPeA




13C2-PFHxA




Dataset: U:IQ4.PRO|resultsI171026M1\171026M1-CRV.qld

Last Altered: Thursday, October 26, 2017 15:43:46 Pacific Daylight Time
Printed: Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

Name: 171026M1_4, Date: 26-Oct-2017, Time: 09:48:39, ID: ST171026M1-3 PFC CS0 17 1 1805, Description: PFC CS0 17J1805


F21:MRM of 2 channels,ES-
$427.1>80$

4.0004 .2004 .400













F29:MRM of 2 channels,ES-


13C8-PFOS
F32:MRM of 1 channel,ES-
$507.0>79.9$


Dataset:
U:IQ4.PRO|results\171026M11171026M1-CRV.ald
Last Altered: Thursday, October 26, 2017 15:43:46 Pacific Daylight Time
Printed: Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

Name: 171026M1_4, Date: 26-Oct-2017, Time: 09:48:39, ID: ST171026M1-3 PFC CSO 17, 1805 , Description: PFC CS0 17J1805


Dataset:
U:IQ4.PROIresultsI171026M11171026M1-CRV.qld
Last Altered: Thursday, October 26, 2017 15:43:46 Pacific Daylight Time
Printed: Thursday, October 26, 2017 15:44:32 Pacific Daylight Time
(惟)






13C2-PFHxDA
F60:MRM of 1 channel,ES $9.420 \mathrm{e}+004$

Dataset:
U:IQ4.PRO|resultsl171026M11171026M1-CRV.qld
Last Altered: Thursday, October 26, 2017 15:43:46 Pacific Daylight Time
Printed: $\quad$ Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

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$$

Name: 171026M1_4, Date: 26-Oct-2017, Time: 09:48:39, ID: ST171026M1-3 PFC CS0 17 $\$ 1805$, Description: PFC CS0 17J1805


13C2-PFHxDA
F60:MRM of 1 channel,ES$815>769.7$ $9.420 \mathrm{e}+004$


d7-N-MeFOSE
F53:MRM of 1 channel,ES-




13C8-PFOA
F20:MRM of 1 channel,ES-



13C9-PFNA
F26:MRM of 1 channel,ES-
$472.2>426.9$



Dataset: U:IQ4.PROIresults\171026M11171026M1-CRV.qld
Last Altered: Thursday, October 26, 2017 15:43:46 Pacific Daylight Time
Printed: Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

Name: 171026M1_4, Date: 26-Oct-2017, Time: 09:48:39, ID: ST171026M1-3 PFC CS0 17 $\$ 1805$, Description: PFC CS0 17J1805



Dataset: U:IQ4.PROIresults1171026M11171026M1-CRV.qld
Last Altered: Thursday, October 26, 2017 15:43:46 Pacific Daylight Time
Printed: Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

Name: 171026M1_5, Date: 26-Oct-2017, Time: 09:59:50, ID: ST171026M1-4 PFC CS1 17, 23009 , Description: PFC CS1 17J3009


Dataset: U:IQ4.PRO\results\171026M1\171026M1-CRV.qld

Last Altered: Thursday, October 26, 2017 15:43:46 Pacific Daylight Time
Printed: $\quad$ Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

Name: 171026M1_5, Date: 26-Oct-2017, Time: 09:59:50, ID: ST171026M1-4 PFC CS1 17 $\downarrow 3009$, Description: PFC CS1 17 J3009


$427.1>80$
$3.742 \mathrm{e}+003$


13C2-6:2 FTS
F22:MRM of 1 channel,ES-


| L-PFOA |  |
| ---: | ---: |
| F18:MRM of 2 channels,ES- |  |
|  | $413>368.7$ |
| 100 |  |










F27:MRM of 2 channels,ES$\begin{array}{rr} & 498.1>478 \\ 100-4.64 & 5.121 \mathrm{e}+002\end{array}$


13C8-PFOSA
F31:MRM of 1 channel,ES-



F29:MRM of 2 channels,ES-


13C8-PFOS
F32:MRM of 1 channel,ES$507.0>79.9$


## Dataset: <br> U:IQ4.PROIresults\171026M11171026M1-CRV.qld

| Last Altered: | $\begin{array}{l}\text { Thursday, October 26, } 2017 \text { 15:43:46 Pacific Daylight Time } \\ \text { Printed: }\end{array}$ |
| :--- | :--- |

Name: 171026M1_5, Date: 26-Oct-2017, Time: 09:59:50, ID: ST171026M1-4 PFC CS1 17/מ3009, Description: PFC CS1 17J3009



F39:MRM of 2 channels,ES-


13C2-8:2 FTS



F44:MRM of 2 channels,ESF470.1 $>483.0$

d3-N-MeFOSAA
d3-N-MeFOSAA
F46:MRM of 1 channel,ES-
$573.3>419$
$1.215 \mathrm{e}+005$

d5-N-EtFOSAA



13C2-PFUdA



## 13C2-PFUdA

Dataset:
U:IQ4.PROIresultsI171026M11171026M1-CRV.qld
Last Altered: Thursday, October 26, 2017 15:43:46 Pacific Daylight Time
Printed: Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

## Name: 171026M1_5, Date: 26-Oct-2017, Time: 09:59:50, ID: ST171026M1-4 PFC CS1 17 $\{3009$, Description: PFC CS1 17J3009




Dataset:
U:IQ4.PRO|results|171026M11171026M1-CRV.qld
Last Altered: Thursday, October 26, 2017 15:43:46 Pacific Daylight Time
Printed: Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

Name: 171026M1_5, Date: 26-Oct-2017, Time: 09:59:50, ID: ST171026M1-4 PFC CS1 17, 3009 , Description: PFC CS1 17J3009


Thursday, October 26, 2017 15:43:46 Pacific Daylight Time
Printed: Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

Name: 171026M1_5, Date: 26-Oct-2017, Time: 09:59:50, ID: ST171026M1-4 PFC CS1 17/J3009, Description: PFC CS1 17J3009


Dataset:
U:\Q4.PRO\results\171026M1\171026M1-CRV.qld

Last Altered: Thursday, October 26, 2017 15:43:46 Pacific Daylight Time
Printed: Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

Name: 171026M1_6, Date: 26-Oct-2017, Time: 10:11:00, ID: ST171026M1-5 PFC CS2 17J2519, Description: PFC CS2 17 J2519


## PFHxA



F8:MRM of 2 channels,ES-


13C2-PFHxA


## PFHpA



F13:MRM of 2 channels,ES$\begin{aligned} & \text { F13.N. } \\ & 363.0>169.0\end{aligned}$





Dataset: U:\Q4.PRO\results\171026M1\171026M1-CRV.qld
Last Altered: Thursday, October 26, 2017 15:43:46 Pacific Daylight Time
Printed: Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

Name: 171026M1_6, Date: 26-Oct-2017, Time: 10:11:00, ID: ST171026M1-5 PFC CS2 17J2519, Description: PFC CS2 17 J2519


F21:MRM of 2 channels,ES-
$427.1>80$ $7.650 \mathrm{e}+003$


13C2-6:2 FTS
F22:MRM of 1 channel,ES$429.1>408.9$



13C2-PFOA
F19:MRM of 1 channel,ES-

PFHpS




PFNA


F24:MRM of 2 channels,ES-


13C5-PFNA
F25:MRM of 1 channel,ES-


PFOSA


F27:MRM of 2 channels,ES-


13C8-PFOSA
F31:MRM of 1 channel,ES-


L-PFOS
F29:MRM of 2 channels,ES$499>79.9$

|  | L-PFOS | $1.635 \mathrm{e}+004$ |
| :---: | :---: | :---: |
| 1007 | 4.68 |  |
|  | 7.42e2 |  |
| \% | 16349 |  |
| \% | MM |  |

F29:MRM of 2 channels,ES-


13C8-PFOS
F32:MRM of 1 channel,ES$507.0>79.9$


Dataset: U:\Q4.PRO\results\171026M1\171026M1-CRV.qld
Last Altered: Thursday, October 26, 2017 15:43:46 Pacific Daylight Time
Printed: Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

Name: 171026M1_6, Date: 26-Oct-2017, Time: 10:11:00, ID: ST171026M1-5 PFC CS2 17J2519, Description: PFC CS2 17 J2519


Dataset:
U:IQ4.PRO|results1171026M11171026M1-CRV.qld
Last Altered: Thursday, October 26, 2017 15:43:46 Pacific Daylight Time
Printed: Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

Name: 171026M1_6, Date: 26-Oct-2017, Time: 10:11:00, ID: ST171026M1-5 PFC CS2 17J2519, Description: PFC CS2 17J2519




| Dataset: | U:IQ4.PRO\results\171026M11171026M1-CRV.qld |
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|  |  |
| Last Altered: | Thursday, October 26, 2017 15:43:46 Pacific Daylight Time |
| Printed: | Thursday, October 26, 2017 15:44:32 Pacific Daylight Time |

Name: 171026M1_6, Date: 26-Oct-2017, Time: 10:11:00, ID: ST171026M1-5 PFC CS2 17J2519, Description: PFC CS2 17 J2519


Dataset: U:\Q4.PRO\results\171026M1\171026M1-CRV.qld
Last Altered: Thursday, October 26, 2017 15:43:46 Pacific Daylight Time
Printed: Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

Name: 171026M1_6, Date: 26-Oct-2017, Time: 10:11:00, ID: ST171026M1-5 PFC CS2 17J2519, Description: PFC CS2 17 J2519


| Dataset: | U:IQ4.PRO\results\171026M1\171026M1-CRV.qld |
| :--- | :--- |
| Last Altered: | Thursday, October 26, 2017 15:43:46 Pacific Daylight Time |
| Printed: | Thursday, October 26, 2017 15:44:32 Pacific Daylight Time |

Name: 171026M1_7, Date: 26-Oct-2017, Time: 10:22:11, ID: ST171026M1-6 PFC CS3 17J1806, Description: PFC CS3 17J1806





PFHxA
F8:MRM of 2 channels,ES-
$313.2>268.9$
$4.230 \mathrm{e}+005$
100





Dataset:
U:\Q4.PRO\results\171026M1\171026M1-CRV.ald

Last Altered: Thursday, October 26, 2017 15:43:46 Pacific Daylight Time
Printed: Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

Name: 171026M1_7, Date: 26-Oct-2017, Time: 10:22:11, ID: ST171026M1-6 PFC CS3 17J1806, Description: PFC CS3 17 J1806

6:2 FTS


F21:MRM of 2 channels,ES$427.1>80$ $2.359 \mathrm{e}+004$


13C2-6:2 FTS
F22:MRM of 1 channel,ES$29.1>408.9$



13C2-PFOA
F19:MRM of 1 channel,ES-

PFHpS



13C3-PFBS




L-PFOS
F29:MRM of 2 channels,ES$499>79.9$


F29:MRM of 2 channels,ES-


13C8-PFOS
F32:MRM of 1 channel,ES$507.0>79.9$ $7.684 \mathrm{e}+004$

Dataset: U:IQ4.PROTresults|171026M11171026M1-CRV.qld

Last Altered: Thursday, October 26, 2017 15:43:46 Pacific Daylight Time
Printed: Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

Name: 171026M1_7, Date: 26-Oct-2017, Time: 10:22:11, ID: ST171026M1-6 PFC CS3 17J1806, Description: PFC CS3 17J1806


F34:MRM of 2 channels,ES-
$513>219$
$5.733 e+004$


13C2-PFDA
F35:MRM of 1 channel,ES-



13C2-8:2 FTS
F40:MRM of 1 channel,ES-

| N-MeFOSAA |  |
| ---: | :--- |
| F44:MRM of 2 channels,ES- |  |
| $570.1>419$ |  |
| 2 | $2.195 e+005$ |


d3-N-MeFOSAA
F46:MRM of 1 channel,ES-
$573.3>419$
1.456 .



d5-N-EtFOSAA



Dataset: U:IQ4.PRO\results\171026M1\171026M1-CRV.qld
Last Altered: Thursday, October 26, 2017 15:43:46 Pacific Daylight Time
Printed: $\quad$ Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

Name: 171026M1_7, Date: 26-Oct-2017, Time: 10:22:11, ID: ST171026M1-6 PFC CS3 17J1806, Description: PFC CS3 17 J 1806




Dataset:
U:IQ4.PROIresultsi171026M11171026M1-CRV.qld
Last Altered:
Printed:
Thursday, October 26, 2017 15:43:46 Pacific Daylight Time Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

Name: 171026M1_7, Date: 26-Oct-2017, Time: 10:22:11, ID: ST171026M1-6 PFC CS3 17J1806, Description: PFC CS3 17J1806


13C2-PFHxDA
F60:MRM of 1 channel,ES$815>769.7$ $8.140 \mathrm{e}+004$



## d7-N-MeFOSE

F53:MRM of 1 channel,ES-
$623.1>58.9$

d9-N-EtFOSE
F55:MRM of 1 channel,ES$639.2>58.8$ $5.363 e+005$



13C8-PFOA
F20:MRM of 1 channel,ES-



13C9-PFNA



Dataset: U:\Q4.PRO\results\171026M1\171026M1-CRV.qld
Last Altered: Thursday, October 26, 2017 15:43:46 Pacific Daylight Time
Printed: Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

Name: 171026M1_7, Date: 26-Oct-2017, Time: 10:22:11, ID: ST171026M1-6 PFC CS3 17J1806, Description: PFC CS3 17 J1806


Dataset:
U:IQ4.PROIresults1171026M11171026M1-CRV.qld
Last Altered: Thursday, October 26, 2017 15:43:46 Pacific Daylight Time
Printed: Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

Name: 171026M1_8, Date: 26-Oct-2017, Time: 10:33:24, ID: ST171026M1-7 PFC CS4 17J2102, Description: PFC CS4 17J2102

PFBA
F1:MRM of 1 channel,ES-
$213.0>168.8$
$6.380 \mathrm{e}+005$

## 13C3-PFBA

F2:MRM of 1 channel,ES-



13C3-PFPeA



F6:MRM of 2 channels,ES-




13C4-PFHpA



Dataset: U:\Q4.PRO\results\171026M1\171026M1-CRV.qld

Last Altered: Thursday, October 26, 2017 15:43:46 Pacific Daylight Time
Printed: Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

Name: 171026M1_8, Date: 26-Oct-2017, Time: 10:33:24, ID: ST171026M1-7 PFC CS4 17J2102, Description: PFC CS4 17 J2102


Dataset:
U:IQ4.PROTresults1171026M11171026M1-CRV.qld
Last Altered: Thursday, October 26, 2017 15:43:46 Pacific Daylight Time
Printed: Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

Name: 171026M1_8, Date: 26-Oct-2017, Time: 10:33:24, ID: ST171026M1-7 PFC CS4 17J2102, Description: PFC CS4 17J2102


Dataset:
U:\Q4.PRO\results\171026M1\171026M1-CRV.qId
$\begin{array}{ll}\text { Last Altered: } & \text { Thursday, October 26, } 2017 \text { 15:43:46 Pacific Daylight Time } \\ \text { Printed: } & \text { Thursday, October 26, } 2017 \text { 15:44:32 Pacific Daylight Time }\end{array}$

Name: 171026M1_8, Date: 26-Oct-2017, Time: 10:33:24, ID: ST171026M1-7 PFC CS4 17J2102, Description: PFC CS4 17 J2102




Dataset:
U:\Q4.PRO\results\171026M1\171026M1-CRV.qld
Last Altered: Thursday, October 26, 2017 15:43:46 Pacific Daylight Time
Printed: $\quad$ Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

Name: 171026M1_8, Date: 26-Oct-2017, Time: 10:33:24, ID: ST171026M1-7 PFC CS4 17J2102, Description: PFC CS4 17J2102


Dataset:
U:IQ4.PROTresultsI171026M11171026M1-CRV.qld
Last Altered: Thursday, October 26, 2017 15:43:46 Pacific Daylight Time
Printed: Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

Name: 171026M1_8, Date: 26-Oct-2017, Time: 10:33:24, ID: ST171026M1-7 PFC CS4 17J2102, Description: PFC CS4 17J2102


Name: 171026M1_9, Date: 26-Oct-2017, Time: 10:44:36, ID: ST171026M1-8 PFC CS5 17J2101, Description: PFC CS5 17J2101


Dataset:
U:\Q4.PRO\results\171026M1\171026M1-CRV.qld

Last Altered: Thursday, October 26, 2017 15:43:46 Pacific Daylight Time
Printed: Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

Name: 171026M1_9, Date: 26-Oct-2017, Time: 10:44:36, ID: ST171026M1-8 PFC CS5 17J2101, Description: PFC CS5 17 J 2101


F21:MRM of 2 channels,ES$427.1>80$ $1.497 \mathrm{e}+005$


13C2-6:2 FTS
F22:MRM of 1 channel,ES429.1 > 408.9 $7.816 \mathrm{e}+004$


13C2-PFOA
F19:MRM of 1 channel,ES-


PFHpS



13C3-PFBS
F7:MRM of 1 channel,ES-
$302 .>98.8$
$2.655 e+004$


PFNA


F24:MRM of 2 channels,ES-


13C5-PFNA
F25:MRM of 1 channel,ES$\begin{array}{rr}468.2 & >422.9 \\ 100 & 2.778 \mathrm{e}+005\end{array}$


PFOSA


F27:MRM of 2 channels,ES-


13C8-PFOSA


L-PFOS
F29:MRM of 2 channels,ES499 > 79.9

| 100 | L-PFOS | $3.861 \mathrm{e}+005$ |
| :---: | :---: | :---: |
| 1007 | 4.68 |  |
| - | 1.85 e 4 |  |
| \% | 386116 |  |
|  | MM |  |

F29:MRM of 2 channels,ES-


13C8-PFOS
F32:MRM of 1 channel,ES-


Dataset: U:\Q4.PRO\results\171026M1\171026M1-CRV.qld
Last Altered: Thursday, October 26, 2017 15:43:46 Pacific Daylight Time
Printed: $\quad$ Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

Name: 171026M1_9, Date: 26-Oct-2017, Time: 10:44:36, ID: ST171026M1-8 PFC CS5 17J2101, Description: PFC CS5 17J2101


Dataset: U:IQ4.PROIresults1171026M11171026M1-CRV.qld
Last Altered: Thursday, October 26, 2017 15:43:46 Pacific Daylight Time
Printed: Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

Name: 171026M1_9, Date: 26-Oct-2017, Time: 10:44:36, ID: ST171026M1-8 PFC CS5 17J2101, Description: PFC CS5 17J2101


Dataset:
U:\Q4.PRO\results\171026M1\171026M1-CRV.qld

Last Altered: Thursday, October 26, 2017 15:43:46 Pacific Daylight Time
Printed: Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

Name: 171026M1_9, Date: 26-Oct-2017, Time: 10:44:36, ID: ST171026M1-8 PFC CS5 17J2101, Description: PFC CS5 17 J 2101



F60:MRM of 1 channel,ES$815>769.7$ $1.050 \mathrm{e}+005$




F53:MRM of 1 channel,ES-


d9-N-EtFOSE
F55:MRM of 1 channel,ES$639.2>58.8$ $4.302 \mathrm{e}+005$




F20:MRM of 1 channel,ES-



13C9-PFNA
F26:MRM of 1 channel,ES-



Dataset: U:IQ4.PROIresults\171026M11171026M1-CRV.qld

Last Altered: Thursday, October 26, 2017 15:43:46 Pacific Daylight Time
Printed:
Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

Name: 171026M1_9, Date: 26-Oct-2017, Time: 10:44:36, ID: ST171026M1-8 PFC CS5 17J2101, Description: PFC CS5 17J2101


Dataset: U:\Q4.PRO\results\171026M1\171026M1-CRV.qld
Last Altered: Thursday, October 26, 2017 15:43:46 Pacific Daylight Time
Printed:
Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

Name: 171026M1_10, Date: 26-Oct-2017, Time: 10:55:46, ID: ST171026M1-9 PFC CS6 17J2517, Description: PFC CS6 17 J2517


Dataset: U:IQ4.PRO\results\171026M1\171026M1-CRV.qld
Last Altered: Thursday, October 26, 2017 15:43:46 Pacific Daylight Time
Printed: Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

## Name: 171026M1_10, Date: 26-Oct-2017, Time: 10:55:46, ID: ST171026M1-9 PFC CS6 17J2517, Description: PFC CS6 17 J2517



F21:MRM of 2 channels,ES-
$427.1>80$
$3.764 e+005$


13C2-6:2 FTS
F22:MRM of 1 channel,ES$429.1>408.9$ $1.106 \mathrm{e}+005$




13C2-PFOA
F19:MRM of 1 channel,ES-






F24:MRM of 2 channels,ES-



PFOSA


F27:MRM of 2 channels,ES$498.1>478$ $3.322 e+004$



F31:MRM of 1 channel,ES$506.1>77.7$


L-PFOS
F29:MRM of 2 channels,ES$499>79.9$



13C8-PFOS
F32:MRM of 1 channel,ES-


Dataset:
U:\Q4.PRO\results\171026M1\171026M1-CRV.qld
Last Altered: Thursday, October 26, 2017 15:43:46 Pacific Daylight Time
Printed: $\quad$ Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

## Name: 171026M1_10, Date: 26-Oct-2017, Time: 10:55:46, ID: ST171026M1-9 PFC CS6 17J2517, Description: PFC CS6 $17 J 2517$









d3-N-MeFOSAA
F46:MRM of 1 channel,ES-
$573.3>419$ $1.112 \mathrm{e}+005$





13C2-PFUdA
F43:MRM of 1 channel,ES-
$565>519.8$
$2.7810+005$



Dataset: U:\Q4.PRO\results\171026M1\171026M1-CRV.qld
Last Altered: Thursday, October 26, 2017 15:43:46 Pacific Daylight Time
Printed: $\quad$ Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

Name: 171026M1_10, Date: 26-Oct-2017, Time: 10:55:46, ID: ST171026M1-9 PFC CS6 17J2517, Description: PFC CS6 17 J 2517


d3-N-MeFOSA



13C2-PFTeDA
F58:MRM of 2 channels,ES-




13C2-PFTeDA
F58:MRM of 2


| Dataset: | U:\Q4.PRO\results\171026M1\171026M1-CRV.qld |
| :--- | :--- |
| Last Altered: | Thursday, October 26, 2017 15:43:46 Pacific Daylight Time |
| Printed: | Thursday, October 26, 2017 15:44:32 Pacific Daylight Time |

Name: 171026M1_10, Date: 26-Oct-2017, Time: 10:55:46, ID: ST171026M1-9 PFC CS6 17J2517, Description: PFC CS6 17 J2517



d7-N-MeFOSE


d9-N-EtFOSE



13C8-PFOA
F20:MRM of 1 channel,ES-
$421.3>376$
$2.236 e+005$





Datase: U:IQ4.PROIresults|171026M11171026M1-CRV.qld
Last Altered: Thursday, October 26, 2017 15:43:46 Pacific Daylight Time
Printed: Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

Name: 171026M1_10, Date: 26-Oct-2017, Time: 10:55:46, ID: ST171026M1-9 PFC CS6 17J2517, Description: PFC CS6 17J2517


| Dataset: | U:IQ4.PRO\results 1171026 M11171026M1-13.qld |
| :--- | :--- |
| Last Altered: | Friday, October 27, 2017 10:46:12 Pacific Daylight Time |
| Printed: | Friday, October 27, 2017 10:46:53 Pacific Daylight Time |

## Method: U:IQ4.PROIMethDBIPFAS_FULL_80C_102517.mdb 27 Oct 2017 10:03:44

 Calibration: U:IQ4.PROICurveDBIC18_VAL-PFAAS_Q4_10-26-17-FULL_NOPFODA.cdb 27 Oct 2017 10:26:14Name: 171026M1_13, Date: 26-Oct-2017, Time: 11:30:01, ID: ICV171026M1-1 PFC ICV 17I3003, Description: PFC ICV 17I3003


Dataset:
U:IQ4.PROIresults 1171026 M11171026M1-13.qld
Last Altered:
Friday, October 27, 2017 10:46:12 Pacific Daylight Time
Printed: Friday, October 27, 2017 10:46:53 Pacific Daylight Time

Name: 171026M1_13, Date: 26-Oct-2017, Time: 11:30:01, ID: ICV171026M1-1 PFC ICV 17/3003, Description: PFC ICV 1713003

|  |  | \# Name | Trace | Area | IS Area | RRF | PredRT | RT | $y$ Axis Resp. | Conc. | \%Rec | 50-150 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 32 |  | 36 1802-PFHxS | $403.0>102.6$ | 8.16 e 2 | 2.17e3 | 0.412 | 3.85 | 3.78 | 4.71 | 11.4 | 91.3 |  |
| 33 |  | 37 13C2-6:2 FTS | $429.1>408.9$ | 2.66 e 3 | 1.14 e 4 | 0.248 | 4.18 | 4.10 | 2.92 | 11.8 | 94.3 |  |
| 34 |  | 38 13C2-PFOA | $414.9>369.7$ | 1.20 e 4 | 1.14 e 4 | 1.120 | 4.23 | 4.15 | 13.2 | 11.8 | 94.5 |  |
| 35 |  | 39 13C5-PFNA | $468.2>422.9$ | 1.12 e 4 | 1.20 e 4 | 0.929 | 4.67 | 4.59 | 11.7 | 12.6 | 100.5 |  |
| 36 |  | 40 13C8-PFOSA | $506.1>77.7$ | 3.44 e 3 | 1.46 e 4 | 0.246 | 4.72 | 4.65 | 2.93 | 11.9 | 95.3 |  |
| 37 |  | 41 13C8-PFOS | $507.0>79.9$ | 2.69 e 3 | 2.51 e 3 | 1.027 | 4.76 | 4.68 | 13.4 | 13.1 | 104.4 |  |
| 38 |  | 42 13C2-PFDA | $515.1>469.9$ | 1.13 e 4 | 1.25 e 4 | 0.946 | 5.05 | 4.98 | 11.2 | 11.9 | 95.1 |  |
| 39 |  | 43 13C2-8:2 FTS | $529.1>508.7$ | 2.36 e 3 | 1.25 e 4 | 0.171 | 5.03 | 4.95 | 2.36 | 13.8 | 110.2 |  |
| 40 |  | 44 d3-N-MeFOSAA | $573.3>419$ | 4.57 e 3 | 1.46 e 4 | 0.358 | 5.20 | 5.13 | 3.90 | 10.9 | 87.2 |  |
| 41 | Wilutit | $45 \mathrm{~d} 5-\mathrm{N}-\mathrm{EtFOSAA}$ | $589.3>419$ | 5.15 e 3 | 1.46 e 4 | 0.360 | 5.36 | 5.29 | 4.39 | 12.2 | 97.7 |  |
| 42 | 4\% | 46 13C2-PFUdA | $565>519.8$ | 1.53 e 4 | 1.46 e 4 | 1.045 | 5.38 | 5.32 | 13.0 | 12.5 | 99.9 |  |
| 43 | W: | 47 13C2-PFDoA | $615.0>569.7$ | 1.69 e 4 | 1.46 e 4 | 1.141 | 5.67 | 5.60 | 14.4 | 12.6 | 100.8 |  |
| 44 | \% | 48 d3-N-MeFOSA | $515.2>168.9$ | 1.39 e 4 | 1.46 e 4 | 0.093 | 5.65 | 5.62 | 11.8 | 127 | 84.5 |  |
| 45 | Itrit | 49 13C2-PFTeDA | $714.8>669.6$ | 1.25 e 4 | 1.46 e 4 | 0.934 | 6.13 | 6.08 | 10.6 | 11.4 | 91.1 |  |
| 46 | W1) | $50 \mathrm{~d} 5-\mathrm{N}-E T F O S A$ | $531.1>168.9$ | 1.92 e 4 | 1.46 e 4 | 0.132 | 6.06 | 6.04 | 16.4 | 124 | 82.8 |  |
| 47 |  | 51 13C2-PFHxDA | $815>769.7$ | 3.19 e 3 | 1.46 e 4 | 0.809 | 6.45 | 6.41 | 2.73 | 3.37 | 67.4 |  |
| 48 |  | $52 \mathrm{d7}-\mathrm{N}-\mathrm{MeFOSE}$ | $623.1>58.9$ | 2.24 e 4 | 1.46 e 4 | 0.142 | 6.22 | 6.23 | 19.1 | 135 | 89.8 | 1 |
| 49 | \$ | 53 d9-N-EtFOSE | $639.2>58.8$ | 1.95 e 4 | 1.46 e 4 | 0.131 | 6.37 | 6.38 | 16.6 | 127 | 84.8 | $\checkmark$ |
| 50 | \% | 54 13C4-PFBA | 217. $>171.8$ | 8.85 e 3 | 8.85e3 | 1.000 | 1.33 | 1.23 | 12.5 | 12.5 | 100.0 |  |
| 51 | W: | 55 13C5-PFHXA | $318>272.9$ | 1.20 e 4 | 1.20 e 4 | 1.000 | 3.08 | 2.99 | 12.5 | 12.5 | 100.0 |  |
| 52 |  | 56 13C3-PFHxS | $401.9>79.9$ | 2.17 e 3 | 2.17 e 3 | 1.000 | 3.85 | 3.77 | 12.5 | 12.5 | 100.0 |  |
| 53 | MEFTMIN | 57 13C8-PFOA | $421.3>376$ | 1.14 e 4 | 1.14 e 4 | 1.000 | 4.23 | 4.15 | 12.5 | 12.5 | 100.0 |  |
| 54 | W\% | 58 13C9-PFNA | $472.2>426.9$ | 1.20 e 4 | 1.20 e 4 | 1.000 | 4.67 | 4.59 | 12.5 | 12.5 | 100.0 |  |
| 55 | WH2.ent | 59 13C4-PFOS | $503>79.9$ | 2.51 e 3 | 2.51 e 3 | 1.000 | 4.76 | 4.68 | 12.5 | 12.5 | 100.0 |  |
| 56 | \%REMEt | 60 13C6-PFDA | $519.1>473.7$ | 1.25 e 4 | 1.25 e 4 | 1.000 | 5.05 | 4.98 | 12.5 | 12.5 | 100.0 |  |
| 57 |  | 61 13C7-PFUnA | $570.1>524.8$ | 1.46 e 4 | 1.46 e 4 | 1.000 | 5.38 | 5.31 | 12.5 | 12.5 | 100.0 |  |


| Last Altered: | Friday, October 27, 2017 10:46:12 Pacific Daylight Time |
| :--- | :--- |
| Printed: | Friday, October 27, 2017 10:46:53 Pacific Daylight Time |

Method: U:IQ4.PROIMethDBIPFAS_FULL_80C_102517.mdb 27 Oct 2017 10:03:44

## Calibration: U:IQ4.PROICurveDBIC18_VAL-PFĀS_Q4_10-26-17-FULL_NOPFODA.cdb 27 Oct 2017 10:26:14

## Name: 171026M1_13, Date: 26-Oct-2017, Time: 11:30:01, ID: ICV171026M1-1 PFC ICV 17I3003, Description: PFC ICV 17I3003



## 13C3-PFBA






F6:MRM of 2 channels,ES-





F13:MRM of 2 channels,ES-



F15:MRM of 2 channels,ES-


1802-PFHxS
F17:MRM of 1 channel,ES-


| Last Altered: | Friday, October 27, 2017 10:46:12 Pacific Daylight Time |
| :--- | :--- |
| Printed: | Friday, October 27, 2017 10:46:53 Pacific Daylight Time |

Name: 171026M1_13, Date: 26-Oct-2017, Time: 11:30:01, ID: ICV171026M1-1 PFC ICV 17I3003, Description: PFC ICV 17I3003


4.0004 .2004 .400

13C2-6:2 FTS

4.0004 .2004 .400


13C2-PFOA
F19:MRM of 1 channel,ES-
$414.9>369.7$




13C2-PFOA
F19:MRM of 1 channel,ES.

$$
414.9>369.7
$$









L-PFOS

| F29:MRM of 2 channels,ES- |
| ---: |
| $499>79.9$ |
| 100 |


13C8-PFOS
F32:MRM of 1 channel,ES$507.0>79.9$


Dataset: U:IQ4.PRO\results\171026M1\171026M1-13.qld
Last Altered: Friday, October 27, 2017 10:46:12 Pacific Daylight Time
Printed: Friday, October 27, 2017 10:46:53 Pacific Daylight Time

Name: 171026M1_13, Date: 26-Oct-2017, Time: 11:30:01, ID: ICV171026M1-1 PFC ICV 17I3003, Description: PFC ICV 1713003


8:2 FTS
F39:MRM of 2 channels,ES-
$527>506.9$
$7.584 \mathrm{e}+004$

F39:MRM of 2 channels,ES-




F44:MRM of 2 channels,ES$570.1>483.0$ $1.221 \mathrm{e}+004$



F47:MRM of 2 channels,ES-








Dataset:
U:\Q4.PRO\results\171026M1\171026M1-13.qld
Last Altered: Friday, October 27, 2017 10:46:12 Pacific Daylight Time
Printed: Friday, October 27, 2017 10:46:53 Pacific Daylight Time

## Name: 171026M1_13, Date: 26-Oct-2017, Time: 11:30:01, ID: ICV171026M1-1 PFC ICV 1713003, Description: PFC ICV 17 I3003

## PFDoA <br>  <br> 














| Dataset: | U:IQ4.PRO\results1171026M11171026M1-13.qld |
| :--- | :--- |
| Last Altered: | Friday, October 27, 2017 10:46:12 Pacific Daylight Time |

Name: 171026M1_13, Date: 26-Oct-2017, Time: 11:30:01, ID: ICV171026M1-1 PFC ICV 17I3003, Description: PFC ICV 17 I3003



## N-MeFOSE

F52:MRM of 1 channel,ES-$100-\quad 6.23 \begin{array}{r}616.1>58.9 \\ 1.509 \mathrm{e}+002\end{array}$

## N-EtFOSE

F54:MRM of 1 channel,ES-

d9-N-EtFOSE










| Dataset: | U:IQ4.PROIresultsI171026M11171026M1-13.qld |
| :--- | :--- |
| Last Altered: | Friday, October 27, 2017 10:46:12 Pacific Daylight Time |
| Printed: | Friday, October 27, 2017 10:46:53 Pacific Daylight Time |

Name: 171026M1_13, Date: 26-Oct-2017, Time: 11:30:01, ID: ICV171026M1-1 PFC ICV 1713003, Description: PFC ICV 1713003


| Dataset: | Untitled |
| :--- | :--- |
| Last Altered: | Thursday, October 26, 2017 16:58:39 Pacific Daylight Time |
| Printed: | Thursday, October 26, 2017 16:59:18 Pacific Daylight Time |

## Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_102517.mdb 26 Oct 2017 08:20:12

## Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_10-26-17-FULL_NOPFODA.cdb 26 Oct 2017 16:54:06

Name: 171026M1_12, Date: 26-Oct-2017, Time: 11:18:50, ID: IPA, Description: IPA



## 13C3-PFBS

F7:MRM of 1 channel,ES-
$302 .>98.8$
$1.000 \mathrm{e}-003$




PFHpA
PFHpA
F13:MRM of 2 channels,ES-


## 13C4-PFHpA






## 13C2-PFHxA

## Dataset: Untitled

Last Altered: Thursday, October 26, 2017 16:58:39 Pacific Daylight Time
Printed: Thursday, October 26, 2017 16:59:18 Pacific Daylight Time

## Name: 171026M1_12, Date: 26-Oct-2017, Time: 11:18:50, ID: IPA, Description: IPA



13C2-6:2 FTS



13C2-PFOA


## 13C3-PFBS




13C5-PFNA
F25:MRM of 1 channel,ES-
$468.2>422.9$
$1.000 \mathrm{e}-003$



| Dataset: | Untitled |
| :--- | :--- |
| Last Altered: | Thursday, October 26, 2017 16:58:39 Pacific Daylight Time |
| Printed: | Thursday, October 26, 2017 16:59:18 Pacific Daylight Time |

Name: 171026M1_12, Date: 26-Oct-2017, Time: 11:18:50, ID: IPA, Description: IPA


## 13C2-PFDA




## 13C2-8:2 FTS






## Dataset: Untitled <br> Last Altered: Thursday, October 26, 2017 16:58:39 Pacific Daylight Time <br> Printed: Thursday, October 26, 2017 16:59:18 Pacific Daylight Time

## Name: 171026M1_12, Date: 26-Oct-2017, Time: 11:18:50, ID: IPA, Description: IPA



## 13C2-PFDoA

F51:MRM of 1 channel,ES-
$\begin{array}{rr}- & 615.0>569.7 \\ 1.000 \mathrm{e}-003\end{array}$


d3-N-MeFOSA
F36:MRM of 1 channel,ES-
$515.2>168.9$



F56:MRM of 2 channels,ES-


13C2-PFTeDA
F58:MRM of 2 channels,ES-
$\quad \begin{aligned} & 714.8>669.6\end{aligned}$



13C2-PFTeDA


d5-N-ETFOSA



## Dataset: Untitled

Last Altered: Thursday, October 26, 2017 16:58:39 Pacific Daylight Time
Printed: $\quad$ Thursday, October 26, 2017 16:59:18 Pacific Daylight Time

## Name: 171026M1_12, Date: 26-Oct-2017, Time: 11:18:50, ID: IPA, Description: IPA



## 13C2-PFHxDA



d7-N-MeFOSE

d9-N-EtFOSE
F55:MRM of 1 channel,ES-
$639.2>58.8$



## 13C8-PFOA



## 13C5-PFHxA





13C4-PFOS


## Quantify Sample Report

MassLynx MassLynx V4.1 SCN945 SCN960

| Dataset: | Untitled |
| :--- | :--- |
|  |  |
| Last Altered: | Thursday, October 26, 2017 16:58:39 Pacific Daylight Time |
| Printed: | Thursday, October 26, 2017 16:59:18 Pacific Daylight Time |

Name: 171026M1_12, Date: 26-Oct-2017, Time: 11:18:50, ID: IPA, Description: IPA


| Dataset: | U:IQ4.PRO\results1171031M1\171031M1-CRV.qld |
| :--- | :--- |
| Last Altered: | Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time |
| Printed: | Wednesday, November 01, 2017 08:45:15 Pacific Daylight Time |

Method: U:IQ4.PROIMethDBIPFAS_FULL_80C_102717.mdb 31 Oct 2017 10:25:33 Calibration: 01 Nov 2017 08:21:58 C18_VAL-PFAS_O4_|D-31-17-FUI_OLD

## Compound name: PFBA

Correlation coefficient: $\mathrm{r}=0.999738, \mathrm{r}^{\wedge} 2=0.999476$
Calibration curve: 1.06856 * $x+0.0388677$
Response type: Internal Std ( Ref 31 ), Area * (IS Conc. / IS Area )
Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None




## Compound name: PFPeA

Correlation coefficient: $\mathrm{r}=0.999844, \mathrm{r}^{\wedge} 2=0.999687$
Calibration curve: $0.95039{ }^{*} \mathrm{x}+0.0982843$
Response type: Internal Std ( Ref 32 ), Area * (IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: $1 / x$, Axis trans: None


| Quantify Compound Summary Report $\quad$ MassLynx MassLynx V4.1 SCN945 |  |
| :--- | :--- |
| Vista Analytical Laboratory |  |
| Dataset: | U:IQ4.PROIresults1171031M11171031M1-CRV.qld |
| Last Altered: | Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time |
| Printed: | Wednesday, November 01, 2017 08:45:15 Pacific Daylight Time |

## Compound name: PFBS

Correlation coefficient: $\mathrm{r}=0.998677, \mathrm{r} \wedge 2=0.997355$
Calibration curve: 2.01352 * x +0.191925
Response type: Internal Std ( Ref 33), Area * (IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

| - | \# Name | Type | Std. Conc | RT | - Area | IS Area | Response | Conc. | \%Dev | Conc. Fla | CoD | CoD Flag | x =excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $12 \times$ | 1 171031M1_2 | Standard | 0.250 | 2.39 | 32.129 | 688.358 | 0.583 | 0.2 | -22.2 | NO | 0.997 | NO | MM |
| 2 2, | 2 171031M1_3 | Standard | 0.500 | 2.35 | 68.250 | 780.678 | 1.093 | 0.4 | -10.5 | NO | 0.997 | NO | bb |
| $3$ | 3 171031M1_4 | Standard | 1.000 | 2.34 | 135.287 | 753.021 | 2.246 | 1.0 | 2.0 | NO | 0.997 | NO | bb |
| 4 | 4 171031M1_5 | Standard | 2.000 | 2.34 | 297.678 | 742.446 | 5.012 | 2.4 | 19.7 | NO | 0.997 | NO | bb |
| 5 | 5 171031M1_6 | Standard | 5.000 | 2.34 | 677.897 | 796.599 | 10.637 | 5.2 | 3.8 | NO | 0.997 | NO | bb |
| 6 6 $4 \times 2$ | 6 171031M1_7 | Standard | 10.000 | 2.34 | 1326.434 | 784.881 | 21.125 | 10.4 | 4.0 | NO | 0.997 | NO | bb |
| $7$ | 7 171031M1_8 | Standard | 50.000 | 2.34 | 6743.358 | 761.174 | 110.739 | 54.9 | 9.8 | No | 0.997 | NO | bb |
| 8 8, | 8 171031M1_9 | Standard | 100.000 | 2.33 | 11668.234 | 777.412 | 187.613 | 93.1 | -6.9 | NO | 0.997 | NO | bb |
| $9 \times+$ - | 9 171031M1_10 | Standard | 250.000 | 2.34 | 29680.076 | 733.437 | 505.839 | 251.1 | 0.5 | NO | 0.997 | NO | bb |

## Compound name: PFHxA

Correlation coefficient: $\mathrm{r}=0.998612, \mathrm{r} \wedge=0.997226$
Calibration curve: 1.40323 * $x+0.202144$
Response type: Internal Std ( Ref 34 ), Area * (IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

|  | \# Name | Type | d. Con | RT | Area | IS Area | Response | Conc. | \%Dev |  | CoD | D | cluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 1\% | 1 171031M1_2 | Standard | 0.250 | 2.88 | 232.930 | 2384.504 | 0.488 | 0.2 | -18.4 | NO | 0.997 | NO | MM |
| 2.4 | 2 171031M1_3 | Standard | 0.500 | 2.85 | 435.232 | 2709.806 | 0.803 | 0.4 | -14.4 | NO | 0.997 | NO | bb |
| 3 rrimet | 3 171031M1_4 | Standard | 1.000 | 2.83 | 793.895 | 2400.978 | 1.653 | 1.0 | 3.4 | NO | 0.997 | NO | bb |
| 4 | 4 171031M1_5 | Standard | 2.000 | 2.83 | 1654.046 | 2626.430 | 3.149 | 2.1 | 5.0 | NO | 0.997 | NO | bb |
| $5$ | 5 171031M1_6 | Standard | 5.000 | 2.83 | 4328.878 | 2766.778 | 7.823 | 5.4 | 8.6 | NO | 0.997 | NO | bb |
| $6$ | $6171031 \mathrm{M1} \mathbf{- 7}^{\text {6 }}$ | Standard | 10.000 | 2.83 | 8221.420 | 2605.448 | 15.777 | 11.1 | 11.0 | NO | 0.997 | NO | bb |
| $17$ | 7 171031M1_8 | Standard | 50.000 | 2.83 | 38590.754 | 2715.844 | 71.047 | 50.5 | 1.0 | NO | 0.997 | NO | bb |
| $8$ | 8 171031M1_9 | Standard | 100.000 | 2.83 | 74838.055 | 2475.010 | 151.187 | 107.6 | 7.6 | NO | 0.997 | NO | bb |
| 9.4 | 9 171031M1_10 | Standard | 250.000 | 2.83 | 175556.516 | 2600.894 | 337.493 | 240.4 | -3.9 | NO | 0.997 | NO | bb |


| Quantify Compound Summary Report MassLynx MassLynx V4.1 SCN945 |
| :--- |
| Vista Analytical Laboratory |
| Dataset: U:IQ4.PRO\results\171031M11171031M1-CRV.qld <br>   <br> Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time <br> Printed: Wednesday, November 01, 2017 08:45:15 Pacific Daylight Time |

## Compound name: PFHpA

Correlation coefficient: $r=0.999826, r^{\wedge} 2=0.999651$
Calibration curve: $1.29101^{*} \mathrm{x}+0.123326$
Response type: Internal Std (Ref 35 ), Area * (IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

|  | \# Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | $\%$ Dev | Conc Flag | COD | COD Flag | $x=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| \% | 1 171031M1_2 | Standard | 0.250 | 3.51 | 202.985 | 5735.094 | 0.442 | 0.2 | -1.1 | NO | 1.000 | NO | bb |
| 2 ata | 2 171031M1_3 | Standard | 0.500 | 3.47 | 345.688 | 6010.148 | 0.719 | 0.5 | -7.7 | NO | 1.000 | NO | bb |
| $3 \times$ | 3 171031M1_4 | Standard | 1.000 | 3.46 | 706.153 | 6161.061 | 1.433 | 1.0 | 1.4 | NO | 1.000 | NO | bb |
| $4{ }^{4}+4$ | 4 171031M1_5 | Standard | 2.000 | 3.46 | 1422.494 | 6429.838 | 2.765 | 2.0 | 2.3 | NO | 1.000 | NO | bb |
| $5$ | 5 171031M1_6 | Standard | 5.000 | 3.46 | 3399.143 | 6283.539 | 6.762 | 5.1 | 2.8 | NO | - 1.000 | NO | MM |
| $6$ | 6 171031M1_7 | Standard | 10.000 | 3.46 | 6601.609 | 6278.420 | 13.143 | 10.1 | 0.9 | NO | 1.000 | NO | bb |
| $7$ | 7 171031M1_8 | Standard | 50.000 | 3.46 | 31122.873 | 6039.965 | 64.410 | 49.8 | -0.4 | NO | 1.000 | NO | bb |
| $8$ | 8 171031M1_9 | Standard | 100.000 | 3.46 | 63387.383 | 5949.417 | 133.180 | 103.1 | 3.1 | NO | 1.000 | NO | bb |
| 9 - | 9 171031M1_10 | Standard | 250.000 | 3.46 | 148658.375 | 5827.636 | 318.865 | 246.9 | -1.2 | NO | 1.000 | NO | bb |

## Compound name: L-PFHxS

Correlation coefficient: $\mathrm{r}=0.996867, \mathrm{r} \wedge 2=0.993744$
Calibration curve: 2.01952 * x +0.0727077
Response type: Internal Std (Ref 36 ), Area * (IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None


Dataset: U:IQ4.PRO\results1171031M1\171031M1-CRV.qld
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## Compound name: 6:2 FTS

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.997401$
Calibration curve: $-0.00272723^{*} x^{\wedge} 2+0.973281$ * $x+-0.00870889$
Response type: Internal Std (Ref 37 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

|  | \# Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | \%Dev | no. | COD | CoD Fla | exclude |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 12] | 1 171031M1_2 | Standard | 0.250 | 3.98 | 27.338 | 1391.426 | 0.246 | 0.3 | 4.6 | NO | 0.997 | NO | MM |
| 2 mer | 2 171031M1_3 | Standard | 0.500 | 3.94 | 74.124 | 1783.023 | 0.520 | 0.5 | 8.7 | NO | 0.997 | NO | MM |
| 3 L | 3 171031M1_4 | Standard | 1.000 | 3.93 | 140.061 | 1706.995 | 1.026 | 1.1 | 6.6 | NO | 0.997 | NO | bb |
| $4{ }^{4}$ | 4 171031M1_5 | Standard | 2.000 | 3.93 | 280.315 | 1871.369 | 1.872 | 1.9 | -2.8 | NO | 0.997 | NO | bb |
| Sth | 5 171031M1_6 | Standard | 5.000 | 3.93 | 564.158 | 1780.975 | 3.960 | 4.1 | -17.5 | NO | 0.997 | NO | bb |
| 4 ${ }^{4}$ | 6 171031M1_7 | Standard | 10.000 | 3.93 | 1386.046 | 1894.751 | 9.144 | 9.7 | -3.3 | NO | 0.997 | NO | bb |
|  | 7 171031M1_8 | Standard | 50.000 | 3.93 | 7470.005 | 2129.841 | 43.841 | 52.9 | 5.8 | NO | 0.997 | NO | bb |
|  | 8 171031M1_9 | Standard | 100.000 | 3.93 | 13378.071 | 2419.446 | 69.117 | 97.9 | -2.1 | NO | 0.997 | NO | bb |
| 9 9 | 9 171031M1_10 | Standard | 250.000 | 3.93 | 29064.654 | 3218.971 | 112.865 |  |  | NO | 0.997 | NO | bbXI |

## Compound name: L-PFOA

Correlation coefficient: $\mathbf{r}=0.997771, \mathrm{r}^{\wedge} 2=0.995546$
Calibration curve: $0.943455^{*} X+0.316537$
Response type: Internal Std ( Ref 38 ), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 15.4 | 1 171031M1_2 | Standard | 0.250 | 4.04 | 349.354 | 7934.241 | 0.550 | 0.2 | -0.9 | NO | 0.996 | NO | bb |
| 2 S | 2 171031M1_3 | Standard | 0.500 | 4.00 | 501.178 | 8745.764 | 0.716 | 0.4 | -15.3 | NO | 0.996 | NO | bb |
| $3{ }^{2}$ | 3 171031M1_4 | Standard | 1.000 | 3.99 | 854.147 | 9029.854 | 1.182 | 0.9 | -8.2 | NO | 0.996 | NO | bb |
| 4.45 | 4 171031M1_5 | Standard | 2.000 | 3.99 | 1601.253 | 8565.783 | 2.337 | 2.1 | 7.1 | NO | 0.996 | NO | bb |
| 5 \%-4 | 5 171031M1_6 | Standard | 5.000 | 3.99 | 3730.852 | 9169.785 | 5.086 | 5.1 | 1.1 | NO | 0.996 | NO | bb |
| $6$ | 6 171031M1_7 | Standard | 10.000 | 3.99 | 6855.419 | 8262.648 | 10.371 | 10.7 | 6.6 | NO | 0.996 | NO | bb |
| 74.2 | 7 171031M1_8 | Standard | 50.000 | 3.99 | 30963.996 | 7764.311 | 49.850 | 52.5 | 5.0 | NO | 0.996 | NO | bb |
| 8 | 8 171031M1_9 | Standard | 100.000 | 3.99 | 69625.922 | 8377.454 | 103.889 | 109.8 | 9.8 | NO | 0.996 | NO | bb |
| 9 , | 9 171031M1_10 | Standard | 250.000 | 3.99 | 162899.641 | 9092.846 | 223.939 | 237.0 | -5.2 | NO | 0.996 | NO | bb |

## Dataset: U:IQ4.PRO\results\171031M1\171031M1-CRV.qld <br> Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time <br> Printed: <br> Wednesday, November 01, 2017 08:45:15 Pacific Daylight Time

## Compound name: PFHpS

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.997276$
Calibration curve: -3.99694e-005 * x^2 + 0.183931 * x + 0.00205894
Response type: Internal Std (Ref 38 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

|  | \# Name | Type | -x. Std. Conc | RT | Area | IS Area | Response | Conc. | \%Dev Conc. Flag |  | COD | CoDFlag | $x=$ excluded MM |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 120 | 1 171031M1_2 | Standard | 0.250 | 4.15 | 39.027 | 7934.241 | 0.061 | 0.3 | 29.2 | NO | 0.997 | NO |  |
| 2 + 2 | 2 171031M1_3 | Standard | 0.500 | 4.12 | 57.728 | 8745.764 | 0.083 | 0.4 | -12.5 | NO | 0.997 | NO | MM |
| $3$ | 3 171031M1_4 | Standard | 1.000 | 4.11 | 113.362 | 9029.854 | 0.157 | 0.8 | -15.8 | NO | 0.997 | NO | bb |
| 4 | 4 171031M1_5 | Standard | 2.000 | 4.11 | 244.912 | 8565.783 | 0.357 | 1.9 | -3.4 | NO | 0.997 | NO | bb |
| $5$ | [ 171031M1_6 | Standard | 5.000 | 4.11 | 696.652 | 9169.785 | 0.950 | 5.2 | 3.2 | NO | 0.997 | NO | bb |
| $6$ | 6 171031M1_7 | Standard | 10.000 | 4.11 | 1143.305 | 8262.648 | 1.730 | 9.4 | -5.9 | NO | 0.997 | NO | bb |
| 7 | 7 171031M1_8 | Standard | 50.000 | 4.11 | 6257.199 | 7764.311 | 10.074 | 55.4 | 10.9 | NO | 0.997 | NO | bb |
| $8$ | 8 171031M1_9 | Standard | 100.000 | 4.11 | 11316.866 | 8377.454 | 16.886 | 93.7 | -6.3 | NO | 0.997 | NO | bb |
| 9 | 9 171031M1_10 | Standard | 250.000 | 4.11 | 31817.225 | 9092.846 | 43.739 | 251.5 | 0.6 | NO | 0.997 | NO | bb |

## Compound name: PFNA

Correlation coefficient: $\mathrm{r}=0.998949, \mathrm{r}^{\wedge} 2=0.997900$
Calibration curve: 1.25666 * $x+-0.0468814$
Response type: Internal Std (Ref 39 ), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

|  | \# Name | ype | Std. Conc | RT | Area | IS Area | Response | Conc. | \%Dev | nc. $F$ | CoD | D Fl | $x=e x c l u d e d$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1.45 | 1 171031M1_2 | Standard | 0.250 | 4.48 | 201.784 | 7267.375 | 0.347 | 0.3 | 25.4 | NO | 0.998 | NO | MM |
| 2 | 2 171031M1_3 | Standard | 0.500 | 4.44 | 325.620 | 7363.853 | 0.553 | 0.5 | -4.6 | NO | 0.998 | NO | bb |
| 3 - | 3 171031M1_4 | Standard | 1.000 | 4.44 | 659.598 | 7012.465 | 1.176 | 1.0 | -2.7 | NO | 0.998 | NO | bb |
| $4 \times 2+$ | 4 171031M1_5 | Standard | 2.000 | 4.44 | 1519.270 | 8090.482 | 2.347 | 1.9 | -4.7 | NO | 0.998 | NO | bb |
| $5$ | 5 171031M1_6 | Standard | 5.000 | 4.44 | 3769.106 | 8176.660 | 5.762 | 4.6 | -7.6 | NO | 0.998 | NO | bb |
|  | 6 171031M1_7 | Standard | 10.000 | 4.44 | 7686.453 | 7448.899 | 12.899 | 10.3 | 3.0 | NO | 0.998 | NO | bb |
|  | 7 171031M1_8 | Standard | 50.000 | 4.44 | 34518.668 | 7447.263 | 57.939 | 46.1 | -7.7 | NO | 0.998 | NO | bb |
| 8 | 8 171031M1_9 | Standard | 100.000 | 4.44 | 64070.883 | 6680.167 | 119.890 | 95.4 | -4.6 | NO | 0.998 | NO | bb |
| 9 9* | 9 171031M1_10 | Standard | 250.000 | 4.44 | 169894.625 | 6536.574 | 324.892 | 258.6 | 3.4 | NO | 0.998 | NO | bb |

## Dataset: U:IQ4.PRO\results1171031M11171031M1-CRV.qld <br> Last Altered: <br> Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time <br> Printed: <br> Wednesday, November 01, 2017 08:45:15 Pacific Daylight Time

## Compound name: PFOSA

Correlation coefficient: $\mathrm{r}=0.997159, \mathrm{r}^{\wedge} 2=0.994326$
Calibration curve: 1.07115 * $x+0.04065$
Response type: Internal Std (Ref 40 ), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

|  | \# Name |  | 今\% | Std. Conc | RT | Area | IS Area | Response | Conc. | \%Dev | , | OD | T | $x=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $1-5$ | 1 171031M1_2 | Standard |  | 0.250 | 4.54 | 36.714 | 1492.771 | 0.307 | 0.2 | -0.4 | NO | 0.994 | NO | MM |
| 2 | 2 171031M1_3 | Standard |  | 0.500 | 4.50 | 116.346 | 2163.038 | 0.672 | 0.6 | 17.9 | NO | 0.994 | NO | bb |
| $3+4$ | 3 171031M1_4 | Standard |  | 1.000 | 4.50 | 171.291 | 2040.950 | 1.049 | 0.9 | -5.9 | NO | 0.994 | NO | bb |
| 4 $\qquad$ | 4 171031M1_5 | Standard |  | 2.000 | 4.50 | 379.021 | 2051.817 | 2.309 | 2.1 | 5.9 | NO | 0.994 | NO | bb |
| $5 \cdots$ | 5 171031M1_6 | Standard |  | 5.000 | 4.50 | 860.242 | 2306.300 | 4.662 | 4.3 | -13.7 | NO | 0.994 | NO | bb |
| 6. | 6 171031M1_7 | Standard |  | 10.000 | 4.49 | 1496.136 | 1967.677 | 9.504 | 8.8 | -11.6 | NO | 0.994 | NO | bb |
| $7$ | 7 171031M1_8 | Standard |  | 50.000 | 4.50 | 7218.330 | 1695.327 | 53.222 | 49.6 | -0.7 | NO | 0.994 | NO | bb |
| 8. ${ }^{\text {a }}$ | 8 171031M1_9 | Standard |  | 100.000 | 4.49 | 16278.339 | 1684.739 | 120.778 | 112.7 | 12.7 | NO | 0.994 | NO | bb |
| 9 4 ${ }^{\text {a }}$ | 9 171031M1_10 | Standard |  | 250.000 | 4.50 | 38711.664 | 1887.221 | 256.407 | 239.3 | -4.3 | NO | 0.994 | NO | bb |

## Compound name: L-PFOS

Correlation coefficient: $\mathrm{r}=0.999334, \mathrm{r}^{\wedge} 2=0.998668$
Calibration curve: 1.01722 * $x+-0.0414285$
Response type: Internal Std (Ref 41 ), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None

|  | \# Name | Type Std. Conc |  | RT | Area | IS Area | Response |  | \%Dev Conc. Flag CoD |  |  | CoD Flag $x=e x$ cluded |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 171031M1_2 | Standard | 0.250 | 4.57 | 37.054 | 1859.624 | 0.249 | 0.3 | 14.2 | NO | 0.999 | NO | MM |
|  | 2 171031M1_3 | Standard | 0.500 | 4.53 | 81.539 | 1937.648 | 0.526 | 0.6 | 11.6 | NO | 0.999 | NO | MM |
|  | 3 171031M1_4 | Standard | 1.000 | 4.53 | 143.773 | 1851.665 | 0.971 | 1.0 | -0.5 | NO | 0.999 | NO | MM |
|  | 4 171031M1_5 | Standard | 2.000 | 4.53 | 298.537 | 2059.767 | 1.812 | 1.8 | -8.9 | NO | 0.999 | NO | MM |
|  | 5 171031M1_6 | Standard | 5.000 | 4.53 | 737.166 | 2120.759 | 4.345 | 4.3 | -13.8 | NO | 0.999 | NO | MM |
|  | 6 171031M1_7 | Standard | 10.000 | 4.53 | 1277.119 | 1912.542 | 8.347 | 8.2 | -17.5 | NO | 0.999 | NO | MM |
|  | 7 171031M1_8 | Standard | 50.000 | 4.53 | 7388.508 | 1864.678 | 49.529 | 48.7 | -2.5 | NO | 0.999 | NO | MM |
|  | 8 171031M1_9 | Standard | 100.000 | 4.53 | 14162.373 | 1751.382 | 101.080 | 99.4 | -0.6 | NO | 0.999 | NO | MM |
|  | 9 171031M1_10 | Standard | 250.000 | 4.53 | 33970.090 | 1641.193 | 258.730 | 254.4 | 1.8 | NO | 0.999 | NO | MM |

## Vista Analytical Laboratory

## Dataset: U:IQ4.PRO\results\171031M1\171031M1-CRV.qld

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## Compound name: PFDA

Correlation coefficient: $\mathrm{r}=0.999473, \mathrm{r}^{\wedge} 2=0.998946$
Calibration curve: 1.28134 * $x+0.0315821$
Response type: Internal Std (Ref 42 ), Area * (IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

| $5 \mathrm{~F}$ | \# Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | \%Dev | Tc. | CoD | CoD Flag $\quad \mathrm{x}=$ excluded |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. 5] ${ }^{\text {a }}$ | 1 171031M1_2 | Standard | 0.250 | 4.85 | 239.407 | 7145.477 | 0.419 | 0.3 | 20.9 | NO | 0.999 | NO | MM |
| $25 \pm$ | 2 171031M1_3 | Standard | 0.500 | 4.83 | 371.599 | 7574.697 | 0.613 | 0.5 | -9.2 | NO | 0.999 | NO | MM |
| $3 \mathrm{x}+\mathrm{x}$ | 3 171031M1_4 | Standard | 1.000 | 4.82 | 881.430 | 8647.730 | 1.274 | 1.0 | -3.0 | NO | 0.999 | NO | bb |
| $4$ | 4 171031M1_5 | Standard | 2.000 | 4.83 | 1914.807 | 8337.258 | 2.871 | 2.2 | 10.8 | NO | 0.999 | NO | bb |
| $5$ | . $5171031 \mathrm{M1}$ _6 | Standard | 5.000 | 4.82 | 3905.175 | 7915.097 | 6.167 | 4.8 | -4.2 | NO | 0.999 | NO | bb |
| $6$ | 6 171031M1_7 | Standard | 10.000 | 4.83 | 8371.640 | 9131.245 | 11.460 | 8.9 | -10.8 | NO | 0.999 | NO | bb |
| $7$ | 7 171031M1_8 | Standard | 50.000 | 4.82 | 40900.660 | 8341.659 | 61.290 | 47.8 | -4.4 | NO | 0.999 | NO | bb |
| 8 | 8 171031M1_9 | Standard | 100.000 | 4.83 | 76433.445 | 7622.616 | 125.340 | 97.8 | -2.2 | NO | 0.999 | NO | bb |
| 9 9 \% | 9 171031M1_10 | Standard | 250.000 | 4.83 | 180023.813 | 6872.966 | 327.413 | 255.5 | 2.2 | NO | 0.999 | NO | bb |

## Compound name: 8:2 FTS

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.996235$
Calibration curve: $-0.00453751^{*} x^{\wedge} 2+1.47718$ * $x+-0.0973776$
Response type: Internal Std (Ref 43 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None

| $\sqrt{2}+\sqrt{2}$ | \# Name | Type | Std. Conc | : RT | Area | IS Area | Response | Conc, \%Dev Conc. Fla |  |  | Cob | CoD Flag $x=e x$ cluded |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 14.4 | 1 171031M1_2 | Standard | 0.250 | 4.83 | 65.123 | 1442.480 | 0.564 | 0.4 | 79.4 | NO | 0.996 | NO | bbX |
| 2 m, | 2 171031M1_3 | Standard | 0.500 | 4.79 | 102.447 | 1803.926 | 0.710 | 0.5 | 9.5 | NO | 0.996 | NO | bb |
| $3 \times 4$ | 3 171031M1_4 | Standard | 1.000 | 4.80 | 156.067 | 1393.365 | 1.400 | 1.0 | 1.7 | NO | 0.996 | NO | bb |
| $4$ | 4 171031M1_5 | Standard | 2.000 | 4.79 | 348.723 | 1675.058 | 2.602 | 1.8 | -8.1 | NO | 0.996 | NO | bb |
| 5 , ${ }^{\text {a }}$ | 5 171031M1_6 | Standard | 5.000 | 4.79 | 839.326 | 1904.943 | 5.508 | 3.8 | -23.2 | NO | 0.996 | NO | bb |
| 6 , $8+$ | $6171031 \mathrm{M1}$ _7 | Standard | 10.000 | 4.79 | 1836.806 | 1553.782 | 14.777 | 10.4 | 4.0 | NO | 0.996 | NO | bb |
| $754$ | 7 171031M1_8 | Standard | 50.000 | 4.79 | 8494.477 | 1637.058 | 64.861 | 52.4 | 4.8 | NO | 0.996 | NO | bb |
| 8 | 8 171031M1_9 | Standard | 100.000 | 4.79 | 17873.230 | 2210.796 | 101.057 | 97.9 | -2.1 | NO | 0.996 | NO | bb |
| 9, | 9 171031M1_10 | Standard | 250.000 | 4.79 | 38514.566 | 2901.082 | 165.949 |  |  | NO | 0.996 | NO | bbXI |

Dataset: U:IQ4.PRO\results\171031M1\171031M1-CRV.qld

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## Compound name: N-MeFOSAA

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.998527$
Calibration curve: $-0.00061126{ }^{*} x^{\wedge} 2+1.44366$ * $x+0.138034$
Response type: Internal Std (Ref 44 ), Area * (IS Conc. / IS Area )
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


## Compound name: N-EtFOSAA

Correlation coefficient: $\mathrm{r}=0.995319, \mathrm{r}^{\wedge} 2=0.990659$
Calibration curve: 1.17468 * $x+-0.0150013$
Response type: Internal Std ( Ref 45), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Include, Weighting: 1/X, Axis trans: None


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## Compound name: PFUdA

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.998778$
Calibration curve: $-5.23555 e-005{ }^{*} x^{\wedge} 2+0.962109{ }^{*} x+0.0759805$
Response type: Internal Std (Ref 46 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


## Compound name: PFDS

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999698$
Calibration curve: $-2.28699 \mathrm{e}-006$ * $\mathrm{x}^{\wedge} 2+0.226098$ * $x+-0.0396467$
Response type: Internal Std (Ref 46 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

| 4. | \# Name | Type | Std. Conc | RT | Area | IS Area | Response | On | Dev | ¢. | CoD | D F | xclu |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 171031M1_2 | Standard | 0.250 | 5.23 | 10.806 | 9738.930 | 0.014 | 0.2 | -5.3 | NO | 1.000 | NO | MM |
| 2.4 | 2 171031M1_3 | Standard | 0.500 | 5.22 | 53.313 | 9554.212 | 0.070 | 0.5 | -3.2 | NO | 1.000 | NO | MM |
| $3-4$ | 3 171031M1_4 | Standard | 1.000 | 5.21 | 125.420 | 8696.637 | 0.180 | 1.0 | -2.7 | NO | 1.000 | NO | bb |
| 4 - ${ }^{\text {a }}$ | 4 171031M1_5 | Standard | 2.000 | 5.21 | 407.262 | 10075.132 | 0.505 | 2.4 | 20.5 | NO | 1.000 | NO | bb |
| 5 , ${ }^{2}$ | 5 171031M1_6 | Standard | 5.000 | 5.21 | 711.767 | 8770.748 | 1.014 | 4.7 | -6.8 | NO | 1.000 | NO | bb |
| 6. \% | 6 171031M1_7 | Standard | 10.000 | 5.21 | 1743.288 | 10143.998 | 2.148 | 9.7 | -3.2 | NO | 1.000 | NO | bb |
| $7 \times 2$ | 7 171031M1_8 | Standard | 50.000 | 5.21 | 7899.934 | 8695.222 | 11.357 | 50.4 | 0.9 | NO | 1.000 | NO | bb |
|  | 8 171031M1_9 | Standard | 100.000 | 5.21 | 15169.508 | 8417.339 | 22.527 | 99.9 | -0.1 | NO | 1.000 | NO | bb |
| 9 9, | 9171031 M 1 _10 | Standard | 250.000 | 5.21 | 36801.285 | 8165.827 | 56.334 | 250.0 | -0.0 | NO | 1.000 | NO | bb |


| Dataset: | U:IQ4.PRO\results1171031M1\171031M1-CRV.qld |
| :--- | :--- |
| Last Altered: | Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time |
| Printed: | Wednesday, November 01, 2017 08:45:15 Pacific Daylight Time |

## Compound name: PFDoA

## Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.993286$

Calibration curve: -6.13859e-005 * $x^{\wedge} 2+1.22441^{*} x+0.0900393$
Response type: Internal Std ( Ref 47 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


## Compound name: N-MeFOSA

Correlation coefficient: $\mathrm{r}=0.999056, \mathrm{r} \wedge 2=0.998113$
Calibration curve: 0.99285 * $x+0.328893$
Response type: Internal Std ( Ref 48 ), Area * (IS Conc. / IS Area )
Curve type: Linear, Origin: Include, Weighting: $1 / x$, Axis trans: None

|  | \# Name sy mexype |  | Std. Conc | RT | Area | IS Area | Response ${ }^{\text {conc \% Dev Conc, Flag }}$ |  |  |  | CoD CoDFlag $x$-excluded |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. | 1 171031M1_2 | Standard | 1.250 | 5.58 | 103.179 | 9392.646 | 1.648 | 1.3 | 6.3 | NO | 0.998 | NO | bb |
|  | 2 171031M1_3 | Standard | 2.500 | 5.52 | 230.474 | 11698.229 | 2.955 | 2.6 | 5.8 | NO | 0.998 | NO | MM |
| 3. | 3 171031M1_4 | Standard | 5.000 | 5.51 | 372.134 | 10823.978 | 5.157 | 4.9 | -2.7 | NO | 0.998 | NO | MM |
| 4 | 4 171031M1_5 | Standard | 10.000 | 5.51 | 819.625 | 11408.556 | 10.776 | 10.5 | 5.2 | NO | 0.998 | NO | bb |
| 5 | 5 171031M1_6 | Standard | 25.000 | 5.51 | 1844.567 | 10812.815 | 25.589 | 25.4 | 1.8 | NO | 0.998 | NO | MM |
| 6 | 6 171031M1_7 | Standard | 50.000 | 5.51 | 3906.621 | 11180.341 | 52.413 | 52.5 | 4.9 | NO | 0.998 | NO | bb |
| $7{ }^{7}+3$ | 7 171031M1_8 | Standard | 250.000 | 5.51 | 17793.039 | 10530.616 | 253.447 | 254.9 | 2.0 | NO | 0.998 | NO | bb |
|  | 8 171031M1_9 | Standard | 500.000 | 5.51 | 35579.340 | 10080.462 | 529.430 | 532.9 | 6.6 | NO | 0.998 | NO | MM |
| 9 9, mex | 9 171031M1_10 | Standard | 1250.000 | 5.51 | 80108.445 | 10010.843 | 1200.325 | 1208.6 | -3.3 | NO | 0.998 | NO | bb |


| Dataset: | U:IQ4.PRO\resultsI171031M11171031M1-CRV.qld |
| :--- | :--- |
|  |  |
| Last Altered: | Wednesday, November 01, 2017 09:42:13 Pacific Daylight Time |
| Printed: | Wednesday, November 01, 2017 09:43:17 Pacific Daylight Time |

Method: U:IQ4.PROIMethDBIPFAS_FULL_80C_102717.mdb 31 Oct 2017 10:25:33
Calibration: U:IQ4.PROICurveDBIC18_VAL-PFAS_Q4_10-31-17-FULL_OLD.cdb 01 Nov 2017 09:42:13
Compound name: PFTrDA
Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.992550$
Calibration curve: 1.27931 * x
Response type: Internal Std (Ref 47 ), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: Null, Axis trans: None

|  | \# Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | \%Dev | Conc. Flag | CoD | CoD Flag | $\mathrm{x}=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 171031M1_2 | Standard | 0.250 | 5.73 | 262.280 | 8973.643 | 0.365 | 0.3 | 14.2 | NO | 0.993 | NO | MM |
| 2 2- | 2 171031M1_3 | Standard | 0.500 | 5.72 | 584.844 | 9276.800 | 0.788 | 0.6 | 23.2 | NO | 0.993 | NO | bb |
| 3 | 3 171031M1_4 | Standard | 1.000 | 5.71 | 1041.562 | 9088.354 | 1.433 | 1.1 | 12.0 | NO | 0.993 | NO | bb |
| $\underline{5}$ | 4 171031M1_5 | Standard | 2.000 | 5.71 | 2131.957 | 10505.300 | 2.537 | 2.0 | -0.9 | NO | 0.993 | NO | bb |
| 5 | 5 171031M1_6 | Standard | 5.000 | 5.71 | 5844.869 | 10097.720 | 7.235 | 5.7 | 13.1 | NO | 0.993 | NO | bd |
| 6 | 6 171031M1_7 | Standard | 10.000 | 5.71 | 10984.958 | 8535.952 | 16.086 | 12.6 | 25.7 | NO | 0.993 | NO | bb |
| 7 | 7 171031M1_8 | Standard | 50.000 | 5.71 | 46815.766 | 10663.989 | 54.876 | 42.9 | -14.2 | NO | 0.993 | NO | bb |
| 8 | 8 171031M1_9 | Standard | 100.000 | 5.71 | 92389.688 | 8742.194 | 132.103 | 103.3 | 3.3 | NO | 0.993 | NO | bb |
| $9+3$ | 9 171031M1_10 | Standard | 250.000 | 5.71 | 240781.859 | 7516.635 | 400.415 | 313.0 | 25.2 | NO | 0.993 | NO | bbX |

## Compound name: PFTeDA

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999673$
Calibration curve: -0.000957767 * $x^{\wedge} 2+1.29262$ * $x+-0.00461528$
Response type: Internal Std (Ref 49 ), Area * (IS Conc. / IS Area )
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


Last Altered:
Printed:
Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time Wednesday, November 01, 2017 08:45:15 Pacific Daylight Time

## Compound name: N-EtFOSA

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999831$
Calibration curve: $-4.41537 e-005^{*} x^{\wedge} 2+0.910589{ }^{*} \times+0.484101$
Response type: Internal Std (Ref 50 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

|  | \# Name | Type matme | Std. Conc | RT | Area | 15 Area | Response | Conc. | \%Dev | Conc. Fla | CoD | D Fi | xelu |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 - | 1 171031M1_2 | Standard | 1.250 | 6.00 | 153.117 | 13901.869 | 1.652 | 1.3 | 2.6 | NO | 1.000 | NO | bb |
| 2 m | 2 171031M1_3 | Standard | 2.500 | 5.97 | 272.378 | 17096.633 | 2.390 | 2.1 | -16.3 | NO | 1.000 | NO | bb |
| 3 m - ${ }^{3}$ | 3 171031M1_4 | Standard | 5.000 | 5.96 | 545.049 | 16828.123 | 4.858 | 4.8 | -3.9 | NO | 1.000 | NO | bb |
| $4{ }^{2}+4$. | 4 171031M1_5 | Standard | 10.000 | 5.96 | 1238.934 | 17169.912 | 10.824 | 11.4 | 13.6 | NO | 1.000 | NO | bb |
| 5 - + | 5 171031M1_6 | Standard | 25.000 | 5.96 | 2654.813 | 16600.344 | 23.989 | 25.8 | 3.4 | NO | 1.000 | NO | bb |
| $6 \times 4+$ | 6 171031M1_7 | Standard | 50.000 | 5.96 | 5304.547 | 17081.096 | 46.583 | 50.7 | 1.5 | NO | 1.000 | NO | bb |
| 7.4 | 7 171031M1_8 | Standard | 250.000 | 5.96 | 24333.527 | 16298.452 | 223.949 | 248.4 | -0.6 | NO | 1.000 | NO | bb |
| 8 .ter | 8 171031M1_9 | Standard | 500.000 | 5.96 | 45078.742 | 15259.872 | 443.111 | 498.1 | -0.4 | NO | 1.000 | NO | bb |
| 9 | 9 171031M1_10 | Standard | 1250.000 | 5.96 | 102308.297 | 14334.034 | 1070.616 | 1251.1 | 0.1 | NO | 1.000 | NO | bb |

## Compound name: PFHxDA

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999773$
Calibration curve: $-1.68772 \mathrm{e}-005{ }^{*} x^{\wedge} 2+0.569695^{*} x+0.110552$
Response type: Internal Std (Ref 51 ), Area * (IS Conc. / IS Area )
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

|  | \# Name | ype | Conc |  | Mama Area | IS Area | Response | Conc. | \%Dev | nc. F | CoD | D F | $\mathrm{x}=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| mex ${ }^{3}$ | 1 171031M1_2 | Standard | 0.250 | 6.30 | 134.220 | 2965.394 | 0.226 | 0.2 | -18.7 | NO | 1.000 | NO | bb |
| 2.4 | 2 171031M1_3 | Standard | 0.500 | 6.30 | 306.653 | 3990.268 | 0.384 | 0.5 | -3.9 | NO | 1.000 | NO | bb |
| $3 \times$ | 3 171031M1_4 | Standard | 1.000 | 6.29 | 501.658 | 3303.746 | 0.759 | 1.1 | 13.9 | NO | 1.000 | NO | bb |
|  | 4 171031M1_5 | Standard | 2.000 | 6.30 | 1129.883 | 4525.968 | 1.248 | 2.0 | -0.1 | NO | 1.000 | NO | bb |
| 5 - ${ }^{\text {a }}$ | 5 171031M1_6 | Standard | 5.000 | 6.29 | 2281.175 | 3660.271 | 3.116 | 5.3 | 5.5 | NO | 1.000 | NO | bb |
| $x^{24}$ | $6171031 \mathrm{M1}$-7 | Standard | 10.000 | 6.29 | 5082.698 | 4204.542 | 6.044 | 10.4 | 4.2 | NO | 1.000 | NO | bb |
| 7 | 7 171031M1_8 | Standard | 50.000 | 6.29 | 25515.646 | 4441.032 | 28.727 | 50.3 | 0.6 | NO | 1.000 | NO | bb |
| wa | 8 171031M1_9 | Standard | 100.000 | 6.29 | 44200.879 | 3948.273 | 55.975 | 98.3 | -1.7 | NO | 1.000 | NO | bb |
| $9$ | 9 171031M1_10 | Standard | 250.000 | 6.29 | 100865.922 | 3556.467 | 141.806 | 250.6 | 0.2 | NO | 1.000 | NO | bb |

Dataset:
U:IQ4.PRO|results|171031M11171031M1-CRV.qld
Last Altered:
Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time
Printed:
Wednesday, November 01, 2017 08:45:15 Pacific Daylight Time

## Compound name: PFODA

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999396$
Calibration curve: 0.000959304 * $x^{\wedge} 2+0.407622$ * $x+-0.0239268$
Response type: Internal Std (Ref 51 ), Area * (IS Conc. / IS Area )
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None

| \% | \# Name | Type | Std Conc | RT | Area | IS Area | spons | Conc. | \%Dev | nc. F | CoD | , | D | exclu |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $1{ }^{2}+2$ | 1 171031M1_2 | Standard | 0.250 | 6.55 | 89.007 | 2965.394 | 0.150 | 0.4 | 70.6 | NO | 0.999 |  | NO | bbX |
| 2 20x | 2 171031M1_3 | Standard | 0.500 | 6.55 | 152.392 | 3990.268 | 0.191 | 0.5 | 5.3 | NO | 0.999 |  | NO | bb |
| $3{ }^{3}$ | 3 171031M1_4 | Standard | 1.000 | 6.54 | 282.941 | 3303.746 | 0.428 | 1.1 | 10.6 | NO | 0.999 |  | NO | bb |
| $4$ | 4 171031M1_5 | Standard | 2.000 | 6.55 | 677.328 | 4525.968 | 0.748 | 1.9 | -5.7 | NO | 0.999 |  | NO | bb |
| $5$ | 5 171031M1_6 | Standard | 5.000 | 6.54 | 1210.663 | 3660.271 | 1.654 | 4.1 | -18.5 | NO | 0.999 | $\cdots$ | NO | bb |
| $6$ | 6 171031M1_7 | Standard | 10.000 | 6.54 | 3375.460 | 4204.542 | 4.014 | 9.7 | -3.1 | NO | 0.999 |  | NO | bb |
|  | 7 171031M1_8 | Standard | 50.000 | 6.54 | 19505.232 | 4441.032 | 21.960 | 48.4 | -3.2 | NO | 0.999 |  | NO | bb |
| 8. Wr max | 8 171031M1_9 | Standard | 100.000 | 6.54 | 41236.699 | 3948.273 | 52.221 | 103.1 | 3.1 | NO | 0.999 |  | NO | bb |
| 9, ${ }^{\text {a }}$ | 9 171031M1_10 | Standard | 250.000 | 6.54 | 114699.141 | 3556.467 | 161.254 | 249.3 | -0.3 | NO | 0.999 |  | NO | bb |

## Compound name: N -MeFOSE

Correlation coefficient: $\mathrm{r}=0.996570, \mathrm{r}^{\wedge} 2=0.993151$
Calibration curve: 0.910887 * $x+0.561201$
Response type: Internal Std ( Ref 52 ), Area * (IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

|  | \# Name | Type | Std. Conc | RT | Area | IS Area | Response | Co | \%Dev | c. | CoD | F | clu |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 12 l | 1 171031M1_2 | Standard | 1.250 | 6.19 | 124.033 | 13124.170 | 1.418 | 0.9 | -24.8 | NO | 0.993 | NO | MM |
| 2 | 2 171031M1_3 | Standard | 2.500 | 6.20 | 283.411 | 15410.882 | 2.759 | 2.4 | -3.5 | NO | 0.993 | NO | MM |
| 3. | 3 171031M1_4 | Standard | 5.000 | 6.19 | 511.333 | 16129.054 | 4.755 | 4.6 | -7.9 | NO | 0.993 | NO | bb |
| $4 \times 4$. | 4 171031M1_5 | Standard | 10.000 | 6.20 | 1104.509 | 16972.910 | 9.761 | 10.1 | 1.0 | NO | 0.993 | NO | MM |
| $5$ | 5 171031M1_6 | Standard | 25.000 | 6.20 | 2682.080 | 14780.235 | 27.220 | 29.3 | 17.1 | NO | 0.993 | NO | bb |
|  | 6 171031M1_7 | Standard | 50.000 | 6.20 | 5001.466 | 16055.921 | 46.725 | 50.7 | 1.4 | NO | 0.993 | NO | bd |
| 7 | 7 171031M1_8 | Standard | 250.000 | 6.19 | 26665.461 | 14835.532 | 269.611 | 295.4 | 18.1 | NO | 0.993 | NO | MM |
| 8.15 | 8 171031M1 9 | Standard | 500.000 | 6.20 | 37148.656 | 11713.693 | 475.708 | 521.6 | 4.3 | NO | 0.993 | NO | MM |
| 9 9 | 9 171031M1_10 | Standard | 1250.000 | 6.19 | 102735.523 | 14345.026 | 1074.263 | 1178.7 | -5.7 | NO | 0.993 | NO | bb |

Vista Analytical Laboratory
Dataset:
U:\Q4.PRO\results\171031M1\171031M1-CRV.qld
Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time
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## Compound name: N -EtFOSE

Correlation coefficient: $r=0.999631, r^{\wedge} 2=0.999262$
Calibration curve: 1.00592 * $x+0.816282$
Response type: Internal Std (Ref 53 ), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

| 4. | \# Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | \%Dev |  | COB | D | x-excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. ${ }^{\text {a }}$ \% | 1 171031M1_2 | Standard | 1.250 | 6.35 | 142.814 | 11021.274 | 1.944 | 1.1 | -10.3 | NO | 0.999 | NO | MM |
| 2 \% 4 | 2 171031M1_3 | Standard | 2.500 | 6.35 | 268.158 | 13611.050 | 2.955 | 2.1 | -14.9 | NO | 0.999 | NO | MM |
| 3. | 3 171031M1_4 | Standard | 5.000 | 6.35 | 601.760 | 14567.635 | 6.196 | 5.3 | 7.0 | NO | 0.999 | NO | MM |
| $4+4{ }^{2}$ | 4 171031M1_5 | Standard | 10.000 | 6.35 | 1225.812 | 15962.389 | 11.519 | 10.6 | 6.4 | NO | 0.999 | NO | MM |
| 5 \% | 5 171031M1_6 | Standard | 25.000 | 6.35 | 2691.773 | 15443.354 | 26.145 | 25.2 | 0.7 | NO | 0.999 | NO | " bb ${ }^{\text {* }}$ |
| $4,4+3$ | 6 171031M1_7 | Standard | 50.000 | 6.35 | 5608.070 | 14651.429 | 57.415 | 56.3 | 12.5 | NO | 0.999 | NO | MM |
| 7. 4 4 $=$ | 7 171031M1_8 | Standard | 250.000 | 6.35 | 25879.797 | 15170.423 | 255.891 | 253.6 | 1.4 | NO | 0.999 | NO | MM |
| 8 | 8 171031M1_9 | Standard | 500.000 | 6.36 | 47818.434 | 14707.501 | 487.694 | 484.0 | -3.2 | NO | 0.999 | NO | MM |
| 9 - ${ }^{\text {a }}$ | 9 171031M1_10 | Standard | 1250.000 | 6.35 | 108556.992 | 12885.272 | 1263.733 | 1255.5 | 0.4 | NO | 0.999 | NO | MM |

## Compound name: 13C3-PFBA

Response Factor: 0.94874
RRF SD: 0.0147158 , Relative SD: 1.55109
Response type: Internal Std (Ref 54 ), Area * (IS Conc. / IS Area)
Curve type: RF

|  | \# Name | Type | 4s.a | Std. Conc | RT | Area | IS Area | Response | onc. | Der | c. F | CODF | cluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 14mes | 1 171031M1_2 | Standard |  | 12.500 | 1.15 | 5681.744 | 5963.095 | 11.910 | 12.6 | 0.4 | NO | NO | bb |
| 2 2-3 ${ }^{2}$ | 2 171031M1_3 | Standard |  | 12.500 | 1.10 | 6501.426 | 6803.867 | 11.944 | 12.6 | 0.7 | NO | NO | bb |
| 3. | 3 171031M1_4 | Standard |  | 12.500 | 1.07 | 6527.458 | 6654.722 | 12.261 | 12.9 | 3.4 | NO | NO | bb |
| $4=3$ | 4 171031M1_5 | Standard |  | 12.500 | 1.09 | 6582.637 | 7041.553 | 11.685 | 12.3 | -1.5 | NO | NO | bb |
| 5. | 5 171031M1_6 | Standard |  | 12.500 | 1.08 | 6530.870 | 6915.432 | 11.805 | 12.4 | -0.5 | NO | NO | bb |
|  | 6 171031M1_7 | Standard |  | 12.500 | 1.09 | 6416.130 | 6832.840 | 11.738 | 12.4 | -1.0 | NO | NO | bb |
| $7{ }^{2}$ | 7 171031M1_8 | Standard |  | 12.500 | 1.09 | 6484.366 | 6879.583 | 11.782 | 12.4 | -0.7 | NO | NO | MM |
| 8 8. | 8 171031M1_9 | Standard |  | 12.500 | 1.09 | 6067.397 | 6502.498 | 11.664 | 12.3 | -1.6 | NO | NO | bb |
| 9, ${ }^{\text {a }}$ | 9 171031M1_10 | Standard |  | 12.500 | 1.08 | 6307.260 | 6600.681 | 11.944 | 12.6 | 0.7 | NO | NO | MM |

## Compound name: 13C3-PFPeA

Response Factor: 0.781167
RRF SD: 0.0326889, Relative SD: 4.18463
Response type: Internal Std (Ref 55 ), Area * (IS Conc. / IS Area)
Curve type: RF

|  | \# Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | Dev | nc. Fla | CoD Fla | xcluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 , ${ }^{2}$ | 1 171031M1_2 | Standard | 12.500 | 2.10 | 6278.785 | 7771.502 | 10.099 | 12.9 | 3.4 | NO | NO | MM |
| 2 2 | 2 171031M1_3 | Standard | 12.500 | 2.06 | 7104.250 | 9033.493 | 9.830 | 12.6 | 0.7 | NO | NO | bb |
| 3. | 3 171031M1_4 | Standard | 12.500 | 2.04 | 6759.347 | 8124.338 | 10.400 | 13.3 | 6.5 | NO | NO | bb |
| 4 +t ${ }^{2}$ a | 4 171031M1_5 | Standard | 12.500 | 2.05 | 6829.161 | 8602.264 | 9.923 | 12.7 | 1.6 | NO | NO | bb |
| $5$ | 5 171031M1_6 | Standard | 12.500 | 2.04 | 6870.994 | 9624.428 | 8.924 | 11.4 | -8.6 | NO | NO | bb |
| 6 , $x^{2}$ ant | $6171031 \mathrm{M1}$ _7 | Standard | 12.500 | 2.05 | 6958.893 | 8956.964 | 9.712 | 12.4 | -0.5 | NO | NO | bb |
| $7$ | 7 171031M1_8 | Standard | 12.500 | 2.05 | 6759.594 | 8823.722 | 9.576 | 12.3 | -1.9 | NO | NO | bb |
| 8 | 8 171031M1_9 | Standard | 12.500 | 2.05 | 6268.124 | 7955.587 | 9.849 | 12.6 | 0.9 | NO | NO | bb |
|  | 9 171031M1_10 | Standard | 12.500 | 2.05 | 6338.958 | 8281.060 | 9.568 | 12.2 | -2.0 | NO | NO | bb |

## Compound name: 13C3-PFBS

Response Factor: 0.0885487
RRF SD: 0.0043337, Relative SD: 4.89414
Response type: Internal Std (Ref 55 ), Area * ( IS Conc. / IS Area )
Curve type: RF

|  | \# Name | Type | Std. | RT | - Area | IS Area | Response | Conc. | \%Dev | Conc. Flag | D F | cluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $1+3$ | 1 171031M1_2 | Standard | 12.500 | 2.39 | 688.358 | 7771.502 | 1.107 | 12.5 | 0.0 | NO | NO | bb |
| 2.4 | 2 171031M1_3 | Standard | 12.500 | 2.35 | 780.678 | 9033.493 | 1.080 | 12.2 | -2.4 | NO | NO | bb |
|  | 3 171031M1_4 | Standard | 12.500 | 2.33 | 753.021 | 8124.338 | 1.159 | 13.1 | 4.7 | NO | NO | bb |
| 43 | 4 171031M1_5 | Standard | 12.500 | 2.34 | 742.446 | 8602.264 | 1.079 | 12.2 | -2.5 | NO | NO | bb |
| 5 | 5 171031M1_6 | Standard | 12.500 | 2.34 | 796.599 | 9624.428 | 1.035 | 11.7 | -6.5 | NO | NO | bb |
| 6.4 | 6 171031M1_7 | Standard | 12.500 | 2.34 | 784.881 | 8956.964 | 1.095 | 12.4 | -1.0 | NO | NO | bb |
| 7 , wata | 7 171031M1_8 | Standard | 12.500 | 2.34 | 761.174 | 8823.722 | 1.078 | 12.2 | -2.6 | NO | NO | bb |
| 8. | 8 171031M1_9 | Standard | 12.500 | 2.33 | 777.412 | 7955.587 | 1.221 | 13.8 | 10.4 | NO | NO | bb |
|  | $9171031 \mathrm{M} 1 \ldots 10$ | Standard | 12.500 | 2.34 | 733.437 | 8281.060 | 1.107 | 12.5 | 0.0 | NO | NO | bb |

Dataset: U:IQ4.PROIresults1171031M11171031M1-CRV.qld
Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time
Printed: $\quad$ Wednesday, November 01, 2017 08:45:15 Pacific Daylight Time

## Compound name: 13C2-PFHxA

Response Factor: 0.755271
RRF SD: 0.0229973, Relative SD: 3.0449
Response type: Internal Std (Ref 55 ), Area * (IS Conc. / IS Area)
Curve type: RF

| ma.m | \# Name | Type | Conc | RT | Area | IS Area | Response | Conc. | \%Dev | Conc. Fla | CoD Flag | x-excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. ${ }^{2}$ | 1 171031M1_2 | Standard | 5.000 | 2.89 | 2384.504 | 7771.502 | 3.835 | 5.1 | 1.6 | NO | NO | bb |
| $2.4{ }^{2}$ | 2 171031M1_3 | Standard | 5.000 | 2.85 | 2709.806 | 9033.493 | 3.750 | 5.0 | -0.7 | NO | NO | bb |
| 3 , $x^{*}$ | 3 171031M1_4 | Standard | 5.000 | 2.83 | 2400.978 | 8124.338 | 3.694 | 4.9 | -2.2 | NO | NO | bb |
| $4{ }^{4}$ | 4 171031M1_5 | Standard | 5.000 | 2.83 | 2626.430 | 8602.264 | 3.816 | 5.1 | 1.1 | NO | NO | bb |
| 5. | 5 171031M1_6 | Standard | 5.000 | 2.83 | 2766.778 | 9624.428 | 3.593 | 4.8 | -4.8 | NO | NO | bb |
| 6 | 6 171031M1_7 | Standard | 5.000 | 2.83 | 2605.448 | 8956.964 | 3.636 | 4.8 | -3.7 | NO | NO | bb |
|  | 7 171031M1_8 | Standard | 5.000 | 2.83 | 2715.844 | 8823.722 | 3.847 | 5.1 | 1.9 | NO | NO | bb |
| $8$ | 8 171031M1_9 | Standard | 5.000 | 2.83 | 2475.010 | 7955.587 | 3.889 | 5.1 | 3.0 | NO | NO | bb |
| 9 9. | 9 171031M1_10 | Standard | 5.000 | 2.83 | 2600.894 | 8281.060 | 3.926 | 5.2 | 4.0 | NO | NO | bb |

## Compound name: 13C4-PFHpA

Response Factor: 0.710999
RRF SD: 0.0386896 , Relative SD: 5.44158
Response type: Internal Std (Ref 55 ), Area * (IS Conc. / IS Area)
Curve type: RF


## Dataset: U:IQ4.PRO|results\171031M11171031M1-CRV.qld <br> Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time <br> Printed: <br> Wednesday, November 01, 2017 08:45:15 Pacific Daylight Time

## Compound name: 1802-PFHxS

Response Factor: 0.423321
RRF SD: 0.028378, Relative SD: 6.70367
Response type: Internal Std (Ref 56 ), Area * (IS Conc. / IS Area )
Curve type: RF

|  | \# Name |  |  | RT Area IS Area, Response |  |  |  | Conc \%Dev Conc Flag |  |  | CoD Flag $x$ eexcluded |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. | 1 171031M1_2 | Standard | 12.500 | 3.66 | 649.655 | 1453.004 | 5.589 | 13.2 | 5.6 | NO | NO | bb |
| $2 \times 4$ | 2 171031M1_3 | Standard | 12.500 | 3.62 | 668.312 | 1448.036 | 5.769 | 13.6 | 9.0 | NO | NO | bb |
| 3, ${ }^{\text {a }}$, ${ }^{\text {a }}$ | 3 171031M1_4 | Standard | 12.500 | 3.61 | 618.725 | 1450.402 | 5.332 | 12.6 | 0.8 | NO | NO | bb |
| 4.4 | 4 171031M1_5 | Standard | 12.500 | 3.61 | 650.419 | 1759.264 | 4.621 | 10.9 | -12.7 | NO | NO | bb |
| 5.4 | 5 171031M1_6 | Standard | 12.500 | 3.61 | 695.829 | 1542.587 | 5.638 | 13.3 | 6.6 | NO | NO | bb |
|  | 6 171031M1_7 | Standard | 12.500 | 3.61 | 646.401 | 1564.074 | 5.166 | 12.2 | -2.4 | NO | NO | bb |
| $7$ | 7 171031M1_8 | Standard | 12.500 | 3.62 | 645.383 | 1586.405 | 5.085 | 12.0 | -3.9 | NO | NO | bb |
| $8$ | 8 171031M1_9 | Standard | 12.500 | 3.62 | 597.037 | 1475.894 | 5.057 | 11.9 | -4.4 | NO | NO | bb |
| $9^{2} \times 2$ | 9 171031M1_10 | Standard | 12.500 | 3.62 | 615.199 | 1433.237 | 5.365 | 12.7 | 1.4 | NO | NO | bb |

## Compound name: 13C2-6:2 FTS

Response Factor: 0.285726
RRF SD: 0.0424804 , Relative SD: 14.8676
Response type: Internal Std (Ref 57 ), Area * (IS Conc. / IS Area )
Curve type: RF


## Vista Analytical Laboratory

## Dataset: U:IQ4.PRO|results\171031M11171031M1-CRV.qld

Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time
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Wednesday, November 01, 2017 08:45:15 Pacific Daylight Time

## Compound name: 13C2-PFOA

Response Factor: 1.30974
RRF SD: 0.0867529, Relative SD: 6.62368
Response type: Internal Std (Ref 57 ), Area * (IS Conc. / IS Area)
Curve type: RF

|  | \# Name ${ }_{\text {andem }}$ | ype | d. Conc | RT | Area | IS Area | Response | Conc. | \%Dev | nc. Fla | Fl | xclu |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $1 \times 4$ | 1 171031M1_2 | Standard | 12.500 | 4.03 | 7934.241 | 5755.554 | 17.232 | 13.2 | 5.3 | NO | NO | bb |
| $2{ }^{2}+4$ | 2 171031M1_3 | Standard | 12.500 | 4.00 | 8745.764 | 6357.599 | 17.195 | 13.1 | 5.0 | NO | No | bb |
| 120 | 3 171031M1_4 | Standard | 12.500 | 3.99 | 9029.854 | 6407.551 | 17.616 | 13.4 | 7.6 | NO | No | bb |
| 4 Were | 4 171031M1_5 | Standard | 12.500 | 3.99 | 8565.783 | 6896.374 | 15.526 | 11.9 | -5.2 | NO | NO | bb |
| $5 \times 1$ | $5171031 \mathrm{M1}$ _6 | Standard | 12.500 | 3.99 | 9169.785 | 7038.075 | 16.286 | 12.4 | -0.5 | NO | NO | bb |
| 6 T | 6 171031M1_7 | Standard | 12.500 | 3.99 | 8262.648 | 6844.025 | 15.091 | 11.5 | -7.8 | NO | NO | bb |
| $7{ }^{7}$ | 7 171031M1_8 | Standard | 12.500 | 3.99 | 7764.311 | 6583.264 | 14.743 | 11.3 | -10.0 | NO | NO | bb |
| $8^{-14}+{ }^{\text {d }}$ | 8 171031M1_9 | Standard | 12.500 | 3.99 | 8377.454 | 6496.577 | 16.119 | 12.3 | -1.5 | NO | NO | bb |
| 9 - ${ }^{\text {a }}$ | 9 171031M1_10 | Standard | 12.500 | 3.99 | 9092.846 | 6480.723 | 17.538 | 13.4 | 7.1 | NO | NO | bb |

## Compound name: 13C5-PFNA

Response Factor: 0.979208
RRF SD: 0.0766554 , Relative SD: 7.82831
Response type: Internal Std (Ref 58 ), Area * (IS Conc. / IS Area)
Curve type: RF


Vista Analytical Laboratory
Dataset: U:IQ4.PROlresults\171031M11171031M1-CRV.qld
Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time
Printed: Wednesday, November 01, 2017 08:45:15 Pacific Daylight Time

## Compound name: 13C8-PFOSA

Response Factor: 0.206685
RRF SD: 0.0287647, Relative SD: 13.9171
Response type: Internal Std (Ref 61 ), Area * (IS Conc. / IS Area )
Curve type: RF


## Compound name: 13C8-PFOS

Response Factor: 1.07154
RRF SD: 0.0815576, Relative SD: 7.61125
Response type: Internal Std (Ref 59 ), Area * (IS Conc. / IS Area)
Curve type: RF


## Quantify Compound Summary Report MassLynx MassLynx V4.1 SCN945 SCN960

## Vista Analytical Laboratory

Dataset: U:IQ4.PRO\results\171031M1\171031M1-CRV.qld
Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time
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## Compound name: 13C2-PFDA

## Response Factor: 1.01408

RRF SD: 0.100933, Relative SD: 9.95321
Response type: Internal Std ( Ref 60 ), Area * (IS Conc. / IS Area )
Curve type: RF

|  | \# Name | ype | Conc | RT | Area | IS Area | Response | Conc. | \%Dev | ne. | CoDFlag | $x=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. | 1 171031M1_2 | Standard | 12.500 | 4.85 | 7145.477 | 7192.681 | 12.418 | 12.2 | -2.0 | NO | NO | bb |
| 2 | 2 171031M1_3 | Standard | 12.500 | 4.83 | 7574.697 | 8328.828 | 11.368 | 11.2 | -10.3 | NO | NO | bb |
| 3. | 3 171031M1_4 | Standard | 12.500 | 4.82 | 8647.730 | 7719.951 | 14.002 | 13.8 | 10.5 | NO | NO | bb |
| 4 L | 4 171031M1_5 | Standard | 12.500 | 4.82 | 8337.258 | 7639.211 | 13.642 | 13.5 | 7.6 | NO | NO | bb |
| 5.45 | 5 171031M1_6 | Standard | 12.500 | 4.82 | 7915.097 | 9023.982 | 10.964 | 10.8 | -13.5 | NO | NO | bb |
| $6$ | 6 171031M1_7 | Standard | 12.500 | 4.82 | 9131.245 | 7885.146 | 14.475 | 14.3 | 14.2 | NO | NO | bb |
| 7 H2.ay | 7 171031M1_8 | Standard | 12.500 | 4.82 | 8341.659 | 8546.058 | 12.201 | 12.0 | -3.7 | NO | NO | bd |
|  | 8 171031M1_9 | Standard | 12.500 | 4.83 | 7622.616 | 7079.840 | 13.458 | 13.3 | 6.2 | NO | NO | bb |
| 9. | 9 171031M1_10 | Standard | 12.500 | 4.83 | 6872.966 | 7435.586 | 11.554 | 11.4 | -8.8 | NO | NO | bb |

## Compound name: 13C2-8:2 FTS

Response Factor: 0.216109
RRF SD: 0.0409852 , Relative SD: 18.9651
Response type: Internal Std (Ref 60 ), Area * ( IS Conc. / IS Area )
Curve type: RF


Last Altered:
Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time
Printed: Wednesday, November 01, 2017 08:45:15 Pacific Daylight Time

## Compound name: d3-N-MeFOSAA

Response Factor: 0.368005
RRF SD: 0.0369419 , Relative SD: 10.0384
Response type: Internal Std (Ref 61 ), Area * (IS Conc. / IS Area )
Curve type: RF

| 6xem | \# Name |  |  | RT Area |  | IS Area | Response <br> 4.373 | Conc. | \%Dev | Conc. Fla | COD $\times$ CoDFlag | $x$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 171031M1_2 | Standard | 12.500 | 5.00 | 3075.407 | 8791.230 |  | 11.9 | -4.9 | NO | NO | bb |
| 2 - | 2 171031M1_3 | Standard | 12.500 | 4.99 | 3851.943 | 10903.049 | 4.416 | 12.0 | -4.0 | NO | NO | bb |
| 4 | 3 171031M1_4 | Standard | 12.500 | 4.98 | 3434.018 | 8589.958 | 4.997 | 13.6 | 8.6 | NO | NO | bb |
| 4. | 4 171031M1_5 | Standard | 12.500 | 4.97 | 3484.427 | 10303.497 | 4.227 | 11.5 | -8.1 | NO | NO | bb |
| $54{ }^{2}+$ | 5 171031M1_6 | Standard | 12.500 | 4.98 | 3316.072 | 9557.864 | 4.337 | 11.8 | -5.7 | NO | NO | bb |
| 6 - ${ }^{\text {a }}$ | 6 171031M1_7 | Standard | 12.500 | 4.98 | 3387.262 | 10502.081 | 4.032 | 11.0 | -12.4 | NO | NO | bb |
|  | 7 171031M1_8 | Standard | 12.500 | 4.98 | 3537.138 | 9076.938 | 4.871 | 13.2 | 5.9 | NO | NO | bb |
| 8 84 | 8 171031M1_9 | Standard | 12.500 | 4.98 | 3288.611 | 8894.727 | 4.622 | 12.6 | 0.5 | NO | NO | bb |
| - | 9 171031M1_10 | Standard | 12.500 | 4.98 | 3331.907 | 7536.803 | 5.526 | 15.0 | 20.1 | NO | NO | bb |

## Compound name: d5-N-EtFOSAA

Response Factor: 0.38859
RRF SD: 0.0538614 , Relative SD: 13.8607
Response type: Internal Std (Ref 61 ), Area * (IS Conc. / IS Area)
Curve type: RF

|  | \# Name | Type | 4\% | Std. Conc | RT | Area | IS Area | Response | Onc. | \%Dev | nc. Flag CoD | CoD F | luded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $12^{2}+3$ | 1 171031M1_2 | Standard |  | 12.500 | 5.17 | 3420.794 | 8791.230 | 4.864 | 12.5 | 0.1 | NO | NO | bb |
| $2 \times 4$. | 2 171031M1_3 | Standard |  | 12.500 | 5.15 | 3359.667 | 10903.049 | 3.852 | 9.9 | -20.7 | NO | NO | bb |
| 3.4.4w | 3 171031M1_4 | Standard |  | 12.500 | 5.14 | 3890.687 | 8589.958 | 5.662 | 14.6 | 16.6 | NO | NO | bb |
| 4.4 | 4 171031M1_5 | Standard |  | 12.500 | 5.14 | 3644.828 | 10303.497 | 4.422 | 11.4 | -9.0 | NO | NO | bb |
| 5 | 5 171031M1_6 | Standard |  | 12.500 | 5.14 | 4390.306 | 9557.864 | 5.742 | 14.8 | 18.2 | NO | NO | bb |
| $6: 3$. | 6 171031M1_7 | Standard |  | 12.500 | 5.14 | 3847.179 | 10502.081 | 4.579 | 11.8 | -5.7 | NO | NO | bb |
| 7.48 | 7 171031M1_8 | Standard |  | 12.500 | 5.14 | 3517.122 | 9076.938 | 4.843 | 12.5 | -0.3 | NO | NO | bb |
| 8 \% | 8 171031M1_9 | Standard |  | 12.500 | 5.14 | 2987.895 | 8894.727 | 4.199 | 10.8 | -13.6 | NO | NO | bb |
| 9 | 9 171031M1_10 | Standard |  | 12.500 | 5.14 | 3348.685 | 7536.803 | 5.554 | 14.3 | 14.3 | NO | NO | bb |

Dataset:
U:IQ4.PRO\results\171031M11171031M1-CRV.qld
Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time
Printed: $\quad$ Wednesday, November 01, 2017 08:45:15 Pacific Daylight Time

## Compound name: 13C2-PFUdA

Response Factor: 0.982848
RRF SD: 0.0745675 , Relative SD: 7.58688
Response type: Internal Std (Ref 61 ), Area * (IS Conc. / IS Area)
Curve type: RF


## Compound name: 13C2-PFDoA

Response Factor: 0.997054
RRF SD: 0.109236, Relative SD: 10.9559
Response type: Internal Std (Ref 61 ), Area * (IS Conc. / IS Area)
Curve type: RF

| $5$ | \# Name | Type | Std. Conc | \% RT | Area | IS Area | Response | , | , | - |  | cluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 Wseme | 1 171031M1_2 | Standard | 12.500 | 5.47 | 8973.643 | 8791.230 | 12.759 | 12.8 | 2.4 | NO | NO | bb |
| 2 | 2 171031M1_3 | Standard | 12.500 | 5.46 | 9276.800 | 10903.049 | 10.636 | 10.7 | -14.7 | NO | NO | bb |
| 3 | 3 171031M1_4 | Standard | 12.500 | 5.45 | 9088.354 | 8589.958 | 13.225 | 13.3 | 6.1 | NO | NO | bb |
| 4 | 4 171031M1_5 | Standard | 12.500 | 5.45 | 10505.300 | 10303.497 | 12.745 | 12.8 | 2.3 | NO | NO | bb |
| 54.6 | 5 171031M1_6 | Standard | 12.500 | 5.45 | 10097.720 | 9557.864 | 13.206 | 13.2 | 6.0 | NO | NO | bb |
|  | $6171031 \mathrm{M1} 7$ | Standard | 12.500 | 5.45 | 8535.952 | 10502.081 | 10.160 | 10.2 | -18.5 | NO | NO | bb |
| $7$ | 7 171031M1_8 | Standard | 12.500 | 5.45 | 10663.989 | 9076.938 | 14.686 | 14.7 | 17.8 | NO | NO | bb |
| $8{ }^{2}+1$ | 8 171031M1_9 | Standard | 12.500 | 5.45 | 8742.194 | 8894.727 | 12.286 | 12.3 | -1.4 | NO | NO | bb |
| 9 - ${ }^{\text {ata }}$ | 9 171031M1_10 | Standard | 12.500 | 5.45 | 7516.635 | 7536.803 | 12.467 | 12.5 | 0.0 | NO | NO | bb |

Dataset: U:IQ4.PRO\results\171031M11171031M1-CRV.qld
Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time
Printed:
Wednesday, November 01, 2017 08:45:15 Pacific Daylight Time

## Compound name: d3-N-MeFOSA

Response Factor: 0.0956136
RRF SD: 0.00758527, Relative SD: 7.93325
Response type: Internal Std (Ref 61 ), Area * ( IS Conc. / IS Area )
Curve type: RF


## Compound name: 13C2-PFTeDA

Response Factor: 1.03934
RRF SD: 0.0687595 , Relative SD: 6.61571
Response type: Internal Std (Ref 61 ), Area * (IS Conc. / IS Area)
Curve type: RF

|  | \# Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | $\% \mathrm{Dev}$ | C. Fl |  | uded. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $1 \times 4{ }^{2}$ | 1 171031M1_2 | Standard | 12.500 | 5.95 | 9070.291 | 8791.230 | 12.897 | 12.4 | -0.7 | NO | NO | bb |
| 2 - ${ }^{2}$ | $2171031 \mathrm{M1} 3$ | Standard | 12.500 | 5.94 | 11052.117 | 10903.049 | 12.671 | 12.2 | -2.5 | NO | NO | bb |
|  | 3 171031M1_4 | Standard | 12.500 | 5.94 | 9782.038 | 8589.958 | 14.235 | 13.7 | 9.6 | NO | NO | bb |
| $4{ }^{4}$ | 4 171031M1_5 | Standard | 12.500 | 5.94 | 10359.471 | 10303.497 | 12.568 | 12.1 | -3.3 | NO | NO | bb |
|  | 5 171031M1_6 | Standard | 12.500 | 5.94 | 9972.630 | 9557.864 | 13.042 | 12.5 | 0.4 | NO | NO | bb |
| 6 | 6 171031M1_7 | Standard | 12.500 | 5.94 | 9608.716 | 10502.081 | 11.437 | 11.0 | -12.0 | NO | NO | bb |
| 7. | 7 171031M1_8 | Standard | 12.500 | 5.94 | 9259.316 | 9076.938 | 12.751 | 12.3 | -1.9 | NO | NO | bb |
| 8 - | 8 171031M1_9 | Standard | 12.500 | 5.94 | 9302.396 | 8894.727 | 13.073 | 12.6 | 0.6 | NO | NO | bb |
| 9.4 | $9171031 \mathrm{M1}$ _10 | Standard | 12.500 | 5.94 | 8593.112 | 7536.803 | 14.252 | 13.7 | 9.7 | NO | NO | bb |

Vista Analytical Laboratory
Dataset: U:\Q4.PRO\results\171031M1\171031M1-CRV.qld
Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time
Printed: Wednesday, November 01, 2017 08:45:15 Pacific Daylight Time

## Compound name: d5-N-ETFOSA

Response Factor: 0.143993
RRF SD: 0.0113961, Relative SD: 7.91434
Response type: Internal Std (Ref 61 ), Area * (IS Conc. / IS Area)
Curve type: RF

| + | \# Name | Type | Std. Cone | RT | Area | IS Area | Response | Conc. | \%Dev | Conc. Flag ${ }^{\text {S }}$ CoD | CoD Flag | $x=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. | 1 171031M1_2 | Standard | 150.000 | 6.02 | 13901.869 | 8791.230 | 19.767 | 137.3 | -8.5 | NO | NO | bb |
| 2 | 2 171031M1_3 | Standard | 150.000 | 5.99 | 17096.633 | 10903.049 | 19.601 | 136.1 | -9.3 | NO | NO | bb |
| 3 - | 3 171031M1_4 | Standard | 150.000 | 5.98 | 16828.123 | 8589.958 | 24.488 | 170.1 | 13.4 | NO | NO | bb |
| 4 - | 4 171031M1_5 | Standard | 150.000 | 5.98 | 17169.912 | 10303.497 | 20.830 | 144.7 | -3.6 | NO | NO | bb |
|  | 5 171031M1_6 | Standard | 150.000 | 5.98 | 16600.344 | 9557.864 | 21.710 | 150.8 | 0.5 | NO | NO | bb |
| 6.5 | 6 171031M1_7 | Standard | 150.000 | 5.98 | 17081.096 | 10502.081 | 20.331 | 141.2 | -5.9 | NO | NO | bb |
| $7$ | 7 171031M1_8 | Standard | 150.000 | 5.98 | 16298.452 | 9076.938 | 22.445 | 155.9 | 3.9 | NO | NO | bb |
| 8 | 8 171031M1_9 | Standard | 150.000 | 5.98 | 15259.872 | 8894.727 | 21.445 | 148.9 | -0.7 | NO | NO | bb |
| $9 \times$ | 9 171031M1_10 | Standard | 150.000 | 5.98 | 14334.034 | 7536.803 | 23.773 | 165.1 | 10.1 | NO | NO | bb |

## Compound name: 13C2-PFHxDA

Response Factor: 1.03209
RRF SD: 0.127277, Relative SD: 12.332
Response type: Internal Std (Ref 61 ), Area * (IS Conc. / IS Area)
Curve type: RF

| 4.0. | \# Name ${ }^{\text {a }}$, Type , Std. Conc |  |  | RT | Area | IS Area | Response Conc. |  | \%Dev Conc Flag CoD |  | CoDFlag $x=$ excluded |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 15.2+47\% | 1 171031M1_2 | Standard | 5.000 | 6.30 | 2965.394 | 8791.230 | 4.216 | 4.1 | -18.3 | NO | NO | bb |
| 2 2* | 2 171031M1_3 | Standard | 5.000 | 6.30 | 3990.268 | 10903.049 | 4.575 | 4.4 | -11.4 | NO | NO | bb |
| 3. ${ }^{\text {a }}$ | 3 171031M1_4 | Standard | 5.000 | 6.29 | 3303.746 | 8589.958 | 4.808 | 4.7 | -6.8 | NO | NO | bb |
|  | 4 171031M1_5 | Standard | 5.000 | 6.29 | 4525.968 | 10303.497 | 5.491 | 5.3 | 6.4 | NO | NO | bb |
| 5 , | 5 171031M1_6 | Standard | 5.000 | 6.29 | 3660.271 | 9557.864 | 4.787 | 4.6 | -7.2 | NO | NO | bb |
| 6 | 6 171031M1_7 | Standard | 5.000 | 6.29 | 4204.542 | 10502.081 | 5.004 | 4.8 | -3.0 | NO | NO | bb |
| $7$ | 7 171031M1_8 | Standard | 5.000 | 6.29 | 4441.032 | 9076.938 | 6.116 | 5.9 | 18.5 | NO | NO | bb |
| 8. Wen | 8 171031M1_9 | Standard | 5.000 | 6.29 | 3948.273 | 8894.727 | 5.549 | 5.4 | 7.5 | NO | NO | bb |
| 9 9- | 9 171031M1_10 | Standard | 5.000 | 6.29 | 3556.467 | 7536.803 | 5.899 | 5.7 | 14.3 | NO | NO | bb |

Dataset:
U:IQ4.PRO\results\171031M11171031M1-CRV.qld
Last Altered:
Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time
Printed: Wednesday, November 01, 2017 08:45:15 Pacific Daylight Time

## Compound name: d7-N-MeFOSE

Response Factor: 0.132974
RRF SD: 0.0163169, Relative SD: 12.2707
Response type: Internal Std ( Ref 61 ), Area * (IS Conc. / IS Area )
Curve type: RF


## Compound name: d9-N-EtFOSE

Response Factor: 0.127708
RRF SD: 0.0154942 , Relative SD: 12.1325
Response type: Internal Std ( Ref 61 ), Area * (IS Conc. / IS Area )
Curve type: RF

|  | \# Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | Dev | ne. Fla | F | cluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| W3xam | 1 171031M1_2 | Standard | 150.000 | 6.34 | 11021.274 | 8791.230 | 15.671 | 122.7 | -18.2 | NO | NO | MM |
| 2.42 | 2 171031M1_3 | Standard | 150.000 | 6.35 | 13611.050 | 10903.049 | 15.605 | 122.2 | -18.5 | NO | NO | MM |
| 3. | 3 171031M1_4 | Standard | 150.000 | 6.34 | 14567.635 | 8589.958 | 21.199 | 166.0 | 10.7 | NO | NO | bb |
| 4. | 4 171031M1_5 | Standard | 150.000 | 6.34 | 15962.389 | 10303.497 | 19.365 | 151.6 | 1.1 | NO | NO | bb |
| $5$ | 5 171031M1_6 | Standard | 150.000 | 6.34 | 15443.354 | 9557.864 | 20.197 | 158.2 | 5.4 | NO | NO | MM |
| $6 \%$, ${ }^{2}$ | 6 171031M1_7 | Standard | 150.000 | 6.35 | 14651.429 | 10502.081 | 17.439 | 136.6 | -9.0 | NO | NO | MM |
| 7. | 7 171031M1_8 | Standard | 150.000 | 6.34 | 15170.423 | 9076.938 | 20.891 | 163.6 | 9.1 | NO | NO | MM |
| 8. | 8 171031M1_9 | Standard | 150.000 | 6.35 | 14707.501 | 8894.727 | 20.669 | 161.8 | 7.9 | NO | NO | MM |
| 9 9.4.405 | $9171031 \mathrm{M1} 10$ | Standard | 150.000 | 6.34 | 12885.272 | 7536.803 | 21.371 | 167.3 | 11.6 | NO | NO | MM |

## Dataset: U:IQ4.PRO\results\171031M1\171031M1-CRV.qld

Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time
Printed:
Wednesday, November 01, 2017 08:45:15 Pacific Daylight Time

## Compound name: 13C4-PFBA

Response Factor: 1
RRF SD: $9.61481 \mathrm{e}-017$, Relative SD: $9.61481 \mathrm{e}-015$
Response type: Internal Std ( Ref 54 ), Area * (IS Conc. / IS Area )
Curve type: RF

|  | \# Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. |  | . | F | $x=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. $\mathrm{S}^{\text {a }}$, | 1 171031M1_2 | Standard | 12.500 | 1.15 | 5963.095 | 5963.095 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 2 . | 2 171031M1_3 | Standard | 12.500 | 1.10 | 6803.867 | 6803.867 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 3 | 3 171031M1_4 | Standard | 12.500 | 1.06 | 6654.722 | 6654.722 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| $4$ | 4 171031M1_5 | Standard | 12.500 | 1.09 | 7041.553 | 7041.553 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 5 - | 5 171031M1_6 | Standard | 12.500 | 1.08 | 6915.432 | 6915.432 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 6 Wix | 6 171031M1_7 | Standard | 12.500 | 1.08 | 6832.840 | 6832.840 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| $7$ | 7 171031M1_8 | Standard | 12.500 | 1.09 | 6879.583 | 6879.583 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 8 \% | 8 171031M1_9 | Standard | 12.500 | 1.09 | 6502.498 | 6502.498 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 9 9, ${ }^{\text {a }}$ | 9 171031M1_10 | Standard | 12.500 | 1.09 | 6600.681 | 6600.681 | 12.500 | 12.5 | 0.0 | NO | NO | bb |

## Compound name: 13C5-PFHxA

## Response Factor: 1

RRF SD: 1.17757e-016, Relative SD: 1.17757e-014
Response type: Internal Std ( Ref 55 ), Area * (IS Conc. / IS Area )
Curve type: RF

|  | \# Name | Type | Std Cone | RT | Area | IS Area | Response Conc. \%Dev. Conc. Flag CoD Cob Flag x excluded |  |  |  | CoD Flag x-excluded |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 4 | 1 171031M1_2 | Standard | 12.500 | 2.89 | 7771.502 | 7771.502 | 12.500 | 12.5 | 0.0 | NO | NO | MM |
| 2. ${ }^{\text {a }}$ | 2 171031M1_3 | Standard | 12.500 | 2.85 | 9033.493 | 9033.493 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 3. | 3 171031M1_4 | Standard | 12.500 | 2.83 | 8124.338 | 8124.338 | 12.500 | 12.5 | 0.0 | NO | NO | MM |
| 4 | 4 171031M1_5 | Standard | 12.500 | 2.83 | 8602.264 | 8602.264 | 12.500 | 12.5 | 0.0 | NO | NO | MM |
| 5: \% \% | 5 171031M1_6 | Standard | 12.500 | 2.83 | 9624.428 | 9624.428 | 12.500 | 12.5 | 0.0 | NO | NO | MM |
|  | 6 171031M1_7 | Standard | 12.500 | 2.83 | 8956.964 | 8956.964 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
|  | 7 171031M1_8 | Standard | 12.500 | 2.83 | 8823.722 | 8823.722 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 8. ${ }^{\text {a }}$ - | 8 171031M1_9 | Standard | 12.500 | 2.83 | 7955.587 | 7955.587 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| $9+4$ | 9 171031M1_10 | Standard | 12.500 | 2.83 | 8281.060 | 8281.060 | 12.500 | 12.5 | 0.0 | NO | NO | MM |

Dataset: U:IQ4.PRO\results\171031M1\171031M1-CRV.qld
Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time
Printed:
Wednesday, November 01, 2017 08:45:15 Pacific Daylight Time

## Compound name: 13C3-PFHxS

Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 56 ), Area * ( IS Conc. / IS Area )
Curve type: RF


## Compound name: 13C8-PFOA

Response Factor: 1
RRF SD: 7.85046e-017, Relative SD: 7.85046e-015
Response type: Internal Std (Ref 57 ), Area * (IS Conc. / IS Area)
Curve type: RF

|  |  |  | Std. Conc |  | Area5755.554 | $\begin{array}{r} \text { IS Area } \\ 5755.554 \end{array}$ | Response Conc. \%Dev Conc. Flag , CoD |  |  |  | CoD Flag $x=$ excluded |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 14TS M | 1 171031M1_2 | Standard | 12.500 | 4.03 |  |  | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 2 | 2 171031M1_3 | Standard | 12.500 | 4.00 | 6357.599 | 6357.599 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 3 3-4. | 3 171031M1_4 | Standard | 12.500 | 3.99 | 6407.551 | 6407.551 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 4 | 4 171031M1_5 | Standard | 12.500 | 3.99 | 6896.374 | 6896.374 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 5 | 5 171031M1_6 | Standard | 12.500 | 3.99 | 7038.075 | 7038.075 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 6 6.ex ${ }^{\text {a }}$ | 6171031 M 1 _ 7 | Standard | 12.500 | 3.99 | 6844.025 | 6844.025 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| $7 \mathrm{mb}+{ }^{\text {a }}$ | 7 171031M1_8 | Standard | 12.500 | 3.99 | 6583.264 | 6583.264 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 8. | 8 171031M1_9 | Standard | 12.500 | 3.99 | 6496.577 | 6496.577 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 9 ${ }^{\text {a }}$ | 9 171031M1_10 | Standard | 12.500 | 3.99 | 6480.723 | 6480.723 | 12.500 | 12.5 | 0.0 | NO | NO | bb |

Dataset: U:IQ4.PRO\results\171031M11171031M1-CRV.qld
Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time
Printed:
Wednesday, November 01, 2017 08:45:15 Pacific Daylight Time

## Compound name: 13C9-PFNA

Response Factor: 1
RRF SD: 7.85046e-017, Relative SD: 7.85046e-015
Response type: Internal Std (Ref 58 ), Area * (IS Conc. / IS Area)
Curve type: RF

| \% | \# Name | Type | Std. Conc | RT | Area | 15 Area | Response | Conc. | \%Dev |  | D Fla | $x=$ excluded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 , +imbut | 1 171031M1_2 | Standard | 12.500 | 4.47 | 7443.399 | 7443.399 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 2 - | 2 171031M1_3 | Standard | 12.500 | 4.44 | 7759.596 | 7759.596 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| $3$ | 3 171031M1_4 | Standard | 12.500 | 4.44 | 7636.577 | 7636.577 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
|  | 4 171031M1_5 | Standard | 12.500 | 4.44 | 8507.058 | 8507.058 | 12.500 | 12.5 | 0.0 | NO | NO | $b b$ |
| 5 * | 5 171031M1_6 | Standard | 12.500 | 4.44 | 8252.775 | 8252.775 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 6 . | 6 171031M1_7 | Standard | 12.500 | 4.44 | 7913.440 | 7913.440 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| $7$ | 7 171031M1_8 | Standard | 12.500 | 4.44 | 7424.903 | 7424.903 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 8 - ${ }^{2}$ | 8 171031M1_9 | Standard | 12.500 | 4.44 | 5722.288 | 5722.288 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| $9 \times 8$ | 9 171031M1_10 | Standard | 12.500 | 4.44 | 7138.070 | 7138.070 | 12.500 | 12.5 | 0.0 | NO | NO | bb |

## Compound name: 13C4-PFOS

Response Factor: 1
RRF SD: $5.55112 \mathrm{e}-017$, Relative SD: $5.55112 \mathrm{e}-015$
Response type: Internal Std (Ref 59 ), Area * (IS Conc. / IS Area )
Curve type: RF

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 + ${ }^{2}$ | 1 171031M1_2 | Standard | 12.500 | 4.56 | 1684.138 | 1684.138 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 2 | 2 171031M1_3 | Standard | 12.500 | 4.53 | 1709.990 | 1709.990 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 3. | 3 171031M1_4 | Standard | 12.500 | 4.53 | 1670.649 | 1670.649 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| $4{ }^{4}$ | 4 171031M1_5 | Standard | 12.500 | 4.53 | 1730.373 | 1730.373 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| $5$ | 5 171031M1_6 | Standard | 12.500 | 4.53 | 2046.018 | 2046.018 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| $6$ | 6 171031M1_7 | Standard | 12.500 | 4.53 | 1723.226 | 1723.226 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| $7 \times \pm$ | 7 171031M1_8 | Standard | 12.500 | 4.53 | 1862.948 | 1862.948 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| $8+3 \times 4$ | 8 171031M1_9 | Standard | 12.500 | 4.53 | 1675.064 | 1675.064 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 9 \% | 9 171031M1_10 | Standard | 12.500 | 4.53 | 1793.776 | 1793.776 | 12.500 | 12.5 | 0.0 | NO | NO | bb |

Vista Analytical Laboratory
Dataset: U:IQ4.PRO\results\171031M1\171031M1-CRV.qld
Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time
Printed: Wednesday, November 01, 2017 08:45:15 Pacific Daylight Time

## Compound name: 13C6-PFDA

Response Factor: 1
RRF SD: 8.77708e-017, Relative SD: $8.77708 \mathrm{e}-015$
Response type: Internal Std (Ref 60 ), Area * (IS Conc. / IS Area)
Curve type: RF

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $14{ }^{2}$ | 1 171031M1_2 | Standard | 12.500 | 4.85 | 7192.681 | 7192.681 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 2. | 2 171031M1_3 | Standard | 12.500 | 4.83 | 8328.828 | 8328.828 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| $3$ | 3 171031M1_4 | Standard | 12.500 | 4.82 | 7719.951 | 7719.951 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 4 4, | 4 171031M1_5 | Standard | 12.500 | 4.82 | 7639.211 | 7639.211 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| $5 \cdot+$ | 5 171031M1_6 | Standard | 12.500 | 4.82 | 9023.982 | 9023.982 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| $6$ | 6 171031M1_7 | Standard | 12.500 | 4.82 | 7885.146 | 7885.146 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| $7$ | 7 171031M1_8 | Standard | 12.500 | 4.82 | 8546.058 | 8546.058 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| $8$ | 8 171031M1_9 | Standard | 12.500 | 4.82 | 7079.840 | 7079.840 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| $9$ | 9 171031M1_10 | Standard | 12.500 | 4.82 | 7435.586 | 7435.586 | 12.500 | 12.5 | 0.0 | NO | NO | bb |

## Compound name: 13C7-PFUdA

Response Factor: 1
RRF SD: 5.55112e-017, Relative SD: 5.55112e-015
Response type: Internal Std (Ref 61 ), Area * (IS Conc. / IS Area)
Curve type: RF

|  | \# Name | Type | Std. Conc12.500 | RT 5.18 | Area IS Area Response |  |  | Conc \%Dev Conc Flag |  |  | CoD CoDFlag $x$ x=excluded |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 171031M1_2 | Standard |  |  | 8791.230 | 8791.230 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
|  | 2 171031M1_3 | Standard | 12.500 | 5.17 | 10903.049 | 10903.049 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
|  | 3 171031M1_4 | Standard | 12.500 | 5.16 | 8589.958 | 8589.958 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
|  | 4 171031M1_5 | Standard | 12.500 | 5.16 | 10303.497 | 10303.497 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
|  | 5 171031M1_6 | Standard | 12.500 | 5.16 | 9557.864 | 9557.864 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
|  | 6 171031M1_7 | Standard | 12.500 | 5.16 | 10502.081 | 10502.081 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
|  | 7 171031M1_8 | Standard | 12.500 | 5.16 | 9076.938 | 9076.938 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
|  | 8 171031M1_9 | Standard | 12.500 | 5.16 | 8894.727 | 8894.727 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
|  | 9 171031M1_10 | Standard | 12.500 | 5.16 | 7536.803 | 7536.803 | 12.500 | 12.5 | 0.0 | NO | NO | bb |


| Dataset: | Untitled |
| :--- | :--- |
| Last Altered: | Wednesday, November 01, 2017 08:53:36 Pacific Daylight Time |
| Printed: | Wednesday, November 01, 2017 08:54:15 Pacific Daylight Time |

Method: U:IQ4.PROMMethDBIPFAS_FULL_80C_102717.mdb 31 Oct 2017 10:25:33

## Calibration: U:IQ4.PROICurveDBIC18_VAL-PFĀS_Q4_10-31-17-FULL_OLD.cdb 01 Nov 2017 08:21:58

## Compound name: PFBA

|  | Name | ID | Acq. Date | Acq Time |
| :---: | :---: | :---: | :---: | :---: |
| 1 | 171031M1_1 | IPA | 31-Oct-17 | 15:56:43 |
| 2 | 171031M1_2 | ST171031M1-1 PFC CS-2 17J2805 | 31-Oct-17 | 16:08:10 |
| 3 | 171031M1_3 | ST171031M1-2 PFC CS-1 17J2806 | 31-Oct-17 | 16:19:21 |
| 4 | 171031M1_4 | ST171031M1-3 PFC CSO 17J2807 | 31-Oct-17 | 16:30:31 |
| 5 | 171031M1_5 | ST171031M1-4 PFC CS1 17J2808 | 31-Oct-17 | 16:41:42 |
| 6 | 171031M1_6 | ST171031M1-5 PFC CS2 17J2809 | 31-Oct-17 | 16:52:53 |
| 7 | 171031M1_7 | ST171031M1-6 PFC CS3 17J2810 | 31-Oct-17 | 17:04:03 |
| 8 | 171031M1_8 | ST171031M1-7 PFC CS4 17J2813 | 31-Oct-17 | 17:15:14 |
| 9 | 171031M1_9 | ST171031M1-8 PFC CS5 17.J2814 | 31-Oct-17 | 17:26:43 |
| 10 | 171031M1_10 | ST171031M1-9 PFC CS6 17 J 2815 | 31-Oct-17 | 17:38:27 |
| 11. | 171031M1_11 | ST171031M1-10 PFC CS7 17J2816 | 31-Oct-17 | 17:49:36 |
| 12 | 171031M1_12 | IPA | 31-Oct-17 | 18:00:47 |
| 13 | 171031M1_13 | ICV171031M1-1 PFC ICV 17J2804 | 31-Oct-17 | 18:11:58 |
| 14 | [171031M1_14 | IPA | 31-Oct-17 | 18:23:08 |

Dataset: U:IQ4.PRO\results\171031M11171031M1-CRV.qld

## Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time

Printed: Wednesday, November 01, 2017 08:44:23 Pacific Daylight Time

## Method: U:IQ4.PROIMethDBIPFAS_FULL_80C_102717.mdb 31 Oct 2017 10:25:33

## Calibration: 01 Nov 2017 08:21:58 C18_ VAL-PFAS_Q4_ $10-31$ - 17 -FUI_OLD

Compound name: PFBA
Correlation coefficient: $\mathrm{r}=0.999738, \mathrm{r}^{\wedge} 2=0.999476$
Calibration curve: 1.06856 * x + 0.0388677
Response type: Internal Std (Ref 31 ), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None


## Quantify Calibration Report MassLynx MassLynx V4.1 SCN945 SCN960

Vista Analytical Laboratory Q1

| Dataset: | U:IQ4.PRO\results\171031M1\171031M1-CRV.qld |
| :--- | :--- |
|  |  |
| Last Altered: | Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time |
| Printed: | Wednesday, November 01, 2017 08:44:23 Pacific Daylight Time |

Compound name: PFPeA
Correlation coefficient: $\mathrm{r}=0.999844, \mathrm{r}^{\wedge} 2=0.999687$
Calibration curve: 0.95039 * x + 0.0982843
Response type: Internal Std (Ref 32 ), Area * ( IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None


| Dataset: | U:\Q4.PROlresults\171031M1\171031M1-CRV.qld |
| :--- | :--- |
| Last Altered: | Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time |
| Printed: | Wednesday, November 01, 2017 08:44:23 Pacific Daylight Time |

Compound name: PFBS
Correlation coefficient: $\mathrm{r}=0.998677, \mathrm{r}^{\wedge} 2=0.997355$
Calibration curve: 2.01352 * x + 0.191925
Response type: Internal Std ( Ref 33 ), Area * (IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None


| Dataset: | U:\Q4.PRO\results1171031M11171031M1-CRV.qld |
| :--- | :--- |
| Last Altered: | Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time |
| Printed: | Wednesday, November 01, 2017 08:44:23 Pacific Daylight Time |

Compound name: PFHxA
Correlation coefficient: $\mathrm{r}=0.998612, \mathrm{r}^{\wedge} 2=0.997226$
Calibration curve: 1.40323 * $x+0.202144$
Response type: Internal Std ( Ref 34 ), Area * ( IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None


| Last Altered: | Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time |
| :--- | :--- |
| Printed: | Wednesday, November 01, 2017 08:44:23 Pacific Daylight Time |

## Compound name: PFHpA

Correlation coefficient: $\mathrm{r}=0.999826, \mathrm{r}^{\wedge} 2=0.999651$
Calibration curve: $1.29101^{*} \mathrm{x}+0.123326$
Response type: Internal Std (Ref 35), Area * (IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None


| Last Altered: | Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time |
| :--- | :--- |
| Printed: | Wednesday, November 01, 2017 08:44:23 Pacific Daylight Time |

Compound name: L-PFHxS
Correlation coefficient: $\mathrm{r}=0.996867, \mathrm{r}^{\wedge} 2=0.993744$
Calibration curve: 2.01952 * x + 0.0727077
Response type: Internal Std (Ref 36 ), Area * (IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None


## Quantify Calibration Report <br> Vista Analytical Laboratory Q1

## Dataset: U:IQ4.PRO\results\171031M11171031M1-CRV.qld

Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time
Printed
Wednesday, November 01, 2017 08:44:23 Pacific Daylight Time

Compound name: 6:2 FTS
Coefficient of Determination: $\mathbf{R}^{\wedge} 2=0.997401$
Calibration curve: $-0.00272723^{*} x^{\wedge} 2+0.973281$ * $x+-0.00870889$
Response type: Internal Std (Ref 37 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


## Vista Analytical Laboratory Q1

Dataset: U:IQ4.PRO|results\171031M11171031M1-CRV.qld
Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time
Printed: Wednesday, November 01, 2017 08:44:23 Pacific Daylight Time

Compound name: L-PFOA
Correlation coefficient: $\mathrm{r}=0.997771, \mathrm{r}^{\wedge} 2=0.995546$
Calibration curve: 0.943455 * x + 0.316537
Response type: Internal Std (Ref 38 ), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None


## Dataset: U:\Q4.PRO\results\171031M1\171031M1-CRV.qld

Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time
Printed
Wednesday, November 01, 2017 08:44:23 Pacific Daylight Time

Compound name: PFHpS
Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.997276$
Calibration curve: $-3.99694 \mathrm{e}-005^{*} \mathrm{x}^{\wedge} 2+0.183931$ * x + 0.00205894
Response type: Internal Std (Ref 38 ), Area * ( IS Conc. / IS Area )
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


## Dataset: <br> U:IQ4.PRO\results\171031M11171031M1-CRV.qld

Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time Printed: Wednesday, November 01, 2017 08:44:23 Pacific Daylight Time

Compound name: PFNA
Correlation coefficient: $r=0.998949, r^{\wedge} 2=0.997900$
Calibration curve: 1.25666 * x + -0.0468814
Response type: Internal Std ( Ref 39 ), Area * ( IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None


## Dataset:

U:IQ4.PRO\results\171031M11171031M1-CRV.qld
Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time
Printed: Wednesday, November 01, 2017 08:44:23 Pacific Daylight Time

Compound name: PFOSA
Correlation coefficient: $\mathrm{r}=0.997159, \mathrm{r}^{\wedge} 2=0.994326$
Calibration curve: 1.07115 * $x+0.04065$
Response type: Internal Std ( Ref 40 ), Area * ( IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None


## Dataset: U:IQ4.PRO\results\171031M1\171031M1-CRV.qld

Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time
Printed: Wednesday, November 01, 2017 08:44:23 Pacific Daylight Time

Compound name: L-PFOS
Correlation coefficient: $\mathrm{r}=0.999334, \mathrm{r}^{\wedge} 2=0.998668$
Calibration curve: 1.01722 * x + -0.0414285
Response type: Internal Std (Ref 41), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None


## Dataset:

U:\Q4.PRO\resultsl171031M11171031M1-CRV.qld
Last Altered:
Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time
Printed: Wednesday, November 01, 2017 08:44:23 Pacific Daylight Time

## Compound name: PFDA

Correlation coefficient: $\mathrm{r}=0.999473, \mathrm{r}^{\wedge} 2=0.998946$
Calibration curve: 1.28134 * x + 0.0315821
Response type: Internal Std (Ref 42 ), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None


Vista Analytical Laboratory Q1
Dataset: U:IQ4.PRO\results\171031M11171031M1-CRV.qld
Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time
Printed: Wednesday, November 01, 2017 08:44:23 Pacific Daylight Time

## Compound name: 8:2 FTS

Coefficient of Determination: $\mathbf{R}^{\wedge} 2=0.996235$
Calibration curve: $-0.00453751{ }^{*} x^{\wedge} 2+1.47718{ }^{*} x+-0.0973776$
Response type: Internal Std ( Ref 43 ), Area * (IS Conc. / IS Area )
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None


## Vista Analytical Laboratory Q1

## Dataset: U:IQ4.PRO\results\171031M11171031M1-CRV.qld

Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time
Printed:
Wednesday, November 01, 2017 08:44:23 Pacific Daylight Time

## Compound name: N-MeFOSAA

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.998527$
Calibration curve: $-0.00061126{ }^{*} x^{\wedge} 2+1.44366$ * $x+0.138034$
Response type: Internal Std (Ref 44 ), Area * (IS Conc. / IS Area )
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


Vista Analytical Laboratory Q1
Dataset: U:IQ4.PRO\results\171031M11171031M1-CRV.qld
Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time
Printed:
Wednesday, November 01, 2017 08:44:23 Pacific Daylight Time

Compound name: N-EtFOSAA
Correlation coefficient: $r=0.995319, \mathrm{r}^{\wedge} 2=0.990659$
Calibration curve: 1.17468 * $x+-0.0150013$
Response type: Internal Std ( Ref 45 ), Area * (IS Conc. / IS Area )
Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None


## Dataset: U:IQ4.PRO\results1171031M1\171031M1-CRV.qld

Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time
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Compound name: PFUdA
Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.998778$
Calibration curve: $-5.23555 e-005$ * $x^{\wedge} 2+0.962109$ * $x+0.0759805$
Response type: Internal Std (Ref 46 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


Vista Analytical Laboratory Q1
Dataset: U:IQ4.PROlresults\171031M11171031M1-CRV.qld
Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time
Printed: Wednesday, November 01, 2017 08:44:23 Pacific Daylight Time

Compound name: PFDS
Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999698$
Calibration curve: $-2.28699 \mathrm{e}-006$ * $\mathrm{x}^{\wedge} 2+0.226098$ * $\mathrm{x}+-0.0396467$
Response type: Internal Std (Ref 46 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


Dataset: U:IQ4.PRO\results1171031M1\171031M1-CRV.qld
Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time
Printed:
Wednesday, November 01, 2017 08:44:23 Pacific Daylight Time

Compound name: PFDoA
Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.993286$
Calibration curve: -6.13859e-005 * x^2 + $1.22441^{*}$ x + 0.0900393
Response type: Internal Std (Ref 47 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


## Vista Analytical Laboratory Q1

Dataset: U:IQ4.PRO\results\171031M1\171031M1-CRV.qld
Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time
Printed:
Wednesday, November 01, 2017 08:44:23 Pacific Daylight Time

Compound name: N-MeFOSA
Correlation coefficient: $r=0.999056, r^{\wedge} 2=0.998113$
Calibration curve: 0.99285 * x + 0.328893
Response type: Internal Std (Ref 48 ), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None


Dataset: U:IQ4.PROIresults\171031M11171031M1-CRV.qld
Last Altered: Wednesday, November 01, 2017 09:42:13 Pacific Daylight Time
Printed: Wednesday, November 01, 2017 09:42:55 Pacific Daylight Time

Method: U:IQ4.PRO\MethDB\PFAS_FULL_80C_102717.mdb 31 Oct 2017 10:25:33
Calibration: U:IQ4.PROICurveDBIC18_VAL-PFAS_Q4_10-31-17-FULL_OLD.cdb 01 Nov 2017 09:42:13
Compound name: PFTrDA
Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.992550$
Calibration curve: 1.27931 * $x$
Response type: Internal Std (Ref 47), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: Null, Axis trans: None


| Dataset: | U:\Q4.PRO\results\171031M1\171031M1-CRV.qld |
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|  | Wast Altered: |
| Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time |  |
| Printed: | Wednesday, November 01, 2017 08:44:23 Pacific Daylight Time |

## Compound name: PFTeDA

Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999673$
Calibration curve: $-0.000957767^{*} x^{\wedge} 2+1.29262$ * $x+-0.00461528$
Response type: Internal Std (Ref 49 ), Area * (IS Conc. / IS Area )
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


Vista Analytical Laboratory Q1
Dataset:
U:\Q4.PRO\results\171031M11171031M1-CRV.qld
Last Altered:
Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time
Printed: Wednesday, November 01, 2017 08:44:23 Pacific Daylight Time

Compound name: N-EtFOSA
Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999831$
Calibration curve: $-4.41537 e-005{ }^{*} x^{\wedge} 2+0.910589$ * $x+0.484101$
Response type: Internal Std (Ref 50 ), Area* (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


## Dataset: U:\Q4.PRO|results\171031M1\171031M1-CRV.qld

Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time
Printed
Wednesday, November 01, 2017 08:44:23 Pacific Daylight Time

Compound name: PFHxDA
Coefficient of Determination: $\mathrm{R}^{\wedge} 2=0.999773$
Calibration curve: $-1.68772 \mathrm{e}-005$ * $\mathrm{x}^{\wedge} 2+0.569695^{*} \mathrm{x}+0.110552$
Response type: Internal Std ( Ref 51 ), Area * ( IS Conc. / IS Area )
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None


Vista Analytical Laboratory Q1
Dataset: U:IQ4.PRO\results\171031M11171031M1-CRV.qld
Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time
Printed: Wednesday, November 01, 2017 08:44:23 Pacific Daylight Time

Compound name: PFODA
Coefficient of Determination: $R^{\wedge} 2=0.999396$
Calibration curve: $0.000959304{ }^{*} x^{\wedge} 2+0.407622$ * $x+-0.0239268$
Response type: Internal Std (Ref 51 ), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None


Dataset: U:IQ4.PRO\results\171031M11171031M1-CRV.qld
Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time
Printed: Wednesday, November 01, 2017 08:44:23 Pacific Daylight Time

Compound name: N-MeFOSE
Correlation coefficient: $r=0.996570, r^{\wedge} 2=0.993151$
Calibration curve: $0.910887^{*} x+0.561201$
Response type: Internal Std (Ref 52 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None


Vista Analytical Laboratory Q1

| Dataset: | U:IQ4.PRO\results\171031M1\171031M1-CRV.qld |
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| Last Altered: | Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time |
| Printed: | Wednesday, November 01, 2017 08:44:23 Pacific Daylight Time |

Compound name: N-EtFOSE
Correlation coefficient: $\mathrm{r}=0.999631, \mathrm{r}^{\wedge} 2=0.999262$
Calibration curve: 1.00592 * x + 0.816282
Response type: Internal Std ( Ref 53 ), Area * (IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None


Dataset: U:IQ4.PRO\results\171031M1\171031M1-CRV.qld
Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time
Printed: $\quad$ Wednesday, November 01, 2017 08:24:12 Pacific Daylight Time

Method: U:IQ4.PRO\MethDBIPFAS_FULL_80C_102717.mdb 31 Oct 2017 10:25:33

## Calibration: 01 Nov 2017 08:21:58

Name: 171031M1_2, Date: 31-Oct-2017, Time: 16:08:10, ID: ST171031M1-1 PFC CS-2 17J2805, Description: PFC CS-2 17J2805


## 13C3-PFBA

F2:MRM of 1 channel,ES-


## PFPeA

F4:MRM of 1 channel,ES$\begin{array}{rr} & 263.1>218.9 \\ 100 & 4.876 \mathrm{e}+003\end{array}$


13C3-PFPeA
F5:MRM of 1 channel,ES-

## PFBS



F6:MRM of 2 channels,ES




## 13C2-PFHxA




F13:MRM of 2 channeis,ES



F15:MRM of 2 channels,ES-


1802-PFHxS
F17:MRM of 1 channel,ES-
$403.0>102.6$


Dataset:
U:\Q4.PRO\results\171031M1\171031M1-CRV.qld

Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time
Printed: Wednesday, November 01, 2017 08:24:12 Pacific Daylight Time

Name: 171031M1_2, Date: 31-Oct-2017, Time: 16:08:10, ID: ST171031M1-1 PFC CS-2 17J2805, Description: PFC CS-2 17J2805


F21:MRM of 2 channels,ES-


13C2-6:2 FTS
F22:MRM of 1 channel,ES$429.1>408.9$ 3.916e+004



F18:MRM of 2 channels,ES-


13C2-PFOA
F19:MRM of 1 channel,ES-



F23:MRM of 2 channels,ES-


F7:MRM of 1 channel,ES-
$302 .>98.8$
2.001 e +004



13C5-PFNA


## PFOSA <br> 

F27:MRM of 2 channels,ES
F27:MRM of 2 channels, ES
$498.1>478$


13C8-PFOSA



F29:MRM of 2 channels,ES-


13C8-PFOS
Dataset:
U:IQ4.PROIresults\171031M11171031M1-CRV.qld
Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time
Printed: Wednesday, November 01, 2017 08:24:12 Pacific Daylight Time

Name: 171031M1_2, Date: 31-Oct-2017, Time: 16:08:10, ID: ST171031M1-1 PFC CS-2 17J2805, Description: PFC CS-2 17J2805


## Dataset: U:IQ4.PRO\results\171031M1\171031M1-CRV.qld <br> $\begin{array}{ll}\text { Last Altered: } & \text { Wednesday, November 01, } 2017 \text { 08:21:58 Pacific Daylight Time } \\ \text { Printed: } & \text { Wednesday, November 01, } 2017 \text { 08:24:12 Pacific Daylight Time }\end{array}$

Name: 171031M1_2, Date: 31-Oct-2017, Time: 16:08:10, ID: ST171031M1-1 PFC CS-2 17J2805, Description: PFC CS-2 17J2805


## PFTeDA








F59:MRM of 2 channels,ES$813.1>219$


13C2-PFHxDA
F60:MRM of 1 channel,ES$815>769.7$


Dataset: U:\Q4.PRO\results1171031M1\171031M1-CRV.qld
Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time
Printed: Wednesday, November 01, 2017 08:24:12 Pacific Daylight Time

Name: 171031M1_2, Date: 31-Oct-2017, Time: 16:08:10, ID: ST171031M1-1 PFC CS-2 17J2805, Description: PFC CS-2 17J2805


## 13C2-PFHxDA

F60:MRM of 1 channel,ES$815>769.7$ $8.143 \mathrm{e}+004$

d7-N-MeFOSE
F53:MRM of 1 channel,ES-

d9-N-EtFOSE
F55:MRM of 1 channel,ES-



## 13C8-PFOA

F20:MRM of 1 channel,ES-
$421.3>376$


13C9-PFNA
F26:MRM of 1 channel,ES-
$472.2>426.9$

Dataset: U:IQ4.PRO\results\171031M11171031M1-CRV.qld
Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time
Printed: Wednesday, November 01, 2017 08:24:12 Pacific Daylight Time

Name: 171031M1_2, Date: 31-Oct-2017, Time: 16:08:10, ID: ST171031M1-1 PFC CS-2 17J2805, Description: PFC CS-2 17J2805


| Dataset: | U:IQ4.PROIresults1171031M11171031M1-CRV.qld |
| :--- | :--- |
|  |  |
| Last Altered: | Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time |
| Printed: | Wednesday, November 01, 2017 08:24:12 Pacific Daylight Time |

## Name: 171031M1_3, Date: 31-Oct-2017, Time: 16:19:21, ID: ST171031M1-2 PFC CS-1 17J2806, Description: PFC CS-1 17 J2806



Dataset: U:IQ4.PRO\results\171031M1\171031M1-CRV.qld
Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time
Printed:
Wednesday, November 01, 2017 08:24:12 Pacific Daylight Time

Name: 171031M1_3, Date: 31-Oct-2017, Time: 16:19:21, ID: ST171031M1-2 PFC CS-1 17J2806, Description: PFC CS-1 17J2806








13C3-PFBS




PFOSA
F27:MRM of 2 channels,ES-
$498.1>77.8$
$4.269 \mathrm{e}+003$

F27:MRM of 2 channels,ES-
$498.1>478$


13C8-PFOSA
F31:MRM of 1 channel,ES$506.1>77.7$



F29:MRM of 2 channels,ES-


13C8-PFOS
F32:MRM of 1 channel,ES$507.0>79.9$ $6.205 \mathrm{e}+004$

## Dataset:

U:IQ4.PRO\results\171031M1\171031M1-CRV.qld
Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time
Printed: Wednesday, November 01, 2017 08:24:12 Pacific Daylight Time

## Name: 171031M1_3, Date: 31-Oct-2017, Time: 16:19:21, ID: ST171031M1-2 PFC CS-1 17J2806, Description: PFC CS-1 17 J2806






13C2-8:2 FTS




d3-N-MeFOSAA

N-EtFOSAA
F47:MRM of 2 channels,ES-
$584.2>419$
$5.825 e+003$

F47:MRM of 2 channels, ES-

d5-N-EtFOSAA




13C2-PFUdA
F43:MRM of 1 channel,ES $565>519.8$ $2.602 \mathrm{e}+005$




13C2-PFUdA
F43:MRM of 1 channel,ES$565>519.8$ $2.602 \mathrm{e}+005$

Dataset:
U:IQ4.PRO\resultsl171031M11171031M1-CRV.qld
Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time
Printed: Wednesday, November 01, 2017 08:24:12 Pacific Daylight Time

## Name: 171031M1_3, Date: 31-Oct-2017, Time: 16:19:21, ID: ST171031M1-2 PFC CS-1 17J2806, Description: PFC CS-1 17J2806





F33:MRM of 2 channels,ES-




F56:MRM of 2 channels,ES-


13C2-PFTeDA
F58:MRM of 2 channels,ES-
$714.8>669.6$



## 13C2-PFTeDA



d5-N-ETFOSA



F59:MRM of 2 channels,ES-


13C2-PFHxDA
F60:MRM of 1 channel,ES$815>769.7$ $1.077 \mathrm{e}+005$

| Dataset: | U:IQ4.PRO\results\171031M11171031M1-CRV.qld |
| :--- | :--- |
| Last Altered: | Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time |
| Printed: | Wednesday, November 01, 2017 08:24:12 Pacific Daylight Time |

## Name: 171031M1_3, Date: 31-Oct-2017, Time: 16:19:21, ID: ST171031M1-2 PFC CS-1 17J2806, Description: PFC CS-1 17J2806






F53:MRM of 1 channel,ES $623.1>58.9$ $4.043 \mathrm{e}+005$





## 13C8-PFOA




F26:MRM of 1 channel,ES
472.2 > 426.9 $2.158 \mathrm{e}+005$



## Dataset: U:IQ4.PRO\results\171031M1\171031M1-CRV.qld

Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time Printed: Wednesday, November 01, 2017 08:24:12 Pacific Daylight Time

Name: 171031M1_3, Date: 31-Oct-2017, Time: 16:19:21, ID: ST171031M1-2 PFC CS-1 17J2806, Description: PFC CS-1 17 J2806


Dataset: U:IQ4.PRO\results\171031M1\171031M1-CRV.qld
Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time
Printed:
Wednesday, November 01, 2017 08:24:12 Pacific Daylight Time

## Name: 171031M1_4, Date: 31-Oct-2017, Time: 16:30:31, ID: S7171031M1-3 PFC CS0 17J2807, Description: PFC CS0 17 J 2807





## 13C3-PFPeA

F5:MRM of 1 channel,ES

## PFBS




## PFHXA



F8:MRM of 2 channels,ES-


## 13C2-PFHxA

F9:MRM of 1 channel,ES-
$315>269.8$




1802-PFHxS
F17:MRM of 1 channel,ES$403.0>102.6$


## Dataset: U:\Q4.PRO\results\171031M1\171031M1-CRV.qld

Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time
Printed: $\quad$ Wednesday, November 01, 2017 08:24:12 Pacific Daylight Time

Name: 171031M1_4, Date: 31-Oct-2017, Time: 16:30:31, ID: ST171031M1-3 PFC CS0 17J2807, Description: PFC CS0 17J2807






13C2-PFOA


| PFHpS |
| ---: |
| F23:MRM of 2 channels,ES- |
| $449>80.0$ |
|  |


13C3-PFBS




13C5-PFNA



F27:MRM of 2 channels,ES





13C8-PFOS
F32:MRM of 1 channel,ES-


| Dataset: | U:IQ4.PRO\results\171031M1\171031M1-CRV.qld |
| :--- | :--- |
|  |  |
| Last Altered: | Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time |
| Printed: | Wednesday, November 01, 2017 08:24:12 Pacific Daylight Time |

Name: 171031M1_4, Date: 31-Oct-2017, Time: 16:30:31, ID: ST171031M1-3 PFC CS0 17J2807, Description: PFC CS0 17J2807


Dataset: U:\Q4.PRO\results\171031M11171031M1-CRV.qld
Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time
Printed: $\quad$ Wednesday, November 01, 2017 08:24:12 Pacific Daylight Time

Name: 171031M1_4, Date: 31-Oct-2017, Time: 16:30:31, ID: ST171031M1-3 PFC CS0 17J2807, Description: PFC CS0 17J2807





F38:MRM of 2 channels,ES
F38:MRM of 2 channels, ES-
$526.1>219$
8.588 2003

d5-N-ETFOSA



F59:MRM of 2 channels,ES


13C2-PFHxDA
F60:MRM of 1 channel,ES$815>769.7$


| Dataset: | U:IQ4.PRO\results\171031M1\171031M1-CRV.qld |
| :--- | :--- |
|  |  |
| Last Altered: | Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time |
| Printed: | Wednesday, November 01, 2017 08:24:12 Pacific Daylight Time |

Name: 171031M1_4, Date: 31-Oct-2017, Time: 16:30:31, ID: ST171031M1-3 PFC CS0 17J2807, Description: PFC CS0 17 J 2807

## PFODA F61:MRM of 1 channel,ES- $913.1>868.8$ $9.811 e^{+} 003$











13C4-PFOS
F30:MRM of 1 channel,ES-
$503>79.9$ $5.286 \mathrm{e}+004$

## 13C6-PFDA

F37:MRM of 1 channel,ES-
$519.1>473.7$
$2.246 \mathrm{e}+005$


Dataset:
U:IQ4.PROIresults1171031M11171031M1-CRV.qld
Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time
Printed: $\quad$ Wednesday, November 01, 2017 08:24:12 Pacific Daylight Time

Name: 171031M1_5, Date: 31-Oct-2017, Time: 16:41:42, ID: ST171031M1-4 PFC CS1 17J2808, Description: PFC CS1 17J2808




13C3-PFPeA



## PFHxA









## Dataset: U:\Q4.PRO\results\171031M1\171031M1-CRV.qld

Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time
Printed: Wednesday, November 01, 2017 08:24:12 Pacific Daylight Time

## Name: 171031M1_5, Date: 31-Oct-2017, Time: 16:41:42, ID: ST171031M1-4 PFC CS1 17J2808, Description: PFC CS1 17 J 2808




F24:MRM of 2 channels,ES
$463.0>219.0$
$7.920 \mathrm{e}+003$


13C5-PFNA



F27:MRM of 2 channeis,ES-
$498.1>478$


13C8-PFOSA
F31:MRM of 1 channel,ES $506.1>77.7$



F29:MRM of 2 channels,ES$499>99$


13C8-PFOS
F32:MRM of 1 channel,ES-
$507.0>79.9$


Name: 171031M1_5, Date: 31-Oct-2017, Time: 16:41:42, ID: ST171031M1-4 PFC CS1 17J2808, Description: PFC CS1 17J2808



F47:MRM of 2 channels,ES-

d5-N-EtFOSAA



Dataset: U:\Q4.PRO|results\171031M1\171031M1-CRV.qld
Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time
Printed:
Wednesday, November 01, 2017 08:24:12 Pacific Daylight Time

Name: 171031M1_5, Date: 31-Oct-2017, Time: 16:41:42, ID: ST171031M1-4 PFC CS1 17J2808, Description: PFC CS1 17J2808





PFHxDA
F59:MRM of 2 channels,ES813.1 > 768.6 $2.929 \mathrm{e}+004$

F59:MRM of 2 channels,ES-


13C2-PFHxDA
F60:MRM of 1 channel,ES$815>769.7$


Dataset: U:\Q4.PRO\results\171031M11171031M1-CRV.qld
Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time
Printed: Wednesday, November 01, 2017 08:24:12 Pacific Daylight Time

Name: 171031M1_5, Date: 31-Oct-2017, Time: 16:41:42, ID: ST171031M1-4 PFC CS1 17J2808, Description: PFC CS1 17J2808


Name: 171031M1_5, Date: 31-Oct-2017, Time: 16:41:42, ID: ST171031M1-4 PFC CS1 17J2808, Description: PFC CS1 17 J 2808

## 13C6-PFDA

F37:MRM of 1 channel,ES-

4.7505 .0005 .250

Dataset:
U:IQ4.PRO|results\171031M11171031M1-CRV.qld
Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time Printed: $\quad$ Wednesday, November 01, 2017 08:24:12 Pacific Daylight Time

Name: 171031M1_6, Date: 31-Oct-2017, Time: 16:52:53, ID: ST171031M1-5 PFC CS2 17J2809, Description: PFC CS2 17J2809



13C3-PFPeA
13C3-PFPeA
F5:MRM of 1 channel,ES-
$266 .>221.8$
13C3-PFPeA
F5:MRM of 1 channel,ES-
$266 .>221.8$




13C3-PFBS



13C2-PFHxA


## PFHpA



F13:MRM of 2 channels,ES-


13C4-PFHpA
F14:MRM of 1 channel,ES-
$367.2>321.8$


L-PFHxS
F15:MRM of 2 channels,ES$398.9>79.6$ $1.635 \mathrm{e}+004$



1802-PFHxS
F17:MRM of 1 channel, ES-
$403.0>102.6$ $403.0>102.6$
$2.591 e+004$


Dataset: U:\Q4.PRO\results\171031M1\171031M1-CRV.qld
Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time
Printed:
Wednesday, November 01, 2017 08:24:12 Pacific Daylight Time

Name: 171031M1_6, Date: 31-Oct-2017, Time: 16:52:53, ID: ST171031M1-5 PFC CS2 17J2809, Description: PFC CS2 17J2809


| Dataset: | U:IQ4.PRO\results\171031M11171031M1-CRV.qld |
| :--- | :--- |
| Last Altered: | Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time |
| Printed: | Wednesday, November 01, 2017 08:24:12 Pacific Daylight Time |

Name: 171031M1_6, Date: 31-Oct-2017, Time: 16:52:53, ID: ST171031M1-5 PFC CS2 17J2809, Description: PFC CS2 17 J2809



d5-N-EtFOSAA



Dataset:
U:IQ4.PRO\results\171031M1\171031M1-CRV.qld

Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time
Printed: Wednesday, November 01, 2017 08:24:12 Pacific Daylight Time

Name: 171031M1_6, Date: 31-Oct-2017, Time: 16:52:53, ID: ST171031M1-5 PFC CS2 17J2809, Description: PFC CS2 17J2809



d3-N-MeFOSA


F56:MRM of 2 channels,ES$662.9>319$ $4.297 \mathrm{e}+003$


## 13C2-PFTeDA




F57:MRM of 2 channels,ES-
$712.9>369$
 5.7506 .0006 .250

## 13C2-PFTeDA




## Dataset: U:\Q4.PRO\results\171031M1\171031M1-CRV.qld

$\begin{array}{ll}\text { Last Altered: } & \text { Wednesday, November 01, } 2017 \text { 08:21:58 Pacific Daylight Time } \\ \text { Printed: } & \text { Wednesday, November 01, } 2017 \text { 08:24:12 Pacific Daylight Time }\end{array}$

Name: 171031M1_6, Date: 31-Oct-2017, Time: 16:52:53, ID: ST171031M1-5 PFC CS2 17J2809, Description: PFC CS2 17J2809











13C4-PFOS
F30:MRM of 1 channel,ES-
$503>79.9$
$6.645 \mathrm{e}+004$

Dataset: U:\Q4.PRO\results\171031M1\171031M1-CRV.qld
Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time

## Printed:

 Wednesday, November 01, 2017 08:24:12 Pacific Daylight TimeName: 171031M1_6, Date: 31-Oct-2017, Time: 16:52:53, ID: ST171031M1-5 PFC CS2 17J2809, Description: PFC CS2 17J2809

## 13C6-PFDA

F37:MRM of 1 channel,ES-
$519.1>473.7$ $2.698 \mathrm{e}+005$


## Dataset: U:\Q4.PRO\results\171031M1\171031M1-CRV.qid

Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time

## Printed: Wednesday, November 01, 2017 08:24:12 Pacific Daylight Time

Name: 171031M1_7, Date: 31-Oct-2017, Time: 17:04:03, ID: ST171031M1-6 PFC CS3 17J2810, Description: PFC CS3 17J2810


## Dataset: U:IQ4.PRO\results\171031M1\171031M1-CRV.qld <br> Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time <br> Printed: Wednesday, November 01, 2017 08:24:12 Pacific Daylight Time

Name: 171031M1_7, Date: 31-Oct-2017, Time: 17:04:03, ID: ST171031M1-6 PFC CS3 17J2810, Description: PFC CS3 17 J 2810


Dataset:
U:IQ4.PRO|results\171031M11171031M1-CRV.qld
Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time
Printed: Wednesday, November 01, 2017 08:24:12 Pacific Daylight Time

Name: 171031M1_7, Date: 31-Oct-2017, Time: 17:04:03, ID: ST171031M1-6 PFC CS3 17J2810, Description: PFC CS3 17 J2810

F34:MRM of 2 channels,ES-
$513>219$
$3.429 \mathrm{e}+004$


| 8:2 FTS |
| :--- |
| F39:MRM of 2 channels,ES- |
| $527>506.9$ |
| 100 |






F47:MRM of 2 channels,ES-
$584.2>483.0$





Dataset: U:\Q4.PRO\results\171031M1\171031M1-CRV.qld
Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time
Printed: Wednesday, November 01, 2017 08:24:12 Pacific Daylight Time

Name: 171031M1_7, Date: 31-Oct-2017, Time: 17:04:03, ID: ST171031M1-6 PFC CS3 17J2810, Description: PFC CS3 17 J 2810


13C2-PFDoA
F51:MRM of 1 channel,ES-






F56:MRM of 2 channels,ES$662.9>319$
$8.371 \mathrm{e}+003$


## 13C2-PFTeDA

F58:MRM of 2 channels,ES$14.8>669.6$

F58:MRM of 2 channels,ES-
F58:MRM of 2 channels,ES-
$714.8>669.6$



F57:MRM of 2 channels,ES-
$712.9>369$
$1.693 \mathrm{e}+004$

5.7506 .0006 .250
5.7506 .0006 .250


F38:MRM of 2 channels,ES$526.1>219$ $9.312 \mathrm{e}+004$


## d5-N-ETFOSA

F41:MRM of 1 channel,ES



F59:MRM of 2 channels,ES-
$813.1>219$


13C2-PFHxDA
F60:MRM of 1 channel,ES $815>769.7$ $1.122 \mathrm{e}+005$


Dataset: U:\Q4.PRO\results\171031M1\171031M1-CRV.qld
Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time
Printed: $\quad$ Wednesday, November 01, 2017 08:24:12 Pacific Daylight Time

Name: 171031M1_7, Date: 31-Oct-2017, Time: 17:04:03, ID: ST171031M1-6 PFC CS3 17J2810, Description: PFC CS3 17 J 2810


Dataset: U:\Q4.PRO\results\171031M1\171031M1-CRV.qld
Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time

## Printed:

 Wednesday, November 01, 2017 08:24:12 Pacific Daylight TimeName: 171031M1_7, Date: 31-Oct-2017, Time: 17:04:03, ID: ST171031M1-6 PFC CS3 17J2810, Description: PFC CS3 17 J2810 13C6-PFDA

F37:MRM of 1 channel,ES-
$519.1>473.7$


| Last Altered: | Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time |
| :--- | :--- |
| Printed: | Wednesday, November 01, 2017 08:24:12 Pacific Daylight Time |

## Name: 171031M1_8, Date: 31-Oct-2017, Time: 17:15:14, ID: ST171031M1-7 PFC CS4 17J2813, Description: PFC CS4 17J2813





13C3-PFPeA
F5:MRM of 1 channel,ES-
266. > 221.8 $2.153 \mathrm{e}+005$


13C3-PFBS
F7:MRM of 1 channel,ES-
$302 .>98.8$
$2.130 \mathrm{e}+004$



13C2-PFHxA





## Dataset: U:\Q4.PRO\results\171031M1\171031M1-CRV.qld

Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time
Printed:
Wednesday, November 01, 2017 08:24:12 Pacific Daylight Time

Name: 171031M1_8, Date: 31-Oct-2017, Time: 17:15:14, ID: ST171031M1-7 PFC CS4 17J2813, Description: PFC CS4 17 J 2813



## 13C2-6:2 FTS




13C3-PFBS


F29:MRM of 2 channels,ES499 > 79.9F29:MRM of 2 channels,ES-

$$
\begin{array}{r}
499>99
\end{array}
$$


13C8-PFOS
F32:MRM of 1 channel, ES-
$507.0>79.9$


Dataset: U:\Q4.PRO\results\171031M1\171031M1-CRV.qld
Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time
Printed: Wednesday, November 01, 2017 08:24:12 Pacific Daylight Time

Name: 171031M1_8, Date: 31-Oct-2017, Time: 17:15:14, ID: ST171031M1-7 PFC CS4 17J2813, Description: PFC CS4 17J2813



F47:MRM of 2 channels,ES-
$584.2>483.0$

d5-N-EtFOSAA



Dataset: U:IQ4.PRO\results\171031M1\171031M1-CRV.qld
Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time
Printed: Wednesday, November 01, 2017 08:24:12 Pacific Daylight Time

Name: 171031M1_8, Date: 31-Oct-2017, Time: 17:15:14, ID: ST171031M1-7 PFC CS4 17J2813, Description: PFC CS4 17 J 2813


## 13C2-PFDoA




F33:MRM of 2 channels,ES-

d3-N-MeFOSA
F36:MRM of 1 channel,ES-


F56:MRM of 2 channels,ES$662.9>319$
$3.848 \mathrm{e}+004$


13C2-PFTeDA
F58:MRM of 2 channels,ES-



F57:MRM of 2 channels,ES$10 \begin{array}{r}712.9>369 \\ 1.027 \mathrm{e}+005\end{array}$


## 13C2-PFTeDA

F58:MRM of 2 channels,ES-



F38:MRM of 2 channels,ESF38:MRM of 2 Channel $526.1>219$ $\begin{array}{ll} & 526.1>219 \\ 100 & 4.215 \mathrm{e}+005\end{array}$

d5-N-ETFOSA



F59:MRM of 2 channels,ES-


13C2-PFHxDA
F60:MRM of 1 channel,ES-
$815>769.7$


Dataset:
U:IQ4.PROIresults1171031M11171031M1-CRV.qld
Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time
Printed: $\quad$ Wednesday, November 01, 2017 08:24:12 Pacific Daylight Time

Name: 171031M1_8, Date: 31-Oct-2017, Time: 17:15:14, ID: ST171031M1-7 PFC CS4 17J2813, Description: PFC CS4 17J2813


Dataset: U:IQ4.PRO\results\171031M1\171031M1-CRV.qld
Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time
Printed: Wednesday, November 01, 2017 08:24:12 Pacific Daylight Time

Name: 171031M1_8, Date: 31-Oct-2017, Time: 17:15:14, ID: ST171031M1-7 PFC CS4 17J2813, Description: PFC CS4 17J2813


## Dataset: U:\Q4.PRO\results\171031M1\171031M1-CRV.qld

| Last Altered: | Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time |
| :--- | :--- |
| Printed: | Wednesday, November 01, 2017 08:24:12 Pacific Daylight Time |

Name: 171031M1_9, Date: 31-Oct-2017, Time: 17:26:43, ID: ST171031M1-8 PFC CS5 17J2814, Description: PFC CS5 17 J2814





## PFBS



F6:MRM of 2 channels,ES
299.0 > 99.0 $1.176 \mathrm{e}+005$



## PFHxA



F8:MRM of 2 channels,ES-



## PFHpA



F13:MRM of 2 channels,ES-




F15:MRM of 2 channels,ES-
$398.9>99.0$ $1.624 \mathrm{e}+005$



Dataset: U:IQ4.PRO\results\171031M1\171031M1-CRV.qld
Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time
Printed: Wednesday, November 01, 2017 08:24:12 Pacific Daylight Time

Name: 171031M1_9, Date: 31-Oct-2017, Time: 17:26:43, ID: ST171031M1-8 PFC CS5 17J2814, Description: PFC CS5 17 J2814


| Dataset: | U:IQ4.PROlresultsl171031M1\171031M1-CRV.qld |
| :--- | :--- |
|  |  |
| Last Altered: | Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time |
| Printed: | Wednesday, November 01, 2017 08:24:12 Pacific Daylight Time |

Name: 171031M1_9, Date: 31-Oct-2017, Time: 17:26:43, ID: ST171031M1-8 PFC CS5 17J2814, Description: PFC CS5 17 J 2814



## 13C2-PFDA

F35:MRM of 1 channel,ES-



F39:MRM of 2 channels,ES-
$527>80$


## 13C2-8:2 FTS






## PFUdA



F42:MRM of 2 channels,ES-
$563.0>269$
$1.540 \mathrm{e}+005$







## PFDS


F49:MRM of 2 channels,ES-
$598.8>98.7$
1.930 e +005

13C2-PFUdA
F43:MRM of 1 channel,ES-
$565>519.8$
$2309 \mathrm{e}+005$


Dataset:
U:IQ4.PRO\results1171031M1171031M1-CRV.qld
Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time
Printed: Wednesday, November 01, 2017 08:24:12 Pacific Daylight Time

Name: 171031M1_9, Date: 31-Oct-2017, Time: 17:26:43, ID: ST171031M1-8 PFC CS5 17J2814, Description: PFC CS5 17 J 2814

| PFDOA |  |
| ---: | ---: |
| F50:MRM of 2 channels,ES- |  |
|  | $612.9>569.0$ |
| 100 | $2.605 \mathrm{e}+006$ |





F33:MRM of 2 channels,ESF33.MRM of 2 channels
$512.1>219$

d3-N-MeFOSA



F56:MRM of 2 channels,ES$662.9>319$
$9.062 \mathrm{e}+004$


## 13C2-PFTeDA



F57:MRM of 2 channels,ESF57:MRM of 2 channels, ES-
$712.9>369$
$1.970 \mathrm{e}+005$

5.7506 .0006 .250

## 13C2-PFTeDA



F38:MRM of 2 channels,ES$526.1>21.9$ $526.1>21.9$
$7.714 \mathrm{e}+005$

d5-N-ETFOSA
F41:MRM of 1 channel,ES-



F59:MRM of 2 channels,ES-


13C2-PFHxDA
F60:MRM of 1 channel,ES-
$815>769.7$


| Dataset: | U:IQ4.PRO\results1171031M1\171031M1-CRV.qld |
| :--- | :--- |
| Last Altered: | Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time |
| Printed: | Wednesday, November 01, 2017 08:24:12 Pacific Daylight Time |

Name: 171031M1_9, Date: 31-Oct-2017, Time: 17:26:43, ID: ST171031M1-8 PFC CS5 17J2814, Description: PFC CS5 17 J2814


Dataset: U:IQ4.PRO\results\171031M11171031M1-CRV.qld
Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time Printed: Wednesday, November 01, 2017 08:24:12 Pacific Daylight Time

## Name: 171031M1_9, Date: 31-Oct-2017, Time: 17:26:43, ID: ST171031M1-8 PFC CS5 17J2814, Description: PFC CS5 17J2814



Dataset:
U:\Q4.PRO\results\171031M1\171031M1-CRV.qld
Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time
Printed: Wednesday, November 01, 2017 08:24:12 Pacific Daylight Time

Name: 171031M1_10, Date: 31-Oct-2017, Time: 17:38:27, ID: ST171031M1-9 PFC CS6 17J2815, Description: PFC CS6 17 J 2815



F13:MRM of 2 channels,ES-




Dataset: U:\Q4.PROVresults\171031M1\171031M1-CRV.qld
Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time
Printed:
Wednesday, November 01, 2017 08:24:12 Pacific Daylight Time

Name: 171031M1_10, Date: 31-Oct-2017, Time: 17:38:27, ID: ST171031M1-9 PFC CS6 17J2815, Description: PFC CS6 17 J2815



F27:MRM of 2 channels,ES-




Dataset:
U:\Q4.PRO\results\171031M1\171031M1-CRV.qld
$\begin{array}{ll}\text { Last Altered: } & \text { Wednesday, November 01, } 2017 \text { 08:21:58 Pacific Daylight Time } \\ \text { Printed: } & \text { Wednesday, November 01, 2017 08:24:12 Pacific Daylight Time }\end{array}$

Name: 171031M1_10, Date: 31-Oct-2017, Time: 17:38:27, ID: ST171031M1-9 PFC CS6 17J2815, Description: PFC CS6 17 J2815


Dataset: U:\Q4.PRO\results\171031M1\171031M1-CRV.qld
Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time
Printed: Wednesday, November 01, 2017 08:24:12 Pacific Daylight Time

Name: 171031M1_10, Date: 31-Oct-2017, Time: 17:38:27, ID: ST171031M1-9 PFC CS6 17J2815, Description: PFC CS6 17J2815



F33:MRM of 2 channels,ES$512.1>219$


## d3-N-MeFOSA

F36:MRM of 1 channel,ES-



F56:MRM of 2 channels,ES$662.9>319$
$100-1.942 \mathrm{e}+005$


## 13C2-PFTeDA

F58:MRM of 2 channels,ES-



F57:MRM of 2 channels,ES-


## 13C2-PFTeDA

F58:MRM of 2 channels,ES-



## d5-N-ETFOSA

F41:MRM of 1 channel,ES



F59:MRM of 2 channels,ES$813.1>219$


## 13C2-PFHxDA

F60:MRM of 1 channel,ES-
$815>769.7$


## Dataset: U:\Q4.PRO\results\171031M1\171031M1-CRV.qld

Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time
Printed: Wednesday, November 01, 2017 08:24:12 Pacific Daylight Time

Name: 171031M1_10, Date: 31-Oct-2017, Time: 17:38:27, ID: ST171031M1-9 PFC CS6 17J2815, Description: PFC CS6 17J2815


Dataset: U:IQ4.PROIresults 1 171031M11171031M1-CRV.qld
Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time
Printed: Wednesday, November 01, 2017 08:24:12 Pacific Daylight Time

Name: 171031M1_10, Date: 31-Oct-2017, Time: 17:38:27, ID: ST171031M1-9 PFC CS6 17J2815, Description: PFC CS6 17J2815

```
13C6-PFDA
    F37:MRM of 1 channel,ES-
        519.1>473.7
```



## Dataset: U:IQ4.PRO\results 1171031 M1 1171031M1-13. ald

Last Altered: Wednesday, November 01, 2017 09:45:32 Pacific Daylight Time
Printed: Wednesday, November 01, 2017 09:46:28 Pacific Daylight Time

Method: U:IQ4.PROIMethDBIPFAS_FULL_80C_102717.mdb 31 Oct 2017 10:25:33
Calibration: U:IQ4.PROICurveDBIC18_VAL-PFAS_Q4_10-31-17-FULL_OLD.cdb 01 Nov 2017 09:42:13
Name: 171031M1_13, Date: 31-Oct-2017, Time: 18:11:58, ID: ICV171031M1-1 PFC ICV 17J2804, Description: PFC ICV 17J2804


| Dataset: | U:IQ4.PROIresults1171031M11171031M1-13.qld |
| :--- | :--- |
| Last Altered: | Wednesday, November 01, 2017 09:45:32 Pacific Daylight Time |
| Printed: | Wednesday, November 01, 2017 09:46:28 Pacific Daylight Time |

Name: 171031M1_13, Date: 31-Oct-2017, Time: 18:11:58, ID: ICV171031M1-1 PFC ICV 17J2804, Description: PFC ICV 17J2804


## Dataset:

U:IQ4.PROIresults1171031M11171031M1-13.qld
Last Altered: Wednesday, November 01, 2017 09:45:32 Pacific Daylight Time
Printed: Wednesday, November 01, 2017 09:46:28 Pacific Daylight Time

Method: U:IQ4.PROIMethDBIPFAS_FULL_80C_102717.mdb 31 Oct 2017 10:25:33 Calibration: U:IQ4.PROICurveDBIC18_VAL-PFAS_Q4_10-31-17-FULL_OLD.cdb 01 Nov 2017 09:42:13

Name: 171031M1_13, Date: 31-Oct-2017, Time: 18:11:58, ID: ICV171031M1-1 PFC ICV 17J2804, Description: PFC ICV $17 J 2804$


## 13C3-PFBA

F2:MRM of 1 channel,ES-
$216.1>171.8$
$1.107 \mathrm{e}+005$



13C3-PFPeA
F5:MRM of 1 channel,ES
266. $>221.8$



F6:MRM of 2 channels, ES.


13C3-PFBS


13C2-PFHXA
F9:MRM of 1 channel,ES-
$315>269.8$
$7.353 \mathrm{e}+004$



F13:MRM of 2 channels,ES-





1802-PFHxS
F17:MRM of 1 channel,ES$403.0>102.6$


| Dataset: | U:IQ4.PRO\results1171031M11171031M1-13.qld |
| :--- | :--- |
| Last Altered: | Wednesday, November 01, 2017 09:45:32 Pacific Daylight Time |
| Printed: | Wednesday, November 01, 2017 09:46:28 Pacific Daylight Time |

Name: 171031M1_13, Date: 31-Oct-2017, Time: 18:11:58, ID: ICV17103IM1-1 PFC ICV 17J2804, Description: PFC ICV $17 J 2804$


Last Altered: Wednesday, November 01, 2017 09:45:32 Pacific Daylight Time
Printed:
Wednesday, November 01, 2017 09:46:28 Pacific Daylight Time

## Name: 171031M1_13, Date: 31-Oct-2017, Time: 18:11:58, ID: ICV171031M1-1 PFC ICV 17J2804, Description: PFC ICV 17J2804



| Dataset: | U:IQ4.PRO\resultsI171031M11171031M1-13.qld |
| :--- | :--- |
| Last Altered: | Wednesday, November 01, 2017 09:45:32 Pacific Daylight Time |
| Printed: | Wednesday, November 01, 2017 09:46:28 Pacific Daylight Time |

## Name: 171031M1_13, Date: 31-Oct-2017, Time: 18:11:58, ID: ICV171031M1-1 PFC ICV 17J2804, Description: PFC ICV 17J2804






## 13C2-PFTeDA




F38:MRM of 2 channels,ES
$526.1>219$


## d5-N-ETFOSA




F59:MRM of 2 channels,ES-
813.1 > 219


13C2-PFHxDA

Printed: Wednesday, November 01, 2017 09:46:28 Pacific Daylight Time

Name: 171031M1_13, Date: 31-Oct-2017, Time: 18:11:58, ID: ICV171031M1-1 PFC ICV 17J2804, Description: PFC ICV 17J2804



d7-N-MeFOSE
F53:MRM of 1 channel,ES-

d9-N-EtFOSE
F55:MRM of 1 channel,ES-



13C3-PFHxS
F16:MRM of 1 channel,ES-



13C8-PFOA
F20:MRM of 1 channel,ES-



13C9-PFNA


Vista Analytical Laboratory
Dataset: U:\Q4.PROYresults\171031M11171031M1-13.qid
Last Altered: Wednesday, November 01, 2017 09:45:32 Pacific Daylight Time
Printed: Wednesday, November 01, 2017 09:46:28 Pacific Daylight Time

Name: 171031M1_13, Date: 31-Oct-2017, Time: 18:11:58, ID: ICV171031M1-1 PFC ICV 17J2804, Description: PFC ICV 17J2804



F45:MRM of 1 channel,ES-
$570.1>524.8$
$2.558 \mathrm{e}+005$


| Dataset: | Untitled |
| :--- | :--- |
| Last Altered: | Wednesday, November 01, 2017 08:54:23 Pacific Daylight Time |
| Printed: | Wednesday, November 01, 2017 08:56:10 Pacific Daylight Time |

## Method: U:IQ4.PRO\MethDB\PFAS_FULL_80C_102717.mdb 31 Oct 2017 10:25:33

## Calibration: U:|Q4.PRO\CurveDBIC18_VAL-PFĀ_Q4_10-31-17-FULL_OLD.cdb 01 Nov 2017 08:21:58

Name: 171031M1_12, Date: 31-Oct-2017, Time: 18:00:47, ID: IPA, Description: IPA





## Dataset: Untitled

Last Altered: Wednesday, November 01, 2017 08:54:23 Pacific Daylight Time
Printed: Wednesday, November 01, 2017 08:56:10 Pacific Daylight Time

## Name: 171031M1_12, Date: 31-Oct-2017, Time: 18:00:47, ID: IPA, Description: IPA

6:2 FTS
F21:MRM of 2 channels,ES-
$427.1>407$
$1.000 \mathrm{e}-003$


## 13C2-6:2 FTS




## 13C2-PFOA




## 13C3-PFBS





## 13C5-PFNA



## Dataset: Untitled

Last Altered: Wednesday, November 01, 2017 08:54:23 Pacific Daylight Time Printed: $\quad$ Wednesday, November 01, 2017 08:56:10 Pacific Daylight Time

## Name: 171031M1_12, Date: 31-Oct-2017, Time: 18:00:47, ID: IPA, Description: IPA

## PFDA <br> 

F34:MRM of 2 channels,ES-
$513>219$ $1.000 \mathrm{e}-003$
100

## 13C2-PFDA

F35:MRM of 1 channel,ES$515.1>469.9$






d5-N-EtFOSAA



| Dataset: | Untitled |
| :--- | :--- |
|  |  |
| Last Altered: | Wednesday, November 01, 2017 08:54:23 Pacific Daylight Time |
| Printed: | Wednesday, November 01, 2017 08:56:10 Pacific Daylight Time |

Name: 171031M1_12, Date: 31-Oct-2017, Time: 18:00:47, ID: IPA, Description: IPA


## 13C2-PFDoA

F51:MRM of 1 channel,ES-
$\begin{array}{rr}- & 615.0>569.7 \\ 1.000 \mathrm{e}-003\end{array}$



F33:MRM of 2 channels,ES-



13C2-PFTeDA



## 13C2-PFTeDA



F38:MRM of 2 channels,ES-



## Dataset: Untitled

Last Altered: Wednesday, November 01, 2017 08:54:23 Pacific Daylight Time Printed: Wednesday, November 01, 2017 08:56:10 Pacific Daylight Time

## Name: 171031M1_12, Date: 31-Oct-2017, Time: 18:00:47, ID: IPA, Description: IPA



## 13C2-PFHxDA

F60:MRM of 1 channel,ES-




## d7-N-MeFOSE

F53:MRM of 1 channel,ES-

d9-N-EtFOSE



13C9-PFNA



13C4-PFOS


## Quantify Sample Report

MassLynx MassLynx V4.1 SCN945 SCN960

```
Dataset: Untitled
Last Altered: Wednesday, November 01, 2017 08:54:23 Pacific Daylight Time
Printed: Wednesday, November 01, 2017 08:56:10 Pacific Daylight Time
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Name: 171031M1_12, Date: 31-Oct-2017, Time: 18:00:47, ID: IPA, Description: IPA
13C6-PFDA
F37:MRM of 1 channel,ES
1 channel,ES-
$519.1>473.7$
$\begin{array}{rr} & 519.1>473.7 \\ 100 & 1.000 \mathrm{e}-003\end{array}$
\%-
$0 \frac{1}{4}$
4.7505 .0005 .250
"sys_sample_code","lab_anl_method_name","analysis_date","analysis_time","total_or_dissolved","column_number","t est_type","cas_rn","chemical_name",","result_value","result_error_delta","result_type_code","reportable_result","detect_ flag","lab_qualifiers","organic_yn","method_detection_limit","reporting_detection_limit","quantatation_limit","result_u nit","detection_limit_unit","tic_retention_time","result_comment","qc_original_conc","qc_spike_added","qc_spike_me asured","qc_spike_recovery","qc_dup_original_conc","qc_dup_spike_added","qc_dup_spike_measured","qc_dup_spik e_recovery","qc_rpd","qc_spike_lcl","qc_spike_ucl","qc_rpd_cl","qc_spike_status","qc_dup_spike_status","qc_rpd_sta tus"
"FRB05_20171005","537_MOD","11/07/17","22:17","N","NA","000","375-22-
4","PFBĀ","","","TRG","Yes","N","U","Y","0.000759","0.00521","0.00833","UG_L","UG_L","","","","","","","","","", "" "" "" "" "" "" "" ""
"FRB05_20171005","537_MOD","11/07/17","22:17","N","NA","000","2706-90-
3","PFPeA","","","TRG","Yes","N","U","Y","0.00133","0.00521","0.00833","UG_L","UG_L","","","","","","","","","", "" "" "" "" "" "" "" ""
"FRB05_20171005","537_MOD","11/07/17","22:17","N","NA","000","375-73-
5","PFBS","","","TRG","Yes","N","U","Y","0.00186","0.00521","0.00833","UG_L","UG_L","","","","","","","","",""," " "" "" "" "" "" "" ""
"FRB05_20171005","537_MOD","11/07/17","22:17","N","NA","000","307-24-4","PERFLUOROHEXANOIC ACID (PFHXA)","","","TRG","Yes","N","U","Y","0.00227","0.00521","0.00833","UG_L","UG_L","","","","","","","","",""," " "" "" "" "" "" "" ""
"FRB05_20171005","537_MOD","11/07/17","22:17","N","NA","000","375-85-9","PERFLUOROHEPTANOIC ACID (PFHPA)","","","TRG","Yes","N","U","Y","0.000615","0.00521","0.00833","UG_L","UG_L","","","","","","","","","", "" "" "" "" " "" "" "" ""
"FRB05_20171005","537_MOD","11/07/17","22:17","N","NA","000","355-46-

## 4","PERFLUOROHEXANESULFONIC ACID

(PFHXS)","","","TRG","Yes","N","U","Y","0.000986","0.00521","0.00833","UG_L","UG_L","","","","","","","","","", "" "" "" "" " "" "" "" ""
"FRB05_20171005","537_MOD","11/07/17","22:17","N","NA","000","335-67-1","PERFLUOROOCTANOIC ACID (PFOA)","","","TRG","Yes","N","U","Y","0.000678","0.00521","0.00833","UG_L","UG_L","","","","","","","","","","" "" "" "" "" "" "" ""
"FRB05_20171005","537_MOD","11/07/17","22:17","N","NA","000","1763-23-
1","HEPTADECAFLUOROACTANESULFONIC ACID SOLUTION
","","","TRG","Yes","N","U","Y","0.000840","0.00521","0.00833","UG_L","UG_L","","","","","","","","","","","","","" "" "" "" ""
"FRB05_20171005","537_MOD","11/07/17","22:17","N","NA","000","375-95-1","PERFLUORONONANOIC ACID (PFNA)","","","TRG","Yes","N","U","Y","0.000843","0.00521","0.00833","UG_L","UG_L","","","","","","","","","","" "" "" "" "" "" "" ""
"FRB05_20171005","537_MOD","11/07/17","22:17","N","NA","000","335-76-2","PERFLUORODECANOIC ACID (PFDA)","","","TRG","Yes","N","U","Y","0.00155","0.00521","0.00833","UG_L","UG_L","","","","","","","","","","", "","",","","","","
"FRB05_20171005","537_MOD","11/07/17","22:17","N","NA","000","754-91-
6","PFOSA","","","TRG","Yes","N","U","Y","0.00184","0.00521","0.00833","UG_L","UG_L","","","","","","","","","" "" "" "" "" "" "" "" ""
"FRB05_20171005","537_MOD","11/07/17","22:17","N","NA","000","2355-31-
9","MeFOSAA","","","TRG","Yes","N","U","Y","0.00172","0.00521","0.00833","UG_L","UG_L","","","","","","",""," ","","","","","","","","","
"FRB05_20171005","537_MOD","11/07/17","22:17","N","NA","000","335-77-
3","PFDS","","","TRG","Yes","N","U","Y","0.00128","0.00521","0.00833","UG_L","UG_L","","","","","","","","",""," " "" "" "" "" "" "" ""
"FRB05_20171005","537_MOD","11/07/17","22:17","N","NA","000","2058-94-8","PERFLUOROUNDECANOIC ACID
(PFUNA)","","","TRG","Yes","N","U","Y","0.00109","0.00521","0.00833","UG_L","UG_L","","","","","","","","",""," ","","","","","","","
"FRB05_20171005","537_MOD","11/07/17","22:17","N","NA","000","2991-50-

6","EtFOSAA","",",",TRG","Yes","N","U","Y","0.00143","0.00521","0.00833","UG_L","UG_L","","",","","","","","",

"FRB05_20171005","537_MOD","11/07/17","22:17","N","NA","000","307-55-1","PERFLUORODODECANOIC ACID
(PFDOA)","","","TRG","Yes","N","U","Y","0.000825","0.00521","0.00833","UG_L","UG_L","",","","","",","","","", "" "" "" "" "" "" "" ""
"FRB05_20171005","537_MOD","11/07/17","22:17","N","NA","000","72629-94-
8","PFTrDA",","","TRG","Yes","N","U","Y","0.000514","0.00521","0.00833","UG_L","UG_L","",","","","","",","", "" "" "" "" "" "" "" "" ""
"FRB05_20171005","537_MOD","11/07/17","22:17","N","NA","000","376-06-
7","PFTeDA","",",",TRG","Yes","N","U","Y","0.000786","0.00521","0.00833","UG_L","UG_L","","","",","","","","", "" "" "" "" "" "" "" "" ""
"FRB05_20171005","537_MOD","11/07/17","22:17","N","NA","000","13C3-PFBA","13C3-
PFBA","84.5","","IS","Yes","Y","","Y","",","","PCT_REC","","",","","100","84.5","84.5","","",","","","50","150","", "" "" ""
"FRB05_20171005","537_MOD","11/07/17","22:17","N","NA","000","13C3-PFPeA","13C3-
PFPeA","83.5","","IS","Yes","Y","","Y",","","","PCT_REC","",","","","100","83.5","83.5","",","","",","50","150"," " "" "" ""
"FRB05_20171005","537_MOD","11/07/17","22:17","N","NA","000","13C3-PFBS","13C3-
PFBS",""88.1","","IS","Yes","Y","","Y","",","","PCT_REC","","",","","100","88.1","88.1","","",","","","50","150","", "" "" ""
"FRB05_20171005","537_MOD","11/07/17","22:17","N","NA","000","13C2-PFHxA","13C2-
PFHxA","82.8","","IS","Yes","Y",","Y","",","","PCT_REC","","",","","100","82.8","82.8","",","","",","50","150"," " "" "" ""
"FRB05_20171005","537_MOD","11/07/17","22:17","N","NA","000","13C4-PFHpA","13C4-
PFHpA","82.1","","IS","Yes","Y",","Y","",","","PCT_REC","","",","","100","82.1","82.1","",","","","","50","150"," " "" "" ""
"FRB05_20171005","537_MOD","11/07/17","22:17","N","NA","000","18O2-PFHxS","18O2-
PFHxS","80.2","","IS","Yes","Y","","Y","",","","PCT_REC","",","","","100","80.2","80.2","",","","",","50","150"," " "" "" ""
"FRB05 20171005","537 MOD","11/07/17","22:17","N","NA","000","13C2-PFOA","13C2-
PFOA","78.2","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","78.2","78.2","","","",","","50","150","" "" "" ""
"FRB05_20171005","537_MOD","11/07/17","22:17","N","NA","000","13C8-PFOS","13C8-
PFOS","98.7","","IS","Yes","Y",","Y","",","","PCT_REC","","",","","100","98.7","98.7","",","","","","50","150","", "" "" ""
"FRB05_20171005","537_MOD","11/07/17","22:17","N","NA","000","13C5-PFNA","13C5-
PFNA","78.6","","IS","Yes","Y","","Y","","","","PCT_REC","","",","","100","78.6","78.6","","","",","","50","150","" "" "" ""
"FRB05_20171005","537_MOD","11/07/17","22:17","N","NA","000","13C2-PFDA","13C2-
PFDA","57.3","","IS","Yes","Y","","Y","",","","PCT_REC","",","","","100","57.3","57.3","","","",","","50","150","" "" "" ""
"FRB05_20171005","537_MOD","11/07/17","22:17","N","NA","000","13C8-PFOSA","13C8-
PFOSA","82.8","","IS","Yes","Y","","Y","","","","PCT REC","","",","","100","82.8","82.8","","",","","","50","150"," " "" "" ""
"FRB05_20171005","537_MOD","11/07/17","22:17","N","NA","000","d3-MeFOSAA","d3-
MeFOSĀA","68.8",","IS","Yes","Y","","Y","","",","PCT_REC","","","",","100","68.8","68.8","",","",","","50","15 0","","","",""
"FRB05_20171005","537_MOD","11/07/17","22:17","N","NA","000","13C2-PFUnA","13C2-
PFUnA","69.9","","IS","Yes","Y","","Y","",","","PCT REC","",","","","100","69.9","69.9","","",","","","50","150"," "."" "" ""
"FRB05_20171005","537_MOD","11/07/17","22:17","N","NA","000","d5-EtFOSAA","d5-
EtFOSAA","71.0","","IS","Yes","Y","","Y","","",","PCT_REC",","","",","100","71.0","71.0","",","","","","50","150 " "" "" "" ""
"FRB05_20171005","537_MOD","11/07/17","22:17","N","NA","000","13C2-PFDoA","13C2-
PFDoA","95.4","","IS","Yes","Y","","Y","","","","PCT REC","","","","","100","95.4","95.4","","","","","","50","150"," " "" "" ""
"FRB05_20171005","537_MOD","11/07/17","22:17","N","NA","000","13C2-PFTeDA","13C2-
PFTeDA","105","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","105","105","","","","","","50","150"," " "" "" ""
"Site 3-GW-03GW02-20171005","537 MOD","10/27/17","19:24","N","NA","000","375-224","PFBA","0.0247","","TRG","Yes","Y","","Y","0.000787","0.00539","0.00864","UG_L","UG_L","","","","","","","", "" "" "" "" "" " "" "" "" "" ""
"Site 3-GW-03GW02-20171005","537_MOD","10/27/17","19:24","N","NA","000","2706-90-
3","PFPeA","0.0325","","TRG","Yes","Y","","Y","0.00138","0.00539","0.00864","UG_L","UG_L","","","","","","","", "" "" "" "" "" "" "" "" "" ""
"Site 3-GW-03GW02-20171005","537_MOD","10/27/17","19:24","N","NA","000","375-73-
5","PFBS","0.0447","","TRG","Yes","Y","","Y","0.00193","0.00539","0.00864","UG_L","UG_L","","","","","","","","" "" "" "" "" "" "" "" "" ""
"Site 3-GW-03GW02-20171005","537_MOD","10/27/17","19:24","N","NA","000","307-24-
4","PERFLUOROHEXANOIC ACID
(PFHXA)","0.177","","TRG","Yes","Y","","Y","0.00235","0.00539","0.00864","UG_L","UG_L","","","","","","","","", "" "" "" "" "" "" "" "" ""
"Site 3-GW-03GW02-20171005","537_MOD","10/27/17","19:24","N","NA","000","375-85-
9","PERFLUOROHEPTANOIC ACID
(PFHPA)","0.0206","","TRG","Yes","Y","","Y","0.000638","0.00539","0.00864","UG_L","UG_L","","","","","","",""," " "" "" "" "" "" "" "" "" ""
"Site 3-GW-03GW02-20171005","537_MOD","10/27/17","19:24","N","NA","000","355-464","PERFLUOROHEXANESULFONIC ACID
(PFHXS)","1.22","","TRG","Yes","Y","","Y","0.00102","0.00539","0.00864","UG_L","UG_L","","","","","","","","","" "" "" "" "" "" "" "" ""
"Site 3-GW-03GW02-20171005","537_MOD","10/27/17","19:24","N","NA","000","335-67-
1","PERFLUOROOCTANOIC ACID
(PFOA)","0.472","","TRG","Yes","Y","","Y","0.000703","0.00539","0.00864","UG_L","UG_L","","","","","","","",""," ","","","","","","","",""
"Site 3-GW-03GW02-20171005","537_MOD","10/27/17","19:24","N","NA","000","1763-23-
1","HEPTADECAFLUOROACTANESULFONIC ACID SOLUTION
","0.155","","TRG","Yes","Y","","Y","0.000871","0.00539","0.00864","UG_L","UG_L","","","","","","","","","","",""," " "" "" "" "" ""
"Site 3-GW-03GW02-20171005","537_MOD","10/27/17","19:24","N","NA","000","375-95-
1","PERFLUORONONANOIC ACID
(PFNA)","0.00141","","TRG","Yes","Y","J","Y","0.000875","0.00539","0.00864","UG_L","UG_L","","","","","","","", "" "" "" "" "" "" "" "" "" ""
"Site 3-GW-03GW02-20171005","537_MOD","10/27/17","19:24","N","NA","000","335-76-
2","PERFLUORODECANOIC ACID
(PFDA)","","","TRG","Yes","N","U","Y","0.00161","0.00539","0.00864","UG_L","UG_L","","","","","","","","","","", "" "" "" "" "" " " ""
"Site 3-GW-03GW02-20171005","537_MOD","10/27/17","19:24","N","NA","000","754-91-
6","PFOSA","","","TRG","Yes","N","U","Y","0.00191","0.00539","0.00864","UG_L","UG_L","","","","","","","","","" "" "" "" "" "" "" "" ""
"Site 3-GW-03GW02-20171005","537_MOD","10/27/17","19:24","N","NA","000","2355-31-
9","MeFOSAA","","","TRG","Yes","N","U","Y","0.00178","0.00539","0.00864","UG_L","UG_L","","","","","","",""," ","","" "", "" "", "","","","
"Site 3-GW-03GW02-20171005","537_MOD","10/27/17","19:24","N","NA","000","335-773","PFDS","","","TRG","Yes","N","U","Y","0.00133","0.00539","0.00864","UG_L","UG_L","","","","","","","","",""," " "" "" "" "" "" "" ""
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(PFUNA)","","","TRG","Yes","N","U","Y","0.00113","0.00539","0.00864","UG_L","UG_L","","","","","","","","",""," " "" "" "" "" "" "" ""
"Site 3-GW-03GW02-20171005","537_MOD","10/27/17","19:24","N","NA","000","2991-50-
6","EtFOSAA","","","TRG","Yes","N","U","Y","0.00148","0.00539","0.00864","UG_L","UG_L","","","","","","","","", "" "" "" "" "" "" " " " " " ""
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(PFDOA)","","","TRG","Yes","N","U","Y","0.000855","0.00539","0.00864","UG_L","UG_L","","","","","","","","","", "" "" "" "" "" "" "" ""
"Site 3-GW-03GW02-20171005","537_MOD","10/27/17","19:24","N","NA","000","72629-94-
8","PFTrDA","","","TRG","Yes","N","U","Y","0.000533","0.00539","0.00864","UG_L","UG_L","","","","","","","","", "" "" "" "" " "" "" "" "" ""
"Site 3-GW-03GW02-20171005","537_MOD","10/27/17","19:24","N","NA","000","376-06-
7","PFTeDA","","","TRG","Yes","N","U","Y","0.000815","0.00539","0.00864","UG_L","UG_L","","","","","","","","", "","" "" "" "" "" "" "" ""
"Site 3-GW-03GW02-20171005","537_MOD","10/27/17","19:24","N","NA","000","13C3-PFBA","13C3-
PFBA","89.4","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","89.4","89.4","","","","","","50","150","", "" "" ""
"Site 3-GW-03GW02-20171005","537_MOD","10/27/17","19:24","N","NA","000","13C3-PFPeA","13C3-
PFPeA","92.1","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","92.1","92.1","","","","","","50","150"," " "" "" ""
"Site 3-GW-03GW02-20171005","537_MOD","10/27/17","19:24","N","NA","000","13C3-PFBS","13C3-
PFBS","101","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","101","101","","","","","","50","150","","" "" ""
"Site 3-GW-03GW02-20171005","537_MOD","10/27/17","19:24","N","NA","000","13C2-PFHxA","13C2-
PFHxA","95.8","","IS","Yes","Y","","Y","","","","PCT REC","","","","","100","95.8","95.8","","","","","","50","150"," " "" "" ""
"Site 3-GW-03GW02-20171005","537_MOD","10/27/17","19:24","N","NA","000","13C4-PFHpA","13C4-
PFHpA","95.1","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","95.1","95.1","","","","",","50","150"," " "" "" ""
"Site 3-GW-03GW02-20171005","537_MOD","10/27/17","19:24","N","NA","000","18O2-PFHxS","18O2-
PFHxS","82.8","","IS","Yes","Y","","Y","","","","PCT REC","","","","","100","82.8","82.8","","","","","","50","150"," ","" "" ""
"Site 3-GW-03GW02-20171005","537_MOD","10/27/17","19:24","N","NA","000","13C2-PFOA","13C2-
PFOA","82.1","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","82.1","82.1","","","","","","50","150","" "" "" ""
"Site 3-GW-03GW02-20171005","537_MOD","10/27/17","19:24","N","NA","000","13C8-PFOS","13C8-
PFOS","82.1","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","82.1","82.1","","","","","","50","150","", "" "" ""
"Site 3-GW-03GW02-20171005","537_MOD","10/27/17","19:24","N","NA","000","13C5-PFNA","13C5-
PFNA","87.6","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","87.6","87.6","","","","",","50","150","" "" "" ""
"Site 3-GW-03GW02-20171005","537 MOD","10/27/17","19:24","N","NA","000","13C2-PFDA","13C2-
PFDA","71.7","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","71.7","71.7","","","","","","50","150","" "" "" ""
"Site 3-GW-03GW02-20171005","537_MOD","10/27/17","19:24","N","NA","000","13C8-PFOSA","13C8-
PFOSA","68.6","","IS","Yes","Y","","Y","","","","PCT_REC","","",","","100","68.6","68.6","","","","","","50","150"," " "" "" ""
"Site 3-GW-03GW02-20171005","537_MOD","10/27/17","19:24","N","NA","000","d3-MeFOSAA","d3-
MeFOSAA","79.6","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","79.6","79.6","","","","","","50","15 0","","","",""
"Site 3-GW-03GW02-20171005","537_MOD","10/27/17","19:24","N","NA","000","13C2-PFUnA","13C2-
PFUnA","81.9","","IS","Yes","Y","","Y","","","","PCT_REC","","",","","100","81.9","81.9","","","","",","50","150"," " "" "" ""
"Site 3-GW-03GW02-20171005","537_MOD","10/27/17","19:24","N","NA","000","d5-EtFOSAA","d5-
EtFOSAA","81.4","","IS","Yes","Y","","Y","","","","PCT REC","","","","","100","81.4","81.4","","","","","","50","150 " "" "" "" ""
"Site 3-GW-03GW02-20171005","537 MOD","10/27/17","19:24","N","NA","000","13C2-PFDoA","13C2-
PFDoA","83.9","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","83.9","83.9","","","","",","50","150"," " "" "" ""
"Site 3-GW-03GW02-20171005","537_MOD","10/27/17","19:24","N","NA","000","13C2-PFTeDA","13C2-
PFTeDA","104","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","104","104","","","","","","50","150"," ","","","
"Site 4-GW-04GW01-20171006","537_MOD","10/27/17","19:35","N","NA","000","375-22-
4","PFBA","0.130","","TRG","Yes","Y","","Y","0.000762","0.00521","0.00836","UG_L","UG_L","","","","","","",""," " "" "" "" "" "" "" "" "" ""
"Site 4-GW-04GW01-20171006","537_MOD","10/27/17","19:35","N","NA","000","2706-90-
3","PFPeA","0.424","","TRG","Yes","Y","","Y","0.00134","0.00521","0.00836","UG_L","UG_L","","","","","","","","" "" "" "" "" "" "" "" "" ""
"Site 4-GW-04GW01-20171006","537_MOD","10/27/17","19:35","N","NA","000","375-73-
5","PFBS","0.179","","TRG","Yes","Y","","Y","0.00187","0.00521","0.00836","UG_L","UG_L","","","","","","","","", "" "" "" "" " "" "" "" "" ""
"Site 4-GW-04GW01-20171006","537_MOD","10/27/17","19:35","N","NA","000","307-244","PERFLUOROHEXANOIC ACID
(PFHXA)","0.978","","TRG","Yes","Y","","Y","0.00228","0.00521","0.00836","UG_L","UG_L","","","","","","","","", "" "" "" "" "" "" "" "" ""
"Site 4-GW-04GW01-20171006","537_MOD","10/27/17","19:35","N","NA","000","375-85-
9","PERFLUOROHEPTANOIC ACID
(PFHPA)","0.191","","TRG","Yes","Y","","Y","0.000618","0.00521","0.00836","UG_L","UG_L","","","","","","","","" "" "" "" "" "" "" "" "" ""
"Site 4-GW-04GW01-20171006","537_MOD","10/31/17","18:34","N","NA","DL1","355-46-
4","PERFLUOROHEXANESULFONIC ACID
(PFHXS)","3.49","","TRG","Yes","Y","D","Y","0.00495","0.0260","0.0418","UG_L","UG_L","","","","","","","","","", "" "" "" "" "" " " " " " ""
"Site 4-GW-04GW01-20171006","537_MOD","10/31/17","18:34","N","NA","DL1","335-67-
1","PERFLUOROOCTANOIC ACID
(PFOA)","3.62","","TRG","Yes","Y","D","Y","0.00340","0.0260","0.0418","UG_L","UG_L","","","","","","","","",""," " "" "" "" "" "" "" ""
"Site 4-GW-04GW01-20171006","537_MOD","10/27/17","19:35","N","NA","000","1763-23-
1","HEPTADECAFLUOROACTANESULFONIC ACID SOLUTION
","0.230","","TRG","Yes","Y","","Y","0.000843","0.00521","0.00836","UG_L","UG_L","","","","","","","","","","",""," " "" "" "" " " ""
"Site 4-GW-04GW01-20171006","537_MOD","10/27/17","19:35","N","NA","000","375-95-
1","PERFLUORONONANOIC ACID
(PFNA)","0.00108","","TRG","Yes","Y","J","Y","0.000847","0.00521","0.00836","UG_L","UG_L","","","","","","","", "" "" "" "" "" "" "" "" "" ""
"Site 4-GW-04GW01-20171006","537_MOD","10/27/17","19:35","N","NA","000","335-76-
2","PERFLUORODECANOIC ACID
(PFDA)","","","TRG","Yes","N","U","Y","0.00156","0.00521","0.00836","UG_L","UG_L","","","","","","","","","","", "" "" "" "" "" "" "" "
"Site 4-GW-04GW01-20171006","537_MOD","10/27/17","19:35","N","NA","000","754-91-
6","PFOSA","","","TRG","Yes","N","U","Y","0.00185","0.00521","0.00836","UG L","UG L","","","","","","","","","" "" "" "" "" "" "" "" ""
"Site 4-GW-04GW01-20171006","537_MOD","10/27/17","19:35","N","NA","000","2355-31-
9","MeFOSAA","","","TRG","Yes","N","U","Y","0.00172","0.00521","0.00836","UG_L","UG_L","","","","","","",""," ","","",""," "" " " " " " " " ""
"Site 4-GW-04GW01-20171006","537_MOD","10/27/17","19:35","N","NA","000","335-77-
3","PFDS","","","TRG","Yes","N","U","Y","0.00129","0.00521","0.00836","UG_L","UG_L","","","","","","","","","","
"Site 4-GW-04GW01-20171006","537_MOD","10/27/17","19:35","N","NA","000","13C2-PFUnA","13C2-
PFUnA","77.8","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","77.8","77.8","","","","","","50","150"," " "" "" ""
"Site 4-GW-04GW01-20171006","537_MOD","10/27/17","19:35","N","NA","000","d5-EtFOSAA","d5-
EtFOSAA","85.8","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","85.8","85.8","","","","","","50","150 " "" "" "" ""
"Site 4-GW-04GW01-20171006","537 MOD","10/27/17","19:35","N","NA","000","13C2-PFDoA","13C2-
PFDoA","89.1","","IS","Yes","Y","","Y","","","","PCT REC","","","","","100","89.1","89.1","","","","","","50","150"," " "" "" ""
"Site 4-GW-04GW01-20171006","537_MOD","10/27/17","19:35","N","NA","000","13C2-PFTeDA","13C2-
PFTeDA","103","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","103","103","","","","","","50","150"," " "" "" ""
"FRB06_20171006","537_MOD","11/03/17","14:08","N","NA","000","375-22-
4","PFBA","","","TRG","Yes","N","U","Y","0.000763","0.00525","0.00837","UG_L","UG_L","","","","","","","","","", "" "" "" "" "" "" " "" ""
"FRB06_20171006","537_MOD","11/03/17","14:08","N","NA","000","2706-90-
3","PFPeA","","","TRG","Yes","N","U","Y","0.00134","0.00525","0.00837","UG_L","UG_L","","","","","","","","","", "" "" "" """ "" "" "" ""
"FRB06 20171006","537 MOD","11/03/17","14:08","N","NA","000","375-73-
5","PFBS̄","","","TRG","Ȳes","N","U","Y","0.00187","0.00525","0.00837","UG_L","UG_L","","","","","","","","",""," "," "", "", "" "" "" ""
"FRB06_20171006","537_MOD","11/03/17","14:08","N","NA","000","307-24-4","PERFLUOROHEXANOIC ACID (PFHXA)","","","TRG","Yes","N","U","Y","0.00228","0.00525","0.00837","UG_L","UG_L","","","","","","",","",""," " "" "" "" "" "" "" ""
"FRB06_20171006","537_MOD","11/03/17","14:08","N","NA","000","375-85-9","PERFLUOROHEPTANOIC ACID (PFHPA)","","","TRG","Yes","N","U","Y","0.000618","0.00525","0.00837","UG L","UG L","","","","","","","","","", "" "" "" "" "" "" "" ""
"FRB06_20171006","537_MOD","11/03/17","14:08","N","NA","000","355-46-
4","PERFLUOROHEXANESULFONIC ACID
(PFHXS)","","","TRG","Yes","N","U","Y","0.000991","0.00525","0.00837","UG_L","UG_L","","","","","","","","","", "" "" "" "" " "" "" "" ""
"FRB06_20171006","537_MOD","11/03/17","14:08","N","NA","000","335-67-1","PERFLUOROOCTANOIC ACID (PFOA)","","","TRG","Yes","N","U","Y","0.000681","0.00525","0.00837","UG_L","UG_L","","","","","","","","","","" ""","","",""," "" ""
"FRB06_20171006","537_MOD","11/03/17","14:08","N","NA","000","1763-23-
1","HEPTADECAFLUOROACTANESULFONIC ACID SOLUTION
","","","TRG","Yes","N","U","Y","0.000844","0.00525","0.00837","UG_L","UG_L","","","","","","","","","","","","",""

"FRB06_20171006","537_MOD","11/03/17","14:08","N","NA","000","375-95-1","PERFLUORONONANOIC ACID (PFNA)","","","TRG","Yes","N","U","Y","0.000847","0.00525","0.00837","UG_L","UG_L","","","","","","","","","","" "" "" "" "" "" "" ""
"FRB06_20171006","537_MOD","11/03/17","14:08","N","NA","000","335-76-2","PERFLUORODECANOIC ACID (PFDA)","","","TRG","Yes","N","U","Y","0.00156","0.00525","0.00837","UG_L","UG_L","","","","","","","","","","", "" "" "" "" "" "" ""
"FRB06_20171006","537_MOD","11/03/17","14:08","N","NA","000","754-91-
6","PFOSA","","","TRG","Yes","N","U","Y","0.00185","0.00525","0.00837","UG_L","UG_L","","","","","","","","","" "" "" """ "" "" "" "" ""
"FRB06_20171006","537_MOD","11/03/17","14:08","N","NA","000","2355-31-
9","MeFOSAA","","","TRG","Yes","N","U","Y","0.00173","0.00525","0.00837","UG_L","UG_L","","","","","","",""," " "" "" "" "" "" "" "" "" ""
"FRB06_20171006","537_MOD","11/03/17","14:08","N","NA","000","335-77-
3","PFDS","","","TRG","Yes","N","U","Y","0.00129","0.00525","0.00837","UG_L","UG_L","","","","","","","","",""," " "", "", "", "" "" "" ""
"FRB06_20171006","537_MOD","11/03/17","14:08","N","NA","000","2058-94-8","PERFLUOROUNDECANOIC

ACID
(PFUNA)","","","TRG","Yes","N","U","Y","0.00110","0.00525","0.00837","UG_L","UG_L","","","","","","","","",""," " "" "" "" "" "" "" ""
"FRB06_20171006","537_MOD","11/03/17","14:08","N","NA","000","2991-50-
6","EtFOSAA","","","TRG","Yes","N","U","Y","0.00143","0.00525","0.00837","UG_L","UG_L","","","","","","","","", "" "" "" "" "" "" "" "" ""
"FRB06_20171006","537_MOD","11/03/17","14:08","N","NA","000","307-55-1","PERFLUORODODECANOIC
ACID
(PFDOA)","","","TRG","Yes","N","U","Y","0.000829","0.00525","0.00837","UG_L","UG_L","","","","","","","","","", "" "'" "" "'" "'" "'" "'" "'"
"FRB06 20171006","537 MOD","11/03/17","14:08","N","NA","000","72629-94-
8","PFTrDA","","","TRG","Yes","N","U","Y","0.000517","0.00525","0.00837","UG_L","UG_L","","","","","","","","", "" "" "" " " " " " " " "" "" ""
"FRB06_20171006","537_MOD","11/03/17","14:08","N","NA","000","376-06-
7","PFTeDA","","","TRG","Yes","N","U","Y","0.000790","0.00525","0.00837","UG_L","UG_L","","","","","","","","", "" "" "" "" "" "" "" "" ""
"FRB06_20171006","537_MOD","11/03/17","14:08","N","NA","000","13C3-PFBA","13C3-
PFBA","86.2","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","86.2","86.2","","","","","","50","150","", "" "" ""
"FRB06_20171006","537_MOD","11/03/17","14:08","N","NA","000","13C3-PFPeA","13C3-
PFPeA","86.3","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","86.3","86.3","","","","","","50","150"," " "" "" ""
"FRB06_20171006","537_MOD","11/03/17","14:08","N","NA","000","13C3-PFBS","13C3-
PFBS","94.6","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","94.6","94.6","","","","","","50","150","", "" "" ""
"FRB06_20171006","537_MOD","11/03/17","14:08","N","NA","000","13C2-PFHxA","13C2-
PFHxA","85.6","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","85.6","85.6","","","","","","50","150"," " "" "" ""
"FRB06_20171006","537_MOD","11/03/17","14:08","N","NA","000","13C4-PFHpA","13C4-
PFHpA","88.3","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","88.3","88.3","","","","",","50","150"," " "" "" ""
"FRB06_20171006","537_MOD","11/03/17","14:08","N","NA","000","18O2-PFHxS","18O2-
PFHxS","86.3","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","86.3","86.3","","","","","","50","150"," " "" "" ""
"FRB06_20171006","537_MOD","11/03/17","14:08","N","NA","000","13C2-PFOA","13C2-
PFOA","73.2","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","73.2","73.2","","","","","","50","150","" "" "" ""
"FRB06_20171006","537_MOD","11/03/17","14:08","N","NA","000","13C8-PFOS","13C8-
PFOS","74.6","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","74.6","74.6","","","","","","50","150","", "" "" ""
"FRB06_20171006","537_MOD","11/03/17","14:08","N","NA","000","13C5-PFNA","13C5-
PFNA","74.9","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","74.9","74.9","","","","","","50","150","" "" "" ""
"FRB06_20171006","537_MOD","11/03/17","14:08","N","NA","000","13C2-PFDA","13C2-
PFDA","56.2","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","56.2","56.2","","","",","","50","150","" "" "" ""
"FRB06_20171006","537_MOD","11/03/17","14:08","N","NA","000","13C8-PFOSA","13C8-
PFOSA","56.1","","IS","Yes","Y","","Y","","","","PCT_REC","","",","","100","56.1","56.1","","","","","","50","150"," " "" "" ""
"FRB06_20171006","537_MOD","11/03/17","14:08","N","NA","000","d3-MeFOSAA","d3-
MeFOSĀA","64.8","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","64.8","64.8","","","","","","50","15 0","","","",""
"FRB06_20171006","537_MOD","11/03/17","14:08","N","NA","000","13C2-PFUnA","13C2-
PFUnA","72.2","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","72.2","72.2","","","","","","50","150","
" 1 ll ll ll
"FRB06
EtFOSAA","64.8","","IS","Yes","Y","","Y","","","","PCT REC","","","","","100","64.8","64.8","","","","","","50","150
","" "" "" ""
"FRB06_20171006","537_MOD","11/03/17","14:08","N","NA","000","13C2-PFDoA","13C2-
PFDoA","79.3","","IS","Yes","Y","","Y","","","","PCT_REC","","",","","100","79.3","79.3","","","","","","50","150"," " "" "" ""
"FRB06_20171006","537_MOD","11/03/17","14:08","N","NA","000","13C2-PFTeDA","13C2-
PFTeDA",",54.1","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","54.1","54.1","","","","","","50","150" "" "" "" ""
"B7J0092-BLK1","537_MOD","10/26/17","13:10","N","NA","000","375-22-
4","PFBA","","","TRG","Yes","N","U","Y","0.000729","0.00500","0.00800","UG_L","UG_L","","","","","","","","","", "" "" "" "" "" "" "" ""
"B7J0092-BLK1","537_MOD","10/26/17","13:10","N","NA","000","2706-90-
3","PFPeA","","","TRG","Yes","N","U","Y","0.00128","0.00500","0.00800","UG_L","UG_L","","","","","","","","","", "" "" "" "" "" "" "" ""
"B7J0092-BLK1","537_MOD","10/26/17","13:10","N","NA","000","375-73-
5","PFBS","","","TRG","Yes","N","U","Y","0.00179","0.00500","0.00800","UG_L","UG_L","","","","","","","","",""," " "" "" "" "" "" "" ""
"B7J0092-BLK1","537_MOD","10/26/17","13:10","N","NA","000","307-24-4","PERFLUOROHEXANOIC ACID (PFHXA)","","","TRG","Yes","N","U","Y","0.00218","0.00500","0.00800","UG_L","UG_L","","","","","","","","",""," ","","","","","","" ""
"B7J0092-BLK1","537_MOD","10/26/17","13:10","N","NA","000","375-85-9","PERFLUOROHEPTANOIC ACID (PFHPA)","","","TRG","Yes","N","U","Y","0.000591","0.00500","0.00800","UG_L","UG_L","","","","","","","","","", "" "" "" "" "" "" "" ""
"B7J0092-BLK1","537_MOD","10/26/17","13:10","N","NA","000","355-46-4","PERFLUOROHEXANESULFONIC ACID
(PFHXS)","","","TRG","Yes","N","U","Y","0.000947","0.00500","0.00800","UG_L","UG_L","","","","","","","","","", "" "" "" "" "" " "" "" ""
"B7J0092-BLK1","537_MOD","10/26/17","13:10","N","NA","000","335-67-1","PERFLUOROOCTANOIC ACID
(PFOA)","","","TRG","Yes","N","U","Y","0.000651","0.00500","0.00800","UG_L","UG_L","","","","","","","","","","" "" "" "" "" "" "" ""
"B7J0092-BLK1","537_MOD","10/26/17","13:10","N","NA","000","1763-23-
1","HEPTADECAFLUOROACTANESULFONIC ACID SOLUTION
","","","TRG","Yes","N","U","Y","0.000807","0.00500","0.00800","UG_L","UG_L","","","","","","","","","","","","","" "" "" "" ""
"B7J0092-BLK1","537_MOD","10/26/17","13:10","N","NA","000","375-95-1","PERFLUORONONANOIC ACID (PFNA)","","","TRG","Yes","N","U","Y","0.000810","0.00500","0.00800","UG_L","UG_L","","","","","","","","","","" "" "" "" "" "" "" ""
"B7J0092-BLK1","537_MOD","10/26/17","13:10","N","NA","000","335-76-2","PERFLUORODECANOIC ACID (PFDA)","","","TRG","Yes","N","U","Y","0.00149","0.00500","0.00800","UG_L","UG_L","","","","","","","","","","", "" "" "" "" "" "" ""
"B7J0092-BLK1","537 MOD","10/26/17","13:10","N","NA","000","754-91-
6","PFOSA","",",","TRG","Yes","N","U","Y","0.00177","0.00500","0.00800","UG_L","UG_L","","",","","",","","",""

"B7J0092-BLK1","537_MOD","10/26/17","13:10","N","NA","000","2355-31-
9","MeFOSAA","","","TRG","Yes","N","U","Y","0.00165","0.00500","0.00800","UG_L","UG_L","","","","","","","","

"B7J0092-BLK1","537 MOD","10/26/17","13:10","N","NA","000","335-77-
3","PFDS","","","TRG","Yes","N","U","Y","0.00123","0.00500","0.00800","UG_L","UG_L","","","","","","","","",""," " "" "" "" "" "" "" ""
"B7J0092-BLK1","537_MOD","10/26/17","13:10","N","NA","000","2058-94-8","PERFLUOROUNDECANOIC
ACID
(PFUNA)","","","TRG","Yes","N","U","Y","0.00105","0.00500","0.00800","UG_L","UG_L","","","","","","","","","","
"B7J0092-BLK1","537_MOD","10/26/17","13:10","N","NA","000","2991-50-
6","EtFOSAA","","","TRG","Yes","N","U","Y","0.00137","0.00500","0.00800","UG_L","UG_L","","","","","","","","", "" "'" "" "'" "" " "" "" "'" """
"B7J0092-BLK1","537_MOD","10/26/17","13:10","N","NA","000","307-55-1","PERFLUORODODECANOIC ACID (PFDOA)","","","TRG","Yes","N","U","Y","0.000792","0.00500","0.00800","UG_L","UG_L","","","","","","","","","",

"B7J0092-BLK1","537_MOD","10/26/17","13:10","N","NA","000","72629-94-
8","PFTrDA","","","TRG","Yes","N","U","Y","0.000494","0.00500","0.00800","UG_L","UG_L","","","","","","","","", "" "" """ "" "'" "" "" "'" ""
"B7J0092-BLK1","537 MOD","10/26/17","13:10","N","NA","000","376-06-
7","PFTeDA","","","TRG","Yes","N","U","Y","0.000755","0.00500","0.00800","UG_L","UG_L","","","","","","","","", "" "'" "'" "'" "'" "'" "" "'" ""'
"B7J0092-BLK1","537_MOD","10/26/17","13:10","N","NA","000","13C3-PFBA","13C3-
PFBA","89.9","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","89.9","89.9","","","","","","50","150","", "" "" ""
"B7J0092-BLK1","537_MOD","10/26/17","13:10","N","NA","000","13C3-PFPeA","13C3-
PFPeA","82.8","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","82.8","82.8","","","","","","50","150"," " "" "" ""
"B7J0092-BLK1","537_MOD","10/26/17","13:10","N","NA","000","13C3-PFBS","13C3-
PFBS","95.4","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","95.4","95.4","","","","","","50","150","", "" "" ""
"B7J0092-BLK1","537_MOD","10/26/17","13:10","N","NA","000","13C2-PFHxA","13C2-
PFHxA","87.5","","IS","Yes","Y","","Y","","","","PCT_REC","","",","","100","87.5","87.5","","","","","","50","150"," " "" "" ""
"B7J0092-BLK1","537_MOD","10/26/17","13:10","N","NA","000","13C4-PFHpA","13C4-
PFHpA","86.9","","IS","Yes","Y","","Y","","","","PCT_REC","","",","","100","86.9","86.9","","","","","","50","150"," " "" "" ""
"B7J0092-BLK1","537_MOD","10/26/17","13:10","N","NA","000","18O2-PFHxS","18O2-
PFHxS","89.9","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","89.9","89.9","","","","","","50","150"," " "" "" ""
"B7J0092-BLK1","537_MOD","10/26/17","13:10","N","NA","000","13C2-PFOA","13C2-
PFOA","82.4","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","82.4","82.4","","","","","","50","150","" "" "" ""
"B7J0092-BLK1","537_MOD","10/26/17","13:10","N","NA","000","13C8-PFOS","13C8-
PFOS","102","","IS","Yes","Y","","Y","","","","PCT REC","","","","","100","102","102","","","",","","50","150","","" ,"",""
"B7J0092-BLK1","537_MOD","10/26/17","13:10","N","NA","000","13C5-PFNA","13C5-
PFNA","83.4","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","83.4","83.4","","","","","","50","150","" "" "" ""
"B7J0092-BLK1","537_MOD","10/26/17","13:10","N","NA","000","13C2-PFDA","13C2-
PFDA","72.7","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","72.7","72.7","","","","","","50","150","" "" "" ""
"B7J0092-BLK1","537_MOD","10/26/17","13:10","N","NA","000","13C8-PFOSA","13C8-
PFOSA","53.6","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","53.6","53.6","","","","",","50","150"," ","" "" ""
"B7J0092-BLK1","537_MOD","10/26/17","13:10","N","NA","000","d3-MeFOSAA","d3-
MeFOSAA","64.4","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","64.4","64.4","","","","","","50","15 0","","","",""
"B7J0092-BLK1","537_MOD","10/26/17","13:10","N","NA","000","13C2-PFUnA","13C2-
PFUnA","70.7","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","70.7","70.7","","","","",","50","150"," ","","","
"B7J0092-BLK1","537_MOD","10/26/17","13:10","N","NA","000","d5-EtFOSAA","d5-
EtFOSAA","73.0","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","73.0","73.0","","","","","","50","150
"B7J0092-BLK1","537_MOD","10/26/17","13:10","N","NA","000","13C2-PFDoA","13C2-
PFDoA","62.0","","IS","Yes","Y","","Y","","","","PCT REC","","","","","100","62.0","62.0","","","","","","50","150"," " "" "" ""
"B7J0092-BLK1","537_MOD","10/26/17","13:10","N","NA","000","13C2-PFTeDA","13C2-
PFTeDA","63.1","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","63.1","63.1","","","","","","50","150" "" "" "" ""
"B7J0092-BS1","537_MOD","10/26/17","12:03","N","NA","000","375-22-
4","PFBA","0.0699","","TRG","Yes","Y","","Y","0.000729","0.00500","0.00800","UG_L","UG_L","","","","0.0800"," 0.0699","87.3","","","","","","70","130","","","",""
"B7J0092-BS1","537_MOD","10/26/17","12:03","N","NA","000","2706-90-
3","PFPeA","0.0707","","TRG","Yes","Y","","Y","0.00128","0.00500","0.00800","UG_L","UG_L","","","","0.0800"," 0.0707","88.3","","","","","","70","130","","","",""
"B7J0092-BS1","537_MOD","10/26/17","12:03","N","NA","000","375-73-
5","PFBS","0.0714","","TRG","Yes","Y","","Y","0.00179","0.00500","0.00800","UG_L","UG_L","","","","0.0800","0. 0714","89.2","","","","","","70","130","","","",""
"B7J0092-BS1","537_MOD","10/26/17","12:03","N","NA","000","307-24-4","PERFLUOROHEXANOIC ACID (PFHXA)","0.0741","","TRG","Yes","Y","","Y","0.00218","0.00500","0.00800","UG_L","UG_L","","","","0.0800","0. 0741","92.7","","","","","","70","130","","","",""
"B7J0092-BS1","537_MOD","10/26/17","12:03","N","NA","000","375-85-9","PERFLUOROHEPTANOIC ACID (PFHPA)","0.0708","","TRG","Yes","Y","","Y","0.000591","0.00500","0.00800","UG_L","UG_L","","","","0.0800","0 .0708","88.5","","","","","","70","130","","","",""
"B7J0092-BS1","537_MOD","10/26/17","12:03","N","NA","000","355-46-4","PERFLUOROHEXANESULFONIC ACID
(PFHXS)","0.0743","","TRG","Yes","Y","","Y","0.000947","0.00500","0.00800","UG_L","UG_L","","","","0.0800","0 .0743","92.9","","","","","","70","130","","","",""
"B7J0092-BS1","537_MOD","10/26/17","12:03","N","NA","000","335-67-1","PERFLUOROOCTANOIC ACID (PFOA)","0.0667","","TRG","Yes","Y","","Y","0.000651","0.00500","0.00800","UG_L","UG_L","","","","0.0800","0. 0667","83.4","","","","","","70","130","","","",""
"B7J0092-BS1","537_MOD","10/26/17","12:03","N","NA","000","1763-23-
1","HEPTADECAFLUOROACTANESULFONIC ACID SOLUTION
","0.0606","","TRG","Yes","Y","","Y","0.000807","0.00500","0.00800","UG_L","UG_L","","","","0.0800","0.0606","7 5.7","","","","","","70","130","","","",""
"B7J0092-BS1","537_MOD","10/26/17","12:03","N","NA","000","375-95-1","PERFLUORONONANOIC ACID (PFNA)","0.0696","","TRG","Yes","Y","","Y","0.000810","0.00500","0.00800","UG_L","UG_L","","","","0.0800","0. 0696","87.1","","","","","","70","130","","","",""
"B7J0092-BS1","537_MOD","10/26/17","12:03","N","NA","000","335-76-2","PERFLUORODECANOIC ACID
(PFDA)","0.0818","","TRG","Yes","Y","","Y","0.00149","0.00500","0.00800","UG_L","UG_L","","","","0.0800","0.0 818","102","","","","","","70","130","","","",""
"B7J0092-BS1","537_MOD","10/26/17","12:03","N","NA","000","754-91-
6","PFOSA","0.0596","","TRG","Yes","Y","","Y","0.00177","0.00500","0.00800","UG_L","UG_L","","","","0.0800"," 0.0596","74.6","","","","","","70","130","","","",""
"B7J0092-BS1","537_MOD","10/26/17","12:03","N","NA","000","2355-31-
9","MeFOSAA","0.0715","","TRG","Yes","Y","","Y","0.00165","0.00500","0.00800","UG_L","UG_L","","","","0.080 0","0.0715","89.4","","","","","","70","130","","","",""
"B7J0092-BS1","537_MOD","10/26/17","12:03","N","NA","000","335-77-
3","PFDS","0.0997","","TRG","Yes","Y","","Y","0.00123","0.00500","0.00800","UG_L","UG_L","","","","0.0800","0. 0997","125","","","","","","60","130","","","",""
"B7J0092-BS1","537_MOD","10/26/17","12:03","N","NA","000","2058-94-8","PERFLUOROUNDECANOIC ACID (PFUNA)","0.0707","","TRG","Yes","Y","","Y","0.00105","0.00500","0.00800","UG_L","UG_L","","","","0.0800","0. 0707","88.3","","","","","","70","130","","","",""
"B7J0092-BS1","537_MOD","10/26/17","12:03","N","NA","000","2991-50-
6","EtFOSAA","0.0622","","TRG","Yes","Y","","Y","0.00137","0.00500","0.00800","UG_L","UG_L","","","","0.0800 ","0.0622","77.8","","","","","","70","130","","","",""
"B7J0092-BS1","537_MOD","10/26/17","12:03","N","NA","000","307-55-1","PERFLUORODODECANOIC ACID (PFDOA)","0.0766","","TRG","Yes","Y","","Y","0.000792","0.00500","0.00800","UG_L","UG_L","","","","0.0800"," 0.0766","95.7","","","","","","70","130","","","",""
"B7J0092-BS1","537_MOD","10/26/17","12:03","N","NA","000","72629-94-
8","PFTrDA","0.0917","","TRG","Yes","Y","","Y","0.000494","0.00500","0.00800","UG_L","UG_L","","","","0.0800 ","0.0917","115","","","","","","60","130","","","",""
"B7J0092-BS1","537_MOD","10/26/17","12:03","N","NA","000","376-06-
7","PFTeDA","0.0582","","TRG","Yes","Y","","Y","0.000755","0.00500","0.00800","UG_L","UG_L","","","","0.0800 ","0.0582","72.8","","","","","","70","130","","","",""
"B7J0092-BS1","537_MOD","10/26/17","12:03","N","NA","000","13C3-PFBA","13C3-
PFBA","89.9","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","89.9","89.9","","","","","","50","150","", "" "" ""
"B7J0092-BS1","537_MOD","10/26/17","12:03","N","NA","000","13C3-PFPeA","13C3-
PFPeA","79.3","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","79.3","79.3","","","","","","50","150"," " "" "" ""
"B7J0092-BS1","537_MOD","10/26/17","12:03","N","NA","000","13C3-PFBS","13C3-
PFBS","81.8","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","81.8","81.8","","","","","","50","150","", "" "" ""
"B7J0092-BS1","537_MOD","10/26/17","12:03","N","NA","000","13C2-PFHxA","13C2-
PFHxA","83.1","","IS","Yes","Y","","Y","","","","PCT_REC","","",","","100","83.1","83.1","","","","","","50","150"," " "" "" ""
"B7J0092-BS1","537_MOD","10/26/17","12:03","N","NA","000","13C4-PFHpA","13C4-
PFHpA","84.8","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","84.8","84.8","","","","","","50","150"," " "" "" ""
"B7J0092-BS1","537_MOD","10/26/17","12:03","N","NA","000","18O2-PFHxS","18O2-
PFHxS","82.4","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","82.4","82.4","","","","","","50","150"," " "" "" ""
"B7J0092-BS1","537_MOD","10/26/17","12:03","N","NA","000","13C2-PFOA","13C2-
PFOA","82.5","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","82.5","82.5","","","",","","50","150","" "" "" ""
"B7J0092-BS1","537_MOD","10/26/17","12:03","N","NA","000","13C8-PFOS","13C8-
PFOS","97.7","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","97.7","97.7","","","","","","50","150","", "" "" ""
"B7J0092-BS1","537_MOD","10/26/17","12:03","N","NA","000","13C5-PFNA","13C5-
PFNA","81.7","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","81.7","81.7","","","","","","50","150","" "" "" ""
"B7J0092-BS1","537_MOD","10/26/17","12:03","N","NA","000","13C2-PFDA","13C2-
PFDA","68.7","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","68.7","68.7","","","","","","50","150","" "","" ""
"B7J0092-BS1","537_MOD","10/26/17","12:03","N","NA","000","13C8-PFOSA","13C8-
PFOSA","57.8","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","57.8","57.8","","","","","","50","150"," " "" "" ""
"B7J0092-BS1","537 MOD","10/26/17","12:03","N","NA","000","d3-MeFOSAA","d3-
MeFOSAA","57.6","","IS","Yes","Y","","Y","","","","PCT_REC","","","","","100","57.6","57.6","","","","","","50","15 0","","","",""
"B7J0092-BS1","537_MOD","10/26/17","12:03","N","NA","000","13C2-PFUnA","13C2-
PFUnA","66.4","","IS","Yes","Y","","Y","","","","PCT_REC","","",","","100","66.4","66.4","","","","","","50","150"," " "" "" ""
"B7J0092-BS1","537_MOD","10/26/17","12:03","N","NA","000","d5-EtFOSAA","d5-
EtFOSAA","61.9","","IS","Yes","Y","","Y","","","","PCT_REC","","",","","100","61.9","61.9","","","","","","50","150 ","","","","
"B7J0092-BS1","537_MOD","10/26/17","12:03","N","NA","000","13C2-PFDoA","13C2-
PFDoA","66.6","","IS","Yes","Y","","Y","","","","PCT_REC","","","",","100","66.6","66.6","","","","","","50","150"," " "" "" ""
"B7J0092-BS1","537_MOD","10/26/17","12:03","N","NA","000","13C2-PFTeDA","13C2-
PFTeDA","92.0","","İS","Yes","Y","","Y","","","","PCT_REC","","","","","100","92.0","92.0","","","","","","50","150" ,"","","","

AMEC Foster Wheeler, Inc.
November 17, 2017
7376 SW Durham Road
Portland, OR 97224
Attn: Ms. Marina Mitchell
SUBJECT: Former Chase Field, Data Validation
Dear Ms. Mitchell,
Enclosed are the final validation reports for the fraction listed below. These SDGs were received on November 14, 2017. Attachment 1 is a summary of the samples that were reviewed for analysis.

## LDC Project \#39837:

## SDG \#

1701432, 1701439

## Fraction

Perfluorinated Alkyl Acids

The data validation was performed under Stage 2B \& 4 guidelines. The analyses were validated using the following documents, as applicable to each method:

- Final Sampling and Analysis Plan for Initial Assessment of Perfluorinated Compounds or Per- and Polyfluoroalkyl Substances Sites at Various Base Realignment and Closure Installations, June 2017
- U.S. Department of Defense Quality Systems Manual for Environmental Laboratories, Version 5.1, 2017
- USEPA, National Functional Guidelines for Organic Superfund Methods Data Review, January 2017

Please feel free to contact us if you have any questions.
Sincerely,


Pei Geng
Project Manager/Senior Chemist


# Laboratory Data Consultants, Inc. Data Validation Report 

## Project/Site Name:

LDC Report Date:

## Parameters:

Validation Level:
Laboratory:

Former Chase Field

November 15, 2017
Perfluorinated Alkyl Acids
Stage 2B \& 4
Vista Analytical Laboratory

Sample Delivery Group (SDG): 1701432

| Sample Identification | Laboratory Sample <br> Identification | Matrix | Collection <br> Date |
| :--- | :--- | :--- | :--- |
| Site 3-GW-03GW01-20171004 | $1701432-06$ | Water | $10 / 04 / 17$ |
| Site 4-GW-04GW03-20171004 | $1701432-08$ | Water | $10 / 04 / 17$ |
| Site 4-GW-04GW02-20171004 | $1701432-10$ | Water | $10 / 04 / 17$ |
| Site 3-GW-MW1-20171005 | $1701432-13$ | Water | $10 / 05 / 17$ |
| Site 3-DW-421648-20171005** | $1701432-15^{* *}$ | Water | $10 / 05 / 17$ |
| DUP01_20171005** | $1701432-16^{* *}$ | Water | $10 / 05 / 17$ |
| Site 3-GW-03GW03-20171005** | $1701432-18^{* *}$ | Water | $10 / 05 / 17$ |
| Site 4-GW-04GW02-20171004MS | $1701432-10 M S$ | Water | $10 / 04 / 17$ |
| Site 4-GW-04GW02-20171004MSD | $1701432-10 M S D$ | Water | $10 / 04 / 17$ |

[^0]
## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Final Sampling and Analysis Plan for Initial Assessment of Perfluorinated Compounds (PFCS) or Per- and Polyfluoroalkyl Substances (PFAS) Sites at Various Base Realignment and Closure (BRAC) Installations (June 2017), the U.S. Department of Defense (DoD) Quality Systems Manual (QSM) for Environmental Laboratories, Version 5.1 (2017), and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:
Perfluorinated Alkyl Acids by Environmental Protection Agency (EPA) Method 537
All sample results were subjected to Stage 2B data validation, which comprises an evaluation of quality control (QC) summary results. Samples appended with a double asterisk on the cover page were subjected to Stage 4 data validation, which is comprised of the QC summary forms as well as the raw data, to confirm sample quantitation and identification.

The following are definitions of the data qualifiers utilized during data validation:
J (Estimated): The compound or analyte was analyzed for and positively identified by the laboratory; however the reported concentration is estimated due to nonconformances discovered during data validation.

U (Non-detected): The compound or analyte was analyzed for and positively identified by the laboratory; however the compound or analyte should be considered non-detected at the reported concentration due to the presence of contaminants detected in the associated blank(s).

UJ (Non-detected estimated): The compound or analyte was reported as not detected by the laboratory; however the reported quantitation/detection limit is estimated due to non-conformances discovered during data validation.

R (Rejected): The sample results were rejected due to gross non-conformances discovered during data validation. Data qualified as rejected is not usable.

NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as $P$ (protocol) or $A$ (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## I. Sample Receipt and Technical Holding Times

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## II. LC/MS Instrument Performance Check

Instrument performance was checked as applicable.
All ion abundance requirements were met.

## III. Initial Calibration and Initial Calibration Verification

Initial calibration was performed as required by the method.
For compounds where average relative response factors (RRFs) were utilized, the percent relative standard deviations (\%RSD) were less than or equal to $20.0 \%$.

In the case where the laboratory used a calibration curve to evaluate the compounds, all coefficients of determination $\left(r^{2}\right)$ were greater than or equal to 0.990 .

For each calibration point, the percent differences (\%D) for their true value were less than or equal to $30.0 \%$ for all compounds.

The percent differences (\%D) of the initial calibration verification (ICV) standard were less than or equal to $30.0 \%$ for all compounds.

## IV. Continuing Calibration

Continuing calibration was performed at required frequencies.
The percent differences (\%D) were less than or equal to $30.0 \%$ for all compounds.

## V. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks with the following exceptions:

| Blank ID | Extraction <br> Date | Compound | Concentration |  |
| :---: | :---: | :---: | :---: | :---: |
| B7J0077-BLK1 | $10 / 13 / 17$ | PFHxA | 0.00119 ug/L | Associated <br> Samples |
| Site 3-DW-421648-20171005** |  |  |  |  |
| DUP01_20171005** |  |  |  |  |

Sample concentrations were compared to concentrations detected in the laboratory blanks. The sample concentrations were either not detected or were significantly greater ( $>5 \mathrm{X}$ blank contaminants) than the concentrations found in the associated method blanks with the following exceptions:

| Sample | Compound | Reported <br> Concentration | Modified Final <br> Concentration |
| :--- | :--- | :---: | :---: |
| Site 3-DW-421648-20171005** | PFHxA | $0.00125 \mathrm{ug} / \mathrm{L}$ | 0.00494 U ug/L |
| DUP01_20171005** | PFHxA | $0.00189 \mathrm{ug} / \mathrm{L}$ | 0.00485 U ug/L |

## VI. Field Blanks

Samples EB01_20171002, EB02_20171002, EB03_20171003, EB04_2017003, EB05_2017004, and EB06_20171005 were identified as equipment blanks. No contaminants were found with the following exceptions:

| Blank ID | Collection <br> Date | Compound | Concentration | Associated <br> Samples |
| :--- | :--- | :--- | :--- | :--- |
| EB01_20171002 | $10 / 02 / 17$ | PFHxA | $0.00112 \mathrm{ug} / \mathrm{L}$ | Site 3-DW-421648-20171005** <br> DUP01_20171005** |
| EB04_20171003 | $10 / 03 / 17$ | PFHxS | $0.00213 \mathrm{ug} / \mathrm{L}$ | Site 4-GW-04GW02-20171004 |
| EB05_20171004 | $10 / 04 / 17$ | PFHxS | $0.00203 \mathrm{ug} / \mathrm{L}$ | Site 3-GW-03GW01-20171004 <br> Site <br> Site 4-GW-04GW03-20171004 |

Sample FB05_2017004 (from SDG 1701439) was identified as a field blank. No contaminants were found.

Sample concentrations were compared to concentrations detected in the field blanks. The sample concentrations were either not detected or were significantly greater ( $>5 \mathrm{X}$ blank contaminants) than the concentrations found in the associated field blanks with the following exceptions:

| Sample |  | Reported <br> Concentration | Modified Final <br> Concentration |
| :--- | :--- | :---: | :---: |
| Site 3-DW-421648-20171005** | PFHxA | $0.00125 \mathrm{ug} / \mathrm{L}$ | 0.00494 U ug/L |
| DUP01_20171005** | PFHxA | $0.00189 \mathrm{ug} / \mathrm{L}$ | 0.00485 u ug/L |

## VII. Surrogates

Surrogates were added to all drinking water samples as required by the method. All surrogate recoveries (\%R) were within QC limits.

## VIII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (\%R) were within QC limits with the following exceptions:

| Spike ID <br> (Associated Samples) | Compound | MS (\%R) <br> (Limits) | MSD (\%R) <br> (Limits) | Flag | A or P |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Site 4-GW-04GW02-20171004MS/MSD <br> (Site 4-GW-04GW02-20171004) | PFHxS | $51.3(70-130)$ | $142(70-130)$ | J (all detects) | A |

Relative percent differences (RPD) were within QC limits with the following exceptions:

| Spike ID <br> (Associated Samples) | Compound | RPD <br> (Limits) | Flag | A or P |
| :---: | :--- | :---: | :---: | :---: |
| Site 4-GW-04GW02-20171004MS/MSD <br> (Site 4-GW-04GW02-20171004) | PFHxS | $93.8(\leq 30)$ | J (all detects) | A |

## IX. Laboratory Control Samples

Laboratory control samples (LCS) and laboratory control samples duplicates (LCSD) were analyzed as required by the method. Percent recoveries (\%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## X. Field Duplicates

Samples Site 3-DW-421648-20171005** and DUP01_20171005** were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

| Compound | Concentration (ug/L) |  | $\begin{gathered} \text { RPD } \\ \text { (Limits) } \\ \hline \end{gathered}$ | $\begin{gathered} \text { Differences } \\ \text { (Limits) } \\ \hline \end{gathered}$ | Flag | A or P |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Site 3-DW-421648-20171005** | DUP01_20171005** |  |  |  |  |
| PFHxA | 0.00125 | 0.00189 | - | 0.00064 ( $\leq 0.00988$ ) | - | - |

## XI. Internal Standards

All internal standard areas and retention times were within QC limits.

## XII. Compound Quantitation

All compound quantitations met validation criteria for samples which underwent Stage 4 validation. Raw data were not reviewed for Stage 2B validation.

The laboratory limit of quantitation (LOQ), limit of detection (LOD), and detection limit (DL) are higher than the QAPP LOQ, LOD, and DL.

## XIII. Target Compound Identifications

All target compound identifications met validation criteria for samples which underwent Stage 4 validation. Raw data were not reviewed for Stage 2B validation.

## XIV. System Performance

The system performance was acceptable for samples which underwent Stage 4 validation. Raw data were not reviewed for Stage 2B validation.

## XV. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

Due to MS/MSD \%R and RPD, data were qualified as estimated in one sample.
Due to laboratory blank contamination, data were qualified as not detected in two samples.

Due to equipment blank contamination, data were qualified as not detected in two samples.

The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable. Sample results that were found to be estimated (J) are usable for limited purposes only. Based upon the data validation all other results are considered valid and usable for all purposes.

Former Chase Field
Perfluorinated Alkyl Acids - Data Qualification Summary - SDG 1701432

| Sample | Compound | Flag | A or P | Reason |
| :--- | :--- | :---: | :---: | :---: |
| Site 4-GW-04GW02-20171004 | PFHxS | J (all detects) | A | Matrix spike/Matrix spike <br> duplicate (\%R)(RPD) |

Former Chase Field
Perfluorinated Alkyl Acids - Laboratory Blank Data Qualification Summary - SDG 1701432

| Sample |  | Modified Final <br> Concentration | A or P |
| :--- | :--- | :---: | :---: |
| Compound | 0.00494 U ug/L | A |  |
| DUP01_20171005** | PFHxA | 0.00485 U ug/L | A |

## Former Chase Field <br> Perfluorinated Alkyl Acids - Field Blank Data Qualification Summary - SDG 1701432

| Sample |  | Modified Final <br> Concentration | A or P |
| :--- | :--- | :---: | :---: |
| Cite 3-DW-421648-20171005** | PFHxA | $0.00494 \mathrm{ug} / \mathrm{L}$ | A |
| DUP01_20171005** | PFHxA | 0.00485 U ug/L | A |

LDC \#: 39837A96
VALIDATION COMPLETENESS WORKSHEET
Date:
Page:

Reviewer: 2nd Reviewer:
METHOD: LC/MS Perfluorinated Alkyl Acids (EPA Method 537)
The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.


Note: $\quad \mathrm{A}=$ Acceptable
$\mathrm{N}=$ Not provided/applicable
SW = See worksheet

ND = No compounds detected
R = Rinsate $\mathrm{FB}=$ Field blank
$\mathrm{D}=$ Duplicate
TB = Trip blank EB = Equipment blank

SB=Source blank OTHER:
** Indicates sample underwent Stage 4 validation


Method: LCMS (EPA Method 537)


| Validation Area | Yes, | No | NA |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Was an LCS analyzed per extraction batch? | Findings/Comments |  |  |  |
| Were the LCS percent recoveries (\%R) and relative percent difference (RPD) <br> within the QC limits? |  |  |  |  |
| X Field duplicates |  |  |  |  |

TARGET COMPOUND WORKSHEET

| A. Perflurorexexanoic acid (PFHXA) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| B. Perfluorohepanoic acid (PFHPA) |  |  |  |  |
| C. Perfiurooctanoic acid (PFOA) |  |  |  |  |
| D. Perflurononenoic acid (PFNA) |  |  |  |  |
| E. Perfuurodecanoic acid (PFDA) |  |  |  |  |
| F. Perfluorundecanoic acid (PFUnA) |  |  |  |  |
| G. Pefluurododoceanoic acid (PFDDA) |  |  |  |  |
| H. Perfurorotidecanoic acid (PFTTA) |  |  |  |  |
| 1. Perfluortetradecanoic aid (PFTTeA) |  |  |  |  |
| J. Perflurobulanesulfonic acid (PFES) |  |  |  |  |
| K. Peffluoronexanesulfonic acid (PFHKS) |  |  |  |  |
| L. Perfuoroneptansulforic acid (PFHPS) |  |  |  |  |
| M. Perflurooctanesulfonic acid (PFOS) |  |  |  |  |
| N.Perflurodecanesulionic acid (PFDS) |  |  |  |  |
| O. Perflurooctane Sultonamide (FOSA) |  |  |  |  |
| P. Perfluoroutanoic acid (PFEA) |  |  |  |  |
| Q. Perfiumopentanoic acis (PFPeA) |  |  |  |  |
| R. G:2FTS |  |  |  |  |
| S. 8:2FTS |  |  |  |  |
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Please see qualifications below for all questions answered " N ". Not applicable questions are identified as " $\mathrm{N} / \mathrm{A}$ ".


Were all samples associated with a given method blank?
WN N/A Was a method blank performed with each extraction batch?
$\$$ N/A Were any contaminants found in the method blanks? If yes, please see findings below.
Level IVID Only
Y ( Gasoline and aromatics only)Was a method blank analyzed with each 24 hour batch?
Y $\lambda$ N/A Was a method blank analyzed for each analytical / extraction batch of $\leq 20$ samples?
Blank extraction date:10/3/T Blank analysis date: $10 / 15 / 1 T \quad$ Associated samples: $5-6$
Conc. units: $\mu=1 /$


## Blank extraction date:

$\qquad$ Blank analysis date: $\qquad$ Associated samples:
Conc. units:

| Compound | Blank ID | Sample Identification |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
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[^1]All contaminants within five times the method blank concentration were qualified as not detected, " $U$ ".

# VALIDATION FINDINGS WORKSHEET 

METHOD: LC/MS PFOS/PFOAs (EPA Method 537M)
EB02_20171002, EB03_20171003 and EB06_20171005 = ND
Y N N/A Were field blanks identified in this SDG?
Y N N/A Were target compounds detected in the field blanks?
Blank units: ug/L Associated sample units: ug/L $\qquad$
Sampling date: 10/2/17
Field blank type: (circle one) Trip Blank/Field Blank / Rinsate / Other:
EB
Associated Samples: 5-6

| Compound | Blank ID | Sample Identification |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | EB01_20171002 | Action Level | 5 | 6 |  |  |  |  |  |  |
| PFHxA | 0.00112 | 0.0056 | 0.00125/0.00494 | 0.00189/0.00485 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |

Blank units:ug/L Associated sample units: ug/L
Sampling date: 10/3/17
Field blank type: (circle one) Field Blank / Rinsate / Other: E Associated Samples:

3


Blank units: ug/L Associated sample units: ug/L
Sampling date: 10/4/17
Field blank type: (circle one) Field Blank / Rinsate / Other: EB
Associated Samples:
1-3


Please see qualifications below for all questions answered " N ". Not applicable questions are identified as " $\mathrm{N} / \mathrm{A}$ ".
( $N$ N/A Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG?
$\Psi$ N N/A Was an MS/MSD analyzed every 20 samples for each matrix or whenever a sample extraction was performed? Y/N XIA Were the MS/MSD percent recoveries (\%R) and relative percent differences (RPD) within QC limits?

| \# | MS/MSD ID | Compound | $\begin{gathered} \text { MS } \\ \% \text { (Limits) } \\ \hline \end{gathered}$ | $\begin{gathered} \text { MSD } \\ \% \text { (Limits) } \end{gathered}$ | RPD (Limits) | Associated Samples | Qualifications |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $4 F H x \leq$ | $5 .{ }^{3}(0)-(30)$ | $14 \geq 70-130$ | $(1)$ | 3 (ats) | $d / \cos / A$ |
|  | 7 | $1 /$ |  | ( ) | $938{ }^{2}(\leqslant \geqslant 0)$ |  | $10+5 / x$ |
|  |  |  | ( ) | ( ) | $(\mathrm{l}$ |  | - |
|  |  |  | ( ) | ( ) | ( ) |  |  |
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|  |  |  | $(\square)$ | $(\square)$ | $(\square)$ |  |  |

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Page: /of /
Reviewer: $\frac{9}{\text { Rule }}$

METHOD: PFCs (Method 537 mod)

| Compound | Concentration (ug/L) |  | $(\leq 30)$ <br> RPD | Difference | Limits | Qual |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 5 | 6 |  |  |  |  |
| PFHxA | 0.00125 | 0.00189 |  | 0.00064 | <0.00988 |  |

## VALIDATION FINDINGS WORKSHEET Internal Standards

## METHOD: LC/MS PFC

Please see qualifications below for all questions answered " N ". Not applicable questions are identified as " $\mathrm{N} / \mathrm{A}$ ".
Y (DN/A Were all internal standard area counts within $50-150 \%$ limits?
Y N N/A Were the retention times of the internal standards within $+/-30$ seconds of the retention times of the associated calibration standard?


VALIDATION FINDINGS WORKSHEET Compound Quantitation and RLs

METHOD: LC/MS
Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A". Kevel IVID Only
W N/A Were RLs adjusted for sample dilutions, dry weights, etc.?

| \# | Date | Sample ID | Finding | Associated Samples | Qualifications |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | The laboratory limit of quantitation (LOQ), limit of detection (LOD), and detection limit (DL) are higher than the QAPP LOQ, LOD, and DL |  | Text |
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Method: LC/MS PFCs

| Calibration <br> Date | Analyte | Standard | $(X)$ <br> Concentration | $(Y)$ <br> Area |
| :---: | :---: | :---: | :---: | :---: |
| $10 / 15 / 2017$ | PFHxA | 1 | 0.050 | 0.0163138 |
|  | Q2 | 2 | 0.100 | 0.0282592 |
|  |  | 3 | 0.200 | 0.0542646 |
|  |  | 4 | 0.500 | 0.1030327 |
|  |  | 5 | 1.000 | 0.2047553 |
|  |  | 6 | 2.500 | 0.4836747 |
|  |  | 7 | 5.000 | 1.0121985 |
|  |  | 8 | 7.500 | 1.5125812 |

Linear through the origin

| Constant | calculated | Reported |
| :--- | :---: | :---: |
| $X$ Coefficient(s) | 0.000000 | 0.0000 |
| Correlation Coefficient | $2.020221 \mathrm{E}-01$ | $2.02105 \mathrm{E}-01$ |
| Coefficient of Determination (r^2) | 0.999948 |  |

Method: LC/MS/MS PFCs

| Calibration Date | System | Compound | Standard | (Y) <br> Response | $(X)$ Concentration |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 10/16/2017 | Q4 | PFOA | 0 | 0.6885150 | 0.25 |
|  |  |  | s1 | 0.8251737 | 0.50 |
|  |  |  | s2 | 1.4842825 | 1.00 |
|  |  |  | s3 | 2.6060887 | 2.00 |
|  |  |  | S4 | 5.3262037 | 5.00 |
|  |  |  | s5 | 10.2938050 | 10.00 |
|  |  |  | S6 | 50.4021010 | 50.00 |
|  |  |  | s7 | 99.906131 | 100.00 |
|  |  |  | s9 | 229.659260 | 250.00 |



VALIDATION FINDINGS WORKSHEET Continuing Calibration Results Verification

Page:__ Lof $/$ Reviewer:
2nd Reviewer:
3

METHOD: GC $\qquad$ _HPLC / M $\rightarrow$
The percent difference (\%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated for the compounds identified below using the following calculation:

| $\begin{aligned} & \text { \% Difference }=100^{*} \text { (ave. CF - CF)/ave. CF } \\ & C F=A / C \end{aligned}$ | Where: | ave. $C F=$ initial calibration average $C F$ |
| :---: | :---: | :---: |
|  |  | $C F=$ continuing calibration $C F$ |
|  |  | $A=$ Area of compound |
|  |  | $\mathrm{C}=$ Concentration of compound |


|  |  |  |  |  | Reapatad | Reatrunted | Senotad | Beaterutated |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| \# | Standard 10 | Calibation | Compound | Average coficaly | ${ }_{\text {cficonc. }}^{\text {cove }}$ |  | \% ${ }^{\text {d }}$ | \% |
| 1 | 17101543 | 10/15/7 | - | so. 0 | 48.965 | 48918 | 2.1 | $3{ }^{2}$ |
|  |  |  |  |  |  |  |  |  |
| 2 | 170154*36 |  | \#FOA | 10.0 | 11.6 | 11.57 | 157 | 15.7 |
|  |  | 1014 |  |  |  |  |  |  |
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Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within $10.0 \%$ of the recalculated results.
$1001 \geqslant 39037896$

## VALIDATION FINDINGS WORKSHEET <br> Surrogate Results Verification

The percent recoveries (\%R) of surrogates were recalculated for the compounds identified below using the following calculation:
\% Recovery: SF/SS * 100
Where: $\quad \begin{array}{ll}S F=\text { Surrogate Found } \\ & S S=\text { Surrogate Spiked }\end{array}$
$S S=$ Sưrriggate Spiked
Sample ID: $\quad 5$


Sample ID:

| Surrogate | Column/Detector | Surrogate Spiked | Surrogate Found | Percent Recovery | $\begin{aligned} & \text { Percent } \\ & \text { Recovery } \end{aligned}$ | Percent Difference |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Reported | Recalculated |  |
|  |  |  |  |  |  |  |
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## Sample ID:

| Surrogate | Column/Detector | Surrogate | Surrogate Found | Percent Recovery | Percent Recovery | Percent Differenc |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Reported | Recalculated |  |
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VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results Verification

Page: 1 of 1
Reviewer: ㅇ 2nd Reviewer: $1 / 2$

## METHOD: _GC $\underline{V}$ HPLC/Me $s$

The percent recoveries (\%R) and relative percent differences (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:
\%Recovery $=100$ * (SSC - SC)/SA Where
$\begin{aligned} \text { SSC } & =\text { Spiked sample concentration } \\ \text { SA } & =\text { Spike added }\end{aligned}$ SA = Spike added $M S=$ Matrix spike $\quad M S D=$ Matrix spike duplicate

RPD $=\left(\left((S S C M S-S S C M S D\}^{*} 2\right) /(\right.$ SSCMS + SSCMSD $\left.)\right) * 100$
MS/MSD samples: $\qquad$

| Compound |  |  |  | Spike Sample Conceftration$\qquad$ |  | Matrix spike |  | Matrix Spike Duplicate |  | MS/MSD |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | (NL) |  |  | Percent Recovery |  | Percent Recovery |  | RPD |  |
|  | MS | MSD | $\cdots$ | MS | MSD | Reported | Recalc. | Reported | Recalc. | Reported | Recalc. |
| Gasoline (8015) |  |  |  |  |  |  |  |  |  |  |  |
| Diesel (8015) |  |  |  |  |  |  |  |  |  |  |  |
| Benzene (8021B) |  |  |  |  |  |  |  |  |  |  |  |
| Methane (RSK-175) |  |  |  |  |  |  |  |  |  |  |  |
| 2,4-D (8151) |  |  |  |  |  |  |  |  |  |  |  |
| Dinoseb (8151) |  |  |  |  |  |  |  |  |  |  |  |
| Naphthalene (8310) |  |  |  |  | . |  |  |  |  |  |  |
| Anthracene (8310) |  |  |  |  |  |  |  |  |  |  |  |
| HMX (8330) |  |  |  |  |  |  |  |  |  |  |  |
| 2,4,6-Trinitrotoluene (8330) |  |  |  |  |  |  |  |  |  |  |  |
| PHHxA | 0.0854 | . 096 | 0.300 | 0.385 | 0.390 | 100.0 | 100.7 | 99. | 993 | 101 | 1.03 |
|  |  |  |  |  |  |  |  |  |  |  |  |
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[^2] $10.0 \%$ of the recalculated results.

## METHOD: _GC VHPLC/a/s

The percent recoveries (\%R) and Relative Percent difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:
\% Recovery $=100^{*}$ (SSC-SC)/SA

Where: $\quad$ SSC = Spiked sample concentration
SA = Spike added
LCS = Laboratory control sample percent recovery

SC = Concentration
LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: $\operatorname{CROO77}$

| Compound | $\begin{gathered} \text { Spike } \\ \text { Aldod } \\ \text { ( }{ }^{\text {P/ }} \end{gathered}$ |  | Spiked Sample Concentyation (\$) |  | LCS |  | LCSD |  | LCS/LCSD |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Percent Recovery | Percent Recovery |  | RPD |  |
| 20 | LCS | LCSD |  |  | LCS | LCSD | Reported | Recalc. | Reported | Recalc. | Reported | Recalc. |
| Gasoline (8015) |  |  |  |  |  |  |  |  |  |  |
| Diesel (8015) |  |  |  |  |  |  |  |  |  |  |
| Benzene (8021B) |  |  |  |  |  |  |  |  |  |  |
| Methane (RSK-175) |  |  |  |  |  |  |  |  |  |  |
| 2,4-D (8151) |  |  |  |  |  |  |  |  |  |  |
| Dinoseb (8151) |  |  |  |  |  |  |  |  |  |  |
| Naphthalene (8310) |  |  |  |  |  |  |  |  |  |  |
| Anthracene (8310) |  |  |  |  |  |  |  |  |  |  |
| HMX (8330) |  |  |  |  |  |  |  |  |  |  |
| 2,4,6-Trinitrotoluene (8330) |  |  |  |  |  |  |  |  |  |  |
| ¢4txA | 0.0100 | 0.0400 | 0.0390 | 0.0366 | $97^{6}$ | 975 | 91.5 | 91.5 | 6.41 | 6.35 |
|  |  |  |  |  |  |  |  |  |  |  |

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within $10.0 \%$ of the recalculated results.


Were all reported results recalculated and verified for all level IV samples?
Were all recalculated results for detected target compounds within $10 \%$ of the reported results?

Concentration= $\qquad$

$$
(\mathrm{A})(\mathrm{Fv})(\mathrm{Df})
$$

$$
(\mathrm{RF})(\mathrm{Vs} \text { or } \mathrm{Ws})(\% \mathrm{~S} / 100)
$$

A= Area or height of the compound to be measured
$\mathrm{Fv}=$ Final Volume of extract
$\mathrm{Df}=$ Dilution Factor
$R F=$ Average response factor of the compound In the initial calibration
Vs= Initial volume of the sample
Us= Initial weight of the sample
\%S= Percent Solid

Example:
Sample ID. $\qquad$


$$
\text { Concentration }=\frac{(3.20 e 1)\left(10^{0}\right)(1)}{(5.64 e 3)(0.202105)(0.253)(1000)}
$$

$$
=0.0125 \mu \mathrm{H} / \mathrm{L}
$$



Comments: $\qquad$
$\qquad$

# Laboratory Data Consultants, Inc. Data Validation Report 

| Project/Site Name: | Former Chase Field |
| :--- | :--- |
| LDC Report Date: | November 15, 2017 |
| Parameters: | Perfluorinated Alkyl Acids |
| Validation Level: | Stage 2B |
| Laboratory: | Vista Analytical Laboratory |
| Sample Delivery Group (SDG): | 1701439 |


| Sample Identification | Laboratory Sample <br> Identification | Matrix | Collection <br> Date |
| :--- | :--- | :--- | :---: |
| FRB05_20171005 | $1701439-01$ | Water | $10 / 05 / 17$ |
| Site 3-GW-03GW02-20171005 | $1701439-02$ | Water | $10 / 05 / 17$ |
| Site 4-GW-04GW01-20171006 | $1701439-04$ | Water | $10 / 06 / 17$ |
| FRB06_20171006 | $1701439-05$ | Water | $10 / 06 / 17$ |

## Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Final Sampling and Analysis Plan for Initial Assessment of Perfluorinated Compounds (PFCS) or Per- and Polyfluoroalkyl Substances (PFAS) Sites at Various Base Realignment and Closure (BRAC) Installations (June 2017), the U.S. Department of Defense (DoD) Quality Systems Manual (QSM) for Environmental Laboratories, Version 5.1 (2017), and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:
Perfluorinated Alkyl Acids by Environmental Protection Agency (EPA) Method 537
All sample results were subjected to Stage 2 B data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:
J (Estimated): The compound or analyte was analyzed for and positively identified by the laboratory; however the reported concentration is estimated due to nonconformances discovered during data validation.

U (Non-detected): The compound or analyte was analyzed for and positively identified by the laboratory; however the compound or analyte should be considered non-detected at the reported concentration due to the presence of contaminants detected in the associated blank(s).

UJ (Non-detected estimated): The compound or analyte was reported as not detected by the laboratory; however the reported quantitation/detection limit is estimated due to non-conformances discovered during data validation.

R (Rejected): The sample results were rejected due to gross non-conformances discovered during data validation. Data qualified as rejected is not usable.

NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

## I. Sample Receipt and Technical Holding Times

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

## II. LC/MS Instrument Performance Check

Instrument performance was checked as applicable.
All ion abundance requirements were met.

## III. Initial Calibration and Initial Calibration Verification

Initial calibration was performed as required by the method.
For compounds where average relative response factors (RRFs) were utilized, the percent relative standard deviations (\%RSD) were less than or equal to 20.0\%.

In the case where the laboratory used a calibration curve to evaluate the compounds, all coefficients of determination $\left(\mathrm{r}^{2}\right)$ were greater than or equal to 0.990 .

For each calibration point, the percent differences (\%D) for their true value were less than or equal to $30.0 \%$ for all compounds.

The percent differences (\%D) of the initial calibration verification (ICV) standard were less than or equal to $30.0 \%$ for all compounds.

## IV. Continuing Calibration

Continuing calibration was performed at required frequencies.
The percent differences (\%D) were less than or equal to $30.0 \%$ for all compounds.

## V. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

## VI. Field Blanks

Sample EB06_20171005 (from SDG 1701432) was identified as an equipment blank. No contaminants were found.

Samples FRB05_20171005 and FRB06_20171006 were identified as field rinsate blanks. No contaminants were found.

## VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

## VIII. Laboratory Control Samples

Laboratory control samples (LCS) and laboratory control samples duplicates (LCSD) were analyzed as required by the method. Percent recoveries (\%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## IX. Field Duplicates

No field duplicates were identified in this SDG.

## X. Internal Standards

All internal standard areas and retention times were within QC limits.

## XI. Compound Quantitation

The laboratory limit of quantitation (LOQ), limit of detection (LOD), and detection limit (DL) are higher than the QAPP LOQ, LOD, and DL.

Raw data were not reviewed for Stage 2B validation.

## XII. Target Compound Identifications

Raw data were not reviewed for Stage 2B validation.

## XIII. System Performance

Raw data were not reviewed for Stage 2B validation.

## XIV. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

The quality control criteria reviewed were met and are considered acceptable. Based upon the data validation all results are considered valid and usable for all purposes.

Former Chase Field
Perfluorinated Alkyl Acids - Data Qualification Summary - SDG 1701439
No Sample Data Qualified in this SDG
Former Chase Field
Perfluorinated Alkyl Acids - Laboratory Blank Data Qualification Summary - SDG 1701439

No Sample Data Qualified in this SDG
Former Chase Field
Perfluorinated Alkyl Acids - Field Blank Data Qualification Summary - SDG 1701439

No Sample Data Qualified in this SDG

LDC \#: 39837B96

## VALIDATION COMPLETENESS WORKSHEET

SD \#: 1701439
Laboratory: Vista Analytical Laboratory

## METHOD: LC/MS Perfluorinated Alkyl Acids (EPA Method 537)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

Note: $\quad \mathrm{A}=$ Acceptable
$\mathrm{N}=$ Not provided/applicable
SW = See worksheet
ND = No compounds detected
$\mathrm{D}=$ Duplicate
SB=Source blank
$\mathrm{R}=$ Rinsate $\quad \mathrm{TB}=$ Trip blank OTHER:

|  | Client ID | Lab ID | Matrix | Date |
| :--- | :--- | :--- | :--- | :--- |
| 1 | FRB05_20171005 | $1701439-01$ | Water | $10 / 05 / 17$ |
| 2 | Site 3-GW-03GW02-20171005 | $1701439-02$ | Water | $10 / 05 / 17$ |
| 3 | Site 4-GW-04GW01-20171006 | $1701439-04$ | Water | $10 / 06 / 17$ |
| 4 | FRB06_20171006 | $1701439-05$ | Water | $10 / 06 / 17$ |
| 5 |  |  |  |  |
| 6 |  |  |  |  |
| 7 |  |  |  |  |
| 8 |  |  |  |  |
| 9 |  |  |  |  |

Notes:

|  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |

VALIDATION FINDINGS WORKSHEET
Compound Quantitation and REs

Reviewer: 2nd Reviewer: JG

METHOD: LC/MS
Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A". Level +VIBOnly
Y N(NLA Were RLs adjusted for sample dilutions, dry weights, etc.?


The LDC job number listed above was entered by $\qquad$追

$\qquad$


[^0]:    **Indicates sample underwent Stage 4 validation

[^1]:    ALL CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:

[^2]:    Comments: Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within

