



Woman Owned Business

Aztech Environmental

TECHNOLOGIES

5 McCrea Hill Road • Ballston Spa, New York 12020

January 8, 2018

Ms. Samantha Salotto
New York State Department of Environmental Conservation
Route 86, PO Box 296
Ray Brook, NY 12977-0296

Re: Remedial Progress Report
Former Philmar Electronics – Morrisonville, NY
NYSDEC Project #510008

Dear Ms. Salotto,

Aztech Environmental Technologies (Aztech) has prepared this letter to outline the remedial progress and provide a status update for groundwater analytical results at the former Philmar Electronics site, New York State Department of Environmental Conservation (NYSDEC) Project #510008 (**Figure 1**). The activities summarized in this correspondence were completed during the third and fourth quarters of 2017.

Remediation System

Site visits were conducted on August 22, 2017, October 3, 2017 and December 20, 2017 to confirm that the remediation system was operating. The water meter was cleaned on October 3 and December 20, 2017. The pump control floats were tested on October 3, 2017, and were determined to be functional. A summary of the pumping rates, to date, are presented in **Table 1**. Approximately 32.8 million gallons of groundwater have been pumped through the remediation system between May 2004 and December 20, 2017. During the second half of 2017, approximately 907,951 gallons of water were pumped through the system.

Groundwater Gauging and Sampling

Aztech surveyed the top of selected groundwater monitoring well casing elevations on September 7, 2011. The top of casing elevations were surveyed relative to an arbitrary site datum of 100.00 feet using a Sokkia C3₃₀ optical level. Longitude and latitude coordinates of selected monitoring wells and sample locations were collected on this date for spatial reference. The top of casing elevations are shown on **Table 2**.

Aztech determined depth to groundwater using an electronic oil/water interface indicator probe graduated in 0.01 feet increments. The depth to groundwater measurements were collected from the highest point of the well casing or from a surveyed mark. Groundwater elevations collected from 2008 through April 12, 2017 are shown on Table 2.

The groundwater elevations collected on October 10, 2017 were plotted on the site map to determine groundwater flow direction and hydraulic gradient (**Figure 2**). During this groundwater gauging event, the overall groundwater flow direction was easterly beneath the site at an average hydraulic gradient of approximately 0.06 ft/ft.

An email correspondence from the NYSDEC on May 5, 2017 approved including monitoring wells MW-3, MW-8, MW-10, MW-11, DGC-11S, DGC-12 and DGC-21 to the semiannual groundwater sampling event for volatile organic compounds (VOCs) using Environmental Protection Agency (EPA) Method 624. The NYSDEC also requested that monitoring wells MW-6, MW-7, MW-9, DGC-6S, DGC-7S and DGC-8S, the collection TRENCH and DISCHARGE be sampled for perfluorinated compounds (PFC) using EPA Method 537, and 1,4-dioxane using EPA Method 8270 selected ion monitoring (SIM). On October 25, 2017, the NYSDEC requested that monitoring wells MW-3, MW-10, MW-11, DGC-11S, DGC-12 and DGC-21 also be sampled for PFCs using EPA Method 537 and 1,4-dioxane using EPA Method 8270 SIM.

During the October 10, 2017 and November 1, 2017 groundwater sampling events, monitoring well MW-8 could not be located and monitoring well MW-11 was recorded as being dry. After gauging the monitoring wells, groundwater was purged from the monitoring wells using dedicated, disposable clear polyvinyl chloride bailers that are PFC free. Additionally, Aztech personnel followed the NYSDEC PFC Groundwater Samples from Monitoring Wells Sample Protocol Revision 1.2 (June 29, 2016), with the exception of collecting an equipment blank, field duplicate, matrix spike/matrix spike duplicate (MS/MSD) on October 10, 2017. However, on November 1, 2017, Aztech collected a field duplicate and MS/MSD samples from selected monitoring wells, and the NYSDEC determined that an equipment blank was not required.

Aztech collected groundwater samples from monitoring wells MW-3, MW-6, MW-7, MW-9, MW-10, DGC-6S, DGC-7S, DGC-8S, DGC-11S, DGC-12, DGC-21, TRENCH and DISCHARGE for (VOCs) on October 10, 2017. Monitoring wells MW-6, MW-7, MW-9, DGC-6S, DGC-7S and DGC-8S, TRENCH and DISCHARGE were also sampled for PFC and 1,4-dioxane on this date. On November 1, 2017, Aztech collected groundwater samples from MW-3, MW-10, DGC-11S, DGC-12 and DGC-21 for PFCs and 1,4-dioxane. All samples were shipped to Test America, Inc. in Amherst, New York. Copies of the October 10, 2017 and November 1, 2017 laboratory analytical reports and the NYSDEC ASP Category B laboratory analytical reports for these sampling events are included with this document.

Groundwater Analytical Results

The tabulated VOC laboratory analytical results are included in **Table 3**. **Figure 3** shows the VOC distribution in groundwater on October 10, 2017. PFCs and 1,4-dioxane laboratory analytical results from October 10, 2017 and November 1, 2017 are included in **Table 4** and the distribution map is provided as **Figure 4**. It should be noted that the October 10, 2017 VOC samples from the DISCHARGE broke in transit to the laboratory and could not be analyzed.

A summary of the October 10, 2017 VOC groundwater analytical results is as follows:

- 1,2-dichloroethene (total) was detected above the NYSDEC groundwater standard of 5.0 micrograms per liter ($\mu\text{g/l}$) in the TRENCH at 6.5J $\mu\text{g/l}$ (estimated value), MW-9 at 21 $\mu\text{g/l}$ and DGC-8S at 18 $\mu\text{g/l}$. All other sampling locations reported non-detect 1,2-DCE results.
- Trichloroethene (TCE) was detected above the NYSDEC standard of 5.0 $\mu\text{g/l}$ in the TRENCH at 11 $\mu\text{g/l}$, MW-9 at 5.5 $\mu\text{g/l}$ and DGC-8S at 8.3 $\mu\text{g/l}$. All other sampling locations either reported non-detect TCE results or concentrations below the NYSDEC groundwater standard. The analytical results from MW-6, MW-7, and MW-10 were flagged by the laboratory as estimated concentrations (J-values).
- Vinyl chloride was detected above the NYSDEC standard of 2.0 $\mu\text{g/l}$ in MW-9 at 3.0J $\mu\text{g/l}$ (estimated value). All other sampling locations either reported non-detect results or concentrations at or below the NYSDEC groundwater standard. It should be noted that the laboratory analytical results for MW-7, DGC-7S and DGC-8S were flagged by the laboratory as an estimated concentrations (J-values).
- Chlorobenzene was not detected above the groundwater standard of 5.0 $\mu\text{g/l}$ in any monitoring well on October 10, 2017. It should be noted that the laboratory analytical results for the TRENCH and DGC-7S were flagged by the laboratory as approximated concentrations (J-values).
- The remaining VOCs were either not detected or were below the NYSDEC groundwater standards in the sampled monitoring wells on October 10, 2017.

Based on the groundwater analytical results, the highest concentrations of chlorinated VOCs appear to be located hydraulically downgradient of the groundwater recharge gallery (DGC-8S) and downgradient of the groundwater collection trench (MW-9).

A summary of the October 10, 2017 and November 1, 2017 PFC and 1,4-dioxane groundwater analytical results is summarized below. It should be noted that the NYSDEC currently has a combined groundwater standard of 70 nanograms per liter (ng/l) for perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS). The NYSDEC protection of groundwater standard for 1,4-dioxane is 100 $\mu\text{g/l}$. A field duplicate sample was collected from DGC-12 and the MS/MSD sample was collected from MW-3.

- PFOA and PFOS were detected above the combined groundwater standard of 70 ng/l in the TRENCH, DISCHARGE, MW-3, MW-6, MW-7, MW-9, DGC-7S, DGC-8S and DGC-21. All other samples were either non-detect or less than the combined groundwater standard for PFOA or PFOS.
- 1,4-dioxane was detected below the protection of groundwater standard of 100 $\mu\text{g/l}$ in all samples collected on October 10 and November 1, 2017.
- The laboratory analytical results from the field duplicate sample collected from DGC-12 closes matches the initial sample from this monitoring well.

Based on the groundwater analytical results, the highest concentrations of PFOA and PFOS are located immediately upgradient and downgradient of the recharge gallery and immediately downgradient of the collection trench, bounded by monitoring wells MW-3, TRENCH, MW-9, DGC-7S and DGC-21.

Groundwater Field Measurements

Groundwater field measurements consisting of temperature; specific conductance; dissolved oxygen; pH; and, oxidation-reduction potential (ORP) were collected on October 10, 2017. These measurements are presented on **Table 5**. Based on the measurements collected on October 10, 2017, it appears the groundwater was generally aerobic; which is not favorable for chlorinated VOC reduction in the groundwater.

Summary and Recommendations

The October 2017 semiannual groundwater sampling event included the collection of liquid levels from monitoring wells MW-3, MW-6, MW-7, MW-9, MW-10, MW-11, DGC-6S, DGC-7S, DGC-8S, DGC-11S, DGC-12 and DGC-21. However, monitoring well top of casing elevations are only available for MW-6, MW-7, MW-9, DGC-6S, DGC-7S and DGC-8S. Therefore, it is recommended to survey top of casing elevations for monitoring wells MW-3, MW-10, MW-11, DGC-11, DGC-12 and DGC-21 so a more comprehensive groundwater contour map can be developed for the site.

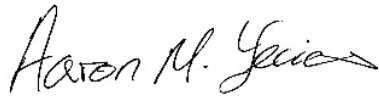
Groundwater samples for VOCs were collected from MW-3, MW-6, MW-7, MW-9, MW-10, DGC-6S, DGC-7S, DGC-8S, DGC-11S, DGC-12, DGC-21, and the TRENCH on October 10, 2017. Monitoring wells MW-6, DGC-6S, DGC-11S, DGC-12 and DGC-21 reported non-detectable concentrations of VOCs.

Groundwater samples for PFCs and 1,4-dioxane were collected from MW-3, MW-6, MW-7, MW-9, MW-10, DGC-6S, DGC-7S, DGC-8S, DGC-11S, DGC-12, DGC-21, TRENCH and DISCHARGE on October 10, 2017 or November 1, 2017. PFOA and PFOS were above the NYSDEC combined groundwater standard in the TRENCH, DISCHARGE, MW-3, MW-6, MW-7, MW-9, DGC-7S, DGC-8S and DGC-21.

Based on the elevated concentrations of PFOA and PFOS in the monitoring wells listed above, it is recommended to sample these monitoring wells again in April 2018 for PFCs in accordance with the NYSDEC PFC Groundwater Samples from Monitoring Wells Sample Protocol Revision 1.2 (June 29, 2016). The additional sampling event will be beneficial to verify the PFC concentrations detected in October and November 2017 since the detection levels are low (nanograms per liter). Additionally, VOC samples should be collected from the TRENCH, DISCHARGE, MW-3, MW-6, MW-7, MW-9, MW-10, DGC-6S, DGC-7S, DGC-8, DGC-11S, DGC-12 and DGC-21.

If you have any questions, please call us at (518) 885-5383.

Sincerely,
Aztech Environmental Technologies

A handwritten signature in black ink, reading "Aaron M. Yecies". The signature is fluid and cursive, with a long horizontal stroke at the end.

Aaron Yecies, P.G., CPG-11572
Qualified Environmental Professional

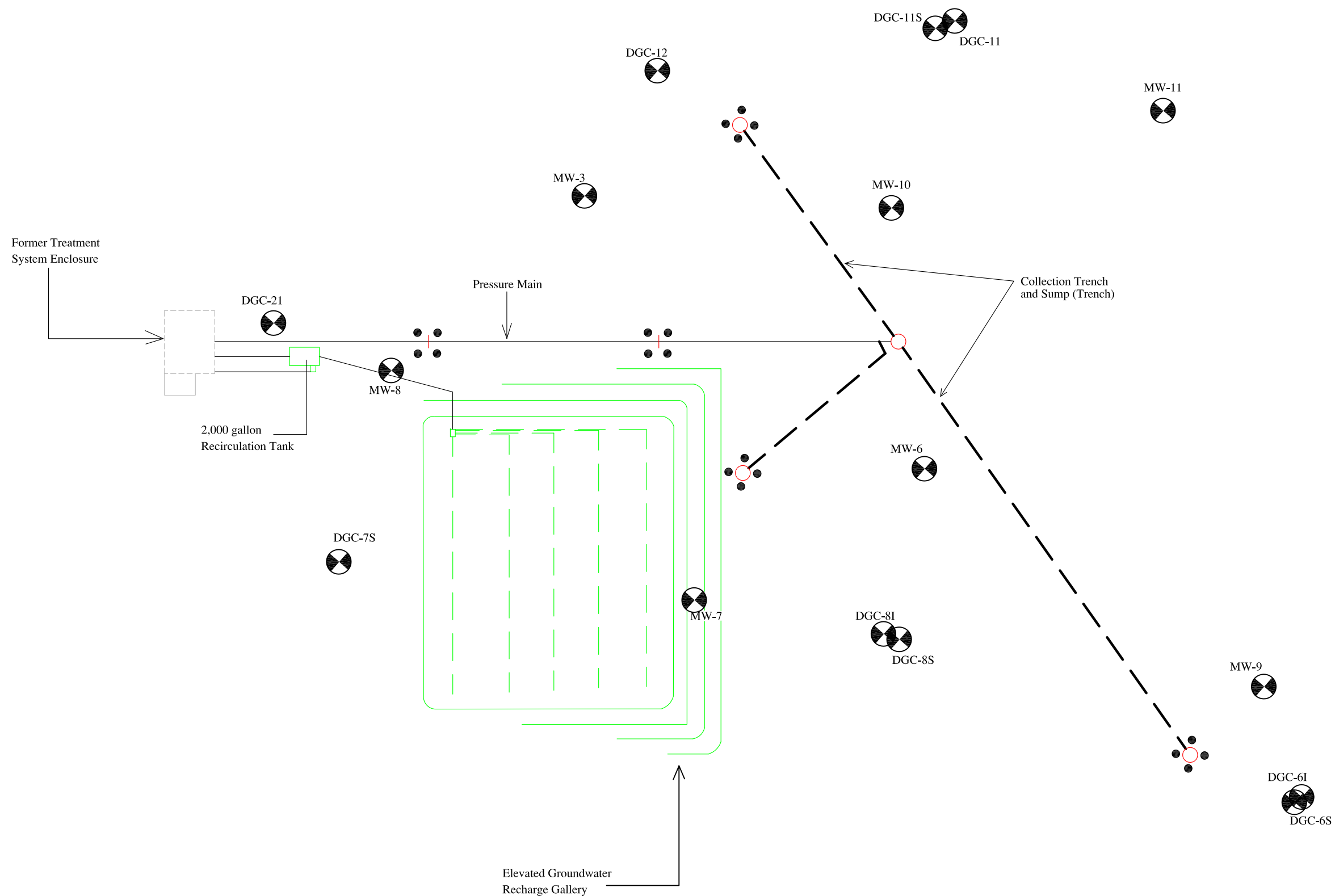
ATTACHMENTS

Figures

Tables

Laboratory Analytical Reports

CC: File



AREA OVERVIEW



Legend:

- MW-3
-  Monitoring Well
 -  Manhole Cover
 -  Underground Piping
 -  Bollards



**NYSDEC Region 5
Philmar Electronics Site
Mason Street
Morrisonville, NY
Site ID: 510008**

Figure 1

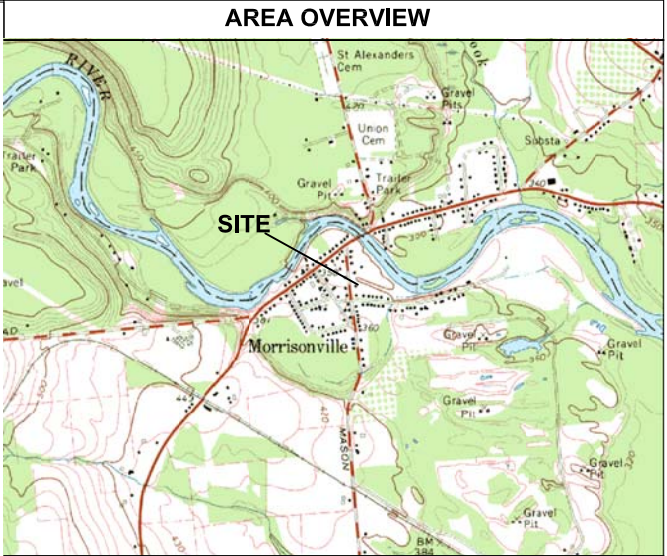
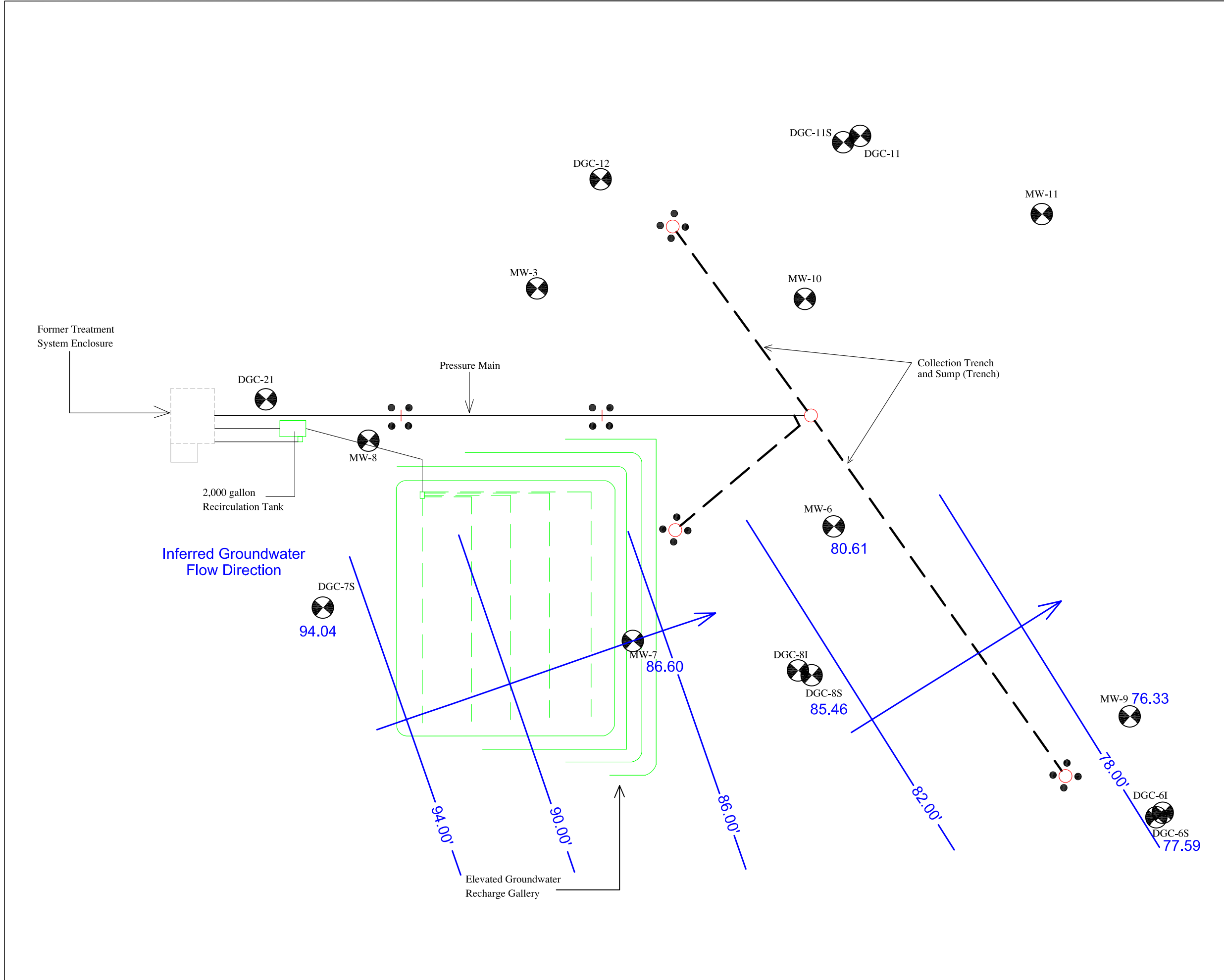
DATE: 1/25/12

$$1'' = 40'$$

SITE MAP



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Legend:

- MW-3 **Monitoring Well**
- Manhole Cover**
- Underground Piping**
- Bollards**
- Groundwater Flow Direction**

**NYSDEC Region 5
Philmar Electronics Site
Mason Street
Morrisonville, NY
Site ID: 510008**

Figure 2

DATE: 10/10/17

1" = 40'

Groundwater Contour Map
Contour Interval = 4.0 feet

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TABLE 1

GROUNDWATER PUMPING DATA

Former Philmar Electronic Site
Mason Street
Morrisonville, Clinton County, NY
NYSDEC Site ID #510008

Date	Days Elapsed	Water Meter	Total Gallons Pumped	Gallons/ Day	Gallons/ Minute	Influent VOC/MtBE Concentration (ppb)
5/19/2004	0	176,368	----- GW Pumping Component Started -----			
5/21/2004	2	207,208	30,840	15,420	10.71	
6/10/2004	20	400,410	193,202	9,660	6.71	146
7/20/2004	40	560,722	160,312	4,008	2.78	106
9/15/2004	57	782,621	221,899	3,893	2.70	156
10/18/2004	33	924,393	141,772	4,296	2.98	77
11/24/2004	37	1,011,920	87,527	2,366	1.64	209
12/22/2004	28	1,101,953	90,033	3,215	2.23	124
1/17/2005	26	1,173,545	71,592	2,754	1.91	124
2/2/2005	16	1,173,595	50	3.1	0.00	124
8/8/2005	187	2,249,238	1,075,643	5,752	3.99	124
10/27/2005	80	2,595,730	346,492	4,331	3.01	76
4/3/2006	158	4,478,910	1,883,180	11,919	8.28	89
6/7/2006	65	5,230,130	751,220	11,557	8.03	89
6/15/2006	8	5,232,860	2,730	341	0.24	89
9/7/2006	84	6,015,918	783,058	9,322	6.47	89
10/12/2006	35	6,102,533	86,615	2,475	1.72	146
12/4/2006	53	6,574,610	472,077	8,907	6.19	146
2/27/2007	85	7,651,400	1,076,790	12,668	8.80	146
4/23/2007	55	8,559,690	908,290	16,514	11.47	38
6/14/2007	52	9,484,211	924,521	17,779	12.35	38
8/15/2007	62	9,987,570	503,359	8,119	5.64	38
10/4/2007	50	119,680	32,110	642	0.45	104
12/11/2007	68	740,750	621,070	9,133	6.34	104
2/8/2008	59	2,208,495	1,467,745	24,877	17.28	104
4/3/2008	55	3,490,979	1,282,484	23,318	16.19	28
6/25/2008	83	4,412,120	921,141	11,098	7.71	28
12/9/2008	167	4,448,290	36,170	217	0.15	28
2/5/2009	58	4,451,880	3,590	62	0.04	28
2/17/2009	12	4,507,850	55,970	4,664	3.24	28
4/29/2009	71	5,866,070	1,358,220	19,130	13.28	40
6/23/2009	55	6,820,354	954,284	17,351	12.05	40
8/26/2009	64	7,480,920	660,566	10,321	7.17	40
10/13/2009	48	7,488,925	8,005	167	0.12	52
12/16/2009	64	7,480,920	reading error			52
2/23/2010	69		water meter found to be broken			52
4/9/2010	45	12	water meter replaced			22
6/16/2010	68	90	78	1.147	0.0008	22
8/9/2010	54	187,992	187,902	3,480	2.42	22
10/14/2010	66	449,370	261,378	3,960	2.75	23
12/7/2010	54	988,850	539,480	9,990	6.94	23
2/9/2011	64	1,435,180	446,330	6,974	4.84	23
4/27/2011	77	2,152,907	717,727	9,321	6.47	22
6/14/2011	48	2,753,209	600,302	12,506	8.68	22
9/7/2011	85	2,964,373	211,164	2,484	1.73	22
10/26/2011	49	3,517,117	552,744	11,280	7.83	30
12/22/2011	57	3,949,651	432,534	7,588	5.27	30
2/21/2012	61	4,250,370	300,719	4,930	3.42	30
4/20/2012	59	4,614,060	363,690	6,164	4.28	18
6/12/2012	53	4,994,660	380,600	7,181	4.99	18
8/27/2012	76	5,179,430	184,770	2,431	1.69	18
10/26/2012	60	5,287,323	107,893	1,798	1.25	18
12/14/2012	49	5,487,668	200,345	4,089	2.84	18
2/16/2013	64	5,772,162	284,494	4,445	3.09	18
4/26/2013	69	6,295,497	523,335	7,585	5.27	13
6/5/2013	40	6,635,000	339,503	8,488	5.89	13
8/15/2013	71	7,600,613	965,613	13,600	9.44	13
10/8/2013	54	7,769,060	168,447	3,119	2.17	32
12/13/2013	66	7,995,622	226,562	3,433	2.38	32
2/13/2014	62	8,246,420	250,798	4,045	2.81	32
4/8/2014	54	8,476,860	230,440	4,267	2.96	4.8
6/8/2014	61	9,229,540	752,680	12,339	8.57	4.8
8/11/2014	64	9,638,688	409,148	6,393	4.44	4.8
8/21/2014			Removed Submersible Pump			
10/6/2014			Reinstalled Submersible Pump			

TABLE 1

GROUNDWATER PUMPING DATA

Former Philmar Electronic Site
Mason Street
Morrisonville, Clinton County, NY
NYSDEC Site ID #510008

Date	Days Elapsed	Water Meter	Total Gallons Pumped	Gallons/ Day	Gallons/ Minute	Influent VOC/MtBE Concentration (ppb)
10/6/2014	56	9,639,564	876	16	0.01	2.6 J
12/24/2014	79	9,880,369	240,805	3,048	2.12	2.6 J
2/17/2015	55	10,137,534	257,165	4,676	3.25	2.6 J
4/30/2015	72	10,480,524	342,990	4,764	3.31	8.1 J
6/9/2015	40	10,689,638	209,114	5,228	3.63	8.1 J
8/18/2015	71	11,233,821	544,183	7,665	5.32	19
10/14/2015	58	11,375,905	142,084	2,450	1.70	19
12/4/2015	52	11,517,944	142,039	2,732	1.90	19
2/10/2016	68	11,824,821	306,877	4,513	3.13	8.7
3/28/2016	47	12,170,770	345,949	7,361	5.11	8.7
6/16/2016	80	12,812,578	641,808	8,023	5.57	8.7
8/17/2016	62	13,012,219	199,641	3,220	2.24	8.7
8/17/2016			Removed Submersible Pump			
10/20/2016			Installed New Submersible Pump			
10/20/2016	64	13,012,599	380	6	0.00	18 J
12/30/2016	71	13,360,200	347,601	4,896	3.40	18 J
2/14/2017	46	13,363,415	3,215	70	0.05	18 J
4/12/2017	57	13,776,568	413,153	7,248	5.03	1.7 J
6/22/2017	71	14,665,677	889,109	12,523	8.70	1.7 J
8/22/2017	61	15,170,400	504,723	8,274	5.75	1.7 J
10/3/2017	42	15,310,672	140,272	3,340	2.32	18.1 J
12/20/2017	78	15,573,628	262,956	3,371	2.34	18.1 J
Cumulative	4,966		32,786,173			

TABLE 2

SUMMARY OF GROUNDWATER ELEVATIONS

Former Philmar Electronics Site
Mason Street, Morrisonville, Clinton County, New York
NYSDEC Site ID #510008

MONITORING WELL DESIGNATION		MW-3	MW-6	MW-7	MW-9	MW-10	DGC-6S	DGC-7S	DGC-8S	DGC-11S	DGC-12	DGC-21
TOP OF CASING		NA	89.72	92.04	84.24	NA	83.97	100.00	87.78	NA	NA	NA
BOTTOM OF MONITORING WELL			70.27	73.64	69.24		61.62	79.53	66.58			
MEASUREMENT DATE	Gauging Data		GROUNDWATER ELEVATIONS									
4/3/2008	Elevation DTW		85.75 3.97	88.43 3.61	NA NA		81.44 2.53	95.97 4.03	85.85 1.93			
10/13/2008	Elevation DTW		83.02 6.70	85.19 6.85	77.59 6.65		78.38 5.59	92.25 7.75	84.23 3.55			
4/29/2009	Elevation DTW		84.28 5.44	88.31 3.73	79.60 4.64		79.27 4.70	95.19 4.81	85.50 2.28			
10/13/2009	Elevation DTW		83.73 5.99	87.45 4.59	78.31 5.93		79.32 4.65	94.84 5.16	85.45 2.33			
4/9/2010	Elevation DTW		85.97 3.75	88.59 3.45	81.10 3.14		80.71 3.26	96.05 3.95	85.92 1.86			
10/14/2010	Elevation DTW		84.39 5.33	88.01 4.03	79.92 4.32		79.95 4.02	95.38 4.62	85.36 2.42			
4/27/2011	Elevation DTW		86.17 3.55	89.53 2.51	82.19 2.05		81.83 2.14	97.09 2.91	86.17 1.61			
10/26/2011	Elevation DTW		85.51 4.21	88.77 3.27	80.18 4.06		80.28 3.69	95.51 4.49	85.84 1.94			
4/20/2012	Elevation DTW		83.20 6.52	87.50 4.54	78.87 5.37		77.63 6.34	94.41 5.59	84.90 2.88			
10/26/2012	Elevation DTW		82.82 6.90	87.46 4.58	77.73 6.51		79.59 4.38	94.83 5.17	85.13 2.65			
4/26/2013	Elevation DTW		85.28 4.44	88.71 3.33	79.79 4.45		79.82 4.15	95.02 4.98	85.54 2.24			
10/8/2013	Elevation DTW		79.35 10.37	85.69 6.35	76.57 7.67		77.34 6.63	93.58 6.42	83.90 3.88			
4/8/2014	Elevation DTW		86.52 3.20	89.17 2.87	NA NG		81.72 2.25	93.76 6.24	85.10 2.68			
10/6/2014	Elevation DTW		82.32 7.40	84.46 7.58	75.40 8.84		77.38 6.59	92.09 7.91	79.06 8.72			
4/30/2015	Elevation DTW		85.16 4.56	88.52 3.52	79.73 4.51		79.92 4.05	94.71 5.29	85.69 2.09			
10/14/2015	Elevation DTW		78.93 10.79	85.46 6.58	76.09 8.15		77.60 6.37	92.91 7.09	83.32 4.46			
4/13/2016	Elevation DTW		85.82 3.90	89.05 2.99	80.87 3.37		80.58 3.39	95.49 4.51	85.91 1.87			
10/20/2016	Elevation DTW		78.57 11.15	83.43 8.61	72.92 11.32		73.43 10.54	89.86 10.14	80.35 7.43			
4/12/2017	Elevation DTW		86.03 3.69	89.32 2.72	81.65 2.59		81.36 2.61	95.87 4.13	85.98 1.80			
10/10/2017	Elevation DTW	NA 13.55	80.61 9.11	86.60 5.44	76.33 7.91	NA 17.62	77.59 6.38	94.04 5.96	85.46 2.32	NA 20.34	NA 14.33	NA 10.97
11/1/2017	Elevation DTW	NA 13.04	NA NG	NA NG	NA NG	NA 17.35	NA NG	NA NG	NA NG	NA 21.02	NA 14.23	NA 10.62

Top of casing - elevations surveyed to arbitrary benchmark of 100 feet on September 7, 2011

Elevations are presented in feet based on arbitrary datum of 100.00 feet

DTW = Depth to Water in Feet

NA = Not Applicable

NG = Not Gauged

TABLE 3

GROUNDWATER ANALYTICAL DATA - VOLATILE ORGANIC COMPOUNDS

Former Philmar Electronics Site

Mason Street, Morrisonville, Clinton County, New York

NYSDEC Site ID #510008

WELL ID/DATE	GROUNDWATER ANALYTICAL RESULTS							
	Vinyl Chloride	cis 1,2-Dichloroethene	Benzene	Trichloroethene	Chlorobenzene	MtBE	Total Metabolic Acid	Toc
Groundwater Standards	2	5	1	5	5	10		
TRENCH								
12/20/2001	75	310	4.0	1,100	20	10	not analyzed	not analyzed
5/20/2003	31	180	0.8	160	25	1.0	not analyzed	not analyzed
6/10/2004	19	62	<10	61	4.0	<10	not analyzed	not analyzed
7/24/2004	not analyzed	not analyzed	0.8	95	2.8	<1.0	not analyzed	not analyzed
9/15/2004	17	76	<5.0	63	<5.0	<10	not analyzed	14
10/18/2004	not analyzed	not analyzed	<1.0	70	2.4	<1.0	not analyzed	not analyzed
11/24/2004	24	103	<5.0	82	<5.0	<10	<10	not analyzed
12/22/2004	22	55	<5.0	47	<5.0	<10	not analyzed	not analyzed
1/17/2005				not sampled				
4/5/2005				not sampled				
10/27/2005	19	34	<5.0	23	<5.0	not analyzed	not analyzed	not analyzed
4/3/2006	14	42	<5.0	24	9.2	not analyzed	<10	not analyzed
10/12/2006	19	80	<5.0	47	<5.0	not analyzed	not analyzed	not analyzed
4/23/2007	<10	25	<5.0	13	<5.0	not analyzed	not analyzed	not analyzed
10/4/2007	31	43	<5.0	30	<5.0	not analyzed	not analyzed	not analyzed
4/3/2008	<10	19	<5.0	9.2	<5.0	not analyzed	not analyzed	not analyzed
10/10/2008				not sampled				
4/29/2009	<10	19	<5.0	16	5.1	not analyzed	not analyzed	not analyzed
10/13/2009	13	14	<5.0	14	11	not analyzed	not analyzed	not analyzed
4/9/2010	<10	16	<5.0	6.4	<5.0	not analyzed	not analyzed	not analyzed
10/14/2010	<10	5.7	<5.0	17	<5.0	not analyzed	not analyzed	not analyzed
4/27/2011	<10	5.2	<5.0	5.4	<5.0	not analyzed	not analyzed	not analyzed
10/26/2011	8.5	5.3	<3.0	6.4	3.2	not analyzed	not analyzed	not analyzed
4/20/2012	<5.0	3.6	<5.0	14	<5.0	not analyzed	not analyzed	not analyzed
10/26/2012				not sample				
4/26/2013	<5.0	3.2 J	<5.0	10	<5.0	not analyzed	not analyzed	not analyzed
10/8/2013	<5.0	5.8 J	<5.0	26	<5.0	not analyzed	not analyzed	not analyzed
4/8/2014	<5.0	<10	<5.0	4.8 J	<5.0	not analyzed	not analyzed	not analyzed
10/6/2014	<5.0	<10	<5.0	2.6 J	<5.0	not analyzed	not analyzed	not analyzed
4/30/2015	<5.0	3.5 J	<5.0	4.6 J	<5.0	not analyzed	not analyzed	not analyzed
10/14/2015	<5.0	4.2 J	<5.0	15	<5.0	not analyzed	not analyzed	not analyzed
4/13/2016	1.0 J	3.2 J	<5.0	4.5 J	<5.0	not analyzed	not analyzed	not analyzed
10/20/2016	1.5 J	1.7 J	<5.0	6.8	7.5	not analyzed	not analyzed	not analyzed
4/12/2017	<5.0	<10	<5.0	1.7 J	<5.0	not analyzed	not analyzed	not analyzed
10/10/2017	<5.0	6.5 J	<5.0	11	0.58 J	not analyzed	not analyzed	not analyzed
DISCHARGE								
12/20/2001	71	300	4.0	900	21	10	not analyzed	not analyzed
5/20/2003				not sampled				
6/10/2004				not sampled				
7/24/2004				not sampled				
10/18/2004				not sampled				
11/24/2004				not sampled				
12/22/2004	6.8	41	<5.0	50	<5.0	<10	not analyzed	9.3
1/17/2005	not analyzed	not analyzed	not analyzed	not analyzed	not analyzed	not analyzed	<10	not analyzed
4/5/2005	not analyzed	not analyzed	not analyzed	not analyzed	not analyzed	not analyzed	<10	not analyzed
8/18/2005	not analyzed	not analyzed	<0.5	38	1.1	<2.0	not analyzed	not analyzed
10/27/2005				not sampled				
4/3/2006				not sampled				
10/12/2006	21	63	<5.0	33	<5.0	not analyzed	not analyzed	not analyzed
4/23/2007	<10	25	<5.0	13	<5.0	not analyzed	not analyzed	not analyzed
10/4/2007	22	36	<5.0	25	<5.0	not analyzed	not analyzed	not analyzed
4/3/2008	<10	20	<5.0	9.1	<5.0	not analyzed	not analyzed	not analyzed
10/10/2008				not sampled				
4/29/2009	<10	19	<5.0	16	<5.0	not analyzed	not analyzed	not analyzed
10/13/2009	<10	13	<5.0	18	8.7	not analyzed	not analyzed	not analyzed
4/9/2010	<10	16	<5.0	6.9	<5.0	not analyzed	not analyzed	not analyzed
10/14/2010	12	9.5	<5.0	12	<5.0	not analyzed	not analyzed	not analyzed
4/27/2011	<10	5.2	<5.0	5.6	<5.0	not analyzed	not analyzed	not analyzed
10/26/2011	8.2	5.3	<3.0	6.8	3.2	not analyzed	not analyzed	not analyzed
4/20/2012	2.5	6.4	<5.0	7.3	<5.0	not analyzed	not analyzed	not analyzed
10/26/2012				not sample				
4/26/2013	2.8 J	5.1 J	<5.0	6.3	<5.0	not analyzed	not analyzed	not analyzed
10/8/2013	2.8 J	6.9 J	<5.0	12	<5.0	not analyzed	not analyzed	not analyzed
4/8/2014	1.3 J	3.7 J	<5.0	4.9 J	<5.0	not analyzed	not analyzed	not analyzed
10/6/2014	1.2 J	<5.0	<5.0	3.9 J	3.9 J	not analyzed	not analyzed	not analyzed
4/30/2015	0.8 J	3.2 J	<5.0	5.6	<5.0	not analyzed	not analyzed	not analyzed
10/14/2015	1.4 J	4.9 J	<5.0	8.4	<5.0	not analyzed	not analyzed	not analyzed
4/13/2016	0.76 J	3.6 J	<5.0	4.1 J	<5.0	not analyzed	not analyzed	not analyzed

TABLE 3

GROUNDWATER ANALYTICAL DATA - VOLATILE ORGANIC COMPOUNDS

Former Philmar Electronics Site

Mason Street, Morrisonville, Clinton County, New York

NYSDEC Site ID #510008

WELL ID/DATE	GROUNDWATER ANALYTICAL RESULTS							
	Vinyl Chloride	cis 1,2-Dichloroethene	Benzene	Trichloroethene	Chlorobenzene	MtBE	Total Metabolic Acid	Toc
DISCHARGE (Continued)								
<u>10/20/2016</u>	<5.0	<10	<5.0	7.5	<5.0	not analyzed	not analyzed	not analyzed
<u>4/12/2017</u>	<5.0	<10	<5.0	3.3 J	<5.0	not analyzed	not analyzed	not analyzed
<u>10/10/2017</u>	samples broken on arrival at laboratory							
MW-3								
<u>10/10/2017</u>	<5.0	<10	<5.0	1.9 J	<5.0	not analyzed	not analyzed	not analyzed
MW-6								
<u>12/20/2001</u>				not sampled				
<u>5/20/2003</u>				not sampled				
<u>6/10/2004</u>	<10	<10	<10	<10	<10	<10	not analyzed	not analyzed
<u>7/24/2004</u>				not sampled				
<u>9/15/2004</u>	not analyzed	not analyzed	not analyzed	not analyzed	not analyzed	not analyzed	not analyzed	15
<u>10/18/2004</u>				not sampled				
<u>11/24/2004</u>	<5.0	26	<5.0	22	<5.0	<10	<10	not analyzed
<u>12/22/2004</u>				not sampled				
<u>1/17/2005</u>				not sampled				
<u>4/5/2005</u>				not sampled				
<u>10/27/2005</u>	<10	<5.0	<5.0	<5.0	<5.0	not analyzed	not analyzed	not analyzed
<u>4/3/2006</u>	<10	<5.0	<5.0	<5.0	<5.0	not analyzed	not analyzed	not analyzed
<u>10/12/2006</u>	<10	13	<5.0	<5.0	<5.0	not analyzed	not analyzed	not analyzed
<u>4/23/2007</u>	<10	<5.0	<5.0	<5.0	<5.0	not analyzed	not analyzed	not analyzed
<u>10/4/2007</u>	<10	12	<5.0	<5.0	<5.0	not analyzed	not analyzed	not analyzed
<u>4/3/2008</u>	<10	<5.0	<5.0	<5.0	<5.0	not analyzed	not analyzed	not analyzed
<u>10/10/2008</u>	<10	5.6	<5.0	<5.0	<5.0	not analyzed	not analyzed	not analyzed
<u>4/29/2009</u>	<10	<5.0	<5.0	<5.0	<5.0	not analyzed	not analyzed	not analyzed
<u>10/13/2009</u>	<10	5.3	<5.0	8.0	<5.0	not analyzed	not analyzed	not analyzed
<u>4/9/2010</u>	<10	<5.0	<5.0	<5.0	<5.0	not analyzed	not analyzed	not analyzed
<u>10/14/2010</u>	<10	<5.0	<5.0	<5.0	<5.0	not analyzed	not analyzed	not analyzed
<u>4/27/2011</u>	<10	<5.0	<5.0	<5.0	<5.0	not analyzed	not analyzed	not analyzed
<u>10/26/2011</u>	<2.0	<3.0	<3.0	<3.0	<3.0	not analyzed	not analyzed	not analyzed
<u>4/20/2012</u>	<5.0	<10	<5.0	<5.0	<5.0	not analyzed	not analyzed	not analyzed
<u>10/26/2012</u>	<5.0	<5.0	<5.0	2.0	<5.0	not analyzed	not analyzed	not analyzed
<u>4/26/2013</u>	<5.0	<5.0	<5.0	<5.0	<5.0	not analyzed	not analyzed	not analyzed
<u>10/8/2013</u>	<5.0	3.4 J	<5.0	1.5 J	<5.0	not analyzed	not analyzed	not analyzed
<u>4/8/2014</u>	<5.0	<10	<5.0	<5.0	<5.0	not analyzed	not analyzed	not analyzed
<u>10/6/2014</u>	1.3 J	<10	<5.0	1.0 J	<5.0	not analyzed	not analyzed	not analyzed
<u>4/30/2015</u>	<5.0	<10	<5.0	<5.0	<5.0	not analyzed	not analyzed	not analyzed
<u>10/14/2015</u>	<5.0	3.8 J	<5.0	1.5 J	<5.0	not analyzed	not analyzed	not analyzed
<u>4/13/2016</u>	<5.0	<10	<5.0	<5.0	<5.0	not analyzed	not analyzed	not analyzed
<u>10/20/2016</u>	1.3 J	<10	<5.0	1.1 J	<5.0	not analyzed	not analyzed	not analyzed
<u>4/12/2017</u>	<5.0	<10	<5.0	<5.0	<5.0	not analyzed	not analyzed	not analyzed
<u>10/10/2017</u>	<5.0	<10	<5.0	2.0 J	<5.0	not analyzed	not analyzed	not analyzed
MW-7								
<u>12/20/2001</u>				not sampled				
<u>5/20/2003</u>				not sampled				
<u>6/10/2004</u>	5.0	15	<10	9.0	7.0	<10	not analyzed	not analyzed
<u>7/24/2004</u>				not sampled				
<u>9/15/2004</u>	not analyzed	not analyzed	not analyzed	not analyzed	not analyzed	not analyzed	not analyzed	14
<u>10/18/2004</u>				not sampled				
<u>11/24/2004</u>	6.7	48	<5.0	12	<5.0	<10	<10	not analyzed
<u>12/22/2004</u>	not analyzed	not analyzed	not analyzed	not analyzed	not analyzed	not analyzed	not analyzed	8.7
<u>1/17/2005</u>	not analyzed	not analyzed	not analyzed	not analyzed	not analyzed	not analyzed	<10	not analyzed
<u>4/5/2005</u>				not sampled				
<u>10/27/2005</u>	39	5.6	<5.0	<5.0	<5.0	not analyzed	not analyzed	not analyzed
<u>4/3/2006</u>	<10	26	<5.0	15	<5.0	not analyzed	<10	not analyzed
<u>10/12/2006</u>	20	<5.0	<5.0	<5.0	9.4	not analyzed	not analyzed	not analyzed
<u>4/23/2007</u>	<10	6.3	<5.0	<5.0	6.4	not analyzed	not analyzed	not analyzed
<u>10/4/2007</u>				not sampled				
<u>4/3/2008</u>	<10	5.8	<5.0	<5.0	<5.0	not analyzed	not analyzed	not analyzed
<u>10/10/2008</u>				not accessible				
<u>4/29/2009</u>	<10	7.4	<5.0	5.6	<5.0	not analyzed	not analyzed	not analyzed
<u>10/13/2009</u>	<10	5.0	<5.0	6.3	7.8	not analyzed	not analyzed	not analyzed
<u>4/9/2010</u>	<10	<5.0	<5.0	<5.0	<5.0	not analyzed	not analyzed	not analyzed
<u>10/14/2010</u>	<10	<5.0	<5.0	<5.0	<5.0	not analyzed	not analyzed	not analyzed
<u>4/27/2011</u>	<10	<5.0	<5.0	<5.0	<5.0	not analyzed	not analyzed	not analyzed
<u>10/26/2011</u>	<2.0	2.6	<3.0	2.2	<3.0	not analyzed	not analyzed	not analyzed
<u>4/20/2012</u>	<5.0	0.8	<5.0	3.9	1.7	not analyzed	not analyzed	not analyzed
<u>10/26/2012</u>	5.3	<5.0	<5.0	0.9	3.3	not analyzed	not analyzed	not analyzed
<u>4/26/2013</u>	<5.0	<10	<5.0	3.1 J	<5.0	not analyzed	not analyzed	not analyzed
<u>10/8/2013</u>	4.6 J	<10	<5.0	<5.0	1.8 J	not analyzed	not analyzed	not analyzed

TABLE 3

GROUNDWATER ANALYTICAL DATA - VOLATILE ORGANIC COMPOUNDS

Former Philmar Electronics Site

Mason Street, Morrisonville, Clinton County, New York

NYSDEC Site ID #510008

WELL ID/DATE	GROUNDWATER ANALYTICAL RESULTS							
	Vinyl Chloride	cis 1,2-Dichloroethene	Benzene	Trichloroethene	Chlorobenzene	MtBE	Total Metabolic Acid	Toc
MW-7 (Continued)								
<u>4/8/2014</u>	1.8 J	<10	<5.0	1.2 J	<5.0	not analyzed	not analyzed	not analyzed
<u>10/6/2014</u>	5.0	<10	<5.0	<5.0	2.9 J	not analyzed	not analyzed	not analyzed
<u>4/30/2015</u>	<5.0	<1.0	<5.0	1.4 J	<5.0	not analyzed	not analyzed	not analyzed
<u>10/14/2015</u>	<5.0	0.50 J	<5.0	<5.0	3.3 J	not analyzed	not analyzed	not analyzed
<u>4/13/2016</u>	<5.0	<10	<5.0	1.3 J	<5.0	not analyzed	not analyzed	not analyzed
<u>10/20/2016</u>	1.9 J	4.4 J	<5.0	<5.0	0.8 J	not analyzed	not analyzed	not analyzed
<u>4/12/2017</u>	<5.0	<10	<5.0	1.6 J	<5.0	not analyzed	not analyzed	not analyzed
<u>10/10/2017</u>	1.3 J	<10	<5.0	0.88 J	<5.0	not analyzed	not analyzed	not analyzed
MW-9								
12/20/2001				not sampled				
5/20/2003	2.0	25	1.0	5.0	1.0	1.0	not analyzed	not analyzed
6/10/2004	14	23	<10	2.0	<10	<10	not analyzed	not analyzed
7/24/2004				not sampled				
10/18/2004				not sampled				
11/24/2004				not sampled				
12/22/2004				not sampled				
1/17/2005				not sampled				
4/5/2005				not sampled				
10/27/2005	<10	<5.0	<5.0	<5.0	<5.0	not analyzed	not analyzed	not analyzed
4/3/2006	<10	<5.0	<5.0	<5.0	<5.0	not analyzed	not analyzed	not analyzed
10/12/2006	130	190	<5.0	23	<5.0	not analyzed	not analyzed	not analyzed
4/23/2007	<10	9.1	<5.0	<5.0	<5.0	not analyzed	not analyzed	not analyzed
10/4/2007	110	150	<5.0	<5.0	<5.0	not analyzed	not analyzed	not analyzed
4/3/2008				not accessible				
10/10/2008	23	63	<5.0	14	<5.0	not analyzed	not analyzed	not analyzed
4/29/2009	35	66	<5.0	7.5	<5.0	not analyzed	not analyzed	not analyzed
10/13/2009	51	100	<5.0	26	<5.0	not analyzed	not analyzed	not analyzed
4/9/2010	<10	<5.0	<5.0	<5.0	<5.0	not analyzed	not analyzed	not analyzed
10/14/2010	26	28	<5.0	<5.0	<5.0	not analyzed	not analyzed	not analyzed
4/27/2011	15	25	<5.0	<5.0	<5.0	not analyzed	not analyzed	not analyzed
10/26/2011	<2.0	5.7	<3.0	2.3	<3.0	not analyzed	not analyzed	not analyzed
<u>4/20/2012</u>	1.7	5.7	<5.0	1.2	<5.0	not analyzed	not analyzed	not analyzed
<u>10/26/2012</u>	<5.0	3.5	<5.0	1.3	<5.0	not analyzed	not analyzed	not analyzed
<u>4/26/2013</u>	<5.0	5.6 J	<5.0	3.5 J	<5.0	not analyzed	not analyzed	not analyzed
<u>10/8/2013</u>	11	25	<5.0	6.8	<5.0	not analyzed	not analyzed	not analyzed
<u>4/8/2014</u>			Monitoring Well Not Accessible - Surrounded by Surface Water					
<u>10/6/2014</u>	38	62	0.65 J	15	1.1 J	not analyzed	not analyzed	not analyzed
<u>4/30/2015</u>	<5.0	3.6 J	<5.0	2.6 J	<5.0	not analyzed	not analyzed	not analyzed
<u>10/14/2015</u>	12	32	<5.0	12	<5.0	not analyzed	not analyzed	not analyzed
<u>4/13/2016</u>	<5.0	3.9 J	<5.0	3.2 J	<5.0	not analyzed	not analyzed	not analyzed
<u>10/20/2016</u>	2.2 J	18	<5.0	3.3 J	<5.0	not analyzed	not analyzed	not analyzed
<u>4/12/2017</u>	<5.0	<10	<5.0	2.0 J	<5.0	not analyzed	not analyzed	not analyzed
<u>10/10/2017</u>	3.0 J	21	<5.0	5.5	<5.0	not analyzed	not analyzed	not analyzed
MW-10								
12/20/2001				not sampled				
5/20/2003	1.0	1.0	1.0	0.5	1.0	1.0	not analyzed	not analyzed
6/10/2004	<10	<10	<10	<10	<10	<10	not analyzed	not analyzed
7/24/2004 - 4/12/2017				not sampled				
10/10/2017	<5.0	<10	<5.0	1.0 J	<5.0	not analyzed	not analyzed	not analyzed
MW-11								
12/20/2001				not sampled				
5/20/2003				not sampled				
6/10/2004	<10	<10	<10	<10	<10	<10	not analyzed	not analyzed
7/24/2004 - 4/12/2017				not sampled				
10/10/2017				not sampled - monitoring well recorded as being dry				
DGC-6S								
12/20/2001				not sampled				
5/20/2003	30	8.0	1.0	1.0	1.0	1.0	not analyzed	not analyzed
6/10/2004				not sampled				
7/24/2004				not sampled				
10/18/2004				not sampled				
11/24/2004				not sampled				
12/22/2004				not sampled				
1/17/2005				not sampled				
4/5/2005				not sampled				
10/27/2005				not sampled				
4/3/2006	10	6.6	<5.0	<5.0	<5.0	not analyzed	not analyzed	not analyzed
10/12/2006	14	7.0	<5.0	<5.0	<5.0	not analyzed	not analyzed	not analyzed
4/23/2007	11	5.8	<5.0	<5.0	<5.0	not analyzed	not analyzed	not analyzed

TABLE 3

GROUNDWATER ANALYTICAL DATA - VOLATILE ORGANIC COMPOUNDS

Former Philmar Electronics Site

Mason Street, Morrisonville, Clinton County, New York

NYSDEC Site ID #510008

WELL ID/DATE	GROUNDWATER ANALYTICAL RESULTS							
	Vinyl Chloride	cis 1,2-Dichloroethene	Benzene	Trichloroethene	Chlorobenzene	MtBE	Total Metabolic Acid	Toc
DGC-6S (Continued)								
10/4/2007	13	7.0	<5.0	<5.0	<5.0	not analyzed	not analyzed	not analyzed
4/3/2008	<10	<5.0	<5.0	<5.0	<5.0	not analyzed	not analyzed	not analyzed
10/10/2008	<10	<5.0	<5.0	<5.0	<5.0	not analyzed	not analyzed	not analyzed
4/29/2009	<10	6.7	<5.0	<5.0	<5.0	not analyzed	not analyzed	not analyzed
10/13/2009	<10	<5.0	<5.0	<5.0	<5.0	not analyzed	not analyzed	not analyzed
4/9/2010	<10	<5.0	<5.0	<5.0	<5.0	not analyzed	not analyzed	not analyzed
10/14/2010	<10	<5.0	<5.0	<5.0	<5.0	not analyzed	not analyzed	not analyzed
4/27/2011	<10	<5.0	<5.0	<5.0	<5.0	not analyzed	not analyzed	not analyzed
10/26/2011	<2.0	<3.0	<3.0	<3.0	<3.0	not analyzed	not analyzed	not analyzed
4/20/2012	<5.0	<10	<5.0	<5.0	<5.0	not analyzed	not analyzed	not analyzed
10/26/2012	3.3	<5.0	<5.0	<5.0	<5.0	not analyzed	not analyzed	not analyzed
4/26/2013	<5.0	<10	<5.0	<5.0	<5.0	not analyzed	not analyzed	not analyzed
10/8/2013	<5.0	<10	<5.0	<5.0	<5.0	not analyzed	not analyzed	not analyzed
4/8/2014	3.0 J	<10	<5.0	<5.0	<5.0	not analyzed	not analyzed	not analyzed
10/6/2014	2.5 J	<10	<5.0	<5.0	<5.0	not analyzed	not analyzed	not analyzed
4/30/2015	1.0 J	<10	<5.0	<5.0	<5.0	not analyzed	not analyzed	not analyzed
10/14/2015	1.3 J	<10	<5.0	<5.0	<5.0	not analyzed	not analyzed	not analyzed
4/13/2016	<5.0	<10	<5.0	<5.0	<5.0	not analyzed	not analyzed	not analyzed
10/20/2016	1.1 J	<10	<5.0	<5.0	<5.0	not analyzed	not analyzed	not analyzed
4/12/2017	<5.0	<10	<5.0	<5.0	<5.0	not analyzed	not analyzed	not analyzed
10/10/2017	<5.0	<10	<5.0	<5.0	<5.0	not analyzed	not analyzed	not analyzed
DGC-6I								
12/20/2001	not sampled							
5/20/2003	1.0	1.0	1.0	1.0	1.0	not analyzed	not analyzed	not analyzed
7/24/2004 - 4/12/2017	not sampled							
DGC-7S								
12/20/2001	not sampled							
5/20/2003	9.0	13	1.0	0.6	4.0	5.0	not analyzed	not analyzed
6/10/2004	6.0	6.0	<10	<10	4.0	2.0	not analyzed	not analyzed
7/24/2004	not sampled							
10/18/2004	not sampled							
11/24/2004	not sampled							
12/22/2004	not sampled							
1/17/2005	not sampled							
4/5/2005	not sampled							
10/27/2005	<10	8.2	<5.0	<5.0	5.8	not analyzed	not analyzed	not analyzed
4/3/2006	<10	6.5	<5.0	<5.0	<5.0	not analyzed	not analyzed	not analyzed
10/12/2006	<10	21	<5.0	<5.0	8.8	not analyzed	not analyzed	not analyzed
4/23/2007	<10	<5.0	<5.0	<5.0	<5.0	not analyzed	not analyzed	not analyzed
10/4/2007	<1.0	9.7	<5.0	<5.0	8.4	not analyzed	not analyzed	not analyzed
4/3/2008	<10	<5.0	<5.0	<5.0	<5.0	not analyzed	not analyzed	not analyzed
10/10/2008	<10	<5.0	<5.0	<5.0	7.1	not analyzed	not analyzed	not analyzed
4/29/2009	<10	<5.0	<5.0	<5.0	7.0	not analyzed	not analyzed	not analyzed
10/13/2009	<10	<5.0	<5.0	<5.0	<5.0	not analyzed	not analyzed	not analyzed
4/9/2010	<10	<5.0	<5.0	<5.0	<5.0	not analyzed	not analyzed	not analyzed
10/14/2010	<10	<5.0	<5.0	<5.0	5.4	not analyzed	not analyzed	not analyzed
4/27/2011	<10	<5.0	<5.0	<5.0	<5.0	not analyzed	not analyzed	not analyzed
10/26/2011	<2.0	<3.0	<3.0	<3.0	<3.0	not analyzed	not analyzed	not analyzed
4/20/2012	<5.0	<10	<5.0	<5.0	2.4	not analyzed	not analyzed	not analyzed
10/26/2012	<5.0	<10	<5.0	<5.0	2.5	not analyzed	not analyzed	not analyzed
4/26/2013	<5.0	<10	<5.0	<5.0	<5.0	not analyzed	not analyzed	not analyzed
10/8/2013	<5.0	<10	<5.0	<5.0	3.0 J	not analyzed	not analyzed	not analyzed
4/8/2014	0.95 J	<1.0	<5.0	<5.0	3.3 J	not analyzed	not analyzed	not analyzed
10/6/2014	<5.0	<10	<5.0	<5.0	5.4	not analyzed	not analyzed	not analyzed
4/30/2015	1.6 J	<10	<5.0	<5.0	2.0 J	not analyzed	not analyzed	not analyzed
10/14/2015	2.7 J	<10	<5.0	<5.0	1.3 J	not analyzed	not analyzed	not analyzed
4/13/2016	2.0 J	<10	<5.0	<5.0	1.0 J	not analyzed	not analyzed	not analyzed
10/20/2016	9.4	<10	0.6 J	0.6 J	6.5	not analyzed	not analyzed	not analyzed
4/12/2017	3.6 J	<10	<5.0	<5.0	1.9 J	not analyzed	not analyzed	not analyzed
10/10/2017	0.97 J	<10	<5.0	<5.0	3.1 J	not analyzed	not analyzed	not analyzed
DGC-8S								
12/20/2001	not sampled							
5/20/2003	4.0	10	1.0	18	1.0	5.0	not analyzed	not analyzed
6/10/2004	4.0	8.0	<10	18	<10	6.0	not analyzed	not analyzed
7/24/2004	not sampled							
9/14/2004	not analyzed	not analyzed	not analyzed	not analyzed	not analyzed	not analyzed	not analyzed	5.2
10/18/2004	not sampled							
11/24/2004	<5.0	<5.0	<5.0	22	<5.0	6.8	<10	not analyzed
12/22/2004	not sampled							

TABLE 3

GROUNDWATER ANALYTICAL DATA - VOLATILE ORGANIC COMPOUNDS

Former Philmar Electronics Site

Mason Street, Morrisonville, Clinton County, New York

NYSDEC Site ID #510008

WELL ID/DATE	GROUNDWATER ANALYTICAL RESULTS							
	Vinyl Chloride	cis 1,2-Dichloroethene	Benzene	Trichloroethene	Chlorobenzene	MtBE	Total Metabolic Acid	Toc
DGC-8S (Continued)								
1/17/2005	not sampled							
4/5/2005	not sampled							
10/27/2005	10	17	<5.0	27	<5.0	not analyzed	not analyzed	not analyzed
4/3/2006	<10	10	<5.0	20	<5.0	not analyzed	not analyzed	not analyzed
10/12/2006	<10	12	<5.0	38	<5.0	not analyzed	not analyzed	not analyzed
4/23/2007	<10	10	<5.0	16	<5.0	not analyzed	not analyzed	not analyzed
10/4/2007	<10	11	<5.0	11	<5.0	not analyzed	not analyzed	not analyzed
4/3/2008	<10	8.0	<5.0	16	<5.0	not analyzed	not analyzed	not analyzed
10/10/2008	<10	10	<5.0	20	<5.0	not analyzed	not analyzed	not analyzed
4/29/2009	<10	22	<5.0	15	<5.0	not analyzed	not analyzed	not analyzed
10/13/2009	<10	6.8	<5.0	20	<5.0	not analyzed	not analyzed	not analyzed
4/9/2010	<10	11	<5.0	14	<5.0	not analyzed	not analyzed	not analyzed
10/14/2010	10	19	<5.0	7.3	<5.0	not analyzed	not analyzed	not analyzed
4/27/2011	<10	17	<5.0	6.8	<5.0	not analyzed	not analyzed	not analyzed
10/26/2011	<2.0	4.5	<3.0	4.9	<3.0	not analyzed	not analyzed	not analyzed
4/20/2012	1.4	9.8	<5.0	13	<5.0	not analyzed	not analyzed	not analyzed
10/26/2012	5.5	12	<5.0	10	<5.0	not analyzed	not analyzed	not analyzed
4/26/2013	2.8 J	11	<5.0	9.4	<5.0	not analyzed	not analyzed	not analyzed
10/8/2013	4.3 J	17	<5.0	15	<5.0	not analyzed	not analyzed	not analyzed
4/8/2014	1.9 J	13	<5.0	9.0	<5.0	not analyzed	not analyzed	not analyzed
10/6/2014	<5.0	<10	<5.0	<5.0	<5.0	not analyzed	not analyzed	not analyzed
4/30/2015	1.8 J	13	<5.0	8.0	<5.0	not analyzed	not analyzed	not analyzed
10/14/2015	2.9 J	15	<5.0	6.3	<5.0	not analyzed	not analyzed	not analyzed
4/13/2016	1.2 J	12	<5.0	7.8	<5.0	not analyzed	not analyzed	not analyzed
10/20/2016	3.6 J	18	<5.0	3.2 J	<5.0	not analyzed	not analyzed	not analyzed
4/12/2017	1.9 J	14	<5.0	7.1	<5.0	not analyzed	not analyzed	not analyzed
10/10/2017	2.0 J	18	<5.0	8.3	<5.0	not analyzed	not analyzed	not analyzed
DGC-11S								
10/10/2017	<5.0	<10	<5.0	<5.0	<5.0	not analyzed	not analyzed	not analyzed
DGC-12								
10/10/2017	<5.0	<10	<5.0	<5.0	<5.0	not analyzed	not analyzed	not analyzed
DGC-21								
10/10/2017	<5.0	<10	<5.0	<5.0	<5.0	not analyzed	not analyzed	not analyzed
All values reported in parts per billion (ug/L)			Volatile Organic Compounds analyzed by USEPA Method 624					
TOC = Total Organic Carbon			TOC analyzed by EPA Method 415.1					
MtBE = Methyl Tertiary Butyl Ether			Metabolic Acids include Acetic Acid, Butyric Acid, Lactic Acid, Propionic Acid and Pyruvic Acid					
Bold values exceed NYSDEC groundwater standards			Underlined = Cis-1,2-Dichloroethene result reflects "1,2-Dichloroethene, Total"					
J = Result is less than the RL but greater than or equal to the MDL and the concentration is an approximated value								

GROUNDWATER ANALYTICAL DATA - EMERGENT CONTAMINANTS
Former Philmar Electronics Site
Mason Street, Morrisonville, Clinton County, New York
NYSDEC Site ID #510008

Notes:

1,4-Dioxane results are in parts per billion (µg/l)

Perfluorinated Compounds (PFCs) results are in parts per trillion (ng/l)

J = Result is less than the reporting limit (RL) but greater than or equal to the MDL and the concentration is an approximate value

B = Compound was found in the blank and sample

- = No groundwater standard currently available

* = NYSDEC Protection of Groundwater Cleanup Objective (6 NYCRR Part 375-6.8[b])

Bold Values exceed the NYSDEC groundwater standard

TABLE 5

SUMMARY OF GROUNDWATER FIELD MEASUREMENTS

Former Philmar Electronics Site
Mason Street, Morrisonville, Clinton County, New York
NYSDEC Site ID #510008

WELL ID/DATE	WATER QUALITY PARAMETER				
	Temp	S.C.	DO	PH	ORP
MW-6					
4/27/11	38.99	314	2.02	7.03	-211.00
10/26/11	54.45	684	0.43	7.03	-113.40
04/20/12	54.14	680	*	7.03	-110.2
10/26/12	54.50	1,523	3.72	6.92	31.3
04/26/13	42.50	423	1.47	7.69	-5.1
10/08/13	54.57	1,087	3.80	6.74	-122.8
04/08/14	NM	NM	NM	NM	NM
10/06/14	56.21	540	5.60	3.34	-201.8
04/30/15	38.64	722	1.47	7.01	44.7
10/14/15	55.23	1,135	1.08	6.92	-82.1
04/13/16	37.81	581	0.56	7.10	-28.2
04/12/17	38.08	606	3.49	7.89	72.1
10/10/17	55.96	1,174	1.91	8.25	-90.1
MW-7					
4/27/11	40.39	377	1.51	6.98	-8.3
10/26/11	54.48	752	3.47	7.05	-82.5
04/20/12	54.23	745	*	7.00	-82.1
10/26/12	52.86	843	0.93	6.56	-41.6
04/26/13	42.18	411	5.76	7.53	-35.4
10/08/13	55.67	739	1.58	6.97	-35.7
04/08/14	NM	NM	NM	NM	NM
10/06/14	53.65	430	4.87	3.47	-152.7
04/30/15	38.07	803	1.42	3.67	623.7
10/14/15	53.83	807	0.31	6.88	-61.5
04/13/16	39.74	657	2.92	7.26	2.9
04/12/17	40.10	861	2.81	7.85	30.4
10/10/17	54.39	826	0.60	7.86	-65.9
MW-9					
4/27/11	40.88	271	0.66	7.24	41.1
10/26/11	54.27	498	0.86	7.28	52.1
04/20/12	54.21	495	*	7.50	49.2
10/26/12	53.82	552	5.40	6.50	71.1
04/26/13	43.69	244	3.72	7.92	-20.3
10/08/13	57.13	535	4.60	7.02	55.3
04/08/14	NM	NM	NM	NM	NM
10/06/14	58.19	410	4.59	6.95	-273.2
04/30/15	42.01	470	2.46	2.31	668.4
10/14/15	56.68	693	2.05	7.16	-76.4
04/13/16	39.79	219	5.44	7.52	221.6
04/12/17	45.07	274	6.00	7.94	76.7
10/10/17	57.60	626	0.57	7.51	-48.2
DGC-6S					
4/27/11	39.92	415	0.70	7.32	58.3
10/26/11	52.99	627	7.72	7.60	50.9
04/20/12	53.01	625	*	7.40	48.1
10/26/12	53.24	769	1.58	6.95	5.8
04/26/13	41.60	471	1.22	7.89	-9.1
10/08/13	54.45	748	*	7.36	94.4
04/08/14	NM	NM	NM	NM	NM
10/06/14	55.83	360	7.07	5.58	-246.3
04/30/15	39.87	836	7.20	5.43	546.7
10/14/15	54.28	726	0.98	7.29	38.7
04/13/16	37.47	830	1.16	7.36	237.9

TABLE 5

SUMMARY OF GROUNDWATER FIELD MEASUREMENTS

Former Philmar Electronics Site
Mason Street, Morrisonville, Clinton County, New York
NYSDEC Site ID #510008

WELL ID/DATE	WATER QUALITY PARAMETER				
	Temp	S.C.	DO	PH	ORP
DGC-6S (Continued)					
04/12/17	41.79	989	4.04	8.01	82.9
10/10/17	53.80	857	7.97	7.28	22.8
DGC-7S					
4/27/11	NM	NM	NM	NM	NM
10/26/11	52.63	673	4.08	6.96	197.6
04/20/12	52.61	670	*	7.00	185.8
10/26/12	56.26	872	5.50	6.71	67.0
04/26/13	NM	NM	NM	NM	NM
10/08/13	NM	NM	NM	NM	NM
04/08/14	NM	NM	NM	NM	NM
10/06/14	55.53	380	7.63	7.89	-313.2
04/30/15	39.00	1,308	1.73	6.79	92.4
10/14/15	55.56	1,054	0.73	6.82	-1.2
04/13/16	36.55	1,206	0.75	6.84	242.3
04/12/17	35.02	1,307	5.11	7.98	185.8
10/10/17	55.87	1,047	4.22	6.65	69.4
DGC-8S					
4/27/11	40.01	506	1.01	7.15	-41.1
10/26/11	53.56	761	3.98	7.49	-21.9
04/20/12	52.79	755	*	7.31	-22.1
10/26/12	53.83	911	0.74	6.22	-24.5
04/26/13	42.28	539	2.67	7.83	-34.5
10/08/13	55.26	893	2.03	6.93	-1.6
04/08/14	NM	NM	NM	NM	NM
10/06/14	55.06	380	10.83	5.37	-252.7
04/30/15	39.96	917	1.60	7.00	41.5
10/14/15	54.10	869	0.62	8.69	-21.2
04/13/16	38.44	846	2.66	7.29	63.5
04/12/17	38.82	1,049	3.19	7.90	29.2
10/10/17	55.15	952	1.47	7.02	-24.1
Notes: Measurements obtained with YSI Model 556 multiprobe system meter. D.O. = Dissolved Oxygen in milligrams per Liter (mg/L or parts per million [ppm]) ORP = Oxygen-Reduction Potential in millivolts (mV) S.C. = Specific Conductance in microseimens per centimeter (uS/cm) Temp. = Groundwater Temperature in Degrees Fahrenheit pH measured in standard units NM = Not Measured * probe sensor malfunctioned during use					

ANALYTICAL REPORT

Job Number: 480-125692-1

Job Description: Philmar Electronics #510008

Contract Number: C008010

For:

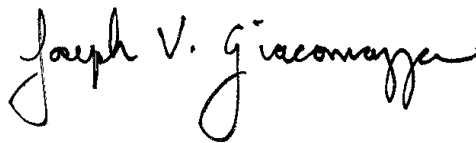
New York State D.E.C.

1115 Route 86

PO BOX 296

Ray Brook, NY 12977

Attention: Samantha Salotto



Approved for release.
Joe V Giacomazza
Project Management Assistant II
10/24/2017 2:48 PM

Designee for

Judy L Stone, Senior Project Manager

10 Hazelwood Drive, Amherst, NY, 14228-2298

(484)685-0868

judy.stone@testamericainc.com

10/24/2017

cc: Randy Hoose
Mr. Aaron Yecies

The test results in this report meet all NELAP requirements for analytes for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this test report should be directed to the TestAmerica Project Manager who has signed this report. TestAmerica Buffalo NELAC Certifications: CADPH 01169CA, FLDOH E87672, ILEPA 200003, KSDOH E-10187, LADEQ 30708, MDH 036-999-337, NHELAP 2973, NJDEP NY455, NHDOH 10026, ORELAP NY200003, PADEP 68-00281, TXCEQ T-104704412-10-1

TestAmerica Laboratories, Inc.

TestAmerica Buffalo 10 Hazelwood Drive, Amherst, NY 14228-2298

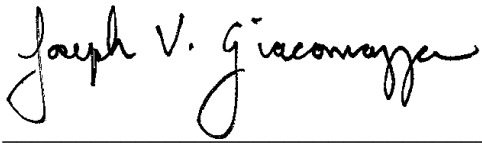
Tel (716) 691-2600 Fax (716) 691-7991 www.testamericainc.com



Job Number: 480-125692-1

Job Description: Philmar Electronics #510008

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

A handwritten signature in black ink that reads "Joseph V. Giacomazza". The signature is written in a cursive style with a horizontal line underneath it.

Approved for release.
Joe V Giacomazza
Project Management Assistant II
10/24/2017 2:48 PM

Designee for
Judy L Stone

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Definitions/Glossary

Client: New York State D.E.C.
Project/Site: Philmar Electronics #510008

TestAmerica Job ID: 480-125692-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job Narrative
480-125692-1

Comments

No additional comments.

Receipt

The samples were received on 10/12/2017 1:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.2° C.

Receipt Exceptions

Buffalo received one broken vial from sample point MW-3 and 3 broken vials from sample point RECIRCULATION TANK.

GC/MS VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC/MS Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

LCMS

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

Method(s) 3535: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 320-189663.

3535_PFC, waters

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Sample Summary

Client: New York State D.E.C.
Project/Site: Philmar Electronics #510008

TestAmerica Job ID: 480-125692-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-125692-1	MW-3	Water	10/10/17 12:10	10/12/17 01:45
480-125692-2	MW-6	Water	10/10/17 12:15	10/12/17 01:45
480-125692-3	MW-7	Water	10/10/17 12:25	10/12/17 01:45
480-125692-4	MW-9	Water	10/10/17 12:35	10/12/17 01:45
480-125692-5	MW-10	Water	10/10/17 12:40	10/12/17 01:45
480-125692-6	DGC-6S	Water	10/10/17 12:55	10/12/17 01:45
480-125692-7	DGC-7S	Water	10/10/17 13:10	10/12/17 01:45
480-125692-8	DGC-8S	Water	10/10/17 13:15	10/12/17 01:45
480-125692-9	DGC-11S	Water	10/10/17 13:20	10/12/17 01:45
480-125692-10	DGC-12	Water	10/10/17 13:30	10/12/17 01:45
480-125692-11	DGC-21	Water	10/10/17 13:40	10/12/17 01:45
480-125692-12	PUMP CULVERT (TRENCH)	Water	10/10/17 13:45	10/12/17 01:45

Detection Summary

Client: New York State D.E.C.
Project/Site: Philmar Electronics #510008

TestAmerica Job ID: 480-125692-1

Client Sample ID: MW-3

Lab Sample ID: 480-125692-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	1.9	J	5.0	0.60	ug/L	1		624	Total/NA

Client Sample ID: MW-6

Lab Sample ID: 480-125692-2

Sample Analysis Not Complete.

Client Sample ID: MW-7

Lab Sample ID: 480-125692-3

Sample Analysis Not Complete.

Client Sample ID: MW-9

Lab Sample ID: 480-125692-4

Sample Analysis Not Complete.

Client Sample ID: MW-10

Lab Sample ID: 480-125692-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	1.0	J	5.0	0.60	ug/L	1		624	Total/NA

Client Sample ID: DGC-6S

Lab Sample ID: 480-125692-6

Sample Analysis Not Complete.

Client Sample ID: DGC-7S

Lab Sample ID: 480-125692-7

Sample Analysis Not Complete.

Client Sample ID: DGC-8S

Lab Sample ID: 480-125692-8

Sample Analysis Not Complete.

Client Sample ID: DGC-11S

Lab Sample ID: 480-125692-9

No Detections.

Client Sample ID: DGC-12

Lab Sample ID: 480-125692-10

No Detections.

Client Sample ID: DGC-21

Lab Sample ID: 480-125692-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.47	J	5.0	0.39	ug/L	1		624	Total/NA
1,1-Dichloroethane	0.83	J	5.0	0.59	ug/L	1		624	Total/NA

Client Sample ID: PUMP CULVERT (TRENCH)

Lab Sample ID: 480-125692-12

Sample Analysis Not Complete.

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Philmar Electronics #510008

TestAmerica Job ID: 480-125692-1

Client Sample ID: MW-3
Date Collected: 10/10/17 12:10
Date Received: 10/12/17 01:45

Lab Sample ID: 480-125692-1
Matrix: Water

Method: 624 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			10/12/17 22:08	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			10/12/17 22:08	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			10/12/17 22:08	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			10/12/17 22:08	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			10/12/17 22:08	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			10/12/17 22:08	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			10/12/17 22:08	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			10/12/17 22:08	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			10/12/17 22:08	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			10/12/17 22:08	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			10/12/17 22:08	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			10/12/17 22:08	1
Acrolein	ND		100	17	ug/L			10/12/17 22:08	1
Acrylonitrile	ND		50	1.9	ug/L			10/12/17 22:08	1
Benzene	ND		5.0	0.60	ug/L			10/12/17 22:08	1
Bromoform	ND		5.0	0.47	ug/L			10/12/17 22:08	1
Bromomethane	ND		5.0	1.2	ug/L			10/12/17 22:08	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			10/12/17 22:08	1
Chlorobenzene	ND		5.0	0.48	ug/L			10/12/17 22:08	1
Chlorodibromomethane	ND		5.0	0.41	ug/L			10/12/17 22:08	1
Chloroethane	ND		5.0	0.87	ug/L			10/12/17 22:08	1
Chloroform	ND		5.0	0.54	ug/L			10/12/17 22:08	1
Chloromethane	ND		5.0	0.64	ug/L			10/12/17 22:08	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			10/12/17 22:08	1
Dichlorobromomethane	ND		5.0	0.54	ug/L			10/12/17 22:08	1
Ethylbenzene	ND		5.0	0.46	ug/L			10/12/17 22:08	1
Methylene Chloride	ND		5.0	0.81	ug/L			10/12/17 22:08	1
Tetrachloroethene	ND		5.0	0.34	ug/L			10/12/17 22:08	1
Toluene	ND		5.0	0.45	ug/L			10/12/17 22:08	1
trans-1,2-Dichloroethene	ND		5.0	0.59	ug/L			10/12/17 22:08	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			10/12/17 22:08	1
Trichloroethene	1.9	J	5.0	0.60	ug/L			10/12/17 22:08	1
Vinyl chloride	ND		5.0	0.75	ug/L			10/12/17 22:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		68 - 130		10/12/17 22:08	1
4-Bromofluorobenzene (Surr)	99		76 - 123		10/12/17 22:08	1
Toluene-d8 (Surr)	97		77 - 120		10/12/17 22:08	1

Client Sample ID: MW-6
Date Collected: 10/10/17 12:15
Date Received: 10/12/17 01:45

Lab Sample ID: 480-125692-2
Matrix: Water

Method: 624 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			10/12/17 17:48	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			10/12/17 17:48	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			10/12/17 17:48	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			10/12/17 17:48	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			10/12/17 17:48	1

TestAmerica Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Philmar Electronics #510008

TestAmerica Job ID: 480-125692-1

Client Sample ID: MW-6
Date Collected: 10/10/17 12:15
Date Received: 10/12/17 01:45

Lab Sample ID: 480-125692-2
Matrix: Water

Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			10/12/17 17:48	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			10/12/17 17:48	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			10/12/17 17:48	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			10/12/17 17:48	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			10/12/17 17:48	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			10/12/17 17:48	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			10/12/17 17:48	1
Acrolein	ND		100	17	ug/L			10/12/17 17:48	1
Acrylonitrile	ND		50	1.9	ug/L			10/12/17 17:48	1
Benzene	ND		5.0	0.60	ug/L			10/12/17 17:48	1
Bromoform	ND		5.0	0.47	ug/L			10/12/17 17:48	1
Bromomethane	ND		5.0	1.2	ug/L			10/12/17 17:48	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			10/12/17 17:48	1
Chlorobenzene	ND		5.0	0.48	ug/L			10/12/17 17:48	1
Chlorodibromomethane	ND		5.0	0.41	ug/L			10/12/17 17:48	1
Chloroethane	ND		5.0	0.87	ug/L			10/12/17 17:48	1
Chloroform	ND		5.0	0.54	ug/L			10/12/17 17:48	1
Chloromethane	ND		5.0	0.64	ug/L			10/12/17 17:48	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			10/12/17 17:48	1
Dichlorobromomethane	ND		5.0	0.54	ug/L			10/12/17 17:48	1
Ethylbenzene	ND		5.0	0.46	ug/L			10/12/17 17:48	1
Methylene Chloride	ND		5.0	0.81	ug/L			10/12/17 17:48	1
Tetrachloroethene	ND		5.0	0.34	ug/L			10/12/17 17:48	1
Toluene	ND		5.0	0.45	ug/L			10/12/17 17:48	1
trans-1,2-Dichloroethene	ND		5.0	0.59	ug/L			10/12/17 17:48	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			10/12/17 17:48	1
Trichloroethene	2.0	J	5.0	0.60	ug/L			10/12/17 17:48	1
Vinyl chloride	ND		5.0	0.75	ug/L			10/12/17 17:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		68 - 130					10/12/17 17:48	1
4-Bromofluorobenzene (Surr)	100		76 - 123					10/12/17 17:48	1
Toluene-d8 (Surr)	96		77 - 120					10/12/17 17:48	1

Client Sample ID: MW-7
Date Collected: 10/10/17 12:25
Date Received: 10/12/17 01:45

Lab Sample ID: 480-125692-3
Matrix: Water

Method: 624 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			10/12/17 18:12	1
1,1,1,2-Tetrachloroethane	ND		5.0	0.26	ug/L			10/12/17 18:12	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			10/12/17 18:12	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			10/12/17 18:12	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			10/12/17 18:12	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			10/12/17 18:12	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			10/12/17 18:12	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			10/12/17 18:12	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			10/12/17 18:12	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			10/12/17 18:12	1

TestAmerica Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Philmar Electronics #510008

TestAmerica Job ID: 480-125692-1

Client Sample ID: MW-7
Date Collected: 10/10/17 12:25
Date Received: 10/12/17 01:45

Lab Sample ID: 480-125692-3
Matrix: Water

Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			10/12/17 18:12	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			10/12/17 18:12	1
Acrolein	ND		100	17	ug/L			10/12/17 18:12	1
Acrylonitrile	ND		50	1.9	ug/L			10/12/17 18:12	1
Benzene	ND		5.0	0.60	ug/L			10/12/17 18:12	1
Bromoform	ND		5.0	0.47	ug/L			10/12/17 18:12	1
Bromomethane	ND		5.0	1.2	ug/L			10/12/17 18:12	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			10/12/17 18:12	1
Chlorobenzene	ND		5.0	0.48	ug/L			10/12/17 18:12	1
Chlorodibromomethane	ND		5.0	0.41	ug/L			10/12/17 18:12	1
Chloroethane	ND		5.0	0.87	ug/L			10/12/17 18:12	1
Chloroform	ND		5.0	0.54	ug/L			10/12/17 18:12	1
Chloromethane	ND		5.0	0.64	ug/L			10/12/17 18:12	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			10/12/17 18:12	1
Dichlorobromomethane	ND		5.0	0.54	ug/L			10/12/17 18:12	1
Ethylbenzene	ND		5.0	0.46	ug/L			10/12/17 18:12	1
Methylene Chloride	ND		5.0	0.81	ug/L			10/12/17 18:12	1
Tetrachloroethene	ND		5.0	0.34	ug/L			10/12/17 18:12	1
Toluene	ND		5.0	0.45	ug/L			10/12/17 18:12	1
trans-1,2-Dichloroethene	ND		5.0	0.59	ug/L			10/12/17 18:12	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			10/12/17 18:12	1
Trichloroethene	0.88	J	5.0	0.60	ug/L			10/12/17 18:12	1
Vinyl chloride	1.3	J	5.0	0.75	ug/L			10/12/17 18:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		68 - 130					10/12/17 18:12	1
4-Bromofluorobenzene (Surr)	100		76 - 123					10/12/17 18:12	1
Toluene-d8 (Surr)	96		77 - 120					10/12/17 18:12	1

Client Sample ID: MW-9
Date Collected: 10/10/17 12:35
Date Received: 10/12/17 01:45

Lab Sample ID: 480-125692-4
Matrix: Water

Method: 624 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			10/12/17 18:36	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			10/12/17 18:36	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			10/12/17 18:36	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			10/12/17 18:36	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			10/12/17 18:36	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			10/12/17 18:36	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			10/12/17 18:36	1
1,2-Dichloroethene, Total	21		10	3.2	ug/L			10/12/17 18:36	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			10/12/17 18:36	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			10/12/17 18:36	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			10/12/17 18:36	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			10/12/17 18:36	1
Acrolein	ND		100	17	ug/L			10/12/17 18:36	1
Acrylonitrile	ND		50	1.9	ug/L			10/12/17 18:36	1
Benzene	ND		5.0	0.60	ug/L			10/12/17 18:36	1

TestAmerica Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Philmar Electronics #510008

TestAmerica Job ID: 480-125692-1

Client Sample ID: MW-9
Date Collected: 10/10/17 12:35
Date Received: 10/12/17 01:45

Lab Sample ID: 480-125692-4
Matrix: Water

Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromoform	ND		5.0	0.47	ug/L			10/12/17 18:36	1
Bromomethane	ND		5.0	1.2	ug/L			10/12/17 18:36	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			10/12/17 18:36	1
Chlorobenzene	ND		5.0	0.48	ug/L			10/12/17 18:36	1
Chlorodibromomethane	ND		5.0	0.41	ug/L			10/12/17 18:36	1
Chloroethane	ND		5.0	0.87	ug/L			10/12/17 18:36	1
Chloroform	ND		5.0	0.54	ug/L			10/12/17 18:36	1
Chloromethane	ND		5.0	0.64	ug/L			10/12/17 18:36	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			10/12/17 18:36	1
Dichlorobromomethane	ND		5.0	0.54	ug/L			10/12/17 18:36	1
Ethylbenzene	ND		5.0	0.46	ug/L			10/12/17 18:36	1
Methylene Chloride	ND		5.0	0.81	ug/L			10/12/17 18:36	1
Tetrachloroethene	ND		5.0	0.34	ug/L			10/12/17 18:36	1
Toluene	ND		5.0	0.45	ug/L			10/12/17 18:36	1
trans-1,2-Dichloroethene	ND		5.0	0.59	ug/L			10/12/17 18:36	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			10/12/17 18:36	1
Trichloroethene	5.5		5.0	0.60	ug/L			10/12/17 18:36	1
Vinyl chloride	3.0 J		5.0	0.75	ug/L			10/12/17 18:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		68 - 130		10/12/17 18:36	1
4-Bromofluorobenzene (Surr)	102		76 - 123		10/12/17 18:36	1
Toluene-d8 (Surr)	95		77 - 120		10/12/17 18:36	1

Client Sample ID: MW-10
Date Collected: 10/10/17 12:40
Date Received: 10/12/17 01:45

Lab Sample ID: 480-125692-5
Matrix: Water

Method: 624 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			10/12/17 22:32	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			10/12/17 22:32	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			10/12/17 22:32	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			10/12/17 22:32	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			10/12/17 22:32	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			10/12/17 22:32	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			10/12/17 22:32	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			10/12/17 22:32	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			10/12/17 22:32	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			10/12/17 22:32	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			10/12/17 22:32	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			10/12/17 22:32	1
Acrolein	ND		100	17	ug/L			10/12/17 22:32	1
Acrylonitrile	ND		50	1.9	ug/L			10/12/17 22:32	1
Benzene	ND		5.0	0.60	ug/L			10/12/17 22:32	1
Bromoform	ND		5.0	0.47	ug/L			10/12/17 22:32	1
Bromomethane	ND		5.0	1.2	ug/L			10/12/17 22:32	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			10/12/17 22:32	1
Chlorobenzene	ND		5.0	0.48	ug/L			10/12/17 22:32	1
Chlorodibromomethane	ND		5.0	0.41	ug/L			10/12/17 22:32	1

TestAmerica Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Philmar Electronics #510008

TestAmerica Job ID: 480-125692-1

Client Sample ID: MW-10

Date Collected: 10/10/17 12:40

Date Received: 10/12/17 01:45

Lab Sample ID: 480-125692-5

Matrix: Water

Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroethane	ND		5.0	0.87	ug/L			10/12/17 22:32	1
Chloroform	ND		5.0	0.54	ug/L			10/12/17 22:32	1
Chloromethane	ND		5.0	0.64	ug/L			10/12/17 22:32	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			10/12/17 22:32	1
Dichlorobromomethane	ND		5.0	0.54	ug/L			10/12/17 22:32	1
Ethylbenzene	ND		5.0	0.46	ug/L			10/12/17 22:32	1
Methylene Chloride	ND		5.0	0.81	ug/L			10/12/17 22:32	1
Tetrachloroethene	ND		5.0	0.34	ug/L			10/12/17 22:32	1
Toluene	ND		5.0	0.45	ug/L			10/12/17 22:32	1
trans-1,2-Dichloroethene	ND		5.0	0.59	ug/L			10/12/17 22:32	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			10/12/17 22:32	1
Trichloroethene	1.0	J	5.0	0.60	ug/L			10/12/17 22:32	1
Vinyl chloride	ND		5.0	0.75	ug/L			10/12/17 22:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		68 - 130		10/12/17 22:32	1
4-Bromofluorobenzene (Surr)	99		76 - 123		10/12/17 22:32	1
Toluene-d8 (Surr)	96		77 - 120		10/12/17 22:32	1

Client Sample ID: DGC-6S

Date Collected: 10/10/17 12:55

Date Received: 10/12/17 01:45

Lab Sample ID: 480-125692-6

Matrix: Water

Method: 624 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			10/12/17 18:59	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			10/12/17 18:59	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			10/12/17 18:59	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			10/12/17 18:59	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			10/12/17 18:59	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			10/12/17 18:59	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			10/12/17 18:59	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			10/12/17 18:59	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			10/12/17 18:59	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			10/12/17 18:59	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			10/12/17 18:59	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			10/12/17 18:59	1
Acrolein	ND		100	17	ug/L			10/12/17 18:59	1
Acrylonitrile	ND		50	1.9	ug/L			10/12/17 18:59	1
Benzene	ND		5.0	0.60	ug/L			10/12/17 18:59	1
Bromoform	ND		5.0	0.47	ug/L			10/12/17 18:59	1
Bromomethane	ND		5.0	1.2	ug/L			10/12/17 18:59	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			10/12/17 18:59	1
Chlorobenzene	ND		5.0	0.48	ug/L			10/12/17 18:59	1
Chlorodibromomethane	ND		5.0	0.41	ug/L			10/12/17 18:59	1
Chloroethane	ND		5.0	0.87	ug/L			10/12/17 18:59	1
Chloroform	ND		5.0	0.54	ug/L			10/12/17 18:59	1
Chloromethane	ND		5.0	0.64	ug/L			10/12/17 18:59	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			10/12/17 18:59	1
Dichlorobromomethane	ND		5.0	0.54	ug/L			10/12/17 18:59	1

TestAmerica Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Philmar Electronics #510008

TestAmerica Job ID: 480-125692-1

Client Sample ID: DGC-6S

Date Collected: 10/10/17 12:55

Date Received: 10/12/17 01:45

Lab Sample ID: 480-125692-6

Matrix: Water

Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		5.0	0.46	ug/L			10/12/17 18:59	1
Methylene Chloride	ND		5.0	0.81	ug/L			10/12/17 18:59	1
Tetrachloroethene	ND		5.0	0.34	ug/L			10/12/17 18:59	1
Toluene	ND		5.0	0.45	ug/L			10/12/17 18:59	1
trans-1,2-Dichloroethene	ND		5.0	0.59	ug/L			10/12/17 18:59	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			10/12/17 18:59	1
Trichloroethene	ND		5.0	0.60	ug/L			10/12/17 18:59	1
Vinyl chloride	ND		5.0	0.75	ug/L			10/12/17 18:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		68 - 130		10/12/17 18:59	1
4-Bromofluorobenzene (Surr)	99		76 - 123		10/12/17 18:59	1
Toluene-d8 (Surr)	97		77 - 120		10/12/17 18:59	1

Client Sample ID: DGC-7S

Date Collected: 10/10/17 13:10

Date Received: 10/12/17 01:45

Lab Sample ID: 480-125692-7

Matrix: Water

Method: 624 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			10/12/17 19:23	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			10/12/17 19:23	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			10/12/17 19:23	1
1,1-Dichloroethane	0.62	J	5.0	0.59	ug/L			10/12/17 19:23	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			10/12/17 19:23	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			10/12/17 19:23	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			10/12/17 19:23	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			10/12/17 19:23	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			10/12/17 19:23	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			10/12/17 19:23	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			10/12/17 19:23	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			10/12/17 19:23	1
Acrolein	ND		100	17	ug/L			10/12/17 19:23	1
Acrylonitrile	ND		50	1.9	ug/L			10/12/17 19:23	1
Benzene	ND		5.0	0.60	ug/L			10/12/17 19:23	1
Bromoform	ND		5.0	0.47	ug/L			10/12/17 19:23	1
Bromomethane	ND		5.0	1.2	ug/L			10/12/17 19:23	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			10/12/17 19:23	1
Chlorobenzene	3.1	J	5.0	0.48	ug/L			10/12/17 19:23	1
Chlorodibromomethane	ND		5.0	0.41	ug/L			10/12/17 19:23	1
Chloroethane	ND		5.0	0.87	ug/L			10/12/17 19:23	1
Chloroform	ND		5.0	0.54	ug/L			10/12/17 19:23	1
Chloromethane	ND		5.0	0.64	ug/L			10/12/17 19:23	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			10/12/17 19:23	1
Dichlorobromomethane	ND		5.0	0.54	ug/L			10/12/17 19:23	1
Ethylbenzene	ND		5.0	0.46	ug/L			10/12/17 19:23	1
Methylene Chloride	ND		5.0	0.81	ug/L			10/12/17 19:23	1
Tetrachloroethene	ND		5.0	0.34	ug/L			10/12/17 19:23	1
Toluene	ND		5.0	0.45	ug/L			10/12/17 19:23	1
trans-1,2-Dichloroethene	ND		5.0	0.59	ug/L			10/12/17 19:23	1

TestAmerica Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Philmar Electronics #510008

TestAmerica Job ID: 480-125692-1

Client Sample ID: DGC-7S

Date Collected: 10/10/17 13:10

Date Received: 10/12/17 01:45

Lab Sample ID: 480-125692-7

Matrix: Water

Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			10/12/17 19:23	1
Trichloroethene	ND		5.0	0.60	ug/L			10/12/17 19:23	1
Vinyl chloride	0.97	J	5.0	0.75	ug/L			10/12/17 19:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		68 - 130					10/12/17 19:23	1
4-Bromofluorobenzene (Surr)	99		76 - 123					10/12/17 19:23	1
Toluene-d8 (Surr)	96		77 - 120					10/12/17 19:23	1

Client Sample ID: DGC-8S

Date Collected: 10/10/17 13:15

Date Received: 10/12/17 01:45

Lab Sample ID: 480-125692-8

Matrix: Water

Method: 624 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			10/12/17 19:47	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			10/12/17 19:47	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			10/12/17 19:47	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			10/12/17 19:47	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			10/12/17 19:47	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			10/12/17 19:47	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			10/12/17 19:47	1
1,2-Dichloroethene, Total	18		10	3.2	ug/L			10/12/17 19:47	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			10/12/17 19:47	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			10/12/17 19:47	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			10/12/17 19:47	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			10/12/17 19:47	1
Acrolein	ND		100	17	ug/L			10/12/17 19:47	1
Acrylonitrile	ND		50	1.9	ug/L			10/12/17 19:47	1
Benzene	ND		5.0	0.60	ug/L			10/12/17 19:47	1
Bromoform	ND		5.0	0.47	ug/L			10/12/17 19:47	1
Bromomethane	ND		5.0	1.2	ug/L			10/12/17 19:47	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			10/12/17 19:47	1
Chlorobenzene	ND		5.0	0.48	ug/L			10/12/17 19:47	1
Chlorodibromomethane	ND		5.0	0.41	ug/L			10/12/17 19:47	1
Chloroethane	ND		5.0	0.87	ug/L			10/12/17 19:47	1
Chloroform	ND		5.0	0.54	ug/L			10/12/17 19:47	1
Chloromethane	ND		5.0	0.64	ug/L			10/12/17 19:47	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			10/12/17 19:47	1
Dichlorobromomethane	ND		5.0	0.54	ug/L			10/12/17 19:47	1
Ethylbenzene	ND		5.0	0.46	ug/L			10/12/17 19:47	1
Methylene Chloride	ND		5.0	0.81	ug/L			10/12/17 19:47	1
Tetrachloroethene	ND		5.0	0.34	ug/L			10/12/17 19:47	1
Toluene	ND		5.0	0.45	ug/L			10/12/17 19:47	1
trans-1,2-Dichloroethene	ND		5.0	0.59	ug/L			10/12/17 19:47	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			10/12/17 19:47	1
Trichloroethene	8.3		5.0	0.60	ug/L			10/12/17 19:47	1
Vinyl chloride	2.0	J	5.0	0.75	ug/L			10/12/17 19:47	1

TestAmerica Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Philmar Electronics #510008

TestAmerica Job ID: 480-125692-1

Client Sample ID: DGC-8S

Date Collected: 10/10/17 13:15

Date Received: 10/12/17 01:45

Lab Sample ID: 480-125692-8

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		68 - 130		10/12/17 19:47	1
4-Bromofluorobenzene (Surr)	99		76 - 123		10/12/17 19:47	1
Toluene-d8 (Surr)	95		77 - 120		10/12/17 19:47	1

Client Sample ID: DGC-11S

Date Collected: 10/10/17 13:20

Date Received: 10/12/17 01:45

Lab Sample ID: 480-125692-9

Matrix: Water

Method: 624 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			10/12/17 22:55	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			10/12/17 22:55	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			10/12/17 22:55	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			10/12/17 22:55	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			10/12/17 22:55	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			10/12/17 22:55	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			10/12/17 22:55	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			10/12/17 22:55	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			10/12/17 22:55	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			10/12/17 22:55	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			10/12/17 22:55	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			10/12/17 22:55	1
Acrolein	ND		100	17	ug/L			10/12/17 22:55	1
Acrylonitrile	ND		50	1.9	ug/L			10/12/17 22:55	1
Benzene	ND		5.0	0.60	ug/L			10/12/17 22:55	1
Bromoform	ND		5.0	0.47	ug/L			10/12/17 22:55	1
Bromomethane	ND		5.0	1.2	ug/L			10/12/17 22:55	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			10/12/17 22:55	1
Chlorobenzene	ND		5.0	0.48	ug/L			10/12/17 22:55	1
Chlorodibromomethane	ND		5.0	0.41	ug/L			10/12/17 22:55	1
Chloroethane	ND		5.0	0.87	ug/L			10/12/17 22:55	1
Chloroform	ND		5.0	0.54	ug/L			10/12/17 22:55	1
Chloromethane	ND		5.0	0.64	ug/L			10/12/17 22:55	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			10/12/17 22:55	1
Dichlorobromomethane	ND		5.0	0.54	ug/L			10/12/17 22:55	1
Ethylbenzene	ND		5.0	0.46	ug/L			10/12/17 22:55	1
Methylene Chloride	ND		5.0	0.81	ug/L			10/12/17 22:55	1
Tetrachloroethene	ND		5.0	0.34	ug/L			10/12/17 22:55	1
Toluene	ND		5.0	0.45	ug/L			10/12/17 22:55	1
trans-1,2-Dichloroethene	ND		5.0	0.59	ug/L			10/12/17 22:55	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			10/12/17 22:55	1
Trichloroethene	ND		5.0	0.60	ug/L			10/12/17 22:55	1
Vinyl chloride	ND		5.0	0.75	ug/L			10/12/17 22:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		68 - 130					10/12/17 22:55	1
4-Bromofluorobenzene (Surr)	99		76 - 123					10/12/17 22:55	1
Toluene-d8 (Surr)	97		77 - 120					10/12/17 22:55	1

TestAmerica Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Philmar Electronics #510008

TestAmerica Job ID: 480-125692-1

Client Sample ID: DGC-12

Date Collected: 10/10/17 13:30

Date Received: 10/12/17 01:45

Lab Sample ID: 480-125692-10

Matrix: Water

Method: 624 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			10/12/17 23:18	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			10/12/17 23:18	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			10/12/17 23:18	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			10/12/17 23:18	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			10/12/17 23:18	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			10/12/17 23:18	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			10/12/17 23:18	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			10/12/17 23:18	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			10/12/17 23:18	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			10/12/17 23:18	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			10/12/17 23:18	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			10/12/17 23:18	1
Acrolein	ND		100	17	ug/L			10/12/17 23:18	1
Acrylonitrile	ND		50	1.9	ug/L			10/12/17 23:18	1
Benzene	ND		5.0	0.60	ug/L			10/12/17 23:18	1
Bromoform	ND		5.0	0.47	ug/L			10/12/17 23:18	1
Bromomethane	ND		5.0	1.2	ug/L			10/12/17 23:18	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			10/12/17 23:18	1
Chlorobenzene	ND		5.0	0.48	ug/L			10/12/17 23:18	1
Chlorodibromomethane	ND		5.0	0.41	ug/L			10/12/17 23:18	1
Chloroethane	ND		5.0	0.87	ug/L			10/12/17 23:18	1
Chloroform	ND		5.0	0.54	ug/L			10/12/17 23:18	1
Chloromethane	ND		5.0	0.64	ug/L			10/12/17 23:18	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			10/12/17 23:18	1
Dichlorobromomethane	ND		5.0	0.54	ug/L			10/12/17 23:18	1
Ethylbenzene	ND		5.0	0.46	ug/L			10/12/17 23:18	1
Methylene Chloride	ND		5.0	0.81	ug/L			10/12/17 23:18	1
Tetrachloroethene	ND		5.0	0.34	ug/L			10/12/17 23:18	1
Toluene	ND		5.0	0.45	ug/L			10/12/17 23:18	1
trans-1,2-Dichloroethene	ND		5.0	0.59	ug/L			10/12/17 23:18	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			10/12/17 23:18	1
Trichloroethene	ND		5.0	0.60	ug/L			10/12/17 23:18	1
Vinyl chloride	ND		5.0	0.75	ug/L			10/12/17 23:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		68 - 130		10/12/17 23:18	1
4-Bromofluorobenzene (Surr)	97		76 - 123		10/12/17 23:18	1
Toluene-d8 (Surr)	96		77 - 120		10/12/17 23:18	1

Client Sample ID: DGC-21

Date Collected: 10/10/17 13:40

Date Received: 10/12/17 01:45

Lab Sample ID: 480-125692-11

Matrix: Water

Method: 624 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.47	J	5.0	0.39	ug/L			10/12/17 23:43	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			10/12/17 23:43	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			10/12/17 23:43	1
1,1-Dichloroethane	0.83	J	5.0	0.59	ug/L			10/12/17 23:43	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			10/12/17 23:43	1

TestAmerica Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Philmar Electronics #510008

TestAmerica Job ID: 480-125692-1

Client Sample ID: DGC-21

Date Collected: 10/10/17 13:40

Date Received: 10/12/17 01:45

Lab Sample ID: 480-125692-11

Matrix: Water

Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			10/12/17 23:43	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			10/12/17 23:43	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			10/12/17 23:43	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			10/12/17 23:43	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			10/12/17 23:43	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			10/12/17 23:43	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			10/12/17 23:43	1
Acrolein	ND		100	17	ug/L			10/12/17 23:43	1
Acrylonitrile	ND		50	1.9	ug/L			10/12/17 23:43	1
Benzene	ND		5.0	0.60	ug/L			10/12/17 23:43	1
Bromoform	ND		5.0	0.47	ug/L			10/12/17 23:43	1
Bromomethane	ND		5.0	1.2	ug/L			10/12/17 23:43	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			10/12/17 23:43	1
Chlorobenzene	ND		5.0	0.48	ug/L			10/12/17 23:43	1
Chlorodibromomethane	ND		5.0	0.41	ug/L			10/12/17 23:43	1
Chloroethane	ND		5.0	0.87	ug/L			10/12/17 23:43	1
Chloroform	ND		5.0	0.54	ug/L			10/12/17 23:43	1
Chloromethane	ND		5.0	0.64	ug/L			10/12/17 23:43	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			10/12/17 23:43	1
Dichlorobromomethane	ND		5.0	0.54	ug/L			10/12/17 23:43	1
Ethylbenzene	ND		5.0	0.46	ug/L			10/12/17 23:43	1
Methylene Chloride	ND		5.0	0.81	ug/L			10/12/17 23:43	1
Tetrachloroethene	ND		5.0	0.34	ug/L			10/12/17 23:43	1
Toluene	ND		5.0	0.45	ug/L			10/12/17 23:43	1
trans-1,2-Dichloroethene	ND		5.0	0.59	ug/L			10/12/17 23:43	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			10/12/17 23:43	1
Trichloroethene	ND		5.0	0.60	ug/L			10/12/17 23:43	1
Vinyl chloride	ND		5.0	0.75	ug/L			10/12/17 23:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		68 - 130					10/12/17 23:43	1
4-Bromofluorobenzene (Surr)	98		76 - 123					10/12/17 23:43	1
Toluene-d8 (Surr)	96		77 - 120					10/12/17 23:43	1

Client Sample ID: PUMP CULVERT (TRENCH)

Date Collected: 10/10/17 13:45

Date Received: 10/12/17 01:45

Lab Sample ID: 480-125692-12

Matrix: Water

Method: 624 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			10/12/17 20:10	1
1,1,1,2-Tetrachloroethane	ND		5.0	0.26	ug/L			10/12/17 20:10	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			10/12/17 20:10	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			10/12/17 20:10	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			10/12/17 20:10	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			10/12/17 20:10	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			10/12/17 20:10	1
1,2-Dichloroethene, Total	6.5	J	10	3.2	ug/L			10/12/17 20:10	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			10/12/17 20:10	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			10/12/17 20:10	1

TestAmerica Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Philmar Electronics #510008

TestAmerica Job ID: 480-125692-1

Client Sample ID: PUMP CULVERT (TRENCH)

Lab Sample ID: 480-125692-12

Date Collected: 10/10/17 13:45

Matrix: Water

Date Received: 10/12/17 01:45

Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			10/12/17 20:10	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			10/12/17 20:10	1
Acrolein	ND		100	17	ug/L			10/12/17 20:10	1
Acrylonitrile	ND		50	1.9	ug/L			10/12/17 20:10	1
Benzene	ND		5.0	0.60	ug/L			10/12/17 20:10	1
Bromoform	ND		5.0	0.47	ug/L			10/12/17 20:10	1
Bromomethane	ND		5.0	1.2	ug/L			10/12/17 20:10	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			10/12/17 20:10	1
Chlorobenzene	0.58	J	5.0	0.48	ug/L			10/12/17 20:10	1
Chlorodibromomethane	ND		5.0	0.41	ug/L			10/12/17 20:10	1
Chloroethane	ND		5.0	0.87	ug/L			10/12/17 20:10	1
Chloroform	ND		5.0	0.54	ug/L			10/12/17 20:10	1
Chloromethane	ND		5.0	0.64	ug/L			10/12/17 20:10	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			10/12/17 20:10	1
Dichlorobromomethane	ND		5.0	0.54	ug/L			10/12/17 20:10	1
Ethylbenzene	ND		5.0	0.46	ug/L			10/12/17 20:10	1
Methylene Chloride	ND		5.0	0.81	ug/L			10/12/17 20:10	1
Tetrachloroethene	ND		5.0	0.34	ug/L			10/12/17 20:10	1
Toluene	ND		5.0	0.45	ug/L			10/12/17 20:10	1
trans-1,2-Dichloroethene	ND		5.0	0.59	ug/L			10/12/17 20:10	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			10/12/17 20:10	1
Trichloroethene	11		5.0	0.60	ug/L			10/12/17 20:10	1
Vinyl chloride	ND		5.0	0.75	ug/L			10/12/17 20:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		68 - 130		10/12/17 20:10	1
4-Bromofluorobenzene (Surr)	100		76 - 123		10/12/17 20:10	1
Toluene-d8 (Surr)	96		77 - 120		10/12/17 20:10	1

Surrogate Summary

Client: New York State D.E.C.
Project/Site: Philmar Electronics #510008

TestAmerica Job ID: 480-125692-1

Method: 624 - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		12DCE (68-130)	BFB (76-123)	TOL (77-120)
480-125692-1	MW-3	102	99	97
480-125692-2	MW-6	100	100	96
480-125692-3	MW-7	101	100	96
480-125692-4	MW-9	100	102	95
480-125692-5	MW-10	100	99	96
480-125692-6	DGC-6S	102	99	97
480-125692-7	DGC-7S	101	99	96
480-125692-8	DGC-8S	101	99	95
480-125692-9	DGC-11S	99	99	97
480-125692-10	DGC-12	101	97	96
480-125692-11	DGC-21	99	98	96
480-125692-12	PUMP CULVERT (TRENCH)	100	100	96
LCS 480-381520/6	Lab Control Sample	96	98	99
MB 480-381520/8	Method Blank	100	99	96

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

TOL = Toluene-d8 (Surr)

QC Sample Results

Client: New York State D.E.C.
Project/Site: Philmar Electronics #510008

TestAmerica Job ID: 480-125692-1

Method: 624 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-381520/8

Matrix: Water

Analysis Batch: 381520

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			10/12/17 16:25	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			10/12/17 16:25	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			10/12/17 16:25	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			10/12/17 16:25	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			10/12/17 16:25	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			10/12/17 16:25	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			10/12/17 16:25	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			10/12/17 16:25	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			10/12/17 16:25	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			10/12/17 16:25	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			10/12/17 16:25	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			10/12/17 16:25	1
Acrolein	ND		100	17	ug/L			10/12/17 16:25	1
Acrylonitrile	ND		50	1.9	ug/L			10/12/17 16:25	1
Benzene	ND		5.0	0.60	ug/L			10/12/17 16:25	1
Bromoform	ND		5.0	0.47	ug/L			10/12/17 16:25	1
Bromomethane	ND		5.0	1.2	ug/L			10/12/17 16:25	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			10/12/17 16:25	1
Chlorobenzene	ND		5.0	0.48	ug/L			10/12/17 16:25	1
Chlorodibromomethane	ND		5.0	0.41	ug/L			10/12/17 16:25	1
Chloroethane	ND		5.0	0.87	ug/L			10/12/17 16:25	1
Chloroform	ND		5.0	0.54	ug/L			10/12/17 16:25	1
Chloromethane	ND		5.0	0.64	ug/L			10/12/17 16:25	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			10/12/17 16:25	1
Dichlorobromomethane	ND		5.0	0.54	ug/L			10/12/17 16:25	1
Ethylbenzene	ND		5.0	0.46	ug/L			10/12/17 16:25	1
Methylene Chloride	ND		5.0	0.81	ug/L			10/12/17 16:25	1
Tetrachloroethene	ND		5.0	0.34	ug/L			10/12/17 16:25	1
Toluene	ND		5.0	0.45	ug/L			10/12/17 16:25	1
trans-1,2-Dichloroethene	ND		5.0	0.59	ug/L			10/12/17 16:25	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			10/12/17 16:25	1
Trichloroethene	ND		5.0	0.60	ug/L			10/12/17 16:25	1
Vinyl chloride	ND		5.0	0.75	ug/L			10/12/17 16:25	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		68 - 130		10/12/17 16:25	1
4-Bromofluorobenzene (Surr)	99		76 - 123		10/12/17 16:25	1
Toluene-d8 (Surr)	96		77 - 120		10/12/17 16:25	1

Lab Sample ID: LCS 480-381520/6

Matrix: Water

Analysis Batch: 381520

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	21.8		ug/L		109	52 - 162
1,1,2,2-Tetrachloroethane	20.0	22.2		ug/L		111	46 - 157
1,1,2-Trichloroethane	20.0	22.4		ug/L		112	52 - 150
1,1-Dichloroethane	20.0	22.4		ug/L		112	59 - 155

TestAmerica Buffalo

QC Sample Results

Client: New York State D.E.C.
Project/Site: Philmar Electronics #510008

TestAmerica Job ID: 480-125692-1

Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-381520/6

Matrix: Water

Analysis Batch: 381520

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	20.0	21.7		ug/L		109	1 - 234
1,2-Dichlorobenzene	20.0	22.8		ug/L		114	18 - 190
1,2-Dichloroethane	20.0	21.4		ug/L		107	49 - 155
1,2-Dichloropropane	20.0	22.6		ug/L		113	1 - 210
1,3-Dichlorobenzene	20.0	21.9		ug/L		110	59 - 156
1,4-Dichlorobenzene	20.0	22.4		ug/L		112	18 - 190
2-Chloroethyl vinyl ether	20.0	19.9	J	ug/L		99	1 - 305
Benzene	20.0	22.8		ug/L		114	37 - 151
Bromoform	20.0	19.6		ug/L		98	45 - 169
Bromomethane	20.0	19.0		ug/L		95	1 - 242
Carbon tetrachloride	20.0	20.0		ug/L		100	70 - 140
Chlorobenzene	20.0	22.1		ug/L		111	37 - 160
Chlorodibromomethane	20.0	20.9		ug/L		104	53 - 149
Chloroethane	20.0	21.1		ug/L		105	14 - 230
Chloroform	20.0	22.1		ug/L		110	51 - 138
Chloromethane	20.0	18.1		ug/L		90	1 - 273
cis-1,3-Dichloropropene	20.0	21.3		ug/L		106	1 - 227
Dichlorobromomethane	20.0	22.2		ug/L		111	35 - 155
Ethylbenzene	20.0	22.9		ug/L		115	37 - 162
Methylene Chloride	20.0	22.4		ug/L		112	1 - 221
Tetrachloroethene	20.0	21.0		ug/L		105	64 - 148
Toluene	20.0	22.3		ug/L		111	47 - 150
trans-1,2-Dichloroethene	20.0	22.9		ug/L		114	54 - 156
trans-1,3-Dichloropropene	20.0	20.7		ug/L		103	17 - 183
Trichloroethene	20.0	22.1		ug/L		111	71 - 157
Vinyl chloride	20.0	17.9		ug/L		89	1 - 251

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	96		68 - 130
4-Bromofluorobenzene (Surr)	98		76 - 123
Toluene-d8 (Surr)	99		77 - 120

QC Association Summary

Client: New York State D.E.C.
Project/Site: Philmar Electronics #510008

TestAmerica Job ID: 480-125692-1

GC/MS VOA

Analysis Batch: 381520

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125692-1	MW-3	Total/NA	Water	624	
480-125692-2	MW-6	Total/NA	Water	624	
480-125692-3	MW-7	Total/NA	Water	624	
480-125692-4	MW-9	Total/NA	Water	624	
480-125692-5	MW-10	Total/NA	Water	624	
480-125692-6	DGC-6S	Total/NA	Water	624	
480-125692-7	DGC-7S	Total/NA	Water	624	
480-125692-8	DGC-8S	Total/NA	Water	624	
480-125692-9	DGC-11S	Total/NA	Water	624	
480-125692-10	DGC-12	Total/NA	Water	624	
480-125692-11	DGC-21	Total/NA	Water	624	
480-125692-12	PUMP CULVERT (TRENCH)	Total/NA	Water	624	
MB 480-381520/8	Method Blank	Total/NA	Water	624	
LCS 480-381520/6	Lab Control Sample	Total/NA	Water	624	

Lab Chronicle

Client: New York State D.E.C.
Project/Site: Philmar Electronics #510008

TestAmerica Job ID: 480-125692-1

Client Sample ID: MW-3
Date Collected: 10/10/17 12:10
Date Received: 10/12/17 01:45

Lab Sample ID: 480-125692-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624		1	381520	10/12/17 22:08	RLB	TAL BUF

Client Sample ID: MW-6
Date Collected: 10/10/17 12:15
Date Received: 10/12/17 01:45

Lab Sample ID: 480-125692-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624		1	381520	10/12/17 17:48	RLB	TAL BUF

Client Sample ID: MW-7
Date Collected: 10/10/17 12:25
Date Received: 10/12/17 01:45

Lab Sample ID: 480-125692-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624		1	381520	10/12/17 18:12	RLB	TAL BUF

Client Sample ID: MW-9
Date Collected: 10/10/17 12:35
Date Received: 10/12/17 01:45

Lab Sample ID: 480-125692-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624		1	381520	10/12/17 18:36	RLB	TAL BUF

Client Sample ID: MW-10
Date Collected: 10/10/17 12:40
Date Received: 10/12/17 01:45

Lab Sample ID: 480-125692-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624		1	381520	10/12/17 22:32	RLB	TAL BUF

Client Sample ID: DGC-6S
Date Collected: 10/10/17 12:55
Date Received: 10/12/17 01:45

Lab Sample ID: 480-125692-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624		1	381520	10/12/17 18:59	RLB	TAL BUF

Lab Chronicle

Client: New York State D.E.C.
Project/Site: Philmar Electronics #510008

TestAmerica Job ID: 480-125692-1

Client Sample ID: DGC-7S

Date Collected: 10/10/17 13:10

Date Received: 10/12/17 01:45

Lab Sample ID: 480-125692-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624		1	381520	10/12/17 19:23	RLB	TAL BUF

Client Sample ID: DGC-8S

Date Collected: 10/10/17 13:15

Date Received: 10/12/17 01:45

Lab Sample ID: 480-125692-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624		1	381520	10/12/17 19:47	RLB	TAL BUF

Client Sample ID: DGC-11S

Date Collected: 10/10/17 13:20

Date Received: 10/12/17 01:45

Lab Sample ID: 480-125692-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624		1	381520	10/12/17 22:55	RLB	TAL BUF

Client Sample ID: DGC-12

Date Collected: 10/10/17 13:30

Date Received: 10/12/17 01:45

Lab Sample ID: 480-125692-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624		1	381520	10/12/17 23:18	RLB	TAL BUF

Client Sample ID: DGC-21

Date Collected: 10/10/17 13:40

Date Received: 10/12/17 01:45

Lab Sample ID: 480-125692-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624		1	381520	10/12/17 23:43	RLB	TAL BUF

Client Sample ID: PUMP CULVERT (TRENCH)

Date Collected: 10/10/17 13:45

Date Received: 10/12/17 01:45

Lab Sample ID: 480-125692-12

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624		1	381520	10/12/17 20:10	RLB	TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Method Summary

Client: New York State D.E.C.
Project/Site: Philmar Electronics #510008

TestAmerica Job ID: 480-125692-1

Method	Method Description	Protocol	Laboratory
624	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL BUF

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: New York State D.E.C.
Project/Site: Philmar Electronics #510008

TestAmerica Job ID: 480-125692-1

Laboratory: TestAmerica Buffalo

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	10026	03-31-18

Method 624

Volatile Organic Compounds (GC/MS)
by Method 624

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Buffalo

Job No.: 480-125692-1

SDG No.: _____

Matrix: Water

Level: Low

GC Column (1): ZB-624 (20) ID: 0.18 (mm)

Client Sample ID	Lab Sample ID	DCA #	TOL #	BFB #
MW-3	480-125692-1	102	97	99
MW-6	480-125692-2	100	96	100
MW-7	480-125692-3	101	96	100
MW-9	480-125692-4	100	95	102
MW-10	480-125692-5	100	96	99
DGC-6S	480-125692-6	102	97	99
DGC-7S	480-125692-7	101	96	99
DGC-8S	480-125692-8	101	95	99
DGC-11S	480-125692-9	99	97	99
DGC-12	480-125692-10	101	96	97
DGC-21	480-125692-11	99	96	98
PUMP CULVERT (TRENCH)	480-125692-12	100	96	100
	MB 480-381520/8	100	96	99
	LCS 480-381520/6	96	99	98

DCA = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene (Surr)

QC LIMITS
68-130
77-120
76-123

Column to be used to flag recovery values

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Buffalo Job No.: 480-125692-1
 SDG No.: _____
 Matrix: Water Level: Low Lab File ID: Q2806.D
 Lab ID: LCS 480-381520/6 Client ID: _____

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	20.0	21.8	109	52-162	
1,1,2,2-Tetrachloroethane	20.0	22.2	111	46-157	
1,1,2-Trichloroethane	20.0	22.4	112	52-150	
1,1-Dichloroethane	20.0	22.4	112	59-155	
1,1-Dichloroethene	20.0	21.7	109	1-234	
1,2-Dichlorobenzene	20.0	22.8	114	18-190	
1,2-Dichloroethane	20.0	21.4	107	49-155	
1,2-Dichloropropane	20.0	22.6	113	1-210	
1,3-Dichlorobenzene	20.0	21.9	110	59-156	
1,4-Dichlorobenzene	20.0	22.4	112	18-190	
2-Chloroethyl vinyl ether	20.0	19.9 J	99	1-305	
Benzene	20.0	22.8	114	37-151	
Bromoform	20.0	19.6	98	45-169	
Bromomethane	20.0	19.0	95	1-242	
Carbon tetrachloride	20.0	20.0	100	70-140	
Chlorobenzene	20.0	22.1	111	37-160	
Chlorodibromomethane	20.0	20.9	104	53-149	
Chloroethane	20.0	21.1	105	14-230	
Chloroform	20.0	22.1	110	51-138	
Chloromethane	20.0	18.1	90	1-273	
cis-1,3-Dichloropropene	20.0	21.3	106	1-227	
Dichlorobromomethane	20.0	22.2	111	35-155	
Ethylbenzene	20.0	22.9	115	37-162	
Methylene Chloride	20.0	22.4	112	1-221	
Tetrachloroethene	20.0	21.0	105	64-148	
Toluene	20.0	22.3	111	47-150	
trans-1,2-Dichloroethene	20.0	22.9	114	54-156	
trans-1,3-Dichloropropene	20.0	20.7	103	17-183	
Trichloroethene	20.0	22.1	111	71-157	
Vinyl chloride	20.0	17.9	89	1-251	

Column to be used to flag recovery and RPD values

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Buffalo Job No.: 480-125692-1
 SDG No.: _____
 Lab File ID: Q2808.D Lab Sample ID: MB 480-381520/8
 Matrix: Water Heated Purge: (Y/N) N
 Instrument ID: HP5973Q Date Analyzed: 10/12/2017 16:25
 GC Column: ZB-624 (20) ID: 0.18 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 480-381520/6	Q2806.D	10/12/2017 15:37
MW-6	480-125692-2	Q2811.D	10/12/2017 17:48
MW-7	480-125692-3	Q2812.D	10/12/2017 18:12
MW-9	480-125692-4	Q2813.D	10/12/2017 18:36
DGC-6S	480-125692-6	Q2814.D	10/12/2017 18:59
DGC-7S	480-125692-7	Q2815.D	10/12/2017 19:23
DGC-8S	480-125692-8	Q2816.D	10/12/2017 19:47
PUMP CULVERT (TRENCH)	480-125692-12	Q2817.D	10/12/2017 20:10
MW-3	480-125692-1	Q2822.D	10/12/2017 22:08
MW-10	480-125692-5	Q2823.D	10/12/2017 22:32
DGC-11S	480-125692-9	Q2824.D	10/12/2017 22:55
DGC-12	480-125692-10	Q2825.D	10/12/2017 23:18
DGC-21	480-125692-11	Q2826.D	10/12/2017 23:43

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Buffalo Job No.: 480-125692-1
 SDG No.: _____
 Lab File ID: Q2414.D BFB Injection Date: 09/20/2017
 Instrument ID: HP5973Q BFB Injection Time: 13:37
 Analysis Batch No.: 377785

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	20.3
75	30.0 - 60.0 % of mass 95	56.2
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	6.9
173	Less than 2.0 % of mass 174	0.0 (0.0) 1
174	50.0 - 120.00 % of mass 95	64.8
175	5.0 - 9.0 % of mass 174	5.6 (8.7) 1
176	95.0 - 101.0 % of mass 174	63.1 (97.4) 1
177	5.0 - 9.0 % of mass 176	3.7 (5.9) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 480-377785/4	Q2416.D	09/20/2017	14:27
	ICIS 480-377785/5	Q2417.D	09/20/2017	14:50
	IC 480-377785/6	Q2418.D	09/20/2017	15:14

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Buffalo Job No.: 480-125692-1
SDG No.: _____
Lab File ID: Q2802.D BFB Injection Date: 10/12/2017
Instrument ID: HP5973Q BFB Injection Time: 13:18
Analysis Batch No.: 381520

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	21.3
75	30.0 - 60.0 % of mass 95	53.9
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	6.8
173	Less than 2.0 % of mass 174	0.0 (0.0) 1
174	50.0 - 120.00 % of mass 95	67.3
175	5.0 - 9.0 % of mass 174	6.0 (9.0) 1
176	95.0 - 101.0 % of mass 174	66.5 (98.9) 1
177	5.0 - 9.0 % of mass 176	4.6 (7.0) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 480-381520/4	Q2804.D	10/12/2017	14:49
	LCS 480-381520/6	Q2806.D	10/12/2017	15:37
	MB 480-381520/8	Q2808.D	10/12/2017	16:25
MW-6	480-125692-2	Q2811.D	10/12/2017	17:48
MW-7	480-125692-3	Q2812.D	10/12/2017	18:12
MW-9	480-125692-4	Q2813.D	10/12/2017	18:36
DGC-6S	480-125692-6	Q2814.D	10/12/2017	18:59
DGC-7S	480-125692-7	Q2815.D	10/12/2017	19:23
DGC-8S	480-125692-8	Q2816.D	10/12/2017	19:47
PUMP CULVERT (TRENCH)	480-125692-12	Q2817.D	10/12/2017	20:10
MW-3	480-125692-1	Q2822.D	10/12/2017	22:08
MW-10	480-125692-5	Q2823.D	10/12/2017	22:32
DGC-11S	480-125692-9	Q2824.D	10/12/2017	22:55
DGC-12	480-125692-10	Q2825.D	10/12/2017	23:18
DGC-21	480-125692-11	Q2826.D	10/12/2017	23:43

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Buffalo Job No.: 480-125692-1
 SDG No.: _____
 Sample No.: ICIS 480-377785/5 Date Analyzed: 09/20/2017 14:50
 Instrument ID: HP5973Q GC Column: ZB-624 (20) ID: 0.18 (mm)
 Lab File ID (Standard): Q2417.D Heated Purge: (Y/N) N
 Calibration ID: 31536

	FB		CBNZd5		DCBd4	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT	1051009	5.01	702401	7.29	380377	9.17
UPPER LIMIT	2102018	5.51	1404802	7.79	760754	9.67
LOWER LIMIT	525505	4.51	351201	6.79	190189	8.67
LAB SAMPLE ID	CLIENT SAMPLE ID					
CCVIS 480-381520/4		1021484	5.01	650842	7.30	357162 9.16

FB = Fluorobenzene (IS)
 CBNZd5 = Chlorobenzene-d5
 DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
 RT Limit = $\pm$ 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Buffalo Job No.: 480-125692-1
 SDG No.: _____
 Sample No.: CCVIS 480-381520/4 Date Analyzed: 10/12/2017 14:49
 Instrument ID: HP5973Q GC Column: ZB-624 (20) ID: 0.18 (mm)
 Lab File ID (Standard): Q2804.D Heated Purge: (Y/N) N
 Calibration ID: 31536

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1021484	5.01	650842	7.30	357162	9.16
UPPER LIMIT		2042968	5.51	1301684	7.80	714324	9.66
LOWER LIMIT		510742	4.51	325421	6.80	178581	8.66
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 480-381520/6		959429	5.01	612572	7.30	339581	9.17
MB 480-381520/8		916616	5.01	575704	7.30	323647	9.16
480-125692-2	MW-6	907652	5.01	585751	7.30	331371	9.16
480-125692-3	MW-7	908676	5.01	558423	7.29	313373	9.16
480-125692-4	MW-9	915310	5.01	586272	7.29	338716	9.16
480-125692-6	DGC-6S	875858	5.01	542332	7.29	311078	9.16
480-125692-7	DGC-7S	920597	5.01	584754	7.29	325186	9.16
480-125692-8	DGC-8S	908686	5.01	563340	7.30	314764	9.16
480-125692-12	PUMP CULVERT (TRENCH)	926565	5.01	581352	7.30	328484	9.16
480-125692-1	MW-3	909214	5.01	561958	7.29	317022	9.16
480-125692-5	MW-10	907484	5.01	551626	7.29	308325	9.16
480-125692-9	DGC-11S	928793	5.01	571493	7.29	319988	9.16
480-125692-10	DGC-12	871484	5.01	533515	7.30	300553	9.17
480-125692-11	DGC-21	880737	5.01	539742	7.29	315459	9.16

FB = Fluorobenzene (IS)
 FB = Fluorobenzene (IS)
 CBNZd5 = Chlorobenzene-d5
 CBNZd5 = Chlorobenzene-d5
 Area Limit = 50%-200% of internal standard area
 DCBd4 = 1,4-Dichlorobenzene-d4
 RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Buffalo</u>	Job No.: <u>480-125692-1</u>
SDG No.: _____	
Client Sample ID: <u>MW-3</u>	Lab Sample ID: <u>480-125692-1</u>
Matrix: <u>Water</u>	Lab File ID: <u>Q2822.D</u>
Analysis Method: <u>624</u>	Date Collected: <u>10/10/2017 12:10</u>
Sample wt/vol: <u>5 (mL)</u>	Date Analyzed: <u>10/12/2017 22:08</u>
Soil Aliquot Vol: _____	Dilution Factor: <u>1</u>
Soil Extract Vol.: _____	GC Column: <u>ZB-624 (20)</u> ID: <u>0.18 (mm)</u>
% Moisture: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>381520</u>	Units: <u>ug/L</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		5.0	0.39
79-34-5	1,1,2,2-Tetrachloroethane	ND		5.0	0.26
79-00-5	1,1,2-Trichloroethane	ND		5.0	0.48
75-34-3	1,1-Dichloroethane	ND		5.0	0.59
75-35-4	1,1-Dichloroethene	ND		5.0	0.85
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.44
107-06-2	1,2-Dichloroethane	ND		5.0	0.60
540-59-0	1,2-Dichloroethene, Total	ND		10	3.2
78-87-5	1,2-Dichloropropane	ND		5.0	0.61
541-73-1	1,3-Dichlorobenzene	ND		5.0	0.54
106-46-7	1,4-Dichlorobenzene	ND		5.0	0.51
110-75-8	2-Chloroethyl vinyl ether	ND		25	1.9
107-02-8	Acrolein	ND		100	17
107-13-1	Acrylonitrile	ND		50	1.9
71-43-2	Benzene	ND		5.0	0.60
75-25-2	Bromoform	ND		5.0	0.47
74-83-9	Bromomethane	ND		5.0	1.2
56-23-5	Carbon tetrachloride	ND		5.0	0.51
108-90-7	Chlorobenzene	ND		5.0	0.48
124-48-1	Chlorodibromomethane	ND		5.0	0.41
75-00-3	Chloroethane	ND		5.0	0.87
67-66-3	Chloroform	ND		5.0	0.54
74-87-3	Chloromethane	ND		5.0	0.64
10061-01-5	cis-1,3-Dichloropropene	ND		5.0	0.33
75-27-4	Dichlorobromomethane	ND		5.0	0.54
100-41-4	Ethylbenzene	ND		5.0	0.46
75-09-2	Methylene Chloride	ND		5.0	0.81
127-18-4	Tetrachloroethene	ND		5.0	0.34
108-88-3	Toluene	ND		5.0	0.45
156-60-5	trans-1,2-Dichloroethene	ND		5.0	0.59
10061-02-6	trans-1,3-Dichloropropene	ND		5.0	0.44
79-01-6	Trichloroethene	1.9	J	5.0	0.60
75-01-4	Vinyl chloride	ND		5.0	0.75

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-125692-1
SDG No.: _____
Client Sample ID: MW-3 Lab Sample ID: 480-125692-1
Matrix: Water Lab File ID: Q2822.D
Analysis Method: 624 Date Collected: 10/10/2017 12:10
Sample wt/vol: 5 (mL) Date Analyzed: 10/12/2017 22:08
Soil Aliquot Vol: _____ Dilution Factor: 1
Soil Extract Vol.: _____ GC Column: ZB-624 (20) ID: 0.18 (mm)
% Moisture: _____ Level: (low/med) Low
Analysis Batch No.: 381520 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		68-130
460-00-4	4-Bromofluorobenzene (Surr)	99		76-123
2037-26-5	Toluene-d8 (Surr)	97		77-120

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q2822.D
 Lims ID: 480-125692-A-1
 Client ID: MW-3
 Sample Type: Client
 Inject. Date: 12-Oct-2017 22:08:30 ALS Bottle#: 23 Worklist Smp#: 11
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 480-125692-a-1
 Misc. Info.: 480-0066342-011
 Operator ID: RF/RB Instrument ID: HP5973Q
 Method: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q-624.m
 Limit Group: MV - 624 ICAL UP
 Last Update: 16-Oct-2017 09:53:37 Calib Date: 20-Sep-2017 15:14:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last Ical File: \\ChromNA\Buffalo\ChromData\HP5973Q\20170920-65748.b\Q2418.D
 Column 1 : Det: MS SCAN
 Process Host: XAWRK002

First Level Reviewer: baroner

Date: 16-Oct-2017 09:53:37

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
* 114 Fluorobenzene (IS)	96	5.008	5.009	-0.001	99	909214	30.0	
* 2 Chlorobenzene-d5	117	7.294	7.296	-0.002	90	561958	30.0	
* 3 1,4-Dichlorobenzene-d4	152	9.161	9.163	-0.002	98	317022	30.0	
\$ 4 1,2-Dichloroethane-d4 (Sur	65	4.783	4.778	0.005	98	339486	30.5	
\$ 5 Toluene-d8 (Surr)	98	6.175	6.177	-0.002	93	726414	29.1	
\$ 6 4-Bromofluorobenzene (Surr	95	8.225	8.226	-0.001	82	282725	29.6	
11 Chloromethane	50		1.653				ND	
12 Vinyl chloride	62		1.719				ND	
13 Bromomethane	94		1.981				ND	
14 Chloroethane	64		2.036				ND	
18 Acrolein	56		2.638				ND	
20 1,1-Dichloroethene	96		2.686				ND	
27 Methylene Chloride	84		3.136				ND	
30 trans-1,2-Dichloroethene	96		3.343				ND	
31 Acrylonitrile	53		3.368				ND	
32 1,1-Dichloroethane	63		3.696				ND	
38 cis-1,2-Dichloroethene	96	4.163	4.163	0.004	28	3530	0.4072	7
45 Chloroform	83		4.407				ND	
116 1,1,1-Trichloroethane	97		4.517				ND	
47 Carbon tetrachloride	117		4.638				ND	
49 Benzene	78		4.797				ND	
51 1,2-Dichloroethane	62		4.839				ND	
53 Trichloroethene	95	5.281	5.277	0.004	96	15292	1.94	
54 1,2-Dichloropropane	63		5.453				ND	
58 Dichlorobromomethane	83		5.672				ND	
60 2-Chloroethyl vinyl ether	63		5.879				ND	
61 cis-1,3-Dichloropropene	75		5.995				ND	
63 Toluene	92		6.226				ND	
64 trans-1,3-Dichloropropene	75		6.414				ND	
66 1,1,2-Trichloroethane	83		6.560				ND	
67 Tetrachloroethene	166		6.639				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
71 Chlorodibromomethane	129		6.870				ND	
74 Chlorobenzene	112		7.320				ND	
77 Ethylbenzene	91		7.381				ND	
82 Bromoform	173		7.989				ND	
86 1,1,2,2-Tetrachloroethane	83		8.354				ND	
98 1,3-Dichlorobenzene	146		9.108				ND	
99 1,4-Dichlorobenzene	146		9.181				ND	
101 1,2-Dichlorobenzene	146		9.491				ND	
S 107 1,2-Dichloroethene, Total	1		2.360				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

Q 624 IS_00056

Amount Added: 1.00

Units: uL

Run Reagent

Q 624 SURR_00051

Amount Added: 1.00

Units: uL

Run Reagent

TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q2822.D

Injection Date: 12-Oct-2017 22:08:30

Instrument ID: HP5973Q

Operator ID: RF/RB

Lims ID: 480-125692-A-1

Lab Sample ID: 480-125692-1

Worklist Smp#: 11

Client ID: MW-3

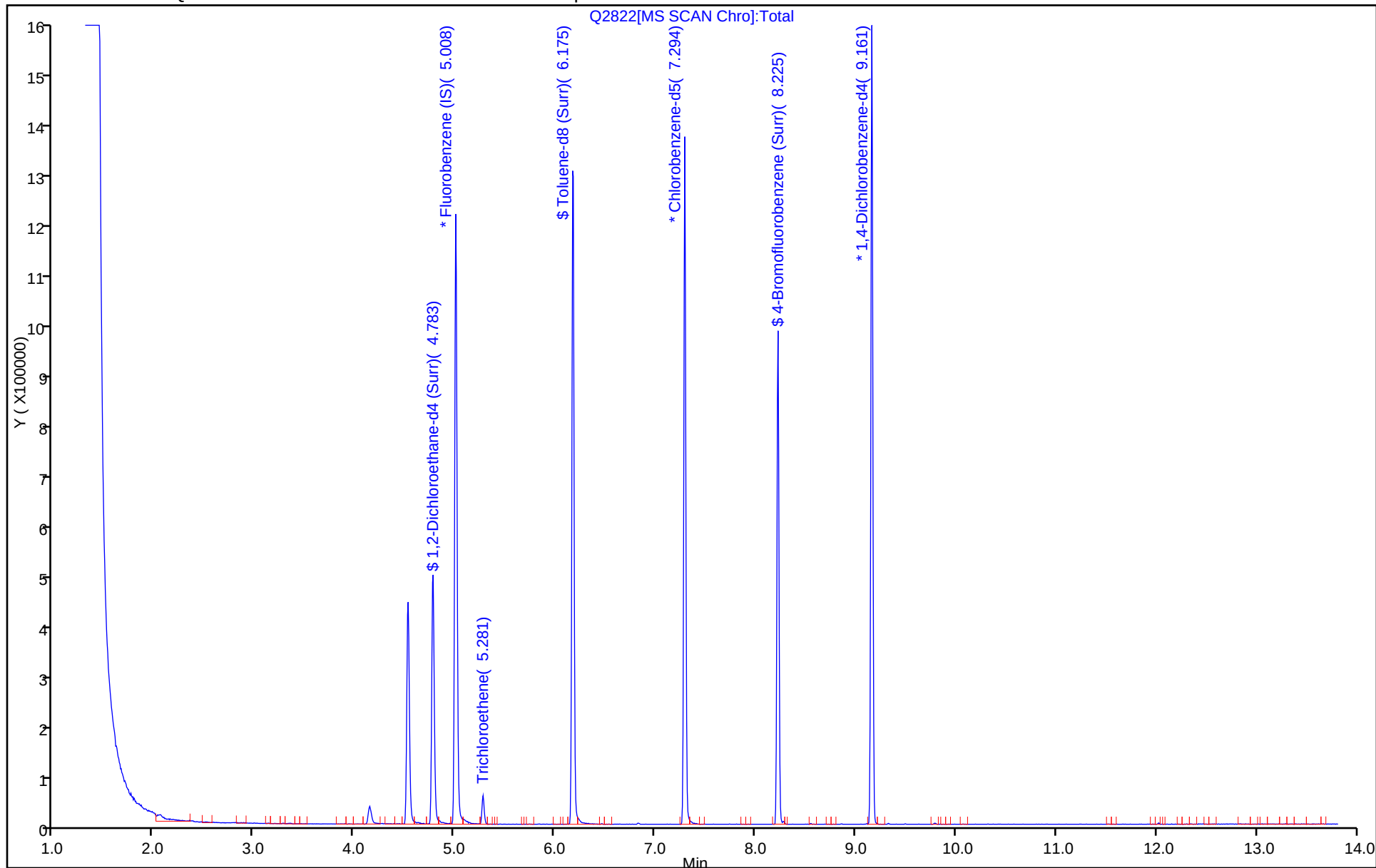
Purge Vol: 5.000 mL

Dil. Factor: 1.0000

ALS Bottle#: 23

Method: Q-624

Limit Group: MV - 624 ICAL UP



TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q2822.D

Injection Date: 12-Oct-2017 22:08:30

Instrument ID: HP5973Q

Lims ID: 480-125692-A-1

Lab Sample ID: 480-125692-1

Client ID: MW-3

Operator ID: RF/RB

ALS Bottle#: 23

Worklist Smp#: 11

Purge Vol: 5.000 mL

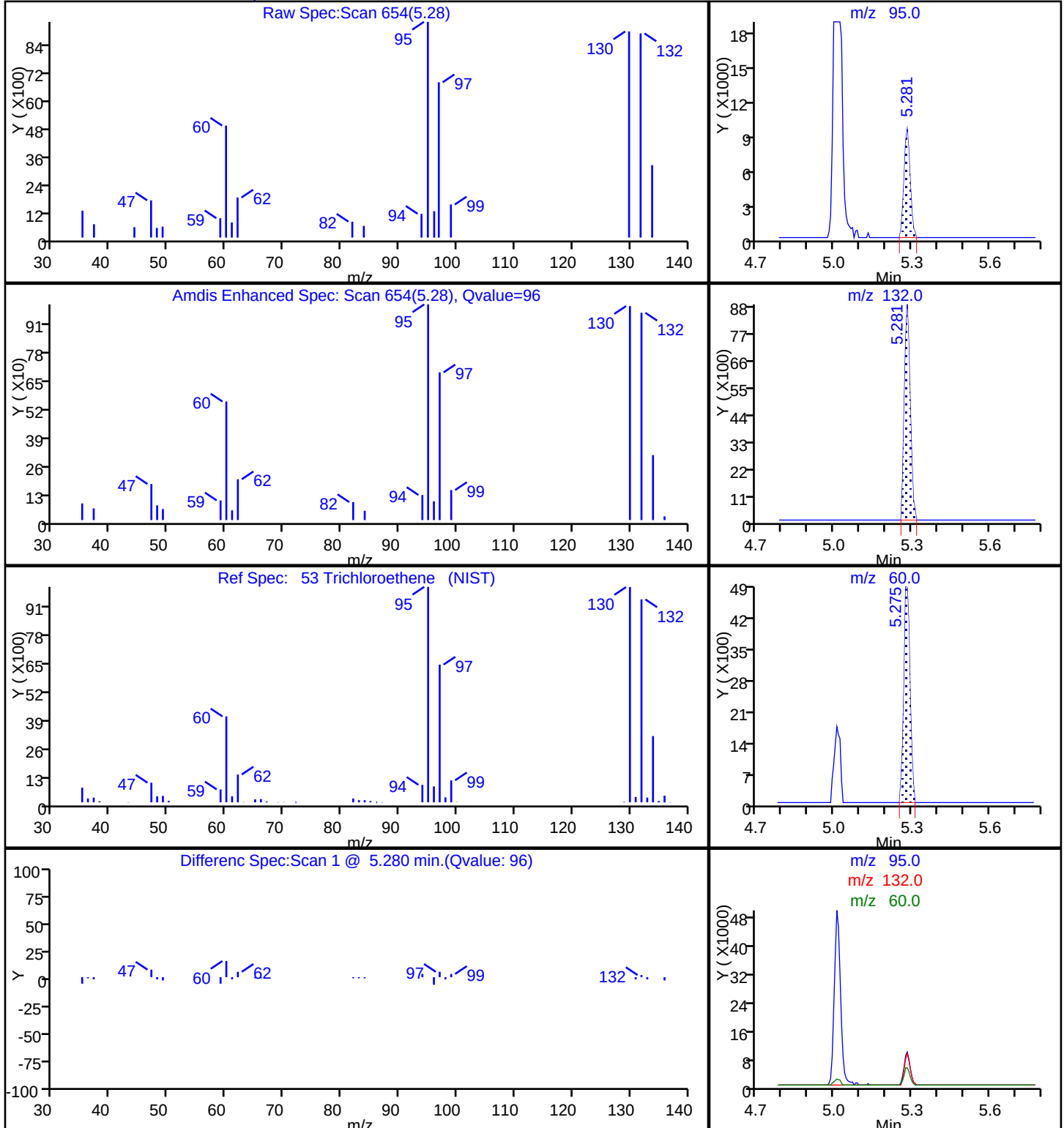
Dil. Factor: 1.0000

Method: Q-624

Limit Group: MV - 624 ICAL UP

Column:

Detector MS SCAN

53 Trichloroethene, CAS: 79-01-6

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Buffalo</u>	Job No.: <u>480-125692-1</u>
SDG No.: _____	
Client Sample ID: <u>MW-6</u>	Lab Sample ID: <u>480-125692-2</u>
Matrix: <u>Water</u>	Lab File ID: <u>Q2811.D</u>
Analysis Method: <u>624</u>	Date Collected: <u>10/10/2017 12:15</u>
Sample wt/vol: <u>5 (mL)</u>	Date Analyzed: <u>10/12/2017 17:48</u>
Soil Aliquot Vol: _____	Dilution Factor: <u>1</u>
Soil Extract Vol.: _____	GC Column: <u>ZB-624 (20)</u> ID: <u>0.18 (mm)</u>
% Moisture: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>381520</u>	Units: <u>ug/L</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		5.0	0.39
79-34-5	1,1,2,2-Tetrachloroethane	ND		5.0	0.26
79-00-5	1,1,2-Trichloroethane	ND		5.0	0.48
75-34-3	1,1-Dichloroethane	ND		5.0	0.59
75-35-4	1,1-Dichloroethene	ND		5.0	0.85
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.44
107-06-2	1,2-Dichloroethane	ND		5.0	0.60
540-59-0	1,2-Dichloroethene, Total	ND		10	3.2
78-87-5	1,2-Dichloropropane	ND		5.0	0.61
541-73-1	1,3-Dichlorobenzene	ND		5.0	0.54
106-46-7	1,4-Dichlorobenzene	ND		5.0	0.51
110-75-8	2-Chloroethyl vinyl ether	ND		25	1.9
107-02-8	Acrolein	ND		100	17
107-13-1	Acrylonitrile	ND		50	1.9
71-43-2	Benzene	ND		5.0	0.60
75-25-2	Bromoform	ND		5.0	0.47
74-83-9	Bromomethane	ND		5.0	1.2
56-23-5	Carbon tetrachloride	ND		5.0	0.51
108-90-7	Chlorobenzene	ND		5.0	0.48
124-48-1	Chlorodibromomethane	ND		5.0	0.41
75-00-3	Chloroethane	ND		5.0	0.87
67-66-3	Chloroform	ND		5.0	0.54
74-87-3	Chloromethane	ND		5.0	0.64
10061-01-5	cis-1,3-Dichloropropene	ND		5.0	0.33
75-27-4	Dichlorobromomethane	ND		5.0	0.54
100-41-4	Ethylbenzene	ND		5.0	0.46
75-09-2	Methylene Chloride	ND		5.0	0.81
127-18-4	Tetrachloroethene	ND		5.0	0.34
108-88-3	Toluene	ND		5.0	0.45
156-60-5	trans-1,2-Dichloroethene	ND		5.0	0.59
10061-02-6	trans-1,3-Dichloropropene	ND		5.0	0.44
79-01-6	Trichloroethene	2.0	J	5.0	0.60
75-01-4	Vinyl chloride	ND		5.0	0.75

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-125692-1
SDG No.: _____
Client Sample ID: MW-6 Lab Sample ID: 480-125692-2
Matrix: Water Lab File ID: Q2811.D
Analysis Method: 624 Date Collected: 10/10/2017 12:15
Sample wt/vol: 5 (mL) Date Analyzed: 10/12/2017 17:48
Soil Aliquot Vol: _____ Dilution Factor: 1
Soil Extract Vol.: _____ GC Column: ZB-624 (20) ID: 0.18 (mm)
% Moisture: _____ Level: (low/med) Low
Analysis Batch No.: 381520 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		68-130
460-00-4	4-Bromofluorobenzene (Surr)	100		76-123
2037-26-5	Toluene-d8 (Surr)	96		77-120

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q2811.D
 Lims ID: 480-125692-C-2
 Client ID: MW-6
 Sample Type: Client
 Inject. Date: 12-Oct-2017 17:48:30 ALS Bottle#: 12 Worklist Smp#: 12
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 480-125692-c-2
 Misc. Info.: 480-0066342-012
 Operator ID: RF/RB Instrument ID: HP5973Q
 Method: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q-624.m
 Limit Group: MV - 624 ICAL UP
 Last Update: 16-Oct-2017 13:37:46 Calib Date: 20-Sep-2017 15:14:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last Ical File: \\ChromNA\Buffalo\ChromData\HP5973Q\20170920-65748.b\Q2418.D
 Column 1 : Det: MS SCAN
 Process Host: XAWRK002

First Level Reviewer: baroner

Date: 16-Oct-2017 13:37:46

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
* 114 Fluorobenzene (IS)	96	5.010	5.009	0.001	99	907652	30.0	
* 2 Chlorobenzene-d5	117	7.296	7.296	0.000	90	585751	30.0	
* 3 1,4-Dichlorobenzene-d4	152	9.163	9.163	0.000	98	331371	30.0	
\$ 4 1,2-Dichloroethane-d4 (Sur	65	4.779	4.778	0.001	98	334461	30.1	
\$ 5 Toluene-d8 (Surr)	98	6.177	6.177	0.000	93	749444	28.8	
\$ 6 4-Bromofluorobenzene (Surr	95	8.227	8.226	0.001	83	299132	30.1	
11 Chloromethane	50		1.653				ND	
12 Vinyl chloride	62	1.714	1.714	-0.005	24	5897	0.6512	7M
13 Bromomethane	94		1.981				ND	
14 Chloroethane	64		2.036				ND	
18 Acrolein	56		2.638				ND	
20 1,1-Dichloroethene	96		2.686				ND	
27 Methylene Chloride	84		3.136				ND	
30 trans-1,2-Dichloroethene	96		3.343				ND	
31 Acrylonitrile	53		3.368				ND	
32 1,1-Dichloroethane	63		3.696				ND	
38 cis-1,2-Dichloroethene	96	4.158	4.158	0.000	84	20802	2.40	
45 Chloroform	83		4.407				ND	
116 1,1,1-Trichloroethane	97		4.517				ND	
47 Carbon tetrachloride	117		4.638				ND	
49 Benzene	78		4.797				ND	
51 1,2-Dichloroethane	62		4.839				ND	
53 Trichloroethene	95	5.277	5.277	0.000	94	15959	2.02	
54 1,2-Dichloropropane	63		5.453				ND	
58 Dichlorobromomethane	83		5.672				ND	
60 2-Chloroethyl vinyl ether	63		5.879				ND	
61 cis-1,3-Dichloropropene	75		5.995				ND	
63 Toluene	92		6.226				ND	
64 trans-1,3-Dichloropropene	75		6.414				ND	
66 1,1,2-Trichloroethane	83		6.560				ND	
67 Tetrachloroethene	166		6.639				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
71 Chlorodibromomethane	129		6.870				ND	
74 Chlorobenzene	112		7.320				ND	
77 Ethylbenzene	91		7.381				ND	
82 Bromoform	173		7.989				ND	
86 1,1,2,2-Tetrachloroethane	83		8.354				ND	
98 1,3-Dichlorobenzene	146		9.108				ND	
99 1,4-Dichlorobenzene	146		9.181				ND	
101 1,2-Dichlorobenzene	146		9.491				ND	
S 107 1,2-Dichloroethene, Total	1				0		2.40	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

Reagents:

Q 624 IS_00056

Amount Added: 1.00

Units: uL

Run Reagent

Q 624 SURR_00051

Amount Added: 1.00

Units: uL

Run Reagent

TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q2811.D

Injection Date: 12-Oct-2017 17:48:30

Instrument ID: HP5973Q

Operator ID: RF/RB

Lims ID: 480-125692-C-2

Lab Sample ID: 480-125692-2

Worklist Smp#: 12

Client ID: MW-6

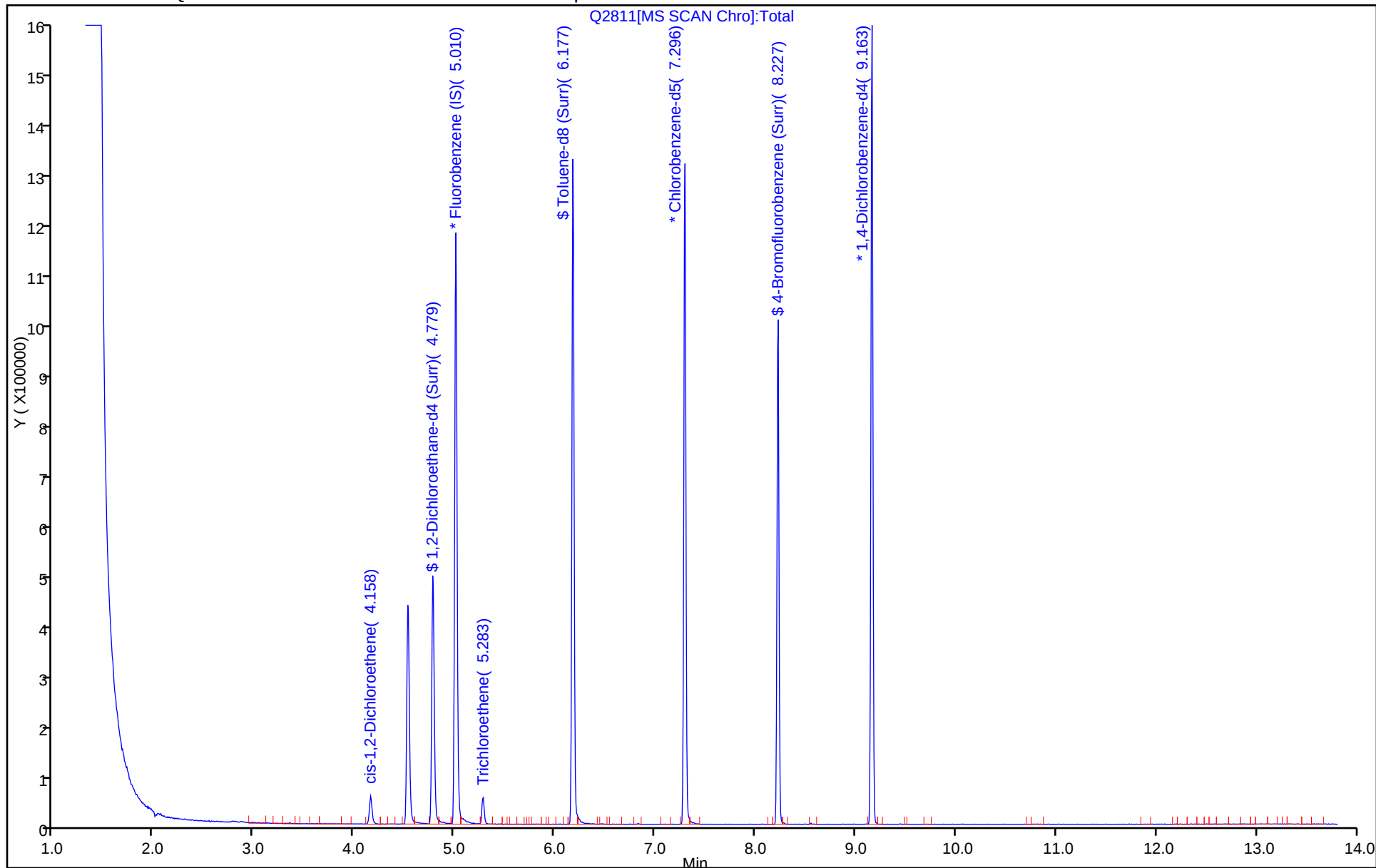
Purge Vol: 5.000 mL

Dil. Factor: 1.0000

ALS Bottle#: 12

Method: Q-624

Limit Group: MV - 624 ICAL UP



TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q2811.D

Injection Date: 12-Oct-2017 17:48:30

Instrument ID: HP5973Q

Lims ID: 480-125692-C-2

Lab Sample ID: 480-125692-2

Client ID: MW-6

Operator ID: RF/RB

ALS Bottle#: 12

Worklist Smp#: 12

Purge Vol: 5.000 mL

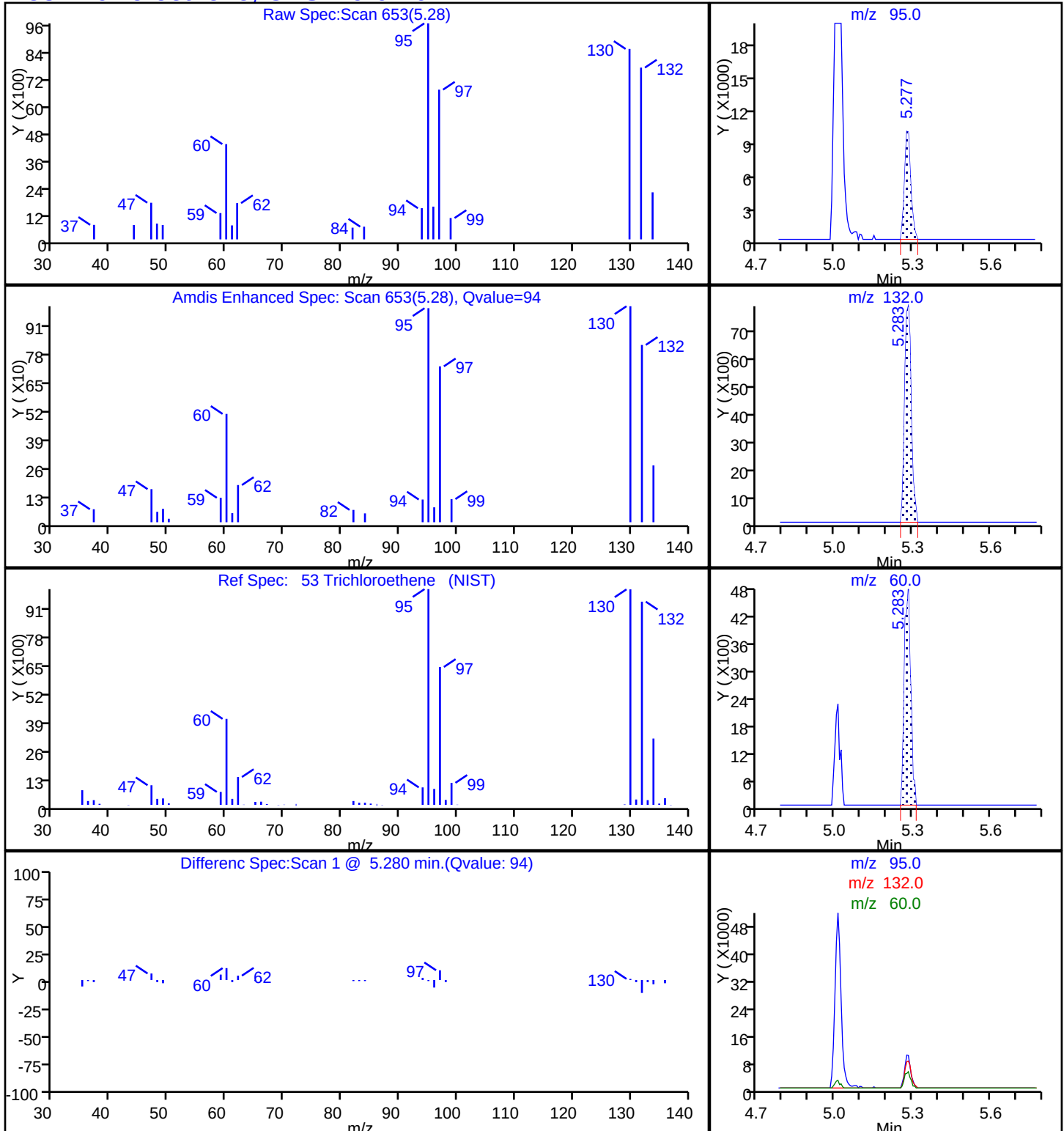
Dil. Factor: 1.0000

Method: Q-624

Limit Group: MV - 624 ICAL UP

Column:

Detector: MS SCAN

53 Trichloroethene, CAS: 79-01-6

TestAmerica Buffalo

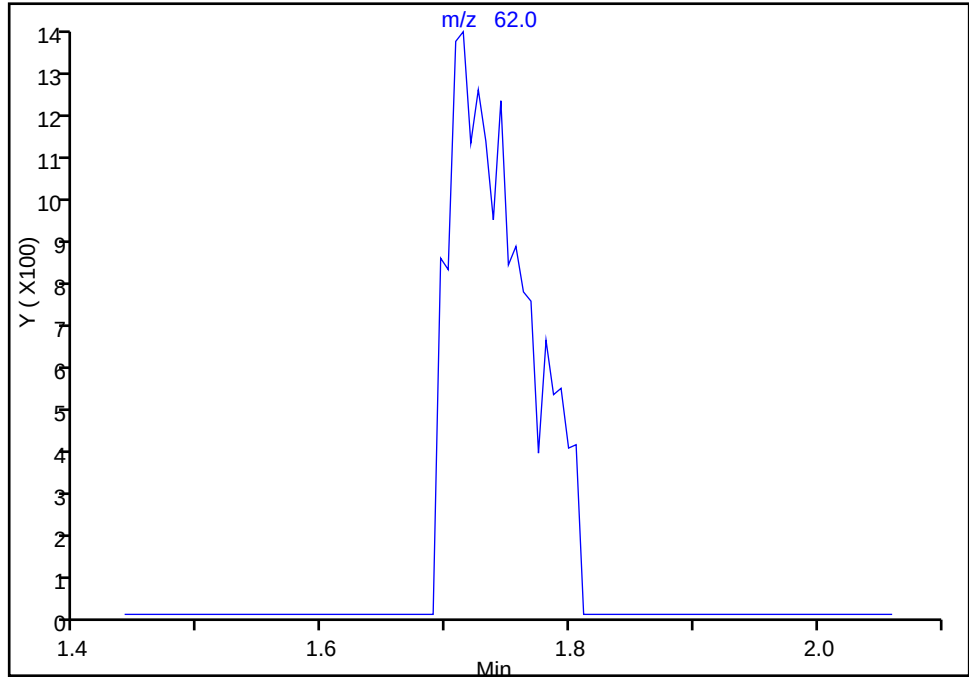
Data File:	\\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q2811.D		
Injection Date:	12-Oct-2017 17:48:30	Instrument ID:	HP5973Q
Lims ID:	480-125692-C-2	Lab Sample ID:	480-125692-2
Client ID:	MW-6		
Operator ID:	RF/RB	ALS Bottle#:	12
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	Q-624	Limit Group:	MV - 624 ICAL UP
Column:		Detector:	MS SCAN
		Worklist Smp#:	12

12 Vinyl chloride, CAS: 75-01-4

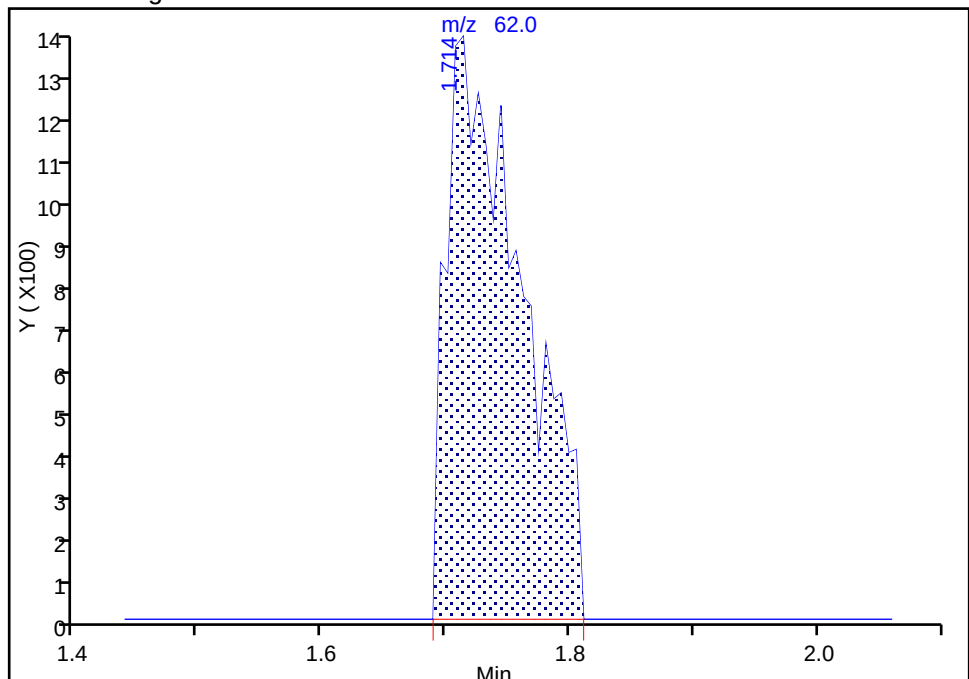
Signal: 1

Not Detected
Expected RT: 1.72

Processing Integration Results

RT: 1.71
Area: 5897
Amount: 0.651248
Amount Units: ug/L

Manual Integration Results

Reviewer: baroner, 16-Oct-2017 13:37:17
Audit Action: Assigned Compound ID

Audit Reason: Poor chromatography

TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q2811.D

Injection Date: 12-Oct-2017 17:48:30

Instrument ID: HP5973Q

Lims ID: 480-125692-C-2

Lab Sample ID: 480-125692-2

Client ID: MW-6

Operator ID: RF/RB

ALS Bottle#: 12 Worklist Smp#: 12

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

Method: Q-624

Limit Group: MV - 624 ICAL UP

Column:

Detector: MS SCAN

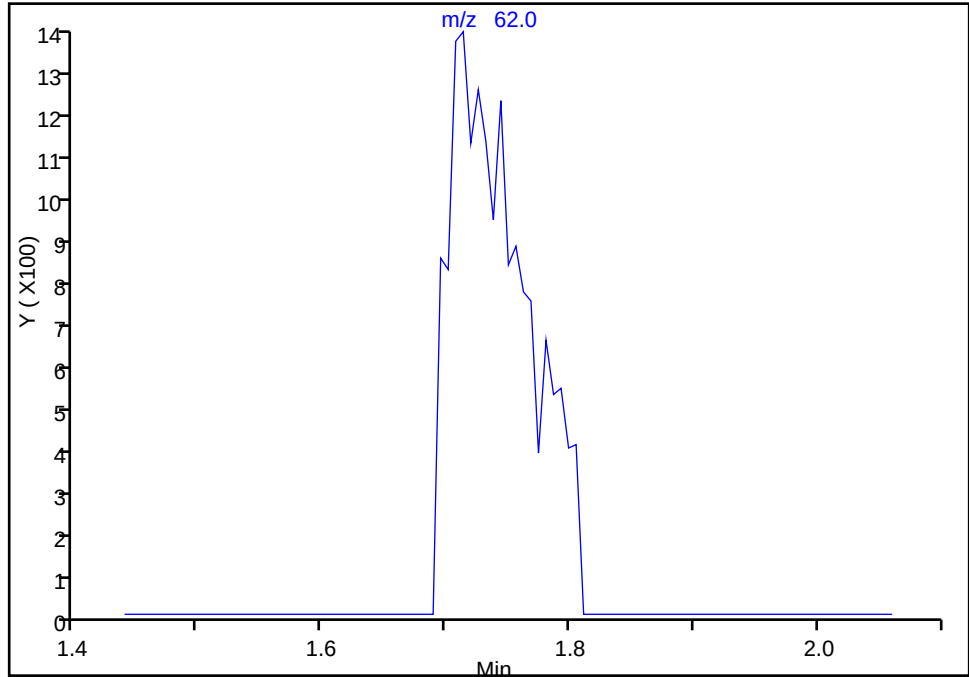
12 Vinyl chloride, CAS: 75-01-4

Signal: 1

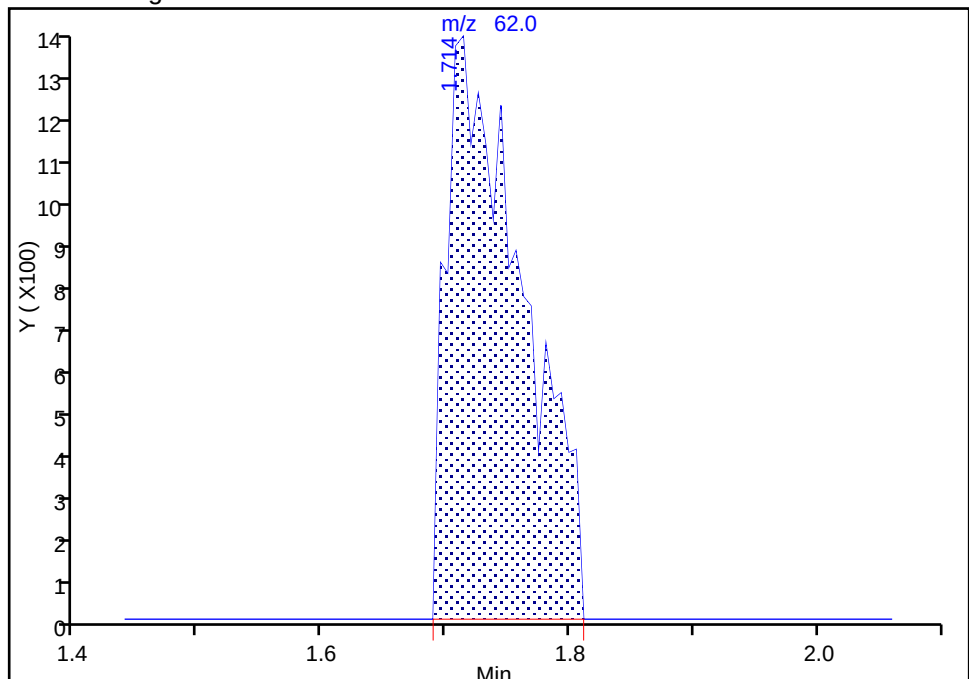
Not Detected

Expected RT: 1.72

Processing Integration Results



Manual Integration Results



RT: 1.71

Area: 5897

Amount: 0.651248

Amount Units: ug/L

Reviewer: baroner, 16-Oct-2017 13:37:41

Audit Action: Manually Integrated

Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Buffalo</u>	Job No.: <u>480-125692-1</u>
SDG No.: _____	
Client Sample ID: <u>MW-7</u>	Lab Sample ID: <u>480-125692-3</u>
Matrix: <u>Water</u>	Lab File ID: <u>Q2812.D</u>
Analysis Method: <u>624</u>	Date Collected: <u>10/10/2017 12:25</u>
Sample wt/vol: <u>5(mL)</u>	Date Analyzed: <u>10/12/2017 18:12</u>
Soil Aliquot Vol: _____	Dilution Factor: <u>1</u>
Soil Extract Vol.: _____	GC Column: <u>ZB-624 (20)</u> ID: <u>0.18(mm)</u>
% Moisture: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>381520</u>	Units: <u>ug/L</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		5.0	0.39
79-34-5	1,1,2,2-Tetrachloroethane	ND		5.0	0.26
79-00-5	1,1,2-Trichloroethane	ND		5.0	0.48
75-34-3	1,1-Dichloroethane	ND		5.0	0.59
75-35-4	1,1-Dichloroethene	ND		5.0	0.85
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.44
107-06-2	1,2-Dichloroethane	ND		5.0	0.60
540-59-0	1,2-Dichloroethene, Total	ND		10	3.2
78-87-5	1,2-Dichloropropane	ND		5.0	0.61
541-73-1	1,3-Dichlorobenzene	ND		5.0	0.54
106-46-7	1,4-Dichlorobenzene	ND		5.0	0.51
110-75-8	2-Chloroethyl vinyl ether	ND		25	1.9
107-02-8	Acrolein	ND		100	17
107-13-1	Acrylonitrile	ND		50	1.9
71-43-2	Benzene	ND		5.0	0.60
75-25-2	Bromoform	ND		5.0	0.47
74-83-9	Bromomethane	ND		5.0	1.2
56-23-5	Carbon tetrachloride	ND		5.0	0.51
108-90-7	Chlorobenzene	ND		5.0	0.48
124-48-1	Chlorodibromomethane	ND		5.0	0.41
75-00-3	Chloroethane	ND		5.0	0.87
67-66-3	Chloroform	ND		5.0	0.54
74-87-3	Chloromethane	ND		5.0	0.64
10061-01-5	cis-1,3-Dichloropropene	ND		5.0	0.33
75-27-4	Dichlorobromomethane	ND		5.0	0.54
100-41-4	Ethylbenzene	ND		5.0	0.46
75-09-2	Methylene Chloride	ND		5.0	0.81
127-18-4	Tetrachloroethene	ND		5.0	0.34
108-88-3	Toluene	ND		5.0	0.45
156-60-5	trans-1,2-Dichloroethene	ND		5.0	0.59
10061-02-6	trans-1,3-Dichloropropene	ND		5.0	0.44
79-01-6	Trichloroethene	0.88	J	5.0	0.60
75-01-4	Vinyl chloride	1.3	J	5.0	0.75

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-125692-1
SDG No.: _____
Client Sample ID: MW-7 Lab Sample ID: 480-125692-3
Matrix: Water Lab File ID: Q2812.D
Analysis Method: 624 Date Collected: 10/10/2017 12:25
Sample wt/vol: 5 (mL) Date Analyzed: 10/12/2017 18:12
Soil Aliquot Vol: _____ Dilution Factor: 1
Soil Extract Vol.: _____ GC Column: ZB-624 (20) ID: 0.18 (mm)
% Moisture: _____ Level: (low/med) Low
Analysis Batch No.: 381520 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		68-130
460-00-4	4-Bromofluorobenzene (Surr)	100		76-123
2037-26-5	Toluene-d8 (Surr)	96		77-120

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q2812.D
 Lims ID: 480-125692-C-3
 Client ID: MW-7
 Sample Type: Client
 Inject. Date: 12-Oct-2017 18:12:30 ALS Bottle#: 13 Worklist Smp#: 13
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 480-125692-c-3
 Misc. Info.: 480-0066342-013
 Operator ID: RF/RB Instrument ID: HP5973Q
 Method: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q-624.m
 Limit Group: MV - 624 ICAL UP
 Last Update: 16-Oct-2017 13:38:18 Calib Date: 20-Sep-2017 15:14:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last Ical File: \\ChromNA\Buffalo\ChromData\HP5973Q\20170920-65748.b\Q2418.D
 Column 1 : Det: MS SCAN
 Process Host: XAWRK002

First Level Reviewer: baroner

Date: 16-Oct-2017 09:03:41

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
* 114 Fluorobenzene (IS)	96	5.007	5.009	-0.002	99	908676	30.0	
* 2 Chlorobenzene-d5	117	7.294	7.296	-0.002	90	558423	30.0	
* 3 1,4-Dichlorobenzene-d4	152	9.161	9.163	-0.002	98	313373	30.0	
\$ 4 1,2-Dichloroethane-d4 (Sur	65	4.782	4.778	0.004	98	338864	30.4	
\$ 5 Toluene-d8 (Surr)	98	6.181	6.177	0.004	93	712040	28.7	
\$ 6 4-Bromofluorobenzene (Surr	95	8.224	8.226	-0.002	82	285960	30.1	
11 Chloromethane	50		1.653				ND	
12 Vinyl chloride	62	1.730	1.730	0.011	19	11705	1.29	M
13 Bromomethane	94		1.981				ND	
14 Chloroethane	64		2.036				ND	
18 Acrolein	56		2.638				ND	
20 1,1-Dichloroethene	96		2.686				ND	
27 Methylene Chloride	84		3.136				ND	
30 trans-1,2-Dichloroethene	96		3.343				ND	
31 Acrylonitrile	53		3.368				ND	
32 1,1-Dichloroethane	63		3.696				ND	
38 cis-1,2-Dichloroethene	96	4.162	4.158	0.004	82	13549	1.56	
45 Chloroform	83		4.407				ND	
116 1,1,1-Trichloroethane	97		4.517				ND	
47 Carbon tetrachloride	117		4.638				ND	
49 Benzene	78		4.797				ND	
51 1,2-Dichloroethane	62		4.839				ND	
53 Trichloroethene	95	5.281	5.277	0.004	91	6907	0.8752	
54 1,2-Dichloropropane	63		5.453				ND	
58 Dichlorobromomethane	83		5.672				ND	
60 2-Chloroethyl vinyl ether	63		5.879				ND	
61 cis-1,3-Dichloropropene	75		5.995				ND	
63 Toluene	92		6.226				ND	
64 trans-1,3-Dichloropropene	75		6.414				ND	
66 1,1,2-Trichloroethane	83		6.560				ND	
67 Tetrachloroethene	166		6.639				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
71 Chlorodibromomethane	129		6.870				ND	
74 Chlorobenzene	112	7.312	7.320	-0.008	39	6383	0.3690	7
77 Ethylbenzene	91		7.381				ND	
82 Bromoform	173		7.989				ND	
86 1,1,2,2-Tetrachloroethane	83		8.354				ND	
98 1,3-Dichlorobenzene	146		9.108				ND	
99 1,4-Dichlorobenzene	146		9.181				ND	
101 1,2-Dichlorobenzene	146	9.489	9.491	-0.002	32	5699	0.4289	7
S 107 1,2-Dichloroethene, Total	1				0		1.56	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

Reagents:

Q 624 IS_00056

Amount Added: 1.00

Units: uL

Run Reagent

Q 624 SURR_00051

Amount Added: 1.00

Units: uL

Run Reagent

TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q2812.D

Injection Date: 12-Oct-2017 18:12:30

Instrument ID: HP5973Q

Operator ID: RF/RB

Lims ID: 480-125692-C-3

Lab Sample ID: 480-125692-3

Worklist Smp#: 13

Client ID: MW-7

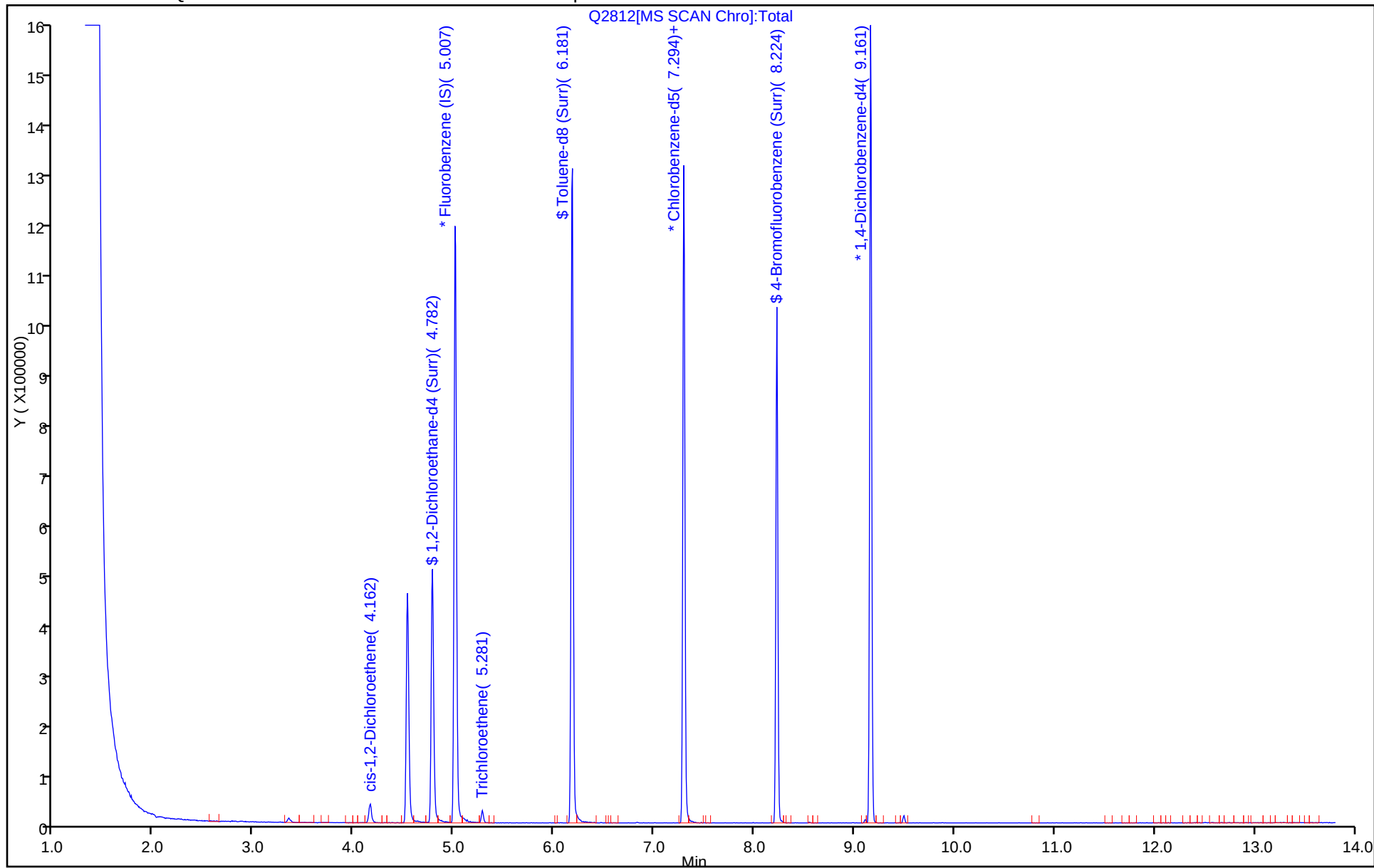
Purge Vol: 5.000 mL

Dil. Factor: 1.0000

ALS Bottle#: 13

Method: Q-624

Limit Group: MV - 624 ICAL UP



TestAmerica Buffalo

Data File: \\ChromNA\\Buffalo\\ChromData\\HP5973Q\\20171012-66342.b\\Q2812.D

Injection Date: 12-Oct-2017 18:12:30

Instrument ID: HP5973Q

Lims ID: 480-125692-C-3

Lab Sample ID: 480-125692-3

Client ID: MW-7

Operator ID: RF/RB

ALS Bottle#: 13

Worklist Smp#: 13

Purge Vol: 5.000 mL

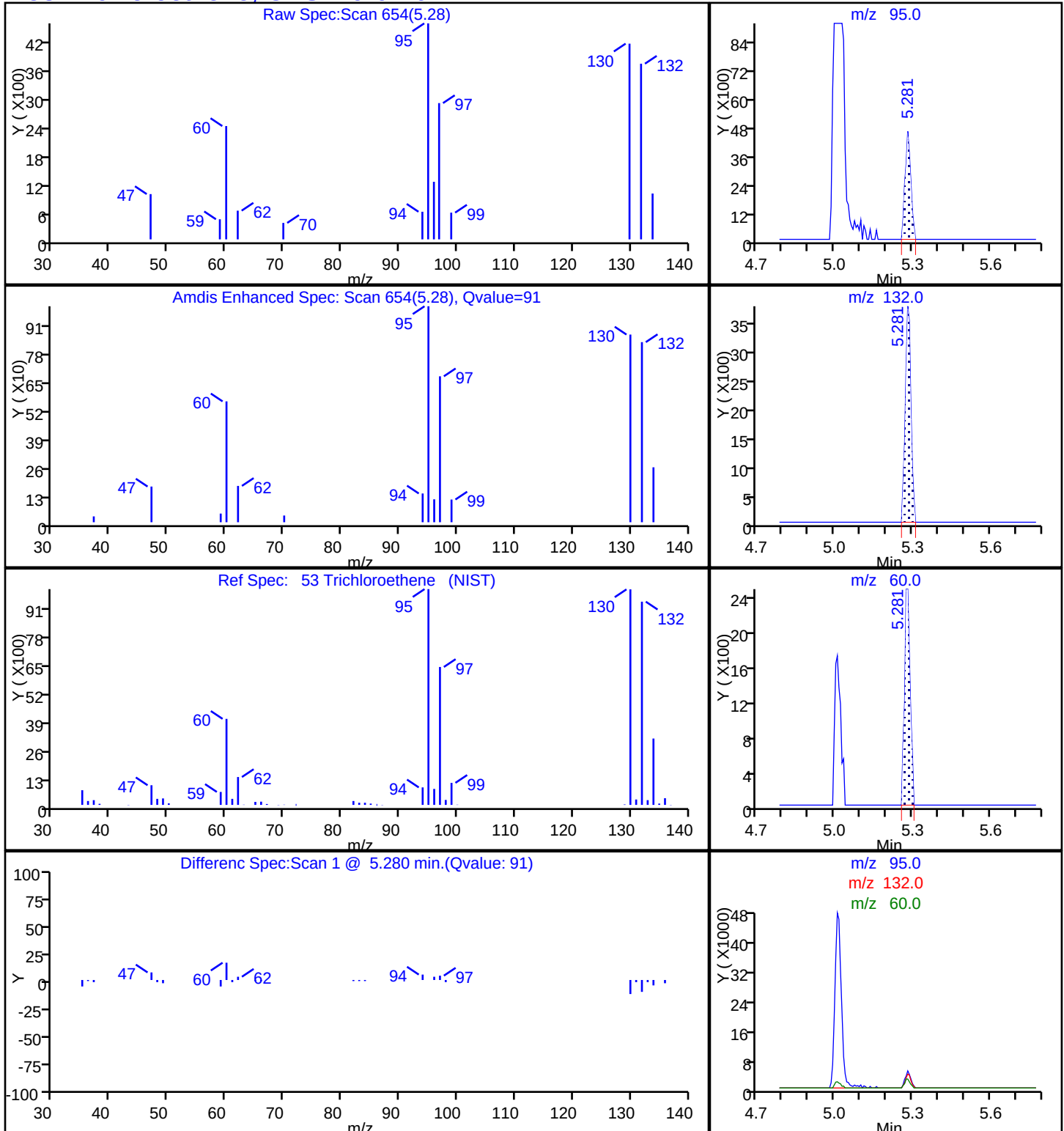
Dil. Factor: 1.0000

Method: Q-624

Limit Group: MV - 624 ICAL UP

Column:

Detector MS SCAN

53 Trichloroethene, CAS: 79-01-6

TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q2812.D

Injection Date: 12-Oct-2017 18:12:30

Instrument ID: HP5973Q

Lims ID: 480-125692-C-3

Lab Sample ID: 480-125692-3

Client ID: MW-7

Operator ID: RF/RB

ALS Bottle#: 13

Worklist Smp#: 13

Purge Vol: 5.000 mL

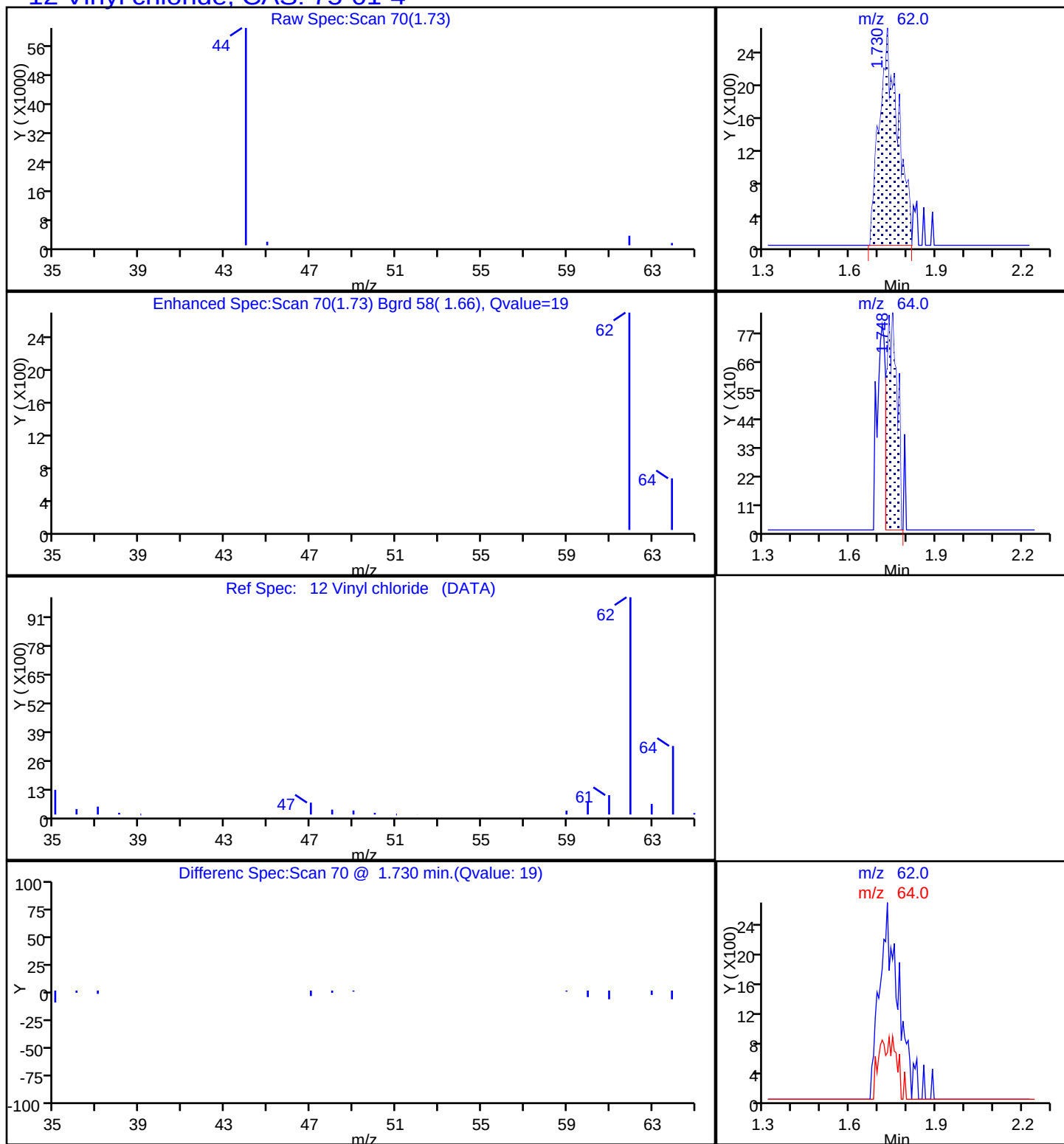
Dil. Factor: 1.0000

Method: Q-624

Limit Group: MV - 624 ICAL UP

Column:

Detector MS SCAN

12 Vinyl chloride, CAS: 75-01-4

TestAmerica Buffalo

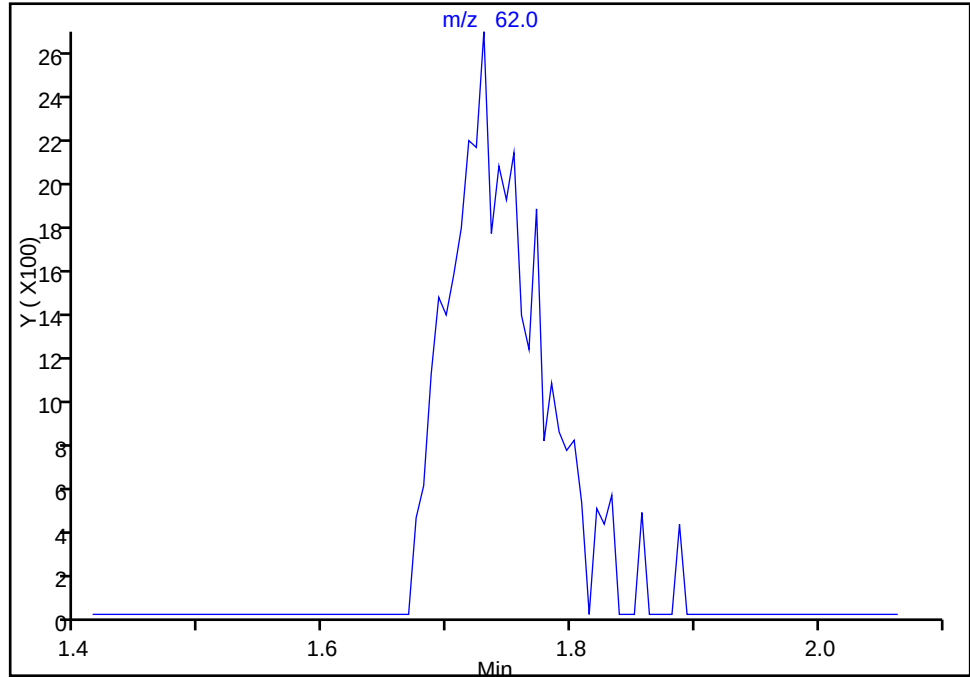
Data File:	\\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q2812.D		
Injection Date:	12-Oct-2017 18:12:30	Instrument ID:	HP5973Q
Lims ID:	480-125692-C-3	Lab Sample ID:	480-125692-3
Client ID:	MW-7		
Operator ID:	RF/RB	ALS Bottle#:	13
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	Q-624	Limit Group:	MV - 624 ICAL UP
Column:		Detector:	MS SCAN
		Worklist Smp#:	13

12 Vinyl chloride, CAS: 75-01-4

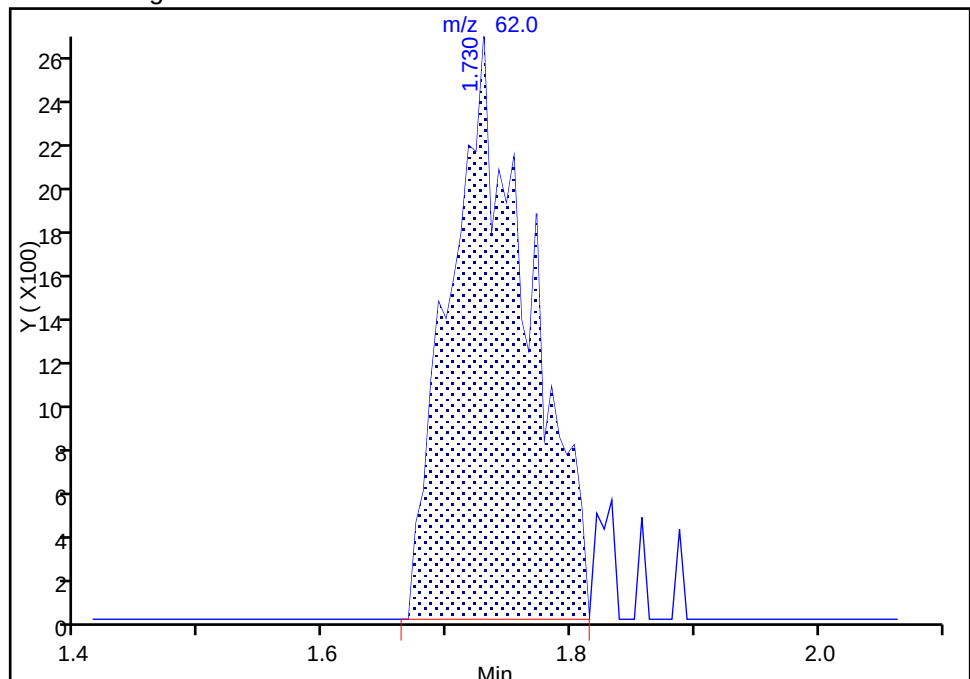
Signal: 1

Not Detected
Expected RT: 1.72

Processing Integration Results

RT: 1.73
Area: 11705
Amount: 1.291211
Amount Units: ug/L

Manual Integration Results



Reviewer: baroner, 16-Oct-2017 08:58:21

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

TestAmerica Buffalo

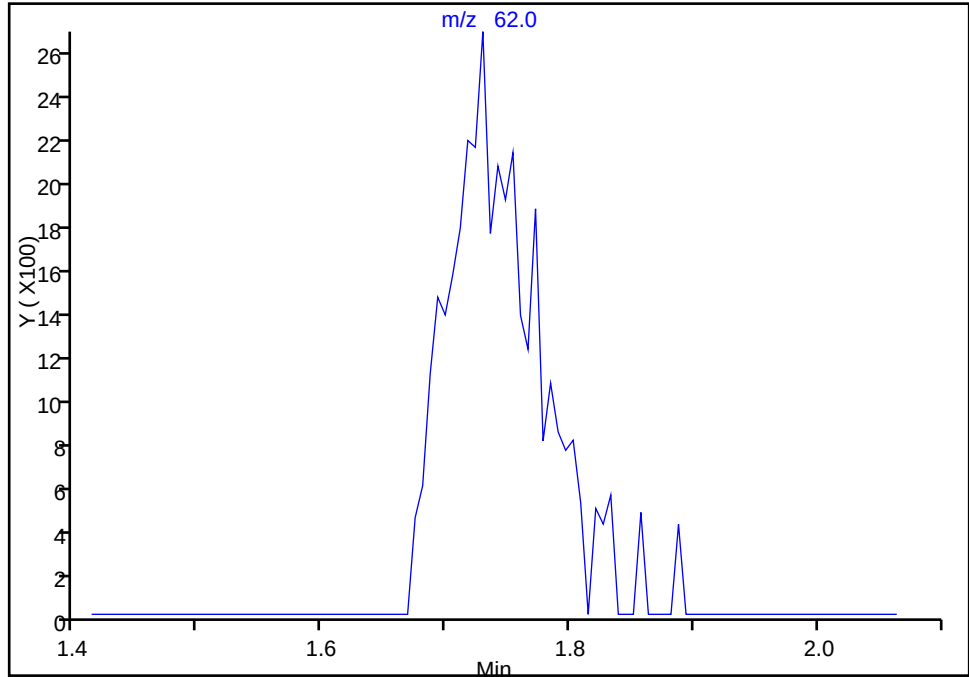
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Injection Date:	12-Oct-2017 18:12:30	Instrument ID:	HP5973Q
Lims ID:	480-125692-C-3	Lab Sample ID:	480-125692-3
Client ID:	MW-7		
Operator ID:	RF/RB	ALS Bottle#:	13
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	Q-624	Limit Group:	MV - 624 ICAL UP
Column:		Detector:	MS SCAN
		Worklist Smp#:	13

12 Vinyl chloride, CAS: 75-01-4

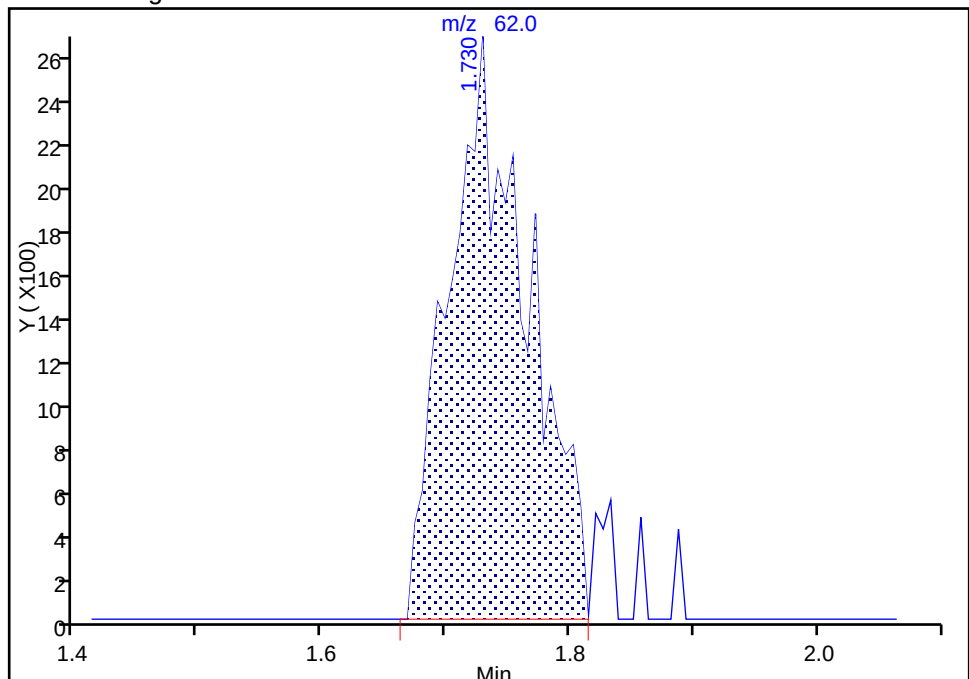
Signal: 1

Not Detected
Expected RT: 1.72

Processing Integration Results



Manual Integration Results

RT: 1.73
Area: 11705
Amount: 1.291211
Amount Units: ug/L

Reviewer: baroner, 16-Oct-2017 13:38:05

Audit Action: Assigned Compound ID

Audit Reason: Poor chromatography

TestAmerica Buffalo

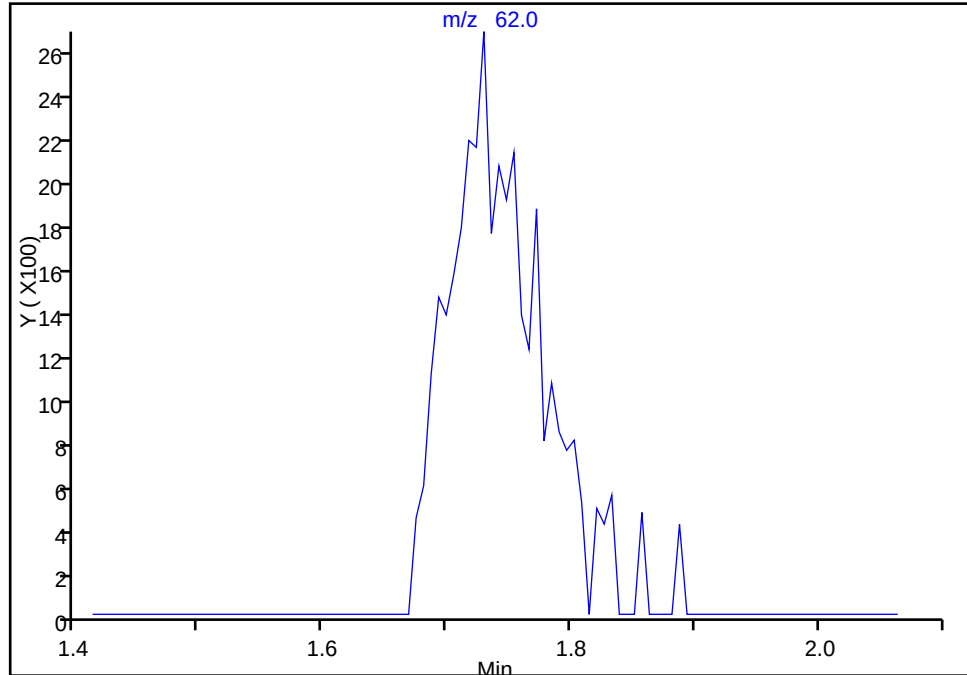
Data File:	\\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q2812.D		
Injection Date:	12-Oct-2017 18:12:30	Instrument ID:	HP5973Q
Lims ID:	480-125692-C-3	Lab Sample ID:	480-125692-3
Client ID:	MW-7		
Operator ID:	RF/RB	ALS Bottle#:	13
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	Q-624	Limit Group:	MV - 624 ICAL UP
Column:		Detector:	MS SCAN
		Worklist Smp#:	13

12 Vinyl chloride, CAS: 75-01-4

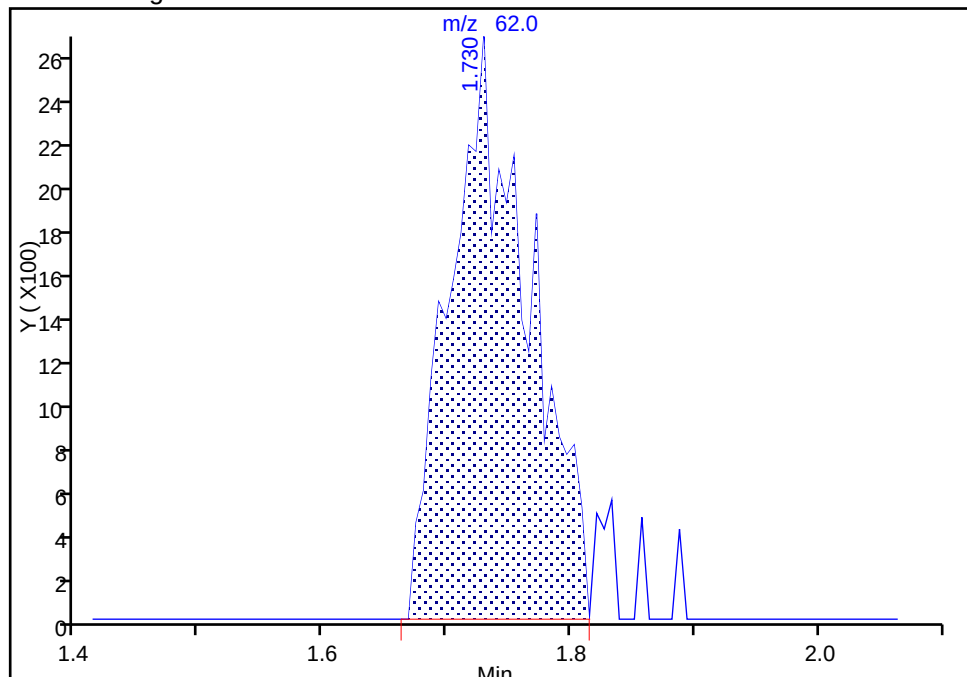
Signal: 1

Not Detected
Expected RT: 1.72

Processing Integration Results



Manual Integration Results



RT: 1.73
Area: 11705
Amount: 1.291211
Amount Units: ug/L

Reviewer: baroner, 16-Oct-2017 13:38:15

Audit Action: Manually Integrated

Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Buffalo</u>	Job No.: <u>480-125692-1</u>
SDG No.: _____	
Client Sample ID: <u>MW-9</u>	Lab Sample ID: <u>480-125692-4</u>
Matrix: <u>Water</u>	Lab File ID: <u>Q2813.D</u>
Analysis Method: <u>624</u>	Date Collected: <u>10/10/2017 12:35</u>
Sample wt/vol: <u>5(mL)</u>	Date Analyzed: <u>10/12/2017 18:36</u>
Soil Aliquot Vol: _____	Dilution Factor: <u>1</u>
Soil Extract Vol.: _____	GC Column: <u>ZB-624 (20)</u> ID: <u>0.18(mm)</u>
% Moisture: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>381520</u>	Units: <u>ug/L</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		5.0	0.39
79-34-5	1,1,2,2-Tetrachloroethane	ND		5.0	0.26
79-00-5	1,1,2-Trichloroethane	ND		5.0	0.48
75-34-3	1,1-Dichloroethane	ND		5.0	0.59
75-35-4	1,1-Dichloroethene	ND		5.0	0.85
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.44
107-06-2	1,2-Dichloroethane	ND		5.0	0.60
540-59-0	1,2-Dichloroethene, Total	21		10	3.2
78-87-5	1,2-Dichloropropane	ND		5.0	0.61
541-73-1	1,3-Dichlorobenzene	ND		5.0	0.54
106-46-7	1,4-Dichlorobenzene	ND		5.0	0.51
110-75-8	2-Chloroethyl vinyl ether	ND		25	1.9
107-02-8	Acrolein	ND		100	17
107-13-1	Acrylonitrile	ND		50	1.9
71-43-2	Benzene	ND		5.0	0.60
75-25-2	Bromoform	ND		5.0	0.47
74-83-9	Bromomethane	ND		5.0	1.2
56-23-5	Carbon tetrachloride	ND		5.0	0.51
108-90-7	Chlorobenzene	ND		5.0	0.48
124-48-1	Chlorodibromomethane	ND		5.0	0.41
75-00-3	Chloroethane	ND		5.0	0.87
67-66-3	Chloroform	ND		5.0	0.54
74-87-3	Chloromethane	ND		5.0	0.64
10061-01-5	cis-1,3-Dichloropropene	ND		5.0	0.33
75-27-4	Dichlorobromomethane	ND		5.0	0.54
100-41-4	Ethylbenzene	ND		5.0	0.46
75-09-2	Methylene Chloride	ND		5.0	0.81
127-18-4	Tetrachloroethene	ND		5.0	0.34
108-88-3	Toluene	ND		5.0	0.45
156-60-5	trans-1,2-Dichloroethene	ND		5.0	0.59
10061-02-6	trans-1,3-Dichloropropene	ND		5.0	0.44
79-01-6	Trichloroethene	5.5		5.0	0.60
75-01-4	Vinyl chloride	3.0	J	5.0	0.75

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-125692-1
SDG No.: _____
Client Sample ID: MW-9 Lab Sample ID: 480-125692-4
Matrix: Water Lab File ID: Q2813.D
Analysis Method: 624 Date Collected: 10/10/2017 12:35
Sample wt/vol: 5 (mL) Date Analyzed: 10/12/2017 18:36
Soil Aliquot Vol: _____ Dilution Factor: 1
Soil Extract Vol.: _____ GC Column: ZB-624 (20) ID: 0.18 (mm)
% Moisture: _____ Level: (low/med) Low
Analysis Batch No.: 381520 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		68-130
460-00-4	4-Bromofluorobenzene (Surr)	102		76-123
2037-26-5	Toluene-d8 (Surr)	95		77-120

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q2813.D
 Lims ID: 480-125692-C-4
 Client ID: MW-9
 Sample Type: Client
 Inject. Date: 12-Oct-2017 18:36:30 ALS Bottle#: 14 Worklist Smp#: 14
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 480-125692-c-4
 Misc. Info.: 480-0066342-014
 Operator ID: RF/RB Instrument ID: HP5973Q
 Method: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q-624.m
 Limit Group: MV - 624 ICAL UP
 Last Update: 16-Oct-2017 09:45:08 Calib Date: 20-Sep-2017 15:14:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last Ical File: \\ChromNA\Buffalo\ChromData\HP5973Q\20170920-65748.b\Q2418.D
 Column 1 : Det: MS SCAN
 Process Host: XAWRK002

First Level Reviewer: baroner

Date: 16-Oct-2017 09:45:08

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
* 114 Fluorobenzene (IS)	96	5.008	5.009	-0.001	99	915310	30.0	
* 2 Chlorobenzene-d5	117	7.294	7.296	-0.002	90	586272	30.0	
* 3 1,4-Dichlorobenzene-d4	152	9.161	9.163	-0.002	98	338716	30.0	
\$ 4 1,2-Dichloroethane-d4 (Sur	65	4.783	4.778	0.005	98	337611	30.1	
\$ 5 Toluene-d8 (Surr)	98	6.181	6.177	0.004	93	743029	28.5	
\$ 6 4-Bromofluorobenzene (Surr	95	8.225	8.226	-0.001	82	303803	30.5	
11 Chloromethane	50		1.653				ND	
12 Vinyl chloride	62	1.730	1.719	0.011	94	27442	3.01	
13 Bromomethane	94		1.981				ND	
14 Chloroethane	64		2.036				ND	
18 Acrolein	56		2.638				ND	
20 1,1-Dichloroethene	96		2.686				ND	
27 Methylene Chloride	84		3.136				ND	
30 trans-1,2-Dichloroethene	96		3.343				ND	
31 Acrylonitrile	53		3.368				ND	
32 1,1-Dichloroethane	63		3.696				ND	
38 cis-1,2-Dichloroethene	96	4.162	4.158	0.004	81	179413	20.6	
45 Chloroform	83		4.407				ND	
116 1,1,1-Trichloroethane	97		4.517				ND	
47 Carbon tetrachloride	117		4.638				ND	
49 Benzene	78		4.797				ND	
51 1,2-Dichloroethane	62		4.839				ND	
53 Trichloroethene	95	5.281	5.277	0.004	95	43401	5.46	
54 1,2-Dichloropropane	63		5.453				ND	
58 Dichlorobromomethane	83		5.672				ND	
60 2-Chloroethyl vinyl ether	63		5.879				ND	
61 cis-1,3-Dichloropropene	75		5.995				ND	
63 Toluene	92		6.226				ND	
64 trans-1,3-Dichloropropene	75		6.414				ND	
66 1,1,2-Trichloroethane	83		6.560				ND	
67 Tetrachloroethene	166		6.639				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
71 Chlorodibromomethane	129		6.870				ND	
74 Chlorobenzene	112		7.320				ND	
77 Ethylbenzene	91		7.381				ND	
82 Bromoform	173		7.989				ND	
86 1,1,2,2-Tetrachloroethane	83		8.354				ND	
98 1,3-Dichlorobenzene	146		9.108				ND	
99 1,4-Dichlorobenzene	146		9.181				ND	
101 1,2-Dichlorobenzene	146		9.491				ND	
S 107 1,2-Dichloroethene, Total	1				0		20.6	

Reagents:

Q 624 IS_00056	Amount Added: 1.00	Units: uL	Run Reagent
Q 624 SURR_00051	Amount Added: 1.00	Units: uL	Run Reagent

TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q2813.D

Injection Date: 12-Oct-2017 18:36:30

Instrument ID: HP5973Q

Operator ID: RF/RB

Lims ID: 480-125692-C-4

Lab Sample ID: 480-125692-4

Worklist Smp#: 14

Client ID: MW-9

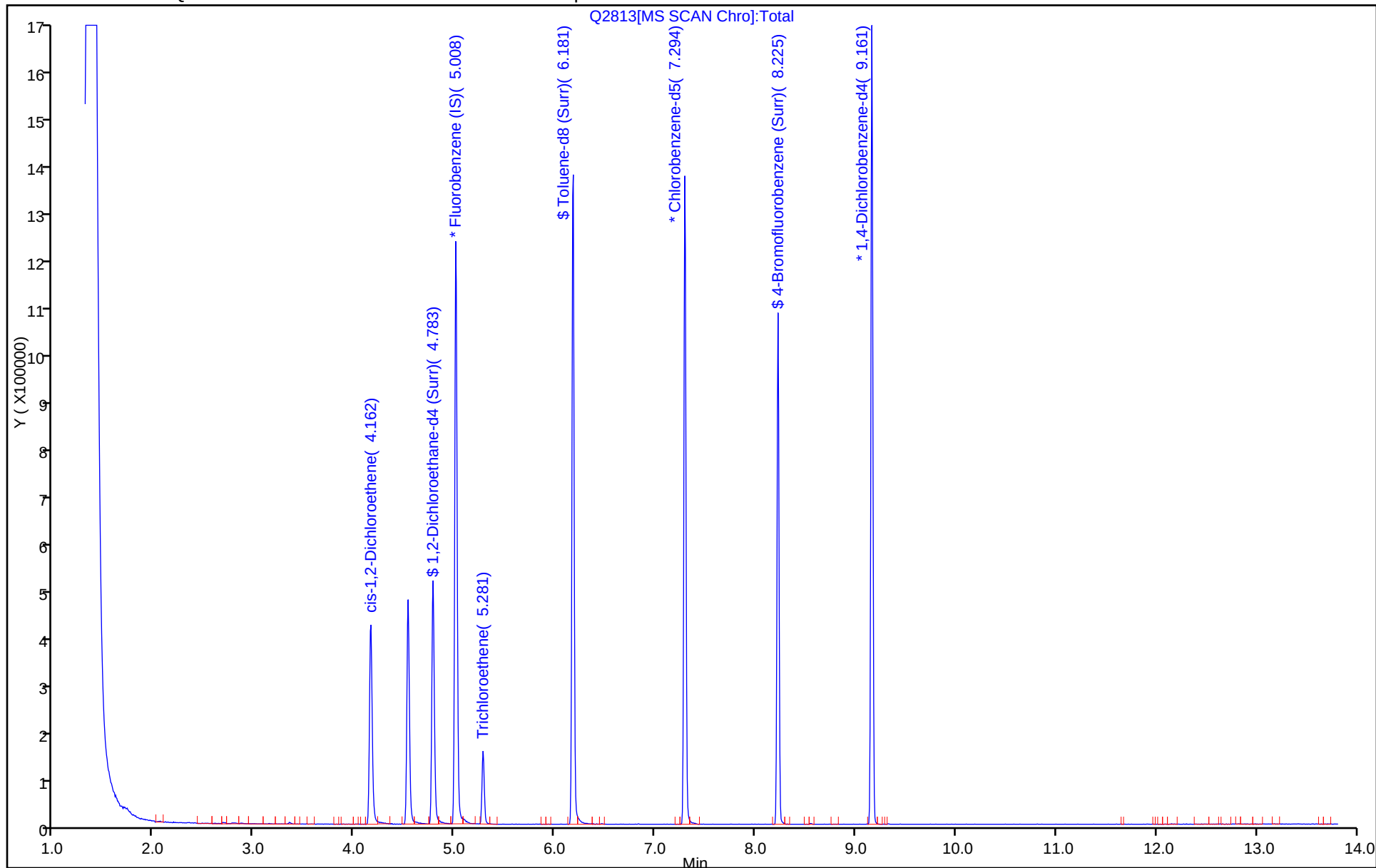
Purge Vol: 5.000 mL

Dil. Factor: 1.0000

ALS Bottle#: 14

Method: Q-624

Limit Group: MV - 624 ICAL UP



TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q2813.D

Injection Date: 12-Oct-2017 18:36:30

Instrument ID: HP5973Q

Lims ID: 480-125692-C-4

Lab Sample ID: 480-125692-4

Client ID: MW-9

Operator ID: RF/RB

ALS Bottle#: 14

Worklist Smp#: 14

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

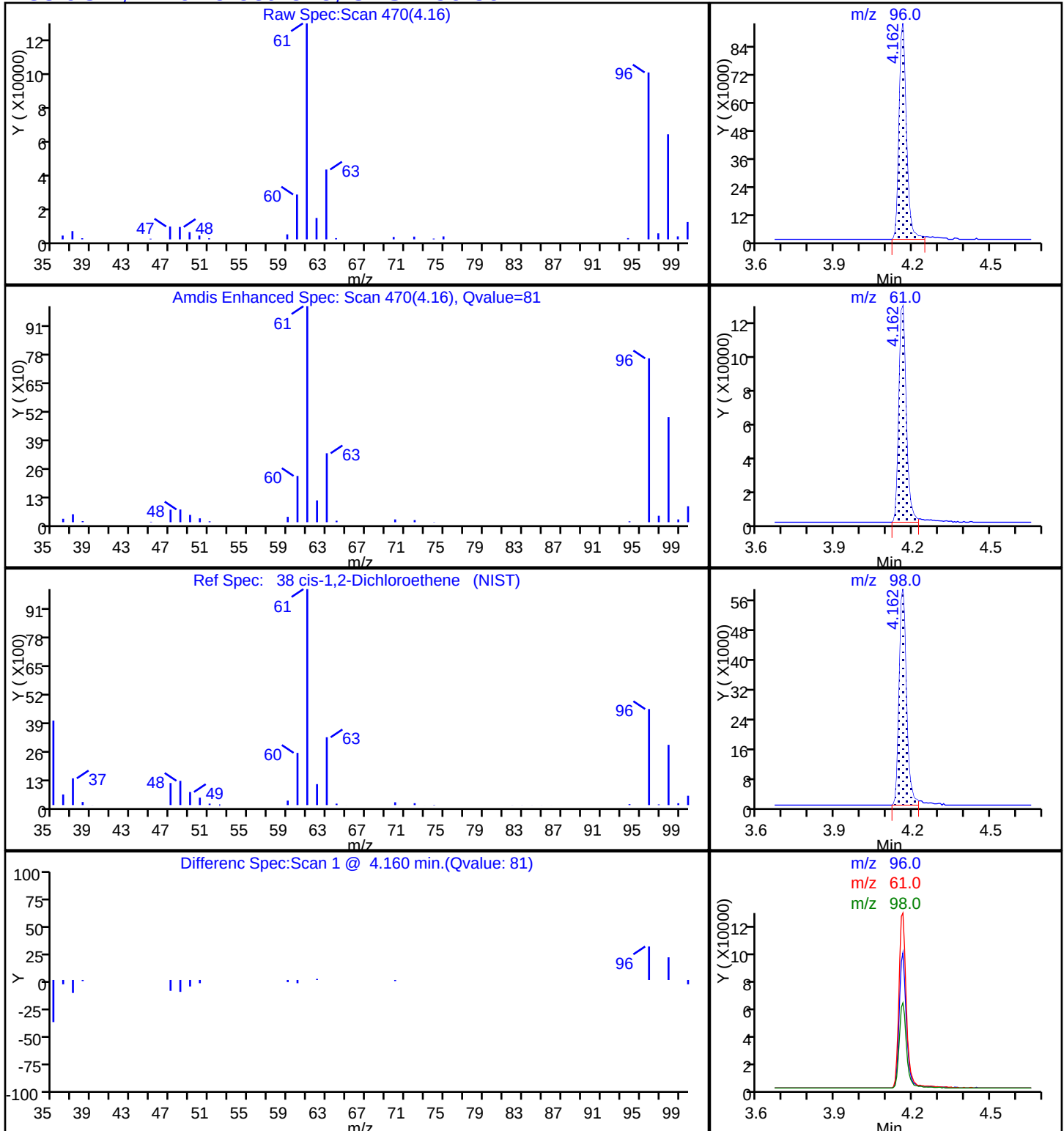
Method: Q-624

Limit Group: MV - 624 ICAL UP

Column:

Detector

MS SCAN

38 cis-1,2-Dichloroethene, CAS: 156-59-2

TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q2813.D

Injection Date: 12-Oct-2017 18:36:30

Instrument ID: HP5973Q

Lims ID: 480-125692-C-4

Lab Sample ID: 480-125692-4

Client ID: MW-9

Operator ID: RF/RB

ALS Bottle#: 14

Worklist Smp#: 14

Purge Vol: 5.000 mL

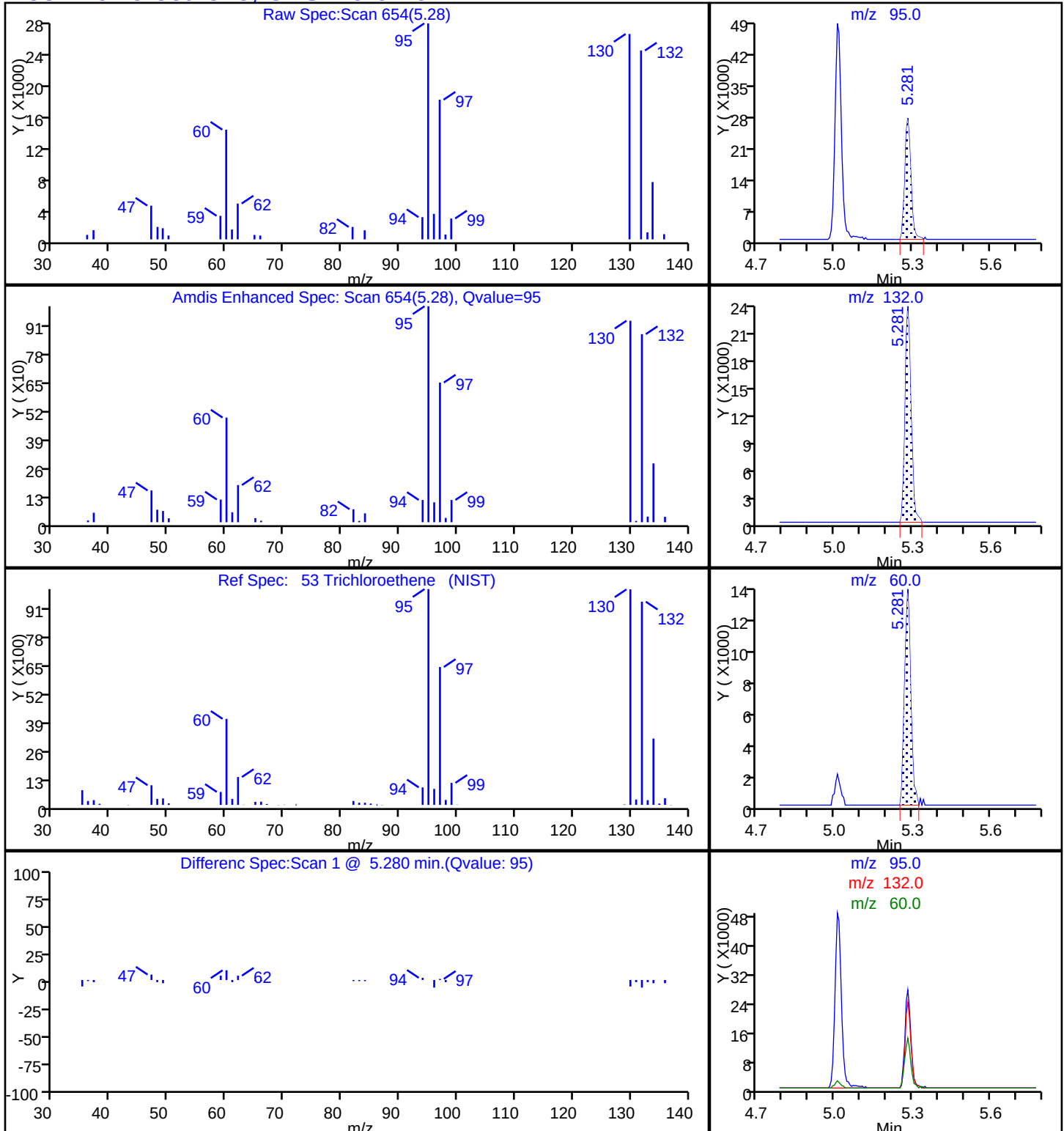
Dil. Factor: 1.0000

Method: Q-624

Limit Group: MV - 624 ICAL UP

Column:

Detector: MS SCAN

53 Trichloroethene, CAS: 79-01-6

TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q2813.D

Injection Date: 12-Oct-2017 18:36:30

Instrument ID: HP5973Q

Lims ID: 480-125692-C-4

Lab Sample ID: 480-125692-4

Client ID: MW-9

Operator ID: RF/RB

ALS Bottle#: 14

Worklist Smp#: 14

Purge Vol: 5.000 mL

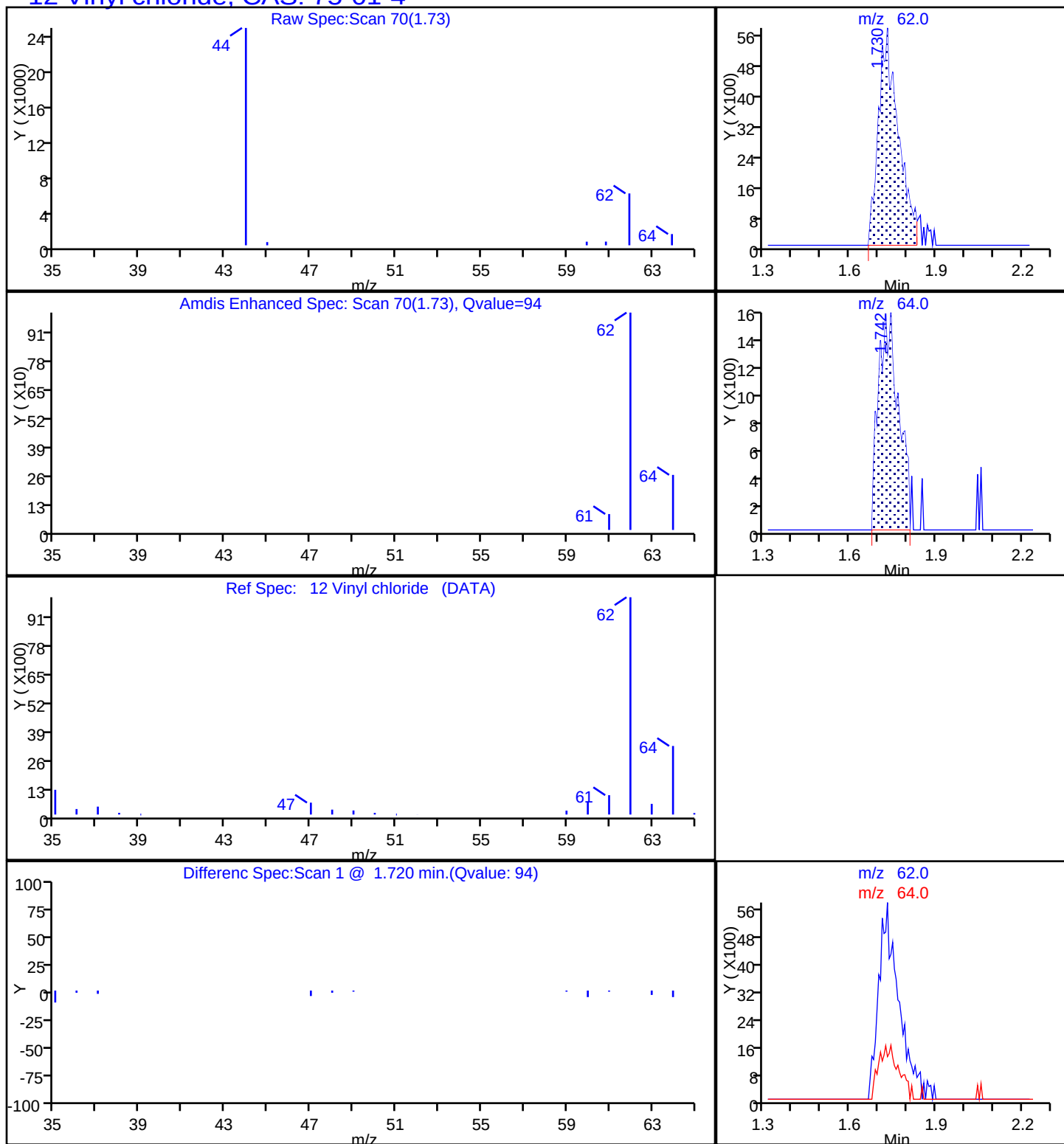
Dil. Factor: 1.0000

Method: Q-624

Limit Group: MV - 624 ICAL UP

Column:

Detector MS SCAN

12 Vinyl chloride, CAS: 75-01-4

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Buffalo</u>	Job No.: <u>480-125692-1</u>
SDG No.: _____	
Client Sample ID: <u>MW-10</u>	Lab Sample ID: <u>480-125692-5</u>
Matrix: <u>Water</u>	Lab File ID: <u>Q2823.D</u>
Analysis Method: <u>624</u>	Date Collected: <u>10/10/2017 12:40</u>
Sample wt/vol: <u>5(mL)</u>	Date Analyzed: <u>10/12/2017 22:32</u>
Soil Aliquot Vol: _____	Dilution Factor: <u>1</u>
Soil Extract Vol.: _____	GC Column: <u>ZB-624 (20)</u> ID: <u>0.18(mm)</u>
% Moisture: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>381520</u>	Units: <u>ug/L</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		5.0	0.39
79-34-5	1,1,2,2-Tetrachloroethane	ND		5.0	0.26
79-00-5	1,1,2-Trichloroethane	ND		5.0	0.48
75-34-3	1,1-Dichloroethane	ND		5.0	0.59
75-35-4	1,1-Dichloroethene	ND		5.0	0.85
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.44
107-06-2	1,2-Dichloroethane	ND		5.0	0.60
540-59-0	1,2-Dichloroethene, Total	ND		10	3.2
78-87-5	1,2-Dichloropropane	ND		5.0	0.61
541-73-1	1,3-Dichlorobenzene	ND		5.0	0.54
106-46-7	1,4-Dichlorobenzene	ND		5.0	0.51
110-75-8	2-Chloroethyl vinyl ether	ND		25	1.9
107-02-8	Acrolein	ND		100	17
107-13-1	Acrylonitrile	ND		50	1.9
71-43-2	Benzene	ND		5.0	0.60
75-25-2	Bromoform	ND		5.0	0.47
74-83-9	Bromomethane	ND		5.0	1.2
56-23-5	Carbon tetrachloride	ND		5.0	0.51
108-90-7	Chlorobenzene	ND		5.0	0.48
124-48-1	Chlorodibromomethane	ND		5.0	0.41
75-00-3	Chloroethane	ND		5.0	0.87
67-66-3	Chloroform	ND		5.0	0.54
74-87-3	Chloromethane	ND		5.0	0.64
10061-01-5	cis-1,3-Dichloropropene	ND		5.0	0.33
75-27-4	Dichlorobromomethane	ND		5.0	0.54
100-41-4	Ethylbenzene	ND		5.0	0.46
75-09-2	Methylene Chloride	ND		5.0	0.81
127-18-4	Tetrachloroethene	ND		5.0	0.34
108-88-3	Toluene	ND		5.0	0.45
156-60-5	trans-1,2-Dichloroethene	ND		5.0	0.59
10061-02-6	trans-1,3-Dichloropropene	ND		5.0	0.44
79-01-6	Trichloroethene	1.0	J	5.0	0.60
75-01-4	Vinyl chloride	ND		5.0	0.75

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-125692-1
SDG No.: _____
Client Sample ID: MW-10 Lab Sample ID: 480-125692-5
Matrix: Water Lab File ID: Q2823.D
Analysis Method: 624 Date Collected: 10/10/2017 12:40
Sample wt/vol: 5 (mL) Date Analyzed: 10/12/2017 22:32
Soil Aliquot Vol: _____ Dilution Factor: 1
Soil Extract Vol.: _____ GC Column: ZB-624 (20) ID: 0.18 (mm)
% Moisture: _____ Level: (low/med) Low
Analysis Batch No.: 381520 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		68-130
460-00-4	4-Bromofluorobenzene (Surr)	99		76-123
2037-26-5	Toluene-d8 (Surr)	96		77-120

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q2823.D
 Lims ID: 480-125692-A-5
 Client ID: MW-10
 Sample Type: Client
 Inject. Date: 12-Oct-2017 22:32:30 ALS Bottle#: 24 Worklist Smp#: 15
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 480-125692-a-5
 Misc. Info.: 480-0066342-015
 Operator ID: RF/RB Instrument ID: HP5973Q
 Method: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q-624.m
 Limit Group: MV - 624 ICAL UP
 Last Update: 16-Oct-2017 09:53:37 Calib Date: 20-Sep-2017 15:14:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last Ical File: \\ChromNA\Buffalo\ChromData\HP5973Q\20170920-65748.b\Q2418.D
 Column 1 : Det: MS SCAN
 Process Host: XAWRK002

First Level Reviewer: baroner

Date: 16-Oct-2017 09:54:11

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
* 114 Fluorobenzene (IS)	96	5.007	5.009	-0.002	99	907484	30.0	
* 2 Chlorobenzene-d5	117	7.294	7.296	-0.002	90	551626	30.0	
* 3 1,4-Dichlorobenzene-d4	152	9.161	9.163	-0.002	98	308325	30.0	
\$ 4 1,2-Dichloroethane-d4 (Sur	65	4.782	4.778	0.004	98	335071	30.1	
\$ 5 Toluene-d8 (Surr)	98	6.175	6.177	-0.002	94	708963	28.9	
\$ 6 4-Bromofluorobenzene (Surr	95	8.224	8.226	-0.002	82	277072	29.6	
11 Chloromethane	50		1.653				ND	
12 Vinyl chloride	62		1.719				ND	
13 Bromomethane	94		1.981				ND	
14 Chloroethane	64		2.036				ND	
18 Acrolein	56		2.638				ND	
20 1,1-Dichloroethene	96		2.686				ND	
27 Methylene Chloride	84		3.136				ND	
30 trans-1,2-Dichloroethene	96		3.343				ND	
31 Acrylonitrile	53		3.368				ND	
32 1,1-Dichloroethane	63		3.696				ND	
38 cis-1,2-Dichloroethene	96		4.158				ND	
45 Chloroform	83		4.407				ND	
116 1,1,1-Trichloroethane	97		4.517				ND	
47 Carbon tetrachloride	117		4.638				ND	
49 Benzene	78		4.797				ND	
51 1,2-Dichloroethane	62		4.839				ND	
53 Trichloroethene	95	5.281	5.277	0.004	94	8231	1.04	
54 1,2-Dichloropropane	63		5.453				ND	
58 Dichlorobromomethane	83		5.672				ND	
60 2-Chloroethyl vinyl ether	63		5.879				ND	
61 cis-1,3-Dichloropropene	75		5.995				ND	
63 Toluene	92		6.226				ND	
64 trans-1,3-Dichloropropene	75		6.414				ND	
66 1,1,2-Trichloroethane	83		6.560				ND	
67 Tetrachloroethene	166		6.639				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
71 Chlorodibromomethane	129		6.870				ND	
74 Chlorobenzene	112		7.320				ND	
77 Ethylbenzene	91		7.381				ND	
82 Bromoform	173		7.989				ND	
86 1,1,2,2-Tetrachloroethane	83		8.354				ND	
98 1,3-Dichlorobenzene	146		9.108				ND	
99 1,4-Dichlorobenzene	146		9.181				ND	
101 1,2-Dichlorobenzene	146		9.491				ND	
S 107 1,2-Dichloroethene, Total	1		2.360				ND	

Reagents:

Q 624 IS_00056

Amount Added: 1.00

Units: uL

Run Reagent

Q 624 SURR_00051

Amount Added: 1.00

Units: uL

Run Reagent

TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q2823.D

Injection Date: 12-Oct-2017 22:32:30

Instrument ID: HP5973Q

Operator ID: RF/RB

Lims ID: 480-125692-A-5

Lab Sample ID: 480-125692-5

Worklist Smp#: 15

Client ID: MW-10

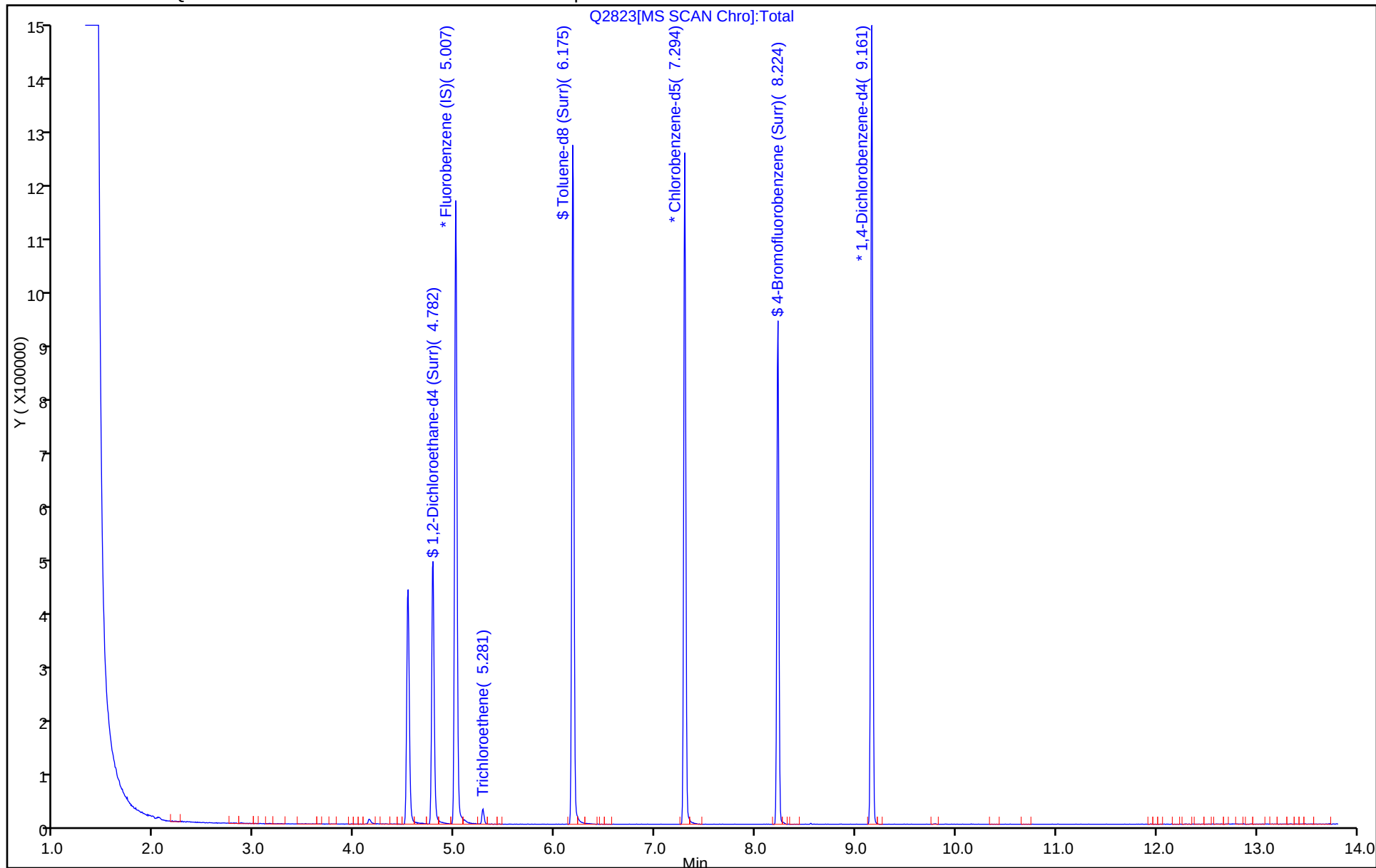
Purge Vol: 5.000 mL

Dil. Factor: 1.0000

ALS Bottle#: 24

Method: Q-624

Limit Group: MV - 624 ICAL UP



TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q2823.D

Injection Date: 12-Oct-2017 22:32:30

Instrument ID: HP5973Q

Lims ID: 480-125692-A-5

Lab Sample ID: 480-125692-5

Client ID: MW-10

Operator ID: RF/RB

ALS Bottle#: 24

Worklist Smp#: 15

Purge Vol: 5.000 mL

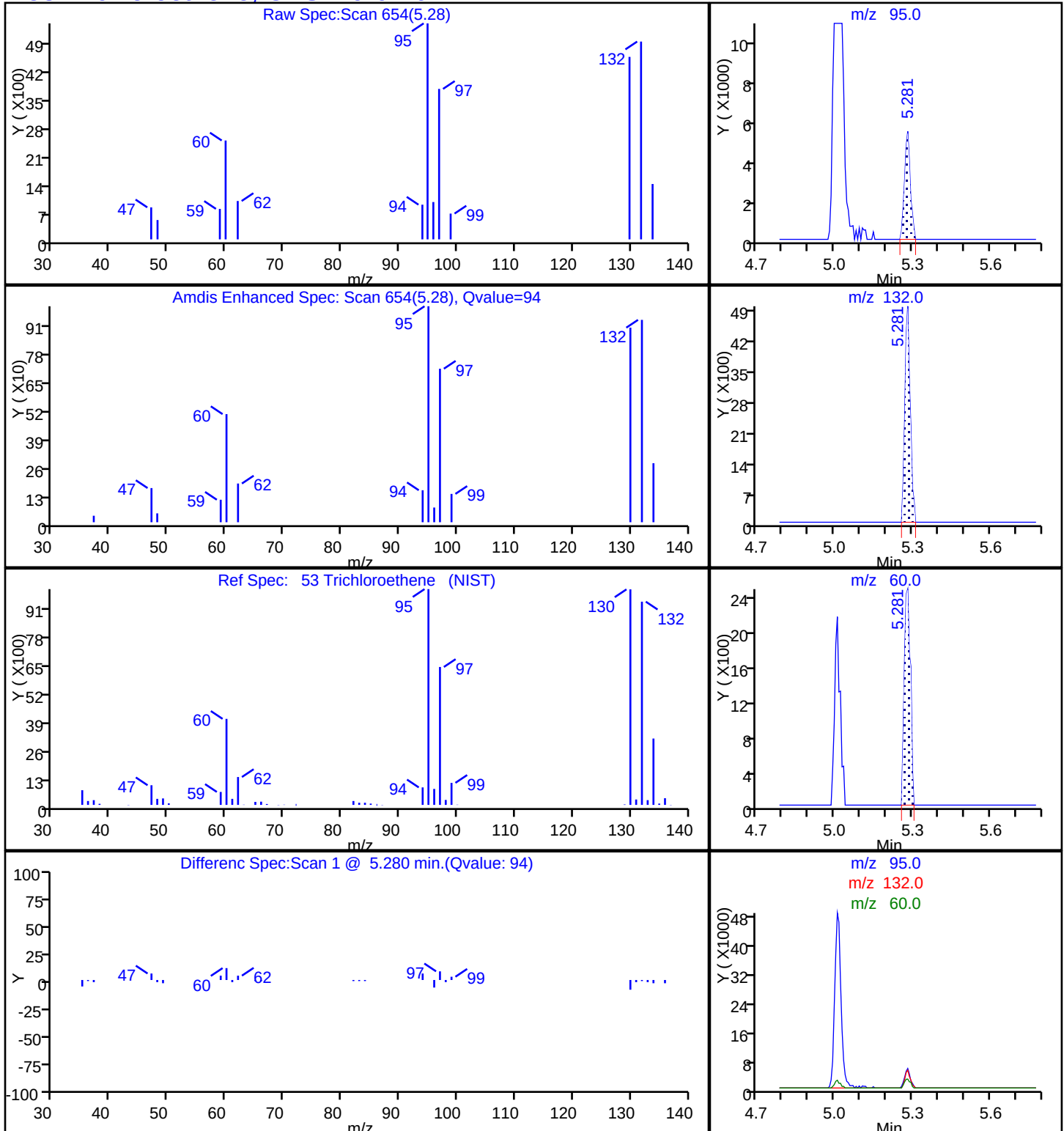
Dil. Factor: 1.0000

Method: Q-624

Limit Group: MV - 624 ICAL UP

Column:

Detector MS SCAN

53 Trichloroethene, CAS: 79-01-6

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Buffalo</u>	Job No.: <u>480-125692-1</u>
SDG No.: _____	
Client Sample ID: <u>DGC-6S</u>	Lab Sample ID: <u>480-125692-6</u>
Matrix: <u>Water</u>	Lab File ID: <u>Q2814.D</u>
Analysis Method: <u>624</u>	Date Collected: <u>10/10/2017 12:55</u>
Sample wt/vol: <u>5(mL)</u>	Date Analyzed: <u>10/12/2017 18:59</u>
Soil Aliquot Vol: _____	Dilution Factor: <u>1</u>
Soil Extract Vol.: _____	GC Column: <u>ZB-624 (20)</u> ID: <u>0.18(mm)</u>
% Moisture: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>381520</u>	Units: <u>ug/L</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		5.0	0.39
79-34-5	1,1,2,2-Tetrachloroethane	ND		5.0	0.26
79-00-5	1,1,2-Trichloroethane	ND		5.0	0.48
75-34-3	1,1-Dichloroethane	ND		5.0	0.59
75-35-4	1,1-Dichloroethene	ND		5.0	0.85
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.44
107-06-2	1,2-Dichloroethane	ND		5.0	0.60
540-59-0	1,2-Dichloroethene, Total	ND		10	3.2
78-87-5	1,2-Dichloropropane	ND		5.0	0.61
541-73-1	1,3-Dichlorobenzene	ND		5.0	0.54
106-46-7	1,4-Dichlorobenzene	ND		5.0	0.51
110-75-8	2-Chloroethyl vinyl ether	ND		25	1.9
107-02-8	Acrolein	ND		100	17
107-13-1	Acrylonitrile	ND		50	1.9
71-43-2	Benzene	ND		5.0	0.60
75-25-2	Bromoform	ND		5.0	0.47
74-83-9	Bromomethane	ND		5.0	1.2
56-23-5	Carbon tetrachloride	ND		5.0	0.51
108-90-7	Chlorobenzene	ND		5.0	0.48
124-48-1	Chlorodibromomethane	ND		5.0	0.41
75-00-3	Chloroethane	ND		5.0	0.87
67-66-3	Chloroform	ND		5.0	0.54
74-87-3	Chloromethane	ND		5.0	0.64
10061-01-5	cis-1,3-Dichloropropene	ND		5.0	0.33
75-27-4	Dichlorobromomethane	ND		5.0	0.54
100-41-4	Ethylbenzene	ND		5.0	0.46
75-09-2	Methylene Chloride	ND		5.0	0.81
127-18-4	Tetrachloroethene	ND		5.0	0.34
108-88-3	Toluene	ND		5.0	0.45
156-60-5	trans-1,2-Dichloroethene	ND		5.0	0.59
10061-02-6	trans-1,3-Dichloropropene	ND		5.0	0.44
79-01-6	Trichloroethene	ND		5.0	0.60
75-01-4	Vinyl chloride	ND		5.0	0.75

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-125692-1
SDG No.: _____
Client Sample ID: DGC-6S Lab Sample ID: 480-125692-6
Matrix: Water Lab File ID: Q2814.D
Analysis Method: 624 Date Collected: 10/10/2017 12:55
Sample wt/vol: 5 (mL) Date Analyzed: 10/12/2017 18:59
Soil Aliquot Vol: _____ Dilution Factor: 1
Soil Extract Vol.: _____ GC Column: ZB-624 (20) ID: 0.18 (mm)
% Moisture: _____ Level: (low/med) Low
Analysis Batch No.: 381520 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		68-130
460-00-4	4-Bromofluorobenzene (Surr)	99		76-123
2037-26-5	Toluene-d8 (Surr)	97		77-120

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q2814.D
 Lims ID: 480-125692-C-6
 Client ID: DGC-6S
 Sample Type: Client
 Inject. Date: 12-Oct-2017 18:59:30 ALS Bottle#: 15 Worklist Smp#: 16
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 480-125692-c-6
 Misc. Info.: 480-0066342-016
 Operator ID: RF/RB Instrument ID: HP5973Q
 Method: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q-624.m
 Limit Group: MV - 624 ICAL UP
 Last Update: 16-Oct-2017 13:38:46 Calib Date: 20-Sep-2017 15:14:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last Ical File: \\ChromNA\Buffalo\ChromData\HP5973Q\20170920-65748.b\Q2418.D
 Column 1 : Det: MS SCAN
 Process Host: XAWRK002

First Level Reviewer: baroner

Date: 16-Oct-2017 09:45:57

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
* 114 Fluorobenzene (IS)	96	5.007	5.009	-0.002	99	875858	30.0	
* 2 Chlorobenzene-d5	117	7.294	7.296	-0.002	90	542332	30.0	
* 3 1,4-Dichlorobenzene-d4	152	9.161	9.163	-0.002	98	311078	30.0	
\$ 4 1,2-Dichloroethane-d4 (Sur	65	4.782	4.778	0.004	98	329515	30.7	
\$ 5 Toluene-d8 (Surr)	98	6.181	6.177	0.004	94	701148	29.1	
\$ 6 4-Bromofluorobenzene (Surr	95	8.224	8.226	-0.002	82	274061	29.8	
11 Chloromethane	50		1.653				ND	
12 Vinyl chloride	62	1.705	1.705	-0.014	1	6204	0.7100	7M
13 Bromomethane	94		1.981				ND	
14 Chloroethane	64		2.036				ND	
18 Acrolein	56		2.638				ND	
20 1,1-Dichloroethene	96		2.686				ND	
27 Methylene Chloride	84		3.136				ND	
30 trans-1,2-Dichloroethene	96		3.343				ND	
31 Acrylonitrile	53		3.368				ND	
32 1,1-Dichloroethane	63		3.696				ND	
38 cis-1,2-Dichloroethene	96	4.162	4.158	0.004	79	8123	0.9728	
45 Chloroform	83		4.407				ND	
116 1,1,1-Trichloroethane	97		4.517				ND	
47 Carbon tetrachloride	117		4.638				ND	
49 Benzene	78		4.797				ND	
51 1,2-Dichloroethane	62		4.839				ND	
53 Trichloroethene	95		5.277				ND	
54 1,2-Dichloropropane	63		5.453				ND	
58 Dichlorobromomethane	83		5.672				ND	
60 2-Chloroethyl vinyl ether	63		5.879				ND	
61 cis-1,3-Dichloropropene	75		5.995				ND	
63 Toluene	92		6.226				ND	
64 trans-1,3-Dichloropropene	75		6.414				ND	
66 1,1,2-Trichloroethane	83		6.560				ND	
67 Tetrachloroethene	166		6.639				ND	

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q2814.D

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
71 Chlorodibromomethane	129		6.870				ND	
74 Chlorobenzene	112		7.320				ND	
77 Ethylbenzene	91		7.381				ND	
82 Bromoform	173		7.989				ND	
86 1,1,2,2-Tetrachloroethane	83		8.354				ND	
98 1,3-Dichlorobenzene	146		9.108				ND	
99 1,4-Dichlorobenzene	146		9.181				ND	
101 1,2-Dichlorobenzene	146		9.491				ND	
S 107 1,2-Dichloroethene, Total	1				0		0.9728	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

Reagents:

Q 624 IS_00056

Amount Added: 1.00

Units: uL

Run Reagent

Q 624 SURR_00051

Amount Added: 1.00

Units: uL

Run Reagent

TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q2814.D

Injection Date: 12-Oct-2017 18:59:30

Instrument ID: HP5973Q

Operator ID: RF/RB

Lims ID: 480-125692-C-6

Lab Sample ID: 480-125692-6

Worklist Smp#: 16

Client ID: DGC-6S

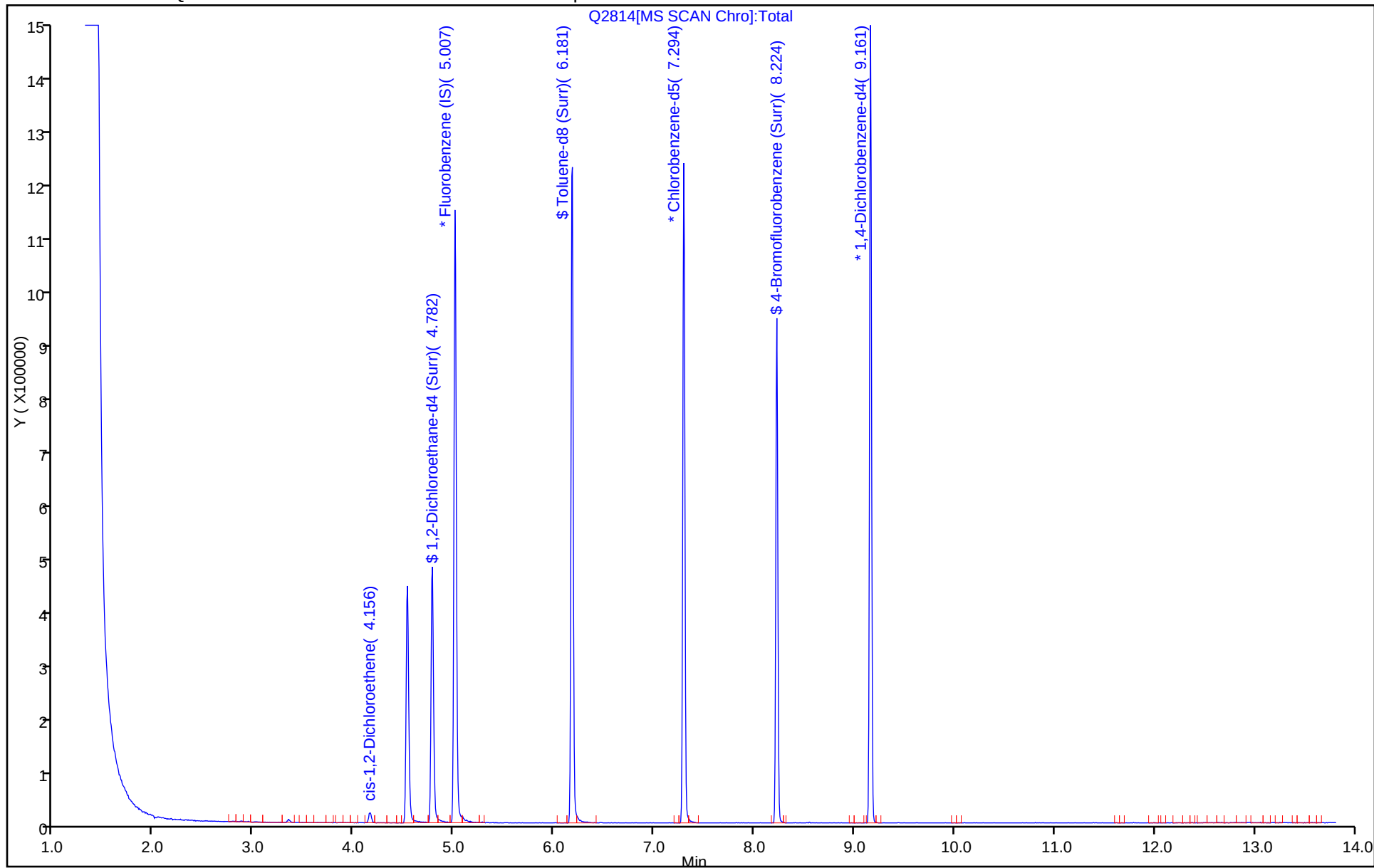
Purge Vol: 5.000 mL

Dil. Factor: 1.0000

ALS Bottle#: 15

Method: Q-624

Limit Group: MV - 624 ICAL UP



TestAmerica Buffalo

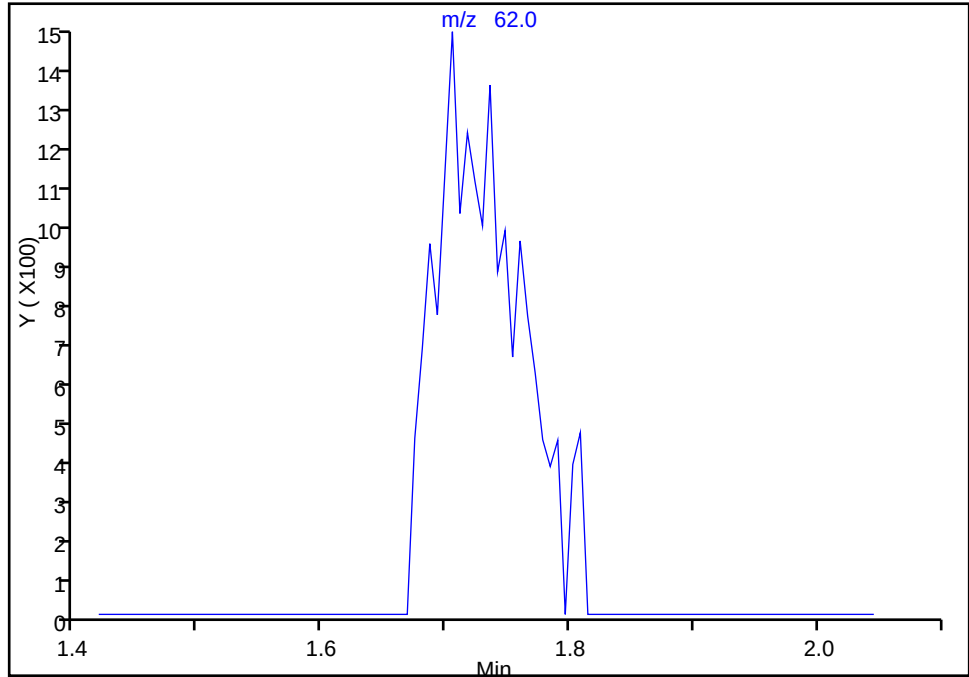
Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q2814.D
Injection Date: 12-Oct-2017 18:59:30 Instrument ID: HP5973Q
Lims ID: 480-125692-C-6 Lab Sample ID: 480-125692-6
Client ID: DGC-6S
Operator ID: RF/RB ALS Bottle#: 15 Worklist Smp#: 16
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: Q-624 Limit Group: MV - 624 ICAL UP
Column: Detector MS SCAN

12 Vinyl chloride, CAS: 75-01-4

Signal: 1

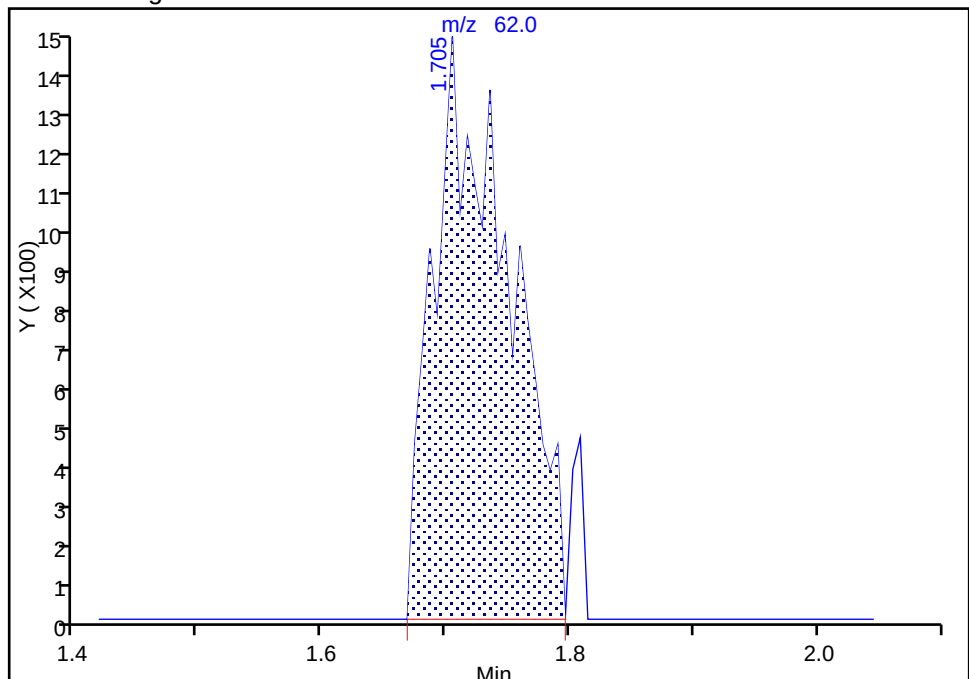
Not Detected
Expected RT: 1.72

Processing Integration Results



RT: 1.70
Area: 6204
Amount: 0.710024
Amount Units: ug/L

Manual Integration Results



Reviewer: baroner, 16-Oct-2017 13:38:26
Audit Action: Assigned Compound ID

Audit Reason: Poor chromatography

TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q2814.D

Injection Date: 12-Oct-2017 18:59:30

Instrument ID: HP5973Q

Lims ID: 480-125692-C-6

Lab Sample ID: 480-125692-6

Client ID: DGC-6S

Operator ID: RF/RB

ALS Bottle#: 15 Worklist Smp#: 16

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

Method: Q-624

Limit Group: MV - 624 ICAL UP

Column:

Detector MS SCAN

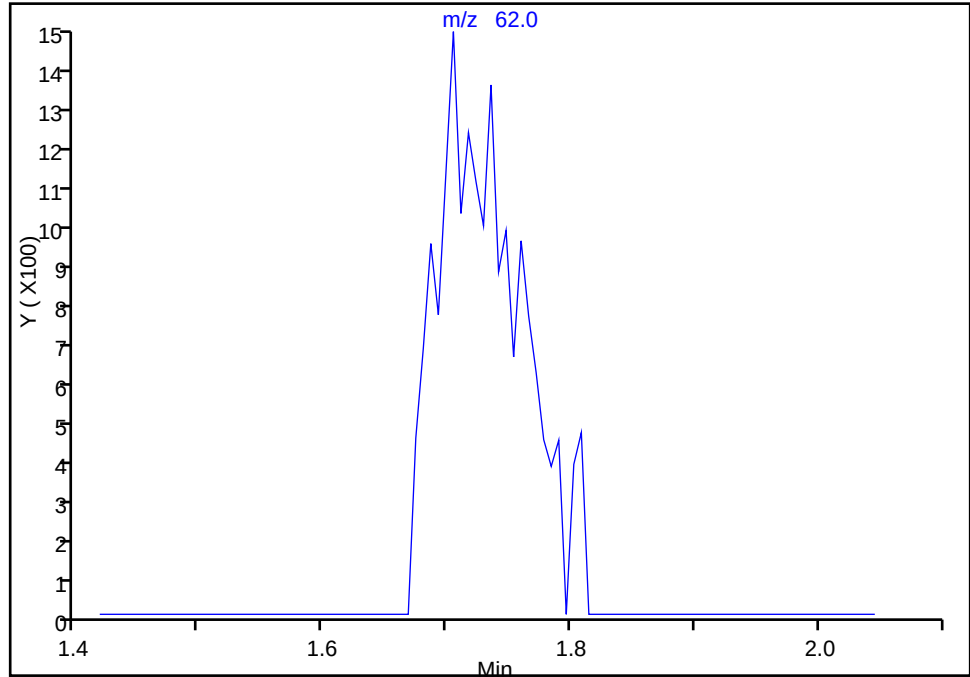
12 Vinyl chloride, CAS: 75-01-4

Signal: 1

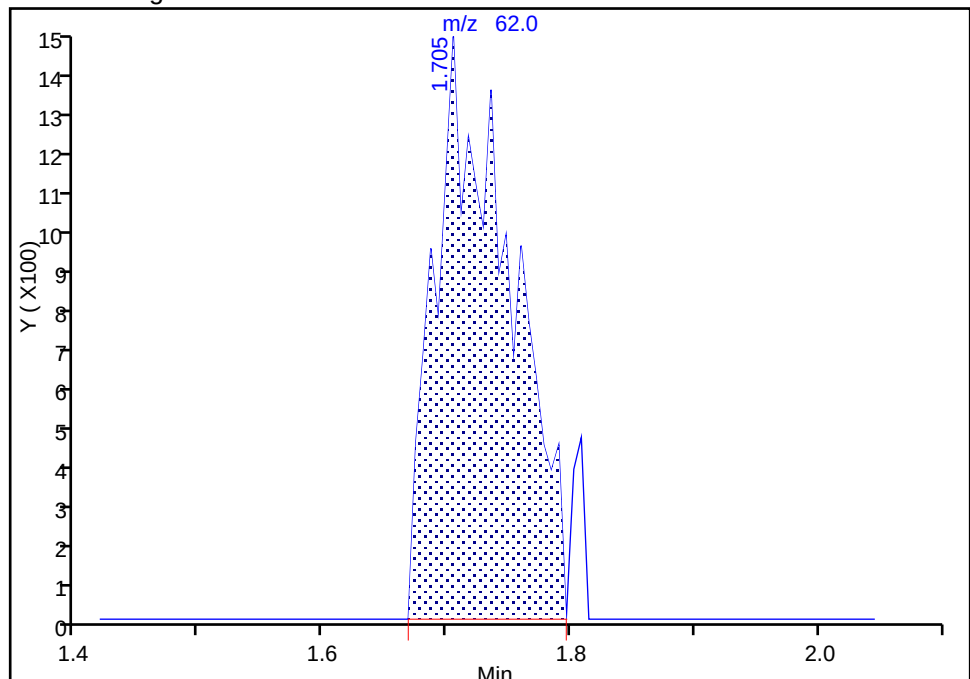
Not Detected

Expected RT: 1.72

Processing Integration Results



Manual Integration Results



RT: 1.70

Area: 6204

Amount: 0.710024

Amount Units: ug/L

Reviewer: baroner, 16-Oct-2017 13:38:40

Audit Action: Manually Integrated

Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Buffalo</u>	Job No.: <u>480-125692-1</u>
SDG No.: _____	
Client Sample ID: <u>DGC-7S</u>	Lab Sample ID: <u>480-125692-7</u>
Matrix: <u>Water</u>	Lab File ID: <u>Q2815.D</u>
Analysis Method: <u>624</u>	Date Collected: <u>10/10/2017 13:10</u>
Sample wt/vol: <u>5(mL)</u>	Date Analyzed: <u>10/12/2017 19:23</u>
Soil Aliquot Vol: _____	Dilution Factor: <u>1</u>
Soil Extract Vol.: _____	GC Column: <u>ZB-624 (20)</u> ID: <u>0.18(mm)</u>
% Moisture: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>381520</u>	Units: <u>ug/L</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		5.0	0.39
79-34-5	1,1,2,2-Tetrachloroethane	ND		5.0	0.26
79-00-5	1,1,2-Trichloroethane	ND		5.0	0.48
75-34-3	1,1-Dichloroethane	0.62	J	5.0	0.59
75-35-4	1,1-Dichloroethene	ND		5.0	0.85
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.44
107-06-2	1,2-Dichloroethane	ND		5.0	0.60
540-59-0	1,2-Dichloroethene, Total	ND		10	3.2
78-87-5	1,2-Dichloropropane	ND		5.0	0.61
541-73-1	1,3-Dichlorobenzene	ND		5.0	0.54
106-46-7	1,4-Dichlorobenzene	ND		5.0	0.51
110-75-8	2-Chloroethyl vinyl ether	ND		25	1.9
107-02-8	Acrolein	ND		100	17
107-13-1	Acrylonitrile	ND		50	1.9
71-43-2	Benzene	ND		5.0	0.60
75-25-2	Bromoform	ND		5.0	0.47
74-83-9	Bromomethane	ND		5.0	1.2
56-23-5	Carbon tetrachloride	ND		5.0	0.51
108-90-7	Chlorobenzene	3.1	J	5.0	0.48
124-48-1	Chlorodibromomethane	ND		5.0	0.41
75-00-3	Chloroethane	ND		5.0	0.87
67-66-3	Chloroform	ND		5.0	0.54
74-87-3	Chloromethane	ND		5.0	0.64
10061-01-5	cis-1,3-Dichloropropene	ND		5.0	0.33
75-27-4	Dichlorobromomethane	ND		5.0	0.54
100-41-4	Ethylbenzene	ND		5.0	0.46
75-09-2	Methylene Chloride	ND		5.0	0.81
127-18-4	Tetrachloroethene	ND		5.0	0.34
108-88-3	Toluene	ND		5.0	0.45
156-60-5	trans-1,2-Dichloroethene	ND		5.0	0.59
10061-02-6	trans-1,3-Dichloropropene	ND		5.0	0.44
79-01-6	Trichloroethene	ND		5.0	0.60
75-01-4	Vinyl chloride	0.97	J	5.0	0.75

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-125692-1
SDG No.: _____
Client Sample ID: DGC-7S Lab Sample ID: 480-125692-7
Matrix: Water Lab File ID: Q2815.D
Analysis Method: 624 Date Collected: 10/10/2017 13:10
Sample wt/vol: 5 (mL) Date Analyzed: 10/12/2017 19:23
Soil Aliquot Vol: _____ Dilution Factor: 1
Soil Extract Vol.: _____ GC Column: ZB-624 (20) ID: 0.18 (mm)
% Moisture: _____ Level: (low/med) Low
Analysis Batch No.: 381520 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		68-130
460-00-4	4-Bromofluorobenzene (Surr)	99		76-123
2037-26-5	Toluene-d8 (Surr)	96		77-120

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q2815.D
 Lims ID: 480-125692-C-7
 Client ID: DGC-7S
 Sample Type: Client
 Inject. Date: 12-Oct-2017 19:23:30 ALS Bottle#: 16 Worklist Smp#: 17
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 480-125692-c-7
 Misc. Info.: 480-0066342-017
 Operator ID: RF/RB Instrument ID: HP5973Q
 Method: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q-624.m
 Limit Group: MV - 624 ICAL UP
 Last Update: 16-Oct-2017 13:39:19 Calib Date: 20-Sep-2017 15:14:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last Ical File: \\ChromNA\Buffalo\ChromData\HP5973Q\20170920-65748.b\Q2418.D
 Column 1 : Det: MS SCAN
 Process Host: XAWRK002

First Level Reviewer: baroner

Date: 16-Oct-2017 09:47:30

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
* 114 Fluorobenzene (IS)	96	5.008	5.009	-0.001	99	920597	30.0	
* 2 Chlorobenzene-d5	117	7.294	7.296	-0.002	90	584754	30.0	
* 3 1,4-Dichlorobenzene-d4	152	9.161	9.163	-0.002	98	325186	30.0	
\$ 4 1,2-Dichloroethane-d4 (Sur	65	4.783	4.778	0.005	98	342511	30.4	
\$ 5 Toluene-d8 (Surr)	98	6.181	6.177	0.004	94	750368	28.9	
\$ 6 4-Bromofluorobenzene (Surr	95	8.225	8.226	-0.001	83	294542	29.7	
11 Chloromethane	50		1.653				ND	
12 Vinyl chloride	62	1.736	1.736	0.017	8	8922	0.9715	M
13 Bromomethane	94		1.981				ND	
14 Chloroethane	64		2.036				ND	
18 Acrolein	56		2.638				ND	
20 1,1-Dichloroethene	96		2.686				ND	
27 Methylene Chloride	84		3.136				ND	
30 trans-1,2-Dichloroethene	96		3.343				ND	
31 Acrylonitrile	53		3.368				ND	
32 1,1-Dichloroethane	63	3.706	3.696	0.010	95	8647	0.6181	
38 cis-1,2-Dichloroethene	96	4.162	4.158	0.004	81	21524	2.45	
45 Chloroform	83		4.407				ND	
116 1,1,1-Trichloroethane	97		4.517				ND	
47 Carbon tetrachloride	117		4.638				ND	
49 Benzene	78		4.797				ND	
51 1,2-Dichloroethane	62		4.839				ND	
53 Trichloroethene	95	5.281	5.277	0.004	22	1726	0.2159	7
54 1,2-Dichloropropane	63		5.453				ND	
58 Dichlorobromomethane	83		5.672				ND	
60 2-Chloroethyl vinyl ether	63		5.879				ND	
61 cis-1,3-Dichloropropene	75		5.995				ND	
63 Toluene	92		6.226				ND	
64 trans-1,3-Dichloropropene	75		6.414				ND	
66 1,1,2-Trichloroethane	83		6.560				ND	
67 Tetrachloroethene	166		6.639				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
71 Chlorodibromomethane	129		6.870				ND	
74 Chlorobenzene	112	7.319	7.320	-0.001	96	55939	3.09	
77 Ethylbenzene	91		7.381				ND	
82 Bromoform	173		7.989				ND	
86 1,1,2,2-Tetrachloroethane	83		8.354				ND	
98 1,3-Dichlorobenzene	146		9.108				ND	
99 1,4-Dichlorobenzene	146		9.181				ND	
101 1,2-Dichlorobenzene	146	9.496	9.491	0.005	35	5367	0.3893	7
S 107 1,2-Dichloroethene, Total	1				0		2.45	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

Reagents:

Q 624 IS_00056

Amount Added: 1.00

Units: uL

Run Reagent

Q 624 SURR_00051

Amount Added: 1.00

Units: uL

Run Reagent

TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q2815.D

Injection Date: 12-Oct-2017 19:23:30

Instrument ID: HP5973Q

Operator ID: RF/RB

Lims ID: 480-125692-C-7

Lab Sample ID: 480-125692-7

Worklist Smp#: 17

Client ID: DGC-7S

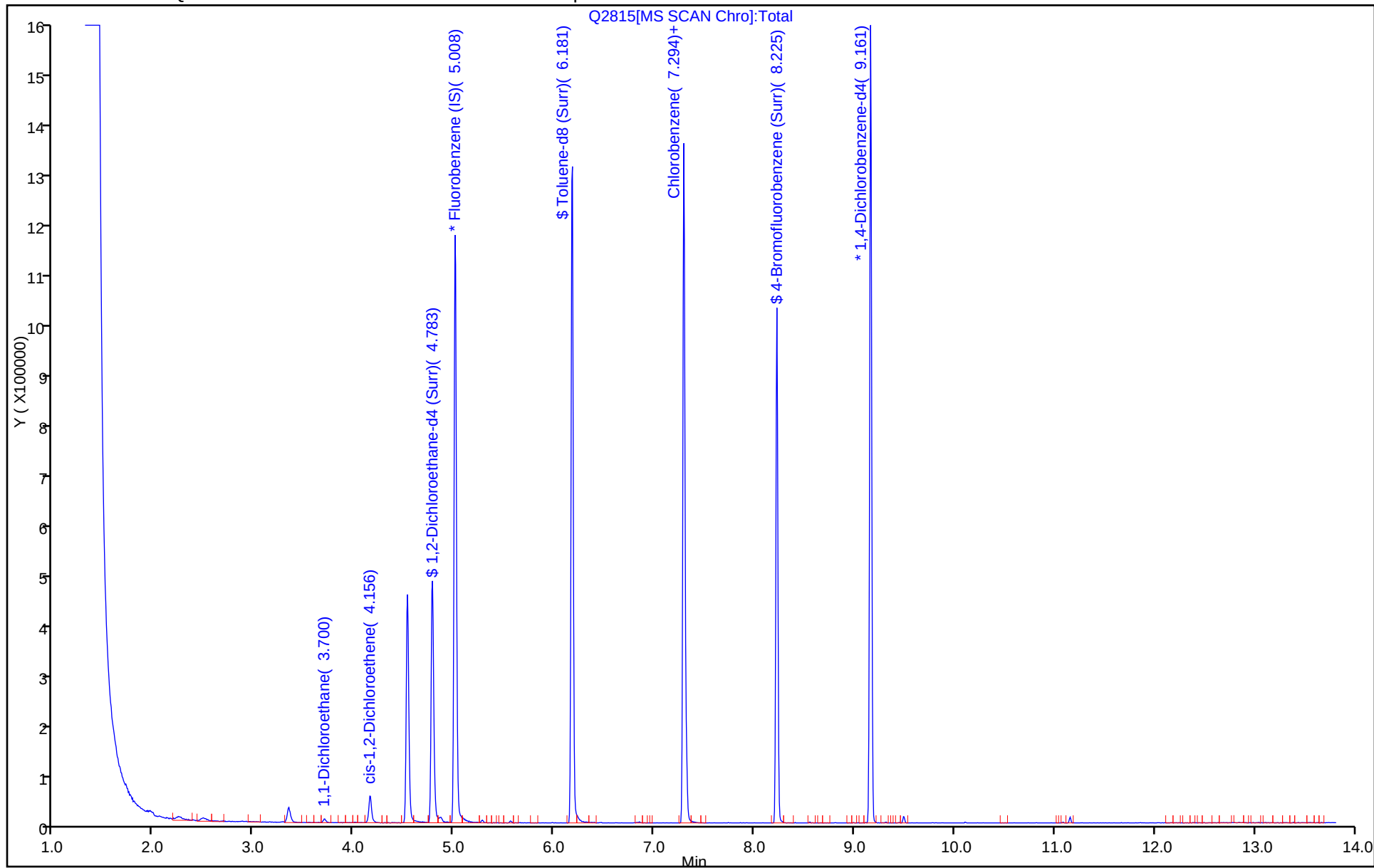
Purge Vol: 5.000 mL

Dil. Factor: 1.0000

ALS Bottle#: 16

Method: Q-624

Limit Group: MV - 624 ICAL UP



TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q2815.D

Injection Date: 12-Oct-2017 19:23:30

Instrument ID: HP5973Q

Lims ID: 480-125692-C-7

Lab Sample ID: 480-125692-7

Client ID: DGC-7S

Operator ID: RF/RB

ALS Bottle#: 16

Worklist Smp#: 17

Purge Vol: 5.000 mL

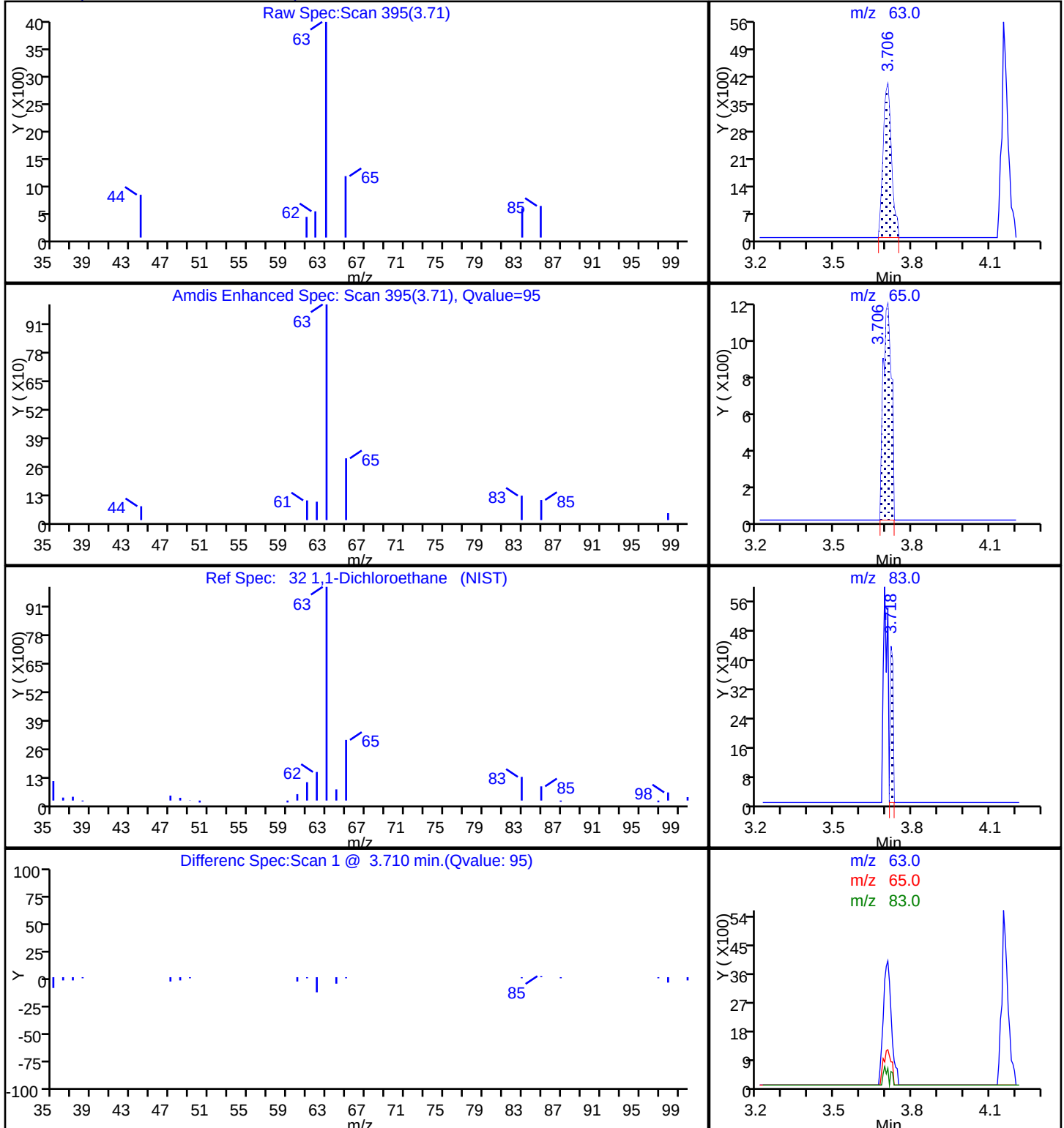
Dil. Factor: 1.0000

Method: Q-624

Limit Group: MV - 624 ICAL UP

Column:

Detector MS SCAN

32 1,1-Dichloroethane, CAS: 75-34-3

TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q2815.D

Injection Date: 12-Oct-2017 19:23:30

Instrument ID: HP5973Q

Lims ID: 480-125692-C-7

Lab Sample ID: 480-125692-7

Client ID: DGC-7S

Operator ID: RF/RB

ALS Bottle#: 16

Worklist Smp#: 17

Purge Vol: 5.000 mL

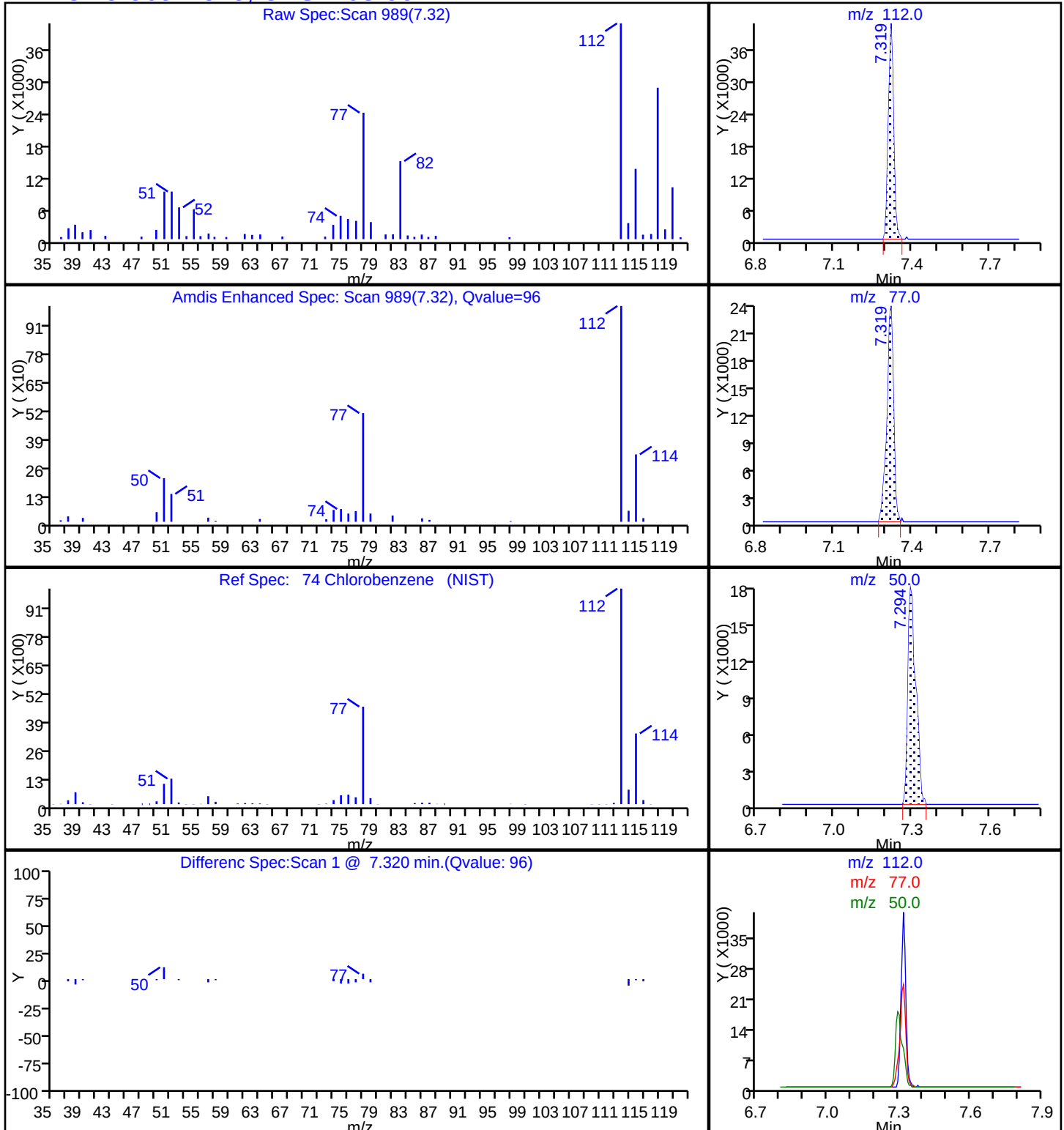
Dil. Factor: 1.0000

Method: Q-624

Limit Group: MV - 624 ICAL UP

Column:

Detector: MS SCAN

74 Chlorobenzene, CAS: 108-90-7

TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q2815.D

Injection Date: 12-Oct-2017 19:23:30

Instrument ID: HP5973Q

Lims ID: 480-125692-C-7

Lab Sample ID: 480-125692-7

Client ID: DGC-7S

Operator ID: RF/RB

ALS Bottle#: 16

Worklist Smp#: 17

Purge Vol: 5.000 mL

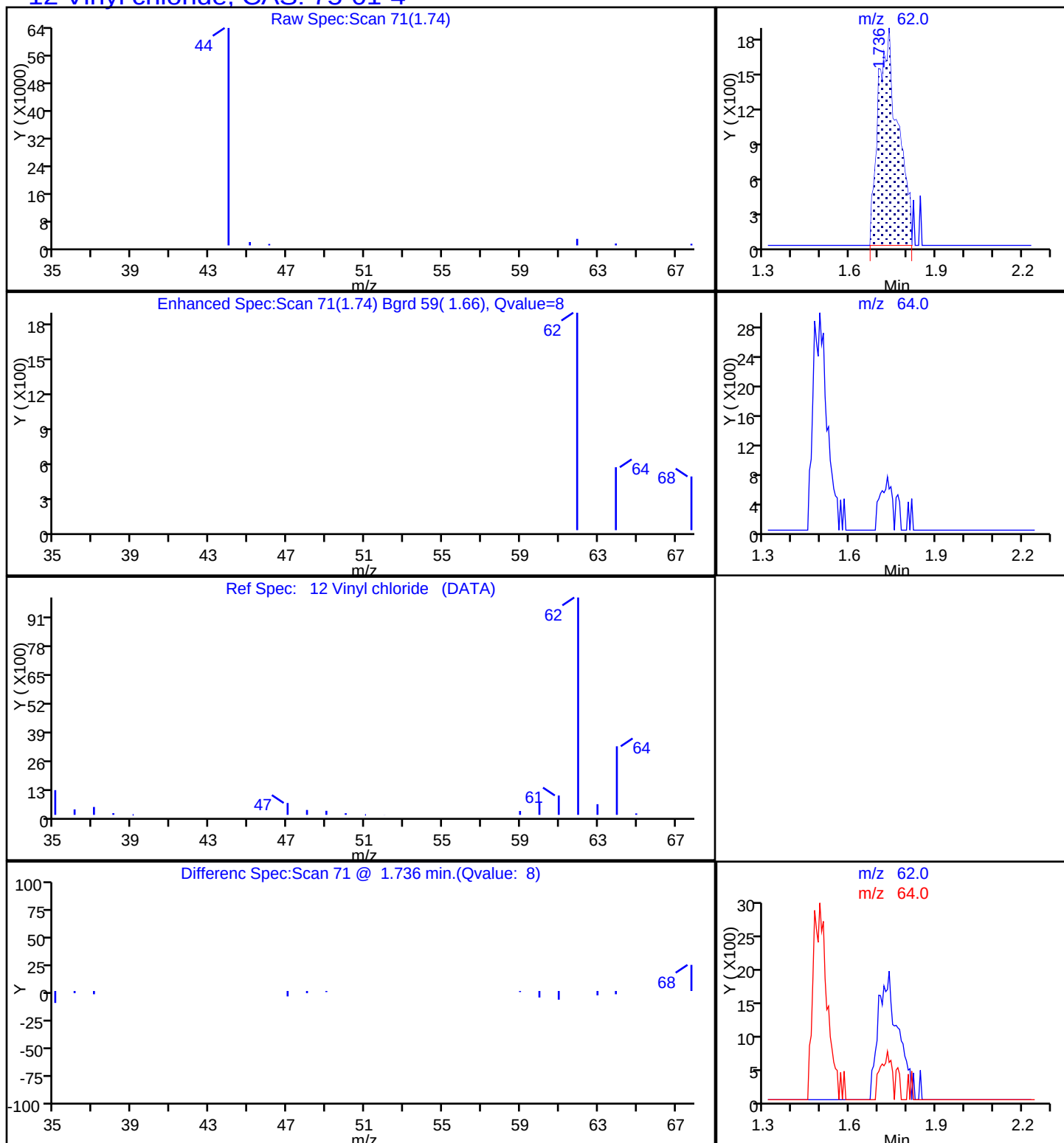
Dil. Factor: 1.0000

Method: Q-624

Limit Group: MV - 624 ICAL UP

Column:

Detector MS SCAN

12 Vinyl chloride, CAS: 75-01-4

TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q2815.D

Injection Date: 12-Oct-2017 19:23:30

Instrument ID: HP5973Q

Lims ID: 480-125692-C-7

Lab Sample ID: 480-125692-7

Client ID: DGC-7S

Operator ID: RF/RB

ALS Bottle#: 16 Worklist Smp#: 17

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

Method: Q-624

Limit Group: MV - 624 ICAL UP

Column:

Detector: MS SCAN

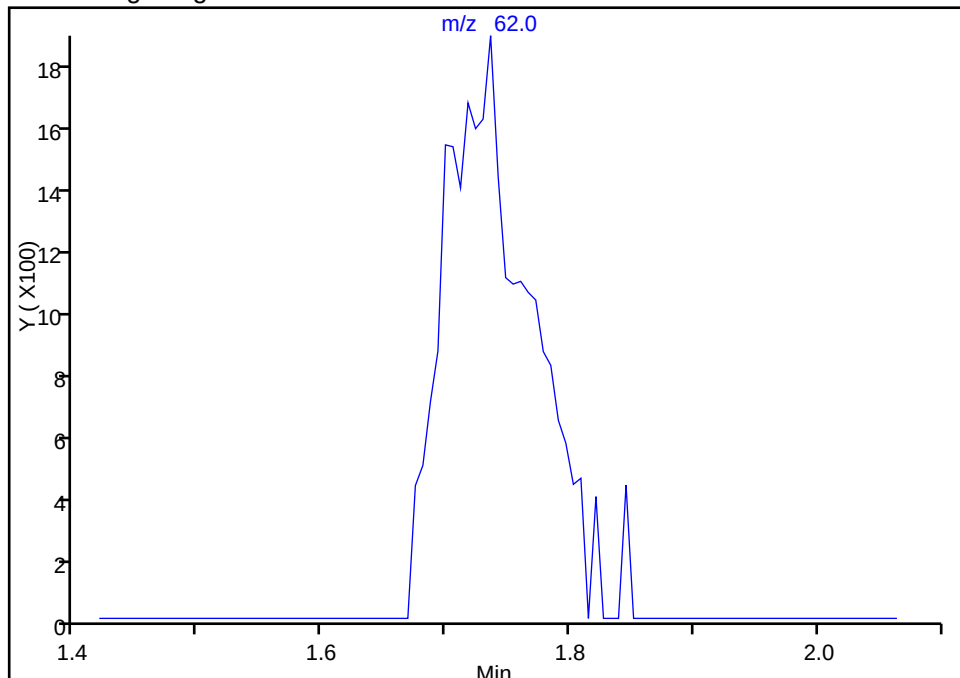
12 Vinyl chloride, CAS: 75-01-4

Signal: 1

Not Detected

Expected RT: 1.72

Processing Integration Results



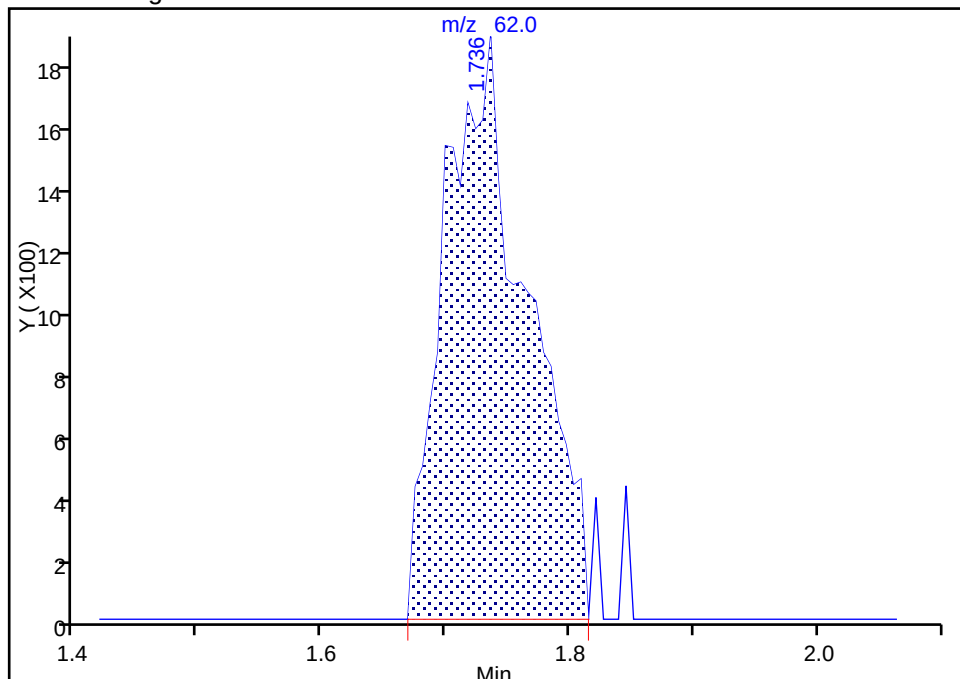
RT: 1.74

Area: 8922

Amount: 0.971466

Amount Units: ug/L

Manual Integration Results



Reviewer: baroner, 16-Oct-2017 13:38:54

Audit Action: Assigned Compound ID

Audit Reason: Poor chromatography

TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q2815.D

Injection Date: 12-Oct-2017 19:23:30

Instrument ID: HP5973Q

Lims ID: 480-125692-C-7

Lab Sample ID: 480-125692-7

Client ID: DGC-7S

Operator ID: RF/RB

ALS Bottle#: 16 Worklist Smp#: 17

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

Method: Q-624

Limit Group: MV - 624 ICAL UP

Column:

Detector: MS SCAN

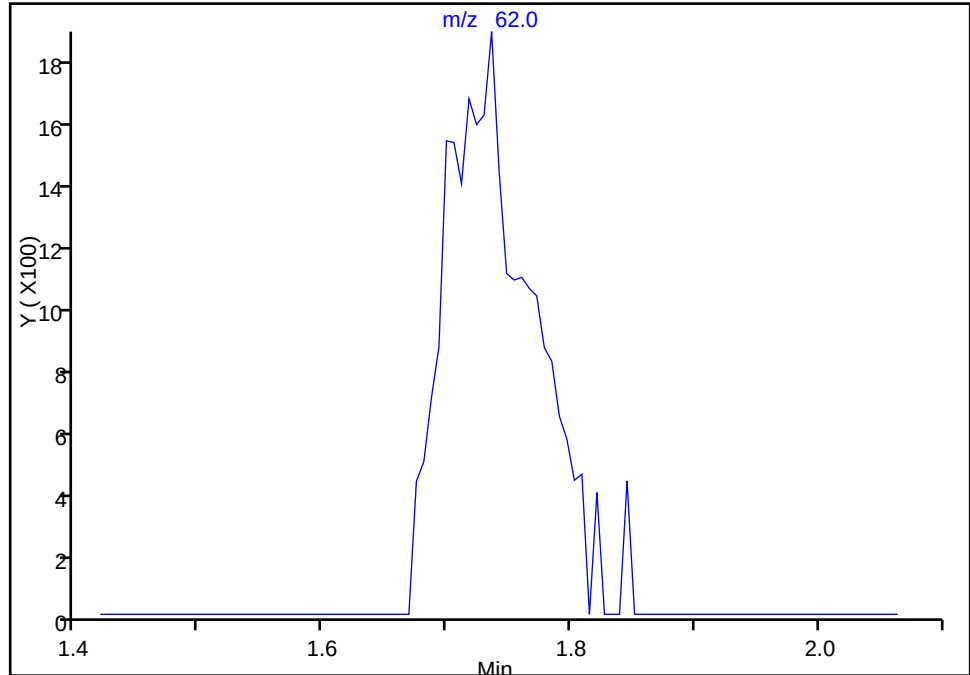
12 Vinyl chloride, CAS: 75-01-4

Signal: 1

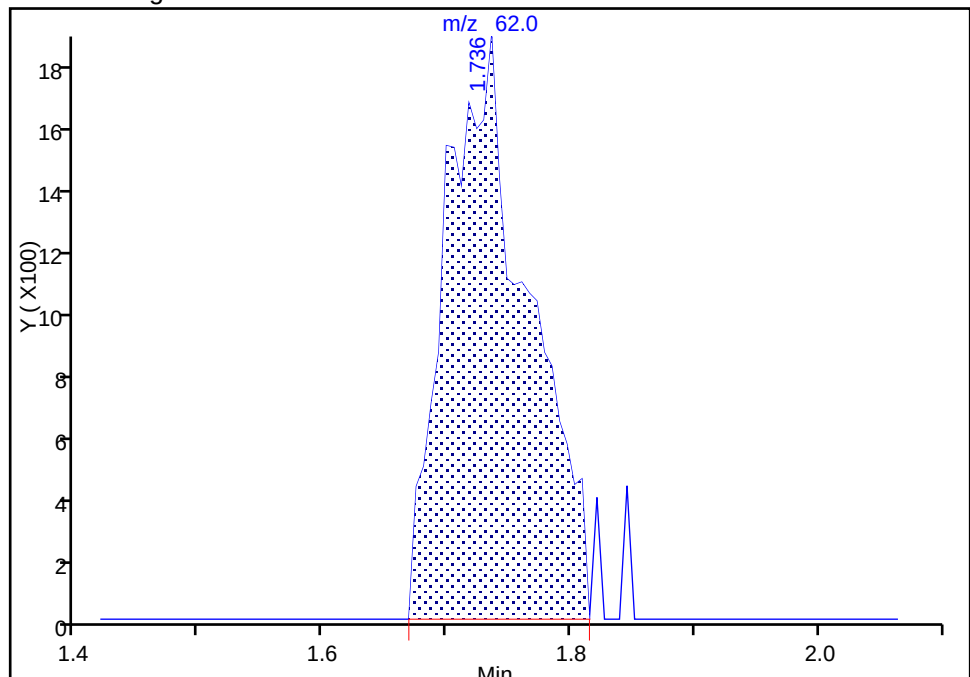
Not Detected

Expected RT: 1.72

Processing Integration Results



Manual Integration Results



RT: 1.74

Area: 8922

Amount: 0.971466

Amount Units: ug/L

Reviewer: baroner, 16-Oct-2017 13:39:11

Audit Action: Manually Integrated

Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Buffalo</u>	Job No.: <u>480-125692-1</u>
SDG No.: _____	
Client Sample ID: <u>DGC-8S</u>	Lab Sample ID: <u>480-125692-8</u>
Matrix: <u>Water</u>	Lab File ID: <u>Q2816.D</u>
Analysis Method: <u>624</u>	Date Collected: <u>10/10/2017 13:15</u>
Sample wt/vol: <u>5(mL)</u>	Date Analyzed: <u>10/12/2017 19:47</u>
Soil Aliquot Vol: _____	Dilution Factor: <u>1</u>
Soil Extract Vol.: _____	GC Column: <u>ZB-624 (20)</u> ID: <u>0.18(mm)</u>
% Moisture: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>381520</u>	Units: <u>ug/L</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		5.0	0.39
79-34-5	1,1,2,2-Tetrachloroethane	ND		5.0	0.26
79-00-5	1,1,2-Trichloroethane	ND		5.0	0.48
75-34-3	1,1-Dichloroethane	ND		5.0	0.59
75-35-4	1,1-Dichloroethene	ND		5.0	0.85
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.44
107-06-2	1,2-Dichloroethane	ND		5.0	0.60
540-59-0	1,2-Dichloroethene, Total	18		10	3.2
78-87-5	1,2-Dichloropropane	ND		5.0	0.61
541-73-1	1,3-Dichlorobenzene	ND		5.0	0.54
106-46-7	1,4-Dichlorobenzene	ND		5.0	0.51
110-75-8	2-Chloroethyl vinyl ether	ND		25	1.9
107-02-8	Acrolein	ND		100	17
107-13-1	Acrylonitrile	ND		50	1.9
71-43-2	Benzene	ND		5.0	0.60
75-25-2	Bromoform	ND		5.0	0.47
74-83-9	Bromomethane	ND		5.0	1.2
56-23-5	Carbon tetrachloride	ND		5.0	0.51
108-90-7	Chlorobenzene	ND		5.0	0.48
124-48-1	Chlorodibromomethane	ND		5.0	0.41
75-00-3	Chloroethane	ND		5.0	0.87
67-66-3	Chloroform	ND		5.0	0.54
74-87-3	Chloromethane	ND		5.0	0.64
10061-01-5	cis-1,3-Dichloropropene	ND		5.0	0.33
75-27-4	Dichlorobromomethane	ND		5.0	0.54
100-41-4	Ethylbenzene	ND		5.0	0.46
75-09-2	Methylene Chloride	ND		5.0	0.81
127-18-4	Tetrachloroethene	ND		5.0	0.34
108-88-3	Toluene	ND		5.0	0.45
156-60-5	trans-1,2-Dichloroethene	ND		5.0	0.59
10061-02-6	trans-1,3-Dichloropropene	ND		5.0	0.44
79-01-6	Trichloroethene	8.3		5.0	0.60
75-01-4	Vinyl chloride	2.0	J	5.0	0.75

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-125692-1
SDG No.: _____
Client Sample ID: DGC-8S Lab Sample ID: 480-125692-8
Matrix: Water Lab File ID: Q2816.D
Analysis Method: 624 Date Collected: 10/10/2017 13:15
Sample wt/vol: 5 (mL) Date Analyzed: 10/12/2017 19:47
Soil Aliquot Vol: _____ Dilution Factor: 1
Soil Extract Vol.: _____ GC Column: ZB-624 (20) ID: 0.18 (mm)
% Moisture: _____ Level: (low/med) Low
Analysis Batch No.: 381520 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		68-130
460-00-4	4-Bromofluorobenzene (Surr)	99		76-123
2037-26-5	Toluene-d8 (Surr)	95		77-120

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q2816.D
 Lims ID: 480-125692-C-8
 Client ID: DGC-8S
 Sample Type: Client
 Inject. Date: 12-Oct-2017 19:47:30 ALS Bottle#: 17 Worklist Smp#: 18
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 480-125692-c-8
 Misc. Info.: 480-0066342-018
 Operator ID: RF/RB Instrument ID: HP5973Q
 Method: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q-624.m
 Limit Group: MV - 624 ICAL UP
 Last Update: 16-Oct-2017 09:48:34 Calib Date: 20-Sep-2017 15:14:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last Ical File: \\ChromNA\Buffalo\ChromData\HP5973Q\20170920-65748.b\Q2418.D
 Column 1 : Det: MS SCAN
 Process Host: XAWRK002

First Level Reviewer: baroner

Date: 16-Oct-2017 09:48:34

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
* 114 Fluorobenzene (IS)	96	5.008	5.009	-0.001	99	908686	30.0	
* 2 Chlorobenzene-d5	117	7.295	7.296	-0.001	90	563340	30.0	
* 3 1,4-Dichlorobenzene-d4	152	9.162	9.163	-0.001	98	314764	30.0	
\$ 4 1,2-Dichloroethane-d4 (Sur	65	4.777	4.778	-0.001	98	338419	30.4	
\$ 5 Toluene-d8 (Surr)	98	6.176	6.177	-0.001	93	715290	28.6	
\$ 6 4-Bromofluorobenzene (Surr	95	8.225	8.226	-0.001	82	283054	29.6	
11 Chloromethane	50		1.653				ND	
12 Vinyl chloride	62	1.731	1.719	0.012	89	18079	1.99	
13 Bromomethane	94		1.981				ND	
14 Chloroethane	64		2.036				ND	
18 Acrolein	56		2.638				ND	
20 1,1-Dichloroethene	96		2.686				ND	
27 Methylene Chloride	84		3.136				ND	
30 trans-1,2-Dichloroethene	96		3.343				ND	
31 Acrylonitrile	53		3.368				ND	
32 1,1-Dichloroethane	63		3.696				ND	
38 cis-1,2-Dichloroethene	96	4.157	4.158	-0.001	81	154930	17.9	
45 Chloroform	83		4.407				ND	
116 1,1,1-Trichloroethane	97		4.517				ND	
47 Carbon tetrachloride	117		4.638				ND	
49 Benzene	78		4.797				ND	
51 1,2-Dichloroethane	62		4.839				ND	
53 Trichloroethene	95	5.276	5.277	-0.001	94	65208	8.26	
54 1,2-Dichloropropane	63		5.453				ND	
58 Dichlorobromomethane	83		5.672				ND	
60 2-Chloroethyl vinyl ether	63		5.879				ND	
61 cis-1,3-Dichloropropene	75		5.995				ND	
63 Toluene	92		6.226				ND	
64 trans-1,3-Dichloropropene	75		6.414				ND	
66 1,1,2-Trichloroethane	83		6.560				ND	
67 Tetrachloroethene	166		6.639				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
71 Chlorodibromomethane	129		6.870				ND	
74 Chlorobenzene	112		7.320				ND	
77 Ethylbenzene	91		7.381				ND	
82 Bromoform	173		7.989				ND	
86 1,1,2,2-Tetrachloroethane	83		8.354				ND	
98 1,3-Dichlorobenzene	146		9.108				ND	
99 1,4-Dichlorobenzene	146		9.181				ND	
101 1,2-Dichlorobenzene	146		9.491				ND	
S 107 1,2-Dichloroethene, Total	1				0		17.9	

Reagents:

Q 624 IS_00056

Amount Added: 1.00

Units: uL

Run Reagent

Q 624 SURR_00051

Amount Added: 1.00

Units: uL

Run Reagent

TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q2816.D

Injection Date: 12-Oct-2017 19:47:30

Instrument ID: HP5973Q

Operator ID: RF/RB

Lims ID: 480-125692-C-8

Lab Sample ID: 480-125692-8

Worklist Smp#: 18

Client ID: DGC-8S

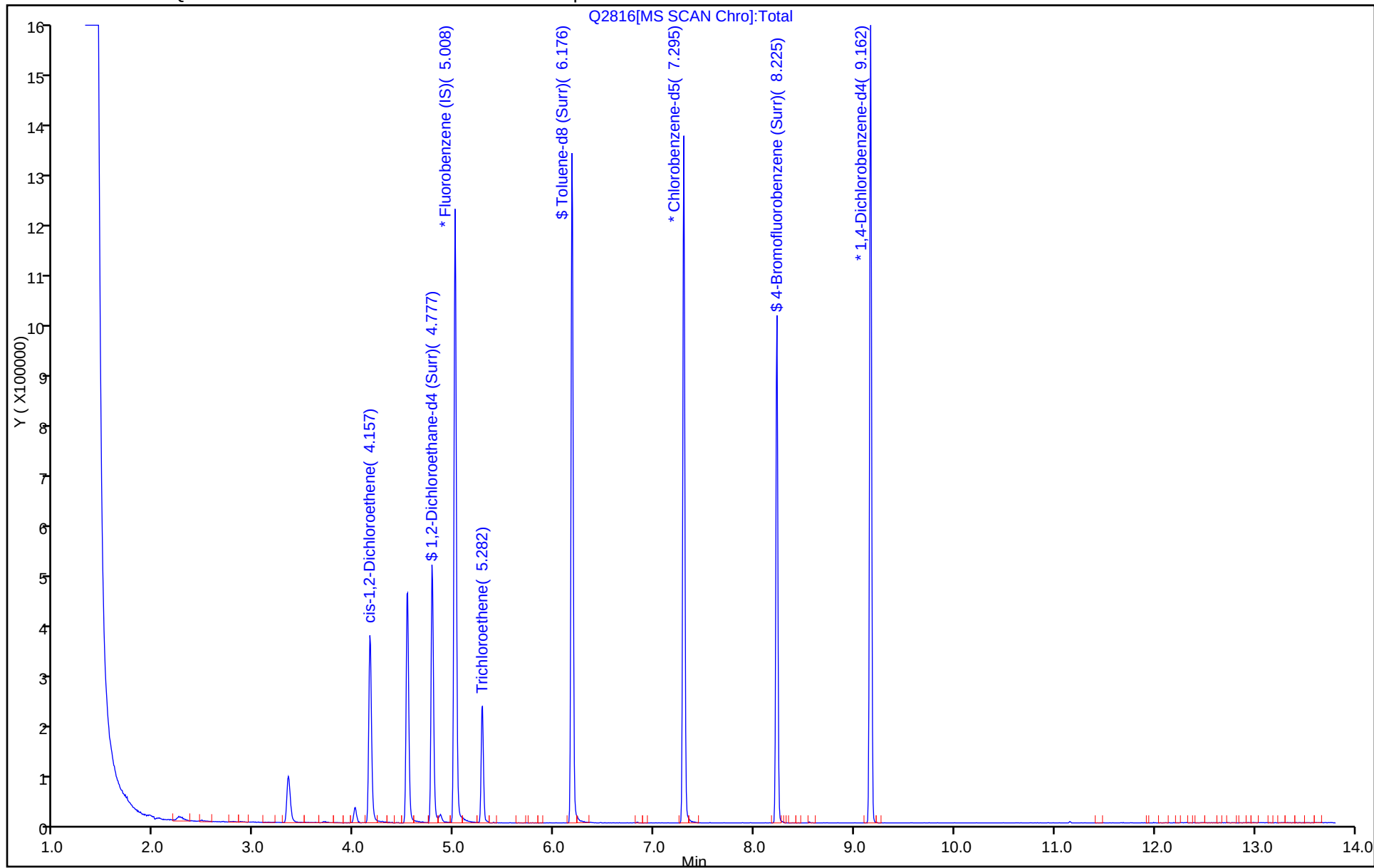
Purge Vol: 5.000 mL

Dil. Factor: 1.0000

ALS Bottle#: 17

Method: Q-624

Limit Group: MV - 624 ICAL UP



TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q2816.D

Injection Date: 12-Oct-2017 19:47:30

Instrument ID: HP5973Q

Lims ID: 480-125692-C-8

Lab Sample ID: 480-125692-8

Client ID: DGC-8S

Operator ID: RF/RB

ALS Bottle#: 17

Worklist Smp#: 18

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

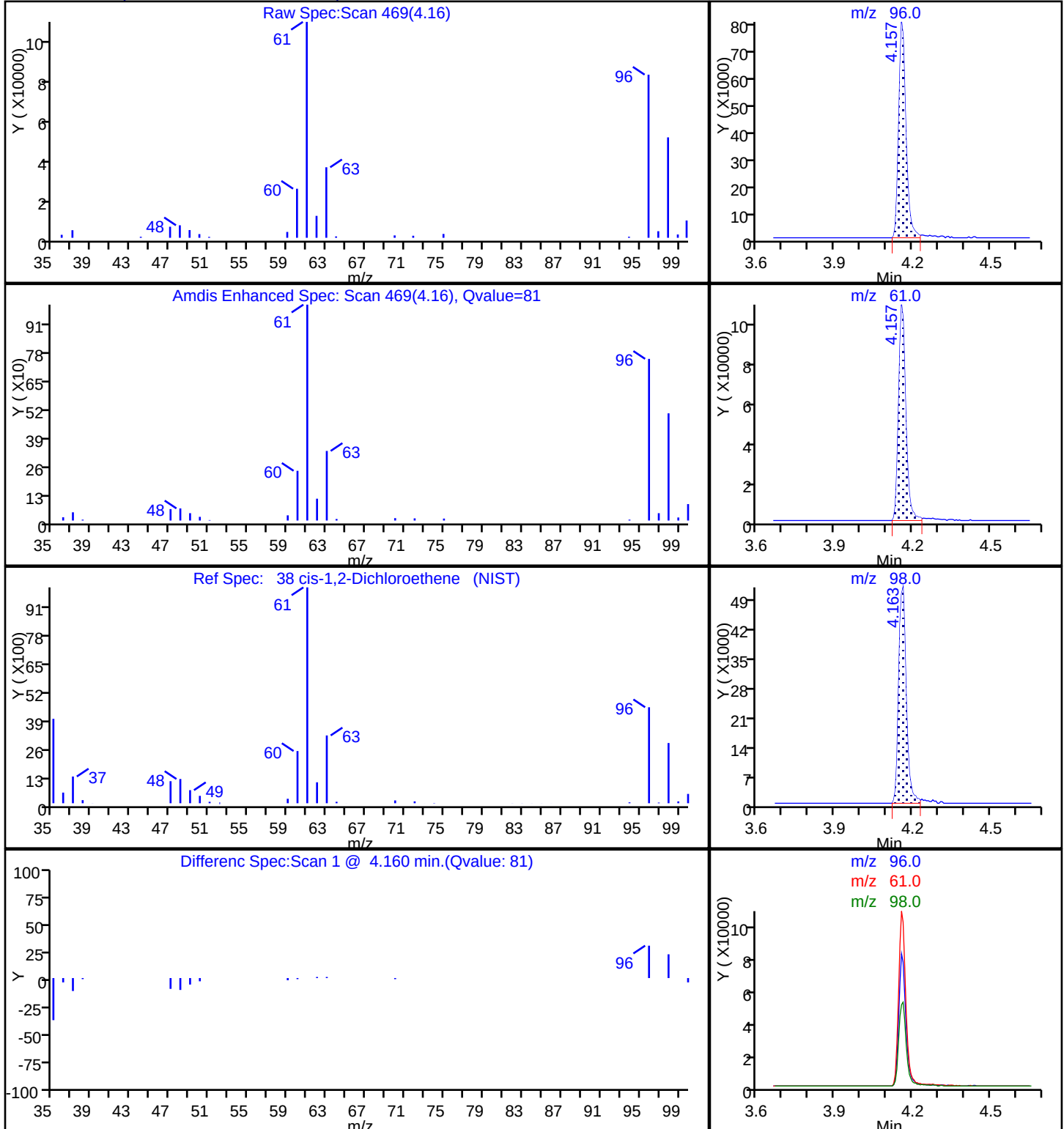
Method: Q-624

Limit Group: MV - 624 ICAL UP

Column:

Detector

MS SCAN

38 cis-1,2-Dichloroethene, CAS: 156-59-2

TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q2816.D

Injection Date: 12-Oct-2017 19:47:30

Instrument ID: HP5973Q

Lims ID: 480-125692-C-8

Lab Sample ID: 480-125692-8

Client ID: DGC-8S

Operator ID: RF/RB

ALS Bottle#: 17

Worklist Smp#: 18

Purge Vol: 5.000 mL

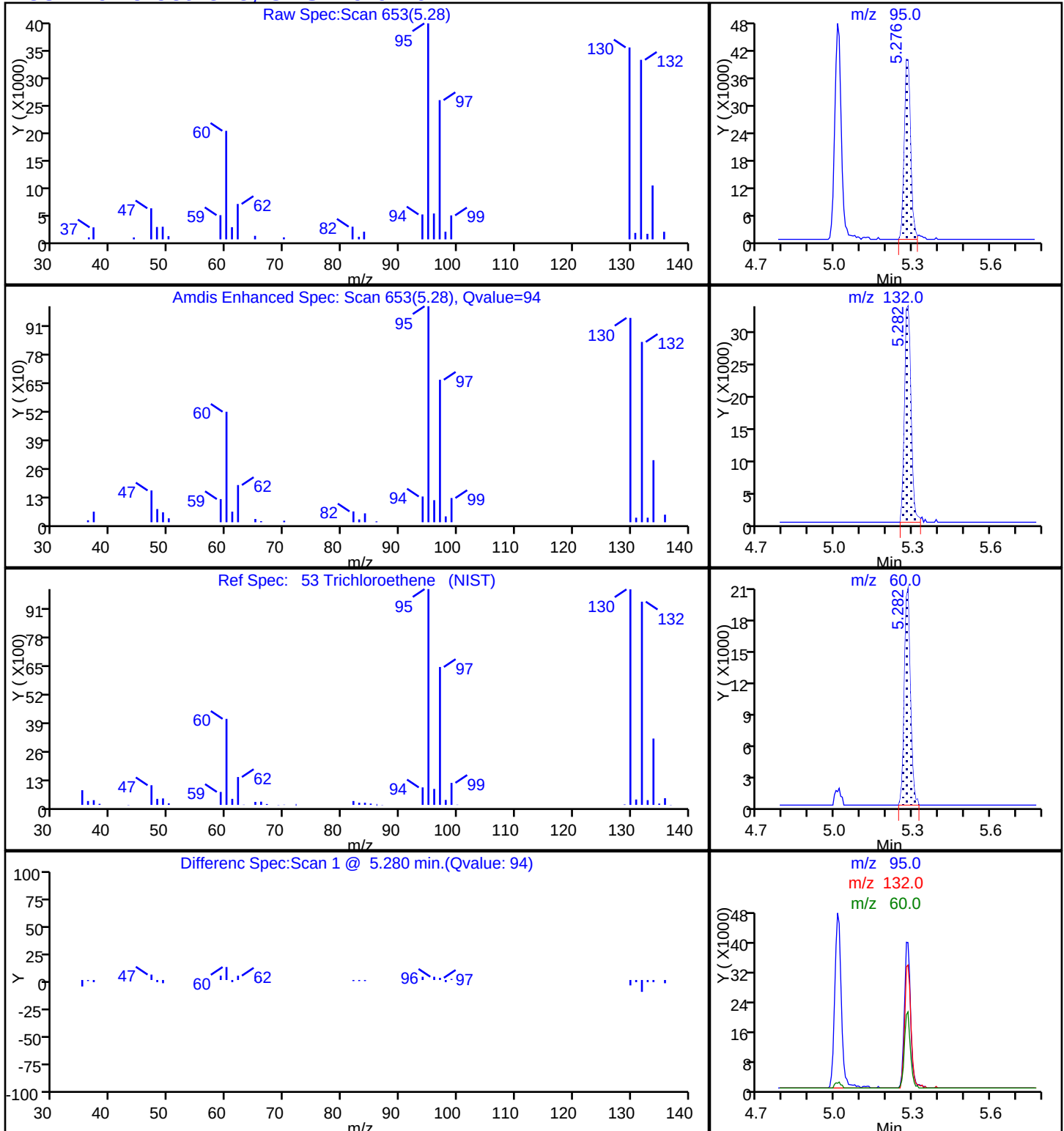
Dil. Factor: 1.0000

Method: Q-624

Limit Group: MV - 624 ICAL UP

Column:

Detector: MS SCAN

53 Trichloroethene, CAS: 79-01-6

TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q2816.D

Injection Date: 12-Oct-2017 19:47:30

Instrument ID: HP5973Q

Lims ID: 480-125692-C-8

Lab Sample ID: 480-125692-8

Client ID: DGC-8S

Operator ID: RF/RB

ALS Bottle#: 17

Worklist Smp#: 18

Purge Vol: 5.000 mL

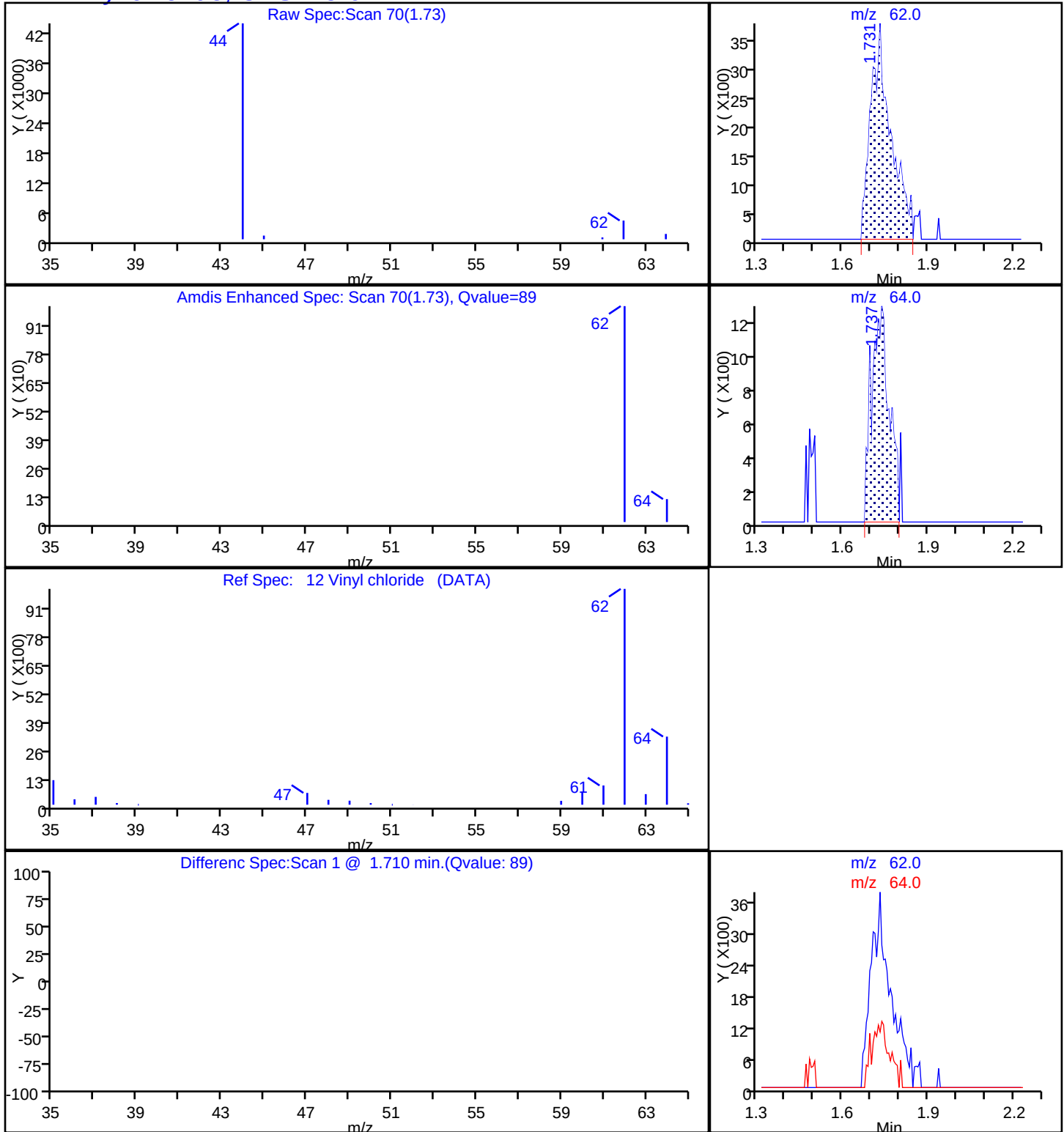
Dil. Factor: 1.0000

Method: Q-624

Limit Group: MV - 624 ICAL UP

Column:

Detector MS SCAN

12 Vinyl chloride, CAS: 75-01-4

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Buffalo</u>	Job No.: <u>480-125692-1</u>
SDG No.: _____	
Client Sample ID: <u>DGC-11S</u>	Lab Sample ID: <u>480-125692-9</u>
Matrix: <u>Water</u>	Lab File ID: <u>Q2824.D</u>
Analysis Method: <u>624</u>	Date Collected: <u>10/10/2017 13:20</u>
Sample wt/vol: <u>5(mL)</u>	Date Analyzed: <u>10/12/2017 22:55</u>
Soil Aliquot Vol: _____	Dilution Factor: <u>1</u>
Soil Extract Vol.: _____	GC Column: <u>ZB-624 (20)</u> ID: <u>0.18(mm)</u>
% Moisture: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>381520</u>	Units: <u>ug/L</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		5.0	0.39
79-34-5	1,1,2,2-Tetrachloroethane	ND		5.0	0.26
79-00-5	1,1,2-Trichloroethane	ND		5.0	0.48
75-34-3	1,1-Dichloroethane	ND		5.0	0.59
75-35-4	1,1-Dichloroethene	ND		5.0	0.85
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.44
107-06-2	1,2-Dichloroethane	ND		5.0	0.60
540-59-0	1,2-Dichloroethene, Total	ND		10	3.2
78-87-5	1,2-Dichloropropane	ND		5.0	0.61
541-73-1	1,3-Dichlorobenzene	ND		5.0	0.54
106-46-7	1,4-Dichlorobenzene	ND		5.0	0.51
110-75-8	2-Chloroethyl vinyl ether	ND		25	1.9
107-02-8	Acrolein	ND		100	17
107-13-1	Acrylonitrile	ND		50	1.9
71-43-2	Benzene	ND		5.0	0.60
75-25-2	Bromoform	ND		5.0	0.47
74-83-9	Bromomethane	ND		5.0	1.2
56-23-5	Carbon tetrachloride	ND		5.0	0.51
108-90-7	Chlorobenzene	ND		5.0	0.48
124-48-1	Chlorodibromomethane	ND		5.0	0.41
75-00-3	Chloroethane	ND		5.0	0.87
67-66-3	Chloroform	ND		5.0	0.54
74-87-3	Chloromethane	ND		5.0	0.64
10061-01-5	cis-1,3-Dichloropropene	ND		5.0	0.33
75-27-4	Dichlorobromomethane	ND		5.0	0.54
100-41-4	Ethylbenzene	ND		5.0	0.46
75-09-2	Methylene Chloride	ND		5.0	0.81
127-18-4	Tetrachloroethene	ND		5.0	0.34
108-88-3	Toluene	ND		5.0	0.45
156-60-5	trans-1,2-Dichloroethene	ND		5.0	0.59
10061-02-6	trans-1,3-Dichloropropene	ND		5.0	0.44
79-01-6	Trichloroethene	ND		5.0	0.60
75-01-4	Vinyl chloride	ND		5.0	0.75

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-125692-1
SDG No.: _____
Client Sample ID: DGC-11S Lab Sample ID: 480-125692-9
Matrix: Water Lab File ID: Q2824.D
Analysis Method: 624 Date Collected: 10/10/2017 13:20
Sample wt/vol: 5 (mL) Date Analyzed: 10/12/2017 22:55
Soil Aliquot Vol: _____ Dilution Factor: 1
Soil Extract Vol.: _____ GC Column: ZB-624 (20) ID: 0.18 (mm)
% Moisture: _____ Level: (low/med) Low
Analysis Batch No.: 381520 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		68-130
460-00-4	4-Bromofluorobenzene (Surr)	99		76-123
2037-26-5	Toluene-d8 (Surr)	97		77-120

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q2824.D
 Lims ID: 480-125692-A-9
 Client ID: DGC-11S
 Sample Type: Client
 Inject. Date: 12-Oct-2017 22:55:30 ALS Bottle#: 25 Worklist Smp#: 19
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 480-125692-a-9
 Misc. Info.: 480-0066342-019
 Operator ID: RF/RB Instrument ID: HP5973Q
 Method: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q-624.m
 Limit Group: MV - 624 ICAL UP
 Last Update: 16-Oct-2017 09:53:37 Calib Date: 20-Sep-2017 15:14:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last Ical File: \\ChromNA\Buffalo\ChromData\HP5973Q\20170920-65748.b\Q2418.D
 Column 1 : Det: MS SCAN
 Process Host: XAWRK002

First Level Reviewer: baroner

Date: 16-Oct-2017 09:54:57

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
* 114 Fluorobenzene (IS)	96	5.007	5.009	-0.002	99	928793	30.0	
* 2 Chlorobenzene-d5	117	7.294	7.296	-0.002	90	571493	30.0	
* 3 1,4-Dichlorobenzene-d4	152	9.161	9.163	-0.002	98	319988	30.0	
\$ 4 1,2-Dichloroethane-d4 (Sur	65	4.782	4.778	0.004	98	338530	29.8	
\$ 5 Toluene-d8 (Surr)	98	6.175	6.177	-0.002	94	738760	29.1	
\$ 6 4-Bromofluorobenzene (Surr	95	8.224	8.226	-0.002	82	287281	29.6	
11 Chloromethane	50		1.653				ND	
12 Vinyl chloride	62		1.719				ND	
13 Bromomethane	94		1.981				ND	
14 Chloroethane	64		2.036				ND	
18 Acrolein	56		2.638				ND	
20 1,1-Dichloroethene	96		2.686				ND	
27 Methylene Chloride	84		3.136				ND	
30 trans-1,2-Dichloroethene	96		3.343				ND	
31 Acrylonitrile	53		3.368				ND	
32 1,1-Dichloroethane	63		3.696				ND	
38 cis-1,2-Dichloroethene	96		4.158				ND	
45 Chloroform	83		4.407				ND	
116 1,1,1-Trichloroethane	97		4.517				ND	
47 Carbon tetrachloride	117		4.638				ND	
49 Benzene	78		4.797				ND	
51 1,2-Dichloroethane	62		4.839				ND	
53 Trichloroethene	95		5.277				ND	
54 1,2-Dichloropropane	63		5.453				ND	
58 Dichlorobromomethane	83		5.672				ND	
60 2-Chloroethyl vinyl ether	63		5.879				ND	
61 cis-1,3-Dichloropropene	75		5.995				ND	
63 Toluene	92		6.226				ND	
64 trans-1,3-Dichloropropene	75		6.414				ND	
66 1,1,2-Trichloroethane	83		6.560				ND	
67 Tetrachloroethene	166		6.639				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
71 Chlorodibromomethane	129		6.870				ND	
74 Chlorobenzene	112		7.320				ND	
77 Ethylbenzene	91		7.381				ND	
82 Bromoform	173		7.989				ND	
86 1,1,2,2-Tetrachloroethane	83		8.354				ND	
98 1,3-Dichlorobenzene	146		9.108				ND	
99 1,4-Dichlorobenzene	146		9.181				ND	
101 1,2-Dichlorobenzene	146		9.491				ND	
S 107 1,2-Dichloroethene, Total	1		2.360				ND	

Reagents:

Q 624 IS_00056

Amount Added: 1.00

Units: uL

Run Reagent

Q 624 SURR_00051

Amount Added: 1.00

Units: uL

Run Reagent

TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q2824.D

Injection Date: 12-Oct-2017 22:55:30

Instrument ID: HP5973Q

Operator ID: RF/RB

Lims ID: 480-125692-A-9

Lab Sample ID: 480-125692-9

Worklist Smp#: 19

Client ID: DGC-11S

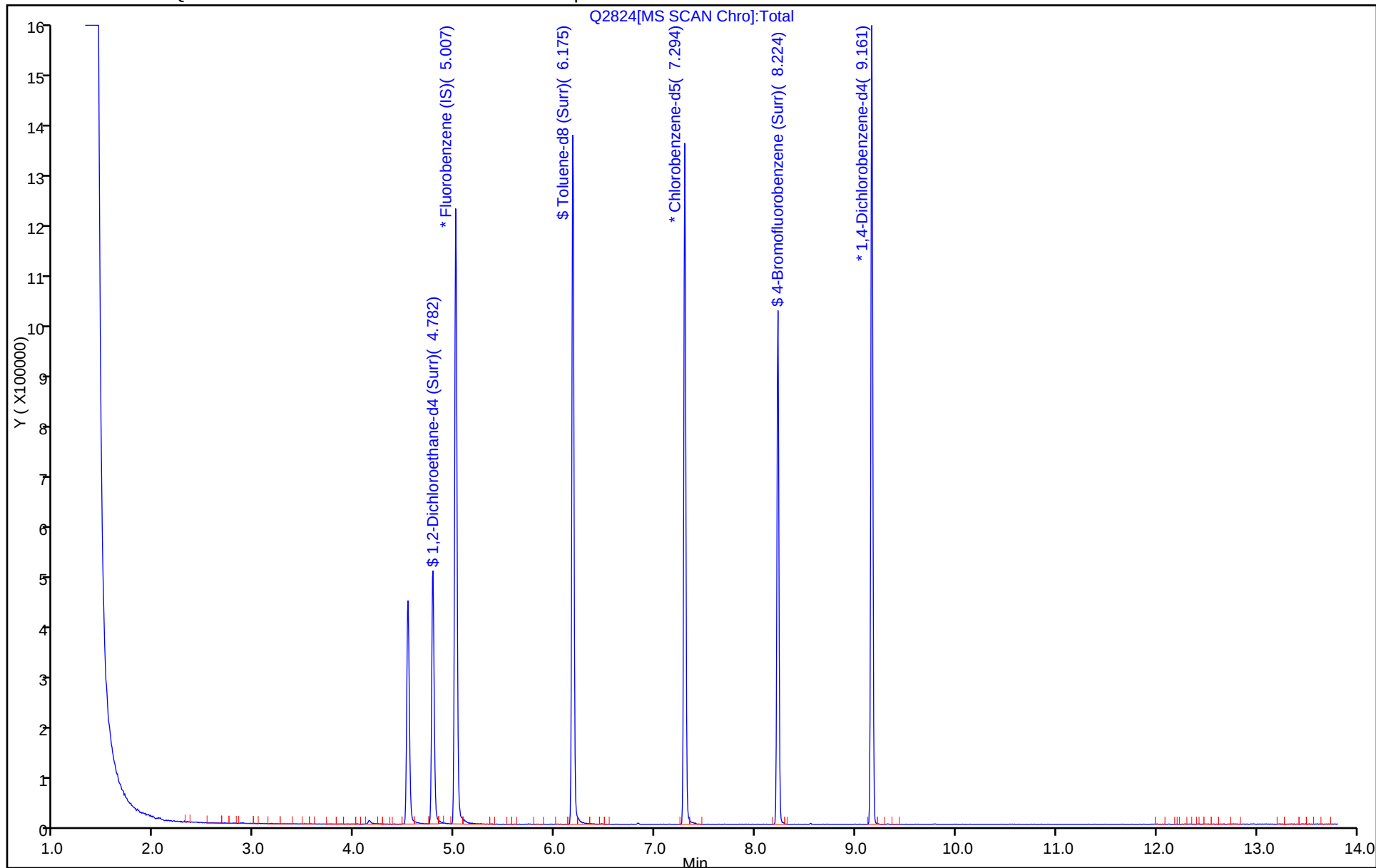
Purge Vol: 5.000 mL

Dil. Factor: 1.0000

ALS Bottle#: 25

Method: Q-624

Limit Group: MV - 624 ICAL UP



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Buffalo</u>	Job No.: <u>480-125692-1</u>
SDG No.: _____	
Client Sample ID: <u>DGC-12</u>	Lab Sample ID: <u>480-125692-10</u>
Matrix: <u>Water</u>	Lab File ID: <u>Q2825.D</u>
Analysis Method: <u>624</u>	Date Collected: <u>10/10/2017 13:30</u>
Sample wt/vol: <u>5(mL)</u>	Date Analyzed: <u>10/12/2017 23:18</u>
Soil Aliquot Vol: _____	Dilution Factor: <u>1</u>
Soil Extract Vol.: _____	GC Column: <u>ZB-624 (20)</u> ID: <u>0.18(mm)</u>
% Moisture: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>381520</u>	Units: <u>ug/L</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		5.0	0.39
79-34-5	1,1,2,2-Tetrachloroethane	ND		5.0	0.26
79-00-5	1,1,2-Trichloroethane	ND		5.0	0.48
75-34-3	1,1-Dichloroethane	ND		5.0	0.59
75-35-4	1,1-Dichloroethene	ND		5.0	0.85
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.44
107-06-2	1,2-Dichloroethane	ND		5.0	0.60
540-59-0	1,2-Dichloroethene, Total	ND		10	3.2
78-87-5	1,2-Dichloropropane	ND		5.0	0.61
541-73-1	1,3-Dichlorobenzene	ND		5.0	0.54
106-46-7	1,4-Dichlorobenzene	ND		5.0	0.51
110-75-8	2-Chloroethyl vinyl ether	ND		25	1.9
107-02-8	Acrolein	ND		100	17
107-13-1	Acrylonitrile	ND		50	1.9
71-43-2	Benzene	ND		5.0	0.60
75-25-2	Bromoform	ND		5.0	0.47
74-83-9	Bromomethane	ND		5.0	1.2
56-23-5	Carbon tetrachloride	ND		5.0	0.51
108-90-7	Chlorobenzene	ND		5.0	0.48
124-48-1	Chlorodibromomethane	ND		5.0	0.41
75-00-3	Chloroethane	ND		5.0	0.87
67-66-3	Chloroform	ND		5.0	0.54
74-87-3	Chloromethane	ND		5.0	0.64
10061-01-5	cis-1,3-Dichloropropene	ND		5.0	0.33
75-27-4	Dichlorobromomethane	ND		5.0	0.54
100-41-4	Ethylbenzene	ND		5.0	0.46
75-09-2	Methylene Chloride	ND		5.0	0.81
127-18-4	Tetrachloroethene	ND		5.0	0.34
108-88-3	Toluene	ND		5.0	0.45
156-60-5	trans-1,2-Dichloroethene	ND		5.0	0.59
10061-02-6	trans-1,3-Dichloropropene	ND		5.0	0.44
79-01-6	Trichloroethene	ND		5.0	0.60
75-01-4	Vinyl chloride	ND		5.0	0.75

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-125692-1
SDG No.: _____
Client Sample ID: DGC-12 Lab Sample ID: 480-125692-10
Matrix: Water Lab File ID: Q2825.D
Analysis Method: 624 Date Collected: 10/10/2017 13:30
Sample wt/vol: 5 (mL) Date Analyzed: 10/12/2017 23:18
Soil Aliquot Vol: _____ Dilution Factor: 1
Soil Extract Vol.: _____ GC Column: ZB-624 (20) ID: 0.18 (mm)
% Moisture: _____ Level: (low/med) Low
Analysis Batch No.: 381520 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		68-130
460-00-4	4-Bromofluorobenzene (Surr)	97		76-123
2037-26-5	Toluene-d8 (Surr)	96		77-120

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q2825.D
 Lims ID: 480-125692-A-10
 Client ID: DGC-12
 Sample Type: Client
 Inject. Date: 12-Oct-2017 23:18:30 ALS Bottle#: 26 Worklist Smp#: 20
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 480-125692-a-10
 Misc. Info.: 480-0066342-020
 Operator ID: RF/RB Instrument ID: HP5973Q
 Method: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q-624.m
 Limit Group: MV - 624 ICAL UP
 Last Update: 16-Oct-2017 09:55:40 Calib Date: 20-Sep-2017 15:14:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last Ical File: \\ChromNA\Buffalo\ChromData\HP5973Q\20170920-65748.b\Q2418.D
 Column 1 : Det: MS SCAN
 Process Host: XAWRK002

First Level Reviewer: baroner

Date: 16-Oct-2017 09:55:40

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
* 114 Fluorobenzene (IS)	96	5.011	5.009	0.002	99	871484	30.0	
* 2 Chlorobenzene-d5	117	7.298	7.296	0.002	90	533515	30.0	
* 3 1,4-Dichlorobenzene-d4	152	9.165	9.163	0.002	98	300553	30.0	
\$ 4 1,2-Dichloroethane-d4 (Sur	65	4.780	4.778	0.002	98	324018	30.3	
\$ 5 Toluene-d8 (Surr)	98	6.179	6.177	0.002	93	685276	28.9	
\$ 6 4-Bromofluorobenzene (Surr	95	8.222	8.226	-0.004	83	265028	29.2	
11 Chloromethane	50		1.653				ND	
12 Vinyl chloride	62		1.719				ND	
13 Bromomethane	94		1.981				ND	
14 Chloroethane	64		2.036				ND	
18 Acrolein	56		2.638				ND	
20 1,1-Dichloroethene	96		2.686				ND	
27 Methylene Chloride	84		3.136				ND	
30 trans-1,2-Dichloroethene	96		3.343				ND	
31 Acrylonitrile	53		3.368				ND	
32 1,1-Dichloroethane	63		3.696				ND	
38 cis-1,2-Dichloroethene	96	4.160	4.160	0.002	19	3086	0.3714	7
45 Chloroform	83		4.407				ND	
116 1,1,1-Trichloroethane	97		4.517				ND	
47 Carbon tetrachloride	117		4.638				ND	
49 Benzene	78		4.797				ND	
51 1,2-Dichloroethane	62		4.839				ND	
53 Trichloroethene	95		5.277				ND	
54 1,2-Dichloropropane	63		5.453				ND	
58 Dichlorobromomethane	83		5.672				ND	
60 2-Chloroethyl vinyl ether	63		5.879				ND	
61 cis-1,3-Dichloropropene	75		5.995				ND	
63 Toluene	92		6.226				ND	
64 trans-1,3-Dichloropropene	75		6.414				ND	
66 1,1,2-Trichloroethane	83		6.560				ND	
67 Tetrachloroethene	166		6.639				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
71 Chlorodibromomethane	129		6.870				ND	
74 Chlorobenzene	112		7.320				ND	
77 Ethylbenzene	91		7.381				ND	
82 Bromoform	173		7.989				ND	
86 1,1,2,2-Tetrachloroethane	83		8.354				ND	
98 1,3-Dichlorobenzene	146		9.108				ND	
99 1,4-Dichlorobenzene	146		9.181				ND	
101 1,2-Dichlorobenzene	146		9.491				ND	
S 107 1,2-Dichloroethene, Total	1		2.360				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

Q 624 IS_00056	Amount Added: 1.00	Units: uL	Run Reagent
Q 624 SURR_00051	Amount Added: 1.00	Units: uL	Run Reagent

TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q2825.D

Injection Date: 12-Oct-2017 23:18:30

Instrument ID: HP5973Q

Operator ID: RF/RB

Lims ID: 480-125692-A-10

Lab Sample ID: 480-125692-10

Worklist Smp#: 20

Client ID: DGC-12

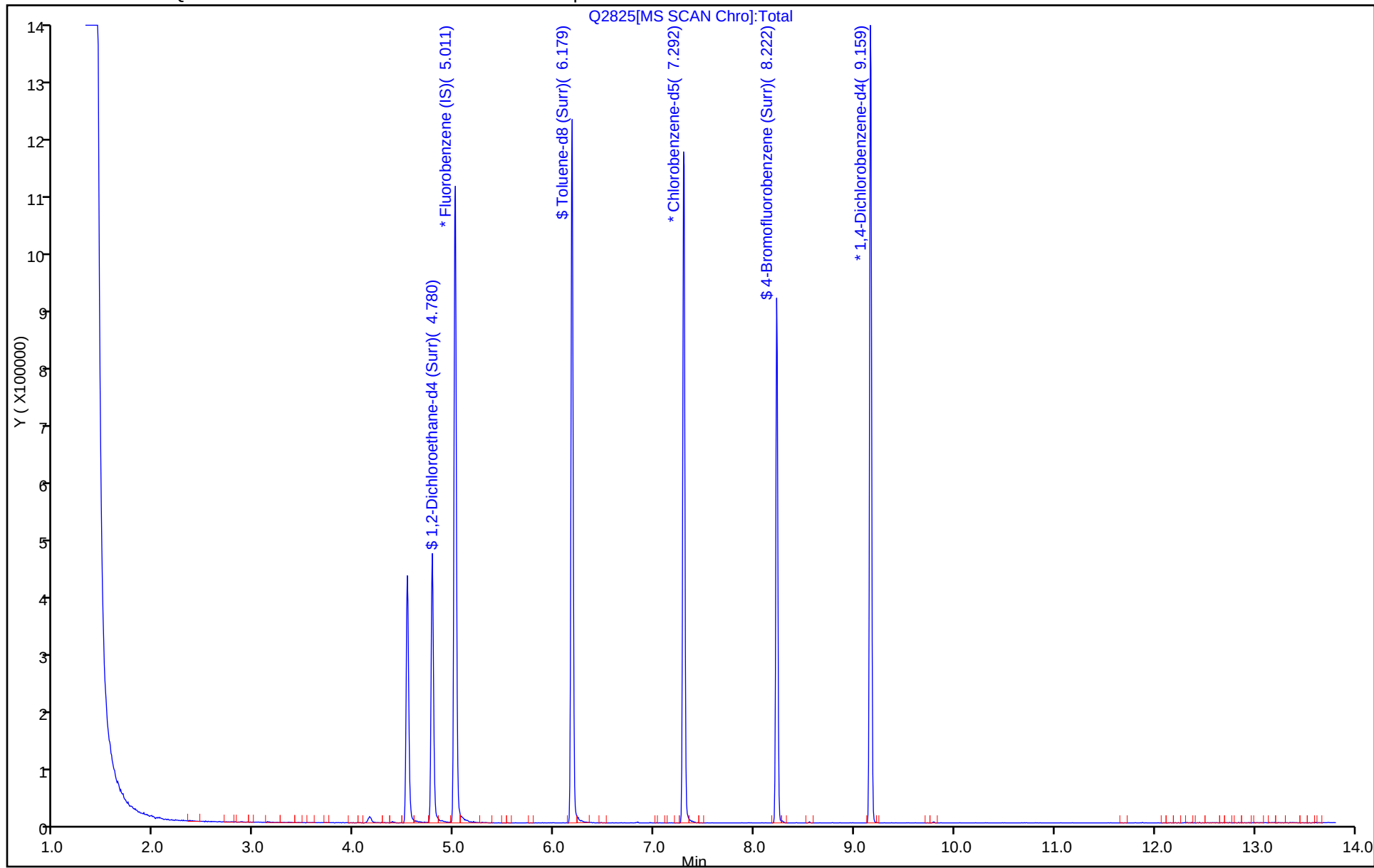
Purge Vol: 5.000 mL

Dil. Factor: 1.0000

ALS Bottle#: 26

Method: Q-624

Limit Group: MV - 624 ICAL UP



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Buffalo</u>	Job No.: <u>480-125692-1</u>
SDG No.: _____	
Client Sample ID: <u>DGC-21</u>	Lab Sample ID: <u>480-125692-11</u>
Matrix: <u>Water</u>	Lab File ID: <u>Q2826.D</u>
Analysis Method: <u>624</u>	Date Collected: <u>10/10/2017 13:40</u>
Sample wt/vol: <u>5(mL)</u>	Date Analyzed: <u>10/12/2017 23:43</u>
Soil Aliquot Vol: _____	Dilution Factor: <u>1</u>
Soil Extract Vol.: _____	GC Column: <u>ZB-624 (20)</u> ID: <u>0.18 (mm)</u>
% Moisture: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>381520</u>	Units: <u>ug/L</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.47	J	5.0	0.39
79-34-5	1,1,2,2-Tetrachloroethane	ND		5.0	0.26
79-00-5	1,1,2-Trichloroethane	ND		5.0	0.48
75-34-3	1,1-Dichloroethane	0.83	J	5.0	0.59
75-35-4	1,1-Dichloroethene	ND		5.0	0.85
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.44
107-06-2	1,2-Dichloroethane	ND		5.0	0.60
540-59-0	1,2-Dichloroethene, Total	ND		10	3.2
78-87-5	1,2-Dichloropropane	ND		5.0	0.61
541-73-1	1,3-Dichlorobenzene	ND		5.0	0.54
106-46-7	1,4-Dichlorobenzene	ND		5.0	0.51
110-75-8	2-Chloroethyl vinyl ether	ND		25	1.9
107-02-8	Acrolein	ND		100	17
107-13-1	Acrylonitrile	ND		50	1.9
71-43-2	Benzene	ND		5.0	0.60
75-25-2	Bromoform	ND		5.0	0.47
74-83-9	Bromomethane	ND		5.0	1.2
56-23-5	Carbon tetrachloride	ND		5.0	0.51
108-90-7	Chlorobenzene	ND		5.0	0.48
124-48-1	Chlorodibromomethane	ND		5.0	0.41
75-00-3	Chloroethane	ND		5.0	0.87
67-66-3	Chloroform	ND		5.0	0.54
74-87-3	Chloromethane	ND		5.0	0.64
10061-01-5	cis-1,3-Dichloropropene	ND		5.0	0.33
75-27-4	Dichlorobromomethane	ND		5.0	0.54
100-41-4	Ethylbenzene	ND		5.0	0.46
75-09-2	Methylene Chloride	ND		5.0	0.81
127-18-4	Tetrachloroethene	ND		5.0	0.34
108-88-3	Toluene	ND		5.0	0.45
156-60-5	trans-1,2-Dichloroethene	ND		5.0	0.59
10061-02-6	trans-1,3-Dichloropropene	ND		5.0	0.44
79-01-6	Trichloroethene	ND		5.0	0.60
75-01-4	Vinyl chloride	ND		5.0	0.75

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-125692-1
SDG No.: _____
Client Sample ID: DGC-21 Lab Sample ID: 480-125692-11
Matrix: Water Lab File ID: Q2826.D
Analysis Method: 624 Date Collected: 10/10/2017 13:40
Sample wt/vol: 5 (mL) Date Analyzed: 10/12/2017 23:43
Soil Aliquot Vol: _____ Dilution Factor: 1
Soil Extract Vol.: _____ GC Column: ZB-624 (20) ID: 0.18 (mm)
% Moisture: _____ Level: (low/med) Low
Analysis Batch No.: 381520 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		68-130
460-00-4	4-Bromofluorobenzene (Surr)	98		76-123
2037-26-5	Toluene-d8 (Surr)	96		77-120

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q2826.D
 Lims ID: 480-125692-A-11
 Client ID: DGC-21
 Sample Type: Client
 Inject. Date: 12-Oct-2017 23:43:30 ALS Bottle#: 27 Worklist Smp#: 21
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 480-125692-a-11
 Misc. Info.: 480-0066342-021
 Operator ID: RF/RB Instrument ID: HP5973Q
 Method: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q-624.m
 Limit Group: MV - 624 ICAL UP
 Last Update: 16-Oct-2017 09:55:40 Calib Date: 20-Sep-2017 15:14:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last Ical File: \\ChromNA\Buffalo\ChromData\HP5973Q\20170920-65748.b\Q2418.D
 Column 1 : Det: MS SCAN
 Process Host: XAWRK002

First Level Reviewer: baroner

Date: 16-Oct-2017 09:56:21

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
* 114 Fluorobenzene (IS)	96	5.008	5.009	-0.001	99	880737	30.0	
* 2 Chlorobenzene-d5	117	7.294	7.296	-0.002	90	539742	30.0	
* 3 1,4-Dichlorobenzene-d4	152	9.161	9.163	-0.002	98	315459	30.0	
\$ 4 1,2-Dichloroethane-d4 (Sur	65	4.777	4.778	-0.001	98	319599	29.6	
\$ 5 Toluene-d8 (Surr)	98	6.176	6.177	-0.001	93	693335	28.9	
\$ 6 4-Bromofluorobenzene (Surr	95	8.225	8.226	-0.001	82	268715	29.3	
11 Chloromethane	50		1.653				ND	
12 Vinyl chloride	62		1.719				ND	
13 Bromomethane	94		1.981				ND	
14 Chloroethane	64		2.036				ND	
18 Acrolein	56		2.638				ND	
20 1,1-Dichloroethene	96		2.686				ND	
27 Methylene Chloride	84		3.136				ND	
30 trans-1,2-Dichloroethene	96		3.343				ND	
31 Acrylonitrile	53		3.368				ND	
32 1,1-Dichloroethane	63	3.700	3.696	0.004	94	11172	0.8347	
38 cis-1,2-Dichloroethene	96		4.158				ND	
45 Chloroform	83		4.407				ND	
116 1,1,1-Trichloroethane	97	4.521	4.517	0.004	57	5923	0.4725	
47 Carbon tetrachloride	117		4.638				ND	
49 Benzene	78		4.797				ND	
51 1,2-Dichloroethane	62		4.839				ND	
53 Trichloroethene	95		5.277				ND	
54 1,2-Dichloropropane	63		5.453				ND	
58 Dichlorobromomethane	83		5.672				ND	
60 2-Chloroethyl vinyl ether	63		5.879				ND	
61 cis-1,3-Dichloropropene	75		5.995				ND	
63 Toluene	92		6.226				ND	
64 trans-1,3-Dichloropropene	75		6.414				ND	
66 1,1,2-Trichloroethane	83		6.560				ND	
67 Tetrachloroethene	166		6.639				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
71 Chlorodibromomethane	129		6.870				ND	
74 Chlorobenzene	112		7.320				ND	
77 Ethylbenzene	91		7.381				ND	
82 Bromoform	173		7.989				ND	
86 1,1,2,2-Tetrachloroethane	83		8.354				ND	
98 1,3-Dichlorobenzene	146		9.108				ND	
99 1,4-Dichlorobenzene	146		9.181				ND	
101 1,2-Dichlorobenzene	146		9.491				ND	
S 107 1,2-Dichloroethene, Total	1		2.360				ND	

Reagents:

Q 624 IS_00056

Amount Added: 1.00

Units: uL

Run Reagent

Q 624 SURR_00051

Amount Added: 1.00

Units: uL

Run Reagent

TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q2826.D

Injection Date: 12-Oct-2017 23:43:30

Instrument ID: HP5973Q

Operator ID: RF/RB

Lims ID: 480-125692-A-11

Lab Sample ID: 480-125692-11

Worklist Smp#: 21

Client ID: DGC-21

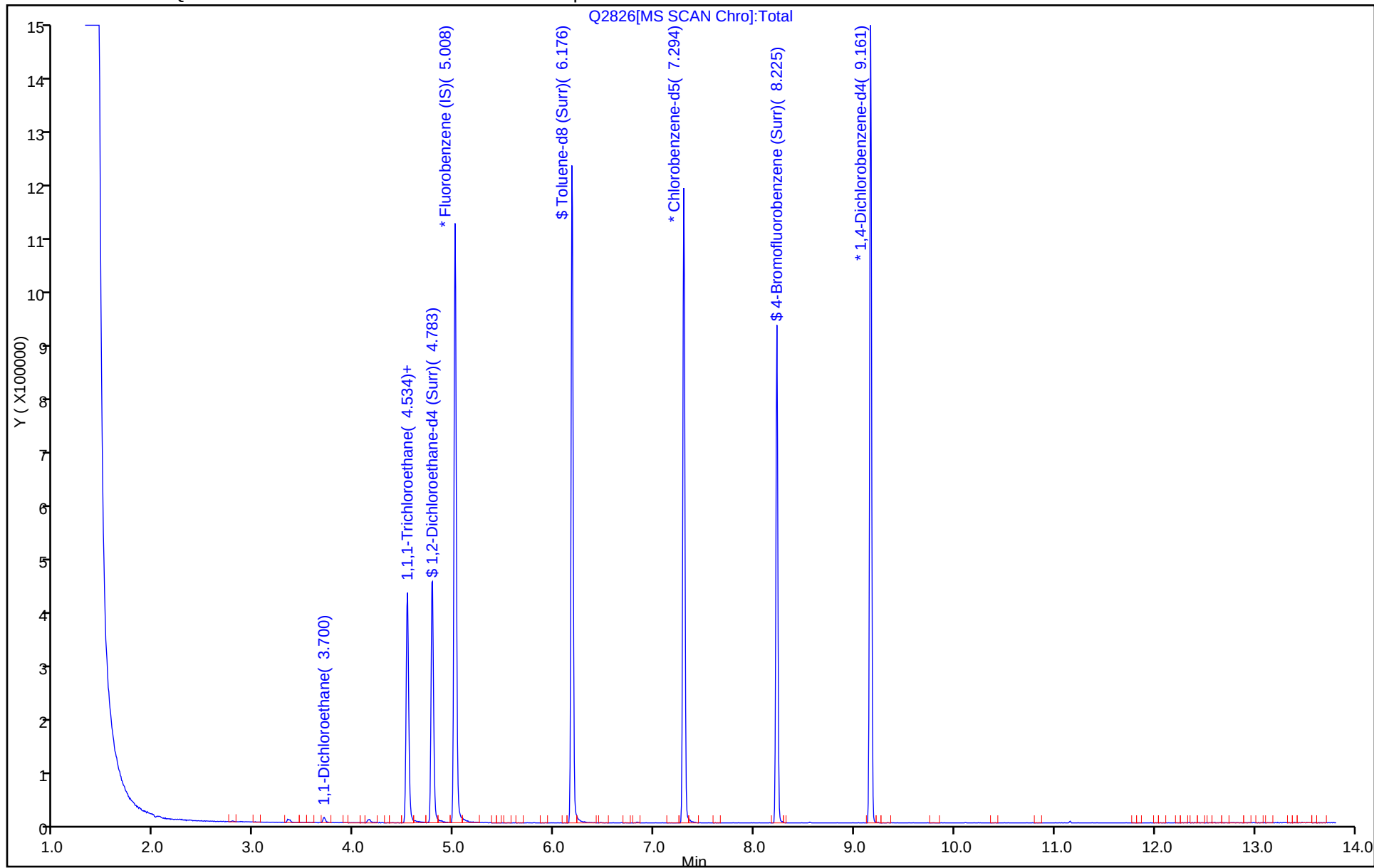
Purge Vol: 5.000 mL

Dil. Factor: 1.0000

ALS Bottle#: 27

Method: Q-624

Limit Group: MV - 624 ICAL UP



TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q2826.D

Injection Date: 12-Oct-2017 23:43:30

Instrument ID: HP5973Q

Lims ID: 480-125692-A-11

Lab Sample ID: 480-125692-11

Client ID: DGC-21

Operator ID: RF/RB

ALS Bottle#: 27

Worklist Smp#: 21

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

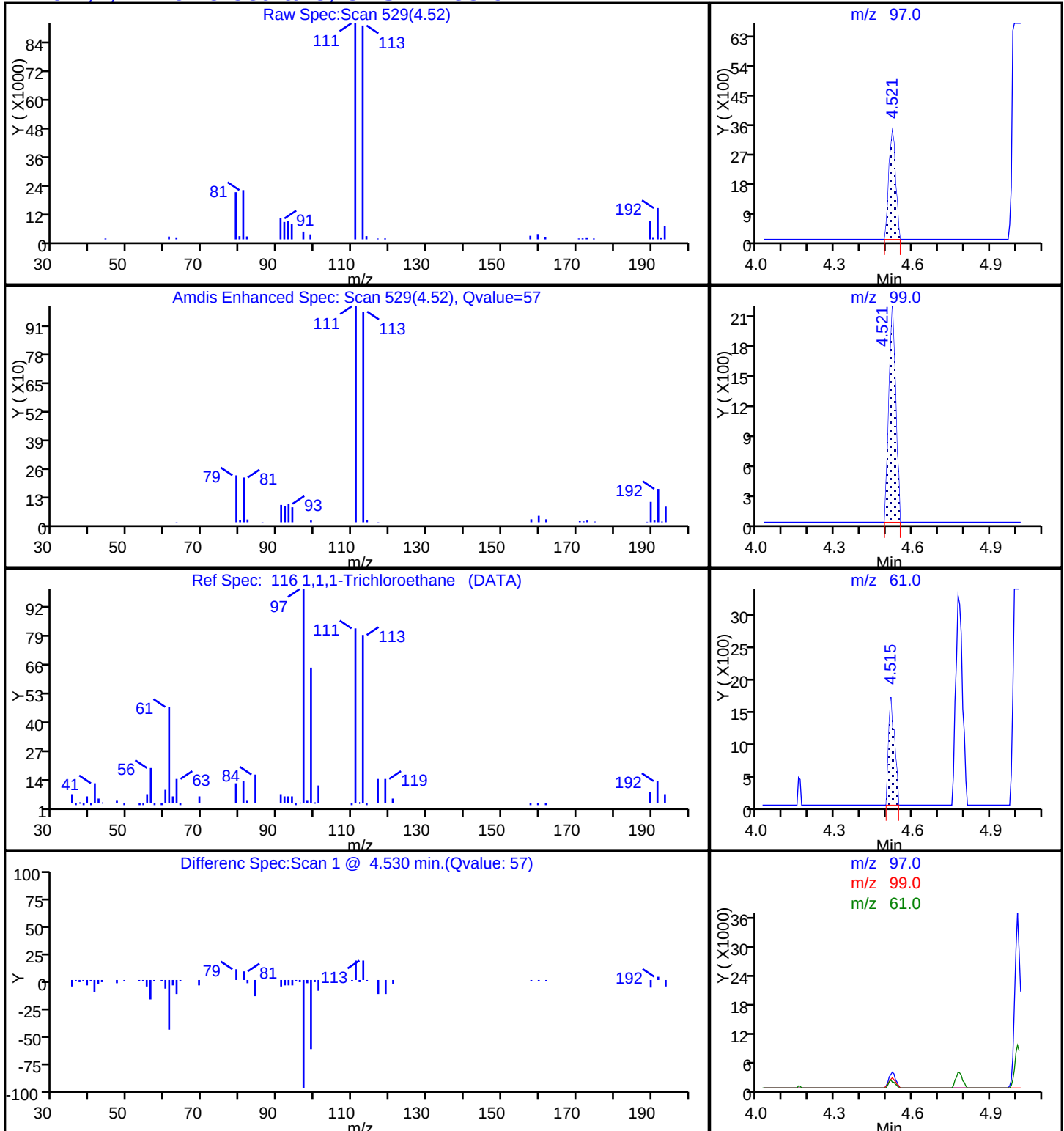
Method: Q-624

Limit Group: MV - 624 ICAL UP

Column:

Detector

MS SCAN

116 1,1,1-Trichloroethane, CAS: 71-55-6

TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q2826.D

Injection Date: 12-Oct-2017 23:43:30

Instrument ID: HP5973Q

Lims ID: 480-125692-A-11

Lab Sample ID: 480-125692-11

Client ID: DGC-21

Operator ID: RF/RB

ALS Bottle#: 27

Worklist Smp#: 21

Purge Vol: 5.000 mL

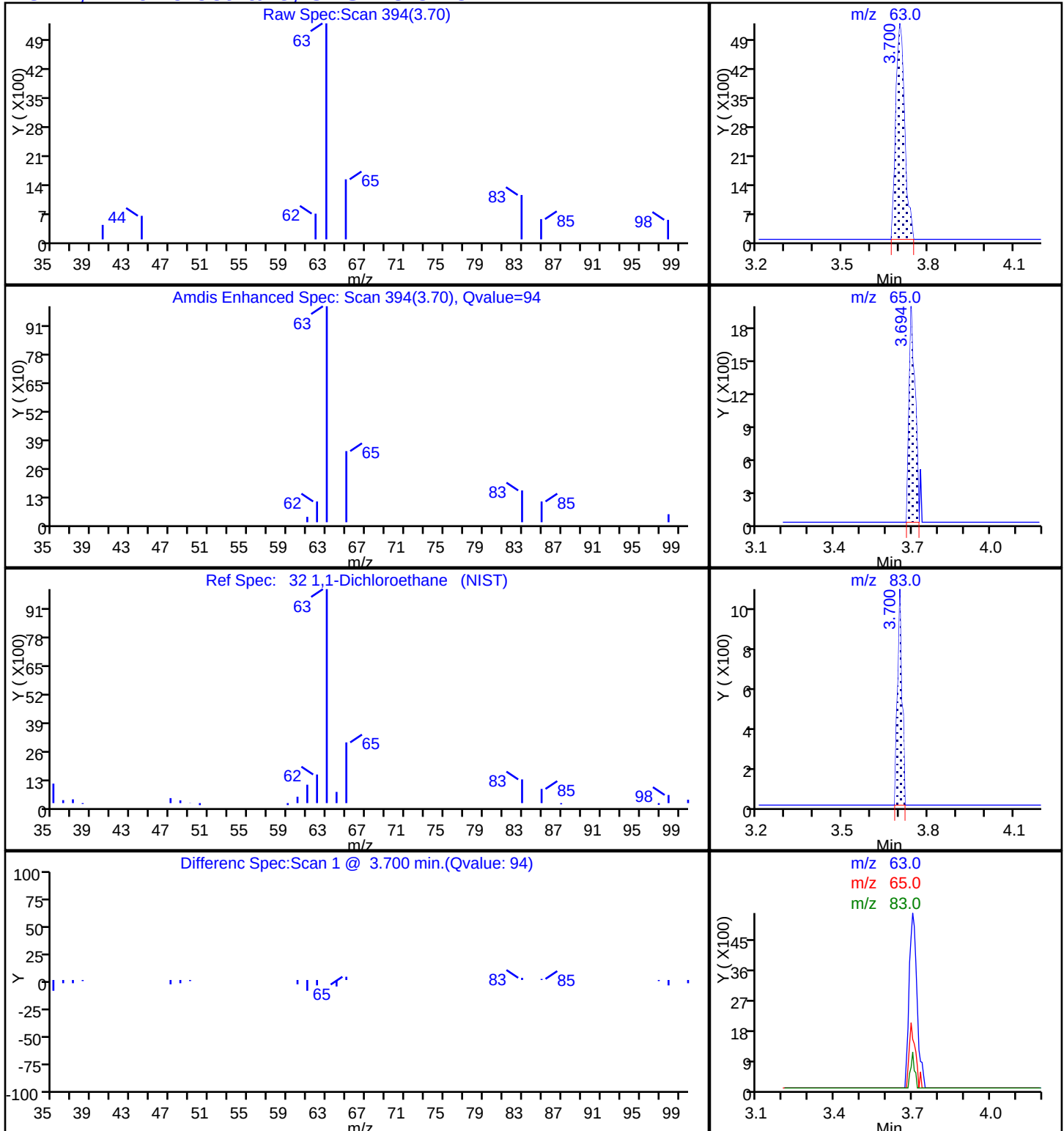
Dil. Factor: 1.0000

Method: Q-624

Limit Group: MV - 624 ICAL UP

Column:

Detector MS SCAN

32 1,1-Dichloroethane, CAS: 75-34-3

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Buffalo</u>	Job No.: <u>480-125692-1</u>
SDG No.: _____	
Client Sample ID: <u>PUMP CULVERT (TRENCH)</u>	Lab Sample ID: <u>480-125692-12</u>
Matrix: <u>Water</u>	Lab File ID: <u>Q2817.D</u>
Analysis Method: <u>624</u>	Date Collected: <u>10/10/2017 13:45</u>
Sample wt/vol: <u>5 (mL)</u>	Date Analyzed: <u>10/12/2017 20:10</u>
Soil Aliquot Vol: _____	Dilution Factor: <u>1</u>
Soil Extract Vol.: _____	GC Column: <u>ZB-624 (20)</u> ID: <u>0.18 (mm)</u>
% Moisture: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>381520</u>	Units: <u>ug/L</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		5.0	0.39
79-34-5	1,1,2,2-Tetrachloroethane	ND		5.0	0.26
79-00-5	1,1,2-Trichloroethane	ND		5.0	0.48
75-34-3	1,1-Dichloroethane	ND		5.0	0.59
75-35-4	1,1-Dichloroethene	ND		5.0	0.85
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.44
107-06-2	1,2-Dichloroethane	ND		5.0	0.60
540-59-0	1,2-Dichloroethene, Total	6.5	J	10	3.2
78-87-5	1,2-Dichloropropane	ND		5.0	0.61
541-73-1	1,3-Dichlorobenzene	ND		5.0	0.54
106-46-7	1,4-Dichlorobenzene	ND		5.0	0.51
110-75-8	2-Chloroethyl vinyl ether	ND		25	1.9
107-02-8	Acrolein	ND		100	17
107-13-1	Acrylonitrile	ND		50	1.9
71-43-2	Benzene	ND		5.0	0.60
75-25-2	Bromoform	ND		5.0	0.47
74-83-9	Bromomethane	ND		5.0	1.2
56-23-5	Carbon tetrachloride	ND		5.0	0.51
108-90-7	Chlorobenzene	0.58	J	5.0	0.48
124-48-1	Chlorodibromomethane	ND		5.0	0.41
75-00-3	Chloroethane	ND		5.0	0.87
67-66-3	Chloroform	ND		5.0	0.54
74-87-3	Chloromethane	ND		5.0	0.64
10061-01-5	cis-1,3-Dichloropropene	ND		5.0	0.33
75-27-4	Dichlorobromomethane	ND		5.0	0.54
100-41-4	Ethylbenzene	ND		5.0	0.46
75-09-2	Methylene Chloride	ND		5.0	0.81
127-18-4	Tetrachloroethene	ND		5.0	0.34
108-88-3	Toluene	ND		5.0	0.45
156-60-5	trans-1,2-Dichloroethene	ND		5.0	0.59
10061-02-6	trans-1,3-Dichloropropene	ND		5.0	0.44
79-01-6	Trichloroethene	11		5.0	0.60
75-01-4	Vinyl chloride	ND		5.0	0.75

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-125692-1
SDG No.: _____
Client Sample ID: PUMP CULVERT (TRENCH) Lab Sample ID: 480-125692-12
Matrix: Water Lab File ID: Q2817.D
Analysis Method: 624 Date Collected: 10/10/2017 13:45
Sample wt/vol: 5 (mL) Date Analyzed: 10/12/2017 20:10
Soil Aliquot Vol: _____ Dilution Factor: 1
Soil Extract Vol.: _____ GC Column: ZB-624 (20) ID: 0.18 (mm)
% Moisture: _____ Level: (low/med) Low
Analysis Batch No.: 381520 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		68-130
460-00-4	4-Bromofluorobenzene (Surr)	100		76-123
2037-26-5	Toluene-d8 (Surr)	96		77-120

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q2817.D
 Lims ID: 480-125692-C-12
 Client ID: PUMP CULVERT (TRENCH)
 Sample Type: Client
 Inject. Date: 12-Oct-2017 20:10:30 ALS Bottle#: 18 Worklist Smp#: 22
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 480-125692-c-12
 Misc. Info.: 480-0066342-022
 Operator ID: RF/RB Instrument ID: HP5973Q
 Method: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q-624.m
 Limit Group: MV - 624 ICAL UP
 Last Update: 16-Oct-2017 13:39:41 Calib Date: 20-Sep-2017 15:14:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last Ical File: \\ChromNA\Buffalo\ChromData\HP5973Q\20170920-65748.b\Q2418.D
 Column 1 : Det: MS SCAN
 Process Host: XAWRK002

First Level Reviewer: baroner

Date: 16-Oct-2017 09:49:44

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
* 114 Fluorobenzene (IS)	96	5.009	5.009	0.000	99	926565	30.0	
* 2 Chlorobenzene-d5	117	7.295	7.296	-0.001	90	581352	30.0	
* 3 1,4-Dichlorobenzene-d4	152	9.162	9.163	-0.001	98	328484	30.0	
\$ 4 1,2-Dichloroethane-d4 (Sur	65	4.778	4.778	0.000	99	340551	30.0	
\$ 5 Toluene-d8 (Surr)	98	6.176	6.177	-0.001	93	740455	28.7	
\$ 6 4-Bromofluorobenzene (Surr	95	8.226	8.226	0.000	83	296646	30.0	
11 Chloromethane	50		1.653				ND	
12 Vinyl chloride	62		1.719				ND	
13 Bromomethane	94		1.981				ND	
14 Chloroethane	64		2.036				ND	
18 Acrolein	56		2.638				ND	
20 1,1-Dichloroethene	96		2.686				ND	
27 Methylene Chloride	84		3.136				ND	
30 trans-1,2-Dichloroethene	96		3.343				ND	
31 Acrylonitrile	53		3.368				ND	
32 1,1-Dichloroethane	63		3.696				ND	
38 cis-1,2-Dichloroethene	96	4.157	4.158	-0.001	82	57445	6.50	
45 Chloroform	83		4.407				ND	
116 1,1,1-Trichloroethane	97		4.517				ND	
47 Carbon tetrachloride	117		4.638				ND	
49 Benzene	78		4.797				ND	
51 1,2-Dichloroethane	62		4.839				ND	
53 Trichloroethene	95	5.282	5.277	0.005	95	90723	11.3	
54 1,2-Dichloropropane	63		5.453				ND	
58 Dichlorobromomethane	83		5.672				ND	
60 2-Chloroethyl vinyl ether	63		5.879				ND	
61 cis-1,3-Dichloropropene	75		5.995				ND	
63 Toluene	92		6.226				ND	
64 trans-1,3-Dichloropropene	75		6.414				ND	
66 1,1,2-Trichloroethane	83		6.560				ND	
67 Tetrachloroethene	166		6.639				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
71 Chlorodibromomethane	129		6.870				ND	
74 Chlorobenzene	112	7.314	7.320	-0.006	95	10533	0.5848	
77 Ethylbenzene	91		7.381				ND	
82 Bromoform	173		7.989				ND	
86 1,1,2,2-Tetrachloroethane	83		8.354				ND	
98 1,3-Dichlorobenzene	146		9.108				ND	
99 1,4-Dichlorobenzene	146		9.181				ND	
101 1,2-Dichlorobenzene	146	9.491	9.491	0.000	25	4390	0.3152	7
S 107 1,2-Dichloroethene, Total	1				0		6.50	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

Q 624 IS_00056

Amount Added: 1.00

Units: uL

Run Reagent

Q 624 SURR_00051

Amount Added: 1.00

Units: uL

Run Reagent

TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q2817.D

Injection Date: 12-Oct-2017 20:10:30

Instrument ID: HP5973Q

Operator ID: RF/RB

Lims ID: 480-125692-C-12

Lab Sample ID: 480-125692-12

Worklist Smp#: 22

Client ID: PUMP CULVERT (TRENCH)

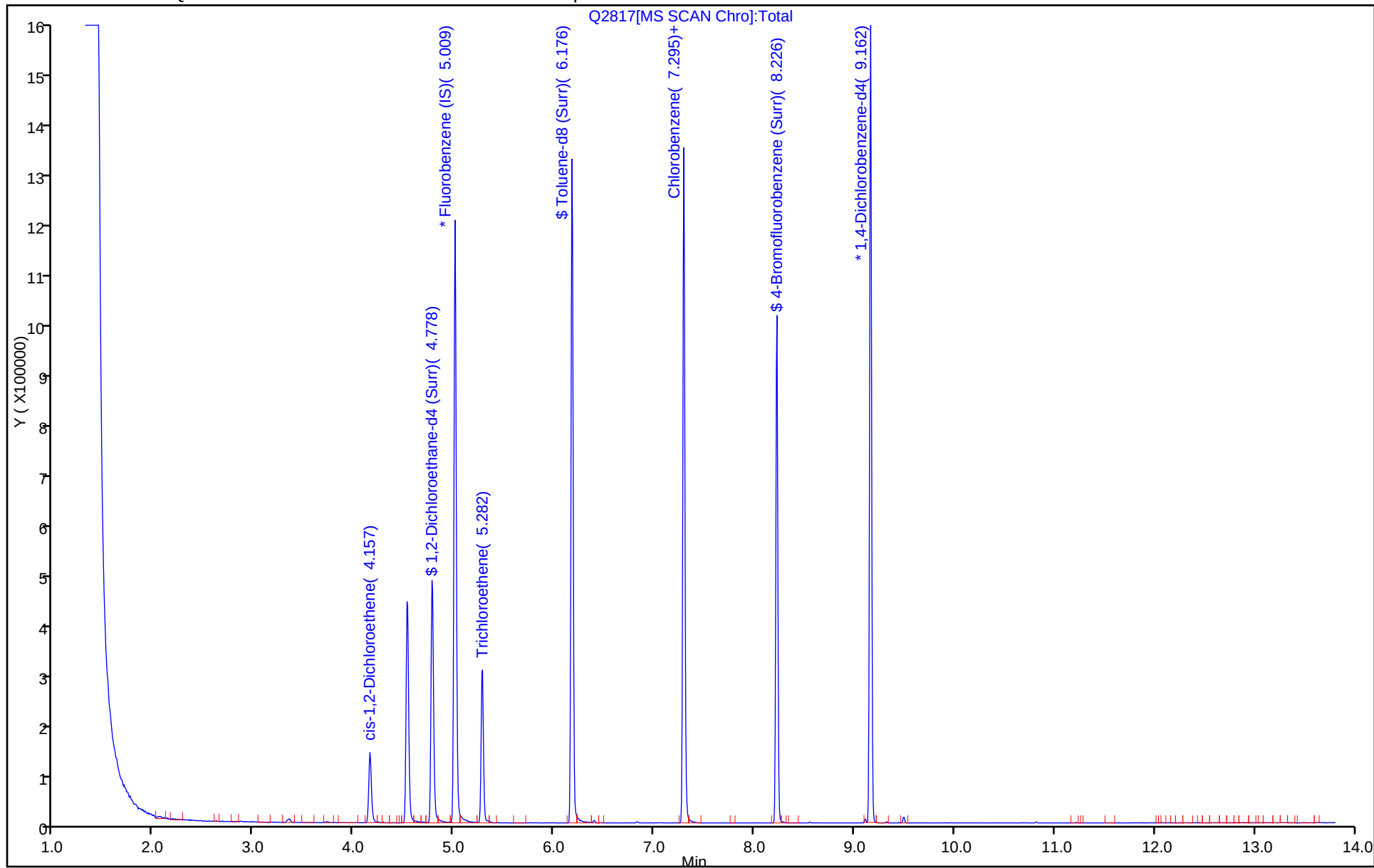
Purge Vol: 5.000 mL

Dil. Factor: 1.0000

ALS Bottle#: 18

Method: Q-624

Limit Group: MV - 624 ICAL UP



TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q2817.D

Injection Date: 12-Oct-2017 20:10:30

Instrument ID: HP5973Q

Lims ID: 480-125692-C-12

Lab Sample ID: 480-125692-12

Client ID: PUMP CULVERT (TRENCH)

Operator ID: RF/RB

ALS Bottle#: 18

Worklist Smp#: 22

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

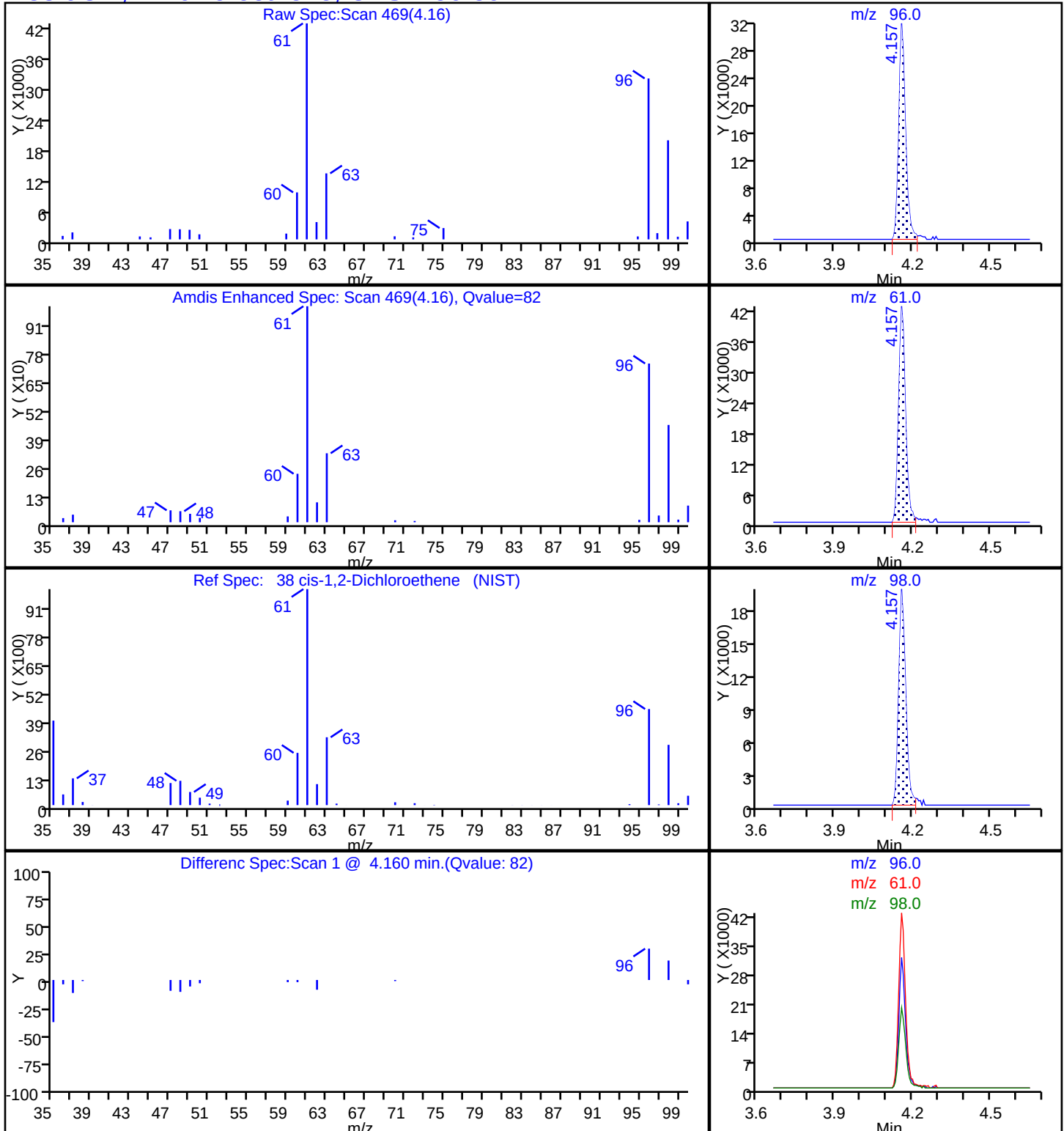
Method: Q-624

Limit Group: MV - 624 ICAL UP

Column:

Detector

MS SCAN

38 cis-1,2-Dichloroethene, CAS: 156-59-2

TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q2817.D

Injection Date: 12-Oct-2017 20:10:30

Instrument ID: HP5973Q

Lims ID: 480-125692-C-12

Lab Sample ID: 480-125692-12

Client ID: PUMP CULVERT (TRENCH)

Operator ID: RF/RB

ALS Bottle#: 18

Worklist Smp#: 22

Purge Vol: 5.000 mL

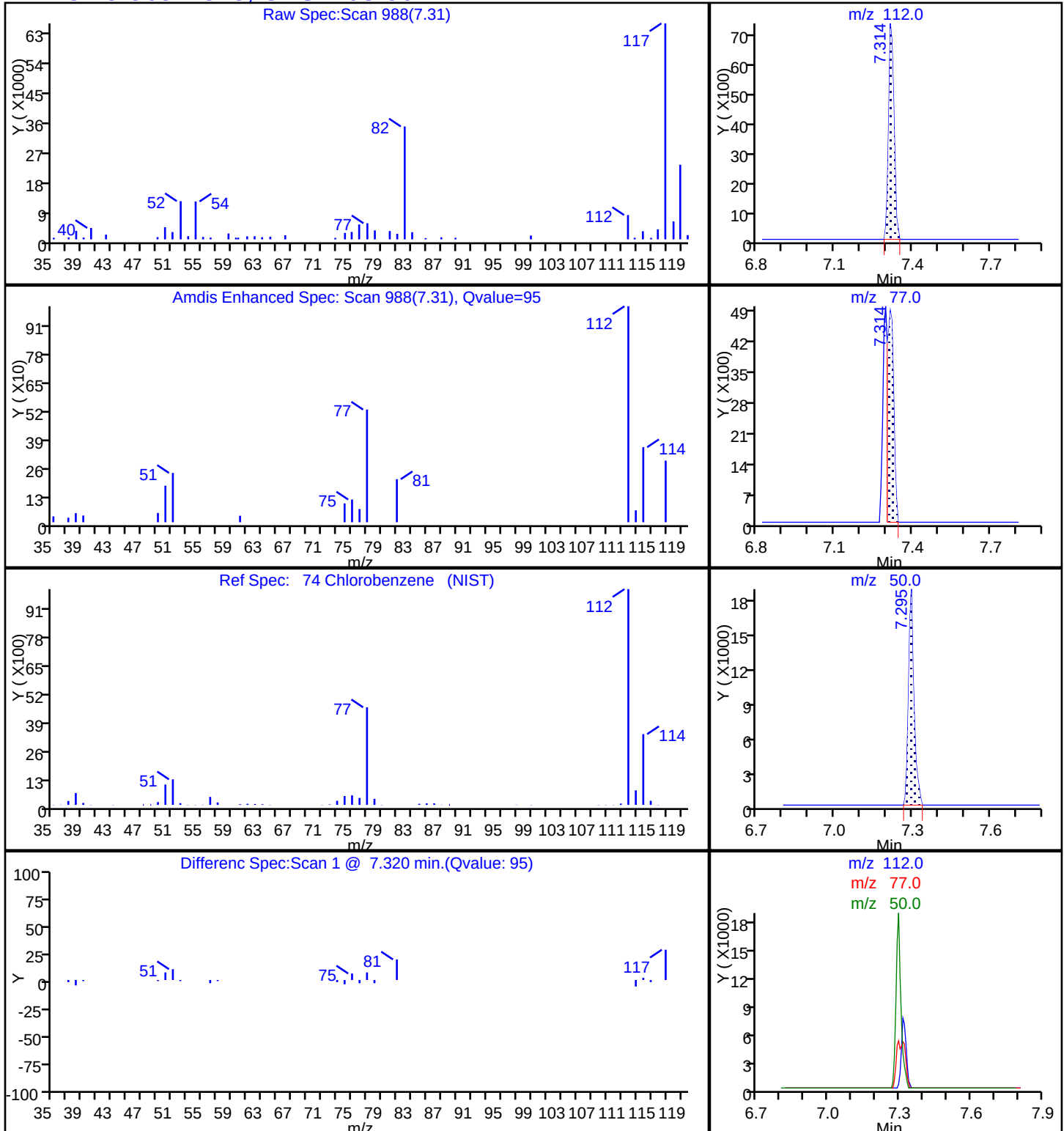
Dil. Factor: 1.0000

Method: Q-624

Limit Group: MV - 624 ICAL UP

Column:

Detector MS SCAN

74 Chlorobenzene, CAS: 108-90-7

TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q2817.D

Injection Date: 12-Oct-2017 20:10:30

Instrument ID: HP5973Q

Lims ID: 480-125692-C-12

Lab Sample ID: 480-125692-12

Client ID: PUMP CULVERT (TRENCH)

Operator ID: RF/RB

ALS Bottle#: 18

Worklist Smp#: 22

Purge Vol: 5.000 mL

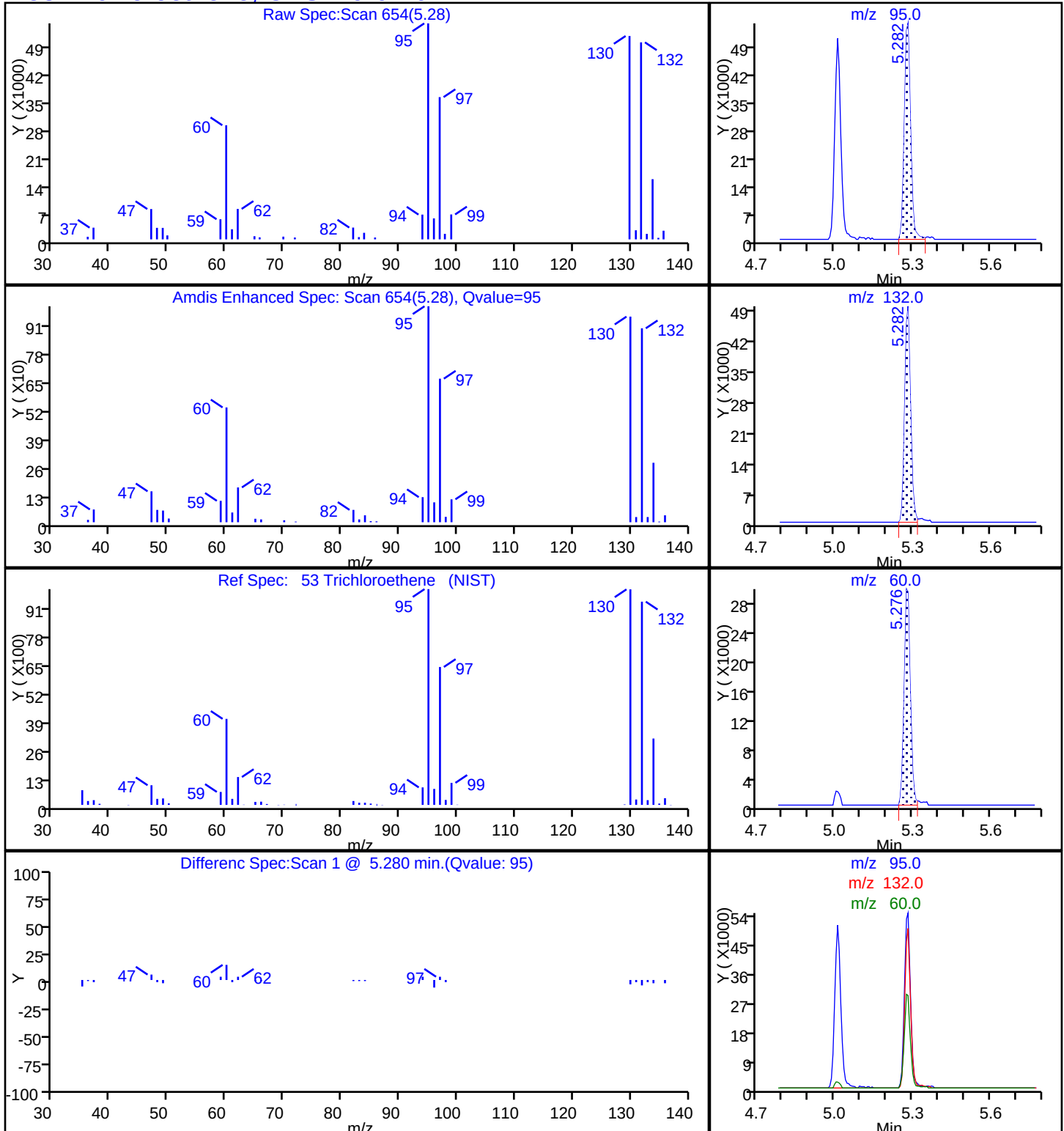
Dil. Factor: 1.0000

Method: Q-624

Limit Group: MV - 624 ICAL UP

Column:

Detector: MS SCAN

53 Trichloroethene, CAS: 79-01-6

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Buffalo Job No.: 480-125692-1 Analy Batch No.: 377785

SDG No.: _____

Instrument ID: HP5973Q GC Column: ZB-624 (20) ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/20/2017 14:27 Calibration End Date: 09/20/2017 15:14 Calibration ID: 31536

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 480-377785/4	Q2416.D
Level 2	ICIS 480-377785/5	Q2417.D
Level 3	IC 480-377785/6	Q2418.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3				B	M1	M2								
Dichlorodifluoromethane	0.3429	0.3749	0.3455			Ave		0.3544				5.0		35.0			
Chloromethane	0.3953	0.4054	0.3887			Ave		0.3965				2.1		35.0			
Vinyl chloride	0.2774	0.3196	0.3009			Ave		0.2993				7.1		35.0			
Bromomethane	0.2224	0.2231	0.2145			Ave		0.2200				2.2		35.0			
Chloroethane	0.1782	0.1946	0.1839			Ave		0.1856				4.5		35.0			
Trichlorofluoromethane	0.4357	0.4816	0.4572			Ave		0.4581				5.0		35.0			
Dichlorofluoromethane	0.4589	0.4840	0.4601			Ave		0.4676				3.0		35.0			
Ethyl ether	0.2269	0.2348	0.2290			Ave		0.2302				1.8		35.0			
Acrolein	0.0411	0.0410	0.0396			Ave		0.0406				2.0		35.0			
1,1-Dichloroethene	0.2167	0.2346	0.2206			Ave		0.2240				4.2		35.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.2122	0.2437	0.2344			Ave		0.2301				7.0		35.0			
Acetone	0.1094	0.0946	0.0933			Ave		0.0991				9.1		35.0			
Iodomethane	0.3949	0.4263	0.4049			Ave		0.4087				3.9		35.0			
Carbon disulfide	0.7834	0.7488	0.6992			Ave		0.7438				5.7		35.0			
Allyl chloride	0.3754	0.3920	0.3721			Ave		0.3798				2.8		35.0			
Methylene Chloride	0.2717	0.2733	0.2623			Ave		0.2691				2.2		35.0			
t-Butanol	0.0673	0.0618	0.0616			Ave		0.0636				5.1		35.0			
Methyl tert-butyl ether	0.8636	0.9252	0.8753			Ave		0.8880				3.7		35.0			
trans-1,2-Dichloroethene	0.2450	0.2636	0.2501			Ave		0.2529				3.8		35.0			
Acrylonitrile	0.1543	0.1408	0.1315			Ave		0.1422				8.0		35.0			
1,1-Dichloroethane	0.4412	0.4754	0.4511			Ave		0.4559				3.9		35.0			
Vinyl acetate	0.5921	0.6266	0.5828			Ave		0.6005				3.8		35.0			
2,2-Dichloropropane	0.3608	0.3766	0.3593			Ave		0.3656				2.6		35.0			
cis-1,2-Dichloroethene	0.2718	0.3028	0.2835			Ave		0.2860				5.5		35.0			
2-Butanone (MEK)	0.1877	0.1818	0.1723			Ave		0.1806				4.3		35.0			
Bromochloromethane	0.1344	0.1465	0.1410			Ave		0.1407				4.3		35.0			
Tetrahydrofuran	0.1381	0.1319	0.1285			Ave		0.1328				3.6		35.0			
Chloroform	0.4805	0.5057	0.4743			Ave		0.4868				3.4		35.0			
1,1,1-Trichloroethane	0.4089	0.4456	0.4267			Ave		0.4270				4.3		35.0			
Carbon tetrachloride	0.3097	0.3567	0.3463			Ave		0.3376				7.3		35.0			
1,1-Dichloropropene	0.3135	0.3496	0.3298			Ave		0.3310				5.5		35.0			
Isobutyl alcohol	0.0343	0.0316	0.0302			Ave		0.0320				6.6		35.0			
Benzene	0.8982	0.9561	0.8815			Ave		0.9119				4.3		35.0			
1,2-Dichloroethane	0.4347	0.4539	0.4308			Ave		0.4398				2.8		35.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Buffalo Job No.: 480-125692-1 Analy Batch No.: 377785

SDG No.: _____

Instrument ID: HP5973Q GC Column: ZB-624 (20) ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/20/2017 14:27 Calibration End Date: 09/20/2017 15:14 Calibration ID: 31536

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3				B	M1	M2								
Trichloroethene	0.2525	0.2693	0.2599			Ave		0.2606				3.2		35.0			
1,2-Dichloropropane	0.2216	0.2424	0.2299			Ave		0.2313				4.5		35.0			
1,4-Dioxane	0.0048	0.0045	0.0044			Ave		0.0045				5.2		35.0			
Dibromomethane	0.1815	0.1995	0.1918			Ave		0.1909				4.7		35.0			
Dichlorobromomethane	0.3364	0.3776	0.3628			Ave		0.3589				5.8		35.0			
2-Chloroethyl vinyl ether	0.1837	0.1956	0.1850			Ave		0.1881				3.5		35.0			
cis-1,3-Dichloropropene	0.3714	0.4296	0.4143			Ave		0.4051				7.4		35.0			
4-Methyl-2-pentanone (MIBK)	0.5942	0.5629	0.4822			Ave		0.5464				10.6		35.0			
Toluene	0.8182	0.8785	0.8378			Ave		0.8449				3.6		35.0			
trans-1,3-Dichloropropene	0.5642	0.6258	0.6036			Ave		0.5978				5.2		35.0			
Ethyl methacrylate	0.5591	0.5799	0.5494			Ave		0.5628				2.8		35.0			
1,1,2-Trichloroethane	0.2878	0.2951	0.2846			Ave		0.2892				1.9		35.0			
Tetrachloroethene	0.3005	0.3256	0.3212			Ave		0.3158				4.2		35.0			
1,3-Dichloropropane	0.5788	0.6114	0.5842			Ave		0.5914				3.0		35.0			
2-Hexanone	0.4362	0.3950	0.3413			Ave		0.3908				12.2		35.0			
Chlorodibromomethane	0.3630	0.4265	0.4233			Ave		0.4043				8.9		35.0			
1,2-Dibromoethane	0.3773	0.3922	0.3842			Ave		0.3846				1.9		35.0			
Chlorobenzene	0.9233	0.9577	0.9073			Ave		0.9294				2.8		35.0			
1,1,1,2-Tetrachloroethane	0.3424	0.3769	0.3713			Ave		0.3635				5.1		35.0			
Ethylbenzene	1.5126	1.5966	1.4408			Ave		1.5167				5.1		35.0			
m-Xylene & p-Xylene	0.5876	0.6163	0.5915			Ave		0.5985				2.6		35.0			
o-Xylene	0.5945	0.6292	0.5920			Ave		0.6052				3.4		35.0			
Styrene	0.9942	1.0445	0.9928			Ave		1.0105				2.9		35.0			
Bromoform	0.2320	0.2873	0.2870			Ave		0.2688				11.9		35.0			
Isopropylbenzene	2.6072	2.8502	2.6326			Ave		2.6967				5.0		35.0			
Bromobenzene	0.7127	0.7642	0.7446			Ave		0.7405				3.5		35.0			
1,1,2,2-Tetrachloroethane	1.0431	1.0536	0.9971			Ave		1.0313				2.9		35.0			
1,2,3-Trichloropropane	0.3536	0.3721	0.3624			Ave		0.3627				2.6		35.0			
trans-1,4-Dichloro-2-butene	0.3967	0.3989	0.3742			Ave		0.3899				3.5		35.0			
N-Propylbenzene	3.1365	3.1954	2.8928			Ave		3.0749				5.2		35.0			
2-Chlorotoluene	0.6200	0.6643	0.6422			Ave		0.6422				3.4		35.0			
1,3,5-Trimethylbenzene	2.2528	2.3830	2.1837			Ave		2.2732				4.5		35.0			
4-Chlorotoluene	0.6636	0.6936	0.6685			Ave		0.6753				2.4		35.0			
tert-Butylbenzene	0.4249	0.4568	0.4410			Ave		0.4409				3.6		35.0			
1,2,4-Trimethylbenzene	2.4121	2.4633	2.2762			Ave		2.3839				4.1		35.0			
sec-Butylbenzene	2.5634	2.6319	2.4052			Ave		2.5335				4.6		35.0			
4-Isopropyltoluene	2.1876	2.2817	2.0716			Ave		2.1803				4.8		35.0			
1,3-Dichlorobenzene	1.2869	1.3279	1.2735			Ave		1.2961				2.2		35.0			
1,4-Dichlorobenzene	1.3709	1.3859	1.2943			Ave		1.3503				3.6		35.0			
n-Butylbenzene	1.9626	1.9841	1.7786			Ave		1.9084				5.9		35.0			
1,2-Dichlorobenzene	1.2576	1.3113	1.2470			Ave		1.2720				2.7		35.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Buffalo Job No.: 480-125692-1 Analy Batch No.: 377785

SDG No.: _____

Instrument ID: HP5973Q GC Column: ZB-624 (20) ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/20/2017 14:27 Calibration End Date: 09/20/2017 15:14 Calibration ID: 31536

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3				B	M1	M2								
1,2-Dibromo-3-Chloropropane	0.2720	0.3004	0.2784			Ave		0.2836				5.3		35.0			
1,2,4-Trichlorobenzene	0.7143	0.6883	0.6572			Ave		0.6866				4.2		35.0			
Hexachlorobutadiene	0.2504	0.2467	0.2270			Ave		0.2414				5.2		35.0			
Naphthalene	2.7033	2.7228	2.5379			Ave		2.6547				3.8		35.0			
1,2,3-Trichlorobenzene	0.6562	0.6166	0.6169			Ave		0.6299				3.6		35.0			
Dibromofluoromethane (Surr)	0.2769	0.2798	0.2743			Ave		0.2770				1.0		35.0			
1,2-Dichloroethane-d4 (Surr)	0.3795	0.3674	0.3557			Ave		0.3675				3.2		35.0			
Toluene-d8 (Surr)	1.3467	1.3202	1.3305			Ave		1.3325				1.0		35.0			
4-Bromofluorobenzene (Surr)	0.5278	0.5047	0.4962			Ave		0.5096				3.2		35.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Buffalo Job No.: 480-125692-1 Analy Batch No.: 377785

SDG No.: _____

Instrument ID: HP5973Q GC Column: ZB-624 (20) ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/20/2017 14:27 Calibration End Date: 09/20/2017 15:14 Calibration ID: 31536

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 480-377785/4	Q2416.D
Level 2	ICIS 480-377785/5	Q2417.D
Level 3	IC 480-377785/6	Q2418.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1	LVL 2	LVL 3			LVL 1	LVL 2	LVL 3		
Dichlorodifluoromethane	FB	Ave	59596	656770	1256621			5.00	50.0	100		
Chloromethane	FB	Ave	68697	710190	1414019			5.00	50.0	100		
Vinyl chloride	FB	Ave	48207	559848	1094356			5.00	50.0	100		
Bromomethane	FB	Ave	38650	390837	780133			5.00	50.0	100		
Chloroethane	FB	Ave	30964	340904	668945			5.00	50.0	100		
Trichlorofluoromethane	FB	Ave	75711	843533	1662888			5.00	50.0	100		
Dichlorofluoromethane	FB	Ave	79743	847784	1673429			5.00	50.0	100		
Ethyl ether	FB	Ave	39429	411215	833021			5.00	50.0	100		
Acrolein	FB	Ave	35711	358935	720904			25.0	250	500		
1,1-Dichloroethene	FB	Ave	37666	410916	802492			5.00	50.0	100		
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Ave	36869	426870	852560			5.00	50.0	100		
Acetone	FB	Ave	95086	828453	1696529			25.0	250	500		
Iodomethane	FB	Ave	68631	746657	1472974			5.00	50.0	100		
Carbon disulfide	FB	Ave	136150	1311612	2543240			5.00	50.0	100		
Allyl chloride	FB	Ave	65244	686616	1353407			5.00	50.0	100		
Methylene Chloride	FB	Ave	47213	478756	954142			5.00	50.0	100		
t-Butanol	FB	Ave	116986	1082422	2240381			50.0	500	1000		
Methyl tert-butyl ether	FB	Ave	150086	1620635	3183799			5.00	50.0	100		
trans-1,2-Dichloroethene	FB	Ave	42581	461767	909781			5.00	50.0	100		
Acrylonitrile	FB	Ave	268077	2467057	4784747			50.0	500	1000		
1,1-Dichloroethane	FB	Ave	76667	832775	1640924			5.00	50.0	100		
Vinyl acetate	FB	Ave	205800	2195282	4239667			10.0	100	200		
2,2-Dichloropropane	FB	Ave	62699	659725	1306897			5.00	50.0	100		
cis-1,2-Dichloroethene	FB	Ave	47236	530329	1031109			5.00	50.0	100		
2-Butanone (MEK)	FB	Ave	163099	1592218	3134364			25.0	250	500		
Bromochloromethane	FB	Ave	23364	256686	512996			5.00	50.0	100		
Tetrahydrofuran	FB	Ave	47992	462087	935075			10.0	100	200		
Chloroform	FB	Ave	83508	885788	1725260			5.00	50.0	100		
1,1,1-Trichloroethane	FB	Ave	71053	780463	1552051			5.00	50.0	100		
Carbon tetrachloride	FB	Ave	53820	624773	1259752			5.00	50.0	100		
1,1-Dichloropropene	FB	Ave	54487	612470	1199542			5.00	50.0	100		
Isobutyl alcohol	CBNZd	Ave	97711	923547	1818315			125	1250	2500		
Benzene	FB	Ave	156096	1674861	3206278			5.00	50.0	100		
1,2-Dichloroethane	FB	Ave	75552	795136	1566844			5.00	50.0	100		
Trichloroethene	FB	Ave	43879	471741	945317			5.00	50.0	100		

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Buffalo Job No.: 480-125692-1 Analy Batch No.: 377785

SDG No.: _____

Instrument ID: HP5973Q GC Column: ZB-624 (20) ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/20/2017 14:27 Calibration End Date: 09/20/2017 15:14 Calibration ID: 31536

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1	LVL 2	LVL 3			LVL 1	LVL 2	LVL 3		
1,2-Dichloropropane	FB	Ave	38513	424680	836275			5.00	50.0	100		
1,4-Dioxane	CBNZd	Ave	10948	104386	209953			100	1000	2000		
Dibromomethane	FB	Ave	31535	349402	697751			5.00	50.0	100		
Dichlorobromomethane	FB	Ave	58457	661456	1319646			5.00	50.0	100		
2-Chloroethyl vinyl ether	FB	Ave	31932	342623	672855			5.00	50.0	100		
cis-1,3-Dichloropropene	FB	Ave	64546	752565	1506934			5.00	50.0	100		
4-Methyl-2-pentanone (MIBK)	CBNZd	Ave	338533	3294598	5815024			25.0	250	500		
Toluene	CBNZd	Ave	93236	1028480	2020594			5.00	50.0	100		
trans-1,3-Dichloropropene	CBNZd	Ave	64290	732547	1455653			5.00	50.0	100		
Ethyl methacrylate	CBNZd	Ave	63714	678896	1325075			5.00	50.0	100		
1,1,2-Trichloroethane	CBNZd	Ave	32793	345469	686467			5.00	50.0	100		
Tetrachloroethene	CBNZd	Ave	34244	381124	774764			5.00	50.0	100		
1,3-Dichloropropane	CBNZd	Ave	65952	715723	1408871			5.00	50.0	100		
2-Hexanone	CBNZd	Ave	248550	2311999	4115109			25.0	250	500		
Chlorodibromomethane	CBNZd	Ave	41361	499345	1020898			5.00	50.0	100		
1,2-Dibromoethane	CBNZd	Ave	42997	459103	926508			5.00	50.0	100		
Chlorobenzene	CBNZd	Ave	105217	1121098	2188072			5.00	50.0	100		
1,1,1,2-Tetrachloroethane	CBNZd	Ave	39020	441258	895397			5.00	50.0	100		
Ethylbenzene	CBNZd	Ave	172370	1869043	3474889			5.00	50.0	100		
m-Xylene & p-Xylene	CBNZd	Ave	66961	721437	1426502			5.00	50.0	100		
o-Xylene	CBNZd	Ave	67746	736578	1427760			5.00	50.0	100		
Styrene	CBNZd	Ave	113293	1222818	2394374			5.00	50.0	100		
Bromoform	CBNZd	Ave	26436	336374	692214			5.00	50.0	100		
Isopropylbenzene	DCBd4	Ave	164987	1806926	3397158			5.00	50.0	100		
Bromobenzene	DCBd4	Ave	45102	484471	960809			5.00	50.0	100		
1,1,2,2-Tetrachloroethane	DCBd4	Ave	66008	667934	1286720			5.00	50.0	100		
1,2,3-Trichloropropane	DCBd4	Ave	22378	235921	467591			5.00	50.0	100		
trans-1,4-Dichloro-2-butene	DCBd4	Ave	25104	252871	482867			5.00	50.0	100		
N-Propylbenzene	DCBd4	Ave	198483	2025730	3732900			5.00	50.0	100		
2-Chlorotoluene	DCBd4	Ave	39233	421135	828749			5.00	50.0	100		
1,3,5-Trimethylbenzene	DCBd4	Ave	142562	1510762	2817921			5.00	50.0	100		
4-Chlorotoluene	DCBd4	Ave	41995	439731	862654			5.00	50.0	100		
tert-Butylbenzene	DCBd4	Ave	26887	289602	569050			5.00	50.0	100		
1,2,4-Trimethylbenzene	DCBd4	Ave	152639	1561634	2937248			5.00	50.0	100		
sec-Butylbenzene	DCBd4	Ave	162214	1668521	3103679			5.00	50.0	100		
4-Isopropyltoluene	DCBd4	Ave	138430	1446531	2673277			5.00	50.0	100		
1,3-Dichlorobenzene	DCBd4	Ave	81439	841816	1643332			5.00	50.0	100		
1,4-Dichlorobenzene	DCBd4	Ave	86749	878599	1670175			5.00	50.0	100		
n-Butylbenzene	DCBd4	Ave	124198	1257844	2295082			5.00	50.0	100		
1,2-Dichlorobenzene	DCBd4	Ave	79579	831319	1609142			5.00	50.0	100		
1,2-Dibromo-3-Chloropropane	DCBd4	Ave	17210	190413	359218			5.00	50.0	100		
1,2,4-Trichlorobenzene	DCBd4	Ave	45202	436327	848022			5.00	50.0	100		
Hexachlorobutadiene	DCBd4	Ave	15844	156415	292937			5.00	50.0	100		

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Buffalo Job No.: 480-125692-1 Analy Batch No.: 377785

SDG No.: _____

Instrument ID: HP5973Q GC Column: ZB-624 (20) ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/20/2017 14:27 Calibration End Date: 09/20/2017 15:14 Calibration ID: 31536

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1	LVL 2	LVL 3			LVL 1	LVL 2	LVL 3		
Naphthalene	DCBd4	Ave	171068	1726151	3274912			5.00	50.0	100		
1,2,3-Trichlorobenzene	DCBd4	Ave	41524	390905	796067			5.00	50.0	100		
Dibromofluoromethane (Surr)	FB	Ave	288701	294039	299343			30.0	30.0	30.0		
1,2-Dichloroethane-d4 (Surr)	FB	Ave	395744	386126	388103			30.0	30.0	30.0		
Toluene-d8 (Surr)	CBNZd	Ave	920753	927328	962653			30.0	30.0	30.0		
4-Bromofluorobenzene (Surr)	CBNZd	Ave	360860	354502	358998			30.0	30.0	30.0		

Curve Type Legend:

Ave = Average ISTD

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20170920-65748.b\Q2416.D
 Lims ID: IC
 Client ID:
 Sample Type: IC Calib Level: 1
 Inject. Date: 20-Sep-2017 14:27:30 ALS Bottle#: 9 Worklist Smp#: 4
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: ic
 Misc. Info.: 480-0065748-004
 Operator ID: RF Instrument ID: HP5973Q
 Sublist: chrom-Q-624*sub3
 Method: \\ChromNA\Buffalo\ChromData\HP5973Q\20170920-65748.b\Q-624.m
 Limit Group: MV - 624 ICAL UP
 Last Update: 21-Sep-2017 10:14:35 Calib Date: 20-Sep-2017 15:14:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last Ical File: \\ChromNA\Buffalo\ChromData\HP5973Q\20170920-65748.b\Q2418.D

Column 1 : Det: MS SCAN

Process Host: XAWRK001

First Level Reviewer: farrellr

Date: 20-Sep-2017 15:40:33

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 114 Fluorobenzene (IS)	96	5.010	5.008	0.002	99	1042708	30.0	30.0	
* 2 Chlorobenzene-d5	117	7.296	7.294	0.002	90	683718	30.0	30.0	
* 3 1,4-Dichlorobenzene-d4	152	9.163	9.167	-0.004	98	379685	30.0	30.0	
\$ 115 Dibromofluoromethane (Surr	113	4.529	4.534	-0.005	98	288701	30.0	30.0	
\$ 4 1,2-Dichloroethane-d4 (Sur	65	4.778	4.783	-0.005	99	395744	30.0	31.0	
\$ 5 Toluene-d8 (Surr)	98	6.177	6.182	-0.005	94	920753	30.0	30.3	
\$ 6 4-Bromofluorobenzene (Surr	95	8.227	8.225	0.002	84	360860	30.0	31.1	
9 Dichlorodifluoromethane	85	1.422	1.432	-0.010	77	59596	5.00	4.84	
11 Chloromethane	50	1.659	1.657	0.002	76	68697	5.00	4.98	
12 Vinyl chloride	62	1.726	1.730	-0.004	97	48207	5.00	4.63	
13 Bromomethane	94	1.987	1.985	0.002	93	38650	5.00	5.05	
14 Chloroethane	64	2.030	2.034	-0.004	99	30964	5.00	4.80	
15 Trichlorofluoromethane	101	2.218	2.217	0.002	64	75711	5.00	4.75	
16 Dichlorofluoromethane	67	2.236	2.241	-0.005	97	79743	5.00	4.91	
17 Ethyl ether	59	2.492	2.496	-0.004	90	39429	5.00	4.93	
18 Acrolein	56	2.638	2.642	-0.004	99	35711	25.0	25.3	
20 1,1-Dichloroethene	96	2.686	2.691	-0.005	96	37666	5.00	4.84	
19 1,1,2-Trichloro-1,2,2-trif	101	2.717	2.721	-0.004	95	36869	5.00	4.61	
21 Acetone	43	2.778	2.782	-0.004	99	95086	25.0	27.6	M
22 Iodomethane	142	2.826	2.831	-0.005	98	68631	5.00	4.83	
23 Carbon disulfide	76	2.869	2.873	-0.004	99	136150	5.00	5.27	
25 3-Chloro-1-propene	41	3.021	3.019	0.002	87	65244	5.00	4.94	
27 Methylene Chloride	84	3.137	3.141	-0.005	94	47213	5.00	5.05	
28 2-Methyl-2-propanol	59	3.276	3.275	0.001	100	116986	50.0	52.9	M
29 Methyl tert-butyl ether	73	3.343	3.342	0.001	95	150086	5.00	4.86	
30 trans-1,2-Dichloroethene	96	3.355	3.354	0.001	60	42581	5.00	4.84	
31 Acrylonitrile	53	3.374	3.372	0.002	99	268077	50.0	54.2	
32 1,1-Dichloroethane	63	3.702	3.700	0.002	97	76667	5.00	4.84	
34 Vinyl acetate	43	3.739	3.743	-0.004	97	205800	10.0	9.86	
37 2,2-Dichloropropane	77	4.140	4.138	0.002	86	62699	5.00	4.93	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
38 cis-1,2-Dichloroethene	96	4.158	4.156	0.002	84	47236	5.00	4.75	
39 2-Butanone (MEK)	43	4.176	4.175	0.001	100	163099	25.0	26.0	
42 Chlorobromomethane	128	4.347	4.351	-0.004	95	23364	5.00	4.78	
44 Tetrahydrofuran	42	4.371	4.369	0.002	92	47992	10.0	10.4	
45 Chloroform	83	4.408	4.406	0.002	94	83508	5.00	4.94	
116 1,1,1-Trichloroethane	97	4.523	4.521	0.002	77	71053	5.00	4.79	
47 Carbon tetrachloride	117	4.639	4.637	0.002	93	53820	5.00	4.59	
48 1,1-Dichloropropene	75	4.639	4.643	-0.004	93	54487	5.00	4.74	
50 Isobutyl alcohol	43	4.766	4.771	-0.005	93	97711	125.0	134.0	
49 Benzene	78	4.803	4.801	0.002	96	156096	5.00	4.92	
51 1,2-Dichloroethane	62	4.833	4.838	-0.005	98	75552	5.00	4.94	
53 Trichloroethene	95	5.277	5.282	-0.005	96	43879	5.00	4.85	
54 1,2-Dichloropropane	63	5.460	5.458	0.002	91	38513	5.00	4.79	
56 Dibromomethane	93	5.563	5.561	0.002	94	31535	5.00	4.75	
57 1,4-Dioxane	88	5.563	5.561	0.002	38	10948	100.0	105.8	
58 Dichlorobromomethane	83	5.672	5.671	0.001	98	58457	5.00	4.69	
60 2-Chloroethyl vinyl ether	63	5.879	5.877	0.002	94	31932	5.00	4.88	
61 cis-1,3-Dichloropropene	75	5.995	5.993	0.002	94	64546	5.00	4.58	
62 4-Methyl-2-pentanone (MIBK)	43	6.092	6.096	-0.004	95	338533	25.0	27.2	
63 Toluene	92	6.226	6.230	-0.004	98	93236	5.00	4.84	
64 trans-1,3-Dichloropropene	75	6.414	6.419	-0.005	96	64290	5.00	4.72	
65 Ethyl methacrylate	69	6.451	6.449	0.002	89	63714	5.00	4.97	
66 1,1,2-Trichloroethane	83	6.560	6.565	-0.005	92	32793	5.00	4.98	
67 Tetrachloroethene	166	6.639	6.644	-0.005	90	34244	5.00	4.76	
68 1,3-Dichloropropane	76	6.688	6.686	0.002	90	65952	5.00	4.89	
69 2-Hexanone	43	6.724	6.723	0.001	96	248550	25.0	27.9	
71 Chlorodibromomethane	129	6.870	6.869	0.001	90	41361	5.00	4.49	
72 Ethylene Dibromide	107	6.956	6.960	-0.004	97	42997	5.00	4.91	
74 Chlorobenzene	112	7.320	7.319	0.001	95	105217	5.00	4.97	
76 1,1,1,2-Tetrachloroethane	131	7.381	7.386	-0.005	76	39020	5.00	4.71	
77 Ethylbenzene	91	7.381	7.386	-0.005	99	172370	5.00	4.99	
78 m-Xylene & p-Xylene	106	7.472	7.477	-0.005	98	66961	5.00	4.91	
79 o-Xylene	106	7.795	7.793	0.002	98	67746	5.00	4.91	
80 Styrene	104	7.807	7.811	-0.004	94	113293	5.00	4.92	
82 Bromoform	173	7.989	7.994	-0.005	92	26436	5.00	4.32	
84 Isopropylbenzene	105	8.075	8.079	-0.004	97	164987	5.00	4.83	
85 Bromobenzene	156	8.354	8.353	0.001	97	45102	5.00	4.81	
86 1,1,2,2-Tetrachloroethane	83	8.360	8.359	0.001	96	66008	5.00	5.06	M
89 1,2,3-Trichloropropane	110	8.391	8.395	-0.004	87	22378	5.00	4.87	
88 trans-1,4-Dichloro-2-buten	53	8.397	8.395	0.002	77	25104	5.00	5.09	
87 N-Propylbenzene	91	8.409	8.407	0.002	99	198483	5.00	5.10	
90 2-Chlorotoluene	126	8.494	8.499	-0.005	95	39233	5.00	4.83	
92 1,3,5-Trimethylbenzene	105	8.549	8.547	0.002	93	142562	5.00	4.96	
93 4-Chlorotoluene	126	8.585	8.584	0.001	99	41995	5.00	4.91	
94 tert-Butylbenzene	134	8.810	8.815	-0.005	93	26887	5.00	4.82	
95 1,2,4-Trimethylbenzene	105	8.853	8.857	-0.004	97	152639	5.00	5.06	
96 sec-Butylbenzene	105	8.987	8.991	-0.004	95	162214	5.00	5.06	
97 4-Isopropyltoluene	119	9.102	9.107	-0.005	96	138430	5.00	5.02	
98 1,3-Dichlorobenzene	146	9.108	9.113	-0.005	97	81439	5.00	4.96	
99 1,4-Dichlorobenzene	146	9.181	9.186	-0.005	92	86749	5.00	5.08	
100 n-Butylbenzene	91	9.443	9.447	-0.004	98	124198	5.00	5.14	
101 1,2-Dichlorobenzene	146	9.491	9.496	-0.005	94	79579	5.00	4.94	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
102 1,2-Dibromo-3-Chloropropan	75	10.154	10.153	0.001	77	17210	5.00	4.80	
103 1,2,4-Trichlorobenzene	180	10.817	10.816	0.001	92	45202	5.00	5.20	
104 Hexachlorobutadiene	225	10.933	10.931	0.002	90	15844	5.00	5.19	
105 Naphthalene	128	11.024	11.022	0.002	98	171068	5.00	5.09	
106 1,2,3-Trichlorobenzene	180	11.219	11.217	0.002	94	41524	5.00	5.21	
S 107 1,2-Dichloroethene, Total	1				0			9.60	
S 108 Trihalomethanes, Total	1				0			18.4	
S 109 1,3-Dichloropropene, Total	1				0			9.30	
S 111 Xylenes, Total	1				0			9.82	
S 110 Total BTEX	1				0			24.6	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

8260 CORP mix_00107	Amount Added: 5.00	Units: uL	
GAS CORP mix_00242	Amount Added: 5.00	Units: uL	
Q 624 IS_00049	Amount Added: 1.00	Units: uL	Run Reagent
Q 624 SURR_00050	Amount Added: 1.00	Units: uL	Run Reagent

TestAmerica Buffalo

Data File: \\ChromNA\\Buffalo\\ChromData\\HP5973Q\\20170920-65748.b\\Q2416.D

Injection Date: 20-Sep-2017 14:27:30

Instrument ID: HP5973Q

Lims ID: IC

Operator ID: RF

Client ID:

Worklist Smp#: 4

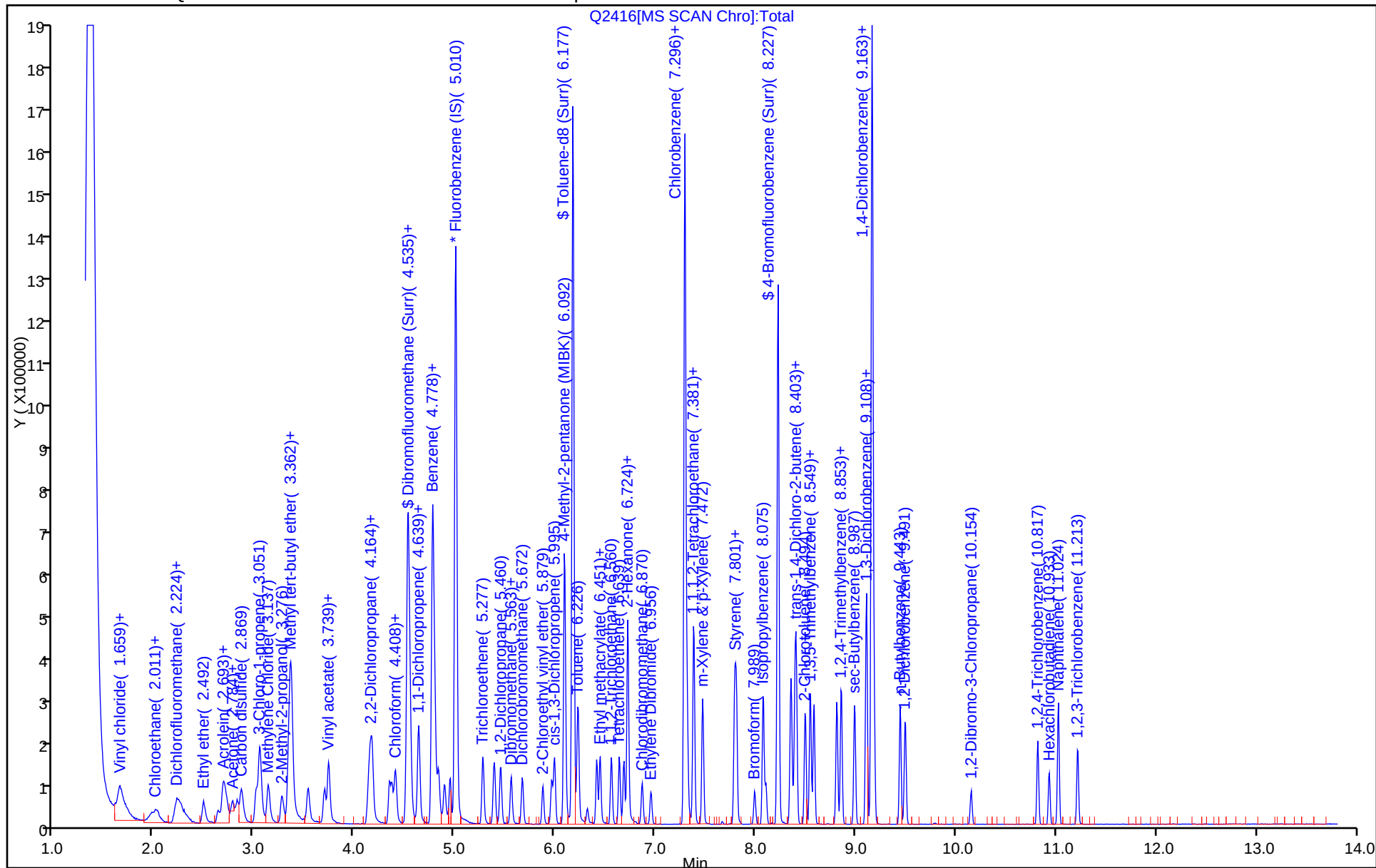
Purge Vol: 5.000 mL

Dil. Factor: 1.0000

ALS Bottle#: 9

Method: Q-624

Limit Group: MV - 624 ICAL UP



TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20170920-65748.b\Q2416.D

Injection Date: 20-Sep-2017 14:27:30

Instrument ID: HP5973Q

Lims ID: IC

Client ID:

Operator ID: RF

ALS Bottle#:

9

Worklist Smp#: 4

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

Method: Q-624

Limit Group: MV - 624 ICAL UP

Column:

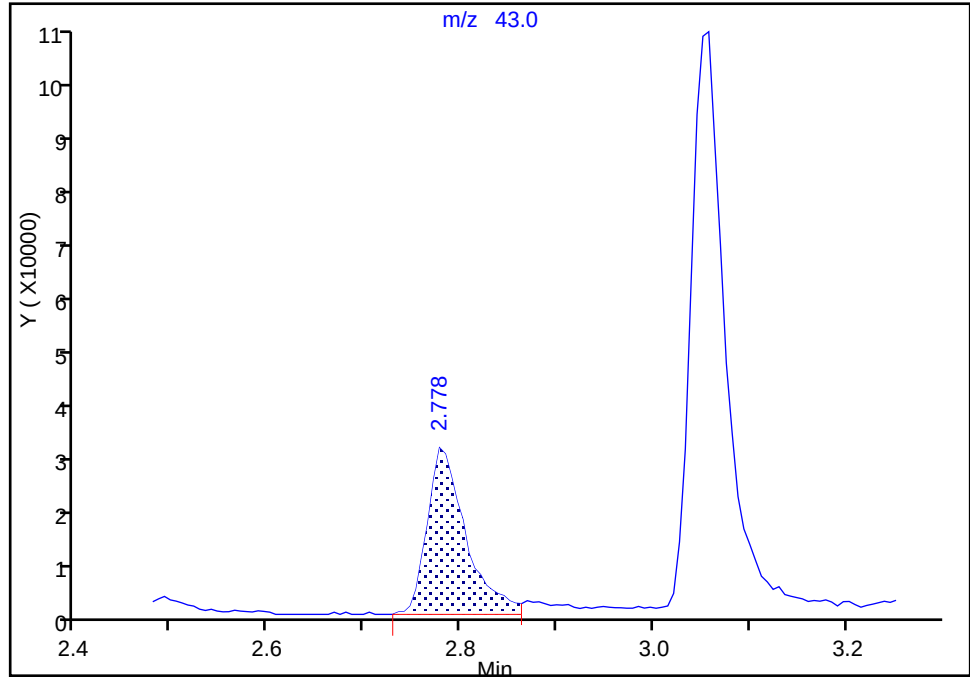
Detector MS SCAN

21 Acetone, CAS: 67-64-1

Signal: 1

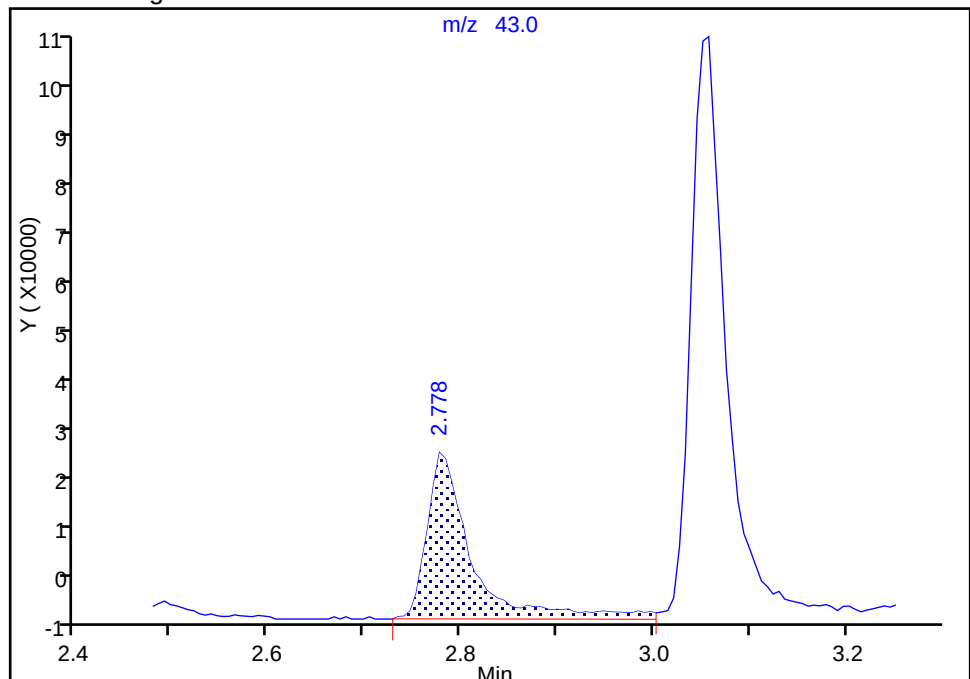
RT: 2.78
Area: 82826
Amount: 25.244552
Amount Units: ug/L

Processing Integration Results



RT: 2.78
Area: 95086
Amount: 27.605871
Amount Units: ug/L

Manual Integration Results



Reviewer: cwklinc, 21-Sep-2017 10:08:31

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20170920-65748.b\Q2416.D

Injection Date: 20-Sep-2017 14:27:30

Instrument ID: HP5973Q

Lims ID: IC

Client ID:

Operator ID: RF

ALS Bottle#:

9

Worklist Smp#: 4

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

Method: Q-624

Limit Group: MV - 624 ICAL UP

Column:

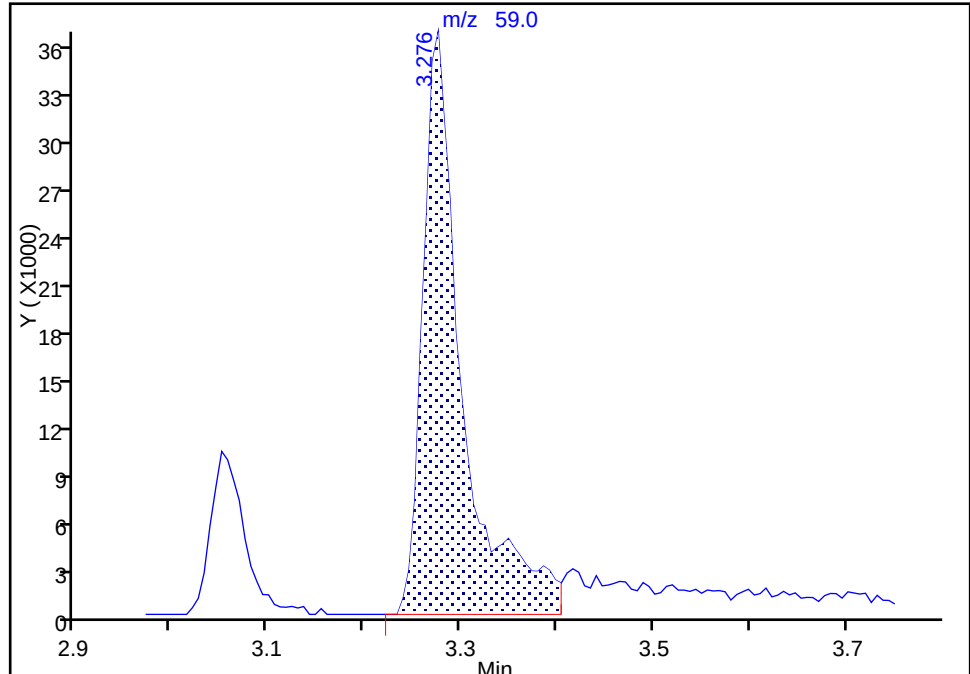
Detector MS SCAN

28 2-Methyl-2-propanol, CAS: 75-65-0

Signal: 1

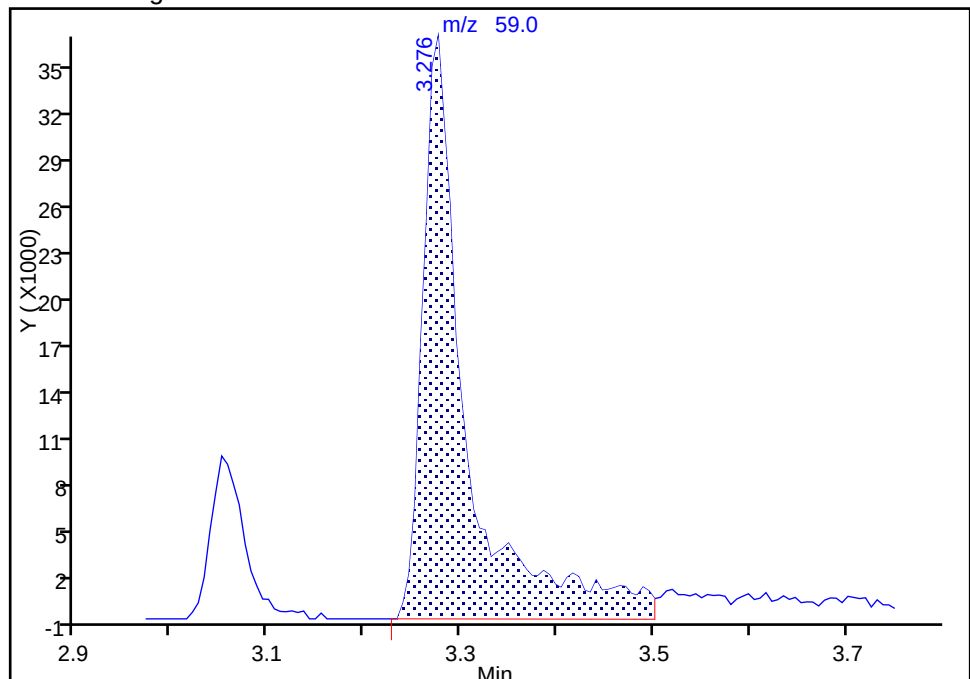
RT: 3.28
Area: 105083
Amount: 48.757341
Amount Units: ug/L

Processing Integration Results



RT: 3.28
Area: 116986
Amount: 52.949140
Amount Units: ug/L

Manual Integration Results



Reviewer: cwklinc, 21-Sep-2017 10:08:58

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20170920-65748.b\Q2416.D

Injection Date: 20-Sep-2017 14:27:30

Instrument ID: HP5973Q

Lims ID: IC

Client ID:

Operator ID: RF

ALS Bottle#:

9

Worklist Smp#: 4

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

Method: Q-624

Limit Group: MV - 624 ICAL UP

Column:

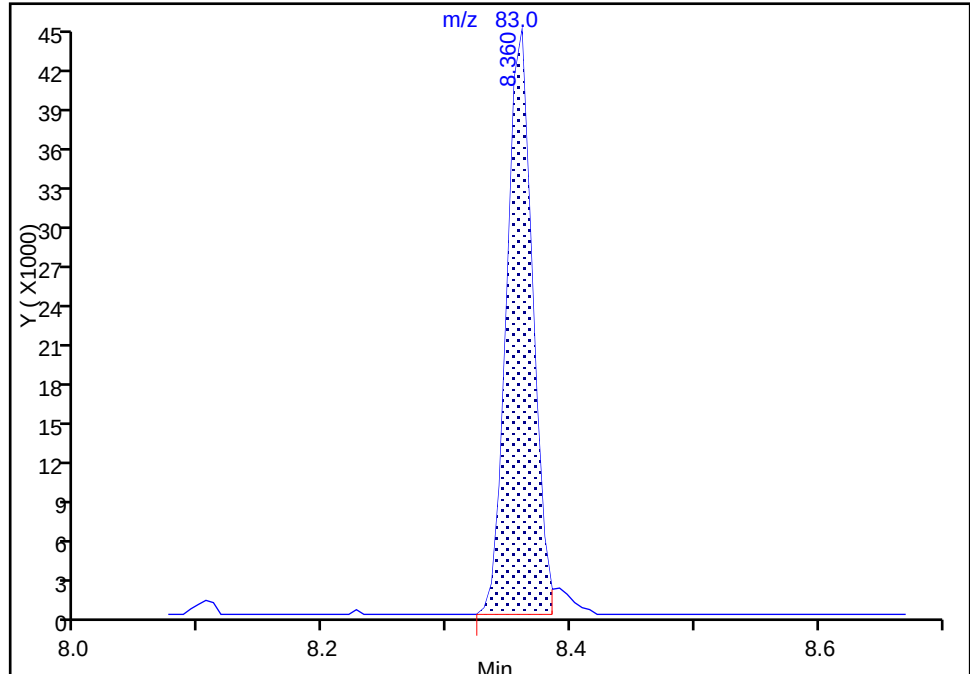
Detector MS SCAN

86 1,1,2,2-Tetrachloroethane, CAS: 79-34-5

Signal: 1

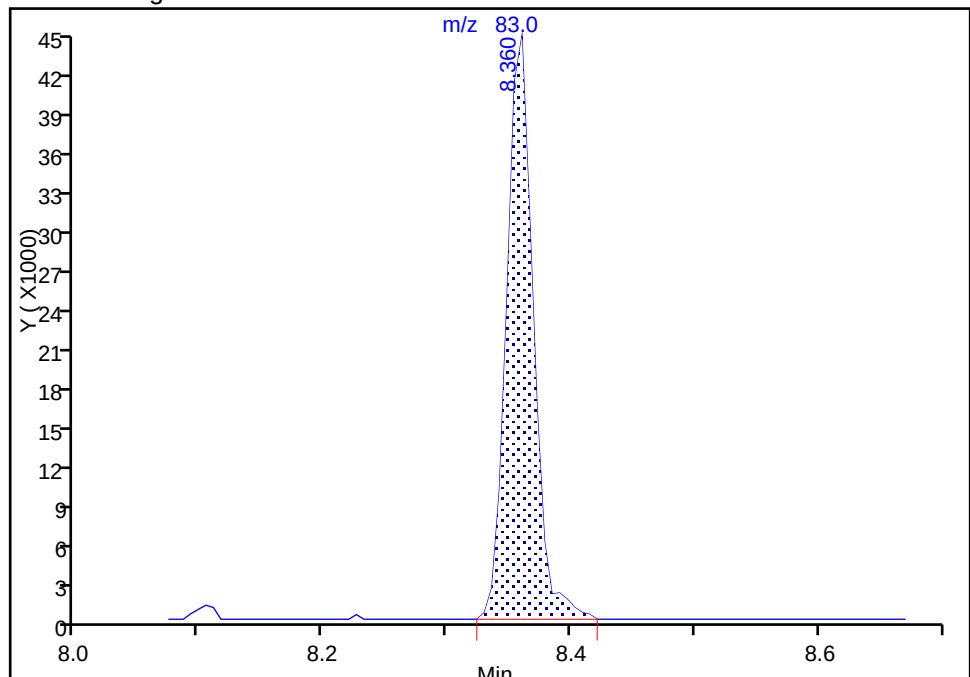
RT: 8.36
Area: 64088
Amount: 4.958851
Amount Units: ug/L

Processing Integration Results



RT: 8.36
Area: 66008
Amount: 5.057324
Amount Units: ug/L

Manual Integration Results



Reviewer: cwklinc, 21-Sep-2017 10:10:16

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20170920-65748.b\Q2417.D
 Lims ID: ICIS 2
 Client ID:
 Sample Type: ICIS Calib Level: 2
 Inject. Date: 20-Sep-2017 14:50:30 ALS Bottle#: 10 Worklist Smp#: 5
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: icis 2
 Misc. Info.: 480-0065748-005
 Operator ID: RF Instrument ID: HP5973Q
 Sublist: chrom-Q-624*sub3
 Method: \\ChromNA\Buffalo\ChromData\HP5973Q\20170920-65748.b\Q-624.m
 Limit Group: MV - 624 ICAL UP
 Last Update: 21-Sep-2017 10:14:37 Calib Date: 20-Sep-2017 15:14:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last Ical File: \\ChromNA\Buffalo\ChromData\HP5973Q\20170920-65748.b\Q2418.D

Column 1 : Det: MS SCAN

Process Host: XAWRK001

First Level Reviewer: farrellr

Date: 20-Sep-2017 15:38:53

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 114 Fluorobenzene (IS)	96	5.008	5.008	0.000	99	1051009	30.0	30.0	
* 2 Chlorobenzene-d5	117	7.294	7.294	0.000	89	702401	30.0	30.0	
* 3 1,4-Dichlorobenzene-d4	152	9.167	9.167	0.000	97	380377	30.0	30.0	
\$ 115 Dibromofluoromethane (Surr	113	4.534	4.534	0.000	98	294039	30.0	30.3	
\$ 4 1,2-Dichloroethane-d4 (Sur	65	4.783	4.783	0.000	98	386126	30.0	30.0	
\$ 5 Toluene-d8 (Surr)	98	6.182	6.182	0.000	93	927328	30.0	29.7	
\$ 6 4-Bromofluorobenzene (Surr	95	8.225	8.225	0.000	83	354502	30.0	29.7	
9 Dichlorodifluoromethane	85	1.432	1.432	0.000	99	656770	50.0	52.9	
11 Chloromethane	50	1.657	1.657	0.000	99	710190	50.0	51.1	
12 Vinyl chloride	62	1.730	1.730	0.000	98	559848	50.0	53.4	
13 Bromomethane	94	1.985	1.985	0.000	93	390837	50.0	50.7	
14 Chloroethane	64	2.034	2.034	0.000	99	340904	50.0	52.4	
15 Trichlorofluoromethane	101	2.217	2.217	0.000	98	843533	50.0	52.6	M
16 Dichlorofluoromethane	67	2.241	2.241	0.000	98	847784	50.0	51.7	
17 Ethyl ether	59	2.496	2.496	0.000	90	411215	50.0	51.0	
18 Acrolein	56	2.642	2.642	0.000	100	358935	250.0	252.5	
20 1,1-Dichloroethene	96	2.691	2.691	0.000	97	410916	50.0	52.4	
19 1,1,2-Trichloro-1,2,2-trif	101	2.721	2.721	0.000	95	426870	50.0	53.0	
21 Acetone	43	2.782	2.782	0.000	99	828453	250.0	238.6	
22 Iodomethane	142	2.831	2.831	0.000	97	746657	50.0	52.1	
23 Carbon disulfide	76	2.873	2.873	0.000	100	1311612	50.0	50.3	
25 3-Chloro-1-propene	41	3.019	3.019	0.000	87	686616	50.0	51.6	
27 Methylene Chloride	84	3.141	3.141	0.000	93	478756	50.0	50.8	
28 2-Methyl-2-propanol	59	3.275	3.275	0.000	100	1082422	500.0	486.0	
29 Methyl tert-butyl ether	73	3.342	3.342	0.000	95	1620635	50.0	52.1	
30 trans-1,2-Dichloroethene	96	3.354	3.354	0.000	98	461767	50.0	52.1	
31 Acrylonitrile	53	3.372	3.372	0.000	98	2467057	500.0	495.2	
32 1,1-Dichloroethane	63	3.700	3.700	0.000	97	832775	50.0	52.1	
34 Vinyl acetate	43	3.743	3.743	0.000	98	2195282	100.0	104.3	
37 2,2-Dichloropropane	77	4.138	4.138	0.000	88	659725	50.0	51.5	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
38 cis-1,2-Dichloroethene	96	4.156	4.156	0.000	82	530329	50.0	52.9	
39 2-Butanone (MEK)	43	4.175	4.175	0.000	99	1592218	250.0	251.6	
42 Chlorobromomethane	128	4.351	4.351	0.000	94	256686	50.0	52.1	
44 Tetrahydrofuran	42	4.369	4.369	0.000	85	462087	100.0	99.3	
45 Chloroform	83	4.406	4.406	0.000	94	885788	50.0	51.9	
116 1,1,1-Trichloroethane	97	4.521	4.521	0.000	86	780463	50.0	52.2	
47 Carbon tetrachloride	117	4.637	4.637	0.000	95	624773	50.0	52.8	
48 1,1-Dichloropropene	75	4.643	4.643	0.000	96	612470	50.0	52.8	
50 Isobutyl alcohol	43	4.771	4.771	0.000	93	923547	1250.0	1232.5	
49 Benzene	78	4.801	4.801	0.000	98	1674861	50.0	52.4	
51 1,2-Dichloroethane	62	4.838	4.838	0.000	98	795136	50.0	51.6	
53 Trichloroethene	95	5.282	5.282	0.000	96	471741	50.0	51.7	
54 1,2-Dichloropropane	63	5.458	5.458	0.000	91	424680	50.0	52.4	
57 1,4-Dioxane	88	5.561	5.561	0.000	37	104386	1000.0	982.4	
56 Dibromomethane	93	5.561	5.561	0.000	93	349402	50.0	52.2	
58 Dichlorobromomethane	83	5.671	5.671	0.000	98	661456	50.0	52.6	
60 2-Chloroethyl vinyl ether	63	5.877	5.877	0.000	94	342623	50.0	52.0	
61 cis-1,3-Dichloropropene	75	5.993	5.993	0.000	94	752565	50.0	53.0	
62 4-Methyl-2-pentanone (MIBK)	43	6.096	6.096	0.000	94	3294598	250.0	257.5	
63 Toluene	92	6.230	6.230	0.000	98	1028480	50.0	52.0	
64 trans-1,3-Dichloropropene	75	6.419	6.419	0.000	92	732547	50.0	52.3	
65 Ethyl methacrylate	69	6.449	6.449	0.000	90	678896	50.0	51.5	
66 1,1,2-Trichloroethane	83	6.565	6.565	0.000	94	345469	50.0	51.0	
67 Tetrachloroethene	166	6.644	6.644	0.000	90	381124	50.0	51.5	
68 1,3-Dichloropropane	76	6.686	6.686	0.000	91	715723	50.0	51.7	
69 2-Hexanone	43	6.723	6.723	0.000	93	2311999	250.0	252.7	
71 Chlorodibromomethane	129	6.869	6.869	0.000	90	499345	50.0	52.8	
72 Ethylene Dibromide	107	6.960	6.960	0.000	98	459103	50.0	51.0	
74 Chlorobenzene	112	7.319	7.319	0.000	93	1121098	50.0	51.5	
77 Ethylbenzene	91	7.386	7.386	0.000	99	1869043	50.0	52.6	
76 1,1,1,2-Tetrachloroethane	131	7.386	7.386	0.000	46	441258	50.0	51.8	
78 m-Xylene & p-Xylene	106	7.477	7.477	0.000	98	721437	50.0	51.5	
79 o-Xylene	106	7.793	7.793	0.000	97	736578	50.0	52.0	
80 Styrene	104	7.811	7.811	0.000	94	1222818	50.0	51.7	
82 Bromoform	173	7.994	7.994	0.000	93	336374	50.0	53.5	
84 Isopropylbenzene	105	8.079	8.079	0.000	97	1806926	50.0	52.8	
85 Bromobenzene	156	8.353	8.353	0.000	95	484471	50.0	51.6	
86 1,1,2,2-Tetrachloroethane	83	8.359	8.359	0.000	96	667934	50.0	51.1	
88 trans-1,4-Dichloro-2-buten	53	8.395	8.395	0.000	78	252871	50.0	51.1	
89 1,2,3-Trichloropropane	110	8.395	8.395	0.000	85	235921	50.0	51.3	
87 N-Propylbenzene	91	8.407	8.407	0.000	99	2025730	50.0	52.0	
90 2-Chlorotoluene	126	8.499	8.499	0.000	95	421135	50.0	51.7	
92 1,3,5-Trimethylbenzene	105	8.547	8.547	0.000	94	1510762	50.0	52.4	
93 4-Chlorotoluene	126	8.584	8.584	0.000	99	439731	50.0	51.4	
94 tert-Butylbenzene	134	8.815	8.815	0.000	92	289602	50.0	51.8	
95 1,2,4-Trimethylbenzene	105	8.857	8.857	0.000	98	1561634	50.0	51.7	
96 sec-Butylbenzene	105	8.991	8.991	0.000	96	1668521	50.0	51.9	
97 4-Isopropyltoluene	119	9.107	9.107	0.000	96	1446531	50.0	52.3	
98 1,3-Dichlorobenzene	146	9.113	9.113	0.000	96	841816	50.0	51.2	
99 1,4-Dichlorobenzene	146	9.186	9.186	0.000	92	878599	50.0	51.3	
100 n-Butylbenzene	91	9.447	9.447	0.000	98	1257844	50.0	52.0	
101 1,2-Dichlorobenzene	146	9.496	9.496	0.000	94	831319	50.0	51.5	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
102 1,2-Dibromo-3-Chloropropan	75	10.153	10.153	0.000	81	190413	50.0	53.0	
103 1,2,4-Trichlorobenzene	180	10.816	10.816	0.000	93	436327	50.0	50.1	
104 Hexachlorobutadiene	225	10.931	10.931	0.000	92	156415	50.0	51.1	
105 Naphthalene	128	11.022	11.022	0.000	98	1726151	50.0	51.3	
106 1,2,3-Trichlorobenzene	180	11.217	11.217	0.000	93	390905	50.0	48.9	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

8260 CORP mix_00107

Amount Added: 25.00

Units: uL

GAS CORP mix_00242

Amount Added: 25.00

Units: uL

Q 624 IS_00049

Amount Added: 1.00

Units: uL

Run Reagent

Q 624 SURR_00050

Amount Added: 1.00

Units: uL

Run Reagent

TestAmerica Buffalo

Data File: \\ChromNA\\Buffalo\\ChromData\\HP5973Q\\20170920-65748.b\\Q2417.D

Injection Date: 20-Sep-2017 14:50:30

Instrument ID: HP5973Q

Lims ID: ICIS 2

Operator ID: RF

Client ID:

Worklist Smp#: 5

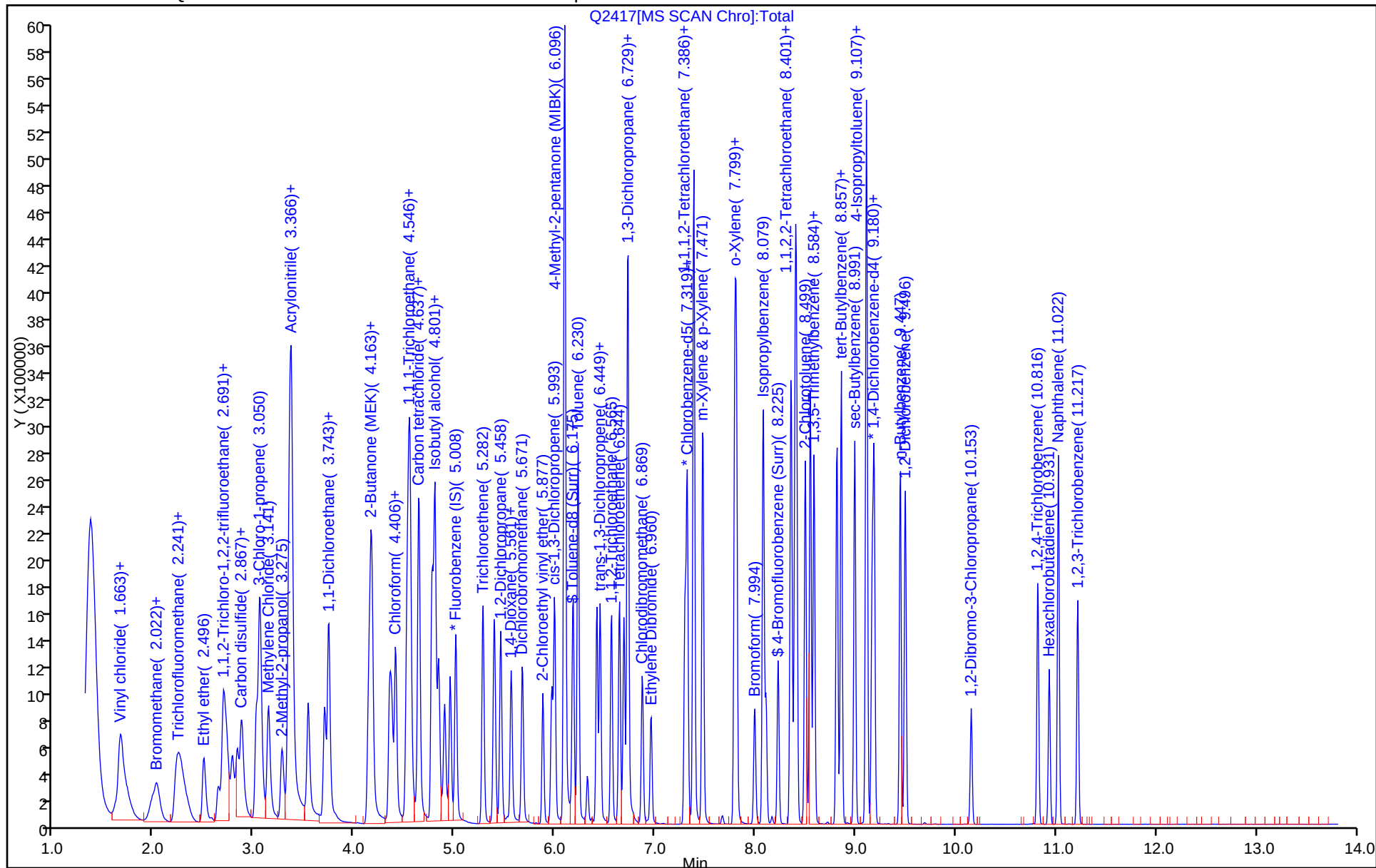
Purge Vol: 5.000 mL

Dil. Factor: 1.0000

ALS Bottle#: 10

Method: Q-624

Limit Group: MV - 624 ICAL UP



TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20170920-65748.b\Q2417.D

Injection Date: 20-Sep-2017 14:50:30

Instrument ID: HP5973Q

Lims ID: ICIS 2

Client ID:

Operator ID: RF

ALS Bottle#:

10

Worklist Smp#: 5

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

Method: Q-624

Limit Group: MV - 624 ICAL UP

Column:

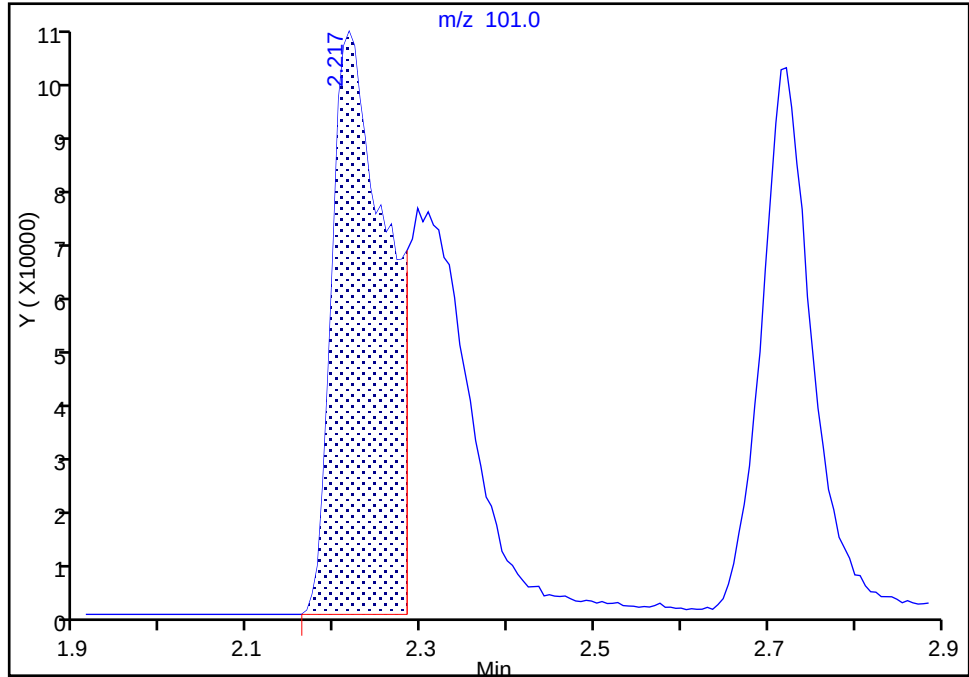
Detector MS SCAN

15 Trichlorofluoromethane, CAS: 75-69-4

Signal: 1

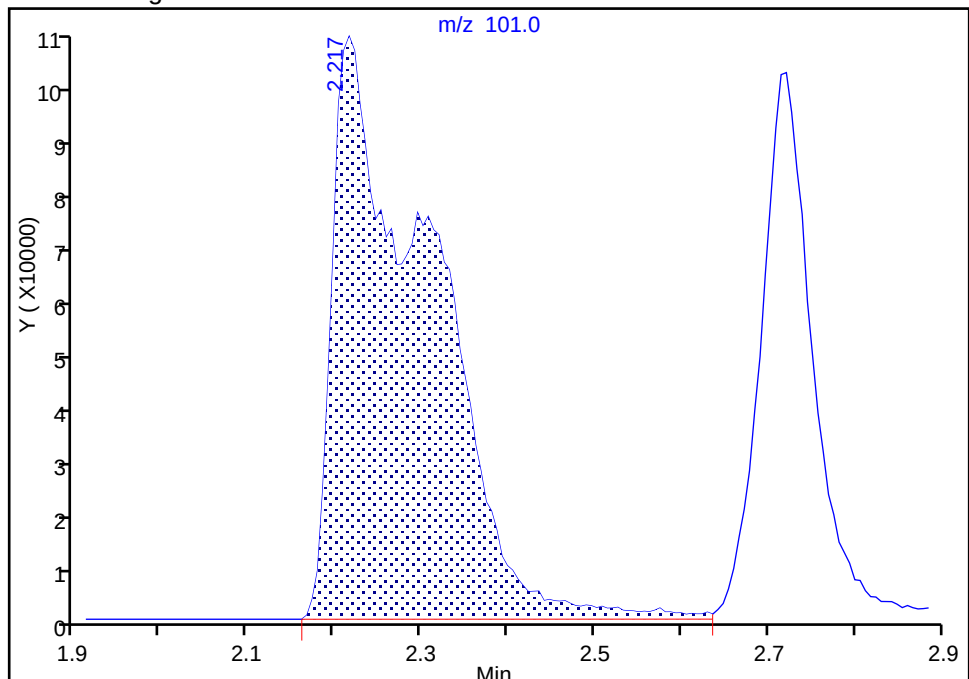
RT: 2.22
Area: 479810
Amount: 35.382789
Amount Units: ug/L

Processing Integration Results



RT: 2.22
Area: 843533
Amount: 52.557402
Amount Units: ug/L

Manual Integration Results



Reviewer: cwiklinc, 21-Sep-2017 10:06:46

Audit Action: Manually Integrated

Audit Reason: Split Peak

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20170920-65748.b\Q2418.D
 Lims ID: IC 3
 Client ID:
 Sample Type: IC Calib Level: 3
 Inject. Date: 20-Sep-2017 15:14:30 ALS Bottle#: 11 Worklist Smp#: 6
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: ic 3
 Misc. Info.: 480-0065748-006
 Operator ID: RF Instrument ID: HP5973Q
 Sublist: chrom-Q-624*sub3
 Method: \\ChromNA\Buffalo\ChromData\HP5973Q\20170920-65748.b\Q-624.m
 Limit Group: MV - 624 ICAL UP
 Last Update: 21-Sep-2017 10:14:38 Calib Date: 20-Sep-2017 15:14:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last Ical File: \\ChromNA\Buffalo\ChromData\HP5973Q\20170920-65748.b\Q2418.D

Column 1 : Det: MS SCAN

Process Host: XAWRK001

First Level Reviewer: farrellr

Date: 20-Sep-2017 15:41:12

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 114 Fluorobenzene (IS)	96	5.011	5.008	0.003	99	1091239	30.0	30.0	
* 2 Chlorobenzene-d5	117	7.297	7.294	0.003	88	723518	30.0	30.0	
* 3 1,4-Dichlorobenzene-d4	152	9.164	9.167	-0.003	97	387125	30.0	30.0	
\$ 115 Dibromofluoromethane (Surr	113	4.530	4.534	-0.004	98	299343	30.0	29.7	
\$ 4 1,2-Dichloroethane-d4 (Sur	65	4.779	4.783	-0.004	98	388103	30.0	29.0	
\$ 5 Toluene-d8 (Surr)	98	6.178	6.182	-0.004	93	962653	30.0	30.0	
\$ 6 4-Bromofluorobenzene (Surr	95	8.228	8.225	0.003	84	358998	30.0	29.2	
9 Dichlorodifluoromethane	85	1.429	1.432	-0.003	99	1256621	100.0	97.5	
11 Chloromethane	50	1.660	1.657	0.003	77	1414019	100.0	98.0	
12 Vinyl chloride	62	1.721	1.730	-0.009	98	1094356	100.0	100.5	
13 Bromomethane	94	1.994	1.985	0.009	93	780133	100.0	97.5	
14 Chloroethane	64	2.031	2.034	-0.003	100	668945	100.0	99.1	
15 Trichlorofluoromethane	101	2.213	2.217	-0.003	97	1662888	100.0	99.8	M
16 Dichlorofluoromethane	67	2.237	2.241	-0.004	97	1673429	100.0	98.4	
17 Ethyl ether	59	2.493	2.496	-0.003	91	833021	100.0	99.5	
18 Acrolein	56	2.639	2.642	-0.003	99	720904	500.0	488.5	
20 1,1-Dichloroethene	96	2.688	2.691	-0.003	97	802492	100.0	98.5	
19 1,1,2-Trichloro-1,2,2-trif	101	2.718	2.721	-0.003	94	852560	100.0	101.9	
21 Acetone	43	2.779	2.782	-0.003	99	1696529	500.0	470.6	
22 Iodomethane	142	2.827	2.831	-0.004	97	1472974	100.0	99.1	
23 Carbon disulfide	76	2.870	2.873	-0.003	100	2543240	100.0	94.0	
25 3-Chloro-1-propene	41	3.016	3.019	-0.003	88	1353407	100.0	98.0	
27 Methylene Chloride	84	3.138	3.141	-0.003	92	954142	100.0	97.5	
28 2-Methyl-2-propanol	59	3.277	3.275	0.002	100	2240381	1000.0	968.9	M
29 Methyl tert-butyl ether	73	3.344	3.342	0.002	95	3183799	100.0	98.6	
30 trans-1,2-Dichloroethene	96	3.350	3.354	-0.004	98	909781	100.0	98.9	
31 Acrylonitrile	53	3.369	3.372	-0.003	97	4784747	1000.0	925.0	
32 1,1-Dichloroethane	63	3.697	3.700	-0.003	96	1640924	100.0	99.0	
34 Vinyl acetate	43	3.740	3.743	-0.003	98	4239667	200.0	194.1	
37 2,2-Dichloropropane	77	4.141	4.138	0.003	87	1306897	100.0	98.3	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
38 cis-1,2-Dichloroethene	96	4.159	4.156	0.003	82	1031109	100.0	99.1	
39 2-Butanone (MEK)	43	4.171	4.175	-0.004	99	3134364	500.0	477.1	
42 Chlorobromomethane	128	4.348	4.351	-0.003	94	512996	100.0	100.3	
44 Tetrahydrofuran	42	4.366	4.369	-0.003	84	935075	200.0	193.5	
45 Chloroform	83	4.409	4.406	0.002	94	1725260	100.0	97.4	
116 1,1,1-Trichloroethane	97	4.518	4.521	-0.003	80	1552051	100.0	99.9	
47 Carbon tetrachloride	117	4.640	4.637	0.003	97	1259752	100.0	102.6	
48 1,1-Dichloropropene	75	4.640	4.643	-0.003	97	1199542	100.0	99.6	
50 Isobutyl alcohol	43	4.773	4.771	0.002	93	1818315	2500.0	2355.8	
49 Benzene	78	4.804	4.801	0.003	98	3206278	100.0	96.7	
51 1,2-Dichloroethane	62	4.840	4.838	0.002	98	1566844	100.0	97.9	
53 Trichloroethene	95	5.278	5.282	-0.004	96	945317	100.0	99.7	
54 1,2-Dichloropropane	63	5.455	5.458	-0.004	91	836275	100.0	99.4	
56 Dibromomethane	93	5.558	5.561	-0.003	93	697751	100.0	100.5	
57 1,4-Dioxane	88	5.558	5.561	-0.003	37	209953	2000.0	1918.2	
58 Dichlorobromomethane	83	5.673	5.671	0.002	98	1319646	100.0	101.1	
60 2-Chloroethyl vinyl ether	63	5.880	5.877	0.003	93	672855	100.0	98.3	
61 cis-1,3-Dichloropropene	75	5.996	5.993	0.003	95	1506934	100.0	102.3	
62 4-Methyl-2-pentanone (MIBK)	43	6.099	6.096	0.003	89	5815024	500.0	441.3	
63 Toluene	92	6.233	6.230	0.003	98	2020594	100.0	99.2	
64 trans-1,3-Dichloropropene	75	6.415	6.419	-0.004	93	1455653	100.0	101.0	
65 Ethyl methacrylate	69	6.452	6.449	0.003	90	1325075	100.0	97.6	
66 1,1,2-Trichloroethane	83	6.561	6.565	-0.004	94	686467	100.0	98.4	
67 Tetrachloroethene	166	6.640	6.644	-0.004	92	774764	100.0	101.7	
68 1,3-Dichloropropane	76	6.689	6.686	0.003	90	1408871	100.0	98.8	
69 2-Hexanone	43	6.726	6.723	0.003	91	4115109	500.0	436.6	
71 Chlorodibromomethane	129	6.871	6.869	0.002	89	1020898	100.0	104.7	
72 Ethylene Dibromide	107	6.957	6.960	-0.003	97	926508	100.0	99.9	
74 Chlorobenzene	112	7.321	7.319	0.002	92	2188072	100.0	97.6	
76 1,1,1,2-Tetrachloroethane	131	7.382	7.386	-0.004	48	895397	100.0	102.1	
77 Ethylbenzene	91	7.382	7.386	-0.004	99	3474889	100.0	95.0	
78 m-Xylene & p-Xylene	106	7.474	7.477	-0.003	98	1426502	100.0	98.8	
79 o-Xylene	106	7.796	7.793	0.003	97	1427760	100.0	97.8	
80 Styrene	104	7.808	7.811	-0.003	94	2394374	100.0	98.2	
82 Bromoform	173	7.990	7.994	-0.004	93	692214	100.0	106.8	
84 Isopropylbenzene	105	8.076	8.079	-0.003	98	3397158	100.0	97.6	
85 Bromobenzene	156	8.355	8.353	0.002	94	960809	100.0	100.6	
86 1,1,2,2-Tetrachloroethane	83	8.361	8.359	0.002	96	1286720	100.0	96.7	
89 1,2,3-Trichloropropane	110	8.398	8.395	0.003	85	467591	100.0	99.9	
88 trans-1,4-Dichloro-2-buten	53	8.398	8.395	0.003	80	482867	100.0	96.0	
87 N-Propylbenzene	91	8.410	8.407	0.003	98	3732900	100.0	94.1	
90 2-Chlorotoluene	126	8.501	8.499	0.002	95	828749	100.0	100.0	
92 1,3,5-Trimethylbenzene	105	8.550	8.547	0.003	94	2817921	100.0	96.1	
93 4-Chlorotoluene	126	8.586	8.584	0.002	98	862654	100.0	99.0	
94 tert-Butylbenzene	134	8.811	8.815	-0.004	92	569050	100.0	100.0	
95 1,2,4-Trimethylbenzene	105	8.854	8.857	-0.003	98	2937248	100.0	95.5	
96 sec-Butylbenzene	105	8.994	8.991	0.003	96	3103679	100.0	94.9	
97 4-Isopropyltoluene	119	9.109	9.107	0.002	96	2673277	100.0	95.0	
98 1,3-Dichlorobenzene	146	9.109	9.113	-0.004	96	1643332	100.0	98.3	
99 1,4-Dichlorobenzene	146	9.182	9.186	-0.004	91	1670175	100.0	95.8	
100 n-Butylbenzene	91	9.444	9.447	-0.003	98	2295082	100.0	93.2	
101 1,2-Dichlorobenzene	146	9.499	9.496	0.003	95	1609142	100.0	98.0	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
102 1,2-Dibromo-3-Chloropropan	75	10.155	10.153	0.002	82	359218	100.0	98.2	
103 1,2,4-Trichlorobenzene	180	10.818	10.816	0.002	94	848022	100.0	95.7	
104 Hexachlorobutadiene	225	10.934	10.931	0.003	92	292937	100.0	94.1	
105 Naphthalene	128	11.025	11.022	0.003	98	3274912	100.0	95.6	
106 1,2,3-Trichlorobenzene	180	11.220	11.217	0.003	94	796067	100.0	97.9	
S 107 1,2-Dichloroethene, Total	1				0			198.0	
S 108 Trihalomethanes, Total	1				0			410.0	
S 109 1,3-Dichloropropene, Total	1				0			203.2	
S 111 Xylenes, Total	1				0			196.6	
S 110 Total BTEX	1				0			487.5	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

8260 CORP mix_00107

Amount Added: 50.00

Units: uL

GAS CORP mix_00242

Amount Added: 50.00

Units: uL

Q 624 IS_00049

Amount Added: 1.00

Units: uL

Run Reagent

Q 624 SURR_00050

Amount Added: 1.00

Units: uL

Run Reagent

TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20170920-65748.b\Q2418.D

Injection Date: 20-Sep-2017 15:14:30

Instrument ID: HP5973Q

Lims ID: IC 3

Client ID:

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

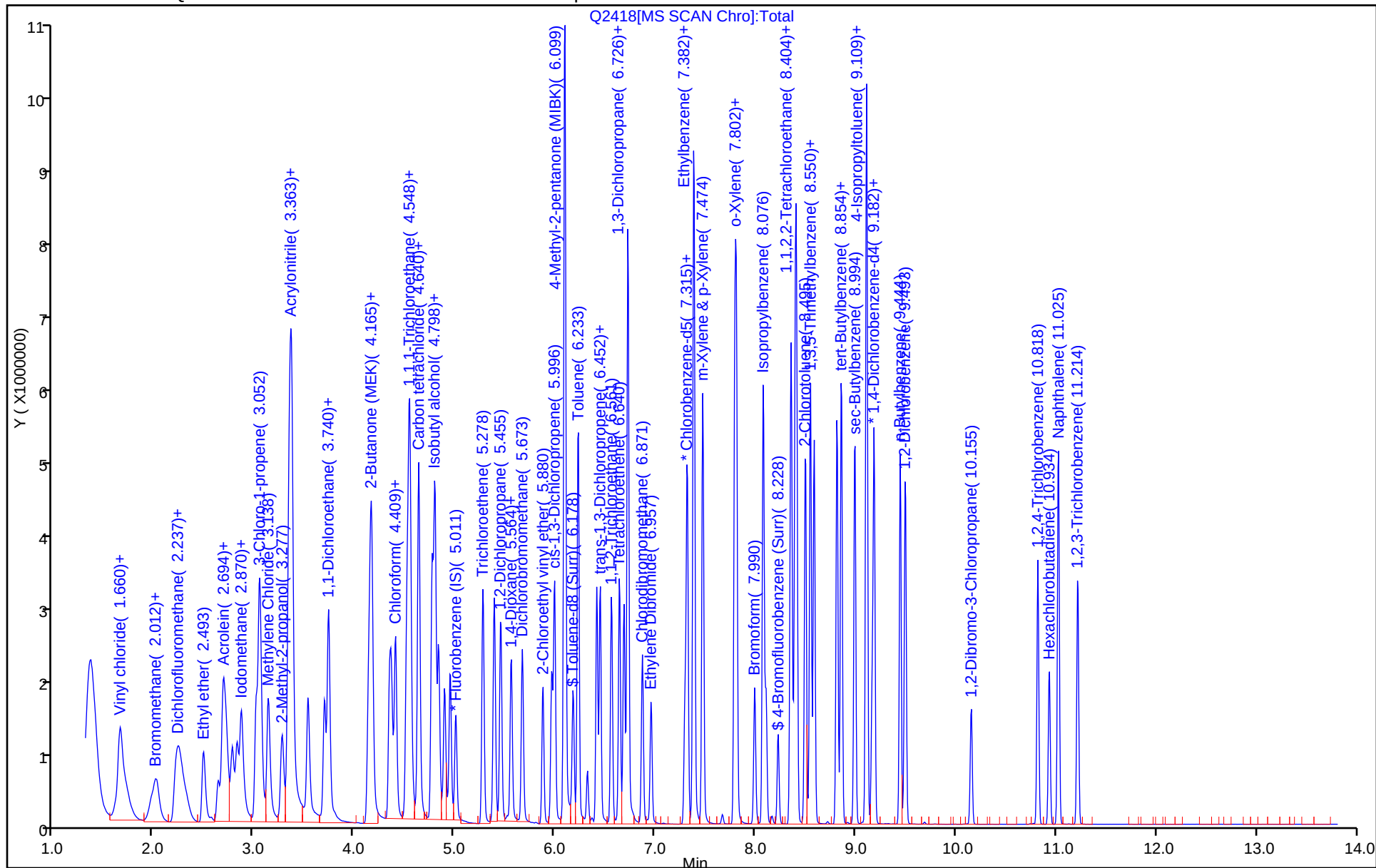
Method: Q-624

Limit Group: MV - 624 ICAL UP

Operator ID: RF

Worklist Smp#: 6

ALS Bottle#: 11



TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20170920-65748.b\Q2418.D

Injection Date: 20-Sep-2017 15:14:30

Instrument ID: HP5973Q

Lims ID: IC 3

Client ID:

Operator ID: RF

ALS Bottle#: 11

Worklist Smp#: 6

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

Method: Q-624

Limit Group: MV - 624 ICAL UP

Column:

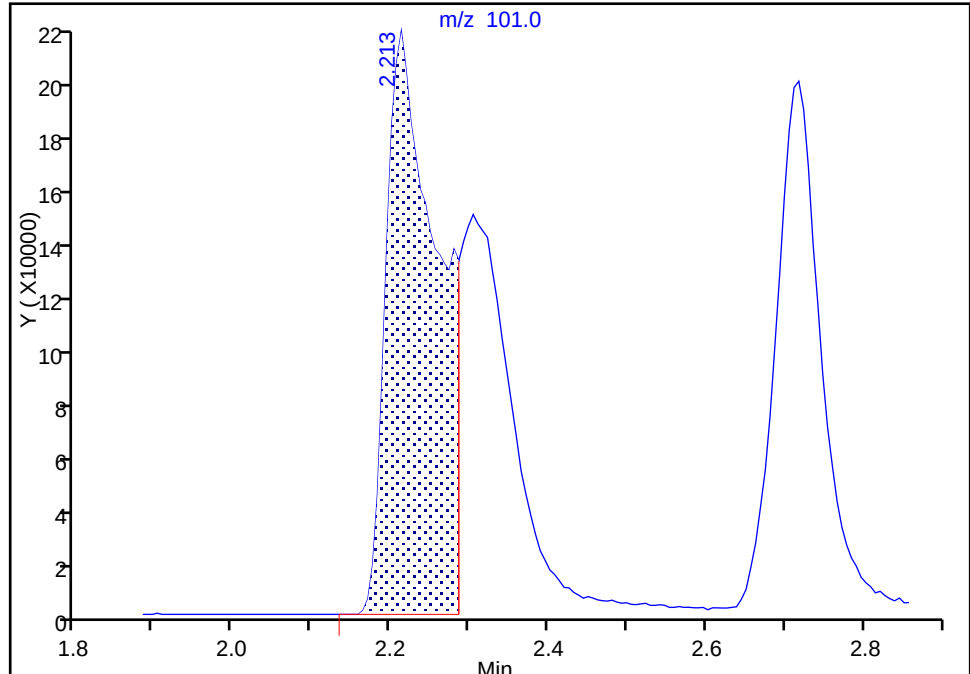
Detector MS SCAN

15 Trichlorofluoromethane, CAS: 75-69-4

Signal: 1

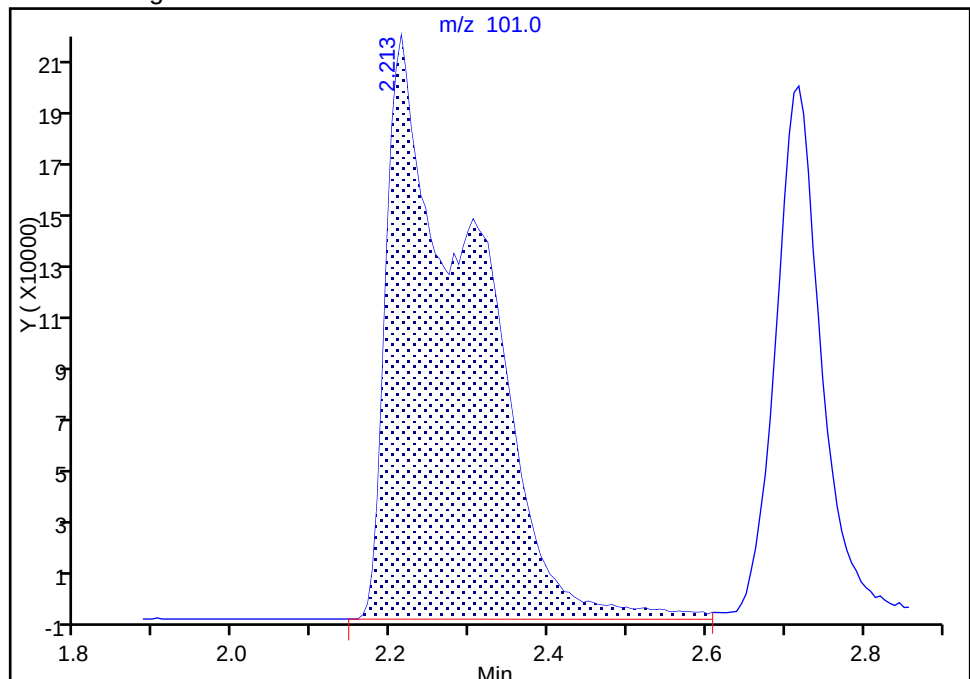
RT: 2.21
Area: 989237
Amount: 68.608452
Amount Units: ug/L

Processing Integration Results



RT: 2.21
Area: 1662888
Amount: 99.788700
Amount Units: ug/L

Manual Integration Results



Reviewer: cwiklinc, 21-Sep-2017 10:11:13

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20170920-65748.b\Q2418.D

Injection Date: 20-Sep-2017 15:14:30

Instrument ID: HP5973Q

Lims ID: IC 3

Client ID:

Operator ID: RF

ALS Bottle#:

11

Worklist Smp#: 6

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

Method: Q-624

Limit Group: MV - 624 ICAL UP

Column:

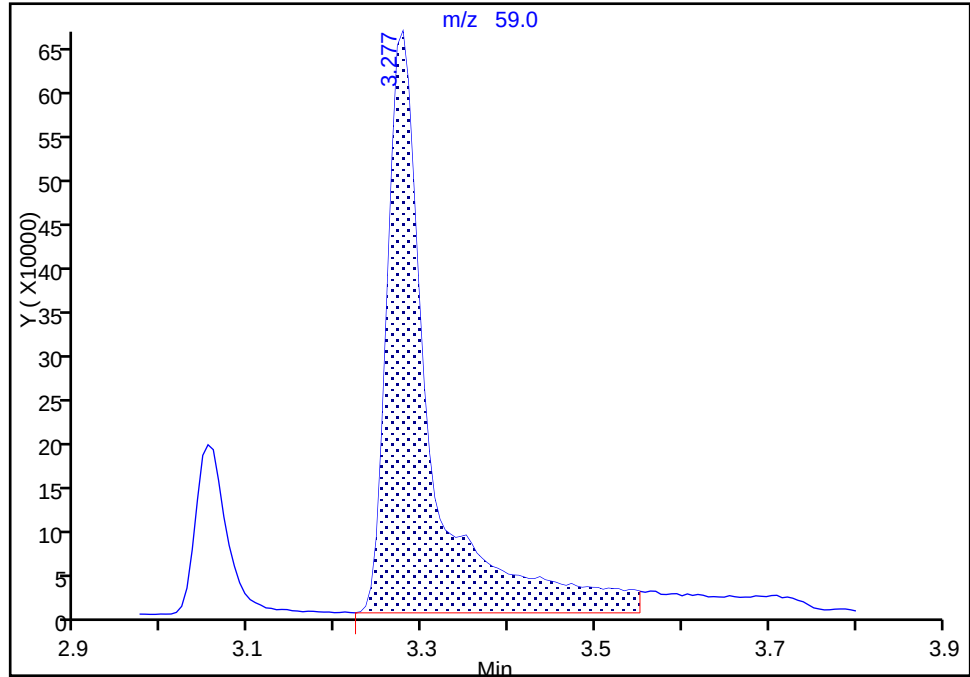
Detector MS SCAN

28 2-Methyl-2-propanol, CAS: 75-65-0

Signal: 1

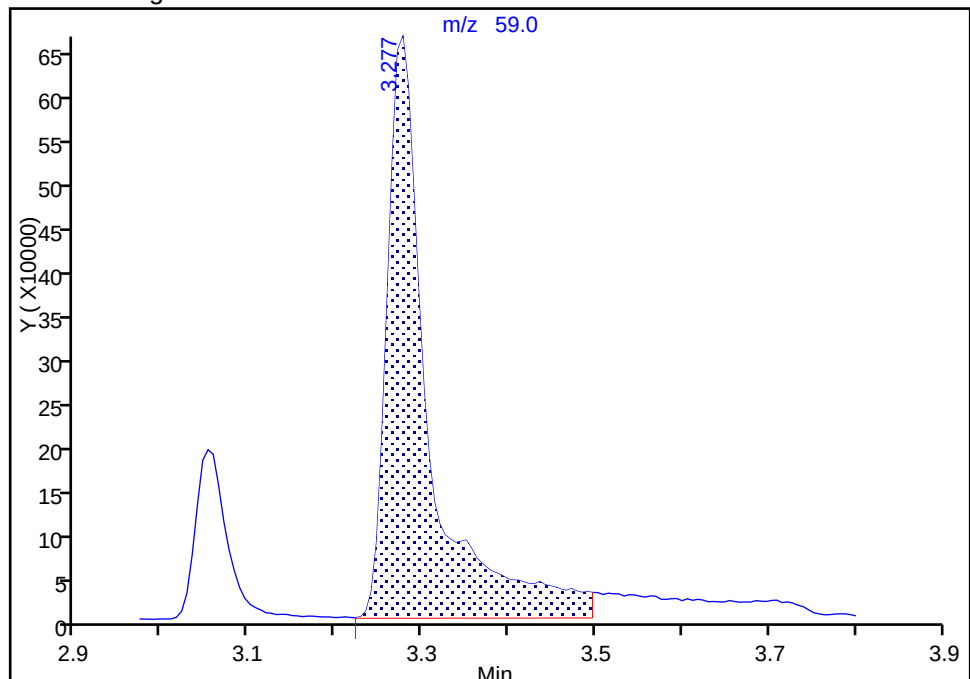
RT: 3.28
Area: 2319419
Amount: 991.8057
Amount Units: ug/L

Processing Integration Results



RT: 3.28
Area: 2240381
Amount: 968.9240
Amount Units: ug/L

Manual Integration Results



Reviewer: cwklinc, 21-Sep-2017 10:11:59

Audit Action: Manually Integrated

Audit Reason: Other

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Buffalo Job No.: 480-125692-1
 SDG No.: _____
 Lab Sample ID: CCVIS 480-381520/4 Calibration Date: 10/12/2017 14:49
 Instrument ID: HP5973Q Calib Start Date: 09/20/2017 14:27
 GC Column: ZB-624 (20) ID: 0.18 (mm) Calib End Date: 09/20/2017 15:14
 Lab File ID: Q2804.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3544	0.3268		18.4	20.0	-7.8	100.0
Chloromethane	Ave	0.3965	0.4235		21.4	20.0	6.8	99.0
Vinyl chloride	Ave	0.2993	0.3062		20.5	20.0	2.3	96.0
Bromomethane	Ave	0.2200	0.2191		19.9	20.0	-0.4	86.0
Chloroethane	Ave	0.1856	0.2068		22.3	20.0	11.4	62.0
Trichlorofluoromethane	Ave	0.4581	0.4861		21.2	20.0	6.1	52.0
Dichlorofluoromethane	Ave	0.4676	0.5057		21.6	20.0	8.1	100.0
Ethyl ether	Ave	0.2302	0.2391		20.8	20.0	3.9	100.0
Acrolein	Ave	0.0406	0.0489		120	100	20.5	100.0
1,1-Dichloroethene	Ave	0.2240	0.2388		21.3	20.0	6.6	49.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2301	0.2363		20.5	20.0	2.7	100.0
Acetone	Ave	0.0991	0.1706		172	100	72.1	100.0
Iodomethane	Ave	0.4087	0.4252		20.8	20.0	4.0	100.0
Carbon disulfide	Ave	0.7438	0.7765		20.9	20.0	4.4	100.0
Allyl chloride	Ave	0.3798	0.3845		20.2	20.0	1.2	100.0
Methylene Chloride	Ave	0.2691	0.2917		21.7	20.0	8.4	39.5
t-Butanol	Ave	0.0636	0.0798		251	200	25.5	100.0
Methyl tert-butyl ether	Ave	0.8880	0.9595		21.6	20.0	8.1	100.0
trans-1,2-Dichloroethene	Ave	0.2529	0.2691		21.3	20.0	6.4	30.5
Acrylonitrile	Ave	0.1422	0.1557		219	200	9.5	100.0
1,1-Dichloroethane	Ave	0.4559	0.4941		21.7	20.0	8.4	27.5
Vinyl acetate	Ave	0.6005	0.6338		42.2	40.0	5.6	100.0
2,2-Dichloropropane	Ave	0.3656	0.4046		22.1	20.0	10.7	100.0
cis-1,2-Dichloroethene	Ave	0.2860	0.3039		21.2	20.0	6.2	100.0
2-Butanone (MEK)	Ave	0.1806	0.2165		120	100	19.9	100.0
Bromochloromethane	Ave	0.1407	0.1464		20.8	20.0	4.1	100.0
Tetrahydrofuran	Ave	0.1328	0.1417		42.7	40.0	6.7	100.0
Chloroform	Ave	0.4868	0.5091		20.9	20.0	4.6	32.5
1,1,1-Trichloroethane	Ave	0.4270	0.4324		20.2	20.0	1.2	25.0
1,1-Dichloropropene	Ave	0.3310	0.3620		21.9	20.0	9.4	100.0
Carbon tetrachloride	Ave	0.3376	0.3362		19.9	20.0	-0.4	27.0
Isobutyl alcohol	Ave	0.0320	0.0391		610	500	22.1	100.0
Benzene	Ave	0.9119	0.996		21.8	20.0	9.2	36.0
1,2-Dichloroethane	Ave	0.4398	0.4569		20.8	20.0	3.9	32.0
Trichloroethene	Ave	0.2606	0.2771		21.3	20.0	6.4	33.5
1,2-Dichloropropane	Ave	0.2313	0.2442		21.1	20.0	5.6	66.0
Dibromomethane	Ave	0.1909	0.1979		20.7	20.0	3.6	100.0
1,4-Dioxane	Ave	0.0045	0.0066		581	400	45.3	100.0
Dichlorobromomethane	Ave	0.3589	0.3790		21.1	20.0	5.6	34.5
2-Chloroethyl vinyl ether	Ave	0.1881	0.1796		19.1	20.0	-4.5	99.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Buffalo Job No.: 480-125692-1
 SDG No.: _____
 Lab Sample ID: CCVIS 480-381520/4 Calibration Date: 10/12/2017 14:49
 Instrument ID: HP5973Q Calib Start Date: 09/20/2017 14:27
 GC Column: ZB-624 (20) ID: 0.18 (mm) Calib End Date: 09/20/2017 15:14
 Lab File ID: Q2804.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
cis-1,3-Dichloropropene	Ave	0.4051	0.4010		19.8	20.0	-1.0	76.0
4-Methyl-2-pentanone (MIBK)	Ave	0.5464	0.6044		111	100	10.6	100.0
Toluene	Ave	0.8449	0.8982		21.3	20.0	6.3	25.5
trans-1,3-Dichloropropene	Ave	0.5978	0.5911		19.8	20.0	-1.1	50.0
Ethyl methacrylate	Ave	0.5628	0.5728		20.4	20.0	1.8	100.0
1,1,2-Trichloroethane	Ave	0.2892	0.2981		20.6	20.0	3.1	29.0
Tetrachloroethene	Ave	0.3158	0.3194		20.2	20.0	1.1	26.5
1,3-Dichloropropane	Ave	0.5914	0.6238		21.1	20.0	5.5	100.0
2-Hexanone	Ave	0.3908	0.4254		109	100	8.8	100.0
Chlorodibromomethane	Ave	0.4043	0.3891		19.3	20.0	-3.7	32.5
1,2-Dibromoethane	Ave	0.3846	0.3918		20.4	20.0	1.9	100.0
Chlorobenzene	Ave	0.9294	0.9712		20.9	20.0	4.5	34.0
1,1,1,2-Tetrachloroethane	Ave	0.3635	0.3722		20.5	20.0	2.4	100.0
Ethylbenzene	Ave	1.517	1.659		21.9	20.0	9.4	41.0
m-Xylene & p-Xylene	Ave	0.5985	0.6253		20.9	20.0	4.5	100.0
o-Xylene	Ave	0.6052	0.6439		21.3	20.0	6.4	100.0
Styrene	Ave	1.011	1.073		21.2	20.0	6.2	100.0
Bromoform	Ave	0.2688	0.2481		18.5	20.0	-7.7	29.0
Isopropylbenzene	Ave	2.697	2.830		21.0	20.0	4.9	100.0
Bromobenzene	Ave	0.7405	0.7532		20.3	20.0	1.7	100.0
1,1,2,2-Tetrachloroethane	Ave	1.031	1.105		21.4	20.0	7.2	39.5
1,2,3-Trichloropropane	Ave	0.3627	0.3751		20.7	20.0	3.4	100.0
trans-1,4-Dichloro-2-butene	Ave	0.3899	0.3808		19.5	20.0	-2.4	100.0
N-Propylbenzene	Ave	3.075	3.317		21.6	20.0	7.9	100.0
2-Chlorotoluene	Ave	0.6422	0.6832		21.3	20.0	6.4	100.0
1,3,5-Trimethylbenzene	Ave	2.273	2.441		21.5	20.0	7.4	100.0
4-Chlorotoluene	Ave	0.6753	0.7174		21.2	20.0	6.2	100.0
tert-Butylbenzene	Ave	0.4409	0.4421		20.1	20.0	0.3	100.0
1,2,4-Trimethylbenzene	Ave	2.384	2.577		21.6	20.0	8.1	100.0
sec-Butylbenzene	Ave	2.533	2.578		20.4	20.0	1.8	100.0
4-Isopropyltoluene	Ave	2.180	2.262		20.7	20.0	3.7	100.0
1,3-Dichlorobenzene	Ave	1.296	1.369		21.1	20.0	5.6	27.0
1,4-Dichlorobenzene	Ave	1.350	1.415		21.0	20.0	4.8	37.0
n-Butylbenzene	Ave	1.908	2.027		21.2	20.0	6.2	100.0
1,2-Dichlorobenzene	Ave	1.272	1.330		20.9	20.0	4.6	37.0
1,2-Dibromo-3-Chloropropane	Ave	0.2836	0.2818		19.9	20.0	-0.6	100.0
1,2,4-Trichlorobenzene	Ave	0.6866	0.7095		20.7	20.0	3.3	100.0
Hexachlorobutadiene	Ave	0.2414	0.2284		18.9	20.0	-5.4	100.0
Naphthalene	Ave	2.655	2.653		20.0	20.0	-0.0	100.0
1,2,3-Trichlorobenzene	Ave	0.6299	0.6344		20.1	20.0	0.7	100.0
Dibromofluoromethane (Surr)	Ave	0.2770	0.2696		29.2	30.0	-2.7	100.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Buffalo Job No.: 480-125692-1
SDG No.: _____
Lab Sample ID: CCVIS 480-381520/4 Calibration Date: 10/12/2017 14:49
Instrument ID: HP5973Q Calib Start Date: 09/20/2017 14:27
GC Column: ZB-624 (20) ID: 0.18 (mm) Calib End Date: 09/20/2017 15:14
Lab File ID: Q2804.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dichloroethane-d4 (Surr)	Ave	0.3675	0.3613		29.5	30.0	-1.7	100.0
Toluene-d8 (Surr)	Ave	1.332	1.310		29.5	30.0	-1.7	100.0
4-Bromofluorobenzene (Surr)	Ave	0.5096	0.5105		30.1	30.0	0.2	100.0

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q2804.D
 Lims ID: CCVIS
 Client ID:
 Sample Type: CCVIS
 Inject. Date: 12-Oct-2017 14:49:30 ALS Bottle#: 5 Worklist Smp#: 4
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: ccvis
 Misc. Info.: 480-0066342-004
 Operator ID: RF/RB Instrument ID: HP5973Q
 Sublist: chrom-Q-624*sub3
 Method: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q-624.m
 Limit Group: MV - 624 ICAL UP
 Last Update: 12-Oct-2017 15:48:35 Calib Date: 20-Sep-2017 15:14:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last Ical File: \\ChromNA\Buffalo\ChromData\HP5973Q\20170920-65748.b\Q2418.D

Column 1 : Det: MS SCAN

Process Host: XAWRK003

First Level Reviewer: farrellr

Date: 12-Oct-2017 15:48:35

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 114 Fluorobenzene (IS)	96	5.009	5.009	0.000	99	1021484	30.0	30.0	
* 2 Chlorobenzene-d5	117	7.296	7.296	0.000	89	650842	30.0	30.0	
* 3 1,4-Dichlorobenzene-d4	152	9.163	9.163	0.000	97	357162	30.0	30.0	
\$ 115 Dibromofluoromethane (Surr	113	4.529	4.529	0.000	98	275388	30.0	29.2	
\$ 4 1,2-Dichloroethane-d4 (Sur	65	4.778	4.778	0.000	98	369077	30.0	29.5	
\$ 5 Toluene-d8 (Surr)	98	6.177	6.177	0.000	94	852611	30.0	29.5	
\$ 6 4-Bromofluorobenzene (Surr	95	8.226	8.226	0.000	82	332242	30.0	30.1	
9 Dichlorodifluoromethane	85	1.428	1.428	0.000	99	222553	20.0	18.4	
11 Chloromethane	50	1.653	1.653	0.000	98	288420	20.0	21.4	
12 Vinyl chloride	62	1.719	1.719	0.000	97	208492	20.0	20.5	
13 Bromomethane	94	1.981	1.981	0.000	92	149210	20.0	19.9	
14 Chloroethane	64	2.036	2.036	0.000	100	140801	20.0	22.3	
15 Trichlorofluoromethane	101	2.206	2.206	0.000	97	331009	20.0	21.2	M
16 Dichlorofluoromethane	67	2.249	2.249	0.000	97	344349	20.0	21.6	
17 Ethyl ether	59	2.492	2.492	0.000	92	162812	20.0	20.8	
18 Acrolein	56	2.638	2.638	0.000	100	166406	100.0	120.5	
20 1,1-Dichloroethene	96	2.686	2.686	0.000	96	162622	20.0	21.3	
19 1,1,2-Trichloro-1,2,2-trif	101	2.723	2.723	0.000	94	160928	20.0	20.5	
21 Acetone	43	2.784	2.784	0.000	99	580768	100.0	172.1	
22 Iodomethane	142	2.826	2.826	0.000	97	289525	20.0	20.8	
23 Carbon disulfide	76	2.869	2.869	0.000	100	528783	20.0	20.9	
25 3-Chloro-1-propene	41	3.015	3.015	0.000	88	261865	20.0	20.2	
27 Methylene Chloride	84	3.136	3.136	0.000	93	198613	20.0	21.7	
28 2-Methyl-2-propanol	59	3.282	3.282	0.000	100	543420	200.0	251.1	
30 trans-1,2-Dichloroethene	96	3.343	3.343	0.000	96	183234	20.0	21.3	
29 Methyl tert-butyl ether	73	3.343	3.343	0.000	95	653435	20.0	21.6	
31 Acrylonitrile	53	3.368	3.368	0.000	98	1060600	200.0	219.0	
32 1,1-Dichloroethane	63	3.696	3.696	0.000	97	336441	20.0	21.7	
34 Vinyl acetate	43	3.738	3.738	0.000	97	863272	40.0	42.2	
37 2,2-Dichloropropane	77	4.134	4.134	0.000	90	275526	20.0	22.1	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
38 cis-1,2-Dichloroethene	96	4.158	4.158	0.000	83	206930	20.0	21.2	
39 2-Butanone (MEK)	43	4.176	4.176	0.000	100	737162	100.0	119.9	
42 Chlorobromomethane	128	4.347	4.347	0.000	96	99683	20.0	20.8	
44 Tetrahydrofuran	42	4.371	4.371	0.000	86	193034	40.0	42.7	
45 Chloroform	83	4.407	4.407	0.000	94	346689	20.0	20.9	
116 1,1,1-Trichloroethane	97	4.517	4.517	0.000	87	294424	20.0	20.2	
48 1,1-Dichloropropene	75	4.638	4.638	0.000	96	246528	20.0	21.9	
47 Carbon tetrachloride	117	4.638	4.638	0.000	93	228955	20.0	19.9	
50 Isobutyl alcohol	43	4.772	4.772	0.000	94	423734	500.0	610.3	
49 Benzene	78	4.797	4.797	0.000	98	678103	20.0	21.8	
51 1,2-Dichloroethane	62	4.839	4.839	0.000	98	311114	20.0	20.8	
53 Trichloroethene	95	5.277	5.277	0.000	95	188723	20.0	21.3	
54 1,2-Dichloropropane	63	5.453	5.453	0.000	91	166315	20.0	21.1	
56 Dibromomethane	93	5.557	5.557	0.000	92	134757	20.0	20.7	
57 1,4-Dioxane	88	5.563	5.563	0.000	46	57206	400.0	581.0	
58 Dichlorobromomethane	83	5.672	5.672	0.000	99	258123	20.0	21.1	
60 2-Chloroethyl vinyl ether	63	5.879	5.879	0.000	93	122315	20.0	19.1	
61 cis-1,3-Dichloropropene	75	5.995	5.995	0.000	95	273103	20.0	19.8	
62 4-Methyl-2-pentanone (MIBK)	43	6.092	6.092	0.000	95	1311244	100.0	110.6	
63 Toluene	92	6.226	6.226	0.000	98	389711	20.0	21.3	
64 trans-1,3-Dichloropropene	75	6.414	6.414	0.000	93	256481	20.0	19.8	
65 Ethyl methacrylate	69	6.451	6.451	0.000	90	248517	20.0	20.4	
66 1,1,2-Trichloroethane	83	6.560	6.560	0.000	95	129363	20.0	20.6	
67 Tetrachloroethene	166	6.639	6.639	0.000	90	138585	20.0	20.2	
68 1,3-Dichloropropane	76	6.688	6.688	0.000	89	270662	20.0	21.1	
69 2-Hexanone	43	6.724	6.724	0.000	95	922898	100.0	108.8	
71 Chlorodibromomethane	129	6.870	6.870	0.000	90	168839	20.0	19.3	
72 Ethylene Dibromide	107	6.955	6.955	0.000	98	170018	20.0	20.4	
74 Chlorobenzene	112	7.320	7.320	0.000	96	421375	20.0	20.9	
77 Ethylbenzene	91	7.381	7.381	0.000	99	719964	20.0	21.9	
76 1,1,1,2-Tetrachloroethane	131	7.381	7.381	0.000	45	161514	20.0	20.5	
78 m-Xylene & p-Xylene	106	7.472	7.472	0.000	98	271332	20.0	20.9	
79 o-Xylene	106	7.795	7.795	0.000	97	279373	20.0	21.3	
80 Styrene	104	7.807	7.807	0.000	94	465481	20.0	21.2	
82 Bromoform	173	7.989	7.989	0.000	92	107663	20.0	18.5	
84 Isopropylbenzene	105	8.074	8.074	0.000	96	673746	20.0	21.0	
85 Bromobenzene	156	8.348	8.348	0.000	98	179340	20.0	20.3	
86 1,1,2,2-Tetrachloroethane	83	8.354	8.354	0.000	94	263142	20.0	21.4	
89 1,2,3-Trichloropropane	110	8.391	8.391	0.000	86	89319	20.0	20.7	
88 trans-1,4-Dichloro-2-buten	53	8.397	8.397	0.000	76	90662	20.0	19.5	
87 N-Propylbenzene	91	8.409	8.409	0.000	98	789890	20.0	21.6	
90 2-Chlorotoluene	126	8.494	8.494	0.000	95	162665	20.0	21.3	
92 1,3,5-Trimethylbenzene	105	8.543	8.543	0.000	93	581192	20.0	21.5	
93 4-Chlorotoluene	126	8.579	8.579	0.000	99	170806	20.0	21.2	
94 tert-Butylbenzene	134	8.810	8.810	0.000	92	105271	20.0	20.1	
95 1,2,4-Trimethylbenzene	105	8.853	8.853	0.000	97	613534	20.0	21.6	
96 sec-Butylbenzene	105	8.987	8.987	0.000	95	613933	20.0	20.4	
97 4-Isopropyltoluene	119	9.102	9.102	0.000	96	538562	20.0	20.7	
98 1,3-Dichlorobenzene	146	9.108	9.108	0.000	96	325919	20.0	21.1	
99 1,4-Dichlorobenzene	146	9.181	9.181	0.000	91	336908	20.0	21.0	
100 n-Butylbenzene	91	9.443	9.443	0.000	99	482582	20.0	21.2	
101 1,2-Dichlorobenzene	146	9.491	9.491	0.000	94	316785	20.0	20.9	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
102 1,2-Dibromo-3-Chloropropan	75	10.154	10.154	0.000	79	67090	20.0	19.9	
103 1,2,4-Trichlorobenzene	180	10.817	10.817	0.000	93	168943	20.0	20.7	
104 Hexachlorobutadiene	225	10.933	10.933	0.000	91	54372	20.0	18.9	
105 Naphthalene	128	11.024	11.024	0.000	98	631783	20.0	20.0	
106 1,2,3-Trichlorobenzene	180	11.212	11.212	0.000	94	151048	20.0	20.1	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

GAS CORP mix_00245

Amount Added: 10.00

Units: uL

8260 CORP mix_00111

Amount Added: 10.00

Units: uL

Q 624 IS_00056

Amount Added: 1.00

Units: uL

Run Reagent

Q 624 SURR_00051

Amount Added: 1.00

Units: uL

Run Reagent

TestAmerica Buffalo

Data File: \\ChromNA\\Buffalo\\ChromData\\HP5973Q\\20171012-66342.b\\Q2804.D

Injection Date: 12-Oct-2017 14:49:30

Instrument ID: HP5973Q

Lims ID: CCVIS

Operator ID: RF/RB

Client ID:

Worklist Smp#: 4

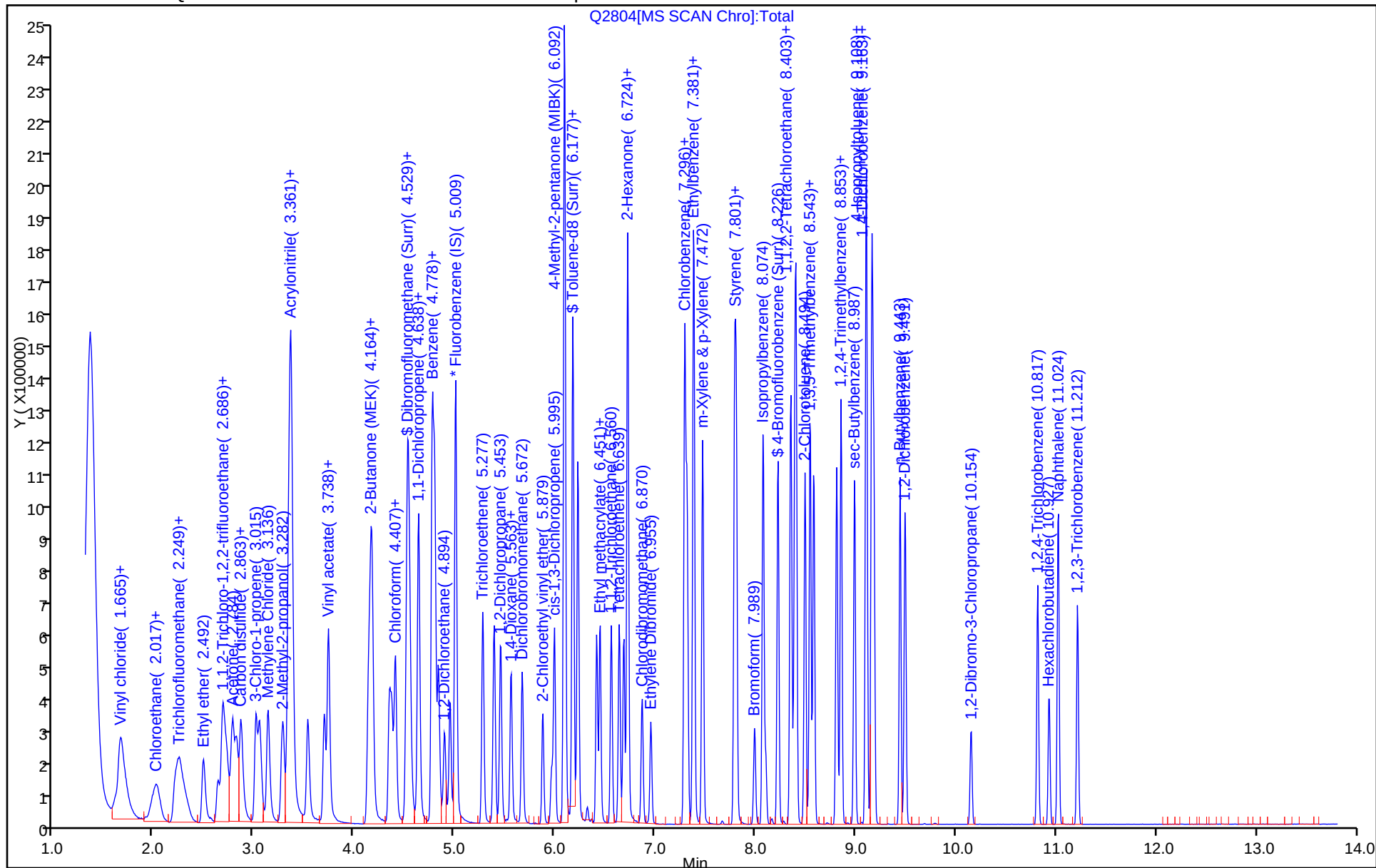
Purge Vol: 5.000 mL

Dil. Factor: 1.0000

ALS Bottle#: 5

Method: Q-624

Limit Group: MV - 624 ICAL UP



TestAmerica Buffalo

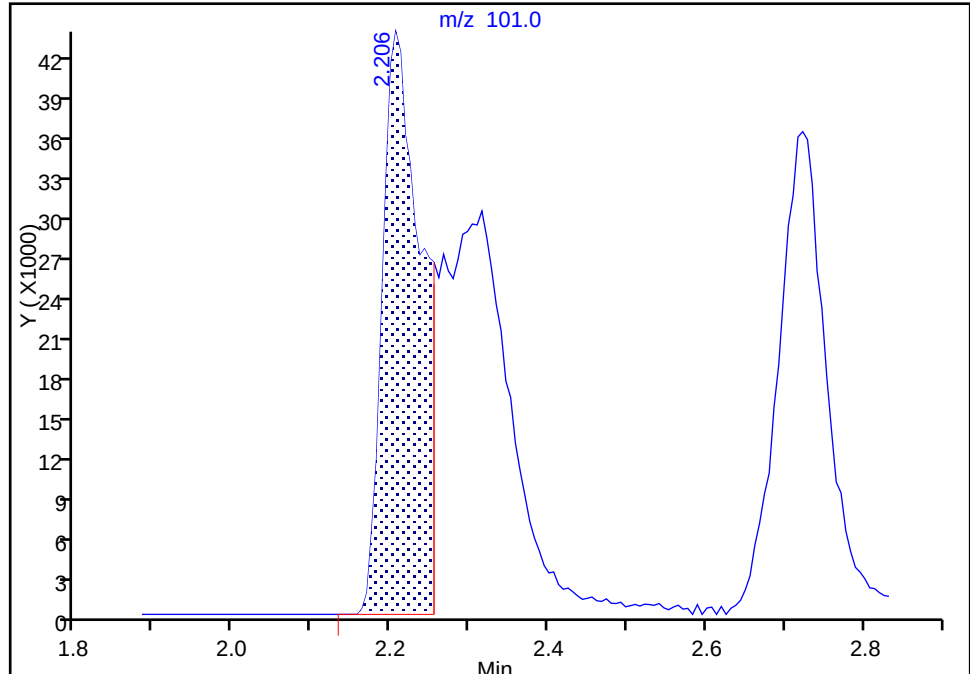
Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q2804.D
Injection Date: 12-Oct-2017 14:49:30 Instrument ID: HP5973Q
Lims ID: CCVIS
Client ID:
Operator ID: RF/RB ALS Bottle#: 5 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: Q-624 Limit Group: MV - 624 ICAL UP
Column: Detector MS SCAN

15 Trichlorofluoromethane, CAS: 75-69-4

Signal: 1

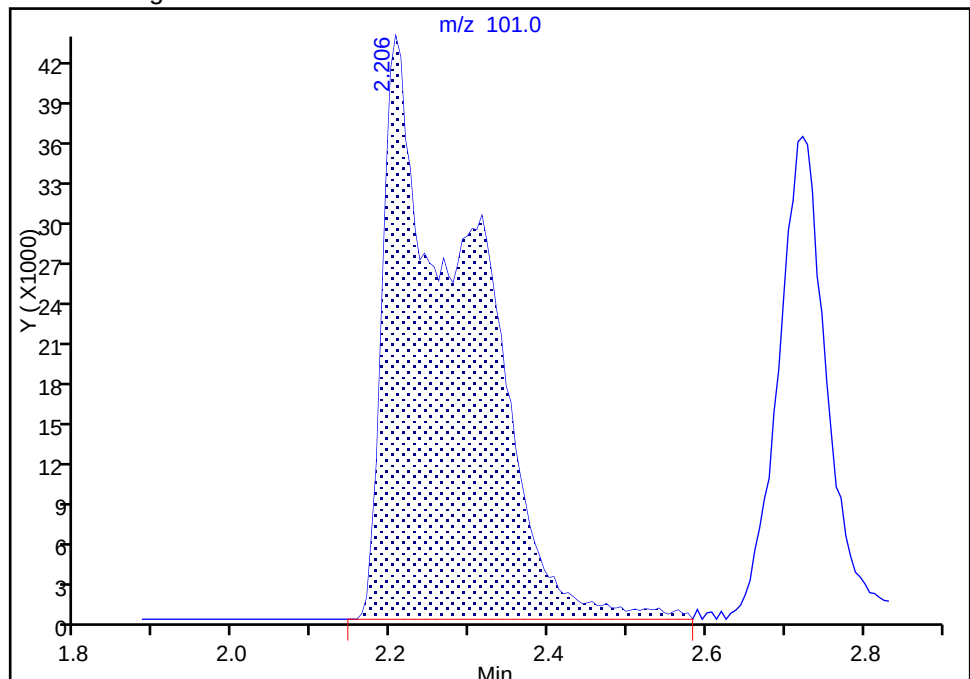
RT: 2.21
Area: 149714
Amount: 9.597742
Amount Units: ug/L

Processing Integration Results



RT: 2.21
Area: 331009
Amount: 21.220054
Amount Units: ug/L

Manual Integration Results



Reviewer: farrellr, 12-Oct-2017 15:47:53
Audit Action: Manually Integrated

Audit Reason: Poor chromatography
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10/24/2017

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20170920-65748.b\Q2414.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 20-Sep-2017 13:37:30 ALS Bottle#: 7 Worklist Smp#: 2
Injection Vol: 1.0 uL Dil. Factor: 1.0000
Sample Info: bfb
Misc. Info.: 480-0065748-002
Operator ID: RF Instrument ID: HP5973Q
Method: \\ChromNA\Buffalo\ChromData\HP5973Q\20170920-65748.b\Q-624.m
Limit Group: MV - 624 ICAL UP
Last Update: 20-Sep-2017 13:46:34 Calib Date: 19-Sep-2017 17:15:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Buffalo\ChromData\HP5973Q\20170919-65717.b\Q2405.D
Column 1 : Det: MS SCAN
Process Host: XAWRK011

First Level Reviewer: farrellr

Date: 20-Sep-2017 13:46:34

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags

36 BFB

Reagents:

BFB_WRK_00064

Amount Added: 1.00

Units: uL

TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20170920-65748.b\Q2414.D

Injection Date: 20-Sep-2017 13:37:30

Instrument ID: HP5973Q

Lims ID: BFB

Client ID:

Operator ID: RF

ALS Bottle#: 7 Worklist Smp#: 2

Injection Vol: 1.0 uL

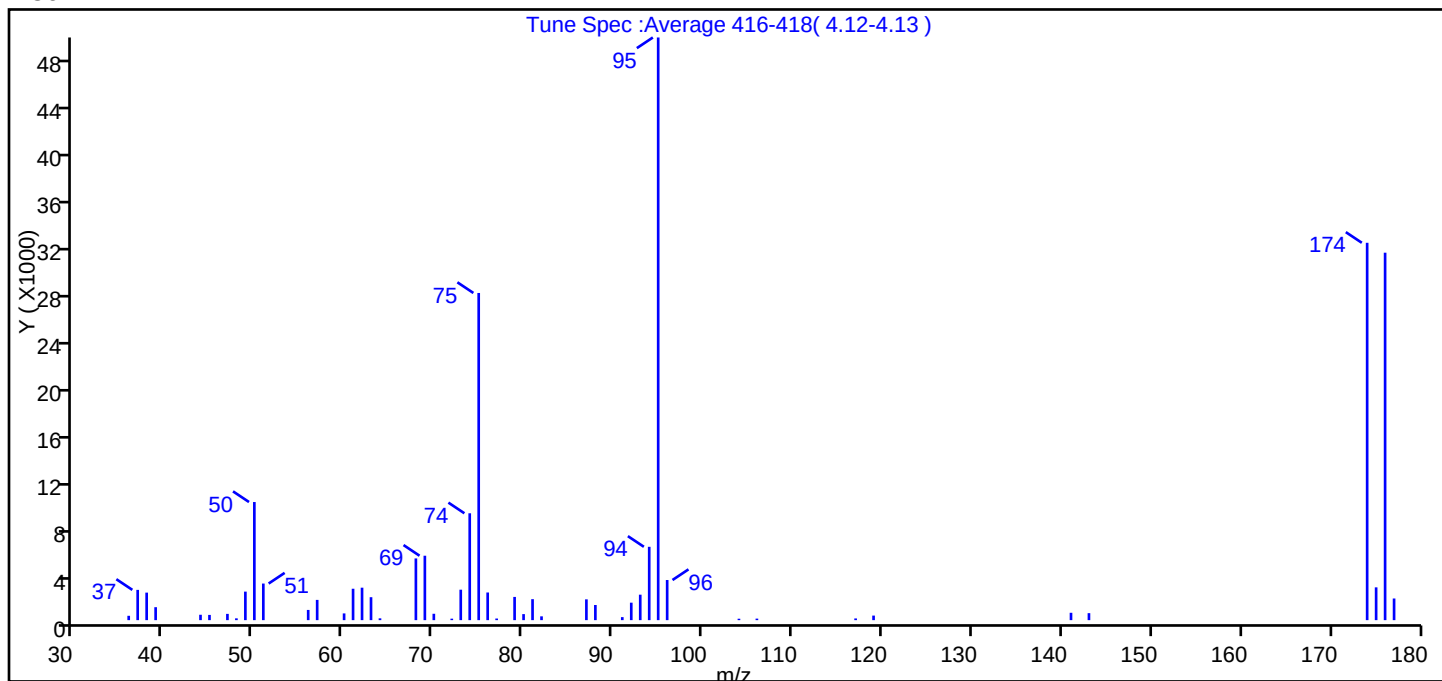
Dil. Factor: 1.0000

Method: Q-624

Limit Group: MV - 624 ICAL UP

Tune Method: BFB Method 624

36 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% Relative Abundance	100.0
50	15-40% of mass 95	20.3
75	30-60% of mass 95	56.2
96	5-9% of mass 95	6.9
173	<2% of mass 174	0.0 (0.0)
174	>50% of mass 95	64.8
175	5-9% of mass 174	5.6 (8.7)
176	>95% but <101% of mass 174	63.1 (97.4)
177	5-9% of mass 176	3.7 (5.9)

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20170920-65748.b\Q2414.D\Q-624.rslt\spectra.d
Injection Date: 20-Sep-2017 13:37:30
Spectrum: Tune Spec :Average 416-418(4.12-4.13)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 49

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	372	60.00	576	77.00	138	104.00	121
37.00	2591	61.00	2688	79.00	1988	106.00	130
38.00	2356	62.00	2779	80.00	517	117.00	146
39.00	1109	63.00	1964	81.00	1796	119.00	390
44.00	461	64.00	155	82.00	326	141.00	630
45.00	448	68.00	5283	87.00	1781	143.00	598
47.00	536	69.00	5515	88.00	1296	174.00	32304
48.00	154	70.00	546	91.00	258	175.00	2807
49.00	2442	72.00	126	92.00	1496	176.00	31456
50.00	10111	73.00	2607	93.00	2180	177.00	1853
51.00	3133	74.00	9148	94.00	6278		
56.00	874	75.00	28008	95.00	49880		
57.00	1733	76.00	2367	96.00	3435		

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q2802.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 12-Oct-2017 13:18:30 ALS Bottle#: 3 Worklist Smp#: 3
Injection Vol: 1.0 uL Dil. Factor: 1.0000
Sample Info: BFB
Misc. Info.: 480-0066342-003
Operator ID: RF/RB Instrument ID: HP5973Q
Method: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q-624.m
Limit Group: MV - 624 ICAL UP
Last Update: 12-Oct-2017 14:12:43 Calib Date: 20-Sep-2017 15:14:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Buffalo\ChromData\HP5973Q\20170920-65748.b\Q2418.D
Column 1 : Det: MS SCAN
Process Host: XAWRK003

First Level Reviewer: farrellr

Date: 12-Oct-2017 14:12:43

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags

36 BFB

Reagents:

BFB_WRK_00065

Amount Added: 1.00

Units: uL

TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q2802.D

Injection Date: 12-Oct-2017 13:18:30

Instrument ID: HP5973Q

Lims ID: BFB

Client ID:

Operator ID: RF/RB

ALS Bottle#: 3 Worklist Smp#: 3

Injection Vol: 1.0 uL

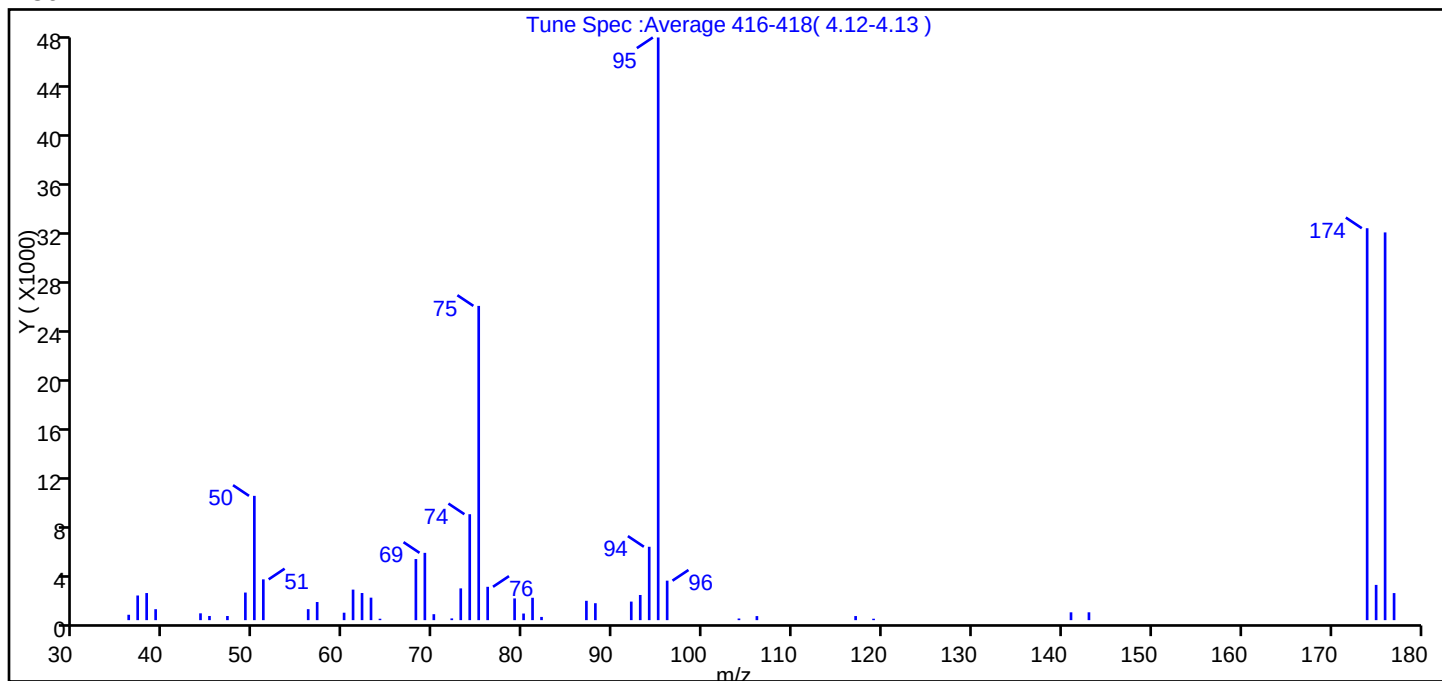
Dil. Factor: 1.0000

Method: Q-624

Limit Group: MV - 624 ICAL UP

Tune Method: BFB Method 624

36 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% Relative Abundance	100.0
50	15-40% of mass 95	21.3
75	30-60% of mass 95	53.9
96	5-9% of mass 95	6.8
173	<2% of mass 174	0.0 (0.0)
174	>50% of mass 95	67.3
175	5-9% of mass 174	6.0 (9.0)
176	>95% but <101% of mass 174	66.5 (98.9)
177	5-9% of mass 176	4.6 (7.0)

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q2802.D\Q-624.rslt\spectra.d
Injection Date: 12-Oct-2017 13:18:30
Spectrum: Tune Spec :Average 416-418(4.12-4.13)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 46

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	443	60.00	612	76.00	2741	104.00	134
37.00	2026	61.00	2510	79.00	1785	106.00	334
38.00	2227	62.00	2230	80.00	544	117.00	337
39.00	900	63.00	1849	81.00	1839	119.00	116
44.00	561	64.00	116	82.00	264	141.00	643
45.00	342	68.00	5022	87.00	1590	143.00	645
47.00	341	69.00	5532	88.00	1392	174.00	32216
49.00	2268	70.00	490	92.00	1525	175.00	2897
50.00	10217	72.00	142	93.00	2068	176.00	31872
51.00	3353	73.00	2611	94.00	6032	177.00	2224
56.00	903	74.00	8707	95.00	47896		
57.00	1490	75.00	25832	96.00	3246		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-125692-1

SDG No.: _____

Client Sample ID: _____ Lab Sample ID: MB 480-381520/8

Matrix: Water Lab File ID: Q2808.D

Analysis Method: 624 Date Collected: _____

Sample wt/vol: 5 (mL) Date Analyzed: 10/12/2017 16:25

Soil Aliquot Vol: _____ Dilution Factor: 1

Soil Extract Vol.: _____ GC Column: ZB-624 (20) ID: 0.18 (mm)

% Moisture: _____ Level: (low/med) Low

Analysis Batch No.: 381520 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		5.0	0.39
79-34-5	1,1,2,2-Tetrachloroethane	ND		5.0	0.26
79-00-5	1,1,2-Trichloroethane	ND		5.0	0.48
75-34-3	1,1-Dichloroethane	ND		5.0	0.59
75-35-4	1,1-Dichloroethene	ND		5.0	0.85
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.44
107-06-2	1,2-Dichloroethane	ND		5.0	0.60
540-59-0	1,2-Dichloroethene, Total	ND		10	3.2
78-87-5	1,2-Dichloropropane	ND		5.0	0.61
541-73-1	1,3-Dichlorobenzene	ND		5.0	0.54
106-46-7	1,4-Dichlorobenzene	ND		5.0	0.51
110-75-8	2-Chloroethyl vinyl ether	ND		25	1.9
107-02-8	Acrolein	ND		100	17
107-13-1	Acrylonitrile	ND		50	1.9
71-43-2	Benzene	ND		5.0	0.60
75-25-2	Bromoform	ND		5.0	0.47
74-83-9	Bromomethane	ND		5.0	1.2
56-23-5	Carbon tetrachloride	ND		5.0	0.51
108-90-7	Chlorobenzene	ND		5.0	0.48
124-48-1	Chlorodibromomethane	ND		5.0	0.41
75-00-3	Chloroethane	ND		5.0	0.87
67-66-3	Chloroform	ND		5.0	0.54
74-87-3	Chloromethane	ND		5.0	0.64
10061-01-5	cis-1,3-Dichloropropene	ND		5.0	0.33
75-27-4	Dichlorobromomethane	ND		5.0	0.54
100-41-4	Ethylbenzene	ND		5.0	0.46
75-09-2	Methylene Chloride	ND		5.0	0.81
127-18-4	Tetrachloroethene	ND		5.0	0.34
108-88-3	Toluene	ND		5.0	0.45
156-60-5	trans-1,2-Dichloroethene	ND		5.0	0.59
10061-02-6	trans-1,3-Dichloropropene	ND		5.0	0.44
79-01-6	Trichloroethene	ND		5.0	0.60
75-01-4	Vinyl chloride	ND		5.0	0.75

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-125692-1
SDG No.: _____
Client Sample ID: _____ Lab Sample ID: MB 480-381520/8
Matrix: Water Lab File ID: Q2808.D
Analysis Method: 624 Date Collected: _____
Sample wt/vol: 5 (mL) Date Analyzed: 10/12/2017 16:25
Soil Aliquot Vol: _____ Dilution Factor: 1
Soil Extract Vol.: _____ GC Column: ZB-624 (20) ID: 0.18 (mm)
% Moisture: _____ Level: (low/med) Low
Analysis Batch No.: 381520 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		68-130
460-00-4	4-Bromofluorobenzene (Surr)	99		76-123
2037-26-5	Toluene-d8 (Surr)	96		77-120

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q2808.D
 Lims ID: MB
 Client ID:
 Sample Type: MB
 Inject. Date: 12-Oct-2017 16:25:30 ALS Bottle#: 9 Worklist Smp#: 8
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: mb
 Misc. Info.: 480-0066342-008
 Operator ID: RF/RB Instrument ID: HP5973Q
 Method: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q-624.m
 Limit Group: MV - 624 ICAL UP
 Last Update: 12-Oct-2017 16:43:01 Calib Date: 20-Sep-2017 15:14:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last Ical File: \\ChromNA\Buffalo\ChromData\HP5973Q\20170920-65748.b\Q2418.D
 Column 1 : Det: MS SCAN
 Process Host: XAWRK003

First Level Reviewer: farrellr

Date: 12-Oct-2017 16:43:01

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 114 Fluorobenzene (IS)	96	5.008	5.009	-0.001	99	916616	30.0	30.0	
* 2 Chlorobenzene-d5	117	7.295	7.296	-0.001	90	575704	30.0	30.0	
* 3 1,4-Dichlorobenzene-d4	152	9.162	9.163	-0.001	98	323647	30.0	30.0	
\$ 115 Dibromofluoromethane (Surr	113	4.534	4.529	0.005	99	244379	30.0	28.9	
\$ 4 1,2-Dichloroethane-d4 (Sur	65	4.783	4.778	0.005	99	338284	30.0	30.1	
\$ 5 Toluene-d8 (Surr)	98	6.176	6.177	-0.001	93	736557	30.0	28.8	
\$ 6 4-Bromofluorobenzene (Surr	95	8.225	8.226	-0.001	82	291127	30.0	29.8	
9 Dichlorodifluoromethane	85		1.428					ND	
10 Chlorodifluoromethane	51		1.461					ND	
11 Chloromethane	50		1.653					ND	
12 Vinyl chloride	62		1.719					ND	
13 Bromomethane	94		1.981					ND	
14 Chloroethane	64		2.036					ND	
15 Trichlorofluoromethane	101		2.206					ND	
16 Dichlorofluoromethane	67		2.249					ND	
17 Ethyl ether	59		2.492					ND	
18 Acrolein	56		2.638					ND	
20 1,1-Dichloroethene	96		2.686					ND	
19 1,1,2-Trichloro-1,2,2-trif	101		2.723					ND	
21 Acetone	43		2.784					ND	
22 Iodomethane	142		2.826					ND	
23 Carbon disulfide	76		2.869					ND	
24 Isopropyl alcohol	45		2.945					ND	
25 3-Chloro-1-propene	41		3.015					ND	
26 Acetonitrile	41		3.043					ND	
27 Methylene Chloride	84		3.136					ND	
28 2-Methyl-2-propanol	59		3.282					ND	
29 Methyl tert-butyl ether	73		3.343					ND	
30 trans-1,2-Dichloroethene	96		3.343					ND	
31 Acrylonitrile	53		3.368					ND	
32 1,1-Dichloroethane	63		3.696					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
33 Isopropyl ether	45		3.724					ND	
34 Vinyl acetate	43		3.738					ND	
35 2-Chloro-1,3-butadiene	53		3.760					ND	
37 2,2-Dichloropropane	77		4.134					ND	
38 cis-1,2-Dichloroethene	96		4.158					ND	
39 2-Butanone (MEK)	43		4.176					ND	
40 Ethyl acetate	43		4.204					ND	
41 Propionitrile	54		4.247					ND	
43 Methacrylonitrile	41		4.344					ND	
42 Chlorobromomethane	128		4.347					ND	
44 Tetrahydrofuran	42		4.371					ND	
45 Chloroform	83		4.407					ND	
116 1,1,1-Trichloroethane	97		4.517					ND	
47 Carbon tetrachloride	117		4.638					ND	
48 1,1-Dichloropropene	75		4.638					ND	
50 Isobutyl alcohol	43		4.772					ND	
49 Benzene	78		4.797					ND	
51 1,2-Dichloroethane	62		4.839					ND	
52 Isopropyl acetate	61		4.849					ND	
53 Trichloroethene	95		5.277					ND	
54 1,2-Dichloropropane	63		5.453					ND	
55 Methyl methacrylate	41		5.524					ND	
56 Dibromomethane	93		5.557					ND	
57 1,4-Dioxane	88		5.563					ND	
58 Dichlorobromomethane	83		5.672					ND	
59 2-Nitropropane	43		5.846					ND	
60 2-Chloroethyl vinyl ether	63		5.879					ND	
61 cis-1,3-Dichloropropene	75		5.995					ND	
62 4-Methyl-2-pentanone (MIBK)	43		6.092					ND	
63 Toluene	92		6.226					ND	
64 trans-1,3-Dichloropropene	75		6.414					ND	
65 Ethyl methacrylate	69		6.451					ND	
66 1,1,2-Trichloroethane	83		6.560					ND	
67 Tetrachloroethene	166		6.639					ND	
68 1,3-Dichloropropane	76		6.688					ND	
69 2-Hexanone	43		6.724					ND	
70 n-Butyl acetate	56		6.807					ND	
71 Chlorodibromomethane	129		6.870					ND	
72 Ethylene Dibromide	107		6.955					ND	
73 3-Chlorobenzotrifluoride	180		7.275					ND	
75 4-Chlorobenzotrifluoride	180		7.318					ND	
74 Chlorobenzene	112		7.320					ND	
77 Ethylbenzene	91		7.381					ND	
76 1,1,1,2-Tetrachloroethane	131		7.381					ND	
78 m-Xylene & p-Xylene	106		7.472					ND	
79 o-Xylene	106		7.795					ND	
80 Styrene	104		7.807					ND	
81 Amyl acetate (mixed isomer)	70		7.926					ND	
82 Bromoform	173		7.989					ND	
83 2-Chlorobenzotrifluoride	180		8.005					ND	
84 Isopropylbenzene	105		8.074					ND	
85 Bromobenzene	156		8.348					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
86 1,1,2,2-Tetrachloroethane	83		8.354					ND	
89 1,2,3-Trichloropropane	110		8.391					ND	
88 trans-1,4-Dichloro-2-buten	53		8.397					ND	
87 N-Propylbenzene	91		8.409					ND	
90 2-Chlorotoluene	126		8.494					ND	
92 1,3,5-Trimethylbenzene	105		8.543					ND	
91 3-Chlorotoluene	126		8.546					ND	
93 4-Chlorotoluene	126		8.579					ND	
94 tert-Butylbenzene	134		8.810					ND	
95 1,2,4-Trimethylbenzene	105		8.853					ND	
96 sec-Butylbenzene	105		8.987					ND	
97 4-Isopropyltoluene	119		9.102					ND	
98 1,3-Dichlorobenzene	146		9.108					ND	
99 1,4-Dichlorobenzene	146		9.181					ND	
101 1,2-Dichlorobenzene	146		9.491					ND	
102 1,2-Dibromo-3-Chloropropan	75		10.154					ND	
103 1,2,4-Trichlorobenzene	180		10.817					ND	
104 Hexachlorobutadiene	225		10.933					ND	
105 Naphthalene	128		11.024					ND	
106 1,2,3-Trichlorobenzene	180		11.212					ND	
117 1-Chloro-1-fluoroethane TI	1		0.000					ND	
S 107 1,2-Dichloroethene, Total	1		2.360					ND	
S 108 Trihalomethanes, Total	1		4.130					ND	
S 109 1,3-Dichloropropene, Total	1		5.604					ND	
S 111 Xylenes, Total	1		7.060					ND	
S 110 Total BTEX	1		7.060					ND	
T 113 bis(2-chloromethyl)ether T	1		0.000					ND	
T 7 bis(chloromethyl)ether TIC	1		0.000					ND	
T 8 Propanol TIC	59		0.000					ND	
T 112 Aziridine TIC	1		0.000					ND	

Reagents:

Q 624 IS_00056

Amount Added: 1.00

Units: uL

Run Reagent

Q 624 SURR_00051

Amount Added: 1.00

Units: uL

Run Reagent

TestAmerica Buffalo

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q2808.D

Injection Date: 12-Oct-2017 16:25:30

Instrument ID: HP5973Q

Operator ID: RF/RB

Lims ID: MB

Worklist Smp#: 8

Client ID:

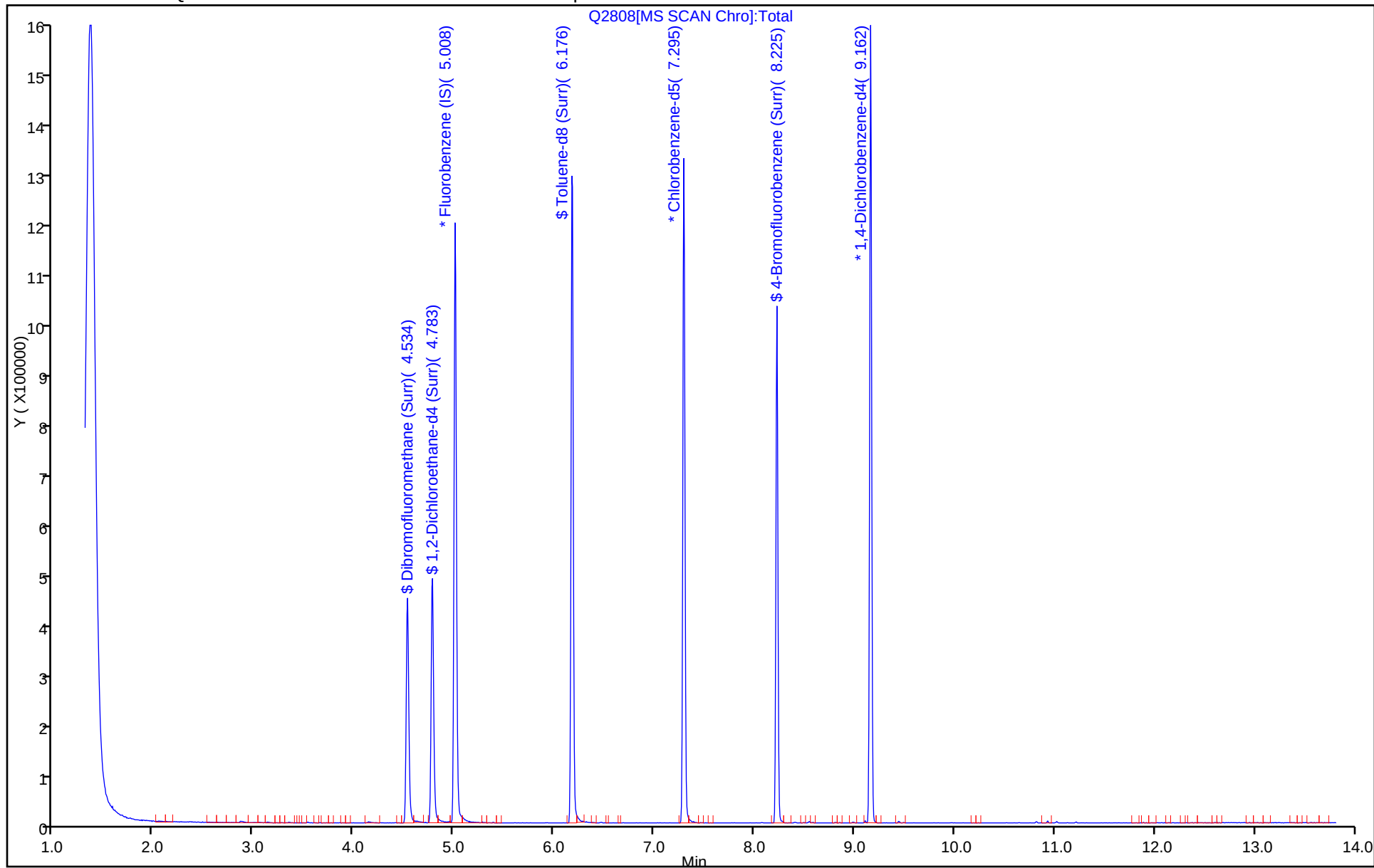
Purge Vol: 5.000 mL

Dil. Factor: 1.0000

ALS Bottle#: 9

Method: Q-624

Limit Group: MV - 624 ICAL UP



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-125692-1

SDG No.: _____

Client Sample ID: _____ Lab Sample ID: LCS 480-381520/6

Matrix: Water Lab File ID: Q2806.D

Analysis Method: 624 Date Collected: _____

Sample wt/vol: 5(mL) Date Analyzed: 10/12/2017 15:37

Soil Aliquot Vol: _____ Dilution Factor: 1

Soil Extract Vol.: _____ GC Column: ZB-624 (20) ID: 0.18(mm)

% Moisture: _____ Level: (low/med) Low

Analysis Batch No.: 381520 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	21.8		5.0	0.39
79-34-5	1,1,2,2-Tetrachloroethane	22.2		5.0	0.26
79-00-5	1,1,2-Trichloroethane	22.4		5.0	0.48
75-34-3	1,1-Dichloroethane	22.4		5.0	0.59
75-35-4	1,1-Dichloroethene	21.7		5.0	0.85
95-50-1	1,2-Dichlorobenzene	22.8		5.0	0.44
107-06-2	1,2-Dichloroethane	21.4		5.0	0.60
540-59-0	1,2-Dichloroethene, Total	44.9		10	3.2
78-87-5	1,2-Dichloropropane	22.6		5.0	0.61
541-73-1	1,3-Dichlorobenzene	21.9		5.0	0.54
106-46-7	1,4-Dichlorobenzene	22.4		5.0	0.51
110-75-8	2-Chloroethyl vinyl ether	19.9	J	25	1.9
107-02-8	Acrolein	148		100	17
107-13-1	Acrylonitrile	218		50	1.9
71-43-2	Benzene	22.8		5.0	0.60
75-25-2	Bromoform	19.6		5.0	0.47
74-83-9	Bromomethane	19.0		5.0	1.2
56-23-5	Carbon tetrachloride	20.0		5.0	0.51
108-90-7	Chlorobenzene	22.1		5.0	0.48
124-48-1	Chlorodibromomethane	20.9		5.0	0.41
75-00-3	Chloroethane	21.1		5.0	0.87
67-66-3	Chloroform	22.1		5.0	0.54
74-87-3	Chloromethane	18.1		5.0	0.64
10061-01-5	cis-1,3-Dichloropropene	21.3		5.0	0.33
75-27-4	Dichlorobromomethane	22.2		5.0	0.54
100-41-4	Ethylbenzene	22.9		5.0	0.46
75-09-2	Methylene Chloride	22.4		5.0	0.81
127-18-4	Tetrachloroethene	21.0		5.0	0.34
108-88-3	Toluene	22.3		5.0	0.45
156-60-5	trans-1,2-Dichloroethene	22.9		5.0	0.59
10061-02-6	trans-1,3-Dichloropropene	20.7		5.0	0.44
79-01-6	Trichloroethene	22.1		5.0	0.60
75-01-4	Vinyl chloride	17.9		5.0	0.75

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-125692-1
SDG No.: _____
Client Sample ID: _____ Lab Sample ID: LCS 480-381520/6
Matrix: Water Lab File ID: Q2806.D
Analysis Method: 624 Date Collected: _____
Sample wt/vol: 5 (mL) Date Analyzed: 10/12/2017 15:37
Soil Aliquot Vol: _____ Dilution Factor: 1
Soil Extract Vol.: _____ GC Column: ZB-624 (20) ID: 0.18 (mm)
% Moisture: _____ Level: (low/med) Low
Analysis Batch No.: 381520 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		68-130
460-00-4	4-Bromofluorobenzene (Surr)	98		76-123
2037-26-5	Toluene-d8 (Surr)	99		77-120

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q2806.D
 Lims ID: LCS
 Client ID:
 Sample Type: LCS
 Inject. Date: 12-Oct-2017 15:37:30 ALS Bottle#: 7 Worklist Smp#: 6
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: lcs
 Misc. Info.: 480-0066342-006
 Operator ID: RF/RB Instrument ID: HP5973Q
 Method: \\ChromNA\Buffalo\ChromData\HP5973Q\20171012-66342.b\Q-624.m
 Limit Group: MV - 624 ICAL UP
 Last Update: 12-Oct-2017 16:22:54 Calib Date: 20-Sep-2017 15:14:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last Ical File: \\ChromNA\Buffalo\ChromData\HP5973Q\20170920-65748.b\Q2418.D
 Column 1 : Det: MS SCAN
 Process Host: XAWRK003

First Level Reviewer: farrellr

Date: 12-Oct-2017 16:22:54

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 114 Fluorobenzene (IS)	96	5.007	5.009	-0.002	99	959429	30.0	30.0	
* 2 Chlorobenzene-d5	117	7.300	7.296	0.004	90	612572	30.0	30.0	
* 3 1,4-Dichlorobenzene-d4	152	9.167	9.163	0.004	97	339581	30.0	30.0	
\$ 115 Dibromofluoromethane (Surr	113	4.533	4.529	0.004	99	251758	30.0	28.4	
\$ 4 1,2-Dichloroethane-d4 (Sur	65	4.782	4.778	0.004	97	338079	30.0	28.8	
\$ 5 Toluene-d8 (Surr)	98	6.181	6.177	0.004	93	804332	30.0	29.6	
\$ 6 4-Bromofluorobenzene (Surr	95	8.224	8.226	-0.002	83	306640	30.0	29.5	
9 Dichlorodifluoromethane	85	1.431	1.428	0.003	99	198454	20.0	17.5	
11 Chloromethane	50	1.662	1.653	0.009	95	229072	20.0	18.1	
12 Vinyl chloride	62	1.723	1.719	0.004	97	170932	20.0	17.9	
13 Bromomethane	94	2.015	1.981	0.034	91	133627	20.0	19.0	
14 Chloroethane	64	2.027	2.036	-0.009	94	125195	20.0	21.1	
15 Trichlorofluoromethane	101	2.210	2.206	0.004	98	285025	20.0	19.5	M
16 Dichlorofluoromethane	67	2.252	2.249	0.003	97	337192	20.0	22.5	
17 Ethyl ether	59	2.495	2.492	0.003	91	171340	20.0	23.3	
18 Acrolein	56	2.641	2.638	0.003	99	191645	100.0	147.7	
20 1,1-Dichloroethene	96	2.690	2.686	0.004	97	155697	20.0	21.7	
19 1,1,2-Trichloro-1,2,2-trif	101	2.727	2.723	0.004	96	159789	20.0	21.7	
21 Acetone	43	2.781	2.784	-0.003	100	473147	100.0	149.3	
22 Iodomethane	142	2.830	2.826	0.004	97	284299	20.0	21.8	
23 Carbon disulfide	76	2.873	2.869	0.003	99	503687	20.0	21.2	
25 3-Chloro-1-propene	41	3.018	3.015	0.003	88	266200	20.0	21.9	
27 Methylene Chloride	84	3.140	3.136	0.004	94	192832	20.0	22.4	
28 2-Methyl-2-propanol	59	3.280	3.282	-0.002	100	465542	200.0	229.0	
30 trans-1,2-Dichloroethene	96	3.347	3.343	0.004	98	185177	20.0	22.9	
29 Methyl tert-butyl ether	73	3.341	3.343	-0.002	95	646108	20.0	22.8	
31 Acrylonitrile	53	3.371	3.368	0.003	98	991538	200.0	218.0	
32 1,1-Dichloroethane	63	3.700	3.696	0.004	97	327072	20.0	22.4	
34 Vinyl acetate	43	3.742	3.738	0.004	97	825398	40.0	43.0	
37 2,2-Dichloropropane	77	4.137	4.134	0.003	89	267558	20.0	22.9	
38 cis-1,2-Dichloroethene	96	4.156	4.158	-0.002	83	201552	20.0	22.0	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
39 2-Butanone (MEK)	43	4.174	4.176	-0.002	100	677138	100.0	117.2	
42 Chlorobromomethane	128	4.350	4.347	0.003	95	100169	20.0	22.3	
44 Tetrahydrofuran	42	4.375	4.371	0.004	85	178736	40.0	42.1	
45 Chloroform	83	4.411	4.407	0.004	94	343866	20.0	22.1	
116 1,1,1-Trichloroethane	97	4.521	4.517	0.004	88	297729	20.0	21.8	
48 1,1-Dichloropropene	75	4.642	4.638	0.004	97	239027	20.0	22.6	
47 Carbon tetrachloride	117	4.636	4.638	-0.002	96	216125	20.0	20.0	
50 Isobutyl alcohol	43	4.770	4.772	-0.002	93	372293	500.0	569.7	
49 Benzene	78	4.800	4.797	0.003	97	665803	20.0	22.8	
51 1,2-Dichloroethane	62	4.837	4.839	-0.002	98	300387	20.0	21.4	
53 Trichloroethene	95	5.281	5.277	0.004	96	184543	20.0	22.1	
54 1,2-Dichloropropane	63	5.457	5.453	0.004	92	167041	20.0	22.6	
56 Dibromomethane	93	5.560	5.557	0.003	92	130734	20.0	21.4	
57 1,4-Dioxane	88	5.560	5.563	-0.003	44	48790	400.0	526.5	
58 Dichlorobromomethane	83	5.676	5.672	0.004	98	255368	20.0	22.2	
60 2-Chloroethyl vinyl ether	63	5.877	5.879	-0.002	93	119470	20.0	19.9	
61 cis-1,3-Dichloropropene	75	5.992	5.995	-0.003	94	275818	20.0	21.3	
62 4-Methyl-2-pentanone (MIBK)	43	6.096	6.092	0.004	95	1297159	100.0	116.3	
63 Toluene	92	6.229	6.226	0.003	98	384067	20.0	22.3	
64 trans-1,3-Dichloropropene	75	6.418	6.414	0.004	92	252486	20.0	20.7	
65 Ethyl methacrylate	69	6.448	6.451	-0.003	89	253984	20.0	22.1	
66 1,1,2-Trichloroethane	83	6.564	6.560	0.004	94	132421	20.0	22.4	
67 Tetrachloroethene	166	6.643	6.639	0.004	91	135317	20.0	21.0	
68 1,3-Dichloropropane	76	6.685	6.688	-0.003	90	262000	20.0	21.7	
69 2-Hexanone	43	6.722	6.724	-0.002	96	907395	100.0	113.7	
71 Chlorodibromomethane	129	6.868	6.870	-0.002	89	172283	20.0	20.9	
72 Ethylene Dibromide	107	6.953	6.955	-0.002	98	169533	20.0	21.6	
74 Chlorobenzene	112	7.318	7.320	-0.002	93	420199	20.0	22.1	
77 Ethylbenzene	91	7.385	7.381	0.004	99	709574	20.0	22.9	
76 1,1,1,2-Tetrachloroethane	131	7.385	7.381	0.004	46	168691	20.0	22.7	
78 m-Xylene & p-Xylene	106	7.476	7.472	0.004	98	274830	20.0	22.5	
79 o-Xylene	106	7.792	7.795	-0.003	97	280492	20.0	22.7	
80 Styrene	104	7.811	7.807	0.004	94	467058	20.0	22.6	
82 Bromoform	173	7.993	7.989	0.004	92	107614	20.0	19.6	
84 Isopropylbenzene	105	8.078	8.074	0.004	96	678967	20.0	22.2	
85 Bromobenzene	156	8.352	8.348	0.004	99	179662	20.0	21.4	
86 1,1,2,2-Tetrachloroethane	83	8.358	8.354	0.004	96	258917	20.0	22.2	
89 1,2,3-Trichloropropane	110	8.394	8.391	0.003	85	87449	20.0	21.3	
88 trans-1,4-Dichloro-2-buten	53	8.394	8.397	-0.003	76	91637	20.0	20.8	
87 N-Propylbenzene	91	8.407	8.409	-0.002	99	788820	20.0	22.7	
90 2-Chlorotoluene	126	8.498	8.494	0.004	95	159318	20.0	21.9	
92 1,3,5-Trimethylbenzene	105	8.546	8.543	0.003	94	577599	20.0	22.4	
93 4-Chlorotoluene	126	8.583	8.579	0.004	99	166908	20.0	21.8	
94 tert-Butylbenzene	134	8.814	8.810	0.004	92	106072	20.0	21.3	
95 1,2,4-Trimethylbenzene	105	8.857	8.853	0.004	97	613683	20.0	22.7	
96 sec-Butylbenzene	105	8.990	8.987	0.003	95	626357	20.0	21.8	
97 4-Isopropyltoluene	119	9.106	9.102	0.004	96	539171	20.0	21.8	
98 1,3-Dichlorobenzene	146	9.112	9.108	0.004	97	321977	20.0	21.9	
99 1,4-Dichlorobenzene	146	9.185	9.181	0.004	93	342562	20.0	22.4	
100 n-Butylbenzene	91	9.446	9.443	0.003	99	489604	20.0	22.7	
101 1,2-Dichlorobenzene	146	9.495	9.491	0.004	94	327879	20.0	22.8	
102 1,2-Dibromo-3-Chloropropan	75	10.152	10.154	-0.002	80	65994	20.0	20.6	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
103 1,2,4-Trichlorobenzene	180	10.821	10.817	0.004	93	168015	20.0	21.6	
104 Hexachlorobutadiene	225	10.930	10.933	-0.003	91	60477	20.0	22.1	
105 Naphthalene	128	11.021	11.024	-0.003	98	631857	20.0	21.0	
106 1,2,3-Trichlorobenzene	180	11.216	11.212	0.004	93	152512	20.0	21.4	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

SS 8260 CORP_00050

Amount Added: 10.00

Units: uL

SS GAS CORP_00206

Amount Added: 10.00

Units: uL

Q 624 IS_00056

Amount Added: 1.00

Units: uL

Run Reagent

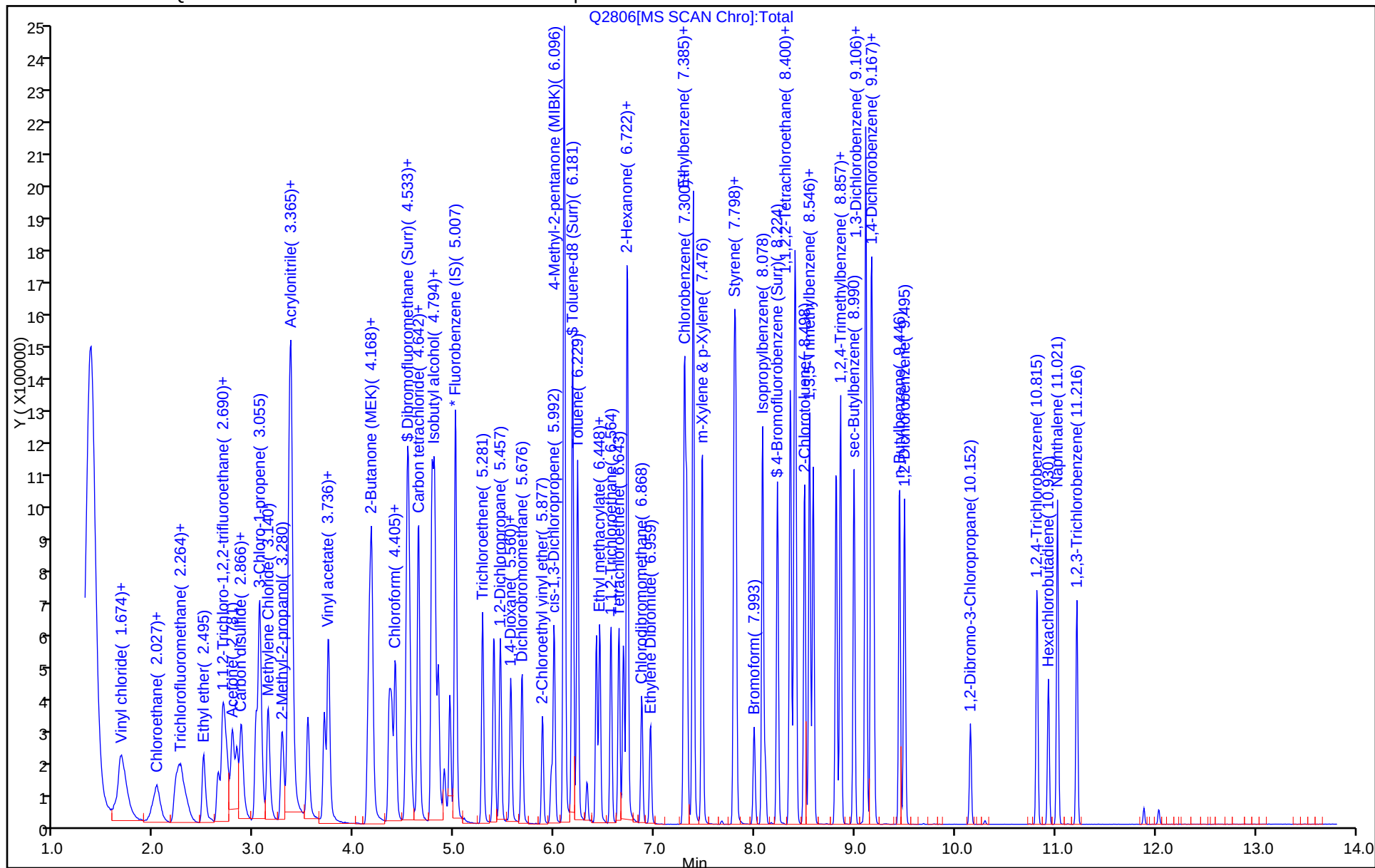
Q 624 SURR_00051

Amount Added: 1.00

Units: uL

Run Reagent

Limit Group: MV - 624 ICAL UP



GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Buffalo Job No.: 480-125692-1

SDG No.: _____

Instrument ID: HP5973Q Start Date: 09/20/2017 13:37Analysis Batch Number: 377785 End Date: 09/20/2017 15:14

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 480-377785/2		09/20/2017 13:37	1	Q2414.D	ZB-624 (20) 0.18 (mm)
IC 480-377785/4		09/20/2017 14:27	1	Q2416.D	ZB-624 (20) 0.18 (mm)
ICIS 480-377785/5		09/20/2017 14:50	1	Q2417.D	ZB-624 (20) 0.18 (mm)
IC 480-377785/6		09/20/2017 15:14	1	Q2418.D	ZB-624 (20) 0.18 (mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica BuffaloJob No.: 480-125692-1

SDG No.: _____

Instrument ID: HP5973QStart Date: 10/12/2017 12:54Analysis Batch Number: 381520End Date: 10/13/2017 10:52

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		10/12/2017 12:54	1		ZB-624 (20) 0.18 (mm)
BFB 480-381520/3		10/12/2017 13:18	1	Q2802.D	ZB-624 (20) 0.18 (mm)
CCVIS 480-381520/4		10/12/2017 14:49	1	Q2804.D	ZB-624 (20) 0.18 (mm)
CCV 480-381520/5		10/12/2017 15:13	1		ZB-624 (20) 0.18 (mm)
LCS 480-381520/6		10/12/2017 15:37	1	Q2806.D	ZB-624 (20) 0.18 (mm)
MB 480-381520/8		10/12/2017 16:25	1	Q2808.D	ZB-624 (20) 0.18 (mm)
480-125692-2		10/12/2017 17:48	1	Q2811.D	ZB-624 (20) 0.18 (mm)
480-125692-3		10/12/2017 18:12	1	Q2812.D	ZB-624 (20) 0.18 (mm)
480-125692-4		10/12/2017 18:36	1	Q2813.D	ZB-624 (20) 0.18 (mm)
480-125692-6		10/12/2017 18:59	1	Q2814.D	ZB-624 (20) 0.18 (mm)
480-125692-7		10/12/2017 19:23	1	Q2815.D	ZB-624 (20) 0.18 (mm)
480-125692-8		10/12/2017 19:47	1	Q2816.D	ZB-624 (20) 0.18 (mm)
480-125692-12		10/12/2017 20:10	1	Q2817.D	ZB-624 (20) 0.18 (mm)
ZZZZZ		10/12/2017 20:34	10		ZB-624 (20) 0.18 (mm)
ZZZZZ		10/12/2017 20:58	2		ZB-624 (20) 0.18 (mm)
ZZZZZ		10/12/2017 21:21	2		ZB-624 (20) 0.18 (mm)
ZZZZZ		10/12/2017 21:45	4		ZB-624 (20) 0.18 (mm)
480-125692-1		10/12/2017 22:08	1	Q2822.D	ZB-624 (20) 0.18 (mm)
480-125692-5		10/12/2017 22:32	1	Q2823.D	ZB-624 (20) 0.18 (mm)
480-125692-9		10/12/2017 22:55	1	Q2824.D	ZB-624 (20) 0.18 (mm)
480-125692-10		10/12/2017 23:18	1	Q2825.D	ZB-624 (20) 0.18 (mm)
480-125692-11		10/12/2017 23:43	1	Q2826.D	ZB-624 (20) 0.18 (mm)
ZZZZZ		10/13/2017 00:07	25		ZB-624 (20) 0.18 (mm)
ZZZZZ		10/13/2017 00:30	25		ZB-624 (20) 0.18 (mm)
ZZZZZ		10/13/2017 10:05	4		ZB-624 (20) 0.18 (mm)
ZZZZZ		10/13/2017 10:29	4		ZB-624 (20) 0.18 (mm)
ZZZZZ		10/13/2017 10:52	4		ZB-624 (20) 0.18 (mm)

GC/MS VOA Worksheet

Batch Number: 480-381520

Method: 624

Analyst: Barone, Rachel L

Date Open: Oct 12 2017 12:54PM

Batch End:

Lab ID	Client ID	Method Chain	Basis	Initial weight/volume of sample	Final weight/volume of sample	Initial pH	Residual Chlorine Check	8260 CORP mix_00111	ADD CORP mix_00062
IBLK				5 mL	5 mL				
BFB~480-381520/3		624_5ml_UP		1 uL	1 uL				
CCVIS~480-381520/4		624_5ml_UP		5 mL	5 mL			10 uL	
CCV~480-381520/5		624_5ml_UP		5 mL	5 mL				10 uL
LCS~480-381520/6		624_5ml_UP		5 mL	5 mL				
MB~480-381520/8		624_5ml_UP		5 mL	5 mL				
480-125692-A-1	MW-3	624_5ml_UP	T	5 mL	5 mL	7 SU	0		
480-125692-C-2	MW-6	624_5ml_UP	T	5 mL	5 mL	7 SU	0		
480-125692-C-3	MW-7	624_5ml_UP	T	5 mL	5 mL	7 SU	0		
480-125692-C-4	MW-9	624_5ml_UP	T	5 mL	5 mL	7 SU	0		
480-125692-A-5	MW-10	624_5ml_UP	T	5 mL	5 mL	7 SU	0		
480-125692-C-6	DGC-6S	624_5ml_UP	T	5 mL	5 mL	7 SU	0		
480-125692-C-7	DGC-7S	624_5ml_UP	T	5 mL	5 mL	7 SU	0		
480-125692-C-8	DGC-8S	624_5ml_UP	T	5 mL	5 mL	7 SU	0		
480-125692-A-9	DGC-11S	624_5ml_UP	T	5 mL	5 mL	7 SU	0		
480-125692-A-10	DGC-12	624_5ml_UP	T	5 mL	5 mL	7 SU	0		
480-125692-A-11	DGC-21	624_5ml_UP	T	5 mL	5 mL	7 SU	0		
480-125692-C-12	PUMP CULVERT (TRENCH)	624_5ml_UP	T	5 mL	5 mL	7 SU	0		
480-125716-A-2	0202 GRAB	624_5ml_UP_3day	T	5 mL	5 mL	7 SU	0		
480-125729-H-1	MBBR Effluent 1	624_5ml_UP	T	5 mL	5 mL	7 SU	0		
480-125729-F-2	MBBR Influent	624_5ml_UP	T	5 mL	5 mL	7 SU	0		
480-125729-H-3	MBBR Effluent 2	624_5ml_UP	T	5 mL	5 mL	7 SU	0		
480-125441-B-2~MS		624_5ml	T	5 mL	5 mL	<2 SU	0		
480-125441-B-2~MS D		624_5ml	T	5 mL	5 mL	<2 SU	0		
480-125793-G-1	DAY 03 03A	624_5ml_UP_3day	T	5 mL	5 mL	7 SU	0		

GC/MS VOA Worksheet

Batch Number: 480-381520

Method: 624

Analyst: Barone, Rachel L

Date Open: Oct 12 2017 12:54PM

Batch End:

Lab ID	Client ID	Method Chain	Basis	BFB_WRK_00065	GAS CORP mix_00245	ISOPRP_ACT_WK_00053	N-AMYL_ACT_WK_00048	Q 624 IS_00056	Q 624 SURR_00051
IBLK								1 uL	1 uL
BFB~480-381520/3		624_5ml_UP		1 uL					
CCVIS~480-381520/4		624_5ml_UP			10 uL			1 uL	1 uL
CCV~480-381520/5		624_5ml_UP				10 uL	10 uL	1 uL	1 uL
LCS~480-381520/6		624_5ml_UP						1 uL	1 uL
MB~480-381520/8		624_5ml_UP						1 uL	1 uL
480-125692-A-1	MW-3	624_5ml_UP	T					1 uL	1 uL
480-125692-C-2	MW-6	624_5ml_UP	T					1 uL	1 uL
480-125692-C-3	MW-7	624_5ml_UP	T					1 uL	1 uL
480-125692-C-4	MW-9	624_5ml_UP	T					1 uL	1 uL
480-125692-A-5	MW-10	624_5ml_UP	T					1 uL	1 uL
480-125692-C-6	DGC-6S	624_5ml_UP	T					1 uL	1 uL
480-125692-C-7	DGC-7S	624_5ml_UP	T					1 uL	1 uL
480-125692-C-8	DGC-8S	624_5ml_UP	T					1 uL	1 uL
480-125692-A-9	DGC-11S	624_5ml_UP	T					1 uL	1 uL
480-125692-A-10	DGC-12	624_5ml_UP	T					1 uL	1 uL
480-125692-A-11	DGC-21	624_5ml_UP	T					1 uL	1 uL
480-125692-C-12	PUMP CULVERT (TRENCH)	624_5ml_UP	T					1 uL	1 uL
480-125716-A-2	0202 GRAB	624_5ml_UP_3day	T					1 uL	1 uL
480-125729-H-1	MBBR Effluent 1	624_5ml_UP	T					1 uL	1 uL
480-125729-F-2	MBBR Influent	624_5ml_UP	T					1 uL	1 uL
480-125729-H-3	MBBR Effluent 2	624_5ml_UP	T					1 uL	1 uL
480-125441-B-2~MS		624_5ml	T					1 uL	1 uL
480-125441-B-2~MS		624_5ml	T					1 uL	1 uL
D									
480-125793-G-1	DAY 03 03A	624_5ml_UP_3day	T					1 uL	1 uL

GC/MS VOA Worksheet

Batch Number: 480-381520

Method: 624

Analyst: Barone, Rachel L

Date Open: Oct 12 2017 12:54PM

Batch End:

Lab ID	Client ID	Method Chain	Basis SS 8260 CORP_00050 SS GAS CORP_00206		
IBLK					
BFB~480-381520/3		624_5ml_UP			
CCVIS~480-381520/4		624_5ml_UP			
CCV~480-381520/5		624_5ml_UP			
LCS~480-381520/6		624_5ml_UP	10 uL	10 uL	
MB~480-381520/8		624_5ml_UP			
480-125692-A-1	MW-3	624_5ml_UP	T		
480-125692-C-2	MW-6	624_5ml_UP	T		
480-125692-C-3	MW-7	624_5ml_UP	T		
480-125692-C-4	MW-9	624_5ml_UP	T		
480-125692-A-5	MW-10	624_5ml_UP	T		
480-125692-C-6	DGC-6S	624_5ml_UP	T		
480-125692-C-7	DGC-7S	624_5ml_UP	T		
480-125692-C-8	DGC-8S	624_5ml_UP	T		
480-125692-A-9	DGC-11S	624_5ml_UP	T		
480-125692-A-10	DGC-12	624_5ml_UP	T		
480-125692-A-11	DGC-21	624_5ml_UP	T		
480-125692-C-12	PUMP CULVERT (TRENCH)	624_5ml_UP	T		
480-125716-A-2	0202 GRAB	624_5ml_UP_3day	T		
480-125729-H-1	MBBR Effluent 1	624_5ml_UP	T		
480-125729-F-2	MBBR Influent	624_5ml_UP	T		
480-125729-H-3	MBBR Effluent 2	624_5ml_UP	T		
480-125441-B-2~MS		624_5ml	T	10 uL	10 uL
480-125441-B-2~MS		624_5ml	T	10 uL	10 uL
D					
480-125793-G-1	DAY 03 03A	624_5ml_UP_3day	T		

GC/MS VOA Worksheet

Batch Number: 480-381520

Method: 624

Analyst: Barone, Rachel L

Date Open: Oct 12 2017 12:54PM

Batch End:

Lab ID	Client ID	Method Chain	Basis	Initial weight/volume of sample	Final weight/volume of sample	Initial pH	Residual Chlorine Check	8260 CORP mix_00111	ADD CORP mix_00062
480-125793-G-1~MS		624_5ml_UP_3day	T	5 mL	5 mL	7 SU	0		
480-125793-G-1~MSD		624_5ml_UP_3day	T	5 mL	5 mL	7 SU	0		

GC/MS VOA Worksheet

Batch Number: 480-381520

Method: 624

Analyst: Barone, Rachel L

Date Open: Oct 12 2017 12:54PM

Batch End:

Lab ID	Client ID	Method Chain	Basis	BFB_WRK_00065	GAS CORP mix_00245	ISOPRP_ACT_WK_00053	N-AMYL_ACT_WK_00048	Q 624 IS_00056	Q 624 SURR_00051
480-125793-G-1~MS		624_5ml_UP_3day	T					1 uL	1 uL
480-125793-G-1~MSD		624_5ml_UP_3day	T					1 uL	1 uL

GC/MS VOA Worksheet

Batch Number: 480-381520
Method: 624
Analyst: Barone, Rachel L

Date Open: Oct 12 2017 12:54PM
Batch End:

Lab ID	Client ID	Method Chain	Basis SS 8260 CORP_00050 SS GAS CORP_00206		
480-125793-G-1~M S		624_5ml_UP_3day	T	10 uL	10 uL
480-125793-G-1~M SD		624_5ml_UP_3day	T		

GC/MS VOA Worksheet

Batch Number: 480-381520

Method: 624

Analyst: Barone, Rachel L

Date Open: Oct 12 2017 12:54PM

Batch End:

Comments

Lab ID	Client ID	Method Chain	Basis	Analysis comment
IBLK				
BFB~480-381520/3		624_5ml_UP		
CCVIS~480-381520/4		624_5ml_UP		
CCV~480-381520/5		624_5ml_UP		
LCS~480-381520/6		624_5ml_UP		
MB~480-381520/8		624_5ml_UP		
480-125692-A-1	MW-3	624_5ml_UP	T	
480-125692-C-2	MW-6	624_5ml_UP	T	
480-125692-C-3	MW-7	624_5ml_UP	T	
480-125692-C-4	MW-9	624_5ml_UP	T	
480-125692-A-5	MW-10	624_5ml_UP	T	
480-125692-C-6	DGC-6S	624_5ml_UP	T	
480-125692-C-7	DGC-7S	624_5ml_UP	T	
480-125692-C-8	DGC-8S	624_5ml_UP	T	
480-125692-A-9	DGC-11S	624_5ml_UP	T	
480-125692-A-10	DGC-12	624_5ml_UP	T	
480-125692-A-11	DGC-21	624_5ml_UP	T	
480-125692-C-12	PUMP CULVERT (TRENCH)	624_5ml_UP	T	
480-125716-A-2	0202 GRAB	624_5ml_UP_3day	T	
480-125729-H-1	MBBR Effluent 1	624_5ml_UP	T	
480-125729-F-2	MBBR Influent	624_5ml_UP	T	Rerunning for hx conf.
480-125729-H-3	MBBR Effluent 2	624_5ml_UP	T	
480-125441-B-2~MS		624_5ml	T	
480-125441-B-2~MS		624_5ml	T	
D				
480-125793-G-1	DAY 03 03A	624_5ml_UP_3day	T	

GC/MS VOA Worksheet

Batch Number: 480-381520
Method: 624
Analyst: Barone, Rachel L

Date Open: Oct 12 2017 12:54PM
Batch End:

					Comments
Lab ID	Client ID	Method Chain	Basis	Analysis comment	
480-125793-G-1~M S		624_5ml_UP_3day	T		
480-125793-G-1~M SD		624_5ml_UP_3day	T		

Method PFC IDA

Perfluorinated Hydrocarbons by
Method PFC IDA

FORM II
LCMS SURROGATE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 480-125692-1
 SDG No.: _____
 Matrix: Water Level: Low
 GC Column (1): GeminiC18 3 ID: 3 (mm)

Client Sample ID	Lab Sample ID	PFBA #	PFPeA #	PFHxA #	PFHpA #	PFHxS #	PFOA #	PFNA #	PFOS #
MW-6	480-125692-14	13 *	39	50	59	72	66	72	80
MW-7	480-125692-15	22 *	53	64	71	82	76	82	86
MW-9	480-125692-16	27	58	65	81	84	78	81	90
DGC-6S	480-125692-17	32	63	66	86	88	82	90	88
DGC-7S	480-125692-18	14 *	41	54	52	72	59	69	83
DGC-8S	480-125692-19	21 *	52	58	64	77	71	74	84
PUMP CULVERT (TRENCH)	480-125692-20	21 *	53	63	70	82	74	73	85
RECIRCULATION TANK (DISCHARGE)	480-125692-21	21 *	53	63	70	82	77	82	86
	MB 320-189663/1-A	82	79	78	86	75	79	78	69
	LCS 320-189663/2-A	91	92	89	96	88	88	88	88
	LCSD 320-189663/3-A	93	90	89	97	91	92	90	89

	<u>QC LIMITS</u>
PFBA = 13C4 PFBA	25-150
PFPeA = 13C5 PFPeA	25-150
PFHxA = 13C2 PFHxA	25-150
PFHpA = 13C4-PFHpA	25-150
PFHxS = 18O2 PFHxS	25-150
PFOA = 13C4 PFOA	25-150
PFOS = 13C4 PFOS	25-150
PFNA = 13C5 PFNA	25-150

Column to be used to flag recovery values

FORM II 537 (modified)

FORM II
LCMS SURROGATE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 480-125692-1
 SDG No.: _____
 Matrix: Water Level: Low
 GC Column (1): GeminiC18 3 ID: 3 (mm)

Client Sample ID	Lab Sample ID	PFDA #	PFUnA #	PFDoA #
MW-6	480-125692-14	72	73	53
MW-7	480-125692-15	84	87	79
MW-9	480-125692-16	86	83	83
DGC-6S	480-125692-17	90	89	87
DGC-7S	480-125692-18	70	78	75
DGC-8S	480-125692-19	71	77	77
PUMP CULVERT (TRENCH)	480-125692-20	72	77	73
RECIRCULATION TANK (DISCHARGE)	480-125692-21	84	88	83
	MB 320-189663/1-A	74	75	65
	LCS 320-189663/2-A	87	84	80
	LCSD 320-189663/3-A	95	89	85

	<u>QC LIMITS</u>
PFDA = 13C2 PFDA	25-150
PFUnA = 13C2 PFUnA	25-150
PFDoA = 13C2 PFDoA	25-150

Column to be used to flag recovery values

FORM II 537 (modified)

FORM III
LCMS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 480-125692-1
 SDG No.: _____
 Matrix: Water Level: Low Lab File ID: 2017.10.20B_032.d
 Lab ID: LCS 320-189663/2-A Client ID: _____

COMPOUND	SPIKE ADDED (ng/L)	LCS CONCENTRATION (ng/L)	LCS % REC	QC LIMITS REC	#
Perfluorobutanoic acid (PFBA)	40.0	46.1	115	78-138	
Perfluoropentanoic acid (PFPeA)	40.0	41.5	104	66-136	
Perfluorohexanoic acid (PFHxA)	40.0	43.2	108	76-136	
Perfluoroheptanoic acid (PFHpA)	40.0	45.6	114	78-138	
Perfluorooctanoic acid (PFOA)	40.0	42.1	105	70-130	
Perfluorononanoic acid (PFNA)	40.0	41.1	103	77-137	
Perfluorodecanoic acid (PFDA)	40.0	44.3	111	74-134	
Perfluoroundecanoic acid (PFUnA)	40.0	41.3	103	68-128	
Perfluorododecanoic acid (PFDoA)	40.0	43.7	109	72-132	
Perfluorotridecanoic Acid (PFTriA)	40.0	48.6	121	56-163	
Perfluorotetradecanoic acid (PFTeA)	40.0	41.2	103	63-123	
Perfluorobutanesulfonic acid (PFBS)	35.4	40.5	114	79-139	
Perfluorohexanesulfonic acid (PFHxS)	36.4	39.5	109	77-137	
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	45.0	118	83-143	
Perfluorooctanesulfonic acid (PFOS)	37.1	39.5	106	74-134	
Perfluorodecanesulfonic acid (PFDS)	38.6	40.1	104	75-135	
13C4 PFBA	100	91.3	91	25-150	
13C5 PFPeA	100	92.0	92	25-150	
13C2 PFHxA	100	89.4	89	25-150	
13C4-PFHpA	100	95.7	96	25-150	
13C4 PFOA	100	88.0	88	25-150	
13C5 PFNA	100	87.7	88	25-150	
13C2 PFDA	100	87.1	87	25-150	
13C2 PFUnA	100	83.9	84	25-150	
13C2 PFDoA	100	80.1	80	25-150	
18O2 PFHxS	94.6	83.0	88	25-150	
13C4 PFOS	95.6	83.9	88	25-150	

Column to be used to flag recovery and RPD values
 FORM III 537 (modified)

FORM III
LCMS LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 480-125692-1
 SDG No.: _____
 Matrix: Water Level: Low Lab File ID: 2017.10.20B_033.d
 Lab ID: LCSD 320-189663/3-A Client ID: _____

COMPOUND	SPIKE ADDED (ng/L)	LCSD CONCENTRATION (ng/L)	LCSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
Perfluorobutanoic acid (PFBA)	40.0	44.4	111	4	30	78-138	
Perfluoropentanoic acid (PFPeA)	40.0	42.1	105	2	30	66-136	
Perfluorohexanoic acid (PFHxA)	40.0	42.4	106	2	30	76-136	
Perfluoroheptanoic acid (PFHpA)	40.0	41.8	105	9	30	78-138	
Perfluorooctanoic acid (PFOA)	40.0	41.5	104	1	30	70-130	
Perfluorononanoic acid (PFNA)	40.0	41.6	104	1	30	77-137	
Perfluorodecanoic acid (PFDA)	40.0	42.6	107	4	30	74-134	
Perfluoroundecanoic acid (PFUnA)	40.0	39.6	99	4	30	68-128	
Perfluorododecanoic acid (PFDoA)	40.0	41.8	105	4	30	72-132	
Perfluorotridecanoic Acid (PFTriA)	40.0	49.9	125	3	30	56-163	
Perfluorotetradecanoic acid (PFTeA)	40.0	42.0	105	2	30	63-123	
Perfluorobutanesulfonic acid (PFBS)	35.4	37.8	107	7	30	79-139	
Perfluorohexanesulfonic acid (PFHxS)	36.4	39.2	108	1	30	77-137	
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	43.2	114	4	30	83-143	
Perfluorooctanesulfonic acid (PFOS)	37.1	39.6	107	0	30	74-134	
Perfluorodecanesulfonic acid (PFDS)	38.6	39.2	102	2	30	75-135	
13C4 PFBA	100	93.4	93			25-150	
13C5 PFPeA	100	89.9	90			25-150	
13C2 PFHxA	100	89.4	89			25-150	
13C4-PFHpA	100	97.2	97			25-150	
13C4 PFOA	100	91.6	92			25-150	
13C5 PFNA	100	90.4	90			25-150	
13C2 PFDA	100	95.3	95			25-150	
13C2 PFUnA	100	89.1	89			25-150	
13C2 PFDoA	100	84.8	85			25-150	
18O2 PFHxS	94.6	86.1	91			25-150	
13C4 PFOS	95.6	85.2	89			25-150	

Column to be used to flag recovery and RPD values

FORM III 537 (modified)

FORM IV
LCMS METHOD BLANK SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 480-125692-1
 SDG No.: _____
 Lab File ID: 2017.10.20B_031.d Lab Sample ID: MB 320-189663/1-A
 Matrix: Water Date Extracted: 10/17/2017 08:45
 Instrument ID: A8_N Date Analyzed: 10/21/2017 01:11
 Level: (Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 320-189663/2-A	2017.10.20B 032.d	10/21/2017 01:18
	LCSD 320-189663/3-A	2017.10.20B 033.d	10/21/2017 01:25
MW-6	480-125692-14	2017.10.20B 039.d	10/21/2017 02:06
MW-7	480-125692-15	2017.10.20B 041.d	10/21/2017 02:20
MW-9	480-125692-16	2017.10.20B 042.d	10/21/2017 02:27
DGC-6S	480-125692-17	2017.10.20B 043.d	10/21/2017 02:34
DGC-7S	480-125692-18	2017.10.20B 044.d	10/21/2017 02:41
DGC-8S	480-125692-19	2017.10.20B 045.d	10/21/2017 02:48
PUMP CULVERT (TRENCH)	480-125692-20	2017.10.20B 046.d	10/21/2017 02:55
RECIRCULATION TANK (DISCHARGE)	480-125692-21	2017.10.20B 047.d	10/21/2017 03:01

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Sacramento</u>	Job No.: <u>480-125692-1</u>
SDG No.: _____	
Client Sample ID: <u>MW-6</u>	Lab Sample ID: <u>480-125692-14</u>
Matrix: <u>Water</u>	Lab File ID: <u>2017.10.20B_039.d</u>
Analysis Method: <u>537 (modified)</u>	Date Collected: <u>10/10/2017 12:17</u>
Extraction Method: <u>3535</u>	Date Extracted: <u>10/17/2017 08:45</u>
Sample wt/vol: <u>244.9 (mL)</u>	Date Analyzed: <u>10/21/2017 02:06</u>
Con. Extract Vol.: <u>0.50 (mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>2 (uL)</u>	GC Column: <u>GeminiC18 3x100 ID: 3 (mm)</u>
% Moisture: _____	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>190434</u>	Units: <u>ng/L</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	180	B	2.0	0.47
2706-90-3	Perfluoropentanoic acid (PFPeA)	130		2.0	1.0
307-24-4	Perfluorohexanoic acid (PFHxA)	120		2.0	0.80
375-85-9	Perfluoroheptanoic acid (PFHpA)	110		2.0	0.82
335-67-1	Perfluorooctanoic acid (PFOA)	240		2.0	0.76
375-95-1	Perfluorononanoic acid (PFNA)	17	B	2.0	0.67
335-76-2	Perfluorodecanoic acid (PFDA)	1.2	J B	2.0	0.45
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		2.0	0.76
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		2.0	0.60
72629-94-8	Perfluorotridecanoic Acid (PFTriA)	ND		2.0	0.56
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.49	J B	2.0	0.20
375-73-5	Perfluorobutanesulfonic acid (PFBS)	28		2.0	0.94
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	120		2.0	0.89
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	5.4		2.0	0.73
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	190		2.0	1.3
335-77-3	Perfluorodecanesulfonic acid (PFDS)	ND		2.0	1.2

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00992	13C4 PFBA	13	*	25-150
STL01893	13C5 PFPeA	39		25-150
STL00993	13C2 PFHxA	50		25-150
STL01892	13C4-PFHpA	59		25-150
STL00990	13C4 PFOA	66		25-150
STL00995	13C5 PFNA	72		25-150
STL00996	13C2 PFDA	72		25-150
STL00997	13C2 PFUnA	73		25-150
STL00998	13C2 PFDoA	53		25-150
STL00994	18O2 PFHxS	72		25-150
STL00991	13C4 PFOS	80		25-150

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\2017.10.20B_039.d
 Lims ID: 480-125692-A-14-A
 Client ID: MW-6
 Sample Type: Client
 Inject. Date: 21-Oct-2017 02:06:42 ALS Bottle#: 29 Worklist Smp#: 16
 Injection Vol: 2.0 ul Dil. Factor: 1.0000
 Sample Info: 480-125692-a-14-a
 Misc. Info.: Plate: 1 Rack: 4
 Operator ID: SACINSTLCMS01 Instrument ID: A8_N
 Method: \\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\A8_N.m
 Limit Group: LC PFC ICAL
 Last Update: 23-Oct-2017 14:16:11 Calib Date: 12-Oct-2017 11:11:26
 Integrator: Picker
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20171012-49071.b\2017.10.12ICAL_010.d

Column 1 : Det: EXP1
 Process Host: XAWRK012

First Level Reviewer: barnettj Date: 23-Oct-2017 13:42:20

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
2 Perfluorobutyric acid										M
212.90 > 169.00	1.545	1.545	0.0	1.000	3835958	87.3			27.7	M
D 1 13C4 PFBA										
217.00 > 172.00	1.545	1.545	0.0		2361091	6.29		12.6	4181	
4 Perfluoropentanoic acid										M
262.90 > 219.00	1.745	1.754	-0.009	1.000	6349340	63.8			59.8	M
D 3 13C5-PFPeA										
267.90 > 223.00	1.745	1.754	-0.009		4548747	19.3		38.6	2732	
D 47 13C3-PFBS										
301.90 > 83.00	1.764	1.773	-0.009		163954	23.9		51.4	145	
5 Perfluorobutanesulfonic acid										M
298.90 > 80.00	1.773	1.782	-0.009	1.000	3440116	13.6			77.5	M
298.90 > 99.00	1.773	1.782	-0.009	1.000	1430755		2.40(0.00-0.00)		83.6	
6 Perfluorohexanoic acid										M
313.00 > 269.00	2.006	2.017	-0.011	1.000	7254396	57.6			135	M
D 7 13C2 PFHxA										
315.00 > 270.00	2.006	2.017	-0.011		6430337	25.1		50.1	15694	
10 Perfluoroheptanoic acid										
363.00 > 319.00	2.326	2.324	0.002	1.000	7819316	55.2			541	
D 9 13C4-PFHpA										
367.00 > 322.00	2.317	2.324	-0.007		7100086	29.7		59.5	18828	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	2.334	2.348	-0.014	1.000	15707276	56.6			763	
D 11 18O2 PFHxS										
403.00 > 84.00	2.334	2.348	-0.014		12150472	33.9		71.7	46814	
* 62 13C2-PFOA										
415.00 > 370.00	2.662	2.671	-0.009		9079446	50.0			30221	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
15 Perfluorooctanoic acid										
413.00 > 369.00	2.669	2.671	-0.002	1.000	18770731	117.9			1645	
413.00 > 169.00	2.669	2.671	-0.002	1.000	11494941		1.63(0.90-1.10)		6469	
D 14 13C4 PFOA										
417.00 > 372.00	2.669	2.671	-0.002		7364970	32.8		65.6	17138	
16 Perfluoroheptanesulfonic Acid										
449.00 > 80.00	2.676	2.678	-0.002	1.000	650637	2.66			71.3	M
17 Perfluorooctane sulfonic acid										
499.00 > 80.00	2.908	3.035	-0.127	1.000	19544400	92.0			2533	
499.00 > 99.00	3.029	3.035	-0.006	1.042	3162219		6.18(0.90-1.10)		1913	
20 Perfluorononanoic acid										
463.00 > 419.00	3.029	3.035	-0.006	1.000	1003607	8.46			201	
D 18 13C4 PFOS										
503.00 > 80.00	3.029	3.035	-0.006		9661744	38.3		80.1	879	
D 19 13C5 PFNA										
468.00 > 423.00	3.029	3.035	-0.006		6168190	36.0		71.9	15834	
24 Perfluorodecanoic acid										
513.00 > 469.00	3.390	3.393	-0.003	1.000	56478	0.5772			21.1	
D 23 13C2 PFDA										
515.00 > 470.00	3.390	3.393	-0.003		5342320	36.1		72.3	13746	
29 Perfluorodecane Sulfonic acid										
599.00 > 80.00	3.703	3.710	-0.007	1.000	6824	0.0561			13.0	M
31 Perfluoroundecanoic acid										
563.00 > 519.00	3.723	3.720	0.003	1.000	20101	0.2637			11.2	M
D 30 13C2 PFUnA										
565.00 > 520.00	3.713	3.720	-0.007		3535150	36.3		72.6	7066	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.014	4.014	0.0	1.000	6986	0.1568			5.5	
D 36 13C2 PFDaA										
615.00 > 570.00	4.007	4.014	-0.007		2436543	26.7		53.4	7659	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.278	4.279	-0.001	1.000	11104	0.2562			3.0	
42 Perfluorotetradecanoic acid										
713.00 > 169.00	4.510	4.505	0.005	1.000	3880	0.2379			84.4	
713.00 > 219.00	4.510	4.505	0.005	1.000	2922		1.33(0.00-0.00)		35.2	
D 43 13C2-PFTeDA										
715.00 > 670.00	4.510	4.514	-0.004		3470141	43.3		86.7	10023	

QC Flag Legend

Review Flags

M - Manually Integrated

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\2017.10.20B_039.d

Injection Date: 21-Oct-2017 02:06:42

Instrument ID: A8_N

Lims ID: 480-125692-A-14-A

Lab Sample ID: 320-125692-14

Client ID: MW-6

Operator ID: SACINSTLCMS01

ALS Bottle#: 29

Worklist Smp#: 16

Injection Vol: 2.0 ul

Dil. Factor: 1.0000

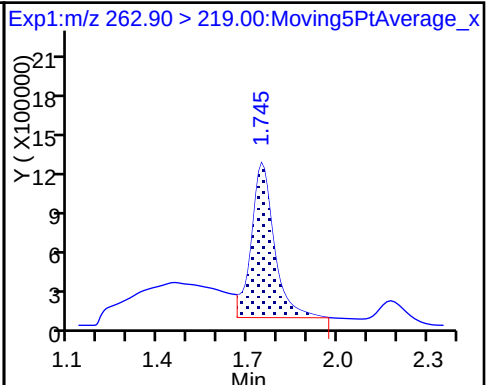
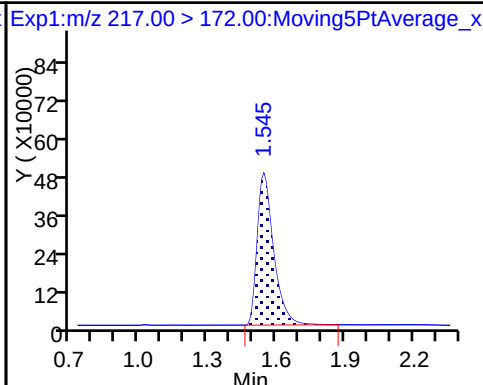
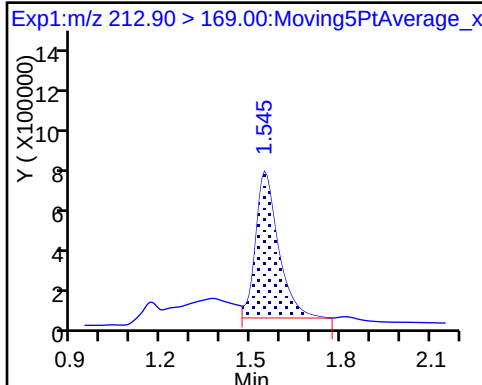
Method: A8_N

Limit Group: LC PFC ICAL

2 Perfluorobutyric acid (M)

D 1 13C4 PFBA

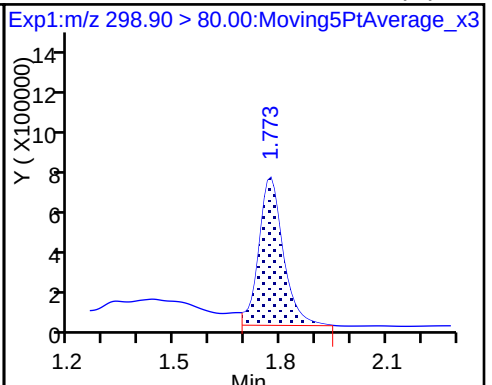
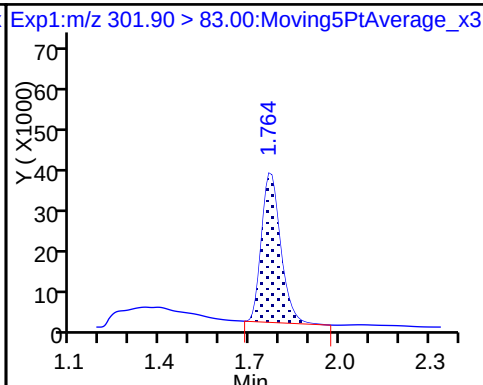
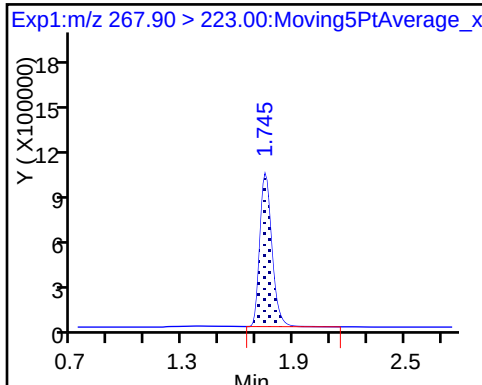
4 Perfluoropentanoic acid (M)



D 3 13C5-PFPeA

D 47 13C3-PFBS

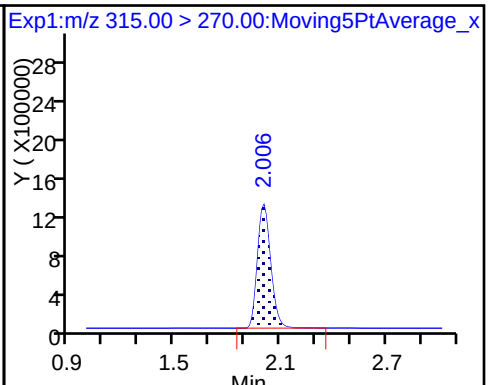
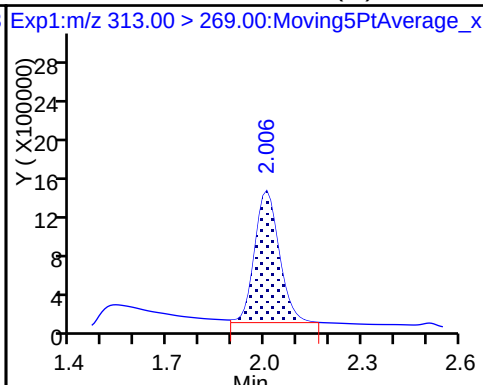
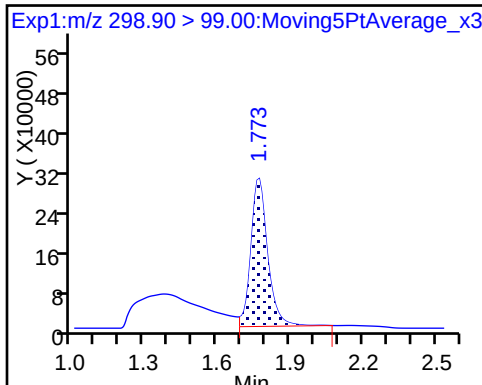
5 Perfluorobutanesulfonic acid (M)



5 Perfluorobutanesulfonic acid

6 Perfluorohexanoic acid (M)

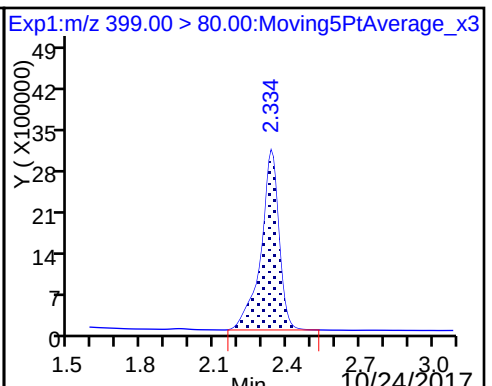
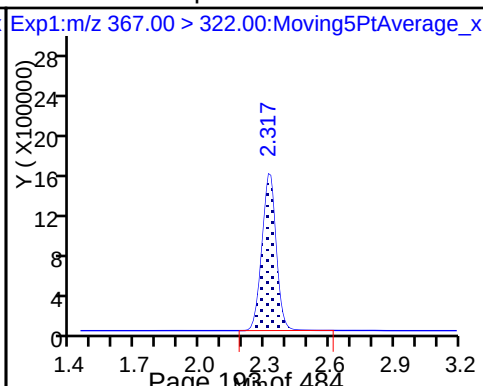
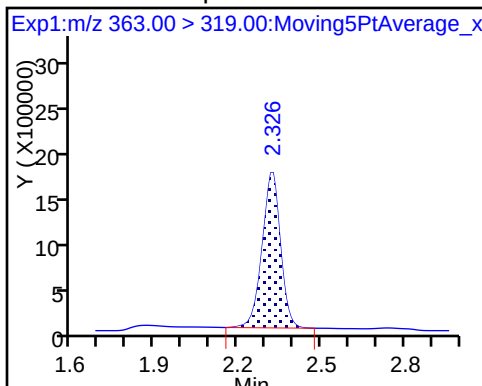
D 7 13C2 PFHxA



10 Perfluoroheptanoic acid

D 9 13C4-PFHpA

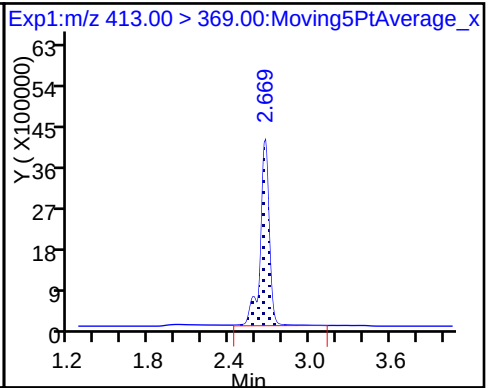
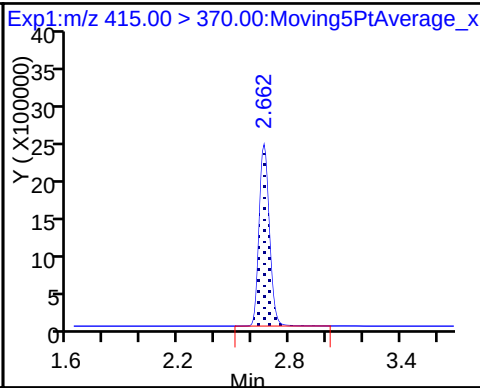
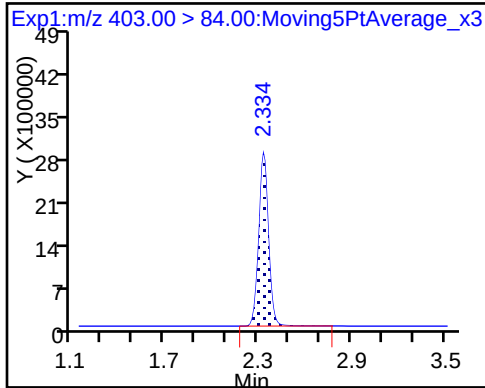
8 Perfluorohexanesulfonic acid



D 11 18O2 PFHxS

* 62 13C2-PFOA

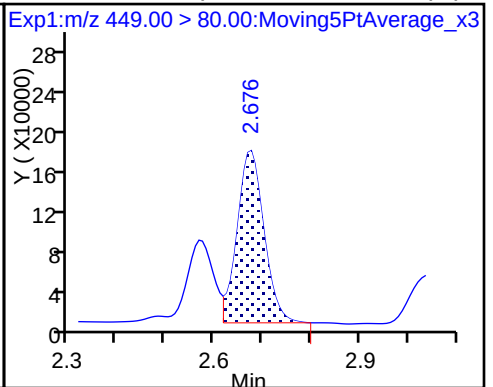
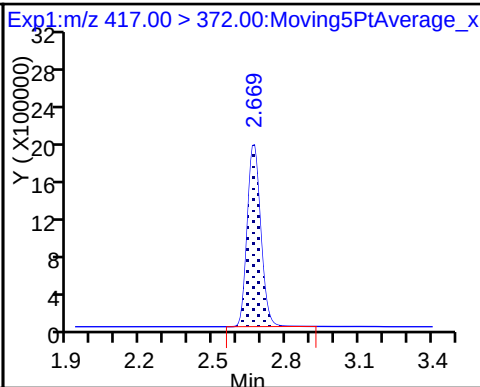
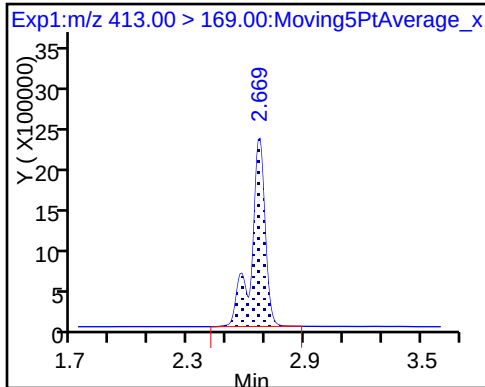
15 Perfluorooctanoic acid



15 Perfluorooctanoic acid

D 14 13C4 PFOA

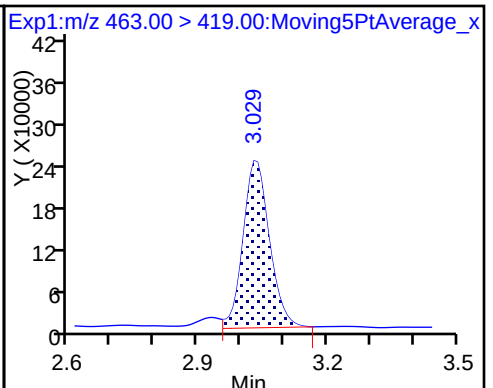
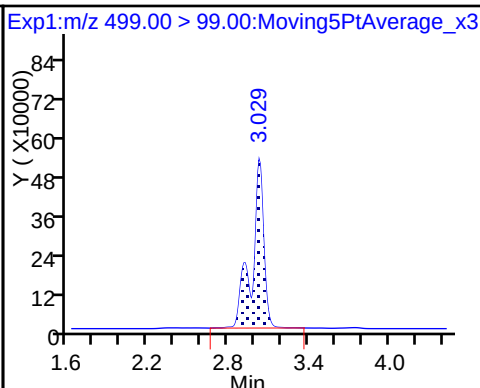
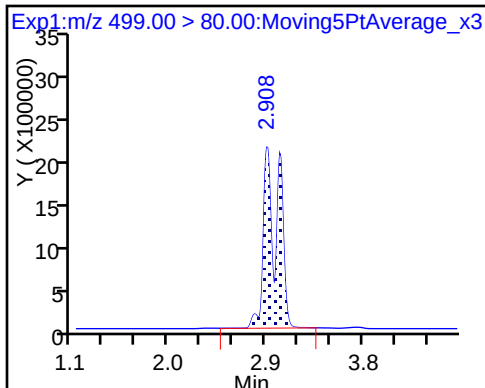
16 Perfluoroheptanesulfonic Acid (M)



17 Perfluorooctane sulfonic acid

17 Perfluorooctane sulfonic acid

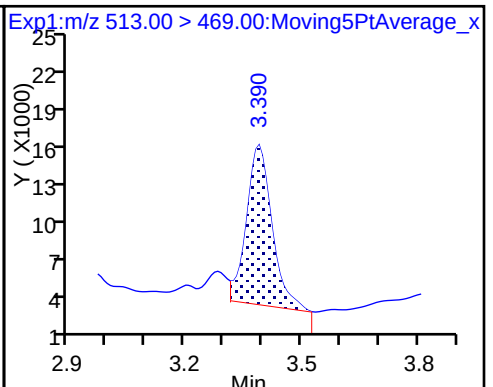
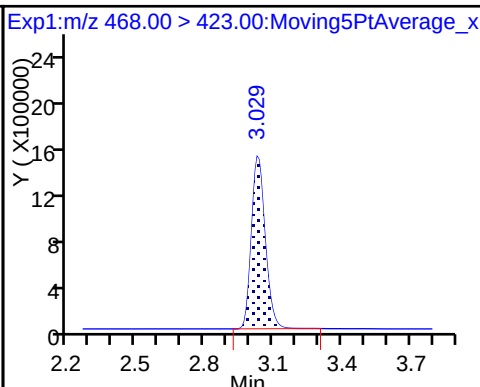
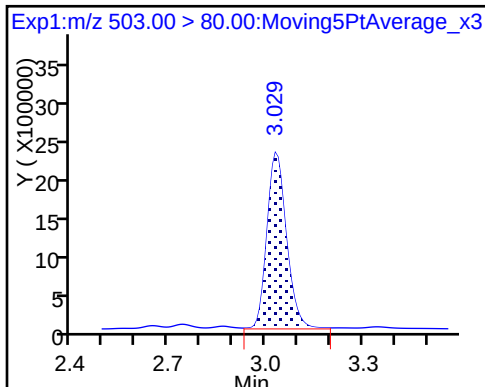
20 Perfluorononanoic acid



D 18 13C4 PFOS

D 19 13C5 PFNA

24 Perfluorodecanoic acid

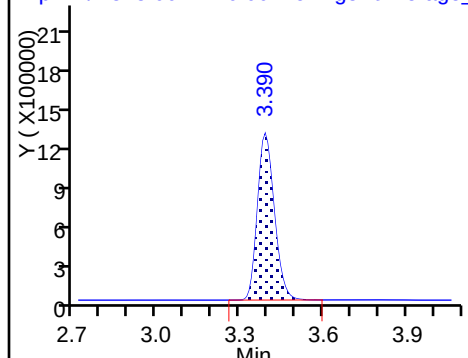


D 23 13C2 PFDA

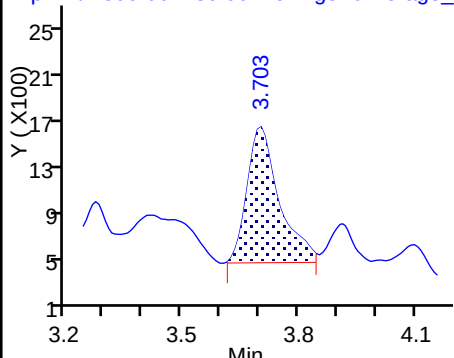
29 Perfluorodecane Sulfonic acid (M)

31 Perfluoroundecanoic acid (M)

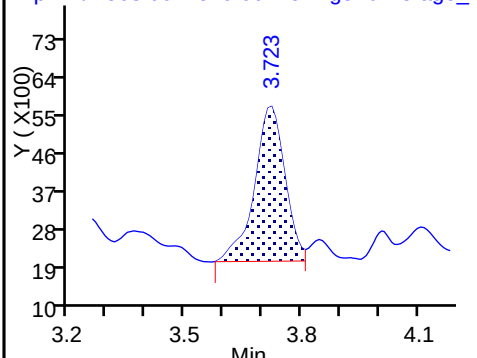
Exp1:m/z 515.00 > 470.00:Moving5PtAverage_x



Exp1:m/z 599.00 > 80.00:Moving5PtAverage_x3



Exp1:m/z 563.00 > 519.00:Moving5PtAverage_x

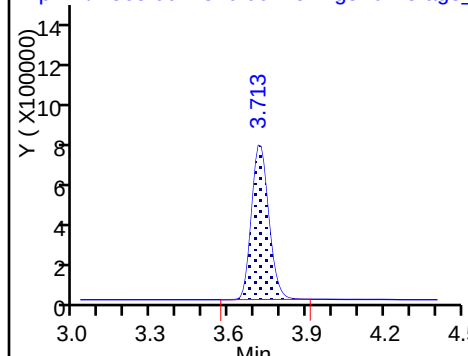


D 30 13C2 PFUnA

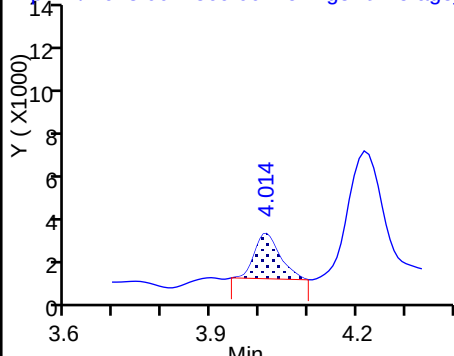
37 Perfluorododecanoic acid

D 36 13C2 PFDaA

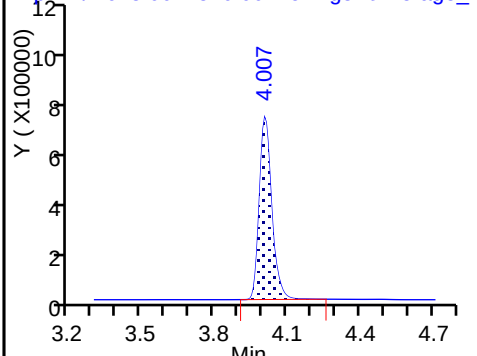
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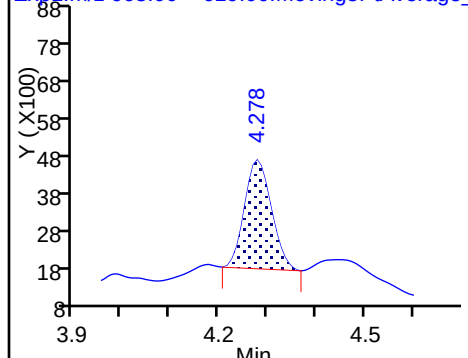


41 Perfluorotridecanoic acid

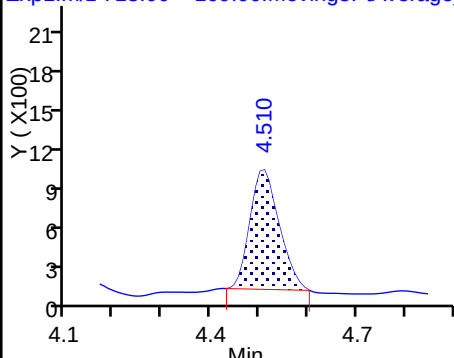
42 Perfluorotetradecanoic acid

42 Perfluorotetradecanoic acid

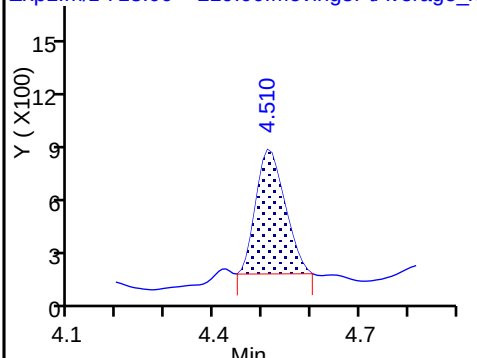
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Exp1:m/z 713.00 > 169.00:Moving5PtAverage_x

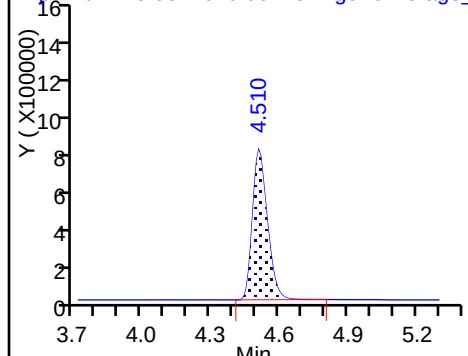


Exp1:m/z 713.00 > 219.00:Moving5PtAverage_x



D 43 13C2-PFTeDA

Exp1:m/z 715.00 > 670.00:Moving5PtAverage_x



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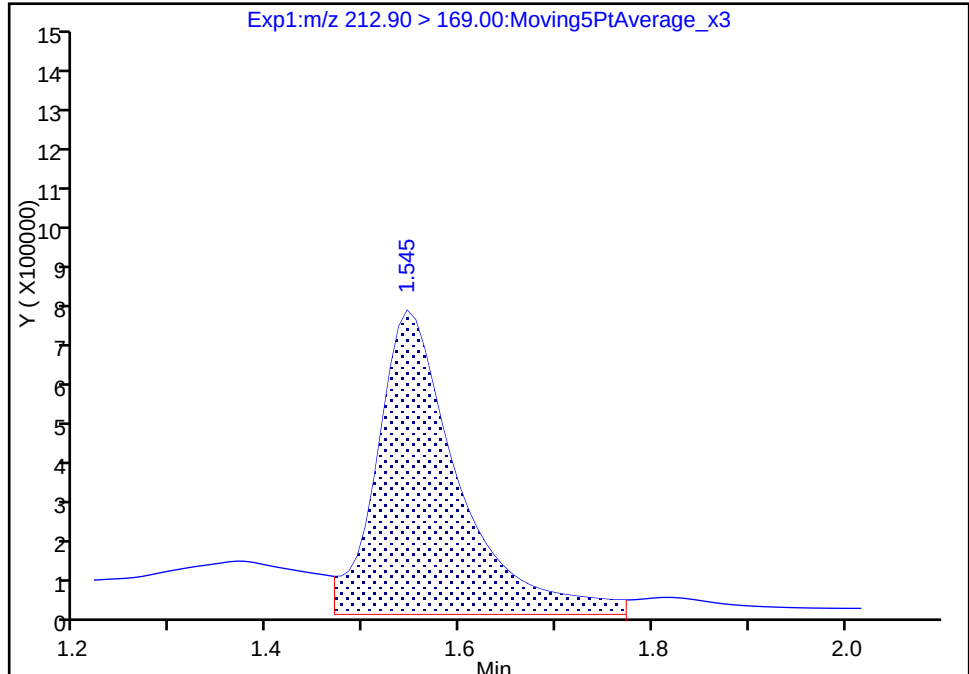
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Injection Date:	21-Oct-2017 02:06:42	Instrument ID:	A8_N		
Lims ID:	480-125692-A-14-A	Lab Sample ID:	320-125692-14		
Client ID:	MW-6				
Operator ID:	SACINSTLCMS01	ALS Bottle#:	29	Worklist Smp#:	16
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	A8_N	Limit Group:	LC PFC ICAL		
Column:		Detector	EXP1		

2 Perfluorobutyric acid, CAS: 375-22-4

Signal: 1

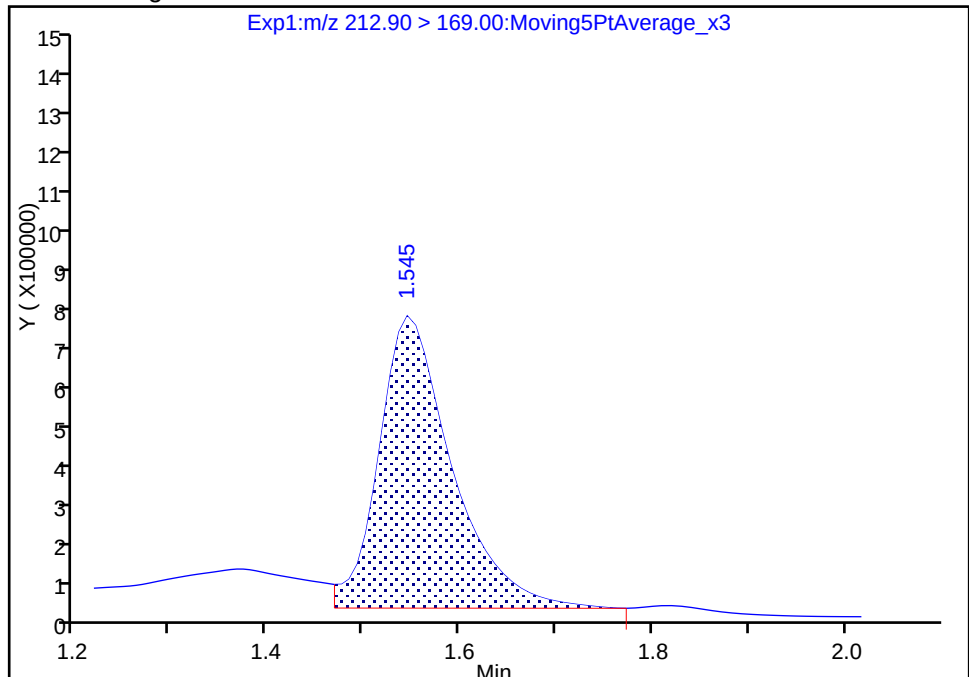
RT: 1.55
Area: 4499957
Amount: 102.4054
Amount Units: ng/ml

Processing Integration Results



RT: 1.55
Area: 3835958
Amount: 87.294823
Amount Units: ng/ml

Manual Integration Results



Reviewer: barnettj, 23-Oct-2017 13:40:06
Audit Action: Manually Integrated

Audit Reason: Baseline
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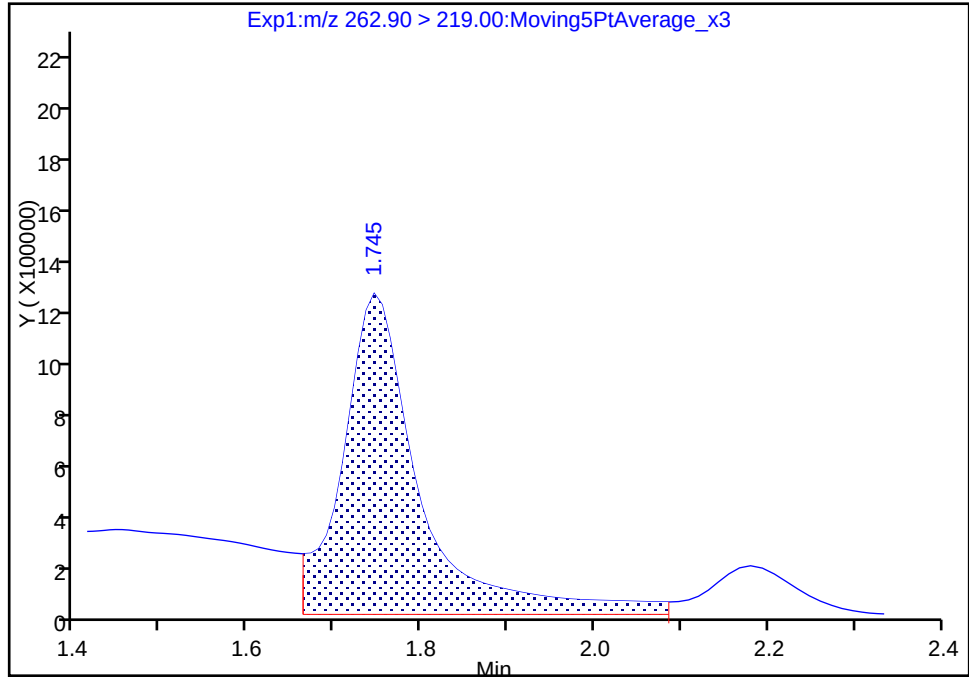
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Lims ID:	480-125692-A-14-A	Lab Sample ID:	320-125692-14		
Client ID:	MW-6				
Operator ID:	SACINSTLCMS01	ALS Bottle#:	29	Worklist Smp#:	16
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	A8_N	Limit Group:	LC PFC ICAL		
Column:		Detector	EXP1		

4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

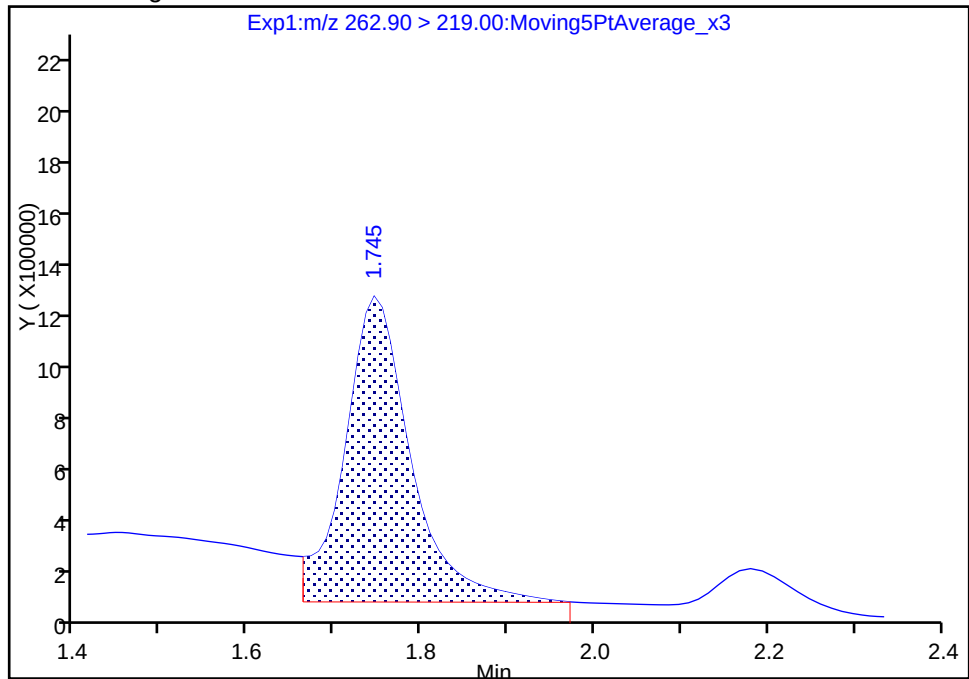
RT: 1.75
Area: 7814255
Amount: 78.539537
Amount Units: ng/ml

Processing Integration Results



RT: 1.75
Area: 6349340
Amount: 63.815965
Amount Units: ng/ml

Manual Integration Results



Reviewer: barnettj, 23-Oct-2017 13:40:23
Audit Action: Manually Integrated

Audit Reason: Baseline
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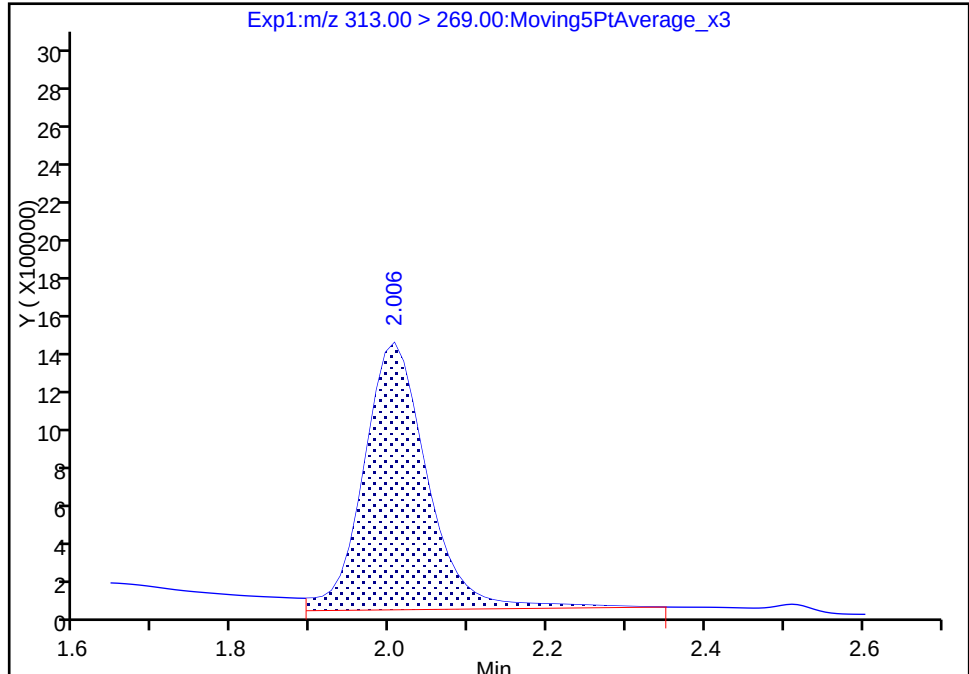
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Lims ID:	480-125692-A-14-A	Lab Sample ID:	320-125692-14		
Client ID:	MW-6				
Operator ID:	SACINSTLCMS01	ALS Bottle#:	29	Worklist Smp#:	16
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	A8_N	Limit Group:	LC PFC ICAL		
Column:		Detector	EXP1		

6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

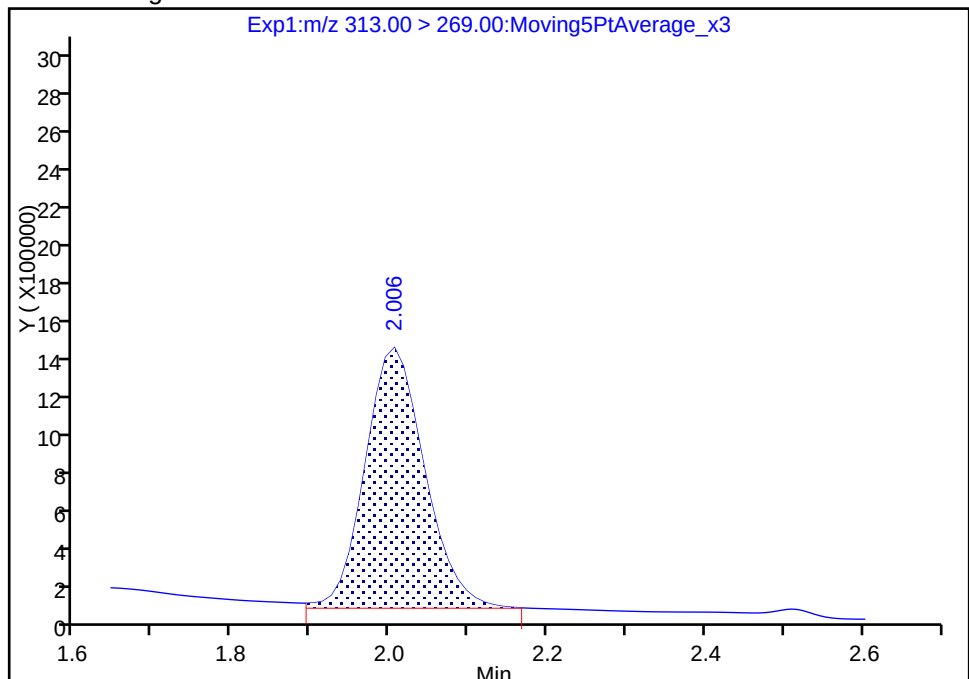
RT: 2.01
Area: 7950021
Amount: 63.101091
Amount Units: ng/ml

Processing Integration Results



RT: 2.01
Area: 7254396
Amount: 57.579760
Amount Units: ng/ml

Manual Integration Results



Reviewer: barnettj, 23-Oct-2017 13:40:50
Audit Action: Manually Integrated

Audit Reason: Baseline
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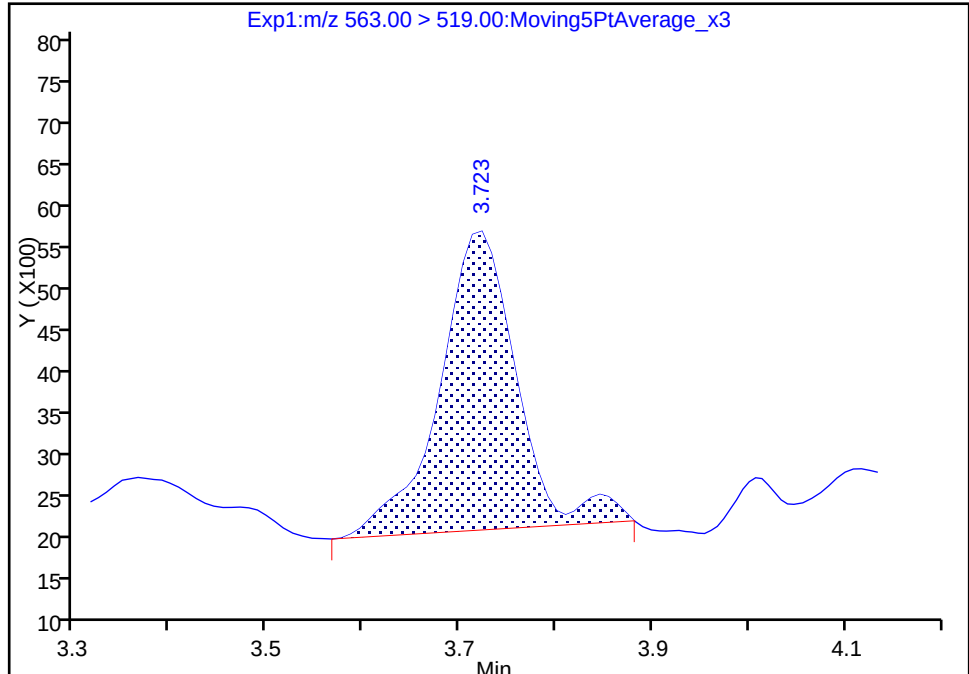
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Injection Date: 21-Oct-2017 02:06:42 Instrument ID: A8_N
Lims ID: 480-125692-A-14-A Lab Sample ID: 320-125692-14
Client ID: MW-6
Operator ID: SACINSTLCMS01 ALS Bottle#: 29 Worklist Smp#: 16
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: A8_N Limit Group: LC PFC ICAL
Column: Detector EXP1

31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 1

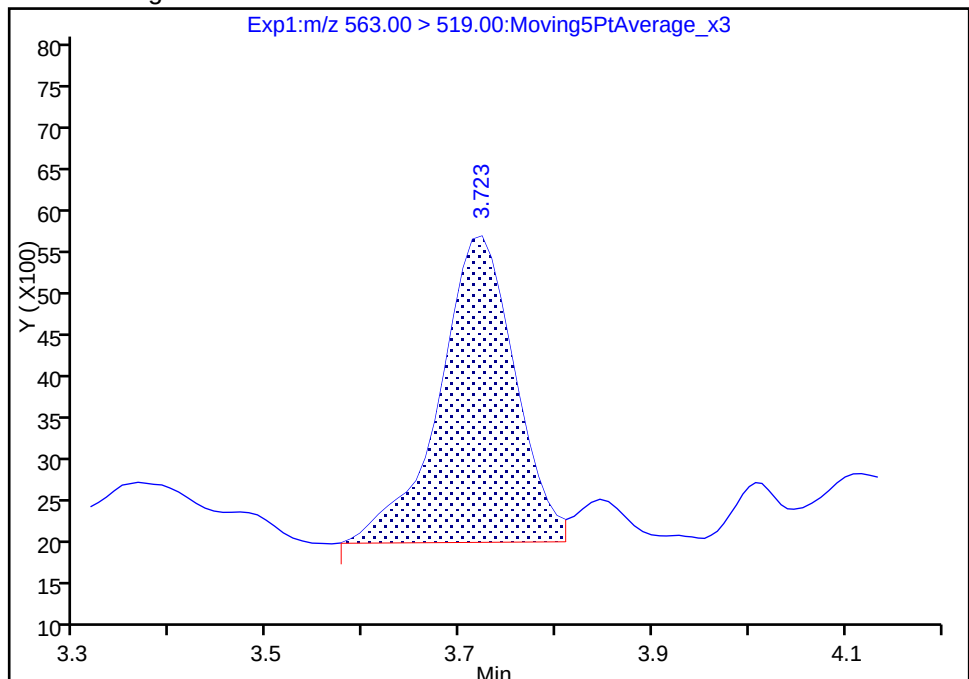
RT: 3.72
Area: 20029
Amount: 0.262729
Amount Units: ng/ml

Processing Integration Results



RT: 3.72
Area: 20101
Amount: 0.263674
Amount Units: ng/ml

Manual Integration Results



Reviewer: barnettj, 23-Oct-2017 13:41:57
Audit Action: Manually Integrated

Audit Reason: Baseline
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TestAmerica Sacramento

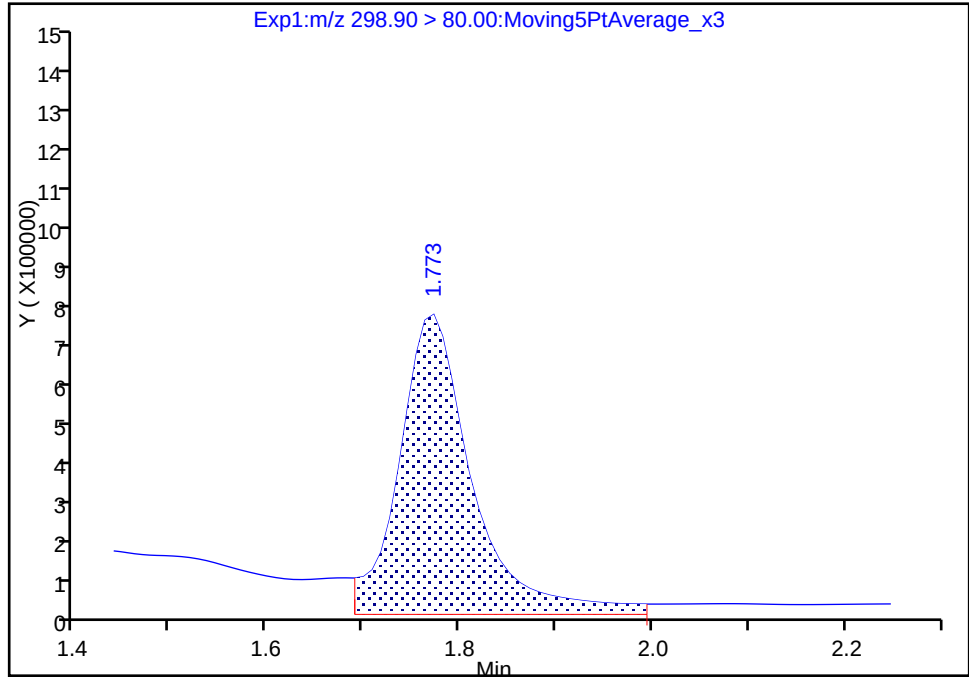
Data File:	\\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\2017.10.20B_039.d				
Injection Date:	21-Oct-2017 02:06:42	Instrument ID:	A8_N		
Lims ID:	480-125692-A-14-A	Lab Sample ID:	320-125692-14		
Client ID:	MW-6				
Operator ID:	SACINSTLCMS01	ALS Bottle#:	29	Worklist Smp#:	16
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	A8_N	Limit Group:	LC PFC ICAL		
Column:		Detector	EXP1		

5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

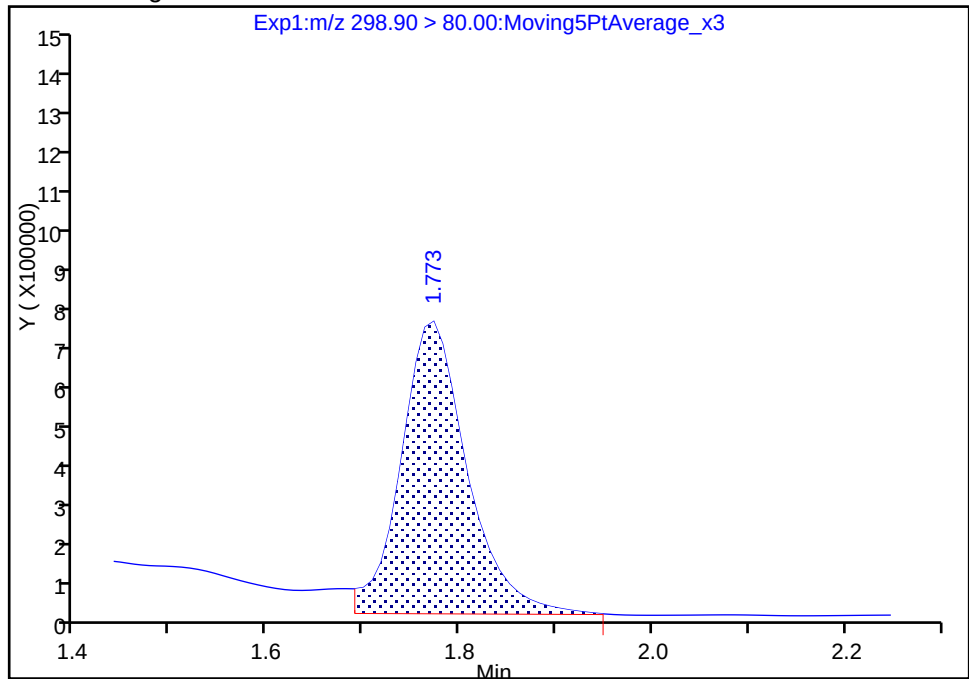
RT: 1.77
Area: 3961548
Amount: 15.664876
Amount Units: ng/ml

Processing Integration Results



RT: 1.77
Area: 3440116
Amount: 13.603014
Amount Units: ng/ml

Manual Integration Results



Reviewer: barnettj, 23-Oct-2017 13:40:38
Audit Action: Manually Integrated

Audit Reason: Baseline
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TestAmerica Sacramento

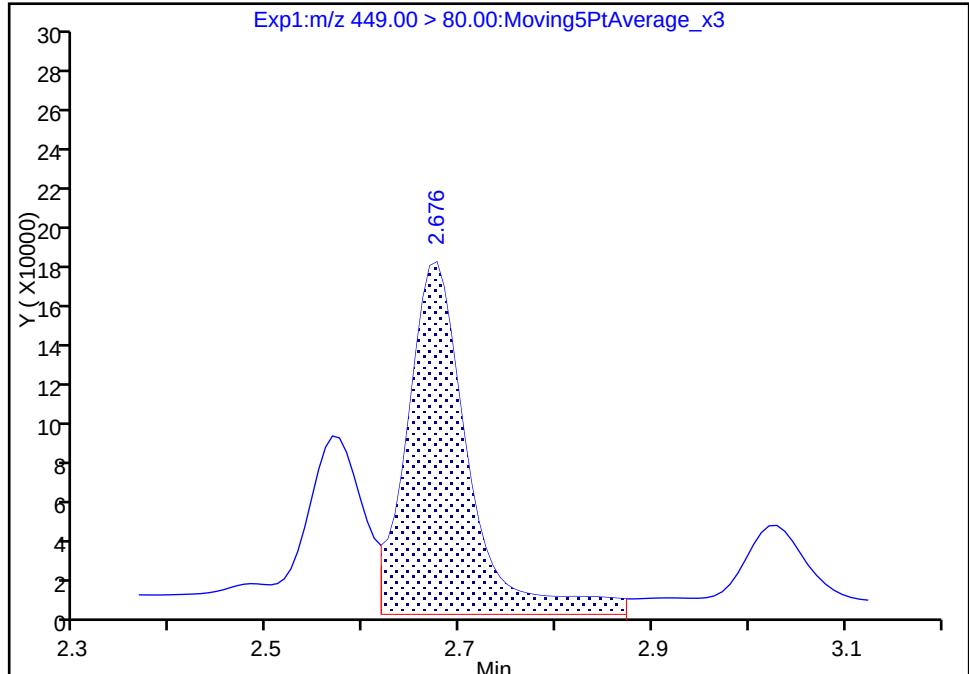
Data File:	\\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\2017.10.20B_039.d				
Injection Date:	21-Oct-2017 02:06:42	Instrument ID:	A8_N		
Lims ID:	480-125692-A-14-A	Lab Sample ID:	320-125692-14		
Client ID:	MW-6				
Operator ID:	SACINSTLCMS01	ALS Bottle#:	29	Worklist Smp#:	16
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	A8_N	Limit Group:	LC PFC ICAL		
Column:		Detector	EXP1		

16 Perfluoroheptanesulfonic Acid, CAS: 375-92-8

Signal: 1

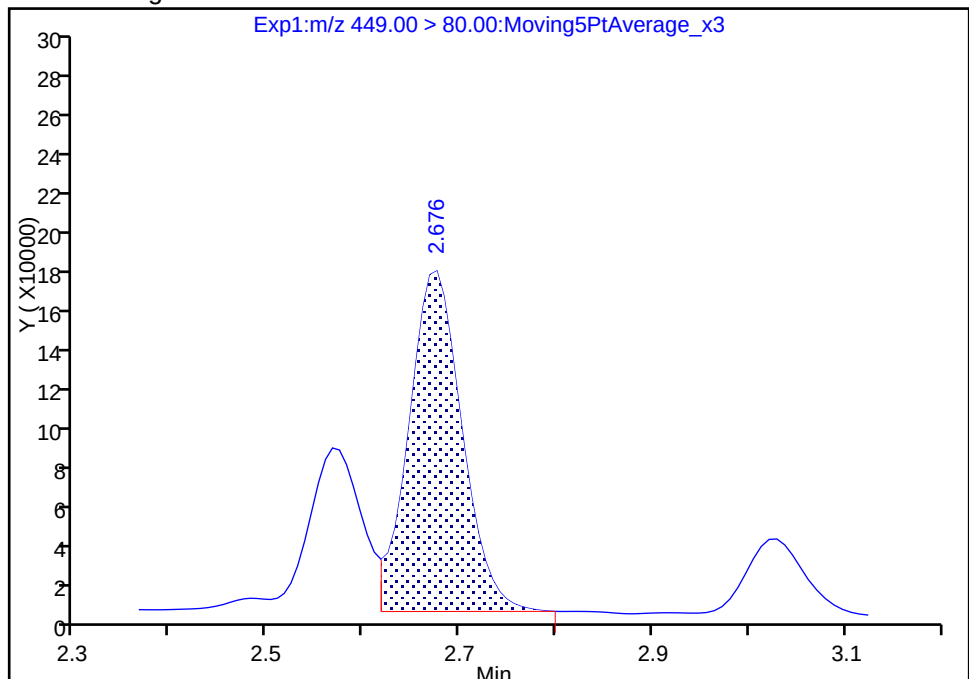
RT: 2.68
Area: 787318
Amount: 3.213127
Amount Units: ng/ml

Processing Integration Results



RT: 2.68
Area: 650637
Amount: 2.655318
Amount Units: ng/ml

Manual Integration Results



Reviewer: barnettj, 23-Oct-2017 13:41:16
Audit Action: Manually Integrated

Audit Reason: Baseline
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10/24/2017

TestAmerica Sacramento

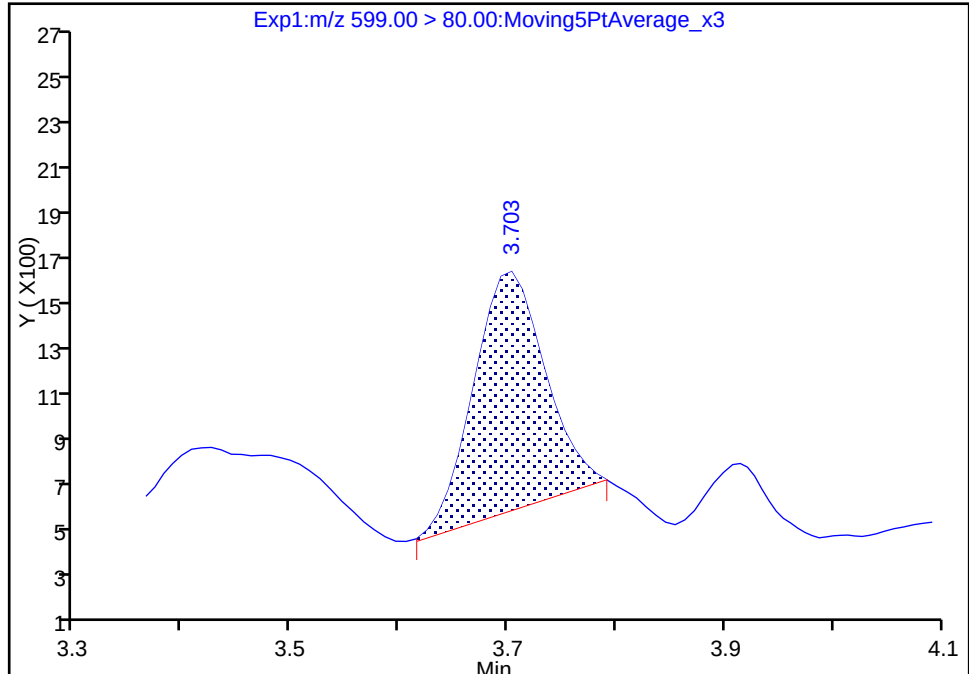
Data File:	\\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\2017.10.20B_039.d				
Injection Date:	21-Oct-2017 02:06:42	Instrument ID:	A8_N		
Lims ID:	480-125692-A-14-A	Lab Sample ID:	320-125692-14		
Client ID:	MW-6				
Operator ID:	SACINSTLCMS01	ALS Bottle#:	29	Worklist Smp#:	16
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	A8_N	Limit Group:	LC PFC ICAL		
Column:		Detector	EXP1		

29 Perfluorodecane Sulfonic acid, CAS: 335-77-3

Signal: 1

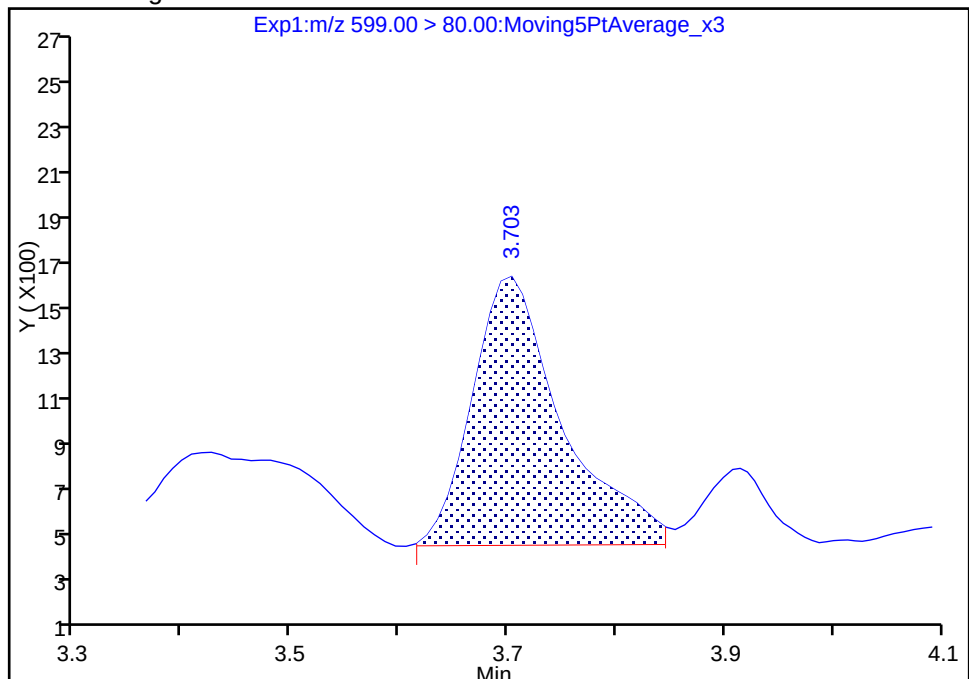
RT: 3.70
Area: 4860
Amount: 0.039938
Amount Units: ng/ml

Processing Integration Results



RT: 3.70
Area: 6824
Amount: 0.056077
Amount Units: ng/ml

Manual Integration Results



Reviewer: barnettj, 23-Oct-2017 13:41:37
Audit Action: Manually Integrated

Audit Reason: Baseline
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FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Sacramento</u>	Job No.: <u>480-125692-1</u>
SDG No.: _____	
Client Sample ID: <u>MW-7</u>	Lab Sample ID: <u>480-125692-15</u>
Matrix: <u>Water</u>	Lab File ID: <u>2017.10.20B_041.d</u>
Analysis Method: <u>537 (modified)</u>	Date Collected: <u>10/10/2017 12:27</u>
Extraction Method: <u>3535</u>	Date Extracted: <u>10/17/2017 08:45</u>
Sample wt/vol: <u>249.2 (mL)</u>	Date Analyzed: <u>10/21/2017 02:20</u>
Con. Extract Vol.: <u>0.50 (mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>2 (uL)</u>	GC Column: <u>GeminiC18 3x100 ID: 3 (mm)</u>
% Moisture: _____	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>190434</u>	Units: <u>ng/L</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	54	B	2.0	0.46
2706-90-3	Perfluoropentanoic acid (PFPeA)	41		2.0	0.99
307-24-4	Perfluorohexanoic acid (PFHxA)	40		2.0	0.79
375-85-9	Perfluoroheptanoic acid (PFHpA)	40		2.0	0.80
335-67-1	Perfluorooctanoic acid (PFOA)	87		2.0	0.75
375-95-1	Perfluorononanoic acid (PFNA)	6.5	B	2.0	0.66
335-76-2	Perfluorodecanoic acid (PFDA)	1.7	J B	2.0	0.44
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		2.0	0.75
307-55-1	Perfluorododecanoic acid (PFDoA)	0.62	J B	2.0	0.59
72629-94-8	Perfluorotridecanoic Acid (PFTriA)	ND		2.0	0.55
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.55	J B	2.0	0.20
375-73-5	Perfluorobutanesulfonic acid (PFBS)	12		2.0	0.92
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	44		2.0	0.87
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	3.6		2.0	0.72
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	150		2.0	1.3
335-77-3	Perfluorodecanesulfonic acid (PFDS)	ND		2.0	1.2

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00992	13C4 PFBA	22	*	25-150
STL01893	13C5 PFPeA	53		25-150
STL00993	13C2 PFHxA	64		25-150
STL01892	13C4-PFHpA	71		25-150
STL00990	13C4 PFOA	76		25-150
STL00995	13C5 PFNA	82		25-150
STL00996	13C2 PFDA	84		25-150
STL00997	13C2 PFUnA	87		25-150
STL00998	13C2 PFDoA	79		25-150
STL00994	18O2 PFHxS	82		25-150
STL00991	13C4 PFOS	86		25-150

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\2017.10.20B_041.d
 Lims ID: 480-125692-A-15-A
 Client ID: MW-7
 Sample Type: Client
 Inject. Date: 21-Oct-2017 02:20:31 ALS Bottle#: 30 Worklist Smp#: 18
 Injection Vol: 2.0 ul Dil. Factor: 1.0000
 Sample Info: 480-125692-a-15-a
 Misc. Info.: Plate: 1 Rack: 4
 Operator ID: SACINSTLCMS01 Instrument ID: A8_N
 Method: \\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\A8_N.m
 Limit Group: LC PFC ICAL
 Last Update: 23-Oct-2017 14:17:58 Calib Date: 12-Oct-2017 11:11:26
 Integrator: Picker
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20171012-49071.b\2017.10.12ICAL_010.d

Column 1 : Det: EXP1
 Process Host: XAWRK012

First Level Reviewer: barnettj

Date: 23-Oct-2017 14:00:24

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
2 Perfluorobutyric acid										M
212.90 > 169.00	1.554	1.545	0.009	1.000	2017198	26.8			31.1	M
D 1 13C4 PFBA										
217.00 > 172.00	1.554	1.545	0.009		4051112	10.8		21.6	5361	
4 Perfluoropentanoic acid										M
262.90 > 219.00	1.755	1.754	0.001	1.000	2783938	20.3			36.3	M
D 3 13C5-PFPeA										
267.90 > 223.00	1.755	1.754	0.001		6279736	26.6		53.3	4970	
D 47 13C3-PFBS										
301.90 > 83.00	1.773	1.773	0.0		205621	30.0		64.5	267	
5 Perfluorobutanesulfonic acid										M
298.90 > 80.00	1.773	1.782	-0.009	1.000	1869509	5.89			53.2	M
298.90 > 99.00	1.773	1.782	-0.009	1.000	737433		2.54(0.00-0.00)		69.8	
6 Perfluorohexanoic acid										M
313.00 > 269.00	2.006	2.017	-0.011	1.000	3166999	19.8			74.5	M
D 7 13C2 PFHxA										
315.00 > 270.00	2.006	2.017	-0.011		8158522	31.8		63.6	15003	
10 Perfluoroheptanoic acid										
363.00 > 319.00	2.327	2.324	0.003	1.000	3395216	20.1			253	
D 9 13C4-PFHpA										
367.00 > 322.00	2.327	2.324	0.003		8464554	35.4		70.9	17447	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	2.343	2.348	-0.005	1.000	6917949	21.8			550	
D 11 18O2 PFHxS										
403.00 > 84.00	2.343	2.348	-0.005		13937147	38.9		82.2	20800	
* 62 13C2-PFOA										
415.00 > 370.00	2.670	2.671	-0.001		10729579	50.0			16113	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
15 Perfluorooctanoic acid										
413.00 > 369.00	2.677	2.671	0.006	1.000	8040735	43.4			658	
413.00 > 169.00	2.677	2.671	0.006	1.000	4792383		1.68(0.90-1.10)		4456	
D 14 13C4 PFOA										
417.00 > 372.00	2.670	2.671	-0.001		8567607	38.2		76.3	20602	
16 Perfluoroheptanesulfonic Acid										
449.00 > 80.00	2.677	2.678	-0.001	1.000	468208	1.77			95.7	
17 Perfluorooctane sulfonic acid										
499.00 > 80.00	3.041	3.035	0.006	1.000	17664716	77.1			2324	
499.00 > 99.00	3.041	3.035	0.006	1.000	3189144		5.54(0.90-1.10)		2586	
20 Perfluorononanoic acid										
463.00 > 419.00	3.041	3.035	0.006	1.000	440882	3.26			90.2	
D 18 13C4 PFOS										
503.00 > 80.00	3.041	3.035	0.006		10422869	41.3		86.5	5686	
D 19 13C5 PFNA										
468.00 > 423.00	3.041	3.035	0.006		7035065	41.0		82.0	13485	
24 Perfluorodecanoic acid										
513.00 > 469.00	3.397	3.393	0.004	1.000	99209	0.8684			46.0	
D 23 13C2 PFDA										
515.00 > 470.00	3.397	3.393	0.004		6237886	42.2		84.4	12268	
29 Perfluorodecane Sulfonic acid										
599.00 > 80.00	3.703	3.710	-0.007	1.000	22510	0.1715			46.5	
31 Perfluoroundecanoic acid										
563.00 > 519.00	3.722	3.720	0.002	1.000	32663	0.3569			22.7	M
D 30 13C2 PFUnA										
565.00 > 520.00	3.722	3.720	0.002		4243466	43.6		87.2	10592	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.014	4.014	0.0	1.000	20428	0.3081			18.2	
D 36 13C2 PFDaA										
615.00 > 570.00	4.014	4.014	0.0		3625754	39.7		79.4	5637	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.286	4.279	0.007	1.000	17248	0.2674			3.4	
42 Perfluorotetradecanoic acid										
713.00 > 169.00	4.511	4.505	0.006	1.000	5819	0.2744			100	
713.00 > 219.00	4.520	4.505	0.015	1.002	4585		1.27(0.00-0.00)		55.8	
D 43 13C2-PFTeDA										
715.00 > 670.00	4.520	4.514	0.006		4511620	56.3		113	9040	

QC Flag Legend

Review Flags

M - Manually Integrated

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\2017.10.20B_041.d

Injection Date: 21-Oct-2017 02:20:31

Instrument ID: A8_N

Lims ID: 480-125692-A-15-A

Lab Sample ID: 320-125692-15

Client ID: MW-7

Operator ID: SACINSTLCMS01

ALS Bottle#: 30

Worklist Smp#: 18

Injection Vol: 2.0 ul

Dil. Factor: 1.0000

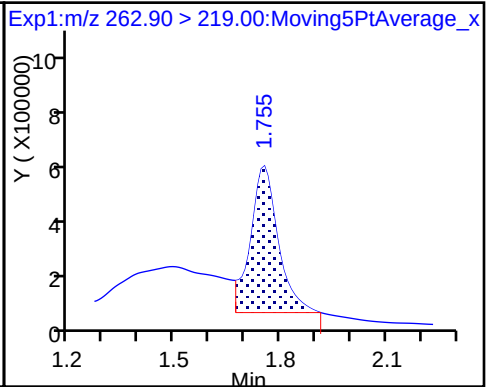
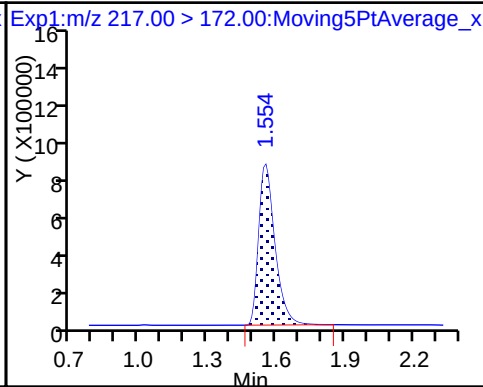
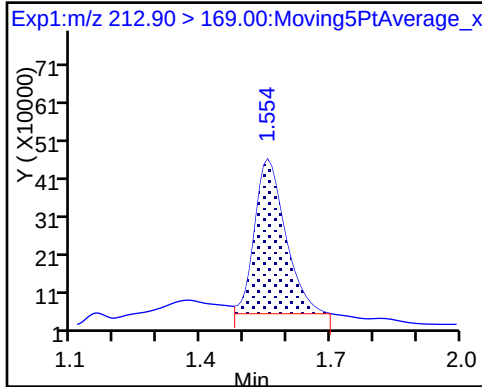
Method: A8_N

Limit Group: LC PFC ICAL

2 Perfluorobutyric acid (M)

D 1 13C4 PFBA

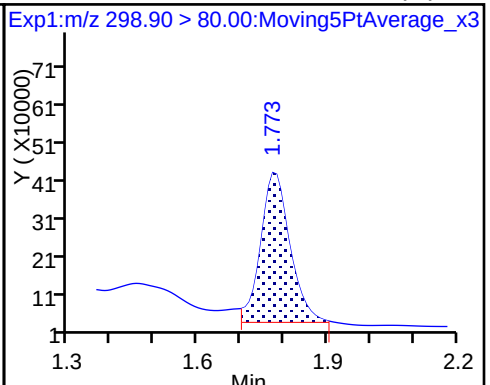
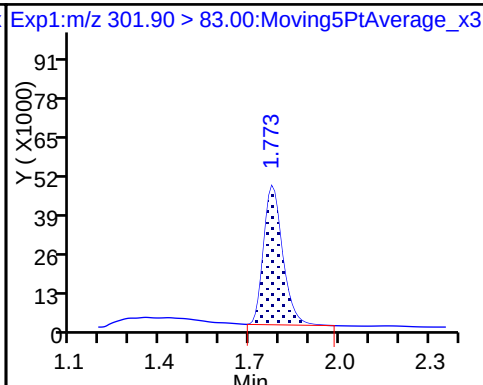
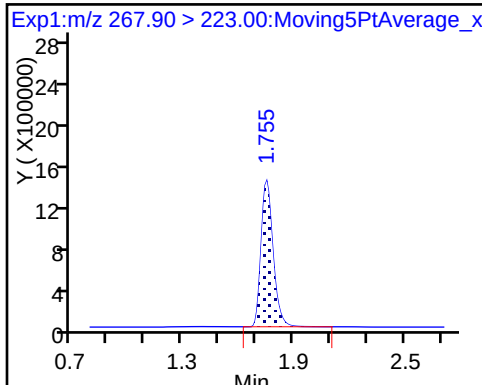
4 Perfluoropentanoic acid (M)



D 3 13C5-PFPeA

D 47 13C3-PFBS

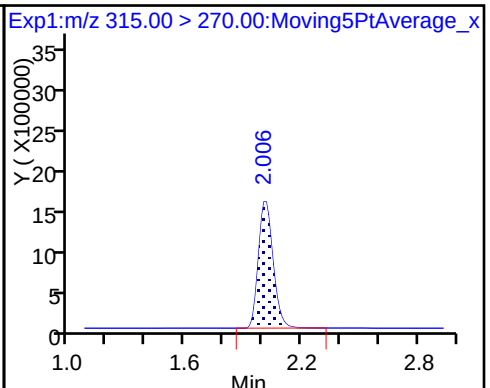
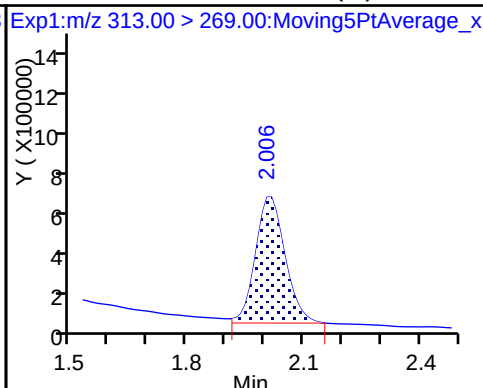
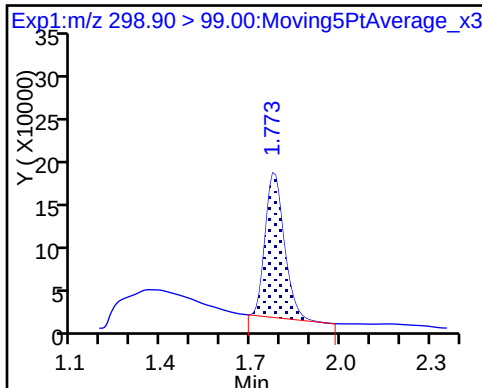
5 Perfluorobutanesulfonic acid (M)



5 Perfluorobutanesulfonic acid

6 Perfluorohexanoic acid (M)

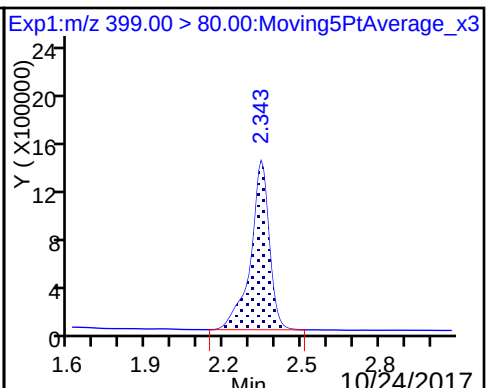
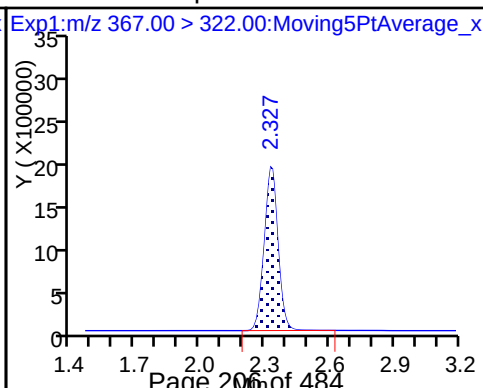
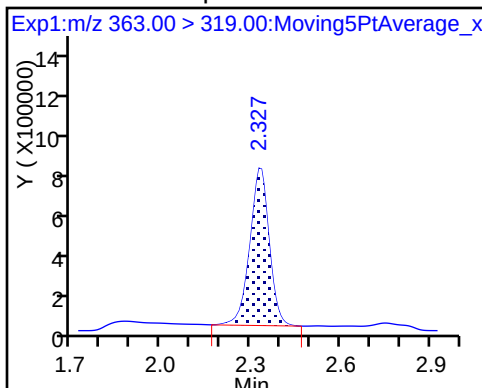
D 7 13C2 PFHxA



10 Perfluoroheptanoic acid

D 9 13C4-PFHpA

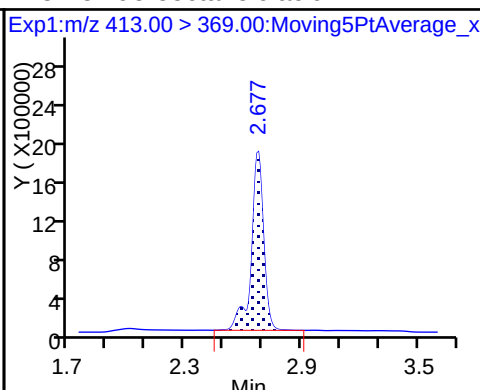
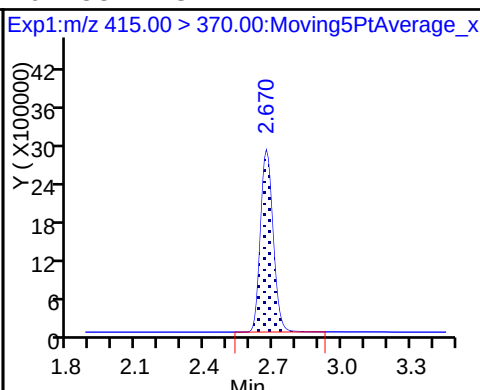
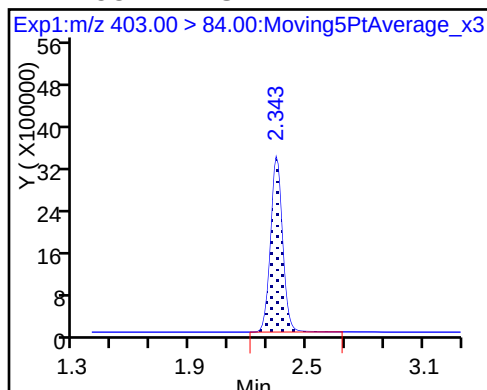
8 Perfluorohexanesulfonic acid



D 11 18O2 PFHxS

* 62 13C2-PFOA

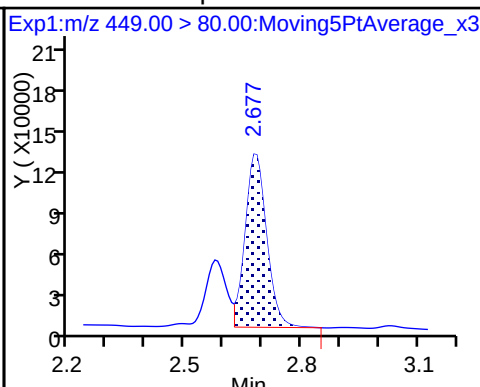
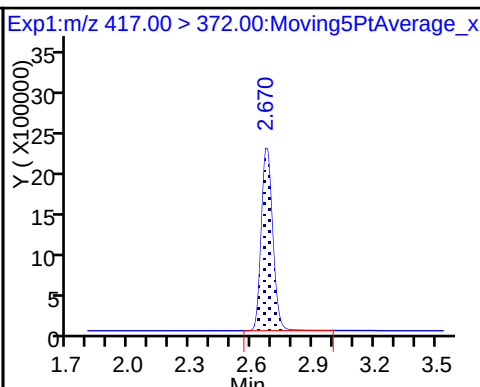
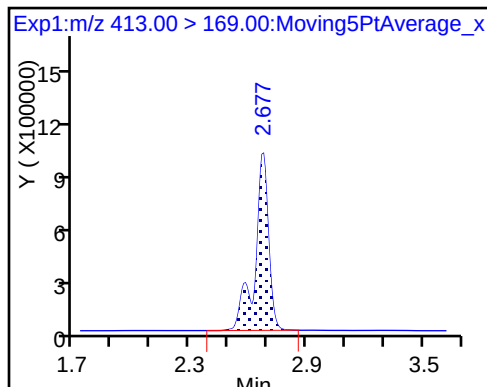
15 Perfluorooctanoic acid



15 Perfluorooctanoic acid

D 14 13C4 PFOA

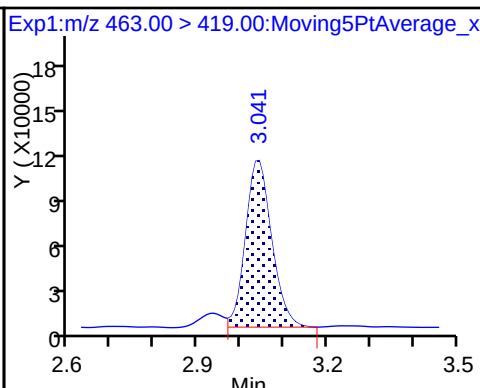
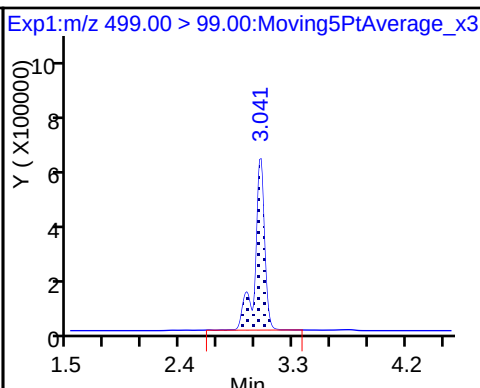
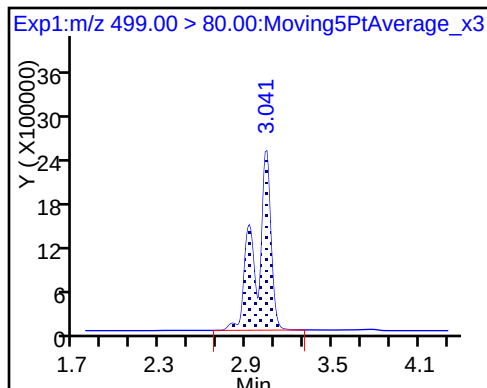
16 Perfluoroheptanesulfonic Acid



17 Perfluorooctane sulfonic acid

17 Perfluorooctane sulfonic acid

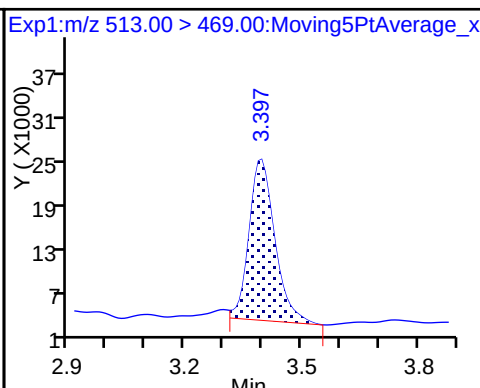
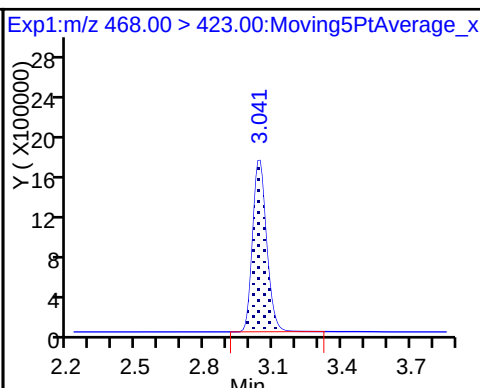
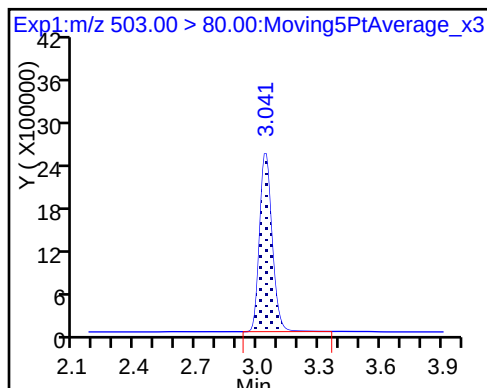
20 Perfluorononanoic acid



D 18 13C4 PFOS

D 19 13C5 PFNA

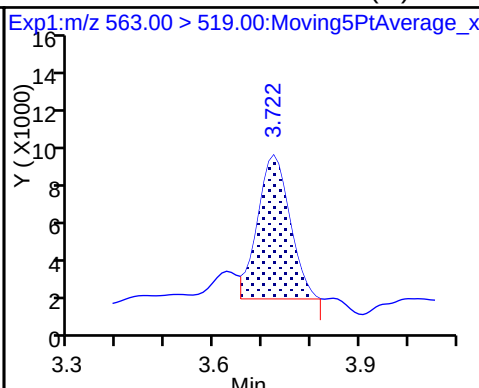
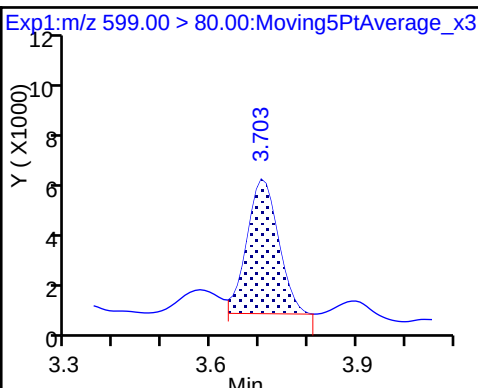
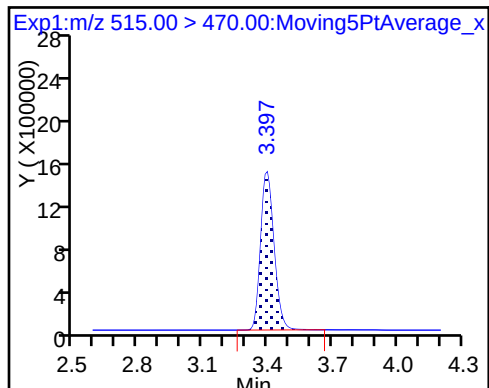
24 Perfluorodecanoic acid



D 23 13C2 PFDA

29 Perfluorodecane Sulfonic acid

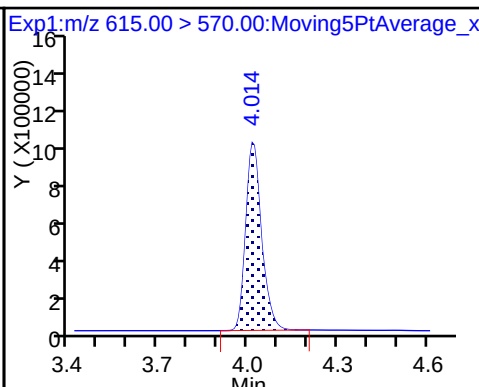
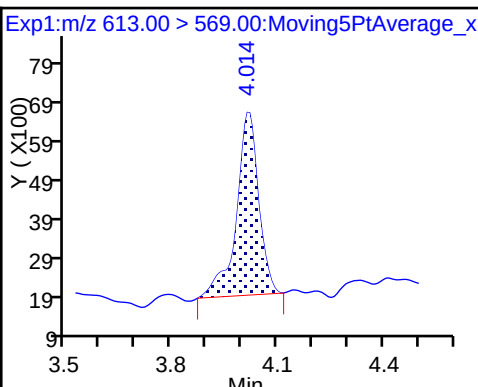
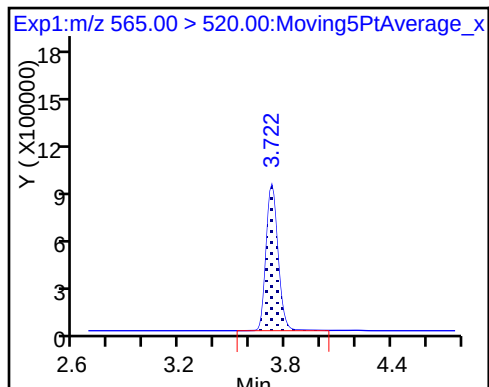
31 Perfluoroundecanoic acid (M)



D 30 13C2 PFUnA

37 Perfluorododecanoic acid

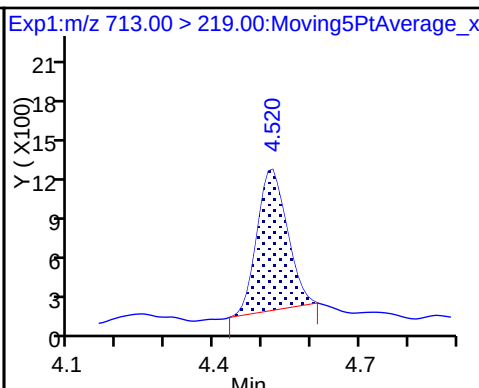
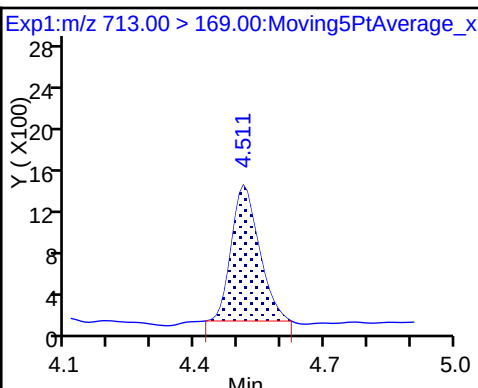
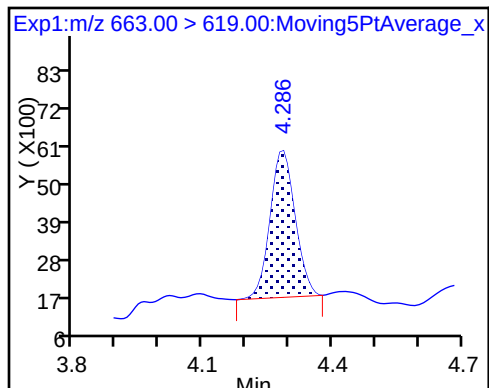
D 36 13C2 PFDaA



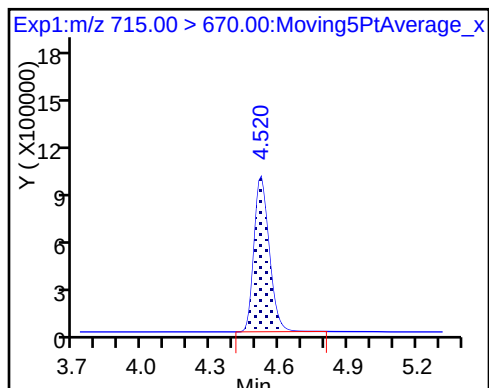
41 Perfluorotridecanoic acid

42 Perfluorotetradecanoic acid

42 Perfluorotetradecanoic acid



D 43 13C2-PFTeDA



TestAmerica Sacramento

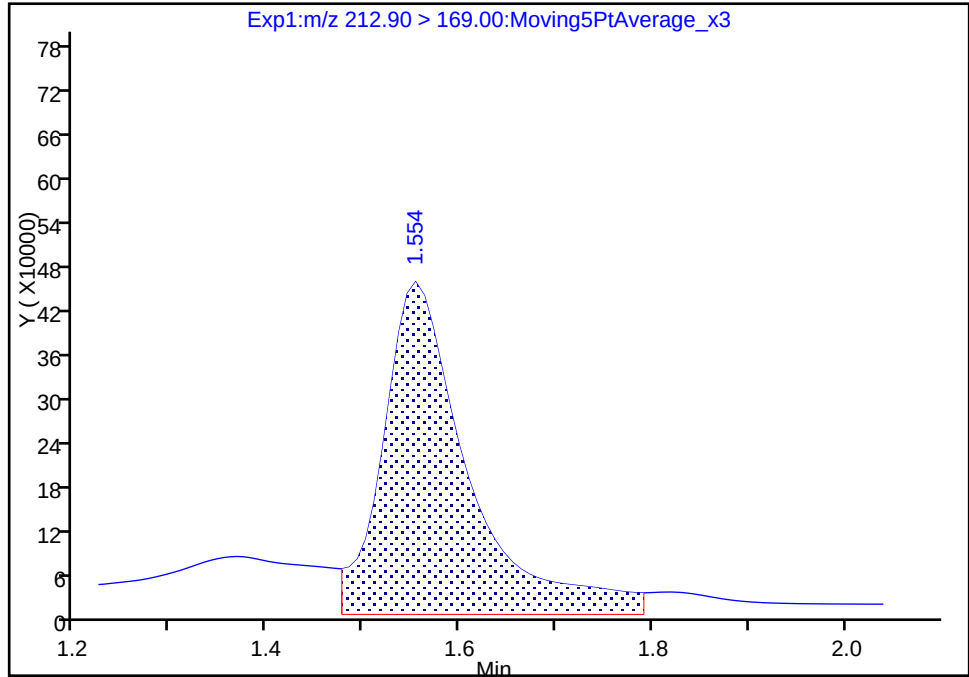
Data File:	\\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\2017.10.20B_041.d				
Injection Date:	21-Oct-2017 02:20:31	Instrument ID:	A8_N		
Lims ID:	480-125692-A-15-A	Lab Sample ID:	320-125692-15		
Client ID:	MW-7				
Operator ID:	SACINSTLCMS01	ALS Bottle#:	30	Worklist Smp#:	18
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	A8_N	Limit Group:	LC PFC ICAL		
Column:		Detector	EXP1		

2 Perfluorobutyric acid, CAS: 375-22-4

Signal: 1

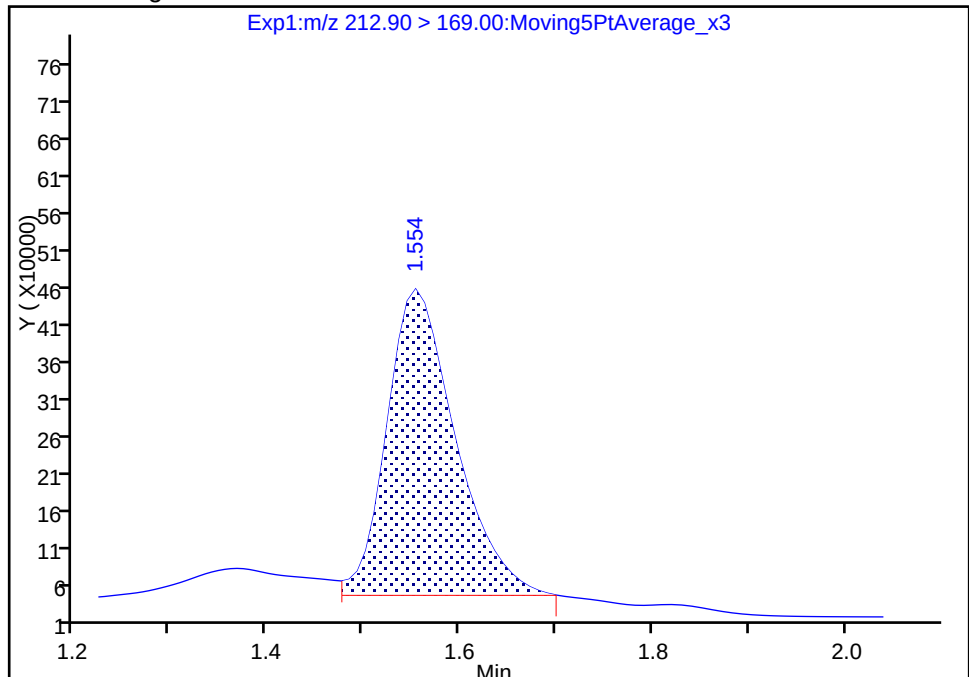
RT: 1.55
Area: 2779745
Amount: 36.868722
Amount Units: ng/ml

Processing Integration Results



RT: 1.55
Area: 2017198
Amount: 26.754796
Amount Units: ng/ml

Manual Integration Results



Reviewer: barnettj, 23-Oct-2017 13:58:40
Audit Action: Manually Integrated

Audit Reason: Baseline
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TestAmerica Sacramento

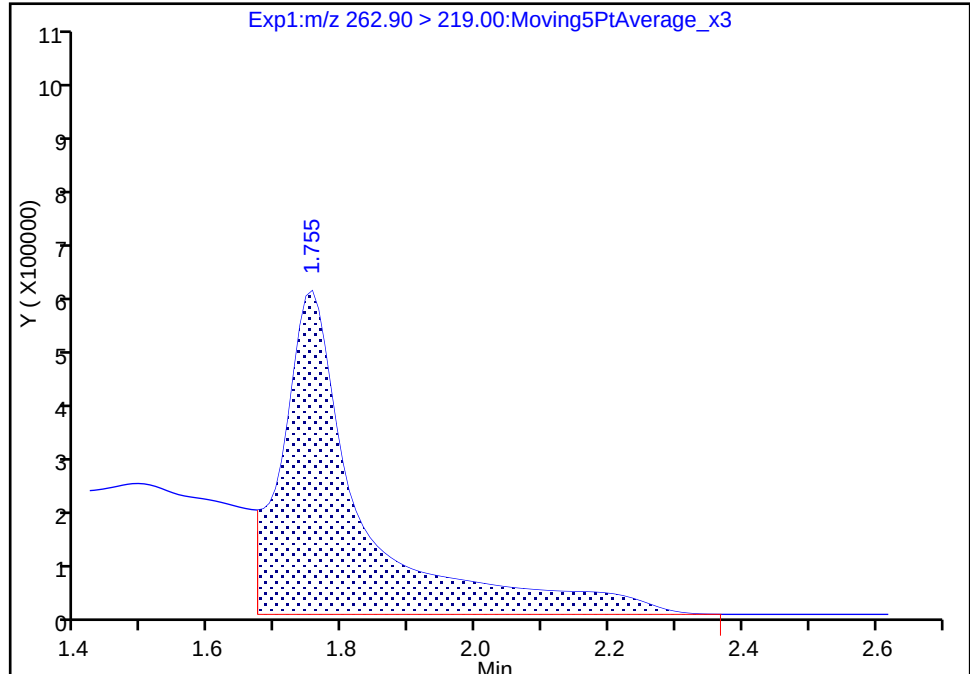
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Injection Date:	21-Oct-2017 02:20:31	Instrument ID:	A8_N		
Lims ID:	480-125692-A-15-A	Lab Sample ID:	320-125692-15		
Client ID:	MW-7				
Operator ID:	SACINSTLCMS01	ALS Bottle#:	30	Worklist Smp#:	18
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	A8_N	Limit Group:	LC PFC ICAL		
Column:		Detector	EXP1		

4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

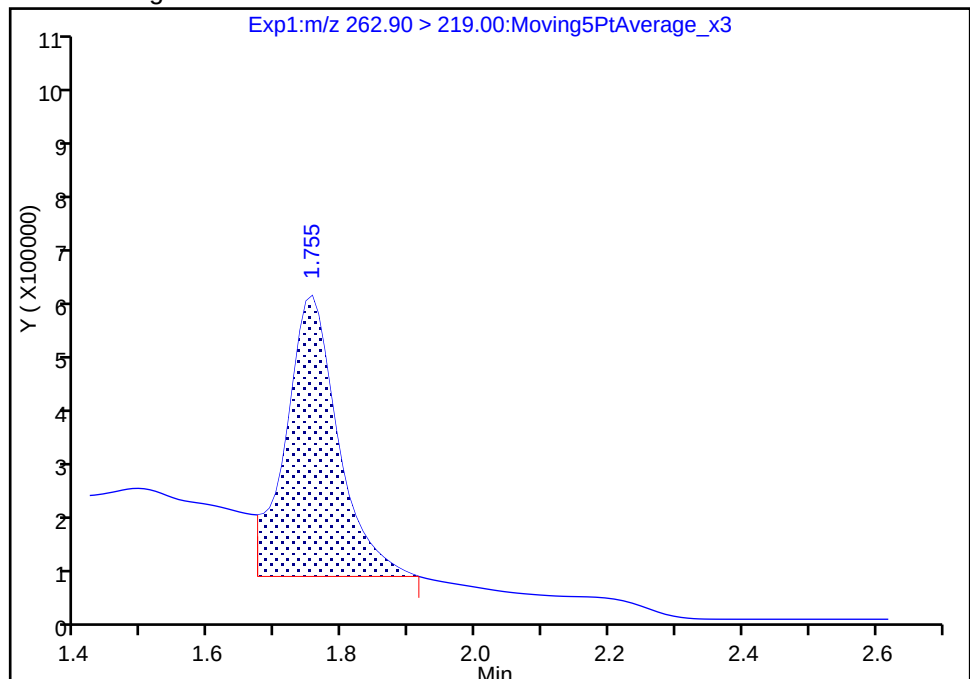
RT: 1.75
Area: 4959599
Amount: 36.107524
Amount Units: ng/ml

Processing Integration Results



RT: 1.75
Area: 2783938
Amount: 20.267991
Amount Units: ng/ml

Manual Integration Results



Reviewer: barnettj, 23-Oct-2017 13:58:52
Audit Action: Manually Integrated

Audit Reason: Baseline

TestAmerica Sacramento

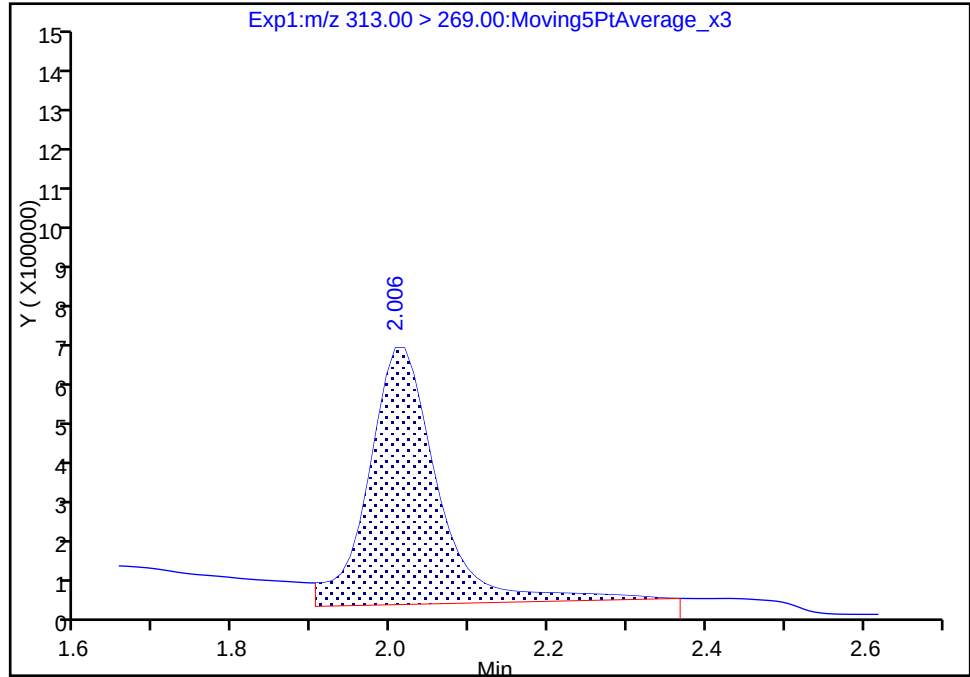
Data File:	\\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\2017.10.20B_041.d				
Injection Date:	21-Oct-2017 02:20:31	Instrument ID:	A8_N		
Lims ID:	480-125692-A-15-A	Lab Sample ID:	320-125692-15		
Client ID:	MW-7				
Operator ID:	SACINSTLCMS01	ALS Bottle#:	30	Worklist Smp#:	18
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	A8_N	Limit Group:	LC PFC ICAL		
Column:		Detector	EXP1		

6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

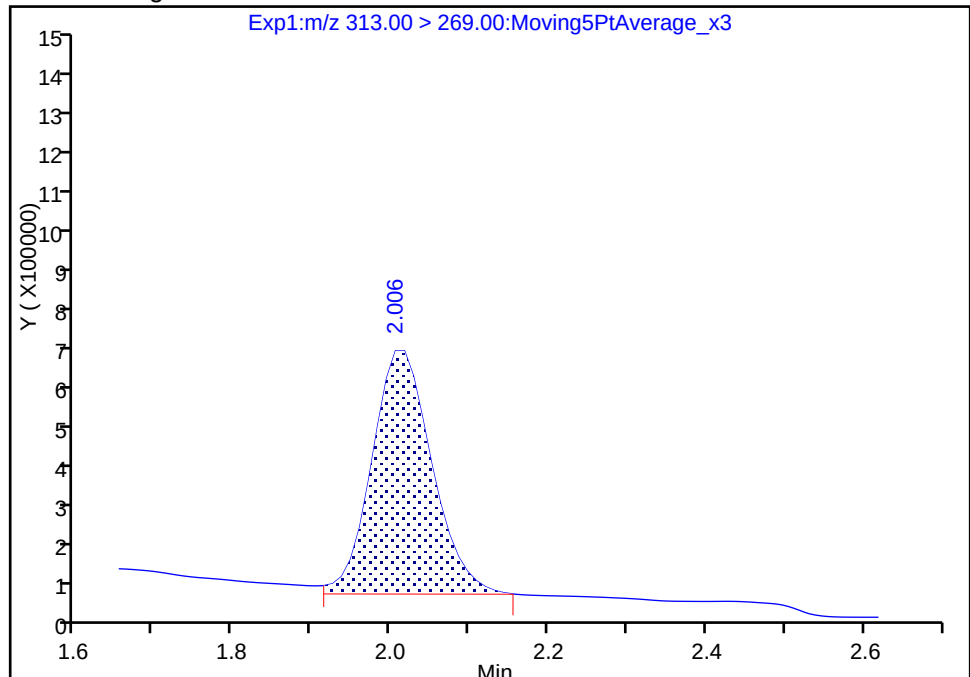
RT: 2.01
Area: 3839308
Amount: 24.018384
Amount Units: ng/ml

Processing Integration Results



RT: 2.01
Area: 3166999
Amount: 19.812476
Amount Units: ng/ml

Manual Integration Results



Reviewer: barnettj, 23-Oct-2017 13:59:16
Audit Action: Manually Integrated

Audit Reason: Baseline
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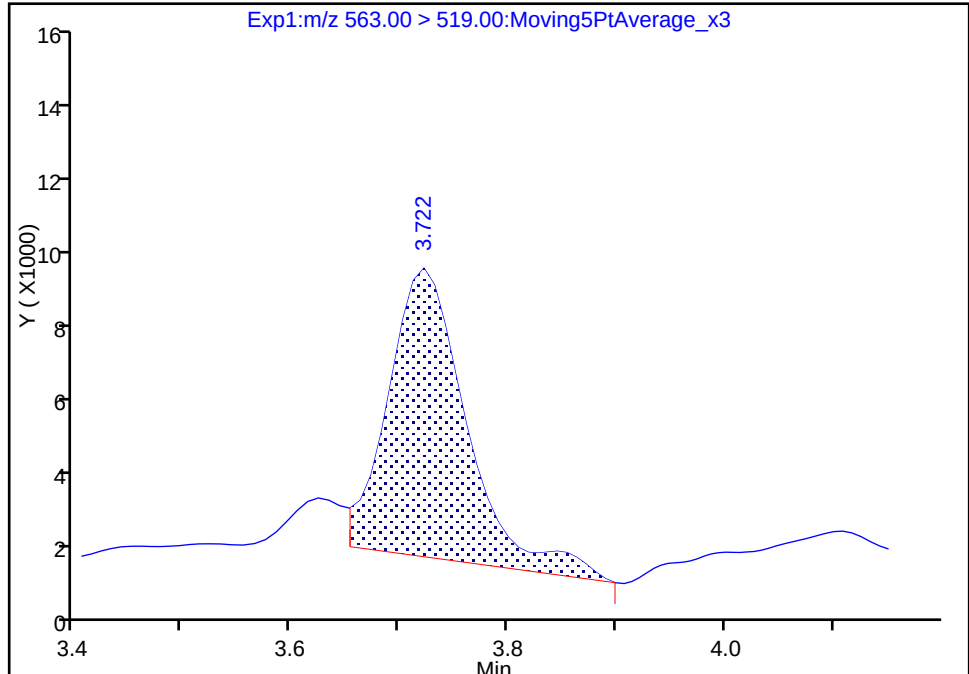
Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\2017.10.20B_041.d
Injection Date: 21-Oct-2017 02:20:31 Instrument ID: A8_N
Lims ID: 480-125692-A-15-A Lab Sample ID: 320-125692-15
Client ID: MW-7
Operator ID: SACINSTLCMS01 ALS Bottle#: 30 Worklist Smp#: 18
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: A8_N Limit Group: LC PFC ICAL
Column: Detector EXP1

31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 1

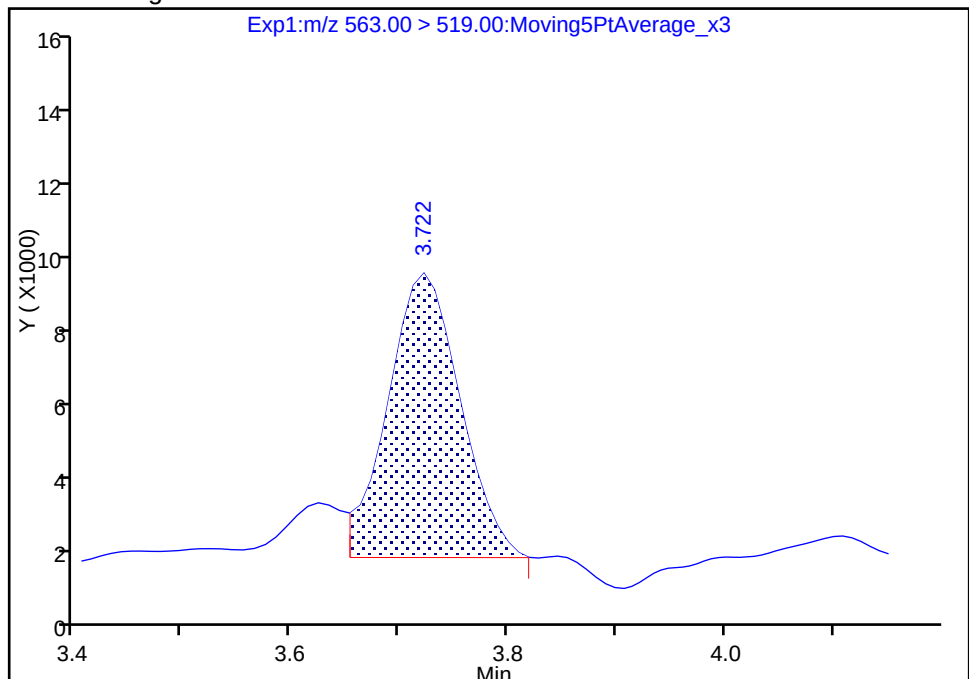
RT: 3.72
Area: 36058
Amount: 0.394038
Amount Units: ng/ml

Processing Integration Results



RT: 3.72
Area: 32663
Amount: 0.356938
Amount Units: ng/ml

Manual Integration Results



Reviewer: barnettj, 23-Oct-2017 13:59:59
Audit Action: Manually Integrated

Audit Reason: Baseline
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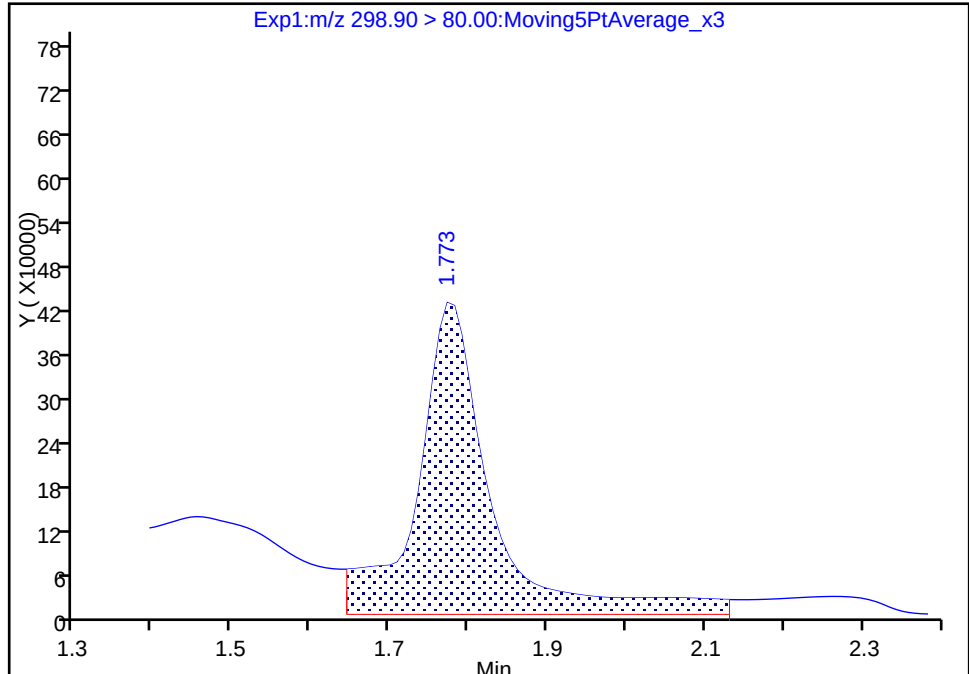
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Injection Date:	21-Oct-2017 02:20:31	Instrument ID:	A8_N		
Lims ID:	480-125692-A-15-A	Lab Sample ID:	320-125692-15		
Client ID:	MW-7				
Operator ID:	SACINSTLCMS01	ALS Bottle#:	30	Worklist Smp#:	18
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	A8_N	Limit Group:	LC PFC ICAL		
Column:		Detector	EXP1		

5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

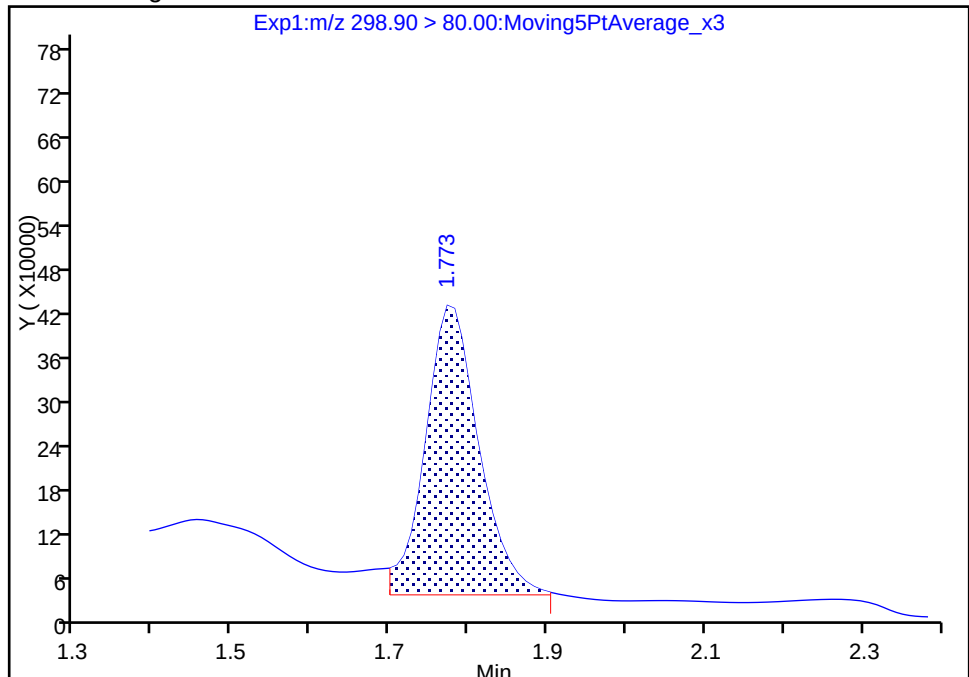
RT: 1.77
Area: 2783005
Amount: 8.774666
Amount Units: ng/ml

Processing Integration Results



RT: 1.77
Area: 1869509
Amount: 5.894462
Amount Units: ng/ml

Manual Integration Results



Reviewer: barnettj, 23-Oct-2017 13:59:03
Audit Action: Manually Integrated

Audit Reason: Baseline
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FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Sacramento</u>	Job No.: <u>480-125692-1</u>
SDG No.: _____	
Client Sample ID: <u>MW-9</u>	Lab Sample ID: <u>480-125692-16</u>
Matrix: <u>Water</u>	Lab File ID: <u>2017.10.20B_042.d</u>
Analysis Method: <u>537 (modified)</u>	Date Collected: <u>10/10/2017 12:37</u>
Extraction Method: <u>3535</u>	Date Extracted: <u>10/17/2017 08:45</u>
Sample wt/vol: <u>247.8 (mL)</u>	Date Analyzed: <u>10/21/2017 02:27</u>
Con. Extract Vol.: <u>0.50 (mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>2 (uL)</u>	GC Column: <u>GeminiC18 3x100 ID: 3 (mm)</u>
% Moisture: _____	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>190434</u>	Units: <u>ng/L</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	59	B	2.0	0.46
2706-90-3	Perfluoropentanoic acid (PFPeA)	33		2.0	1.0
307-24-4	Perfluorohexanoic acid (PFHxA)	35		2.0	0.79
375-85-9	Perfluoroheptanoic acid (PFHpA)	33		2.0	0.81
335-67-1	Perfluorooctanoic acid (PFOA)	85		2.0	0.75
375-95-1	Perfluorononanoic acid (PFNA)	9.7	B	2.0	0.66
335-76-2	Perfluorodecanoic acid (PFDA)	ND		2.0	0.44
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		2.0	0.75
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		2.0	0.59
72629-94-8	Perfluorotridecanoic Acid (PFTriA)	ND		2.0	0.56
376-06-7	Perfluorotetradecanoic acid (PFTeA)	ND		2.0	0.20
375-73-5	Perfluorobutanesulfonic acid (PFBS)	8.7		2.0	0.93
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	29		2.0	0.88
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	2.5		2.0	0.72
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	77		2.0	1.3
335-77-3	Perfluorodecanesulfonic acid (PFDS)	ND		2.0	1.2

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00992	13C4 PFBA	27		25-150
STL01893	13C5 PFPeA	58		25-150
STL00993	13C2 PFHxA	65		25-150
STL01892	13C4-PFHpA	81		25-150
STL00990	13C4 PFOA	78		25-150
STL00995	13C5 PFNA	81		25-150
STL00996	13C2 PFDA	86		25-150
STL00997	13C2 PFUnA	83		25-150
STL00998	13C2 PFDoA	83		25-150
STL00994	18O2 PFHxS	84		25-150
STL00991	13C4 PFOS	90		25-150

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\2017.10.20B_042.d
 Lims ID: 480-125692-A-16-A
 Client ID: MW-9
 Sample Type: Client
 Inject. Date: 21-Oct-2017 02:27:24 ALS Bottle#: 31 Worklist Smp#: 19
 Injection Vol: 2.0 ul Dil. Factor: 1.0000
 Sample Info: 480-125692-a-16-a
 Misc. Info.: Plate: 1 Rack: 4
 Operator ID: SACINSTLCMS01 Instrument ID: A8_N
 Method: \\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\A8_N.m
 Limit Group: LC PFC ICAL
 Last Update: 23-Oct-2017 14:17:58 Calib Date: 12-Oct-2017 11:11:26
 Integrator: Picker
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20171012-49071.b\2017.10.12ICAL_010.d

Column 1 : Det: EXP1
 Process Host: XAWRK012

First Level Reviewer: barnettj Date: 23-Oct-2017 14:02:28

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
2 Perfluorobutyric acid										M
212.90 > 169.00	1.554	1.545	0.009	1.000	2816913	29.3			42.8	M
D 1 13C4 PFBA										
217.00 > 172.00	1.545	1.545	0.0		5159101	13.7		27.5	9932	
4 Perfluoropentanoic acid										M
262.90 > 219.00	1.754	1.754	0.0	1.000	2431152	16.4			45.5	M
D 3 13C5-PFPeA										
267.90 > 223.00	1.754	1.754	0.0		6780339	28.8		57.5	7351	
D 47 13C3-PFBS										
301.90 > 83.00	1.773	1.773	0.0		217689	31.7		68.2	398	
5 Perfluorobutanesulfonic acid										M
298.90 > 80.00	1.773	1.782	-0.009	1.000	1445614	4.31			77.8	M
298.90 > 99.00	1.773	1.782	-0.009	1.000	631617		2.29(0.00-0.00)		75.2	M
6 Perfluorohexanoic acid										M
313.00 > 269.00	2.005	2.017	-0.012	1.000	2870898	17.5			114	M
D 7 13C2 PFHxA										
315.00 > 270.00	2.005	2.017	-0.012		8371899	32.6		65.3	18261	
10 Perfluoroheptanoic acid										
363.00 > 319.00	2.324	2.324	0.0	1.000	3172821	16.5			327	
D 9 13C4-PFHpA										
367.00 > 322.00	2.324	2.324	0.0		9621565	40.3		80.6	32670	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	2.340	2.348	-0.008	1.000	4742081	14.6			616	
D 11 18O2 PFHxS										
403.00 > 84.00	2.340	2.348	-0.008		14231642	39.7		83.9	26787	
* 62 13C2-PFOA										
415.00 > 370.00	2.665	2.671	-0.006		11237547	50.0			34146	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
15 Perfluorooctanoic acid										
413.00 > 369.00	2.672	2.671	0.001	1.000	8060173	42.4			858	
413.00 > 169.00	2.672	2.671	0.001	1.000	4694075		1.72(0.90-1.10)		5267	
D 14 13C4 PFOA										
417.00 > 372.00	2.672	2.671	0.001		8800523	39.2		78.4	21264	
16 Perfluoroheptanesulfonic Acid										
449.00 > 80.00	2.679	2.678	0.001	1.000	335474	1.22			116	
17 Perfluorooctane sulfonic acid										
499.00 > 80.00	2.921	3.035	-0.114	1.000	9038377	37.9			2075	
499.00 > 99.00	3.043	3.035	0.008	1.042	1418930		6.37(0.90-1.10)		1395	
20 Perfluorononanoic acid										
463.00 > 419.00	3.043	3.035	0.008	1.000	639844	4.81			187	
D 18 13C4 PFOS										
503.00 > 80.00	3.043	3.035	0.008		10830377	42.9		89.8	8866	
D 19 13C5 PFNA										
468.00 > 423.00	3.043	3.035	0.008		6918868	40.3		80.7	18332	
24 Perfluorodecanoic acid										
513.00 > 469.00	3.397	3.393	0.004	1.000	19833	0.1708			12.3	
D 23 13C2 PFDA										
515.00 > 470.00	3.397	3.393	0.004		6341052	42.9		85.8	15181	
31 Perfluoroundecanoic acid										
563.00 > 519.00	3.722	3.720	0.002	1.000	13955	0.1596			12.7	
D 30 13C2 PFUnA										
565.00 > 520.00	3.722	3.720	0.002		4054866	41.6		83.3	5948	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.007	4.014	-0.007	1.000	2486	0.0361			2.9	
D 36 13C2 PFDoA										
615.00 > 570.00	4.014	4.014	0.0		3771132	41.3		82.6	11379	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.278	4.279	-0.001	1.000	3681	0.0549			0.7	
D 43 13C2-PFTeDA										
715.00 > 670.00	4.518	4.514	0.004		4883069	61.0		122	7275	

QC Flag Legend

Review Flags

M - Manually Integrated

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\2017.10.20B_042.d

Injection Date: 21-Oct-2017 02:27:24

Instrument ID: A8_N

Lims ID: 480-125692-A-16-A

Lab Sample ID: 320-125692-16

Client ID: MW-9

Operator ID: SACINSTLCMS01

ALS Bottle#: 31

Worklist Smp#: 19

Injection Vol: 2.0 ul

Dil. Factor: 1.0000

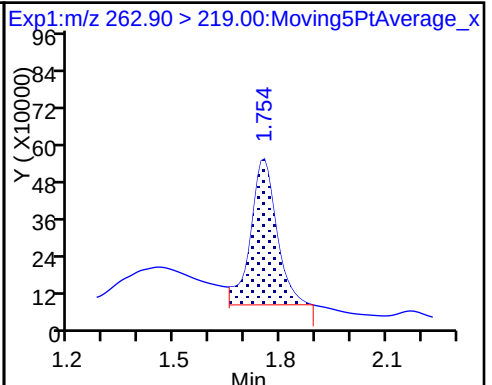
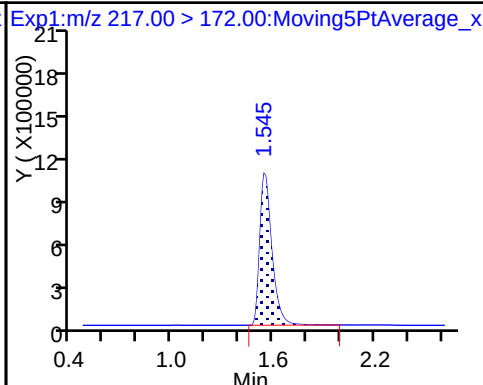
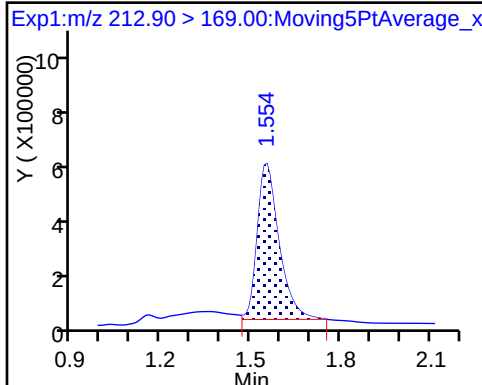
Method: A8_N

Limit Group: LC PFC ICAL

2 Perfluorobutyric acid (M)

D 1 13C4 PFBA

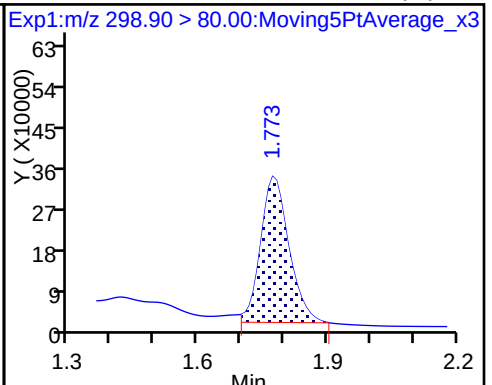
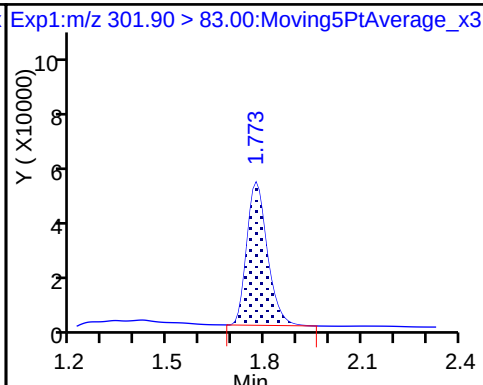
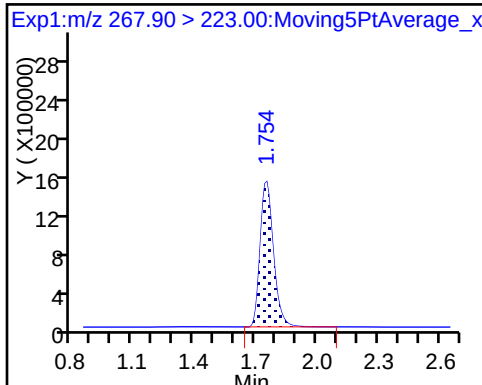
4 Perfluoropentanoic acid (M)



D 3 13C5-PFPeA

D 47 13C3-PFBS

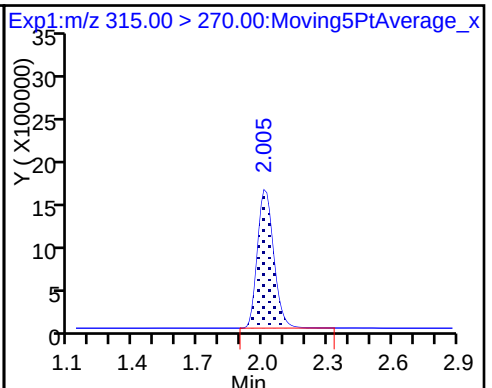
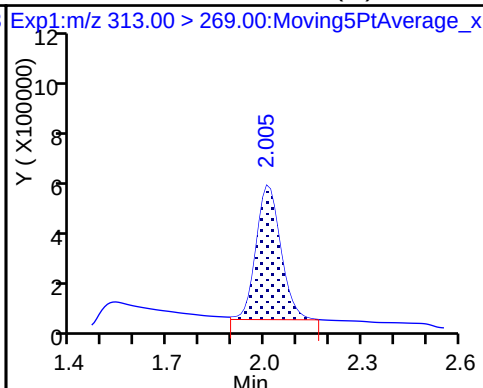
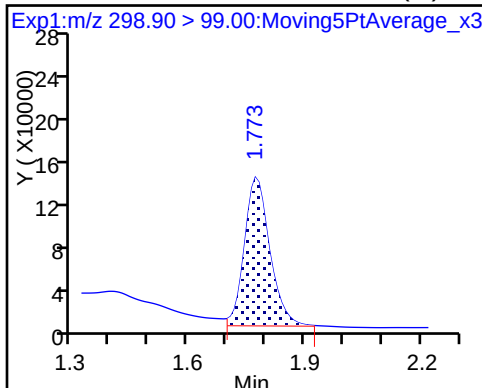
5 Perfluorobutanesulfonic acid (M)



5 Perfluorobutanesulfonic acid (M)

6 Perfluorohexanoic acid (M)

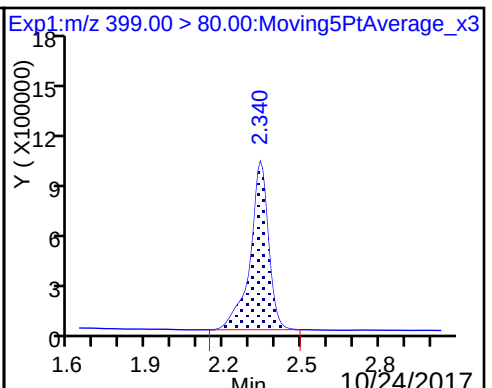
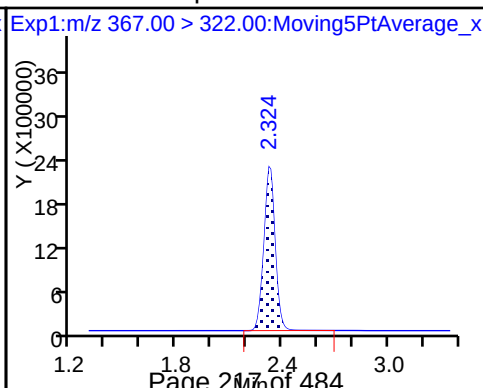
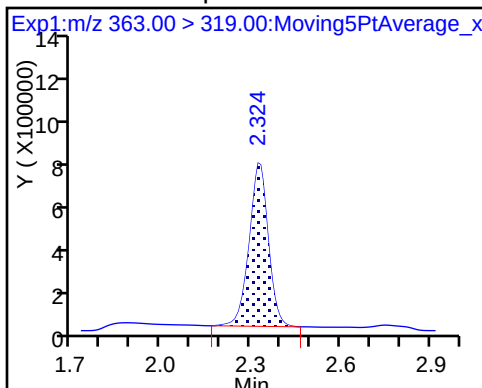
D 7 13C2 PFHxA



10 Perfluoroheptanoic acid

D 9 13C4-PFHpA

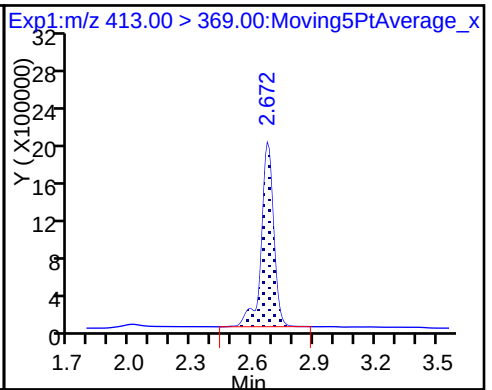
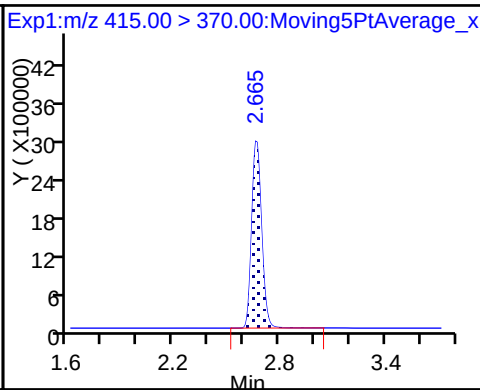
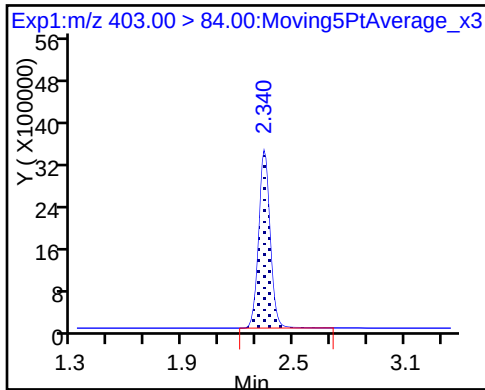
8 Perfluorohexanesulfonic acid



D 11 18O2 PFHxS

* 62 13C2-PFOA

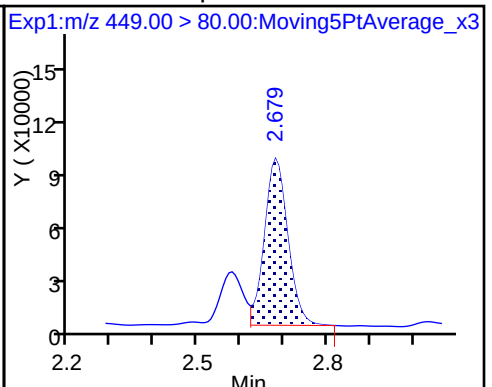
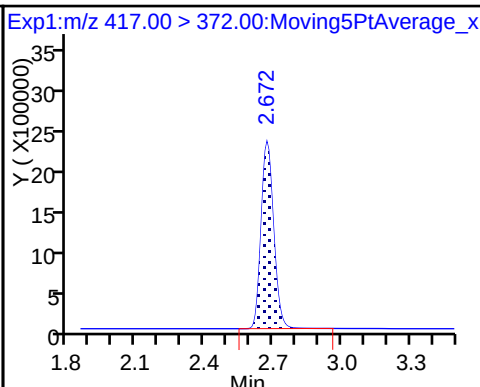
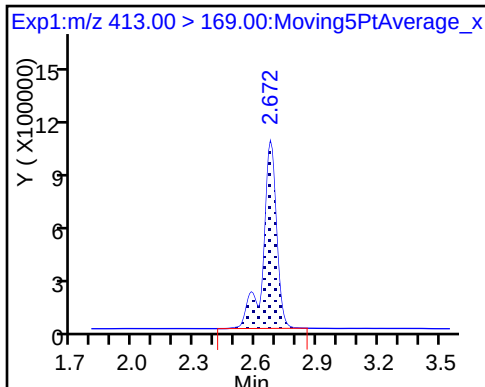
15 Perfluorooctanoic acid



15 Perfluorooctanoic acid

D 14 13C4 PFOA

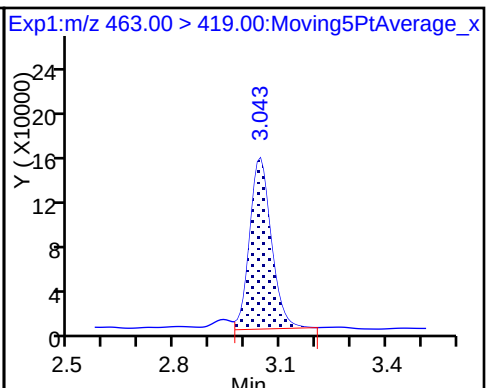
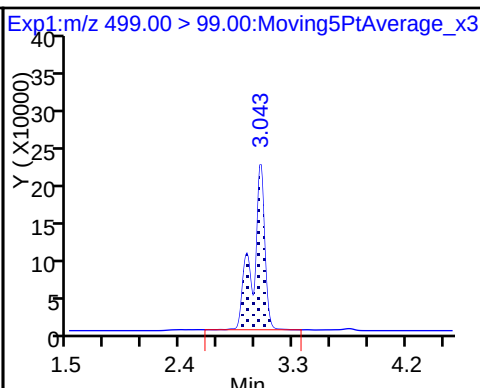
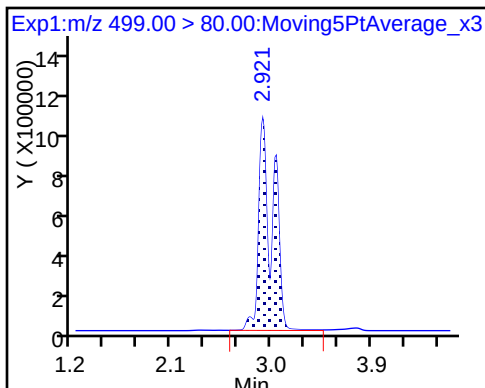
16 Perfluoroheptanesulfonic Acid



17 Perfluorooctane sulfonic acid

17 Perfluorooctane sulfonic acid

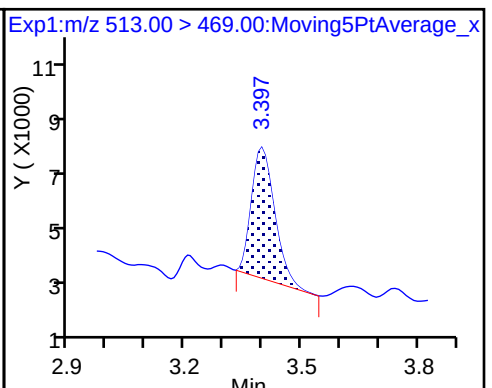
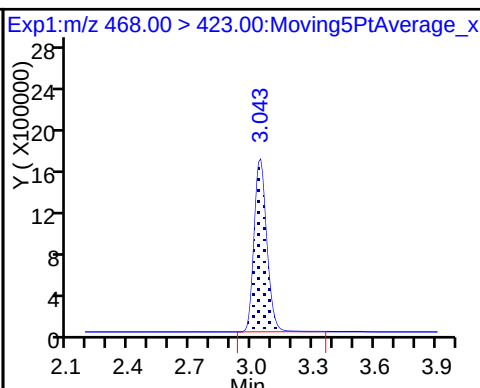
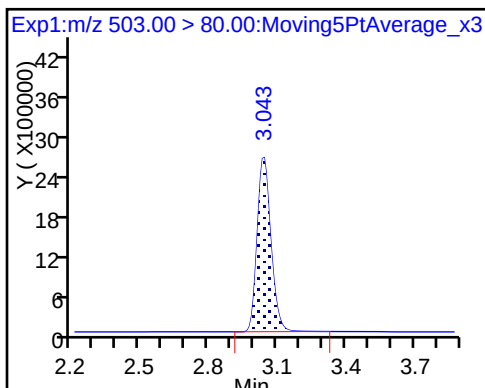
20 Perfluorononanoic acid



D 18 13C4 PFOS

D 19 13C5 PFNA

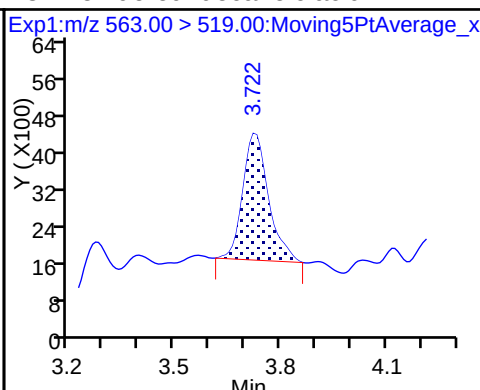
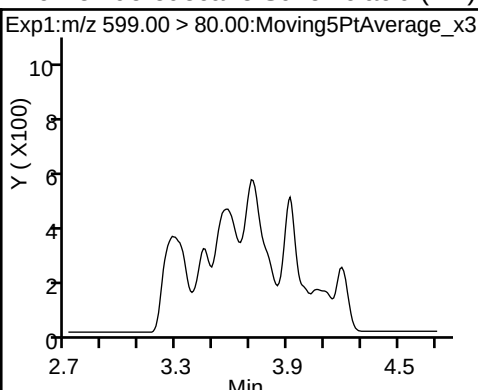
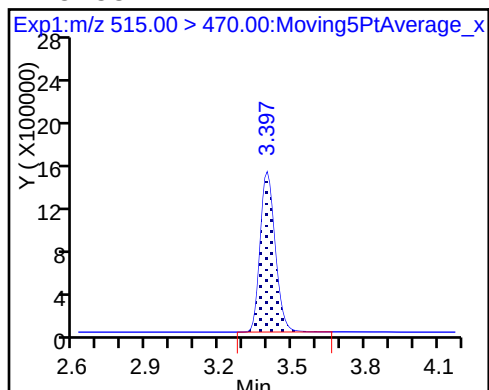
24 Perfluorodecanoic acid



D 23 13C2 PFDA

29 Perfluorodecane Sulfonic acid (ND)

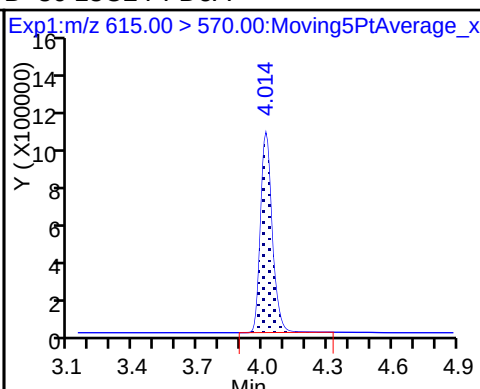
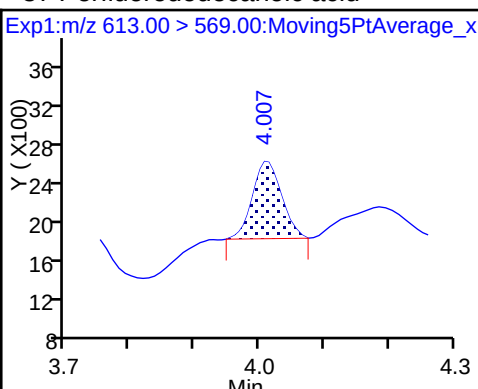
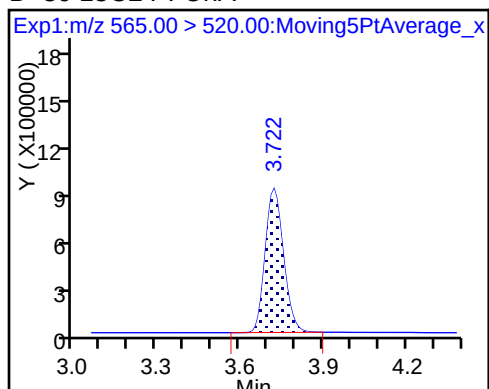
31 Perfluoroundecanoic acid



D 30 13C2 PFUnA

37 Perfluorododecanoic acid

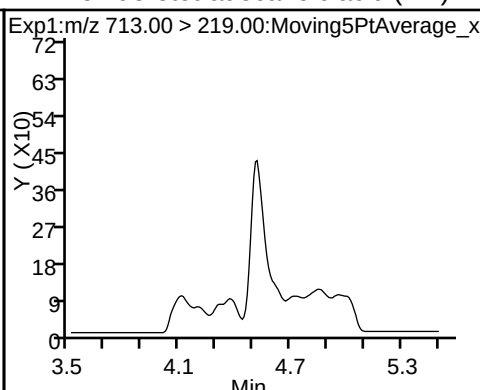
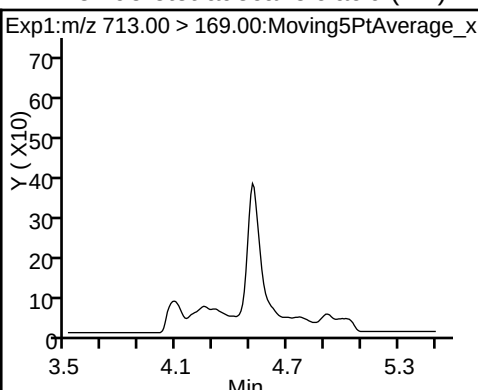
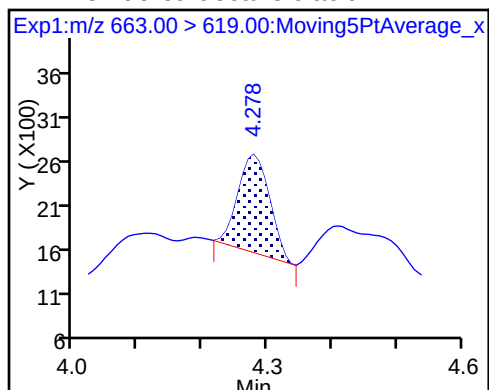
D 36 13C2 PFDaA



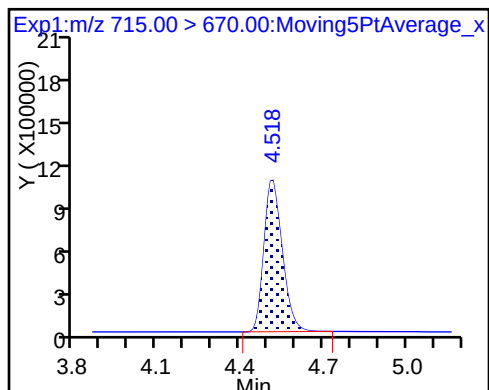
41 Perfluorotridecanoic acid

42 Perfluorotetradecanoic acid (ND)

42 Perfluorotetradecanoic acid (ND)



D 43 13C2-PFTeDA



TestAmerica Sacramento

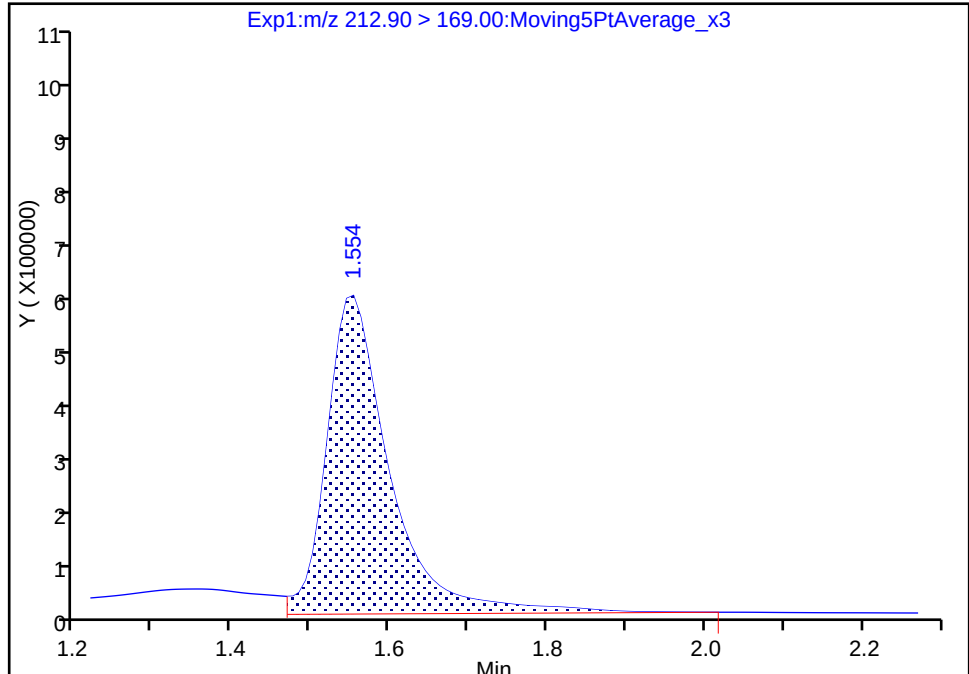
Data File:	\\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\2017.10.20B_042.d				
Injection Date:	21-Oct-2017 02:27:24	Instrument ID:	A8_N		
Lims ID:	480-125692-A-16-A	Lab Sample ID:	320-125692-16		
Client ID:	MW-9				
Operator ID:	SACINSTLCMS01	ALS Bottle#:	31	Worklist Smp#:	19
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	A8_N	Limit Group:	LC PFC ICAL		
Column:		Detector	EXP1		

2 Perfluorobutyric acid, CAS: 375-22-4

Signal: 1

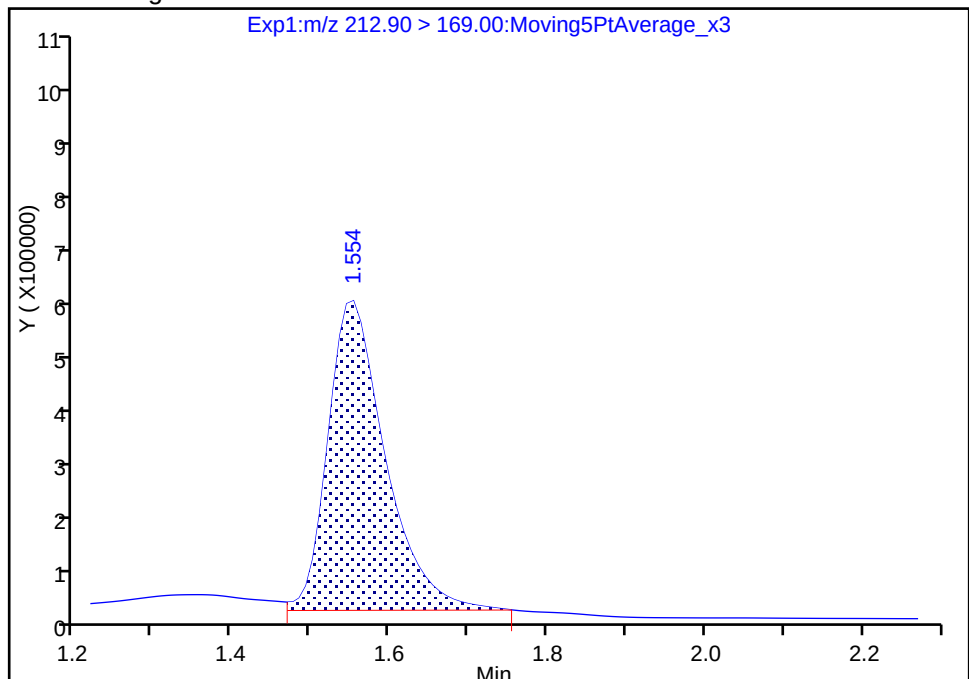
RT: 1.55
Area: 3187183
Amount: 33.194058
Amount Units: ng/ml

Processing Integration Results



RT: 1.55
Area: 2816913
Amount: 29.337748
Amount Units: ng/ml

Manual Integration Results



Reviewer: barnettj, 23-Oct-2017 14:00:49
Audit Action: Manually Integrated

Audit Reason: Baseline
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TestAmerica Sacramento

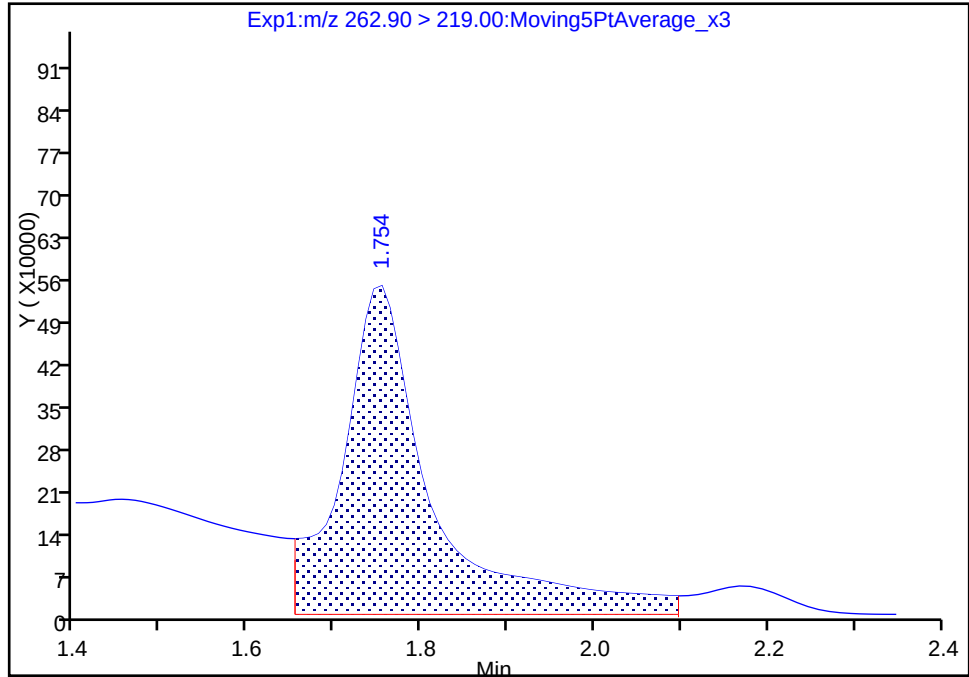
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Injection Date:	21-Oct-2017 02:27:24	Instrument ID:	A8_N		
Lims ID:	480-125692-A-16-A	Lab Sample ID:	320-125692-16		
Client ID:	MW-9				
Operator ID:	SACINSTLCMS01	ALS Bottle#:	31	Worklist Smp#:	19
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	A8_N	Limit Group:	LC PFC ICAL		
Column:		Detector	EXP1		

4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

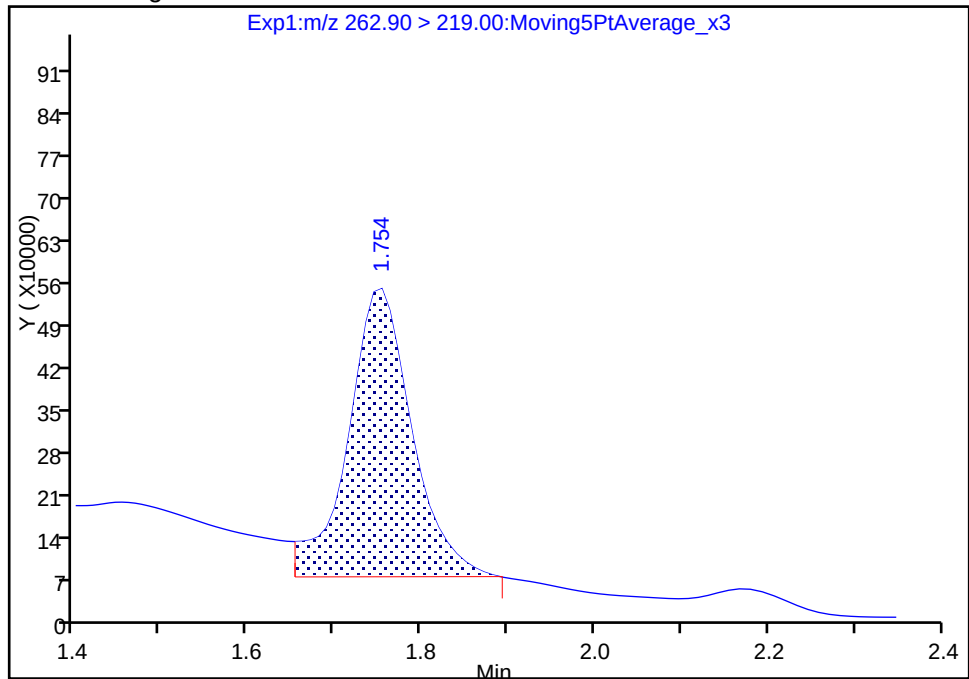
RT: 1.75
Area: 3932947
Amount: 26.519127
Amount Units: ng/ml

Processing Integration Results



RT: 1.75
Area: 2431152
Amount: 16.392804
Amount Units: ng/ml

Manual Integration Results



Reviewer: barnettj, 23-Oct-2017 14:01:03
Audit Action: Manually Integrated

Audit Reason: Baseline
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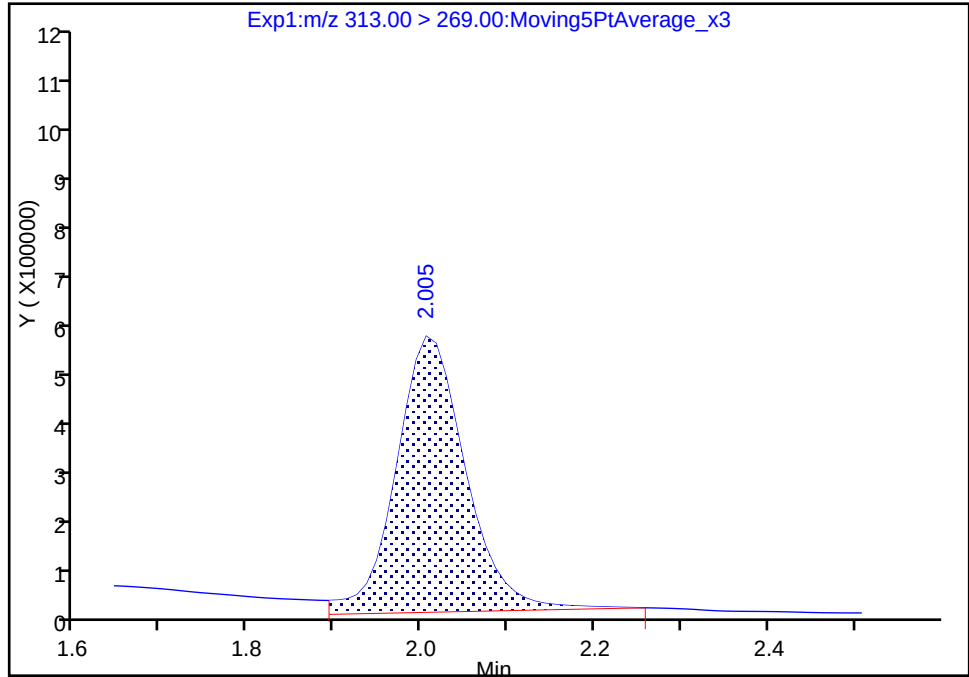
Data File:	\\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\2017.10.20B_042.d				
Injection Date:	21-Oct-2017 02:27:24	Instrument ID:	A8_N		
Lims ID:	480-125692-A-16-A	Lab Sample ID:	320-125692-16		
Client ID:	MW-9				
Operator ID:	SACINSTLCMS01	ALS Bottle#:	31	Worklist Smp#:	19
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	A8_N	Limit Group:	LC PFC ICAL		
Column:		Detector	EXP1		

6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

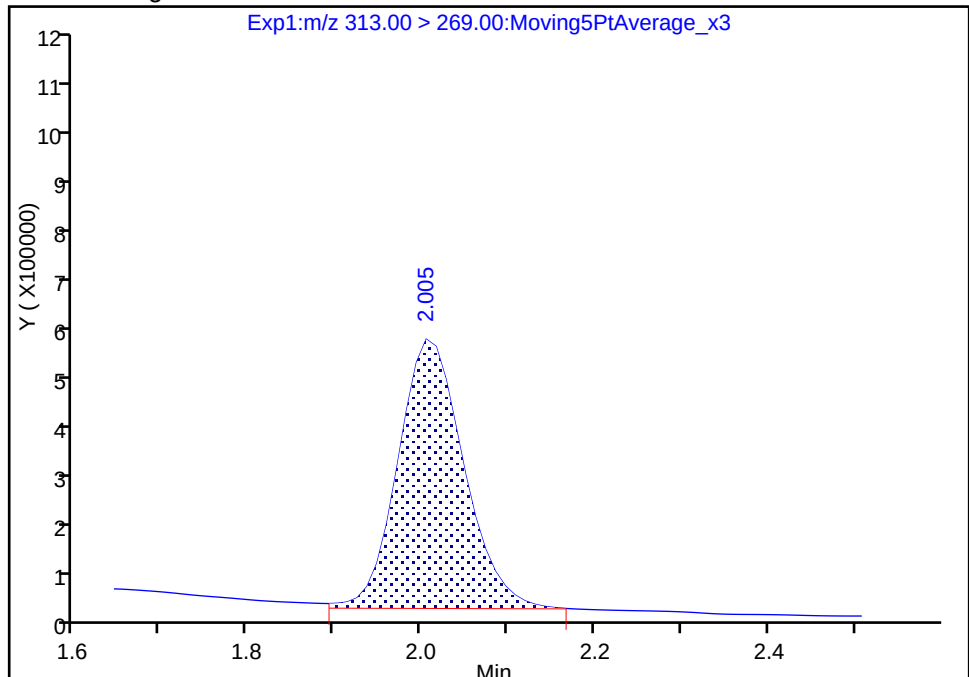
RT: 2.01
Area: 3105941
Amount: 18.935272
Amount Units: ng/ml

Processing Integration Results



RT: 2.01
Area: 2870898
Amount: 17.502340
Amount Units: ng/ml

Manual Integration Results



Reviewer: barnettj, 23-Oct-2017 14:01:43
Audit Action: Manually Integrated

Audit Reason: Baseline
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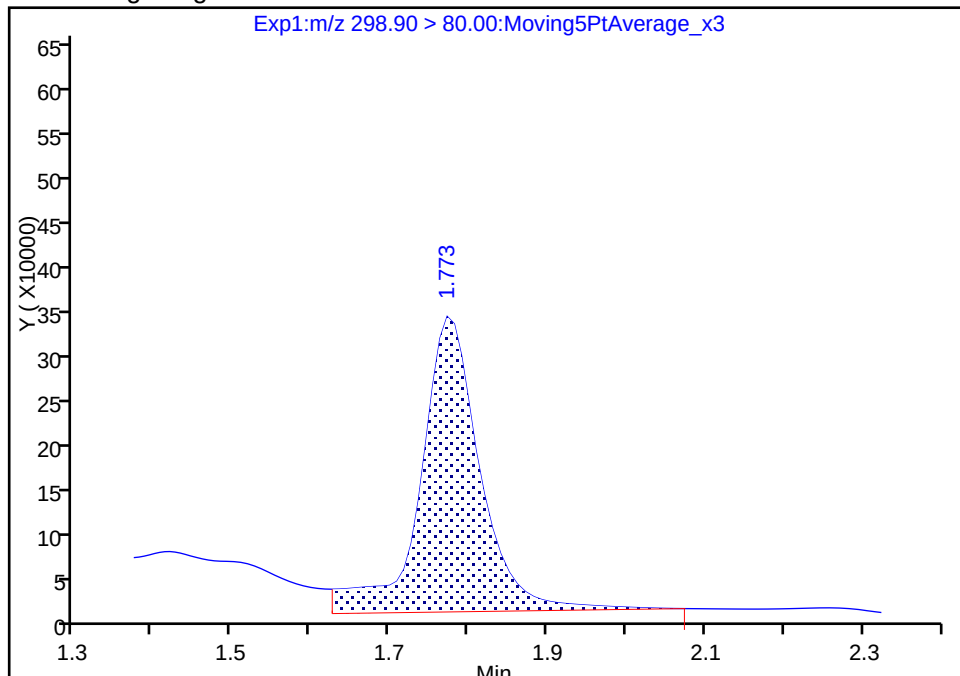
Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\2017.10.20B_042.d
Injection Date: 21-Oct-2017 02:27:24 Instrument ID: A8_N
Lims ID: 480-125692-A-16-A Lab Sample ID: 320-125692-16
Client ID: MW-9
Operator ID: SACINSTLCMS01 ALS Bottle#: 31 Worklist Smp#: 19
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: A8_N Limit Group: LC PFC ICAL
Column: Detector EXP1

5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

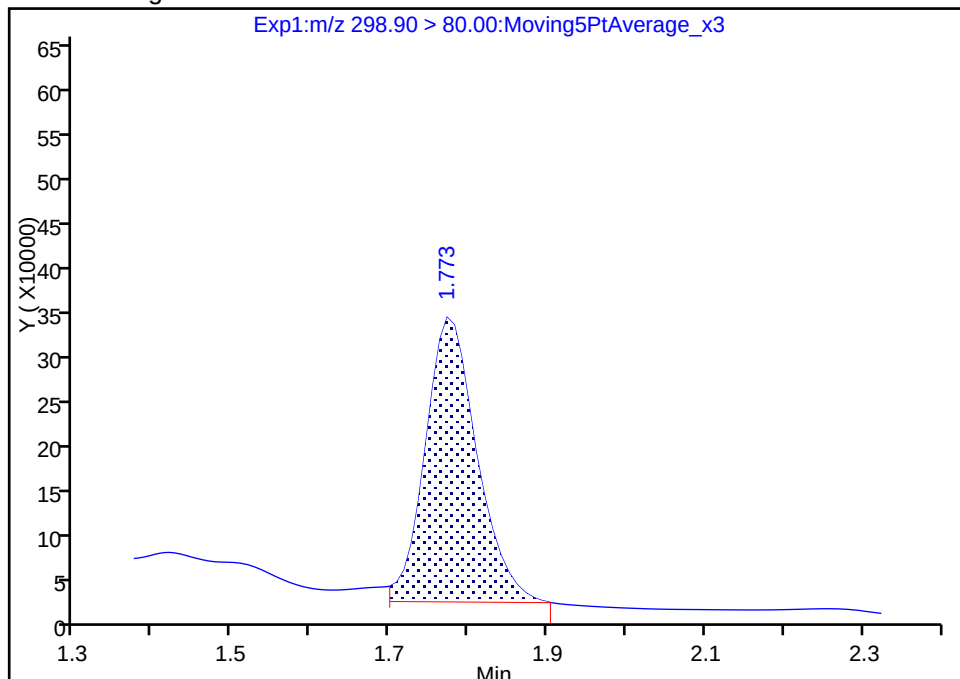
RT: 1.77
Area: 1751087
Amount: 5.215012
Amount Units: ng/ml

Processing Integration Results



RT: 1.77
Area: 1445614
Amount: 4.305265
Amount Units: ng/ml

Manual Integration Results



Reviewer: barnettj, 23-Oct-2017 14:01:13

Audit Action: Manually Integrated

Audit Reason: Baseline

TestAmerica Sacramento

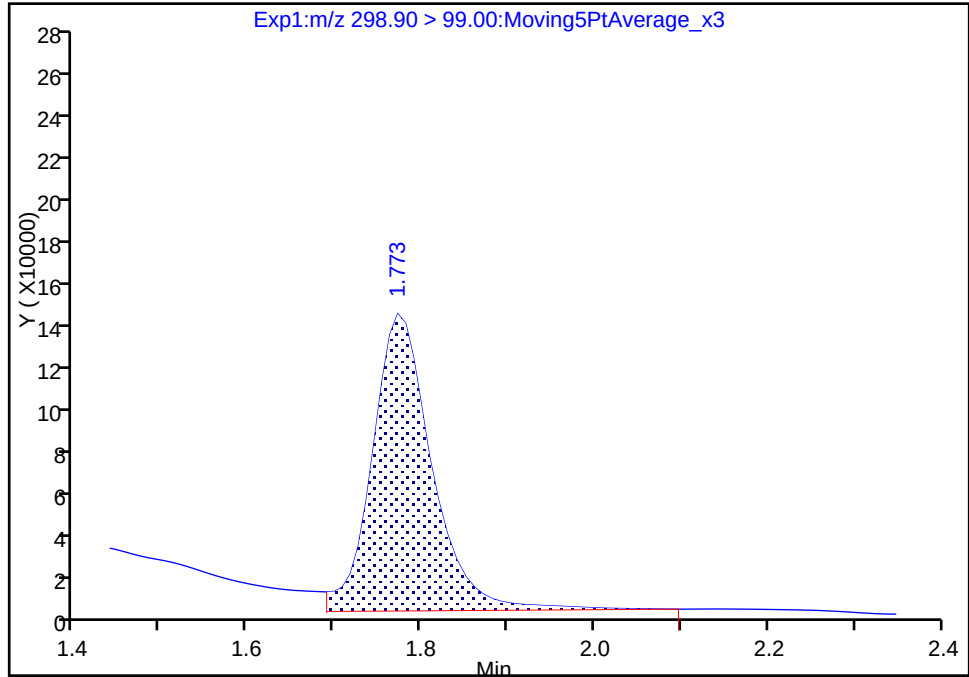
Data File:	\\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\2017.10.20B_042.d				
Injection Date:	21-Oct-2017 02:27:24	Instrument ID:	A8_N		
Lims ID:	480-125692-A-16-A	Lab Sample ID:	320-125692-16		
Client ID:	MW-9				
Operator ID:	SACINSTLCMS01	ALS Bottle#:	31	Worklist Smp#:	19
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	A8_N	Limit Group:	LC PFC ICAL		
Column:		Detector	EXP1		

5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 2

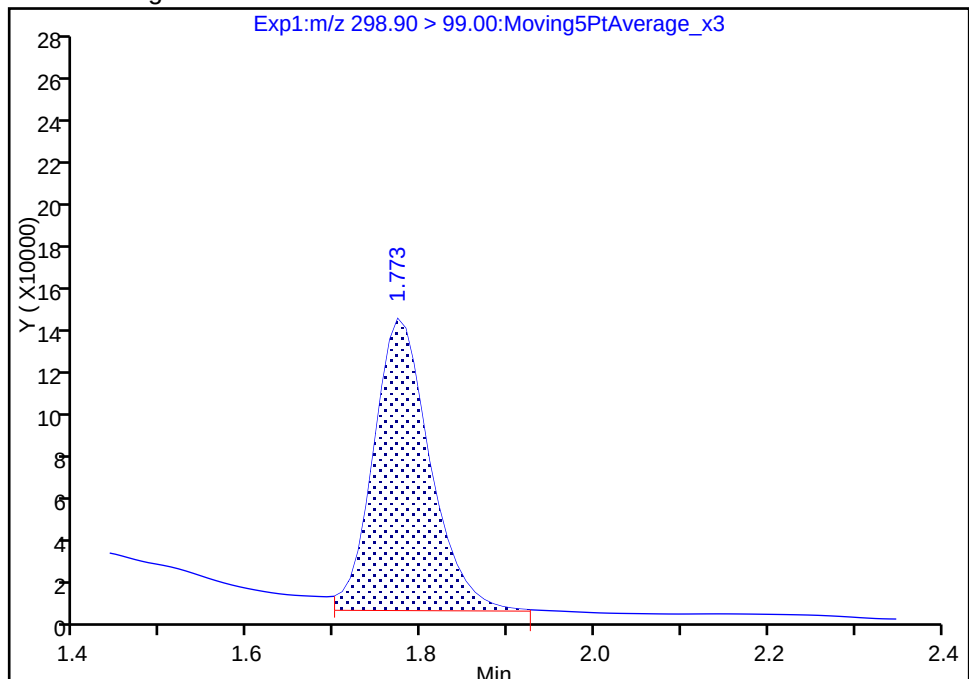
RT: 1.77
Area: 678562
Amount: 5.215012
Amount Units: ng/ml

Processing Integration Results



RT: 1.77
Area: 631617
Amount: 4.305265
Amount Units: ng/ml

Manual Integration Results



Reviewer: barnettj, 23-Oct-2017 14:01:31

Audit Action: Manually Integrated

Audit Reason: Baseline

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Sacramento</u>	Job No.: <u>480-125692-1</u>
SDG No.: _____	
Client Sample ID: <u>DGC-6S</u>	Lab Sample ID: <u>480-125692-17</u>
Matrix: <u>Water</u>	Lab File ID: <u>2017.10.20B_043.d</u>
Analysis Method: <u>537 (modified)</u>	Date Collected: <u>10/10/2017 12:57</u>
Extraction Method: <u>3535</u>	Date Extracted: <u>10/17/2017 08:45</u>
Sample wt/vol: <u>258.5 (mL)</u>	Date Analyzed: <u>10/21/2017 02:34</u>
Con. Extract Vol.: <u>0.50 (mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>2 (uL)</u>	GC Column: <u>GeminiC18 3x100 ID: 3 (mm)</u>
% Moisture: _____	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>190434</u>	Units: <u>ng/L</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	46	B	1.9	0.44
2706-90-3	Perfluoropentanoic acid (PFPeA)	31		1.9	0.96
307-24-4	Perfluorohexanoic acid (PFHxA)	31		1.9	0.76
375-85-9	Perfluoroheptanoic acid (PFHpA)	20		1.9	0.78
335-67-1	Perfluorooctanoic acid (PFOA)	41		1.9	0.72
375-95-1	Perfluorononanoic acid (PFNA)	ND		1.9	0.63
335-76-2	Perfluorodecanoic acid (PFDA)	ND		1.9	0.43
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		1.9	0.72
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		1.9	0.56
72629-94-8	Perfluorotridecanoic Acid (PFTriA)	ND		1.9	0.53
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.47	J B	1.9	0.19
375-73-5	Perfluorobutanesulfonic acid (PFBS)	9.7		1.9	0.89
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	17		1.9	0.84
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.9	0.69
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	2.5		1.9	1.2
335-77-3	Perfluorodecanesulfonic acid (PFDS)	ND		1.9	1.2

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00992	13C4 PFBA	32		25-150
STL01893	13C5 PFPeA	63		25-150
STL00993	13C2 PFHxA	66		25-150
STL01892	13C4-PFHpA	86		25-150
STL00990	13C4 PFOA	82		25-150
STL00995	13C5 PFNA	90		25-150
STL00996	13C2 PFDA	90		25-150
STL00997	13C2 PFUnA	89		25-150
STL00998	13C2 PFDoA	87		25-150
STL00994	18O2 PFHxS	88		25-150
STL00991	13C4 PFOS	88		25-150

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\2017.10.20B_043.d
 Lims ID: 480-125692-A-17-A
 Client ID: DGC-6S
 Sample Type: Client
 Inject. Date: 21-Oct-2017 02:34:19 ALS Bottle#: 32 Worklist Smp#: 20
 Injection Vol: 2.0 ul Dil. Factor: 1.0000
 Sample Info: 480-125692-a-17-a
 Misc. Info.: Plate: 1 Rack: 4
 Operator ID: SACINSTLCMS01 Instrument ID: A8_N
 Method: \\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\A8_N.m
 Limit Group: LC PFC ICAL
 Last Update: 23-Oct-2017 14:17:58 Calib Date: 12-Oct-2017 11:11:26
 Integrator: Picker
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20171012-49071.b\2017.10.12ICAL_010.d

Column 1 : Det: EXP1
 Process Host: XAWRK012

First Level Reviewer: barnettj Date: 23-Oct-2017 14:04:45

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
2 Perfluorobutyric acid										
212.90 > 169.00	1.554	1.545	0.009	1.000	2623766	23.8			82.8	
D 1 13C4 PFBA										
217.00 > 172.00	1.554	1.545	0.009		5918452	15.8		31.5	9357	
4 Perfluoropentanoic acid										M
262.90 > 219.00	1.755	1.754	0.001	1.000	2576028	16.0			63.1	M
D 3 13C5-PFPeA										
267.90 > 223.00	1.755	1.754	0.001		7368443	31.3		62.5	9485	
D 47 13C3-PFBS										
301.90 > 83.00	1.773	1.773	0.0		219483	32.0		68.8	463	
5 Perfluorobutanesulfonic acid										M
298.90 > 80.00	1.782	1.782	0.0	1.000	1690629	4.99			48.7	M
298.90 > 99.00	1.782	1.782	0.0	1.000	721216		2.34(0.00-0.00)		96.4	M
6 Perfluorohexanoic acid										M
313.00 > 269.00	2.006	2.017	-0.011	1.000	2664456	16.0			118	M
D 7 13C2 PFHxA										
315.00 > 270.00	2.018	2.017	0.001		8487417	33.1		66.2	18512	
10 Perfluoroheptanoic acid										
363.00 > 319.00	2.327	2.324	0.003	1.000	2129043	10.4			280	
D 9 13C4-PFHpA										
367.00 > 322.00	2.327	2.324	0.003		10305540	43.2		86.3	32212	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	2.343	2.348	-0.005	1.000	2910402	8.55			263	
D 11 18O2 PFHxS										
403.00 > 84.00	2.343	2.348	-0.005		14914950	41.6		88.0	29888	
* 62 13C2-PFOA										
415.00 > 370.00	2.670	2.671	-0.001		11267536	50.0			37907	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
15 Perfluorooctanoic acid										
413.00 > 369.00	2.677	2.671	0.006	1.000	4168470	21.0			548	
413.00 > 169.00	2.677	2.671	0.006	1.000	2404379		1.73(0.90-1.10)		4266	
D 14 13C4 PFOA										
417.00 > 372.00	2.677	2.671	0.006		9196478	41.0		81.9	17873	
16 Perfluoroheptanesulfonic Acid										
449.00 > 80.00	2.684	2.678	0.006	1.000	22376	0.0833			9.2	
17 Perfluorooctane sulfonic acid										
499.00 > 80.00	2.917	3.035	-0.118	1.000	301604	1.29			117	
499.00 > 99.00	2.925	3.035	-0.110	1.003	31253		9.65(0.90-1.10)		34.5	
20 Perfluorononanoic acid										
463.00 > 419.00	3.047	3.035	0.012	1.000	9526	0.0639			2.8	
D 18 13C4 PFOS										
503.00 > 80.00	3.039	3.035	0.004		10591741	42.0		87.9	11627	
D 19 13C5 PFNA										
468.00 > 423.00	3.039	3.035	0.004		7748812	45.2		90.4	14926	
24 Perfluorodecanoic acid										
513.00 > 469.00	3.408	3.393	0.015	1.000	4421	0.0364			3.3	M
D 23 13C2 PFDA										
515.00 > 470.00	3.399	3.393	0.006		6634831	44.9		89.7	23362	
29 Perfluorodecane Sulfonic acid										
599.00 > 80.00	3.713	3.710	0.003	1.000	2182	0.0164			19.8	
31 Perfluoroundecanoic acid										
563.00 > 519.00	3.733	3.720	0.013	1.000	11548	0.1240			10.8	
D 30 13C2 PFUnA										
565.00 > 520.00	3.723	3.720	0.003		4317192	44.3		88.7	9953	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.021	4.014	0.007	1.000	11628	0.1602			12.7	
D 36 13C2 PFDaA										
615.00 > 570.00	4.021	4.014	0.007		3969997	43.5		86.9	9712	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.281	4.279	0.002	1.000	13455	0.1905			2.1	
42 Perfluorotetradecanoic acid										
713.00 > 169.00	4.505	4.505	0.0	1.000	5779	0.2454			186	
713.00 > 219.00	4.523	4.505	0.018	1.004	3937		1.47(0.00-0.00)		73.8	
D 43 13C2-PFTeDA										
715.00 > 670.00	4.514	4.514	0.0		5010087	62.6		125	8707	

QC Flag Legend

Review Flags

M - Manually Integrated

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\2017.10.20B_043.d

Injection Date: 21-Oct-2017 02:34:19

Instrument ID: A8_N

Lims ID: 480-125692-A-17-A

Lab Sample ID: 320-125692-17

Client ID: DGC-6S

Operator ID: SACINSTLCMS01

ALS Bottle#: 32

Worklist Smp#: 20

Injection Vol: 2.0 ul

Dil. Factor: 1.0000

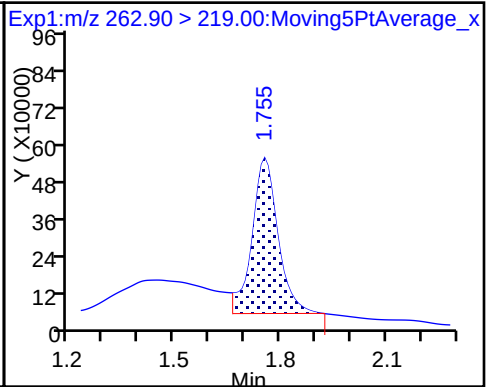
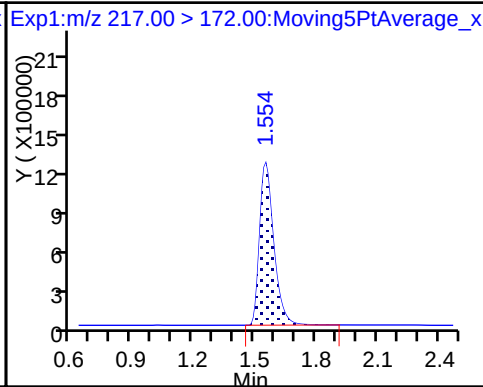
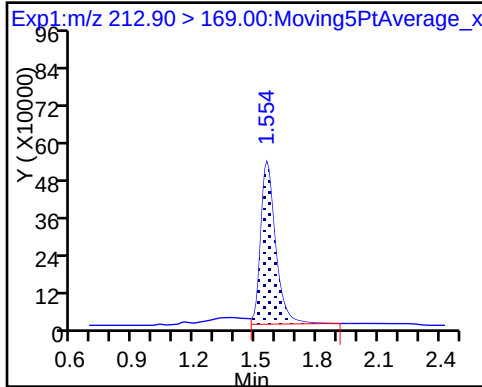
Method: A8_N

Limit Group: LC PFC ICAL

2 Perfluorobutyric acid

D 1 13C4 PFBA

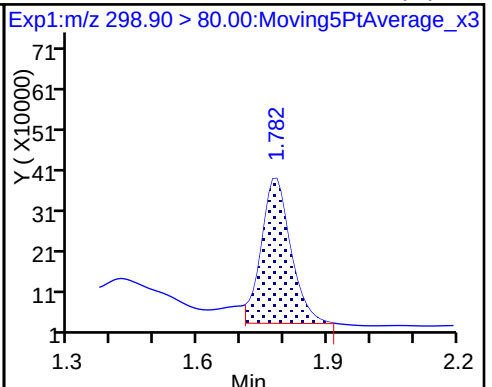
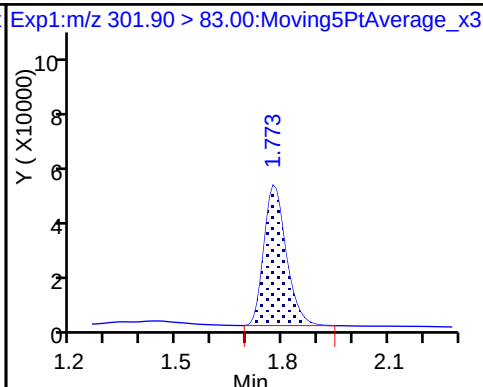
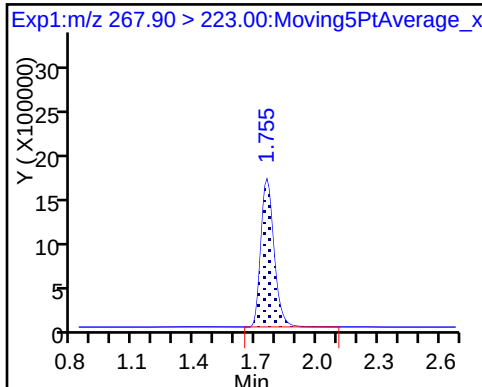
4 Perfluoropentanoic acid (M)



D 3 13C5-PFPeA

D 47 13C3-PFBS

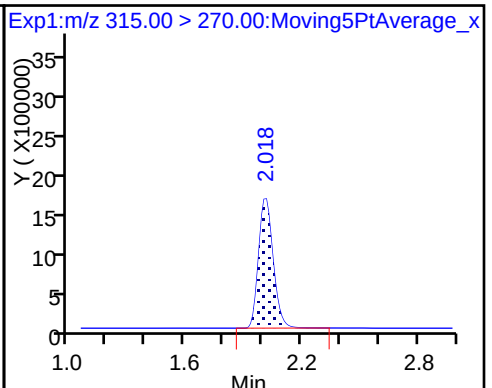
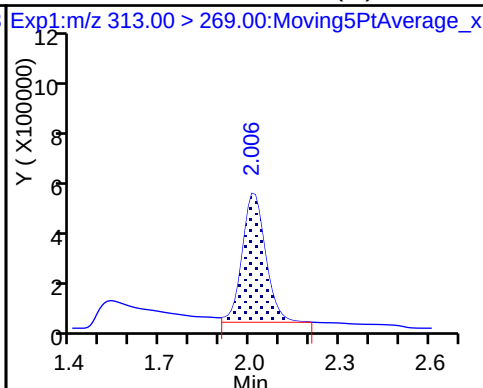
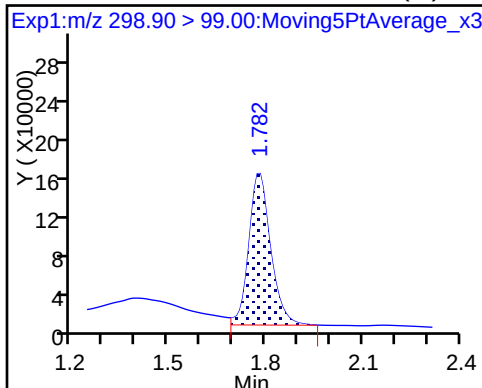
5 Perfluorobutanesulfonic acid (M)



5 Perfluorobutanesulfonic acid (M)

6 Perfluorohexanoic acid (M)

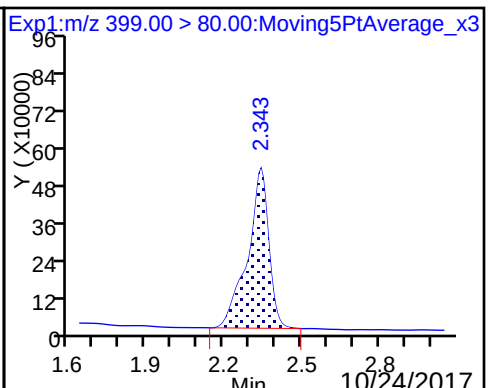
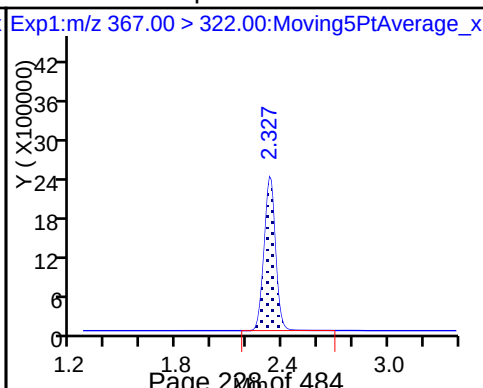
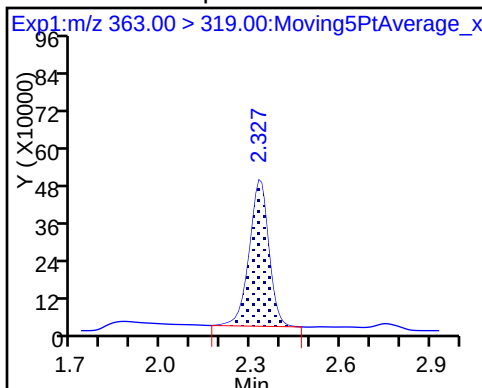
D 7 13C2 PFHxA



10 Perfluoroheptanoic acid

D 9 13C4-PFHpA

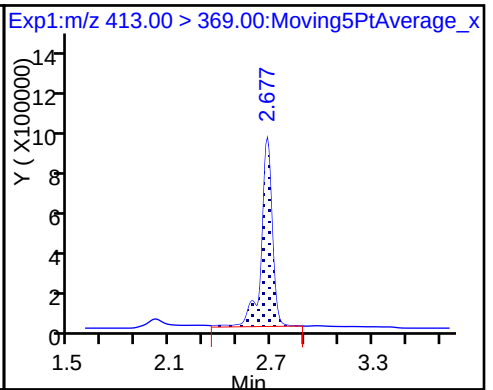
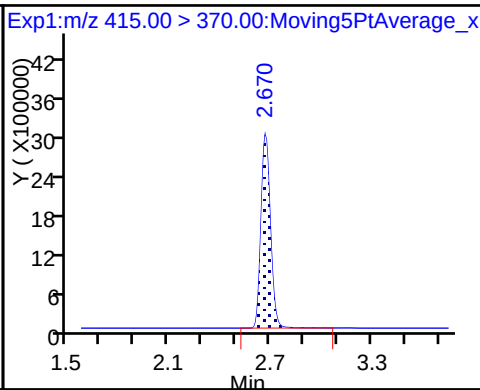
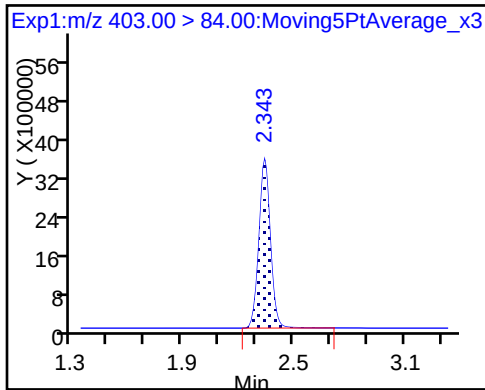
8 Perfluorohexanesulfonic acid



D 11 18O2 PFHxS

* 62 13C2-PFOA

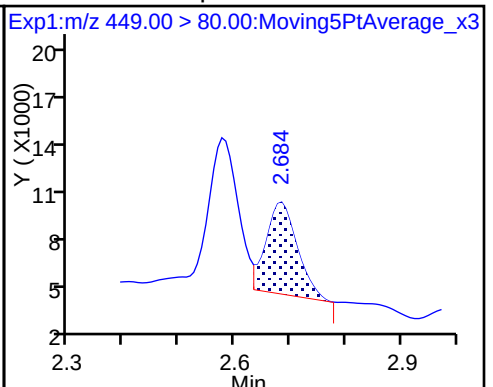
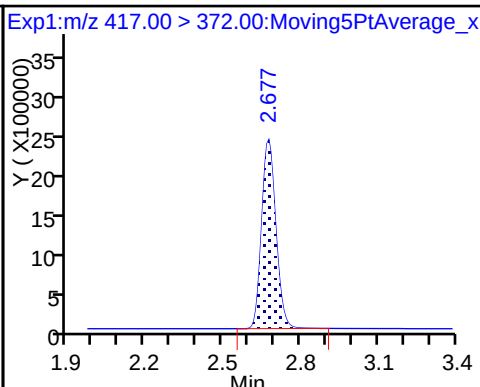
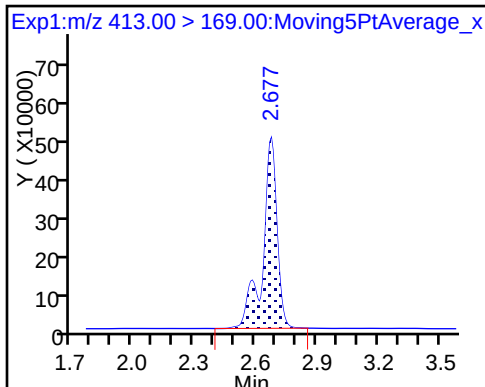
15 Perfluorooctanoic acid



15 Perfluorooctanoic acid

D 14 13C4 PFOA

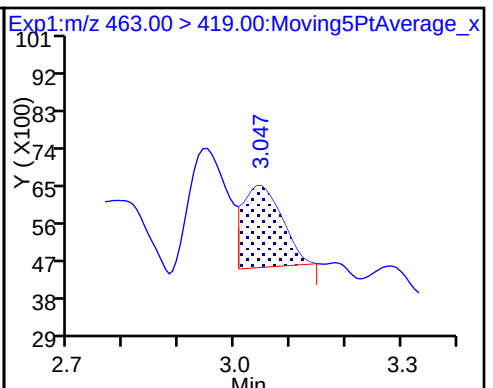
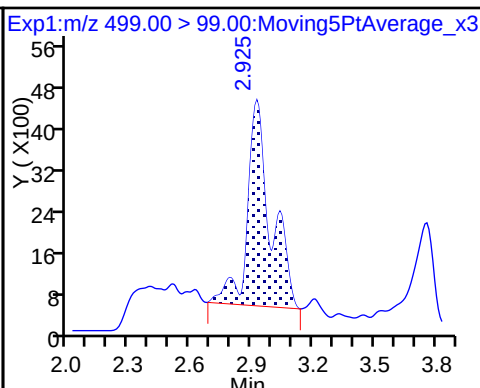
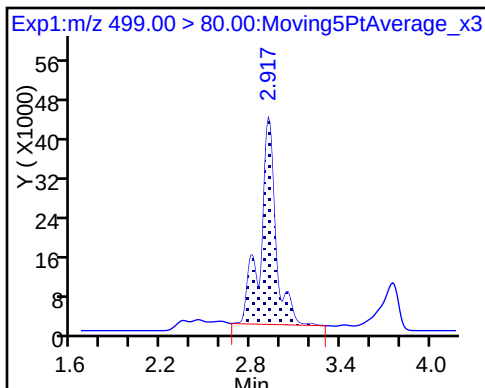
16 Perfluoroheptanesulfonic Acid



17 Perfluorooctane sulfonic acid

17 Perfluorooctane sulfonic acid

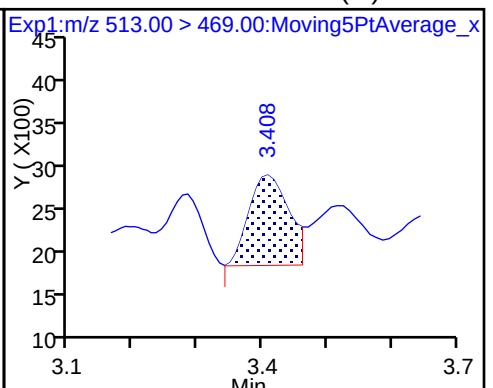
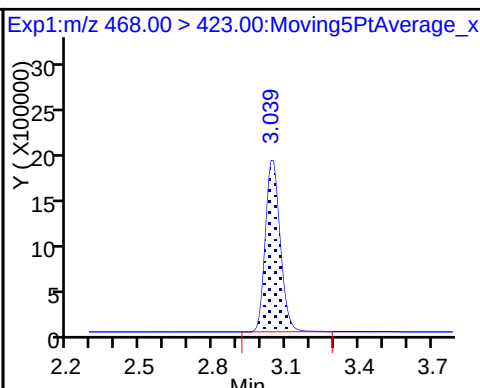
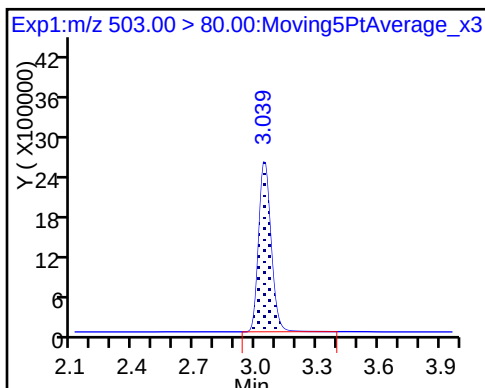
20 Perfluorononanoic acid



D 18 13C4 PFOS

D 19 13C5 PFNA

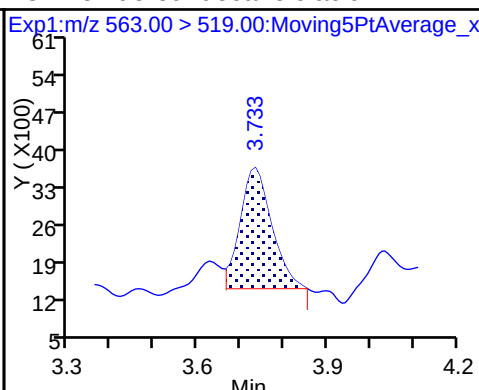
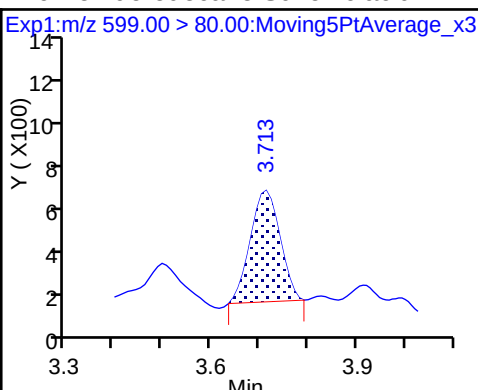
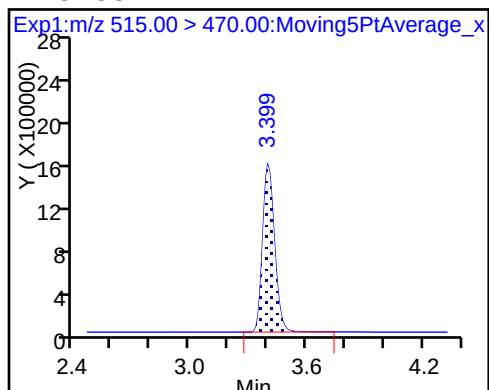
24 Perfluorodecanoic acid (M)



D 23 13C2 PFDA

29 Perfluorodecane Sulfonic acid

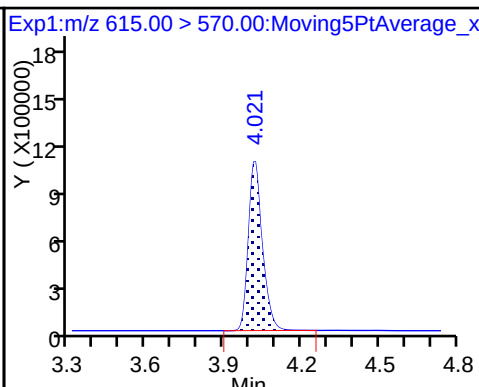
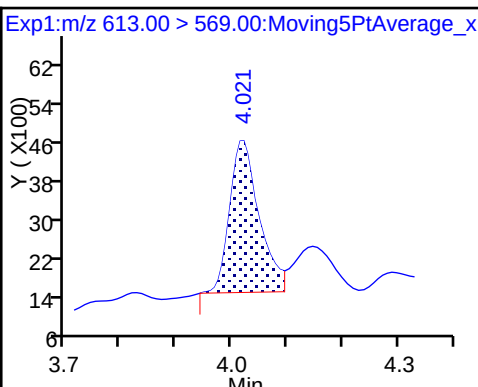
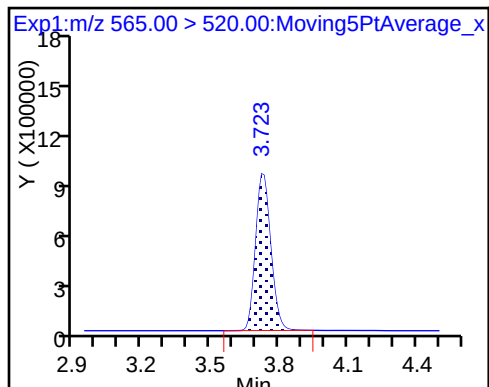
31 Perfluoroundecanoic acid



D 30 13C2 PFUnA

37 Perfluorododecanoic acid

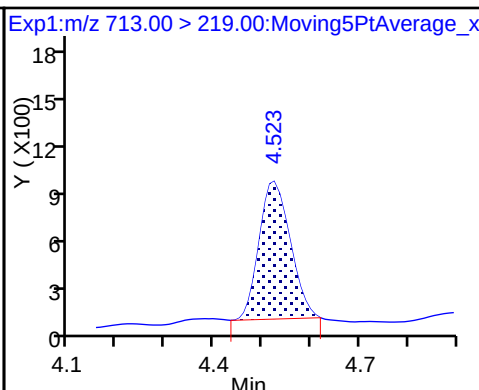
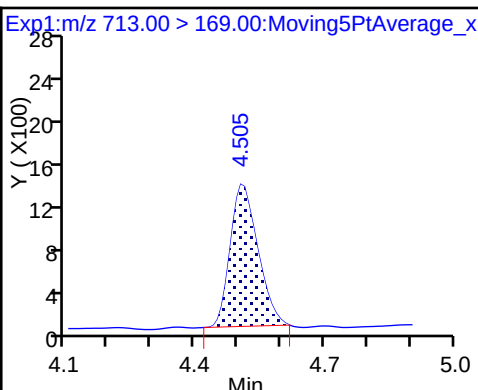
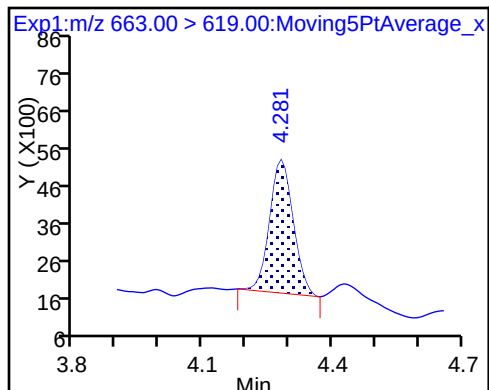
D 36 13C2 PFDaA



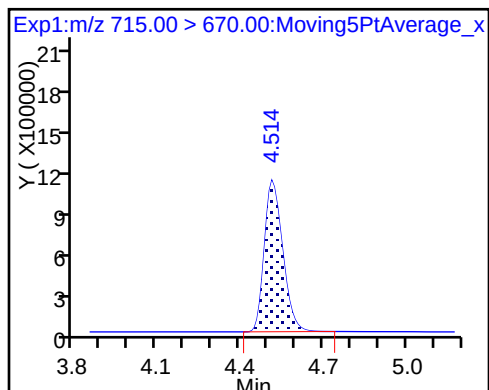
41 Perfluorotridecanoic acid

42 Perfluorotetradecanoic acid

42 Perfluorotetradecanoic acid



D 43 13C2-PFTeDA



TestAmerica Sacramento

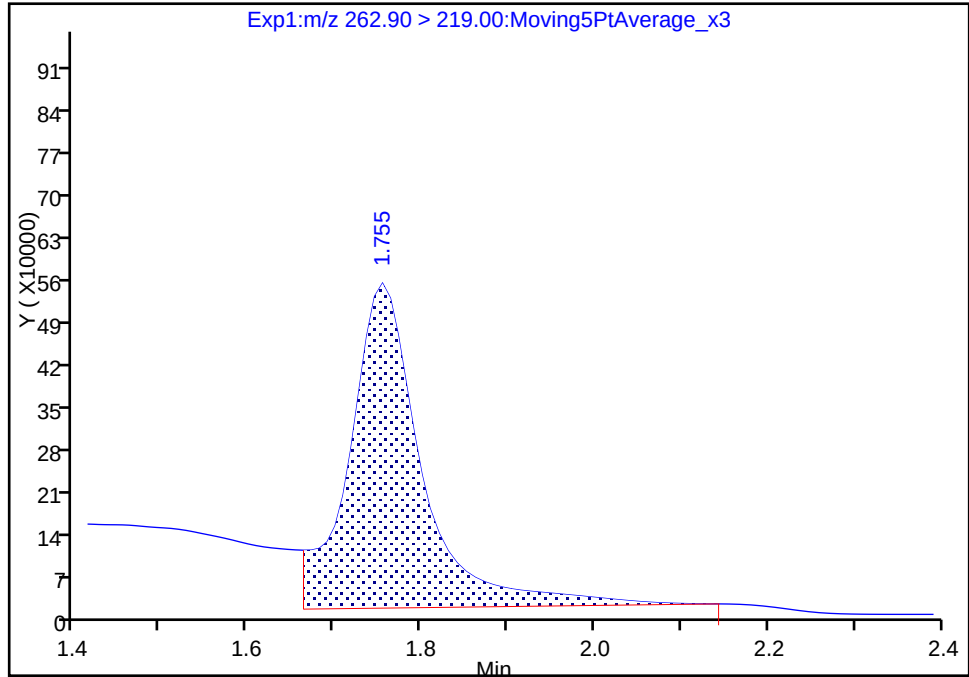
Data File:	\\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\2017.10.20B_043.d				
Injection Date:	21-Oct-2017 02:34:19	Instrument ID:	A8_N		
Lims ID:	480-125692-A-17-A	Lab Sample ID:	320-125692-17		
Client ID:	DGC-6S				
Operator ID:	SACINSTLCMS01	ALS Bottle#:	32	Worklist Smp#:	20
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	A8_N	Limit Group:	LC PFC ICAL		
Column:		Detector:	EXP1		

4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

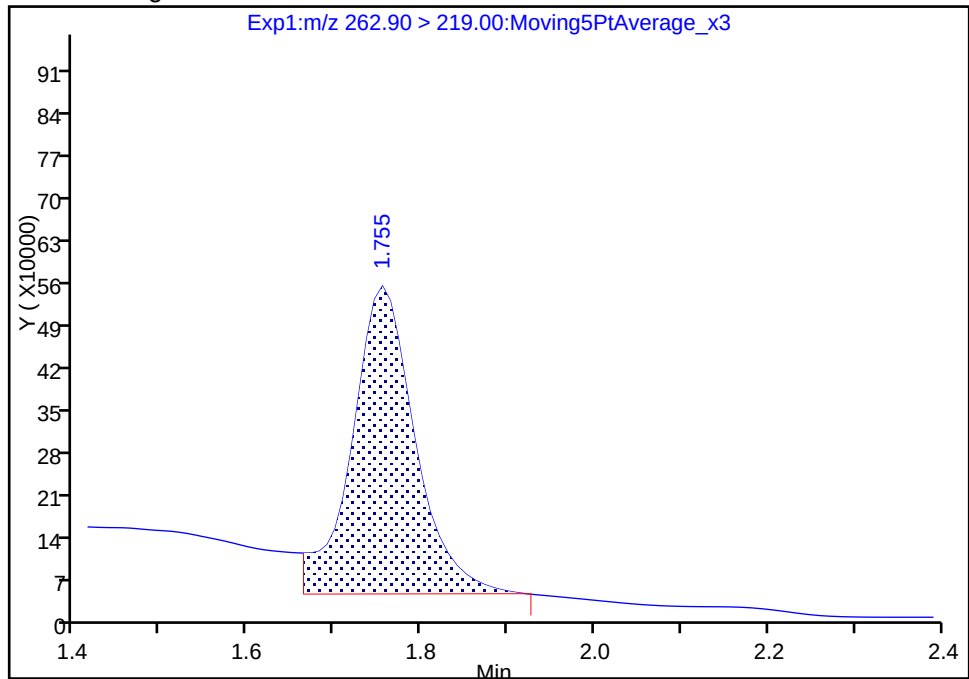
RT: 1.75
Area: 3135303
Amount: 19.453436
Amount Units: ng/ml

Processing Integration Results



RT: 1.75
Area: 2576028
Amount: 15.983334
Amount Units: ng/ml

Manual Integration Results



Reviewer: barnettj, 23-Oct-2017 14:02:57

Audit Action: Manually Integrated

Audit Reason: Baseline

TestAmerica Sacramento

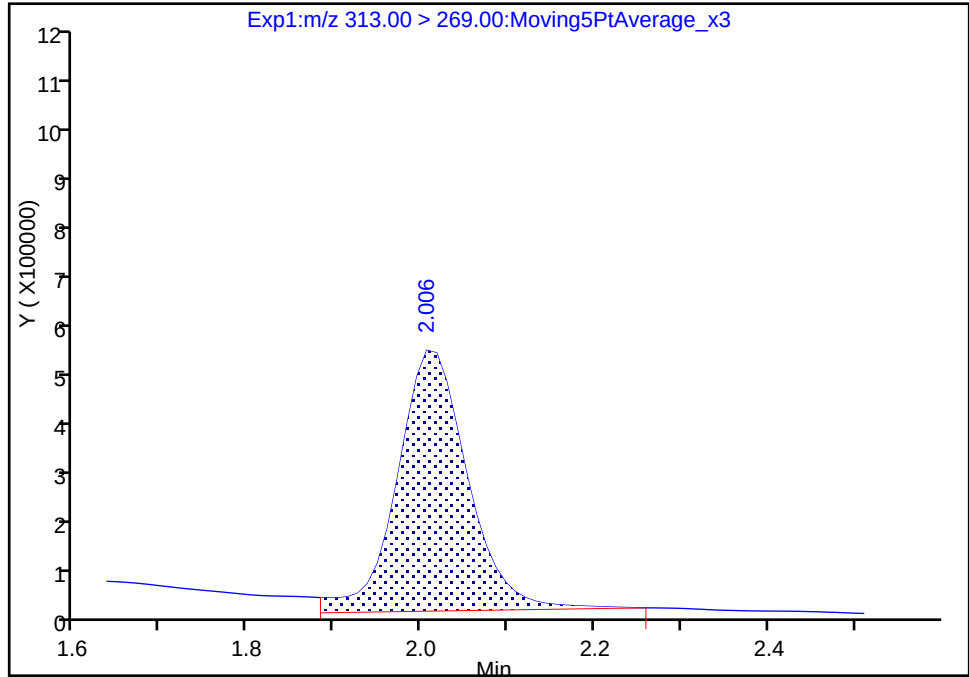
Data File:	\\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\2017.10.20B_043.d				
Injection Date:	21-Oct-2017 02:34:19	Instrument ID:	A8_N		
Lims ID:	480-125692-A-17-A	Lab Sample ID:	320-125692-17		
Client ID:	DGC-6S				
Operator ID:	SACINSTLCMS01	ALS Bottle#:	32	Worklist Smp#:	20
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	A8_N	Limit Group:	LC PFC ICAL		
Column:		Detector	EXP1		

6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

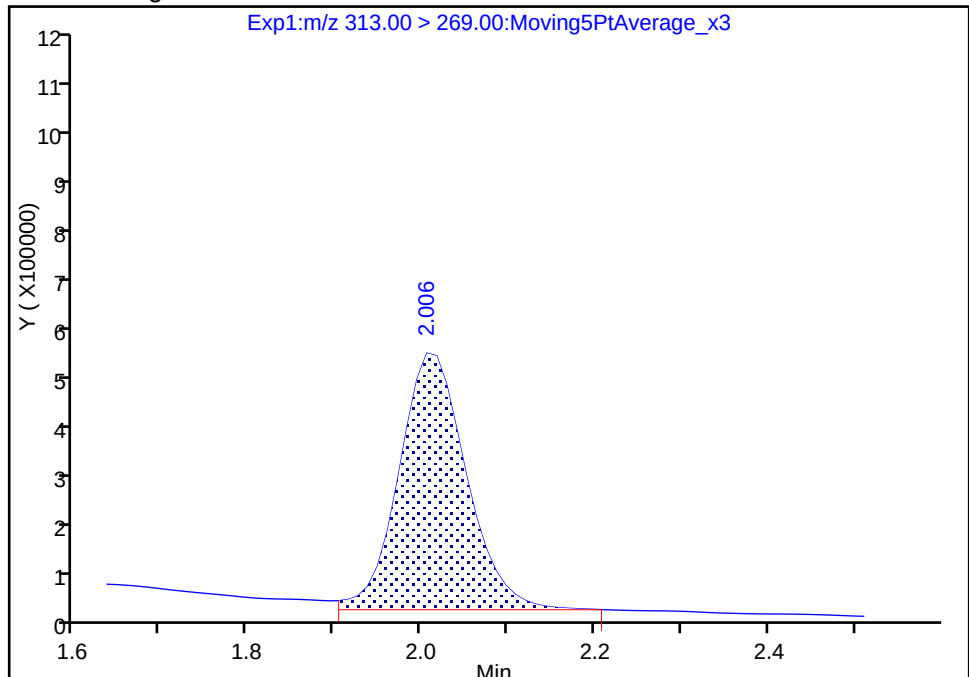
RT: 2.01
Area: 2833569
Amount: 17.039646
Amount Units: ng/ml

Processing Integration Results



RT: 2.01
Area: 2664456
Amount: 16.022687
Amount Units: ng/ml

Manual Integration Results



Reviewer: barnettj, 23-Oct-2017 14:03:35
Audit Action: Manually Integrated

Audit Reason: Baseline
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TestAmerica Sacramento

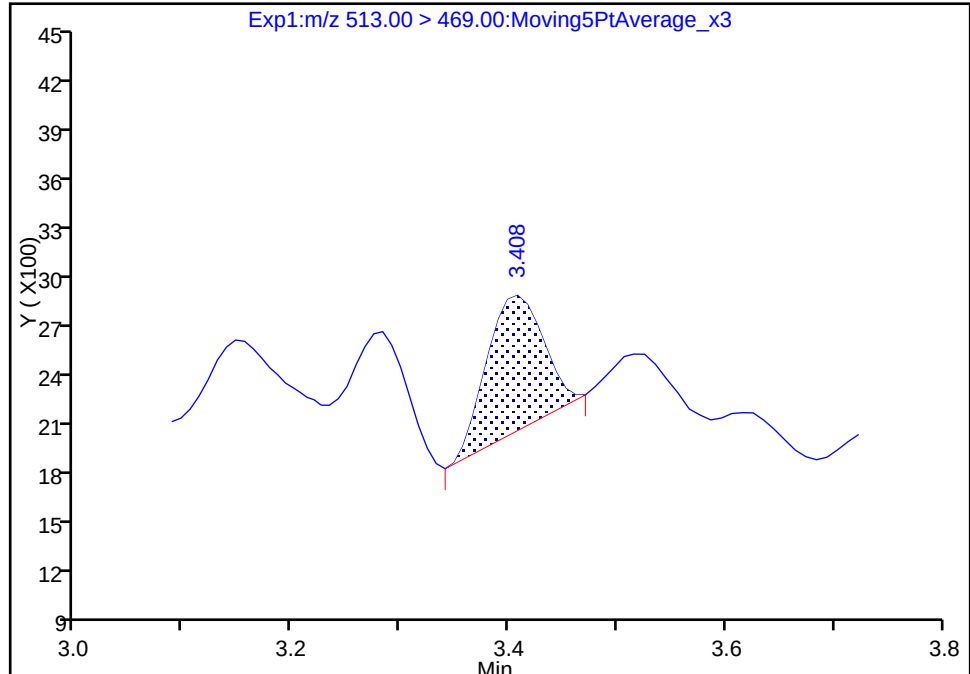
Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\2017.10.20B_043.d
Injection Date: 21-Oct-2017 02:34:19 Instrument ID: A8_N
Lims ID: 480-125692-A-17-A Lab Sample ID: 320-125692-17
Client ID: DGC-6S
Operator ID: SACINSTLCMS01 ALS Bottle#: 32 Worklist Smp#: 20
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: A8_N Limit Group: LC PFC ICAL
Column: Detector EXP1

24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 1

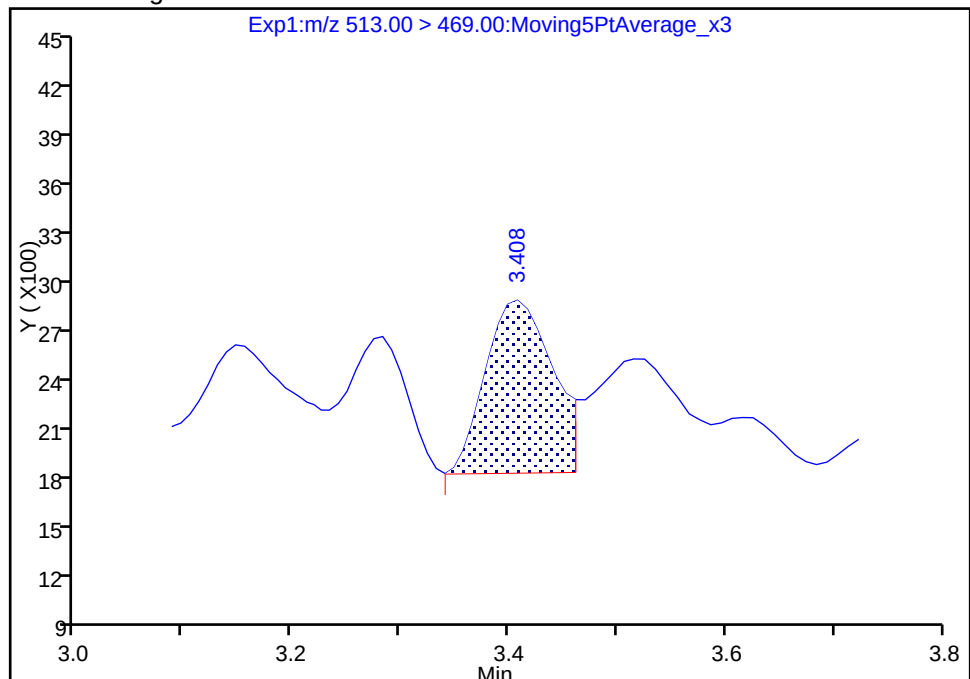
RT: 3.41
Area: 2959
Amount: 0.024351
Amount Units: ng/ml

Processing Integration Results



RT: 3.41
Area: 4421
Amount: 0.036382
Amount Units: ng/ml

Manual Integration Results



Reviewer: barnettj, 23-Oct-2017 14:04:22
Audit Action: Manually Integrated

Audit Reason: Baseline
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TestAmerica Sacramento

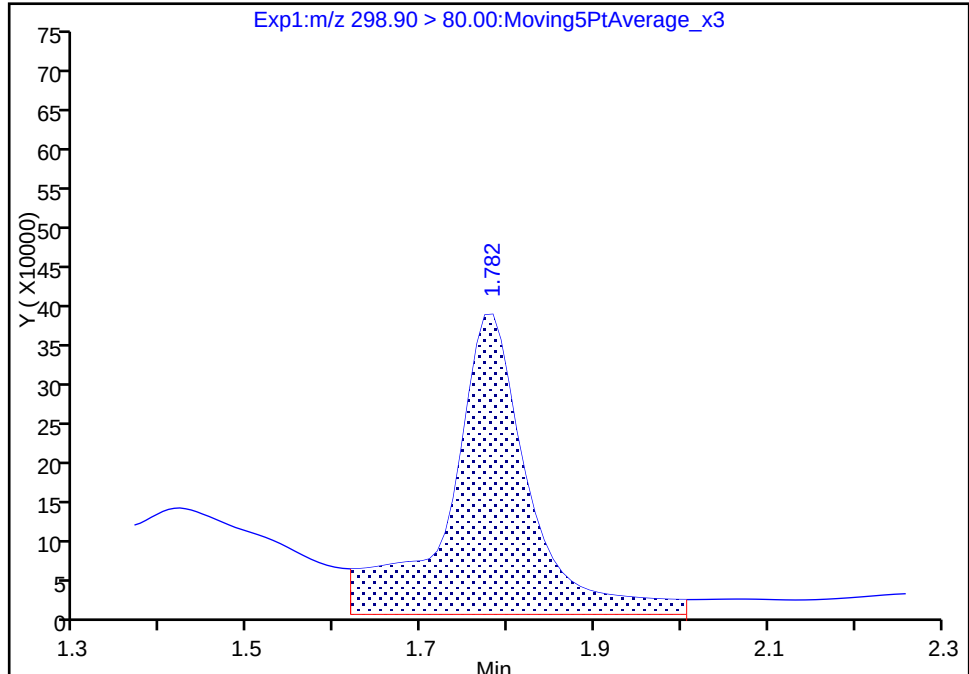
Data File:	\\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\2017.10.20B_043.d				
Injection Date:	21-Oct-2017 02:34:19	Instrument ID:	A8_N		
Lims ID:	480-125692-A-17-A	Lab Sample ID:	320-125692-17		
Client ID:	DGC-6S				
Operator ID:	SACINSTLCMS01	ALS Bottle#:	32	Worklist Smp#:	20
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	A8_N	Limit Group:	LC PFC ICAL		
Column:		Detector:	EXP1		

5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

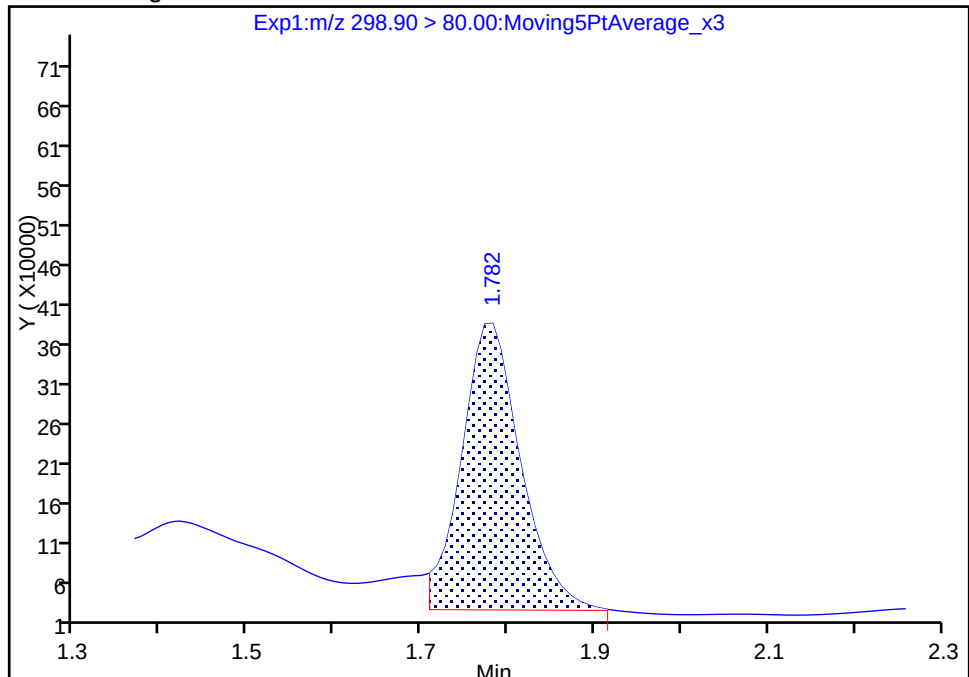
RT: 1.78
Area: 2457322
Amount: 7.258473
Amount Units: ng/ml

Processing Integration Results



RT: 1.78
Area: 1690629
Amount: 4.993804
Amount Units: ng/ml

Manual Integration Results



Reviewer: barnettj, 23-Oct-2017 14:03:08
Audit Action: Manually Integrated

Audit Reason: Baseline
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TestAmerica Sacramento

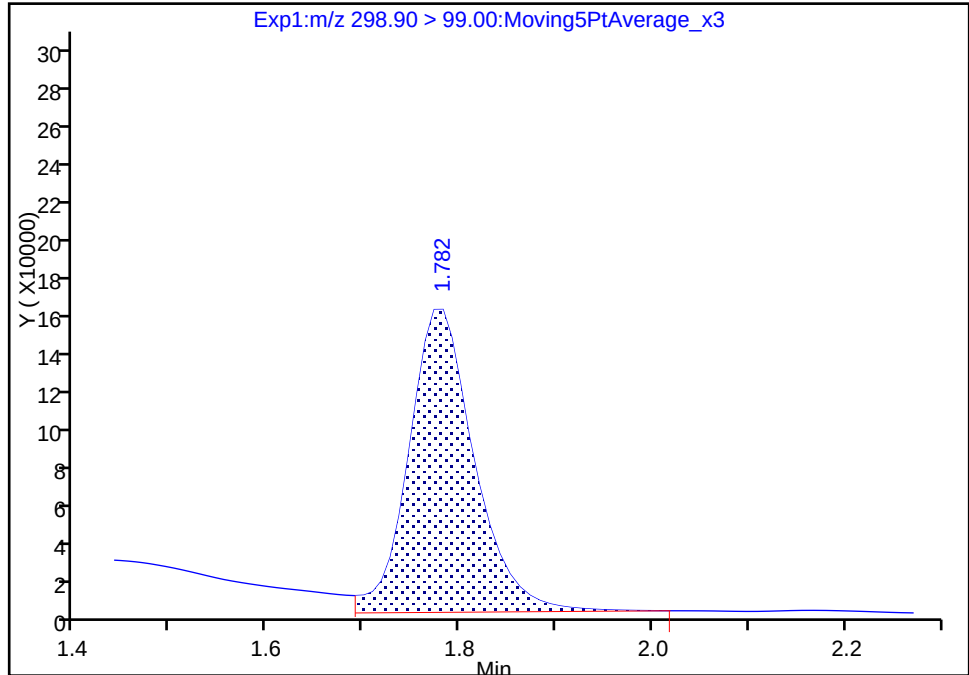
Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\2017.10.20B_043.d
Injection Date: 21-Oct-2017 02:34:19 Instrument ID: A8_N
Lims ID: 480-125692-A-17-A Lab Sample ID: 320-125692-17
Client ID: DGC-6S
Operator ID: SACINSTLCMS01 ALS Bottle#: 32 Worklist Smp#: 20
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: A8_N Limit Group: LC PFC ICAL
Column: Detector EXP1

5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 2

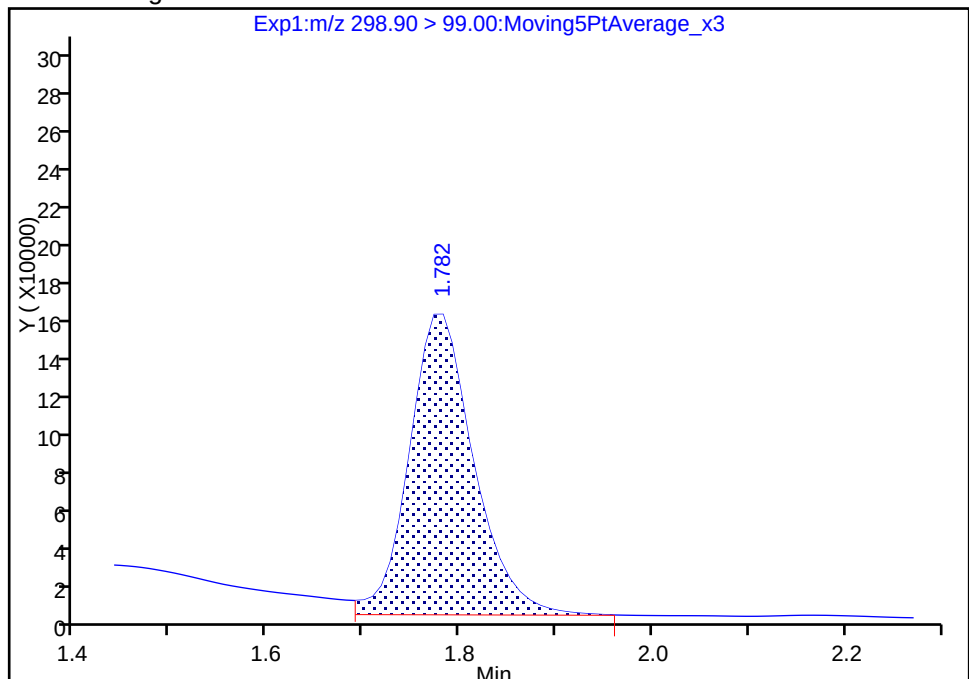
RT: 1.78
Area: 738488
Amount: 7.258473
Amount Units: ng/ml

Processing Integration Results



RT: 1.78
Area: 721216
Amount: 4.993804
Amount Units: ng/ml

Manual Integration Results



Reviewer: barnettj, 23-Oct-2017 14:03:21

Audit Action: Manually Integrated

Audit Reason: Baseline

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Sacramento</u>	Job No.: <u>480-125692-1</u>
SDG No.: _____	
Client Sample ID: <u>DGC-7S</u>	Lab Sample ID: <u>480-125692-18</u>
Matrix: <u>Water</u>	Lab File ID: <u>2017.10.20B_044.d</u>
Analysis Method: <u>537 (modified)</u>	Date Collected: <u>10/10/2017 13:13</u>
Extraction Method: <u>3535</u>	Date Extracted: <u>10/17/2017 08:45</u>
Sample wt/vol: <u>250.9 (mL)</u>	Date Analyzed: <u>10/21/2017 02:41</u>
Con. Extract Vol.: <u>0.50 (mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>2 (uL)</u>	GC Column: <u>GeminiC18 3x100 ID: 3 (mm)</u>
% Moisture: _____	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>190434</u>	Units: <u>ng/L</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	320	B	2.0	0.46
2706-90-3	Perfluoropentanoic acid (PFPeA)	130		2.0	0.99
307-24-4	Perfluorohexanoic acid (PFHxA)	120		2.0	0.78
375-85-9	Perfluoroheptanoic acid (PFHpA)	120		2.0	0.80
335-67-1	Perfluorooctanoic acid (PFOA)	270		2.0	0.75
375-95-1	Perfluorononanoic acid (PFNA)	24	B	2.0	0.65
335-76-2	Perfluorodecanoic acid (PFDA)	ND		2.0	0.44
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		2.0	0.75
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		2.0	0.58
72629-94-8	Perfluorotridecanoic Acid (PFTriA)	ND		2.0	0.55
376-06-7	Perfluorotetradecanoic acid (PFTeA)	ND		2.0	0.20
375-73-5	Perfluorobutanesulfonic acid (PFBS)	33		2.0	0.91
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	65		2.0	0.87
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	3.3		2.0	0.71
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	56		2.0	1.3
335-77-3	Perfluorodecanesulfonic acid (PFDS)	ND		2.0	1.2

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00992	13C4 PFBA	14	*	25-150
STL01893	13C5 PFPeA	41		25-150
STL00993	13C2 PFHxA	54		25-150
STL01892	13C4-PFHpA	52		25-150
STL00990	13C4 PFOA	59		25-150
STL00995	13C5 PFNA	69		25-150
STL00996	13C2 PFDA	70		25-150
STL00997	13C2 PFUnA	78		25-150
STL00998	13C2 PFDoA	75		25-150
STL00994	18O2 PFHxS	72		25-150
STL00991	13C4 PFOS	83		25-150

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\2017.10.20B_044.d
 Lims ID: 480-125692-A-18-A
 Client ID: DGC-7S
 Sample Type: Client
 Inject. Date: 21-Oct-2017 02:41:13 ALS Bottle#: 33 Worklist Smp#: 21
 Injection Vol: 2.0 ul Dil. Factor: 1.0000
 Sample Info: 480-125692-a-18-a
 Misc. Info.: Plate: 1 Rack: 4
 Operator ID: SACINSTLCMS01 Instrument ID: A8_N
 Method: \\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\A8_N.m
 Limit Group: LC PFC ICAL
 Last Update: 23-Oct-2017 14:17:58 Calib Date: 12-Oct-2017 11:11:26
 Integrator: Picker
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20171012-49071.b\2017.10.12ICAL_010.d

Column 1 : Det: EXP1

Process Host: XAWRK012

First Level Reviewer: barnettj

Date: 23-Oct-2017 14:08:36

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
2 Perfluorobutyric acid										M
212.90 > 169.00	1.554	1.545	0.009	1.000	7647002	160.0			16.1	M
D 1 13C4 PFBA										
217.00 > 172.00	1.546	1.545	0.001		2567652	6.84		13.7	4117	
4 Perfluoropentanoic acid										M
262.90 > 219.00	1.746	1.754	-0.008	1.000	6732810	63.6			36.8	M
D 3 13C5-PFPeA										
267.90 > 223.00	1.746	1.754	-0.008		4842498	20.5		41.1	1832	
D 47 13C3-PFBS										
301.90 > 83.00	1.773	1.773	0.0		208769	30.4		65.4	166	
5 Perfluorobutanesulfonic acid										M
298.90 > 80.00	1.773	1.782	-0.009	1.000	5331408	16.6			35.0	M
298.90 > 99.00	1.773	1.782	-0.009	1.000	1591849		3.35(0.00-0.00)		111	M
6 Perfluorohexanoic acid										M
313.00 > 269.00	2.008	2.017	-0.009	1.000	8344407	61.1			88.5	M
D 7 13C2 PFHxA										
315.00 > 270.00	2.008	2.017	-0.009		6966962	27.2		54.3	13080	
10 Perfluoroheptanoic acid										M
363.00 > 319.00	2.321	2.324	-0.003	1.000	7386777	59.1			312	M
D 9 13C4-PFHpA										
367.00 > 322.00	2.321	2.324	-0.003		6267991	26.2		52.5	14160	
8 Perfluorohexanesulfonic acid										M
399.00 > 80.00	2.340	2.348	-0.008	1.000	8990031	32.5			220	M
D 11 18O2 PFHxS										
403.00 > 84.00	2.340	2.348	-0.008		12135298	33.9		71.6	17600	
* 62 13C2-PFOA										
415.00 > 370.00	2.663	2.671	-0.008		8441791	50.0			21526	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
15 Perfluorooctanoic acid										
413.00 > 369.00	2.671	2.671	0.0	1.000	19032011	133.9			1265	
413.00 > 169.00	2.671	2.671	0.0	1.000	11258600		1.69(0.90-1.10)		6346	
D 14 13C4 PFOA										
417.00 > 372.00	2.671	2.671	0.0		6576304	29.3		58.6	14429	
16 Perfluoroheptanesulfonic Acid										
449.00 > 80.00	2.679	2.678	0.001	1.000	415659	1.64			36.9	
17 Perfluorooctane sulfonic acid										
499.00 > 80.00	2.919	3.035	-0.116	1.000	6119862	27.9			542	M
499.00 > 99.00	3.041	3.035	0.006	1.042	869228		7.04(0.90-1.10)		395	M
20 Perfluorononanoic acid										
463.00 > 419.00	3.041	3.035	0.006	1.000	1362193	12.0			231	
D 18 13C4 PFOS										
503.00 > 80.00	3.041	3.035	0.006		9963979	39.5		82.7	2703	
D 19 13C5 PFNA										
468.00 > 423.00	3.041	3.035	0.006		5893413	34.4		68.7	14886	
24 Perfluorodecanoic acid										
513.00 > 469.00	3.403	3.393	0.010	1.000	8086	0.0848			2.6	M
D 23 13C2 PFDA										
515.00 > 470.00	3.403	3.393	0.010		5203275	35.2		70.4	14648	
29 Perfluorodecane Sulfonic acid										
599.00 > 80.00	3.710	3.710	0.0	1.000	3085	0.0246			3.9	M
31 Perfluoroundecanoic acid										
563.00 > 519.00	3.720	3.720	0.0	1.000	17086	0.2099			9.0	M
D 30 13C2 PFUnA										
565.00 > 520.00	3.720	3.720	0.0		3774973	38.8		77.5	12992	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.019	4.014	0.005	1.000	4330	0.0693			3.9	M
D 36 13C2 PFDaA										
615.00 > 570.00	4.019	4.014	0.005		3415950	37.4		74.8	10242	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.285	4.279	0.006	1.000	6990	0.1150			1.6	
D 43 13C2-PFTeDA										
715.00 > 670.00	4.517	4.514	0.003		4312710	53.9		108	9865	

QC Flag Legend

Review Flags

M - Manually Integrated

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\2017.10.20B_044.d

Injection Date: 21-Oct-2017 02:41:13

Instrument ID: A8_N

Lims ID: 480-125692-A-18-A

Lab Sample ID: 320-125692-18

Client ID: DGC-7S

Operator ID: SACINSTLCMS01

ALS Bottle#: 33

Worklist Smp#: 21

Injection Vol: 2.0 ul

Dil. Factor: 1.0000

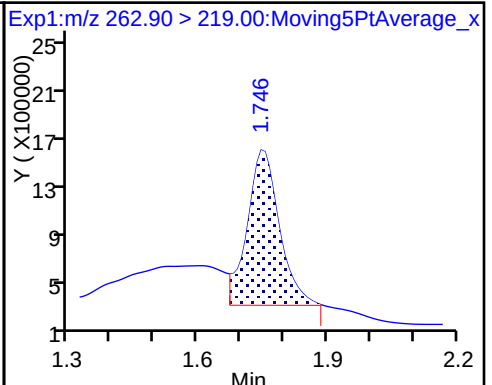
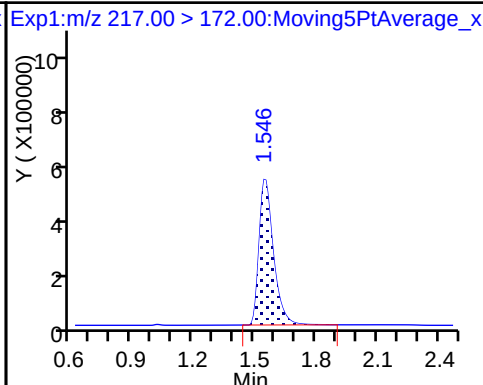
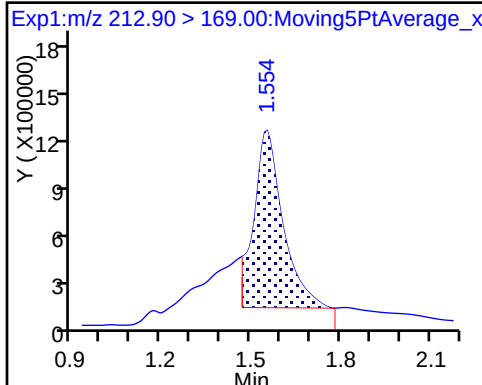
Method: A8_N

Limit Group: LC PFC ICAL

2 Perfluorobutyric acid (M)

D 1 13C4 PFBA

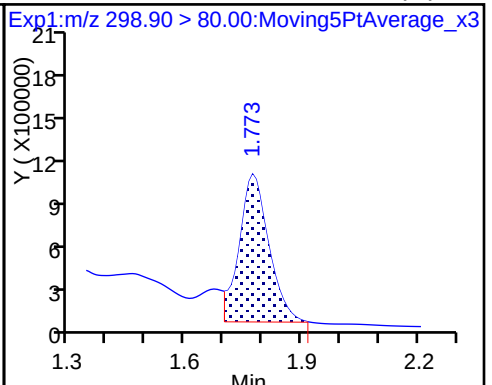
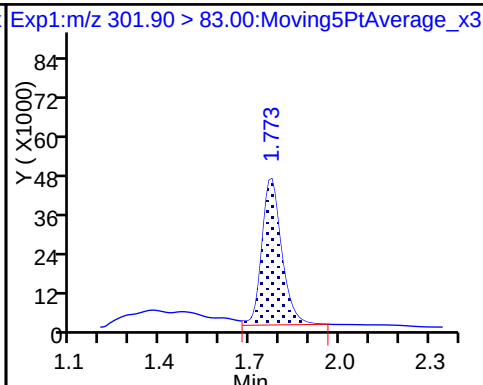
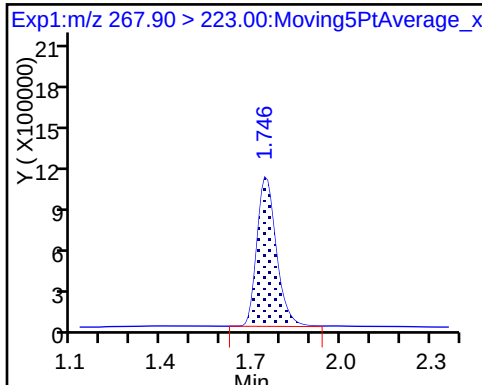
4 Perfluoropentanoic acid (M)



D 3 13C5-PFPeA

D 47 13C3-PFBS

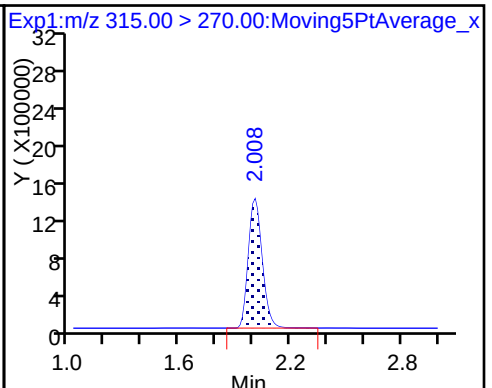
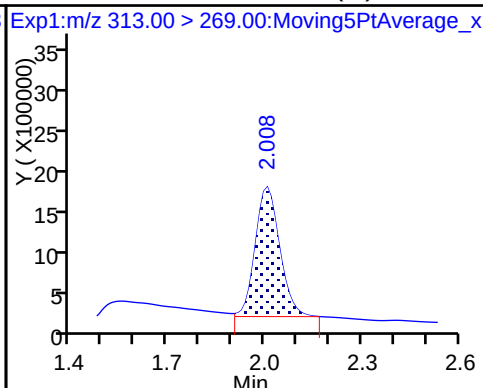
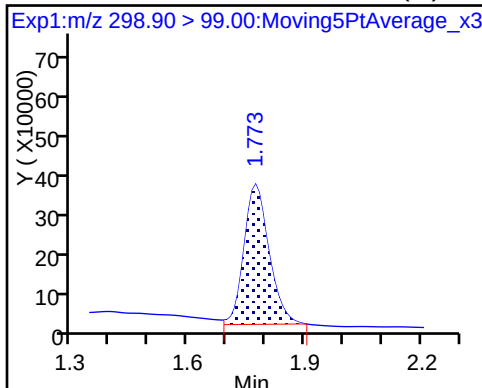
5 Perfluorobutanesulfonic acid (M)



5 Perfluorobutanesulfonic acid (M)

6 Perfluorohexanoic acid (M)

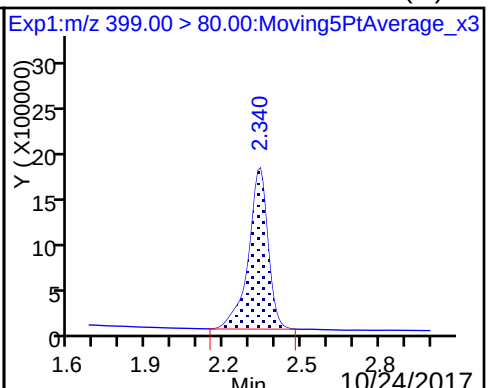
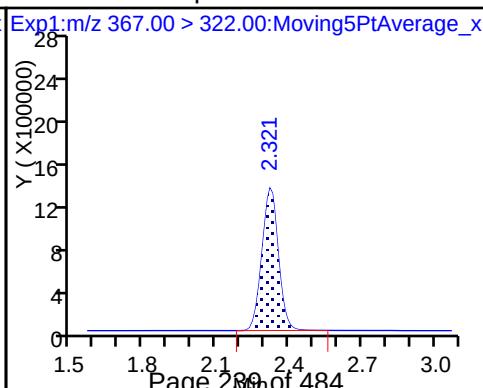
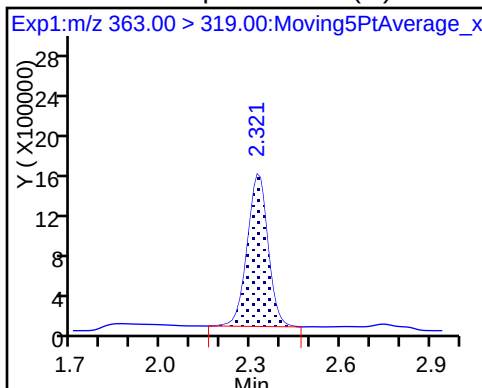
D 7 13C2 PFHxA



10 Perfluoroheptanoic acid (M)

D 9 13C4-PFHpA

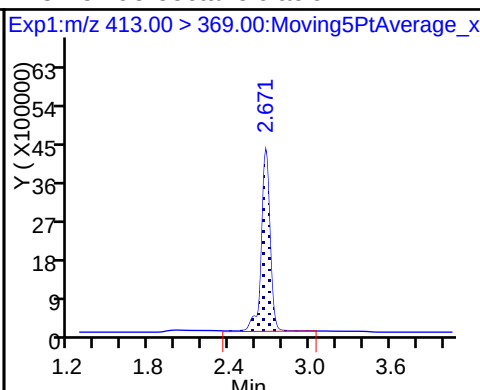
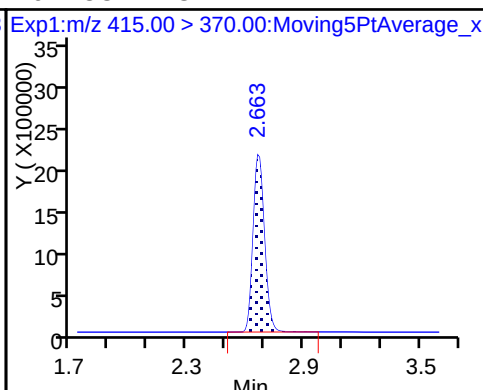
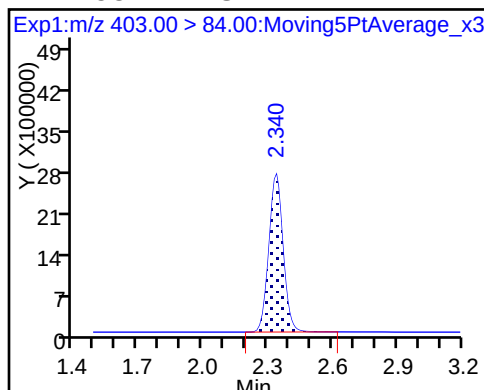
8 Perfluorohexanesulfonic acid (M)



D 11 18O2 PFHxS

* 62 13C2-PFOA

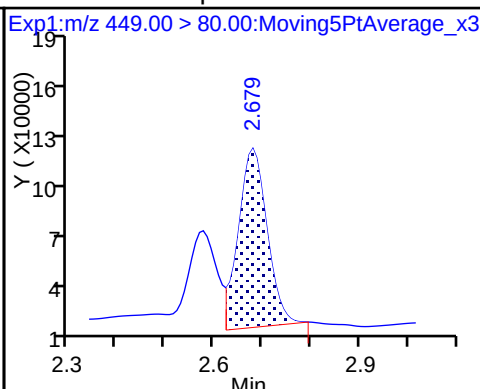
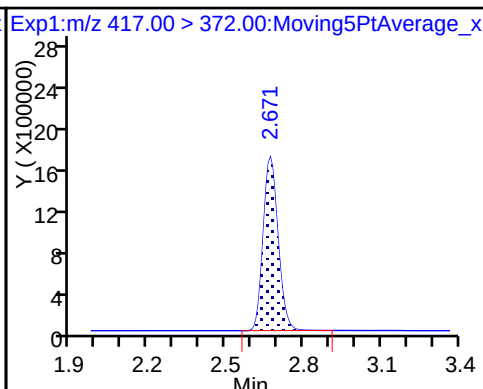
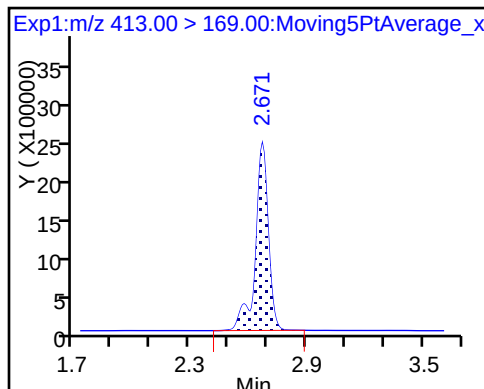
15 Perfluorooctanoic acid



15 Perfluorooctanoic acid

D 14 13C4 PFOA

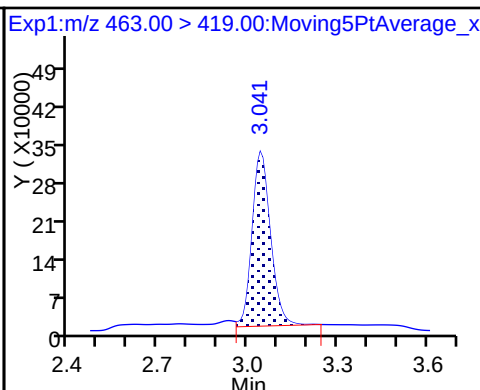
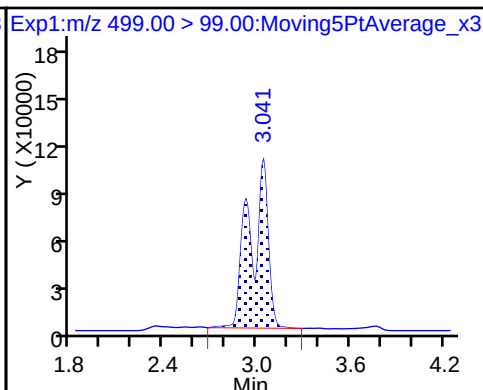
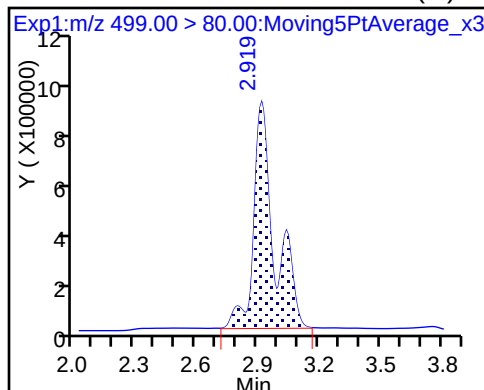
16 Perfluoroheptanesulfonic Acid



17 Perfluorooctane sulfonic acid (M)

17 Perfluorooctane sulfonic acid

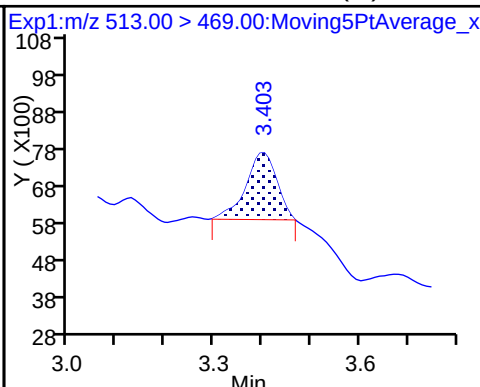
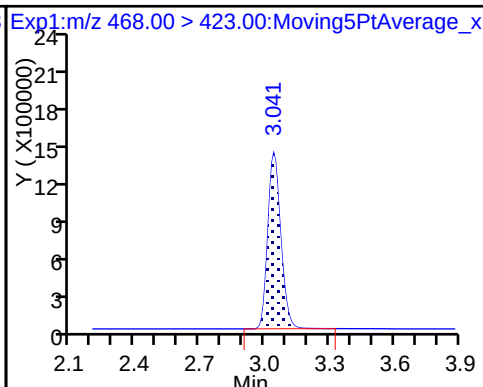
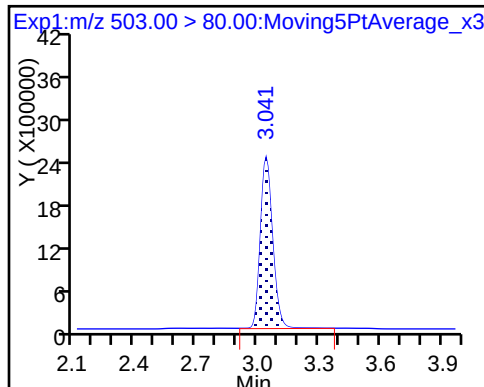
20 Perfluorononanoic acid



D 18 13C4 PFOS

D 19 13C5 PFNA

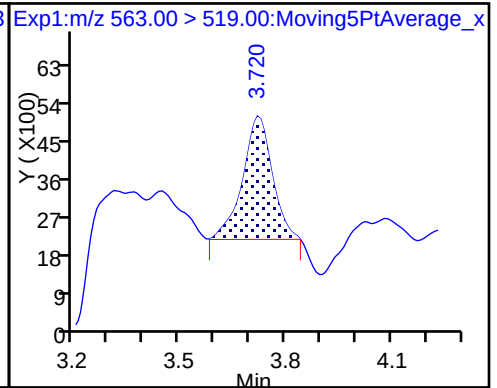
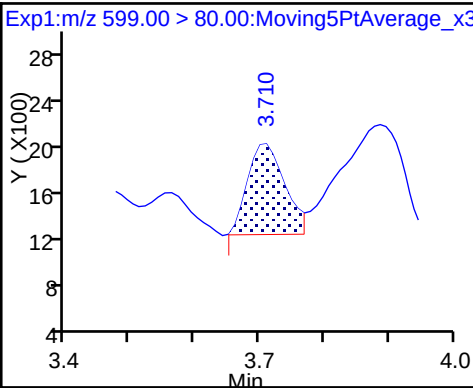
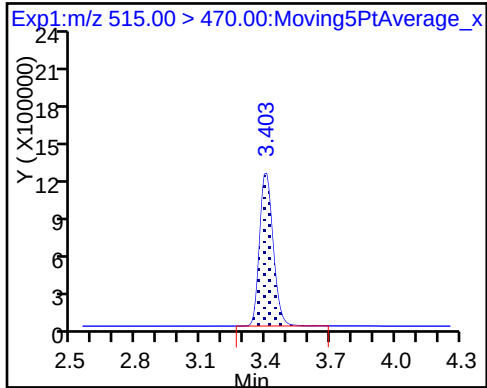
24 Perfluorodecanoic acid (M)



D 23 13C2 PFDA

29 Perfluorodecane Sulfonic acid (M)

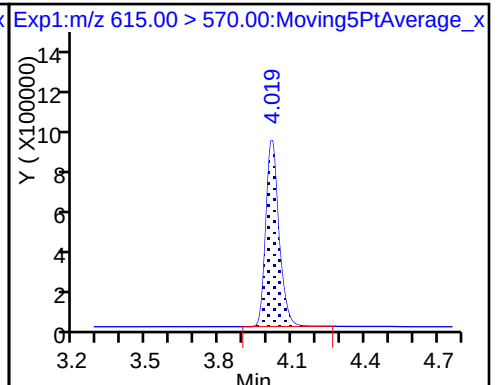
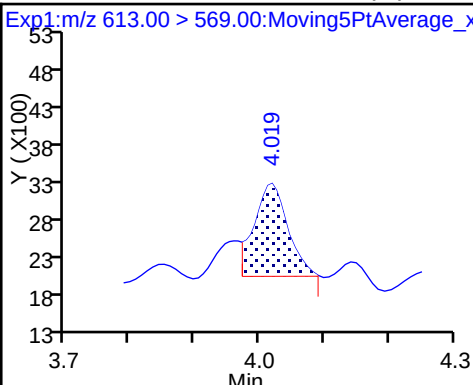
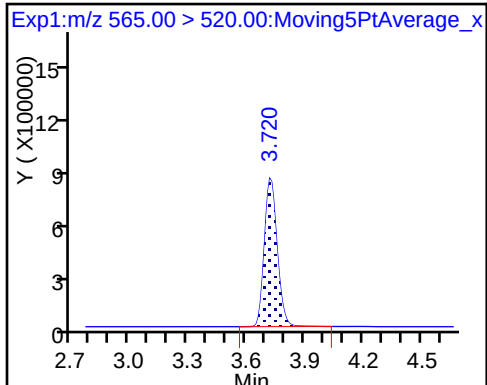
31 Perfluoroundecanoic acid (M)



D 30 13C2 PFUnA

37 Perfluorododecanoic acid (M)

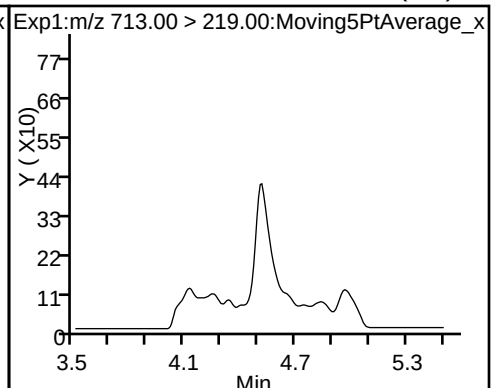
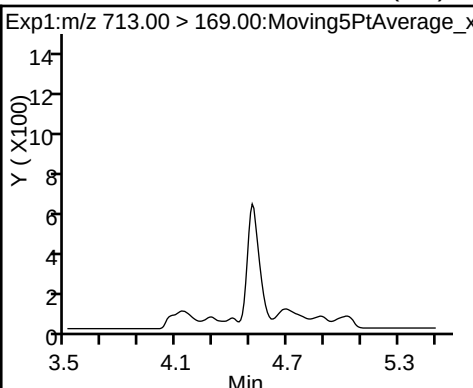
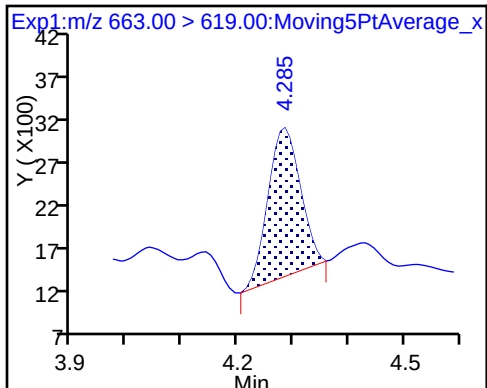
D 36 13C2 PFDaA



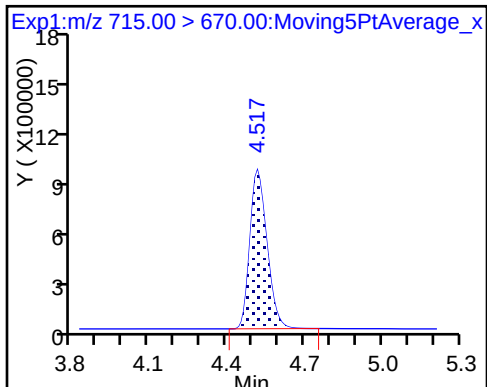
41 Perfluorotridecanoic acid

42 Perfluorotetradecanoic acid (ND)

42 Perfluorotetradecanoic acid (ND)



D 43 13C2-PFTeDA



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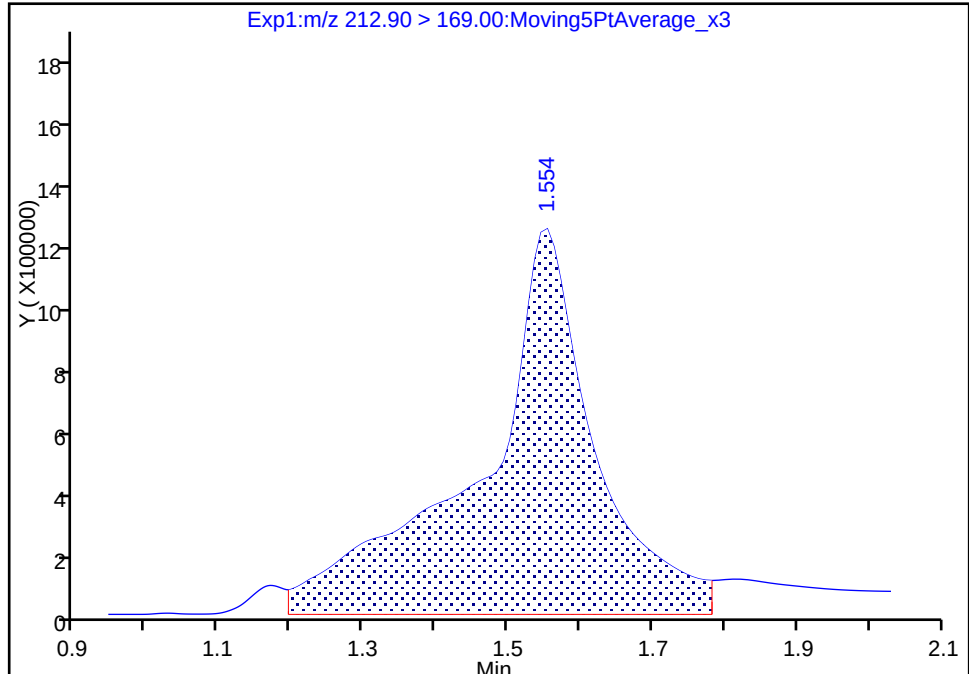
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Injection Date:	21-Oct-2017 02:41:13	Instrument ID:	A8_N		
Lims ID:	480-125692-A-18-A	Lab Sample ID:	320-125692-18		
Client ID:	DGC-7S				
Operator ID:	SACINSTLCMS01	ALS Bottle#:	33	Worklist Smp#:	21
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	A8_N	Limit Group:	LC PFC ICAL		
Column:		Detector:	EXP1		

2 Perfluorobutyric acid, CAS: 375-22-4

Signal: 1

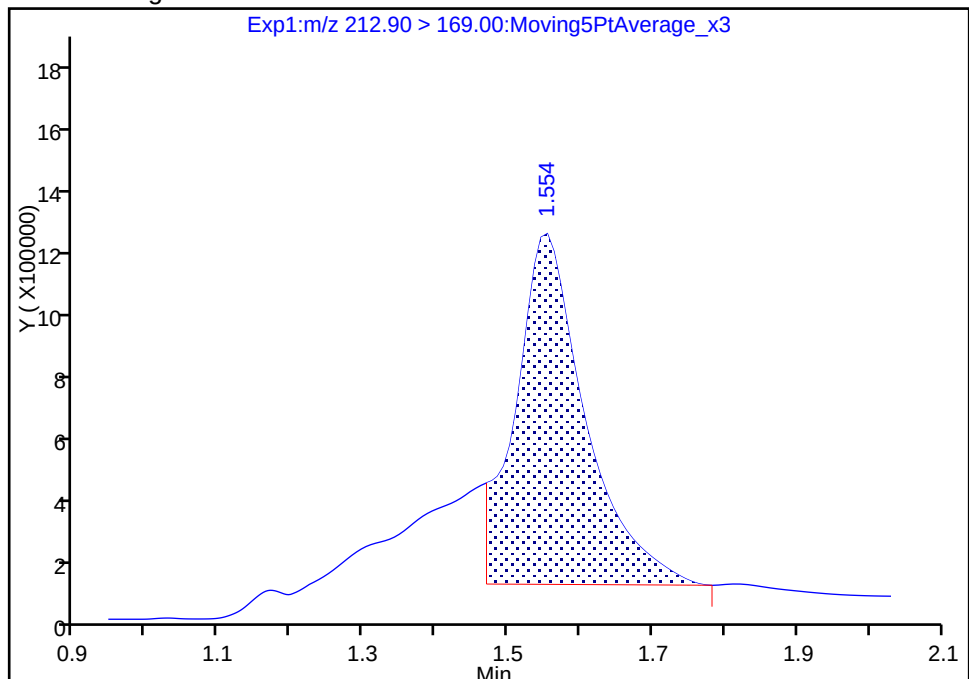
RT: 1.55
Area: 14087811
Amount: 294.8049
Amount Units: ng/ml

Processing Integration Results



RT: 1.55
Area: 7647002
Amount: 160.0230
Amount Units: ng/ml

Manual Integration Results



Reviewer: barnettj, 23-Oct-2017 14:05:23

Audit Action: Manually Integrated

Audit Reason: Baseline

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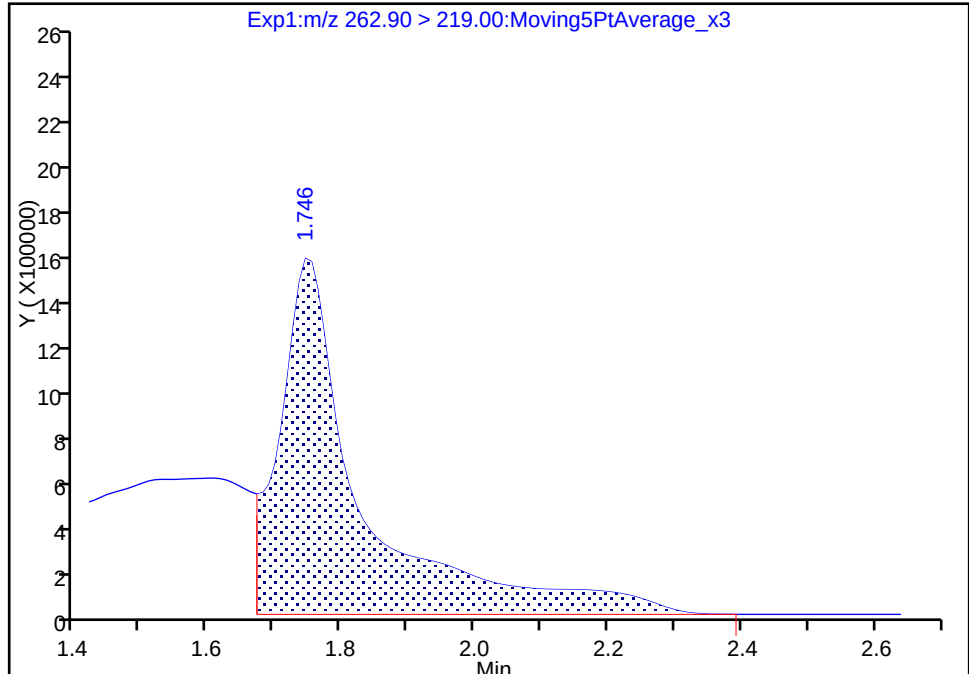
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Injection Date:	21-Oct-2017 02:41:13	Instrument ID:	A8_N		
Lims ID:	480-125692-A-18-A	Lab Sample ID:	320-125692-18		
Client ID:	DGC-7S				
Operator ID:	SACINSTLCMS01	ALS Bottle#:	33	Worklist Smp#:	21
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	A8_N	Limit Group:	LC PFC ICAL		
Column:		Detector	EXP1		

4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

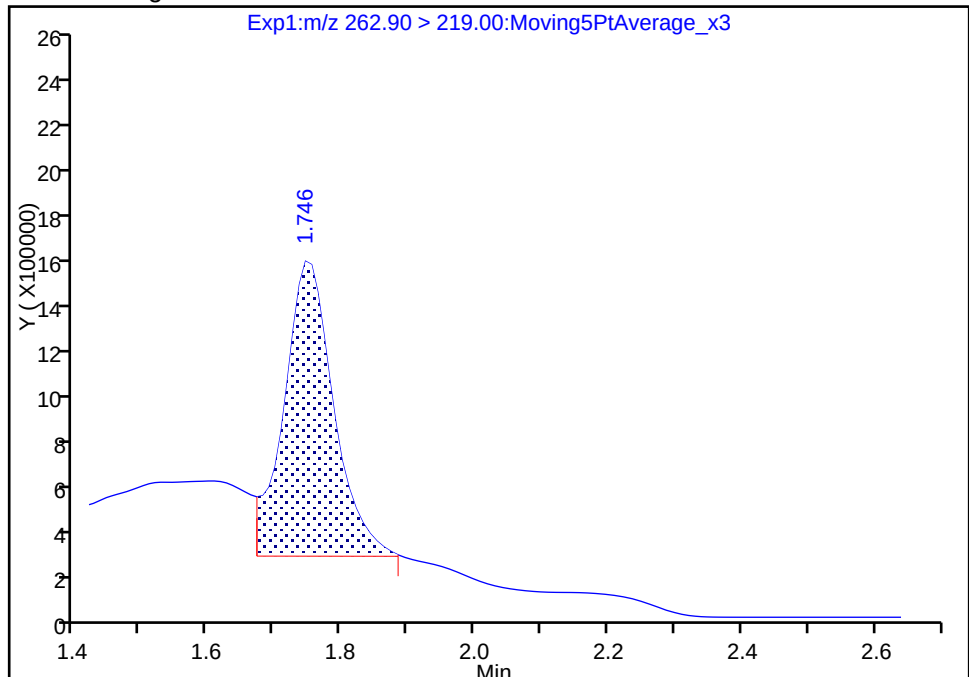
RT: 1.75
Area: 13615533
Amount: 128.5458
Amount Units: ng/ml

Processing Integration Results



RT: 1.75
Area: 6732810
Amount: 63.565204
Amount Units: ng/ml

Manual Integration Results



Reviewer: barnettj, 23-Oct-2017 14:05:49
Audit Action: Manually Integrated

Audit Reason: Baseline
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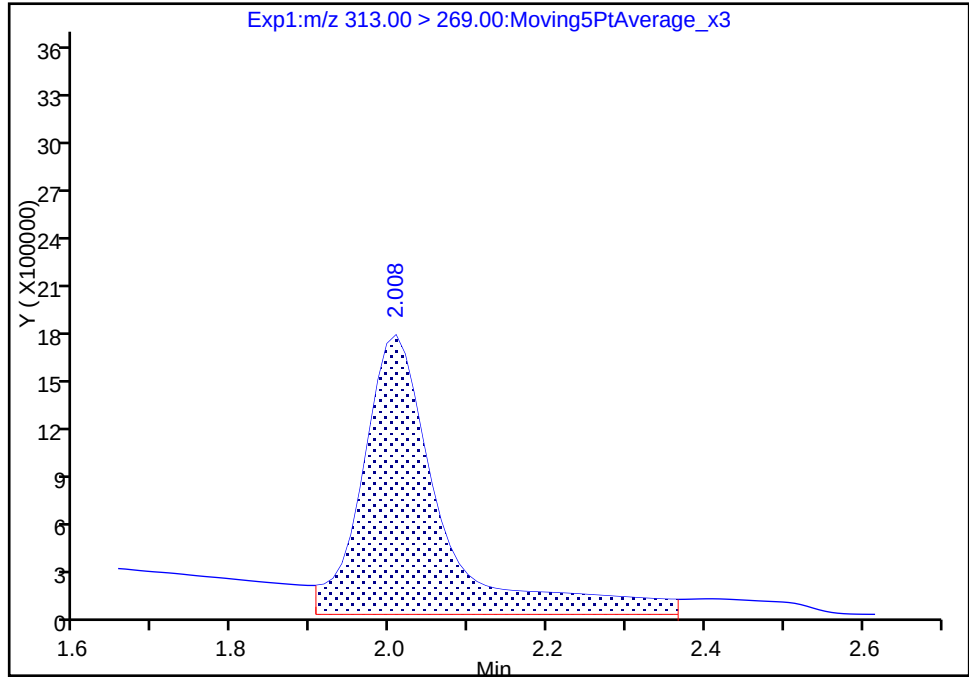
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Lims ID:	480-125692-A-18-A	Lab Sample ID:	320-125692-18		
Client ID:	DGC-7S				
Operator ID:	SACINSTLCMS01	ALS Bottle#:	33	Worklist Smp#:	21
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	A8_N	Limit Group:	LC PFC ICAL		
Column:		Detector	EXP1		

6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

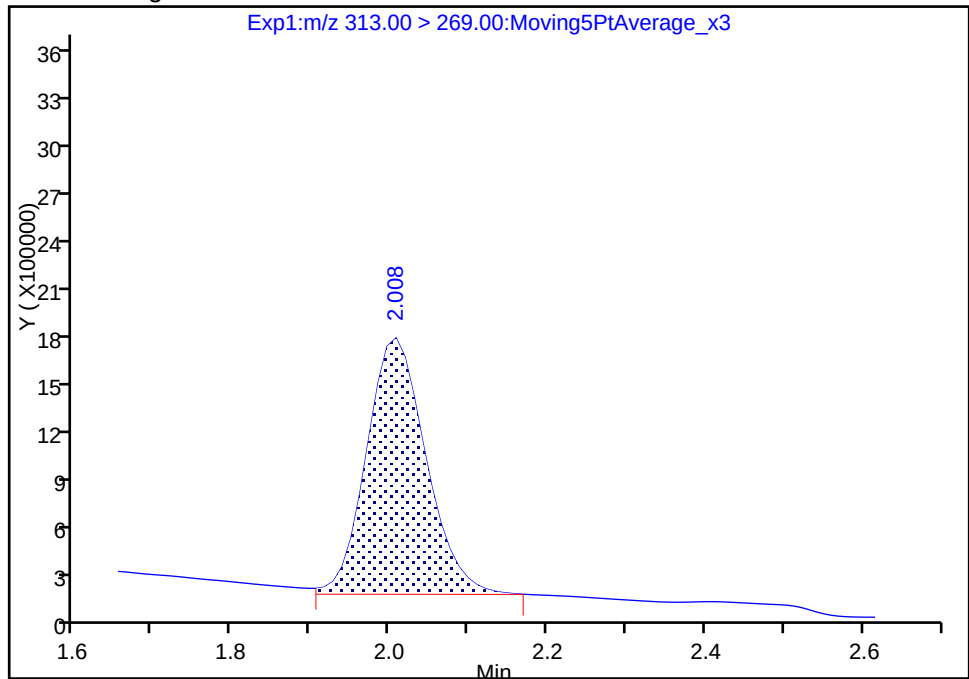
RT: 2.01
Area: 11985623
Amount: 87.805050
Amount Units: ng/ml

Processing Integration Results



RT: 2.01
Area: 8344407
Amount: 61.129995
Amount Units: ng/ml

Manual Integration Results



Reviewer: barnettj, 23-Oct-2017 14:06:22
Audit Action: Manually Integrated

Audit Reason: Baseline
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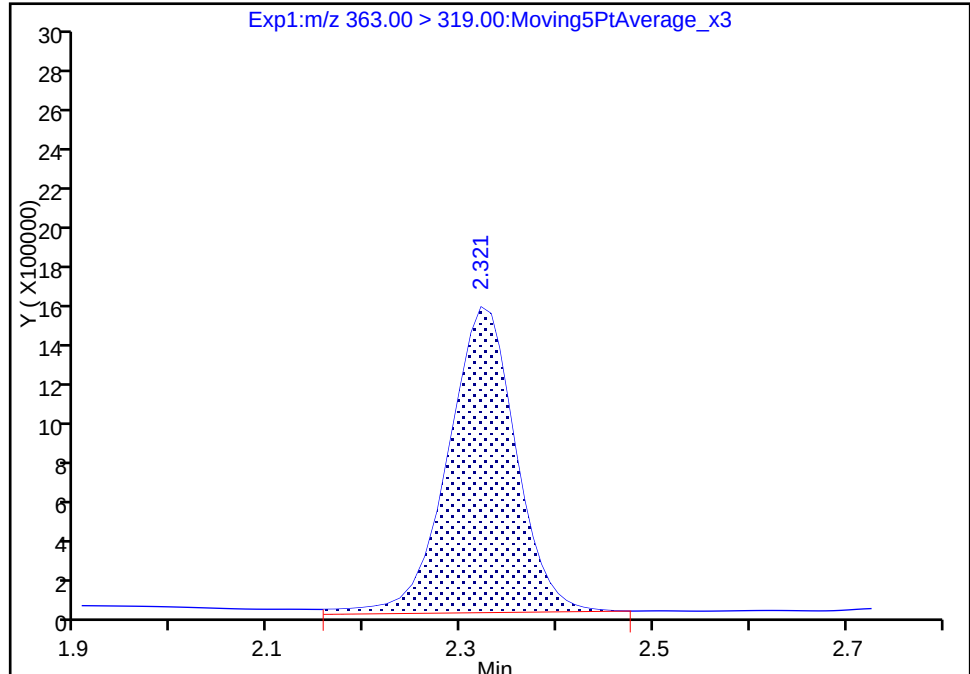
Data File:	\\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\2017.10.20B_044.d				
Injection Date:	21-Oct-2017 02:41:13	Instrument ID:	A8_N		
Lims ID:	480-125692-A-18-A	Lab Sample ID:	320-125692-18		
Client ID:	DGC-7S				
Operator ID:	SACINSTLCMS01	ALS Bottle#:	33	Worklist Smp#:	21
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	A8_N	Limit Group:	LC PFC ICAL		
Column:		Detector:	EXP1		

10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 1

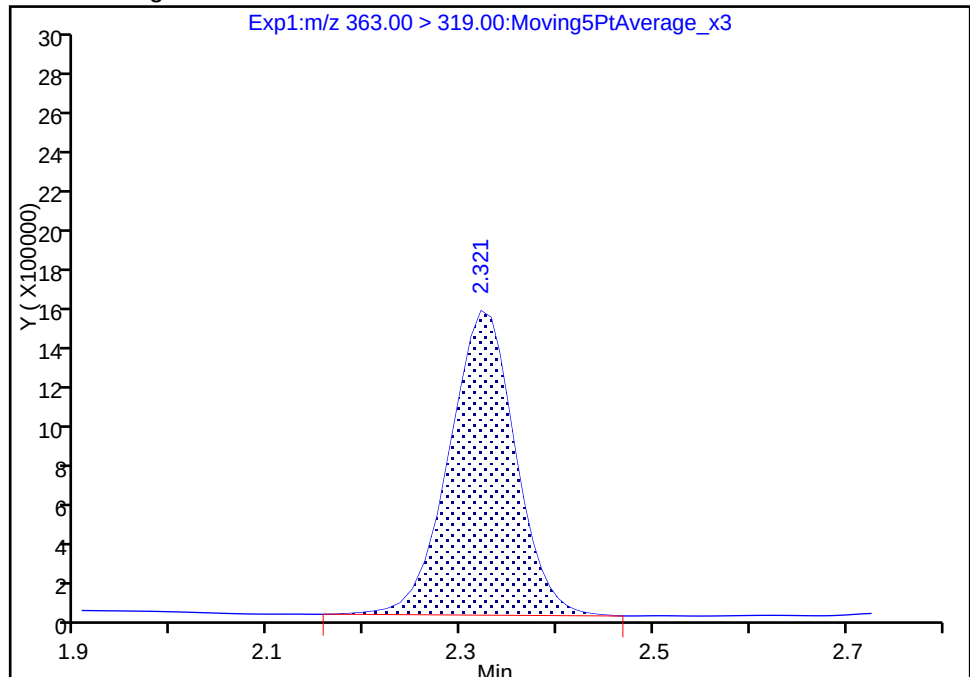
RT: 2.32
Area: 7631346
Amount: 61.047085
Amount Units: ng/ml

Processing Integration Results



RT: 2.32
Area: 7386777
Amount: 59.090651
Amount Units: ng/ml

Manual Integration Results



Reviewer: barnettj, 23-Oct-2017 14:06:49
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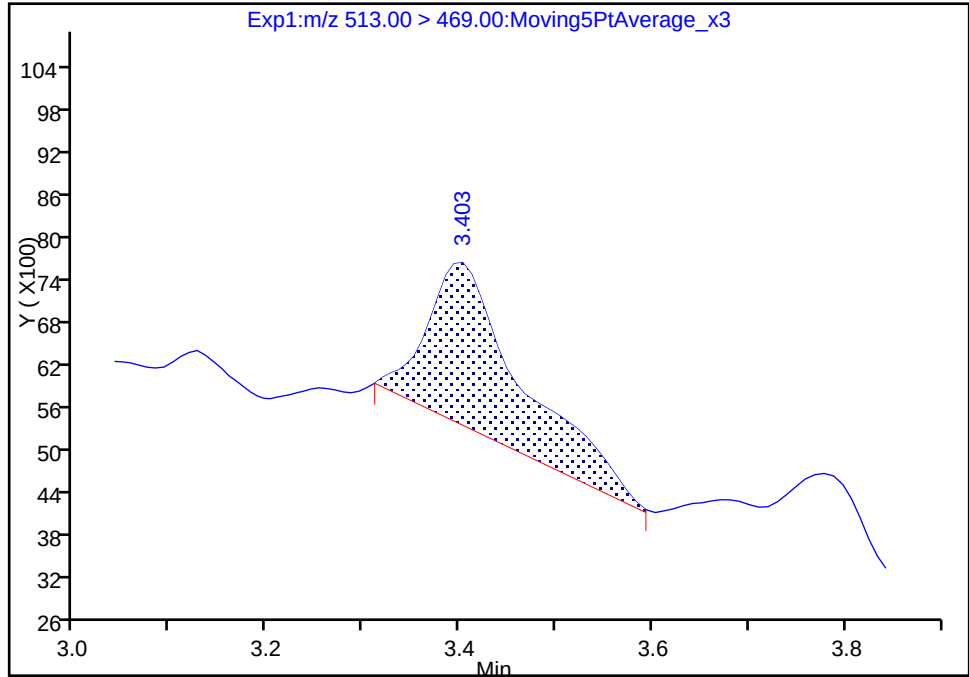
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Lims ID:	480-125692-A-18-A	Lab Sample ID:	320-125692-18		
Client ID:	DGC-7S				
Operator ID:	SACINSTLCMS01	ALS Bottle#:	33	Worklist Smp#:	21
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	A8_N	Limit Group:	LC PFC ICAL		
Column:		Detector	EXP1		

24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 1

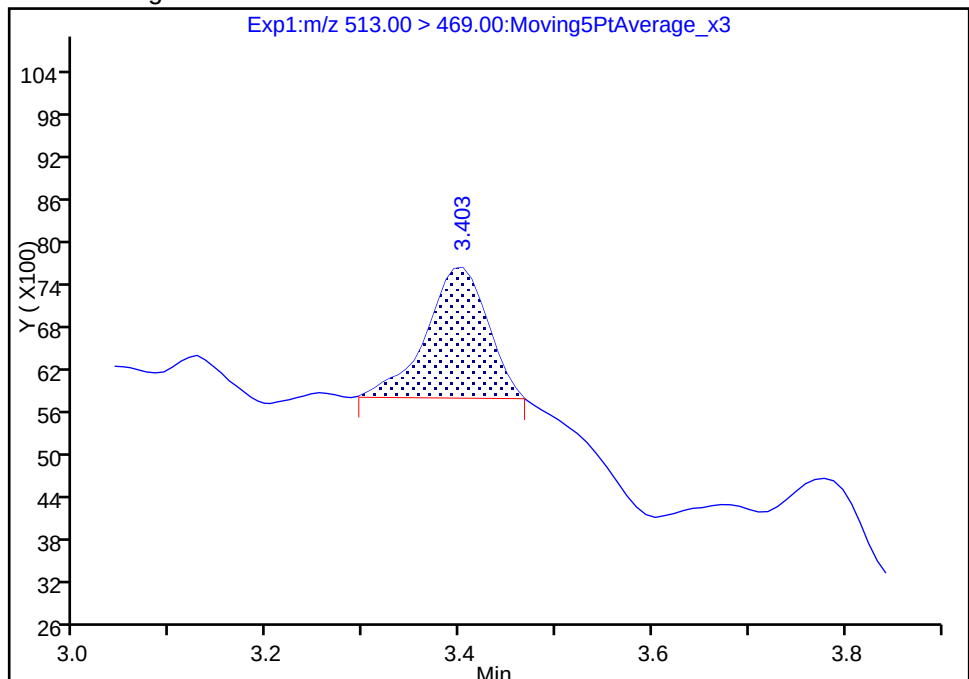
RT: 3.40
Area: 15579
Amount: 0.163477
Amount Units: ng/ml

Processing Integration Results



RT: 3.40
Area: 8086
Amount: 0.084850
Amount Units: ng/ml

Manual Integration Results



Reviewer: barnettj, 23-Oct-2017 14:07:36
Audit Action: Manually Integrated

Audit Reason: Baseline
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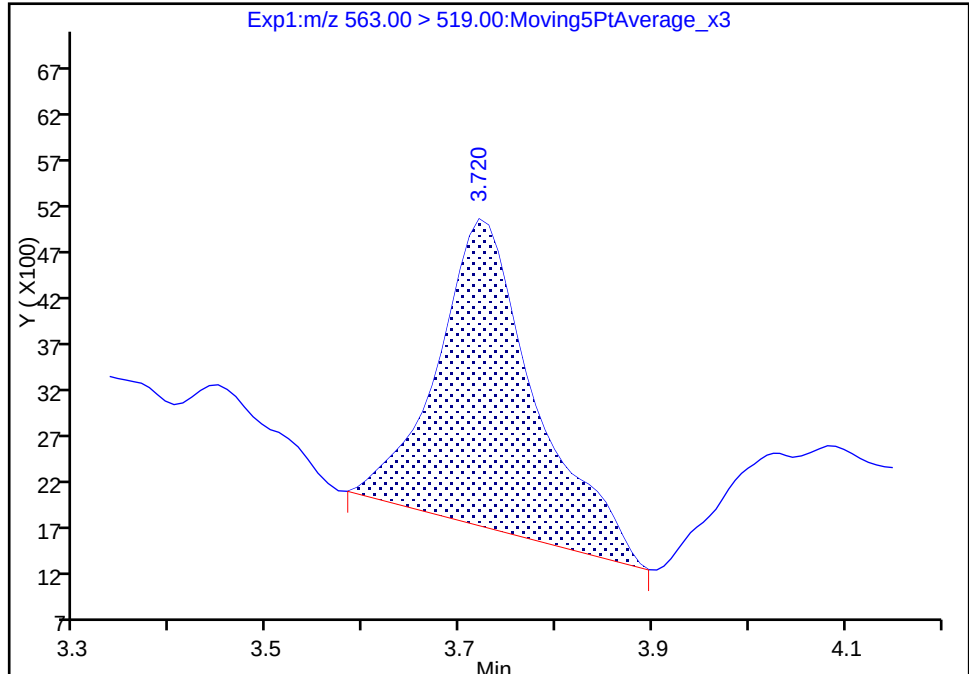
Data File:	\\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\2017.10.20B_044.d				
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Lims ID:	480-125692-A-18-A	Lab Sample ID:	320-125692-18		
Client ID:	DGC-7S				
Operator ID:	SACINSTLCMS01	ALS Bottle#:	33	Worklist Smp#:	21
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	A8_N	Limit Group:	LC PFC ICAL		
Column:		Detector	EXP1		

31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 1

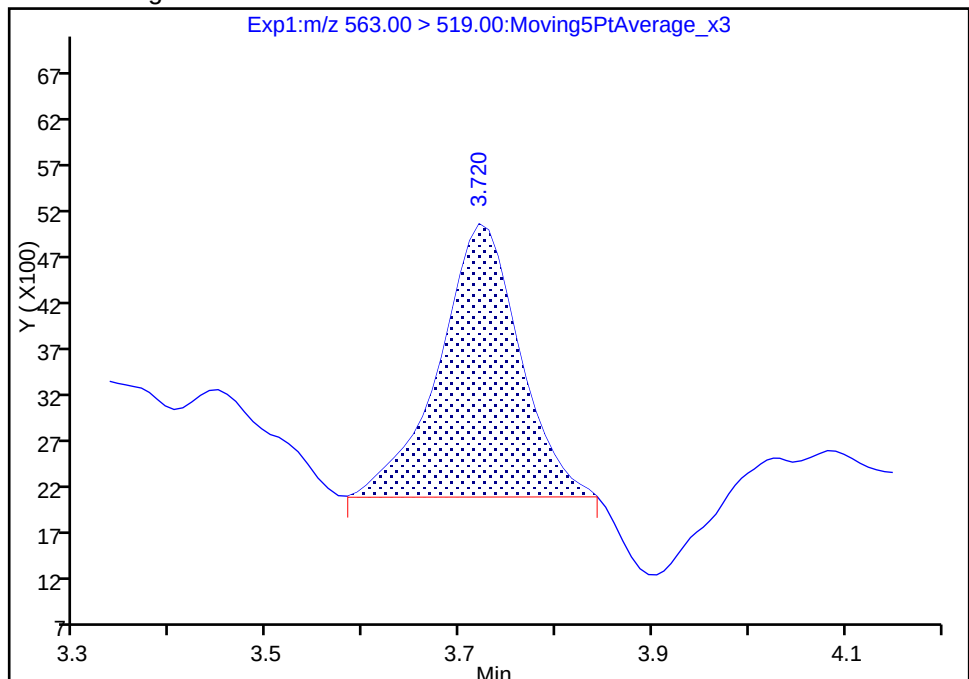
RT: 3.72
Area: 23404
Amount: 0.287497
Amount Units: ng/ml

Processing Integration Results



RT: 3.72
Area: 17086
Amount: 0.209886
Amount Units: ng/ml

Manual Integration Results



Reviewer: barnettj, 23-Oct-2017 14:08:05
Audit Action: Manually Integrated

Audit Reason: Baseline
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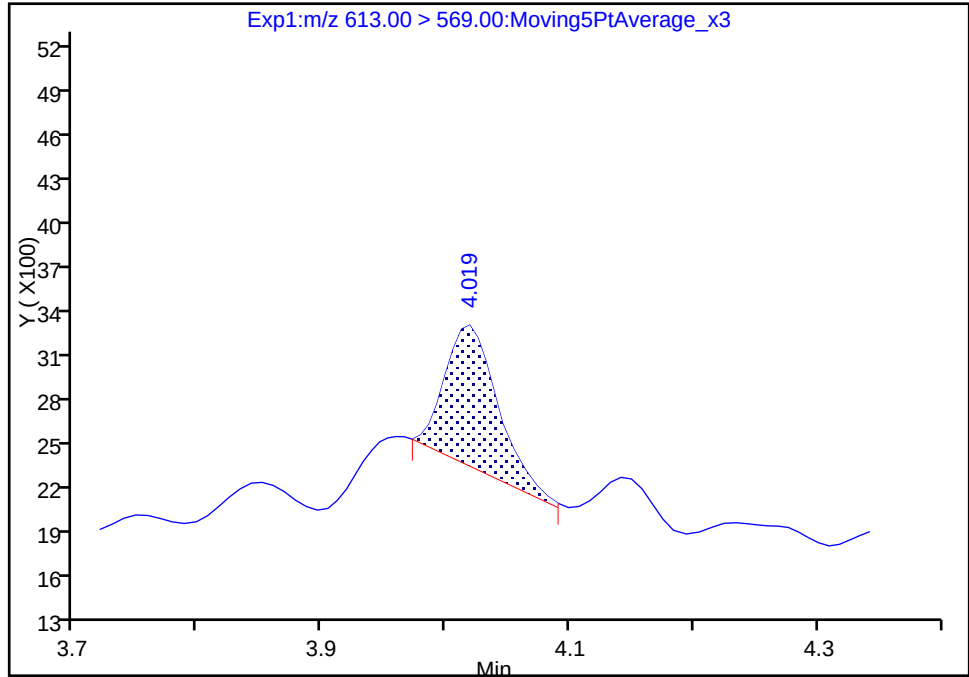
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Lims ID:	480-125692-A-18-A	Lab Sample ID:	320-125692-18		
Client ID:	DGC-7S				
Operator ID:	SACINSTLCMS01	ALS Bottle#:	33	Worklist Smp#:	21
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	A8_N	Limit Group:	LC PFC ICAL		
Column:		Detector	EXP1		

37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 1

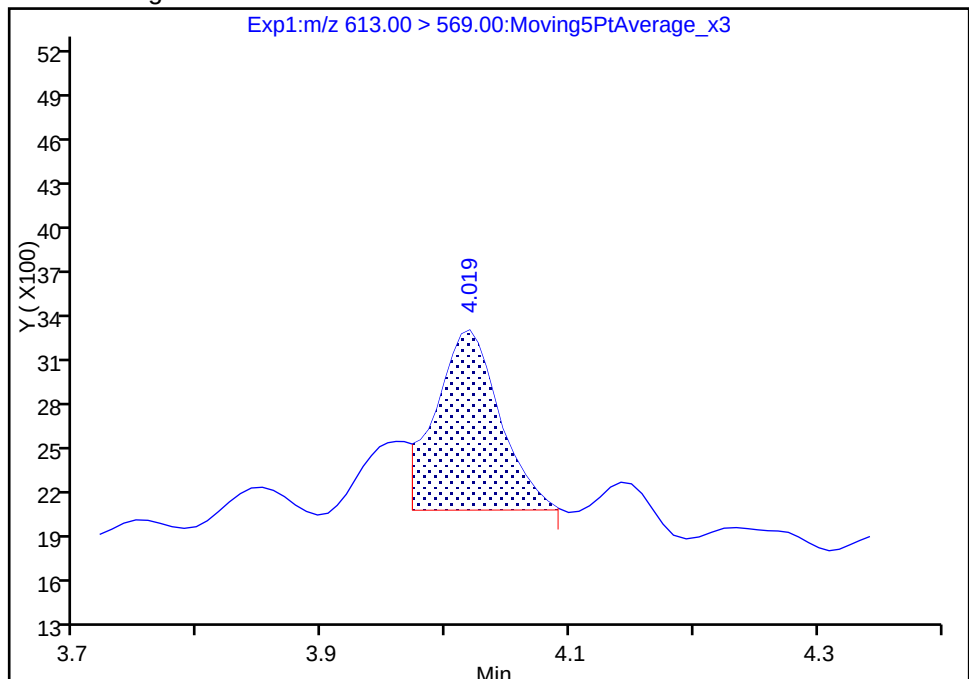
RT: 4.02
Area: 2815
Amount: 0.045070
Amount Units: ng/ml

Processing Integration Results



RT: 4.02
Area: 4330
Amount: 0.069326
Amount Units: ng/ml

Manual Integration Results



Reviewer: barnettj, 23-Oct-2017 14:08:18
Audit Action: Manually Integrated

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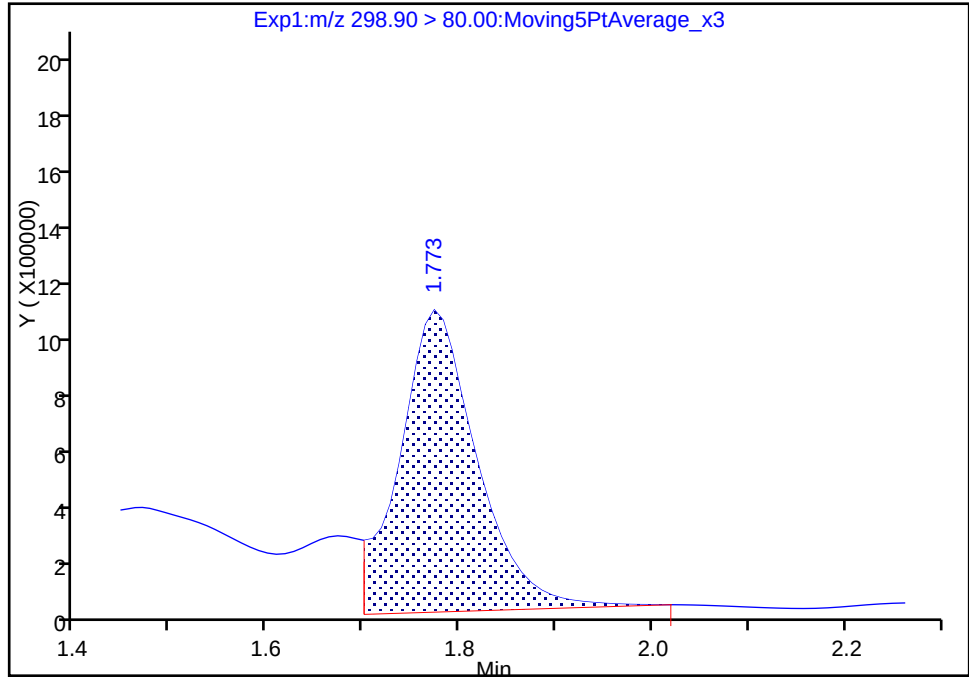
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Lims ID:	480-125692-A-18-A	Lab Sample ID:	320-125692-18		
Client ID:	DGC-7S				
Operator ID:	SACINSTLCMS01	ALS Bottle#:	33	Worklist Smp#:	21
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	A8_N	Limit Group:	LC PFC ICAL		
Column:		Detector	EXP1		

5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

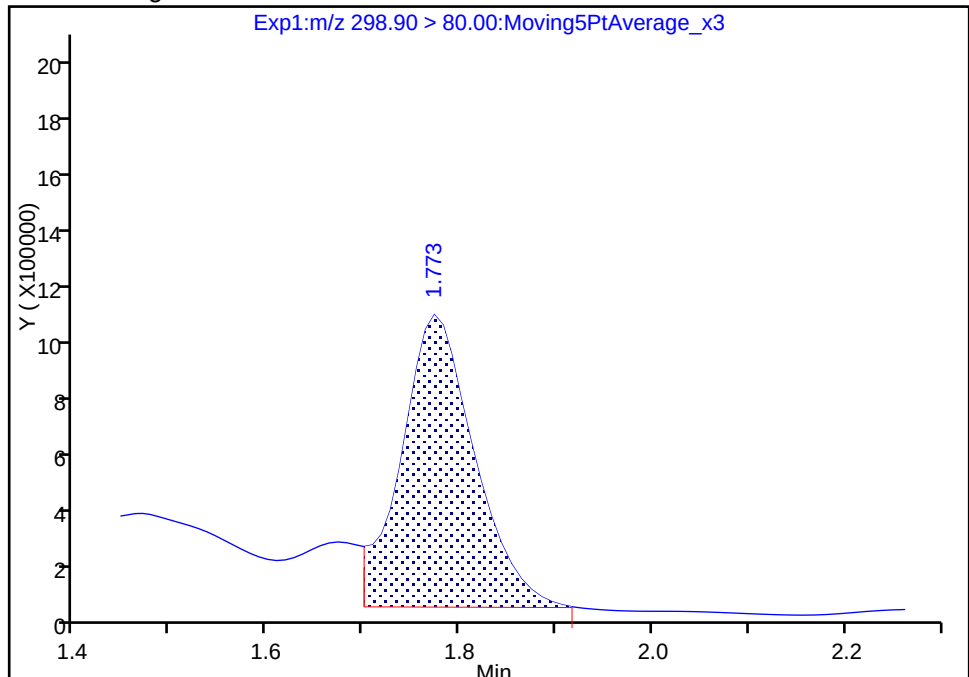
RT: 1.77
Area: 5862812
Amount: 18.206397
Amount Units: ng/ml

Processing Integration Results



RT: 1.77
Area: 5331408
Amount: 16.556174
Amount Units: ng/ml

Manual Integration Results



Reviewer: barnettj, 23-Oct-2017 14:05:59
Audit Action: Manually Integrated

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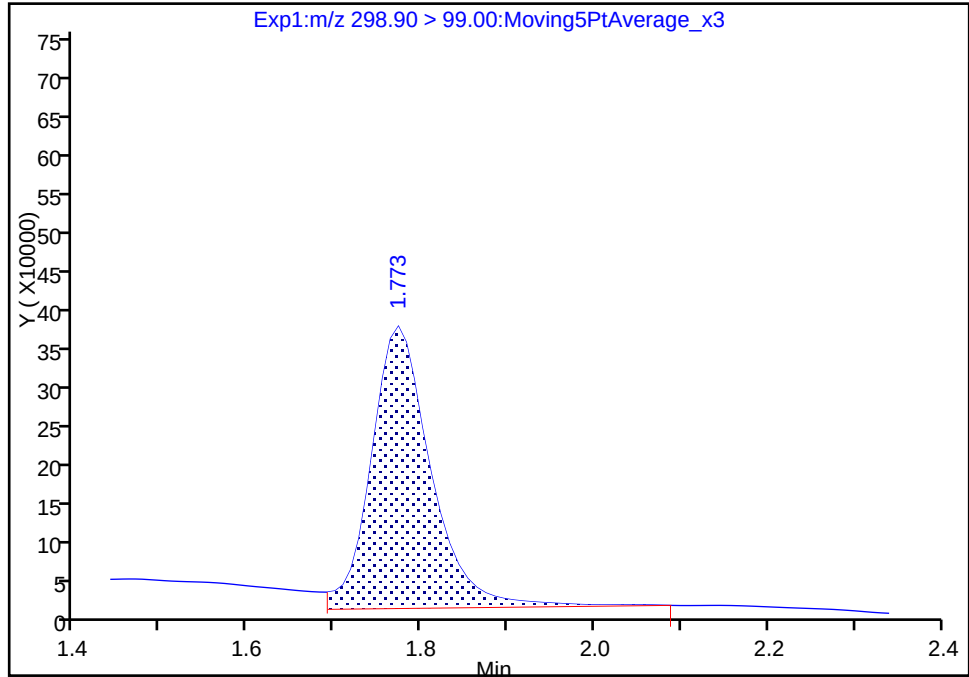
Data File:	\\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\2017.10.20B_044.d				
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Lims ID:	480-125692-A-18-A	Lab Sample ID:	320-125692-18		
Client ID:	DGC-7S				
Operator ID:	SACINSTLCMS01	ALS Bottle#:	33	Worklist Smp#:	21
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	A8_N	Limit Group:	LC PFC ICAL		
Column:		Detector	EXP1		

5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 2

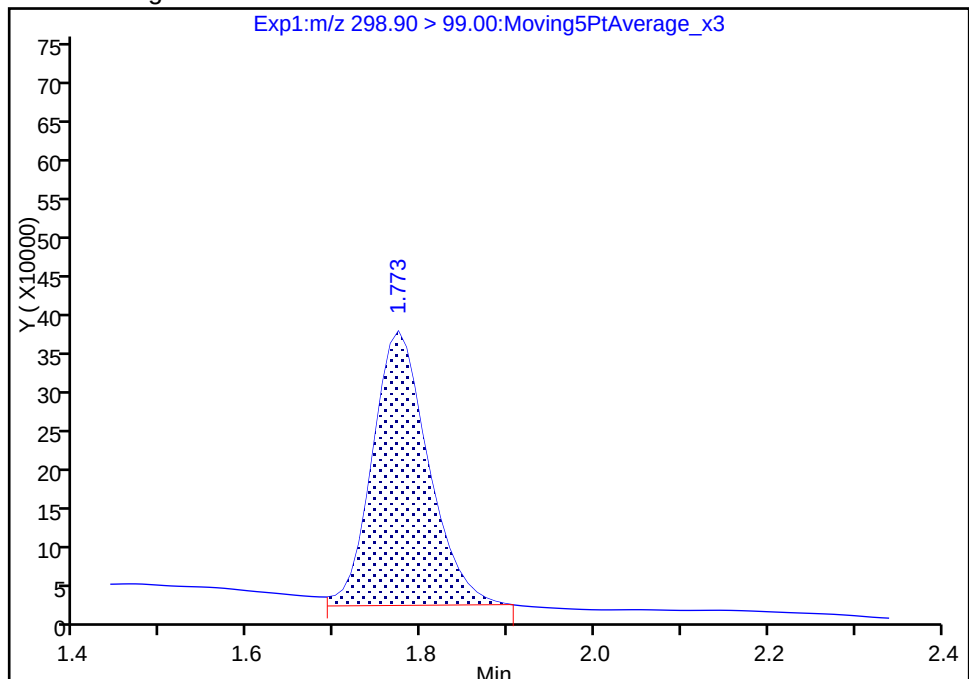
RT: 1.77
Area: 1757667
Amount: 18.206397
Amount Units: ng/ml

Processing Integration Results



RT: 1.77
Area: 1591849
Amount: 16.556174
Amount Units: ng/ml

Manual Integration Results



Reviewer: barnettj, 23-Oct-2017 14:06:09

Audit Action: Manually Integrated

Audit Reason: Baseline

TestAmerica Sacramento

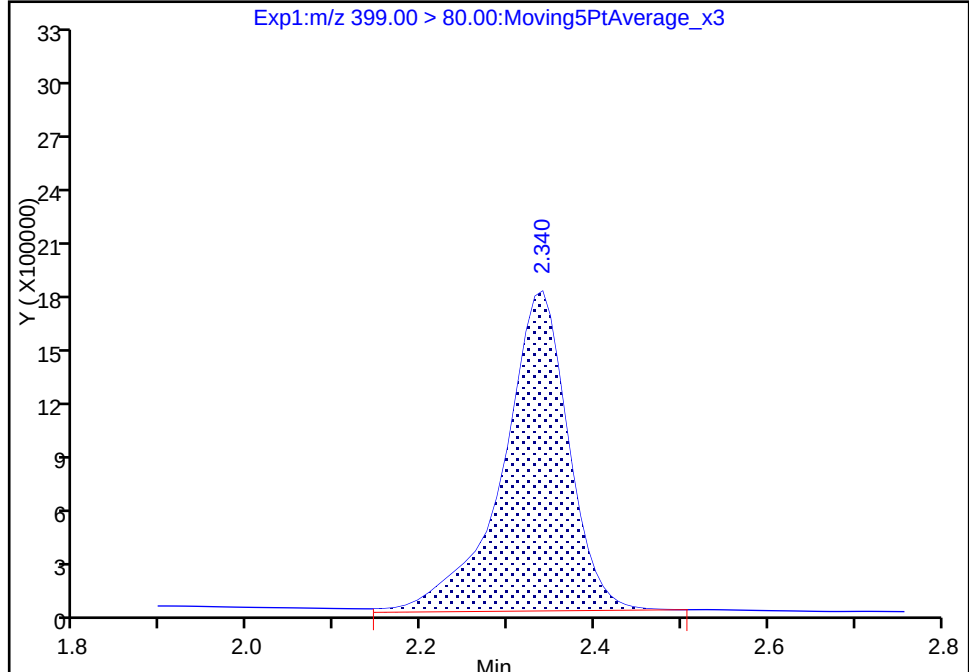
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Lims ID:	480-125692-A-18-A	Lab Sample ID:	320-125692-18		
Client ID:	DGC-7S				
Operator ID:	SACINSTLCMS01	ALS Bottle#:	33	Worklist Smp#:	21
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	A8_N	Limit Group:	LC PFC ICAL		
Column:		Detector:	EXP1		

8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

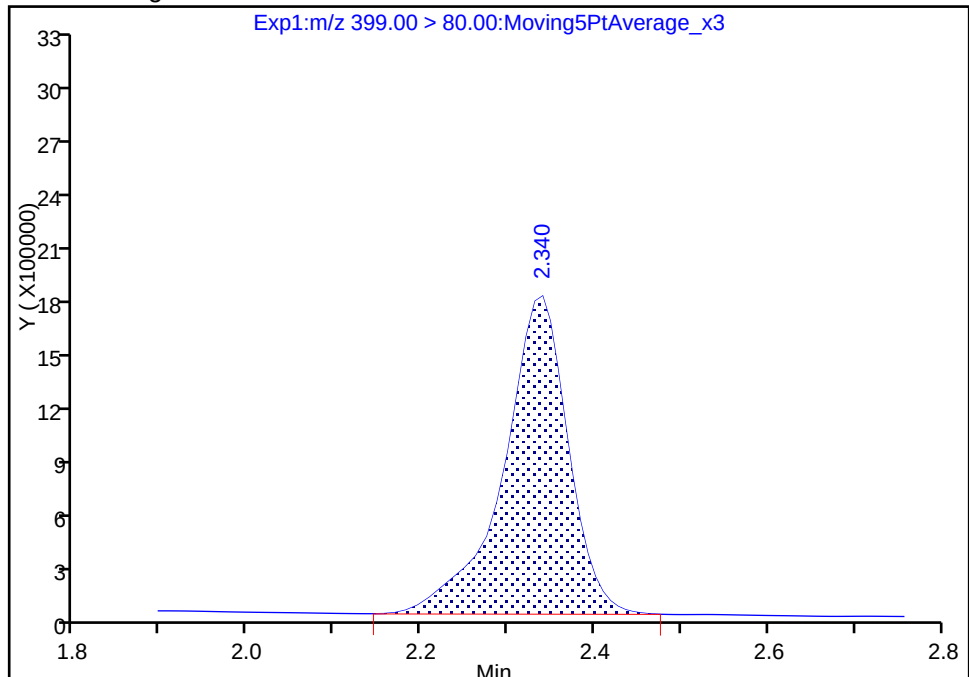
RT: 2.34
Area: 9194085
Amount: 33.200144
Amount Units: ng/ml

Processing Integration Results



RT: 2.34
Area: 8990031
Amount: 32.463298
Amount Units: ng/ml

Manual Integration Results



Reviewer: barnettj, 23-Oct-2017 14:06:40
Audit Action: Manually Integrated

Audit Reason: Baseline
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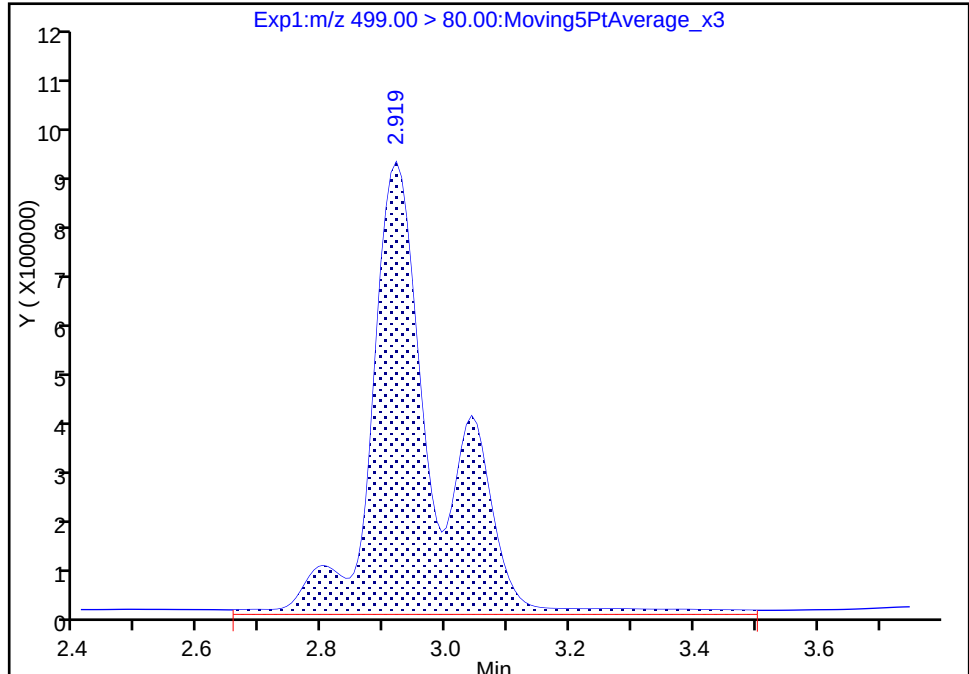
Data File:	\\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\2017.10.20B_044.d				
Injection Date:	21-Oct-2017 02:41:13	Instrument ID:	A8_N		
Lims ID:	480-125692-A-18-A	Lab Sample ID:	320-125692-18		
Client ID:	DGC-7S				
Operator ID:	SACINSTLCMS01	ALS Bottle#:	33	Worklist Smp#:	21
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	A8_N	Limit Group:	LC PFC ICAL		
Column:		Detector	EXP1		

17 Perfluorooctane sulfonic acid, CAS: 1763-23-1

Signal: 1

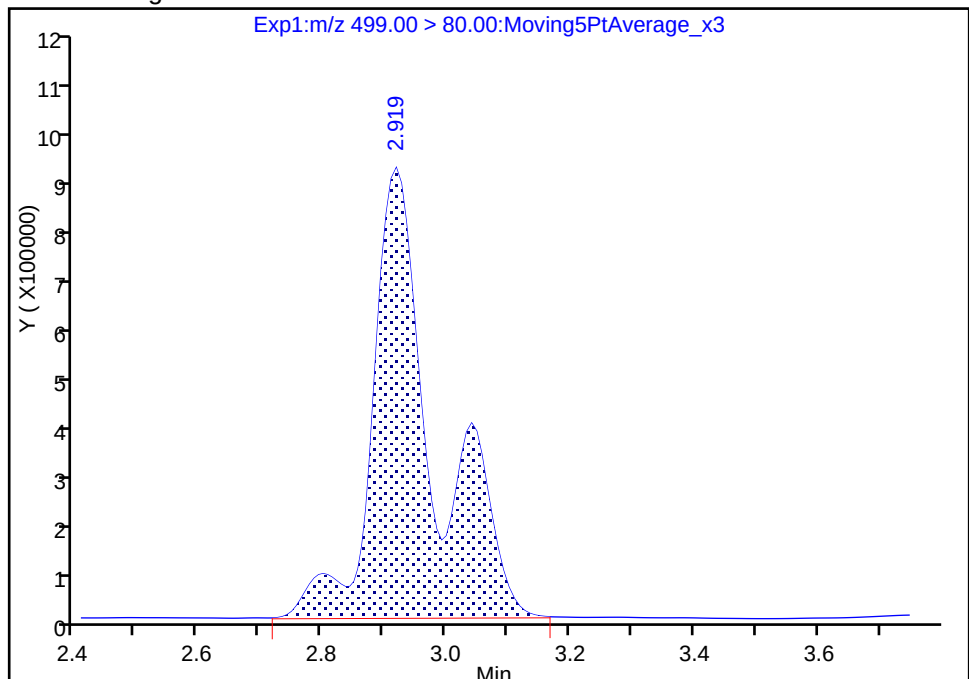
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Area: 6576625
Amount: 30.012252
Amount Units: ng/ml

Processing Integration Results



RT: 2.92
Area: 6119862
Amount: 27.927826
Amount Units: ng/ml

Manual Integration Results



Reviewer: barnettj, 23-Oct-2017 14:07:10
Audit Action: Manually Integrated

Audit Reason: Baseline

TestAmerica Sacramento

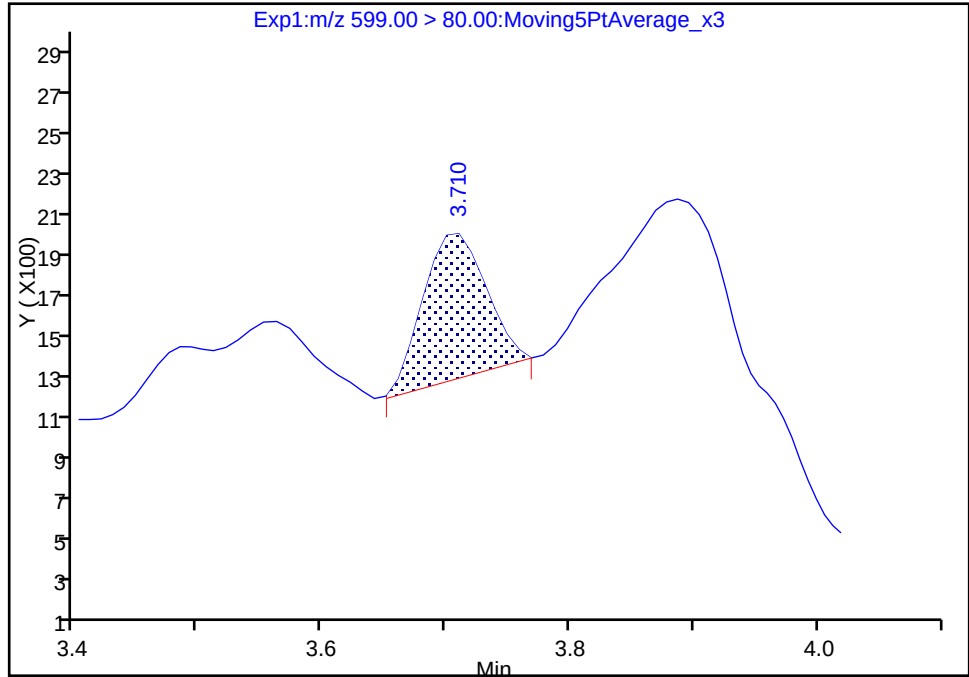
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Lims ID: 480-125692-A-18-A Lab Sample ID: 320-125692-18
Client ID: DGC-7S
Operator ID: SACINSTLCMS01 ALS Bottle#: 33 Worklist Smp#: 21
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: A8_N Limit Group: LC PFC ICAL
Column: Detector EXP1

29 Perfluorodecane Sulfonic acid, CAS: 335-77-3

Signal: 1

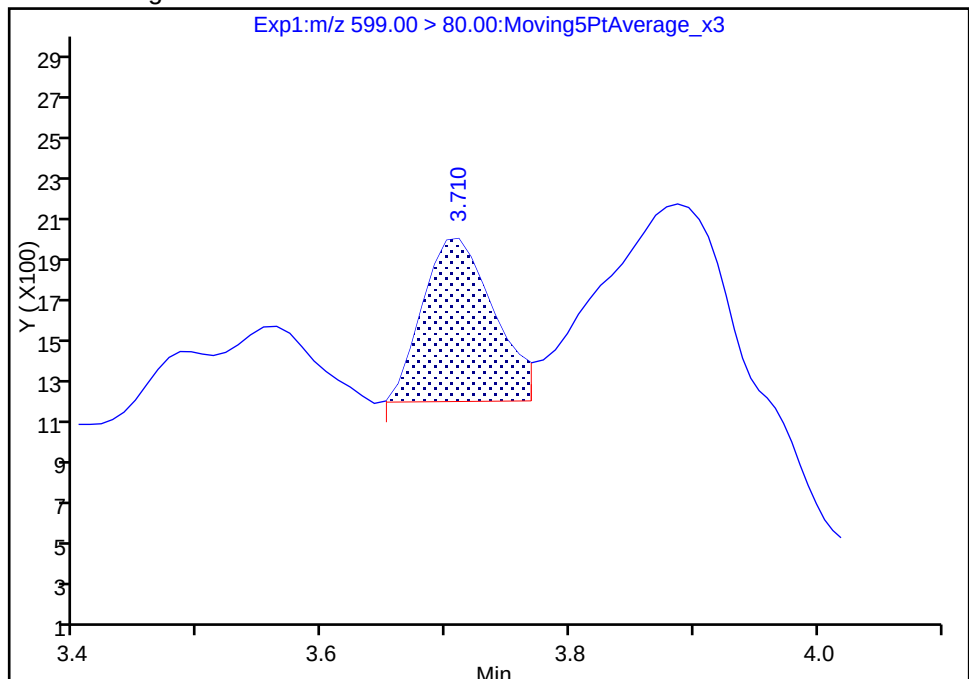
RT: 3.71
Area: 2470
Amount: 0.019682
Amount Units: ng/ml

Processing Integration Results



RT: 3.71
Area: 3085
Amount: 0.024582
Amount Units: ng/ml

Manual Integration Results



Reviewer: barnettj, 23-Oct-2017 14:07:53
Audit Action: Manually Integrated

Audit Reason: Baseline
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10/24/2017

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Sacramento</u>	Job No.: <u>480-125692-1</u>
SDG No.: _____	
Client Sample ID: <u>DGC-8S</u>	Lab Sample ID: <u>480-125692-19</u>
Matrix: <u>Water</u>	Lab File ID: <u>2017.10.20B_045.d</u>
Analysis Method: <u>537 (modified)</u>	Date Collected: <u>10/10/2017 13:17</u>
Extraction Method: <u>3535</u>	Date Extracted: <u>10/17/2017 08:45</u>
Sample wt/vol: <u>245 (mL)</u>	Date Analyzed: <u>10/21/2017 02:48</u>
Con. Extract Vol.: <u>0.50 (mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>2 (uL)</u>	GC Column: <u>GeminiC18 3x100 ID: 3 (mm)</u>
% Moisture: _____	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>190434</u>	Units: <u>ng/L</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	120	B	2.0	0.47
2706-90-3	Perfluoropentanoic acid (PFPeA)	97		2.0	1.0
307-24-4	Perfluorohexanoic acid (PFHxA)	100		2.0	0.80
375-85-9	Perfluoroheptanoic acid (PFHpA)	86		2.0	0.82
335-67-1	Perfluorooctanoic acid (PFOA)	170		2.0	0.76
375-95-1	Perfluorononanoic acid (PFNA)	17	B	2.0	0.67
335-76-2	Perfluorodecanoic acid (PFDA)	ND		2.0	0.45
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		2.0	0.76
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		2.0	0.60
72629-94-8	Perfluorotridecanoic Acid (PFTriA)	ND		2.0	0.56
376-06-7	Perfluorotetradecanoic acid (PFTeA)	ND		2.0	0.20
375-73-5	Perfluorobutanesulfonic acid (PFBS)	19		2.0	0.94
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	81		2.0	0.89
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	4.1		2.0	0.73
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	120		2.0	1.3
335-77-3	Perfluorodecanesulfonic acid (PFDS)	ND		2.0	1.2

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00992	13C4 PFBA	21	*	25-150
STL01893	13C5 PFPeA	52		25-150
STL00993	13C2 PFHxA	58		25-150
STL01892	13C4-PFHpA	64		25-150
STL00990	13C4 PFOA	71		25-150
STL00995	13C5 PFNA	74		25-150
STL00996	13C2 PFDA	71		25-150
STL00997	13C2 PFUnA	77		25-150
STL00998	13C2 PFDoA	77		25-150
STL00994	18O2 PFHxS	77		25-150
STL00991	13C4 PFOS	84		25-150

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\2017.10.20B_045.d
 Lims ID: 480-125692-A-19-A
 Client ID: DGC-8S
 Sample Type: Client
 Inject. Date: 21-Oct-2017 02:48:07 ALS Bottle#: 34 Worklist Smp#: 22
 Injection Vol: 2.0 ul Dil. Factor: 1.0000
 Sample Info: 480-125692-a-19-a
 Misc. Info.: Plate: 1 Rack: 4
 Operator ID: SACINSTLCMS01 Instrument ID: A8_N
 Method: \\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\A8_N.m
 Limit Group: LC PFC ICAL
 Last Update: 23-Oct-2017 14:17:58 Calib Date: 12-Oct-2017 11:11:26
 Integrator: Picker
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20171012-49071.b\2017.10.12ICAL_010.d

Column 1 : Det: EXP1
 Process Host: XAWRK012

First Level Reviewer: barnettj Date: 23-Oct-2017 14:11:09

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
2 Perfluorobutyric acid										M
212.90 > 169.00	1.545	1.545	0.0	1.000	4417223	60.7			30.8	M
D 1 13C4 PFBA										
217.00 > 172.00	1.545	1.545	0.0		3910721	10.4		20.8	5348	
4 Perfluoropentanoic acid										M
262.90 > 219.00	1.745	1.754	-0.009	1.000	6325805	47.4			75.2	M
D 3 13C5-PFPeA										
267.90 > 223.00	1.745	1.754	-0.009		6095063	25.9		51.7	4628	
D 47 13C3-PFBS										
301.90 > 83.00	1.773	1.773	0.0		193211	28.2		60.6	276	
5 Perfluorobutanesulfonic acid										M
298.90 > 80.00	1.773	1.782	-0.009	1.000	2720298	9.13			48.3	M
298.90 > 99.00	1.773	1.782	-0.009	1.000	1096680		2.48(0.00-0.00)		107	M
6 Perfluorohexanoic acid										M
313.00 > 269.00	2.005	2.017	-0.012	1.000	7160005	49.4			156	M
D 7 13C2 PFHxA										
315.00 > 270.00	2.005	2.017	-0.012		7390423	28.8		57.6	13325	
10 Perfluoroheptanoic acid										
363.00 > 319.00	2.319	2.324	-0.005	1.000	6396348	42.2			429	
D 9 13C4-PFHpA										
367.00 > 322.00	2.319	2.324	-0.005		7606520	31.9		63.7	12486	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	2.336	2.348	-0.012	1.000	11847277	39.7			604	
D 11 18O2 PFHxS										
403.00 > 84.00	2.336	2.348	-0.012		13087520	36.5		77.2	23879	
* 62 13C2-PFOA										
415.00 > 370.00	2.663	2.671	-0.008		9934835	50.0			16704	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
15 Perfluorooctanoic acid										
413.00 > 369.00	2.670	2.671	-0.001	1.000	14080202	81.2			1688	
413.00 > 169.00	2.670	2.671	-0.001	1.000	7929298		1.78(0.90-1.10)		5195	
D 14 13C4 PFOA										
417.00 > 372.00	2.670	2.671	-0.001		8021587	35.7		71.4	29725	
16 Perfluoroheptanesulfonic Acid										
449.00 > 80.00	2.677	2.678	-0.001	1.000	512635	1.99			70.8	
17 Perfluorooctane sulfonic acid										
499.00 > 80.00	2.917	3.035	-0.118	1.000	12928648	57.8			2054	
499.00 > 99.00	3.031	3.035	-0.004	1.039	1815242		7.12(0.90-1.10)		1100	
20 Perfluorononanoic acid										
463.00 > 419.00	3.039	3.035	0.004	1.000	991626	8.10			194	
D 18 13C4 PFOS										
503.00 > 80.00	3.039	3.035	0.004		10167972	40.3		84.3	5246	
D 19 13C5 PFNA										
468.00 > 423.00	3.039	3.035	0.004		6365767	37.1		74.2	15250	
24 Perfluorodecanoic acid										
513.00 > 469.00	3.392	3.393	-0.001	1.000	18079	0.1868			8.1	
D 23 13C2 PFDA										
515.00 > 470.00	3.392	3.393	-0.001		5284939	35.7		71.5	14745	
31 Perfluoroundecanoic acid										
563.00 > 519.00	3.717	3.720	-0.003	1.000	8946	0.1111			5.6	M
D 30 13C2 PFUnA										
565.00 > 520.00	3.717	3.720	-0.003		3734061	38.3		76.7	8073	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.015	4.014	0.001	1.000	3703	0.0574			3.1	M
D 36 13C2 PFDoA										
615.00 > 570.00	4.015	4.014	0.001		3528528	38.6		77.3	8264	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.273	4.279	-0.006	1.000	2263	0.0360			0.5	
D 43 13C2-PFTeDA										
715.00 > 670.00	4.515	4.514	0.001		4512201	56.3		113	12459	

QC Flag Legend

Review Flags

M - Manually Integrated

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\2017.10.20B_045.d

Injection Date: 21-Oct-2017 02:48:07

Instrument ID: A8_N

Lims ID: 480-125692-A-19-A

Lab Sample ID: 320-125692-19

Client ID: DGC-8S

Operator ID: SACINSTLCMS01

ALS Bottle#: 34

Worklist Smp#: 22

Injection Vol: 2.0 ul

Dil. Factor: 1.0000

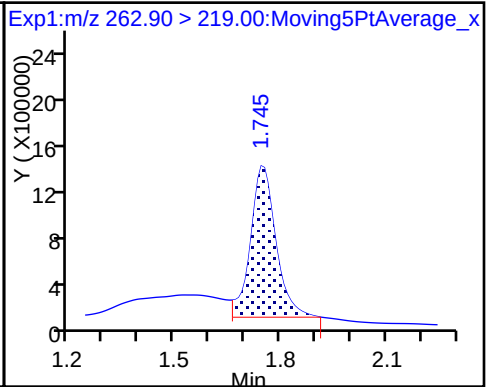
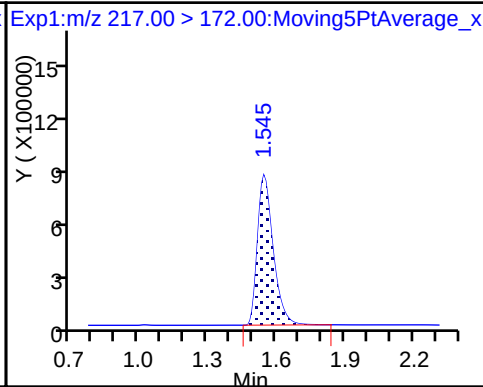
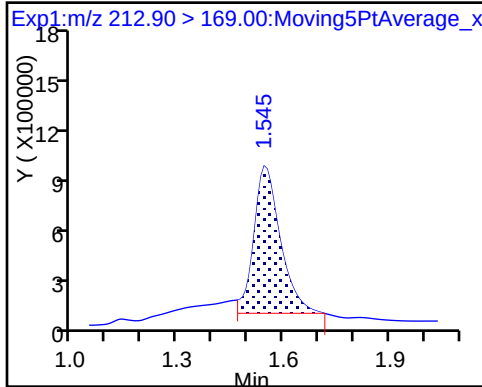
Method: A8_N

Limit Group: LC PFC ICAL

2 Perfluorobutyric acid (M)

D 1 13C4 PFBA

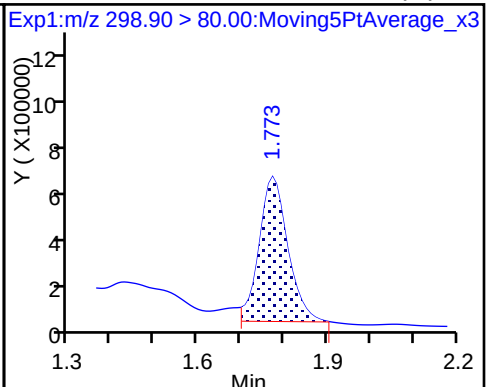
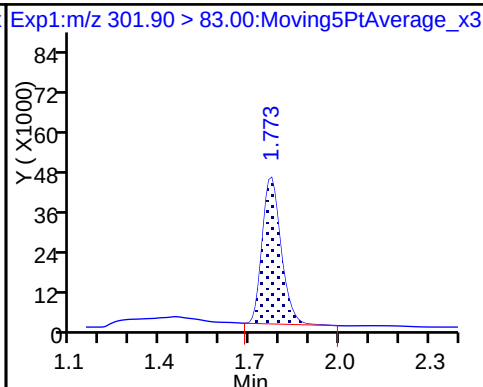
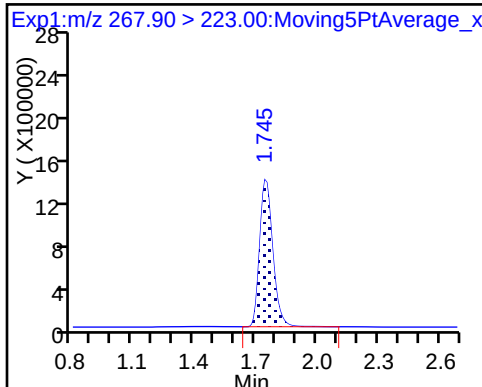
4 Perfluoropentanoic acid (M)



D 3 13C5-PFPeA

D 47 13C3-PFBS

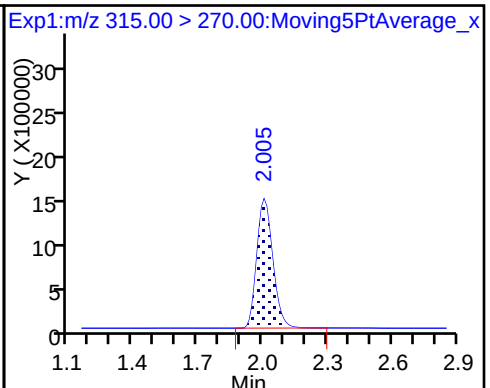
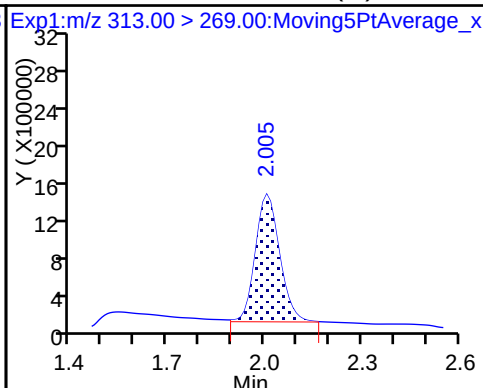
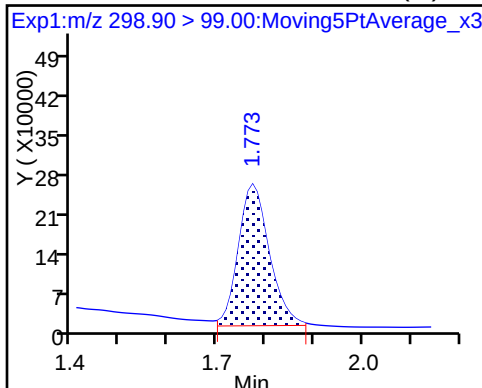
5 Perfluorobutanesulfonic acid (M)



5 Perfluorobutanesulfonic acid (M)

6 Perfluorohexanoic acid (M)

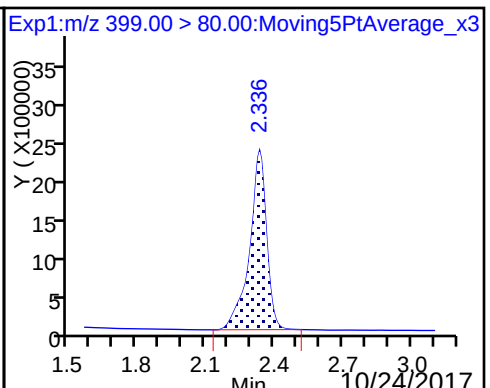
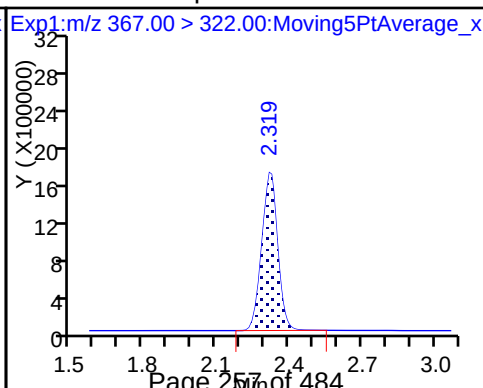
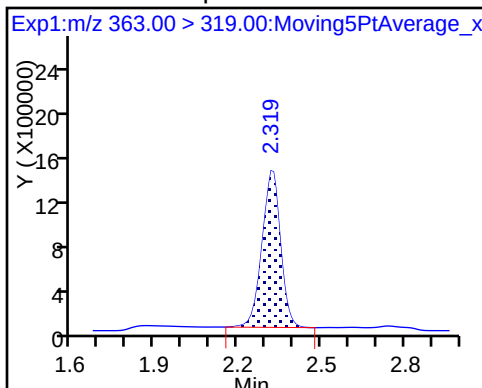
D 7 13C2 PFHxA



10 Perfluoroheptanoic acid

D 9 13C4-PFHpA

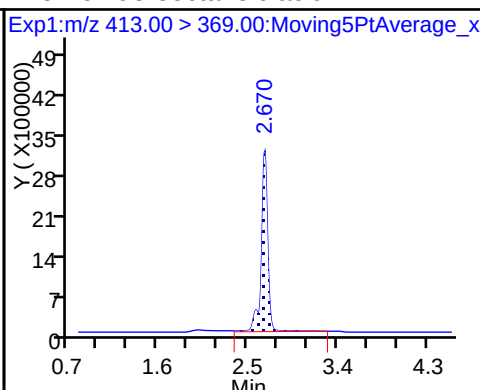
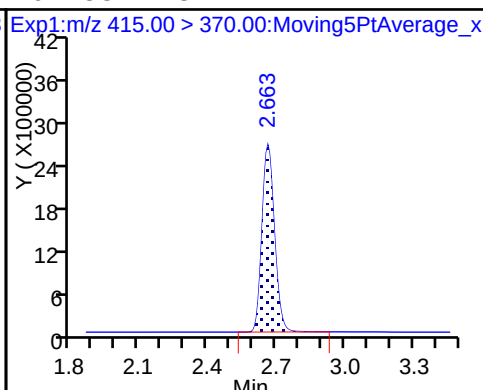
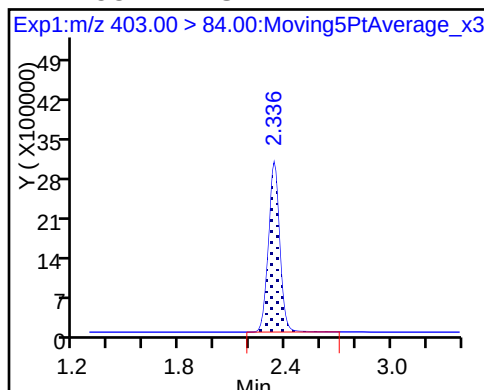
8 Perfluorohexanesulfonic acid



D 11 18O2 PFHxS

* 62 13C2-PFOA

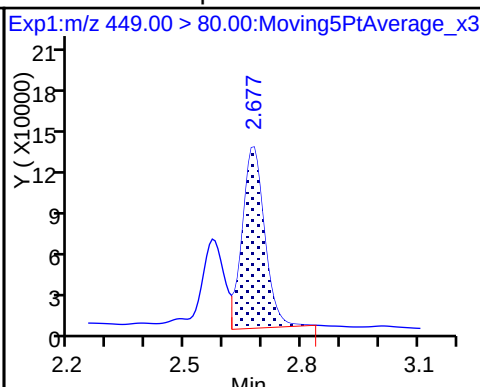
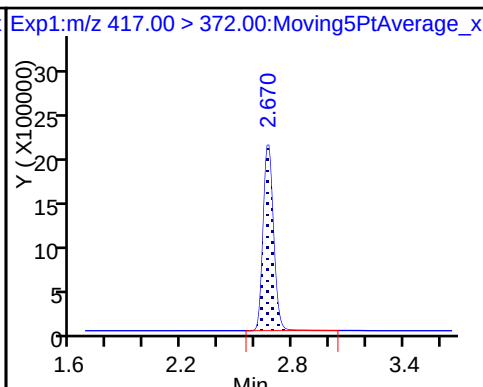
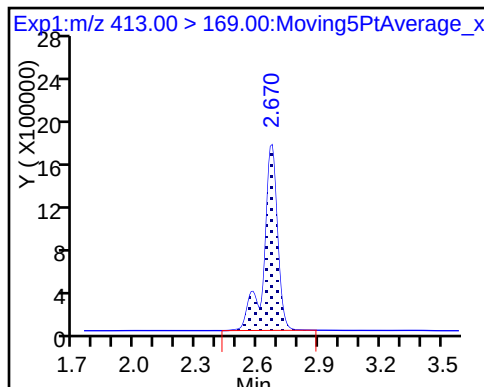
15 Perfluorooctanoic acid



15 Perfluorooctanoic acid

D 14 13C4 PFOA

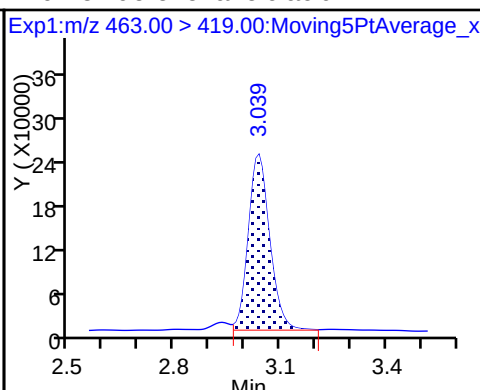
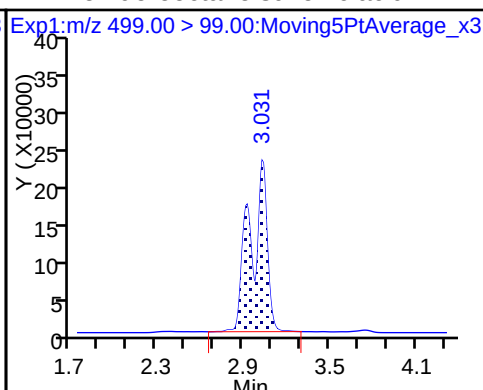
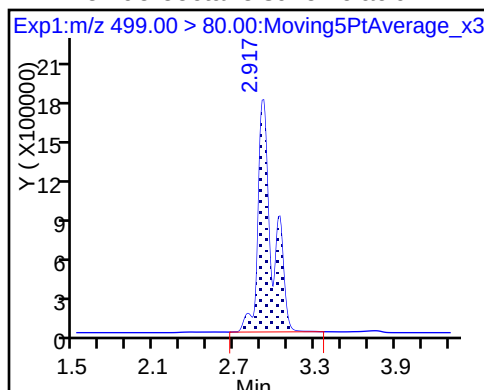
16 Perfluoroheptanesulfonic Acid



17 Perfluorooctane sulfonic acid

17 Perfluorooctane sulfonic acid

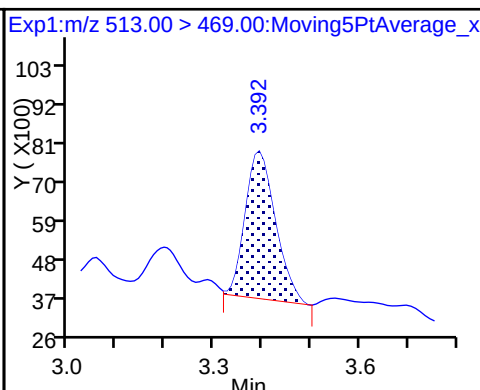
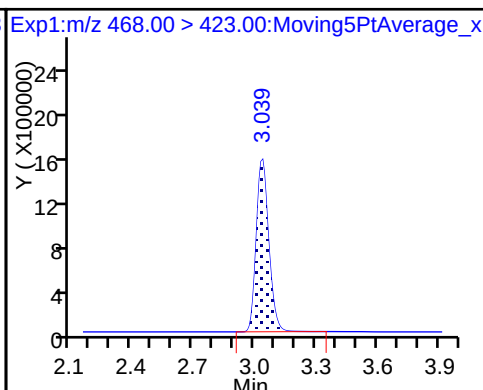
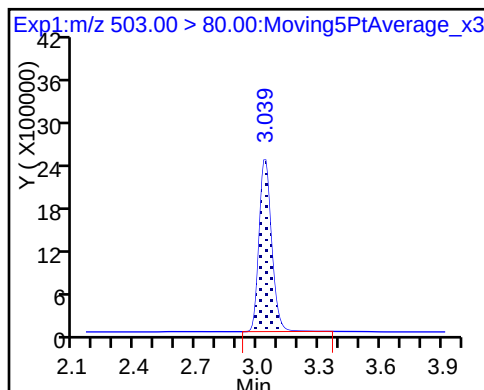
20 Perfluorononanoic acid



D 18 13C4 PFOS

D 19 13C5 PFNA

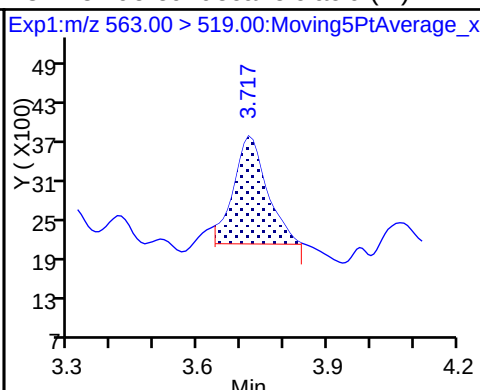
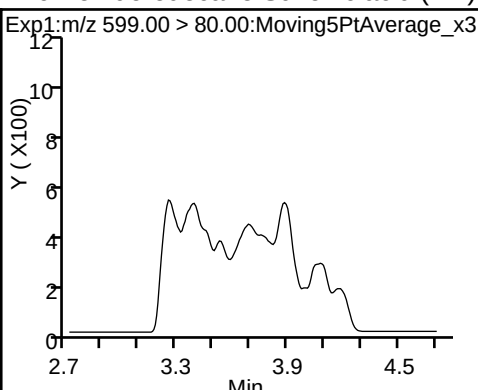
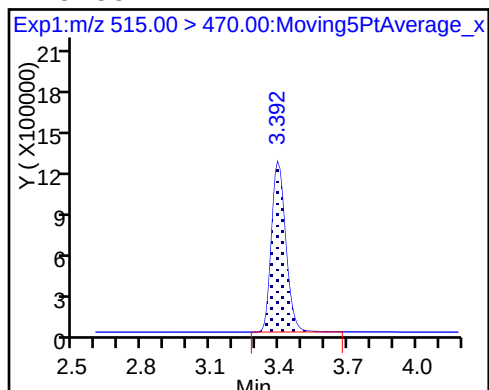
24 Perfluorodecanoic acid



D 23 13C2 PFDA

29 Perfluorodecane Sulfonic acid (ND)

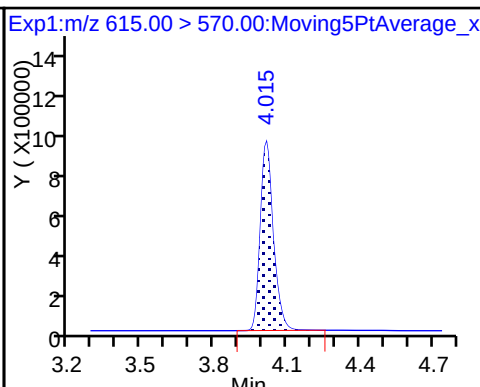
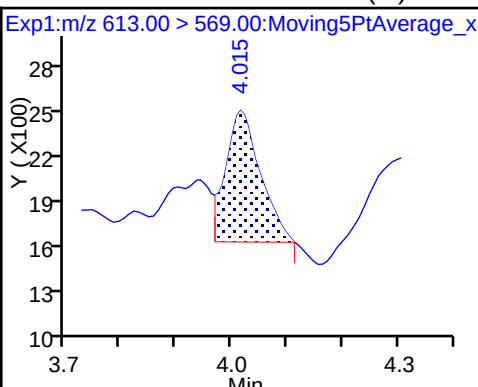
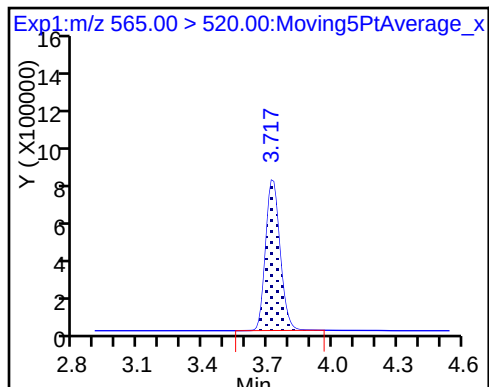
31 Perfluoroundecanoic acid (M)



D 30 13C2 PFUnA

37 Perfluorododecanoic acid (M)

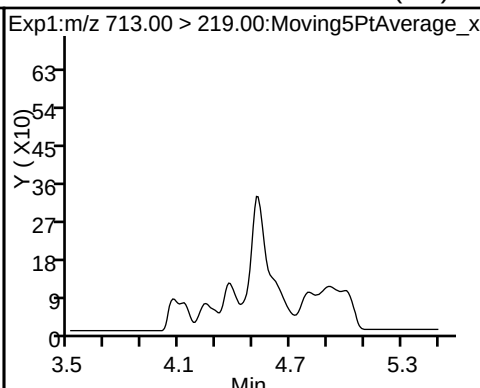
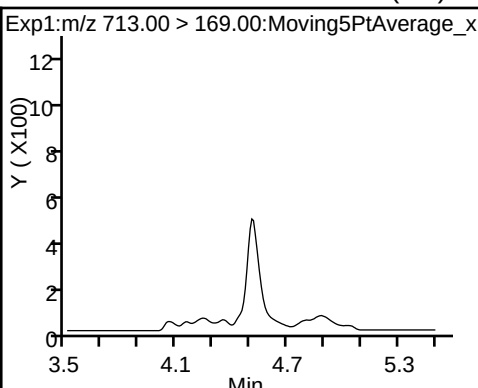
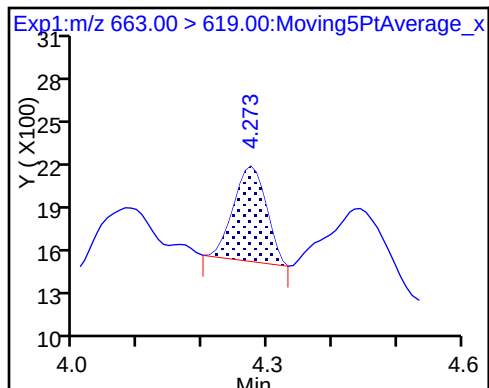
D 36 13C2 PFDaA



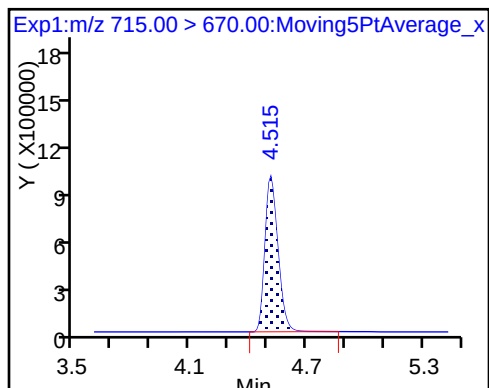
41 Perfluorotridecanoic acid

42 Perfluorotetradecanoic acid (ND)

42 Perfluorotetradecanoic acid (ND)



D 43 13C2-PFTeDA



TestAmerica Sacramento

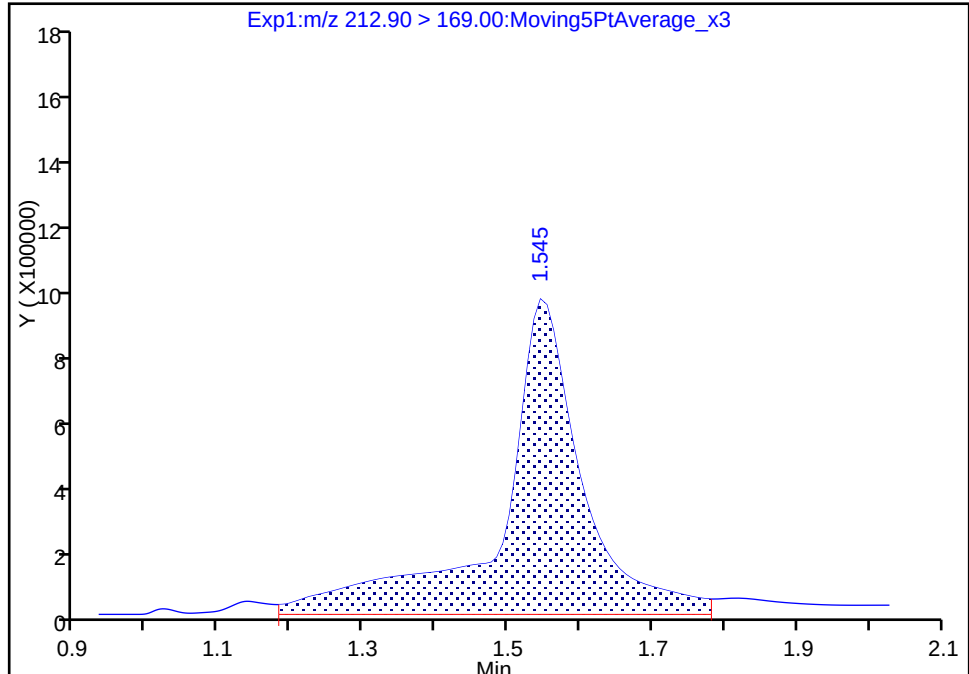
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Injection Date:	21-Oct-2017 02:48:07	Instrument ID:	A8_N		
Lims ID:	480-125692-A-19-A	Lab Sample ID:	320-125692-19		
Client ID:	DGC-8S				
Operator ID:	SACINSTLCMS01	ALS Bottle#:	34	Worklist Smp#:	22
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	A8_N	Limit Group:	LC PFC ICAL		
Column:		Detector:	EXP1		

2 Perfluorobutyric acid, CAS: 375-22-4

Signal: 1

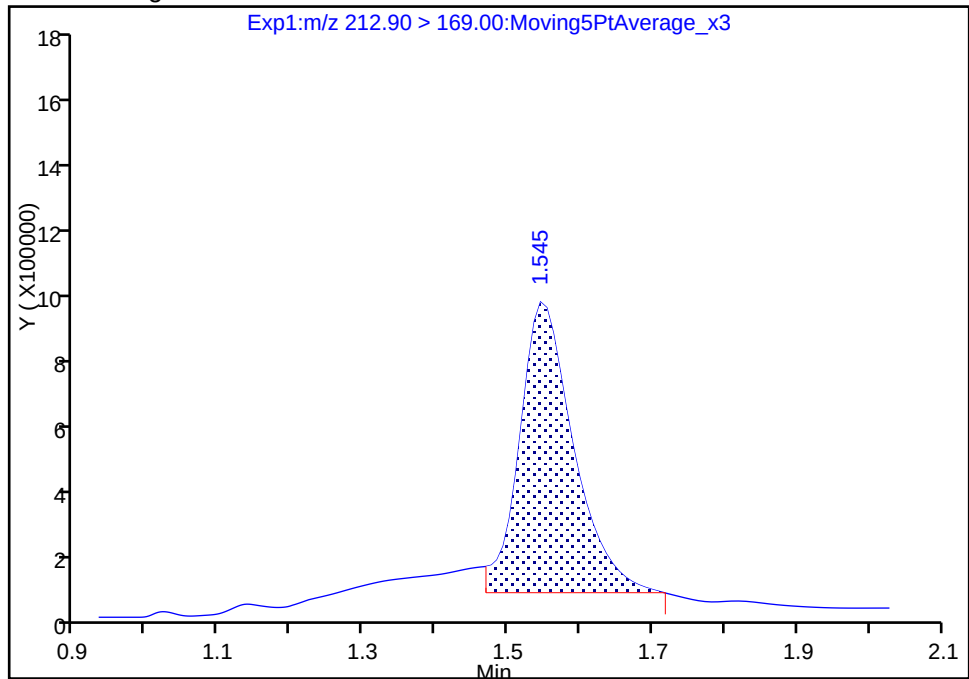
RT: 1.54
Area: 7361158
Amount: 101.1385
Amount Units: ng/ml

Processing Integration Results



RT: 1.54
Area: 4417223
Amount: 60.690381
Amount Units: ng/ml

Manual Integration Results



Reviewer: barnettj, 23-Oct-2017 14:08:57

Audit Action: Manually Integrated

Audit Reason: Baseline

TestAmerica Sacramento

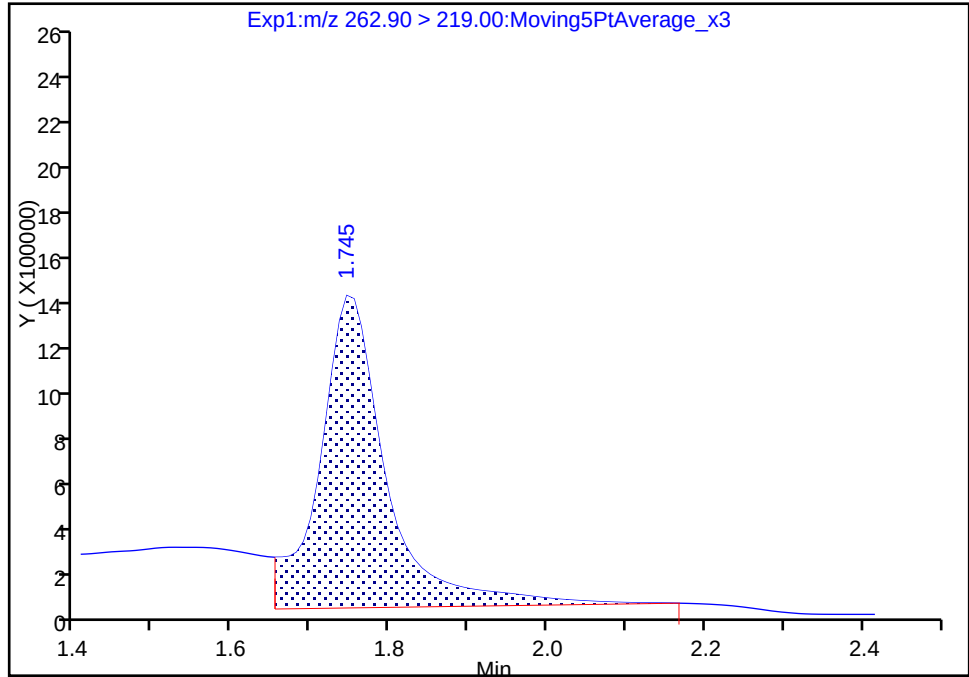
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Lims ID:	480-125692-A-19-A	Lab Sample ID:	320-125692-19		
Client ID:	DGC-8S				
Operator ID:	SACINSTLCMS01	ALS Bottle#:	34	Worklist Smp#:	22
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	A8_N	Limit Group:	LC PFC ICAL		
Column:		Detector	EXP1		

4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

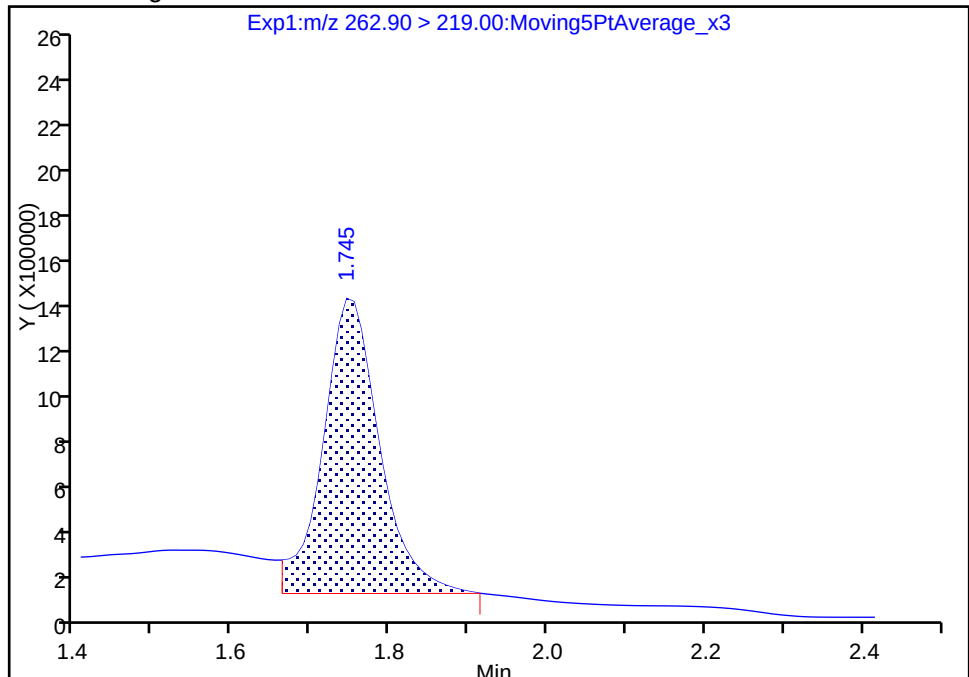
RT: 1.75
Area: 7906241
Amount: 59.304055
Amount Units: ng/ml

Processing Integration Results



RT: 1.75
Area: 6325805
Amount: 47.449336
Amount Units: ng/ml

Manual Integration Results



Reviewer: barnettj, 23-Oct-2017 14:09:16
Audit Action: Manually Integrated

Audit Reason: Baseline

TestAmerica Sacramento

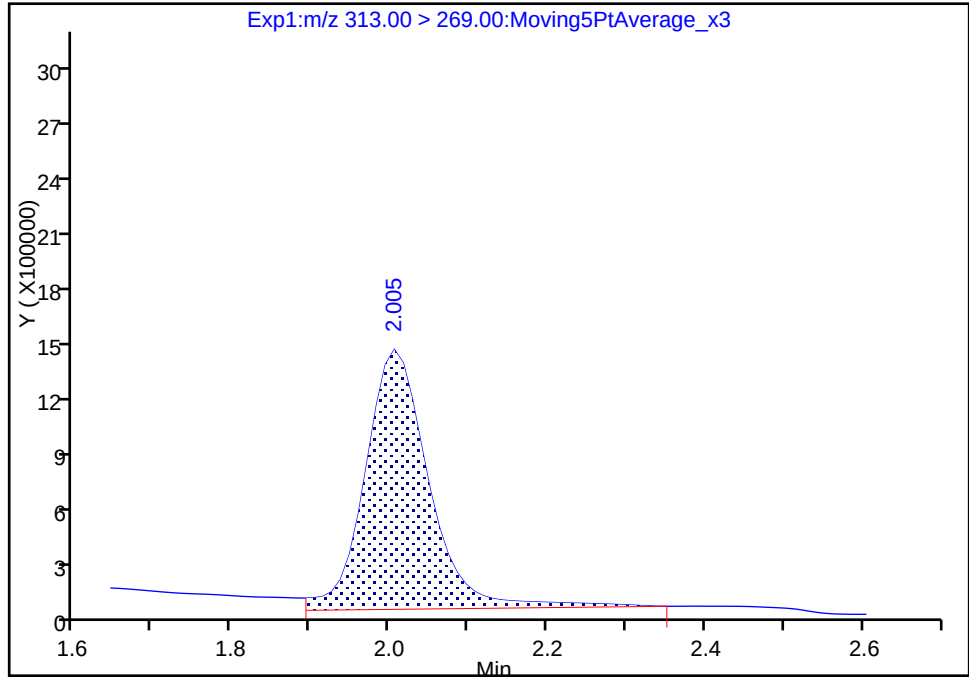
Data File:	\\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\2017.10.20B_045.d				
Injection Date:	21-Oct-2017 02:48:07	Instrument ID:	A8_N		
Lims ID:	480-125692-A-19-A	Lab Sample ID:	320-125692-19		
Client ID:	DGC-8S				
Operator ID:	SACINSTLCMS01	ALS Bottle#:	34	Worklist Smp#:	22
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	A8_N	Limit Group:	LC PFC ICAL		
Column:		Detector	EXP1		

6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

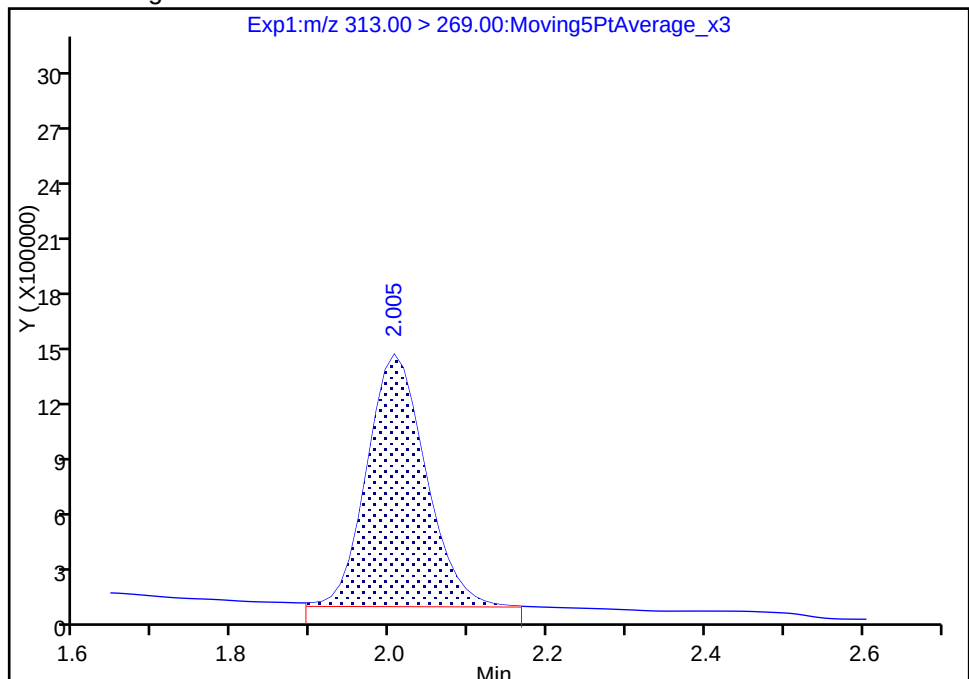
RT: 2.01
Area: 8012699
Amount: 55.336522
Amount Units: ng/ml

Processing Integration Results



RT: 2.01
Area: 7160005
Amount: 49.447729
Amount Units: ng/ml

Manual Integration Results



Reviewer: barnettj, 23-Oct-2017 14:09:57

Audit Action: Manually Integrated

Audit Reason: Baseline

TestAmerica Sacramento

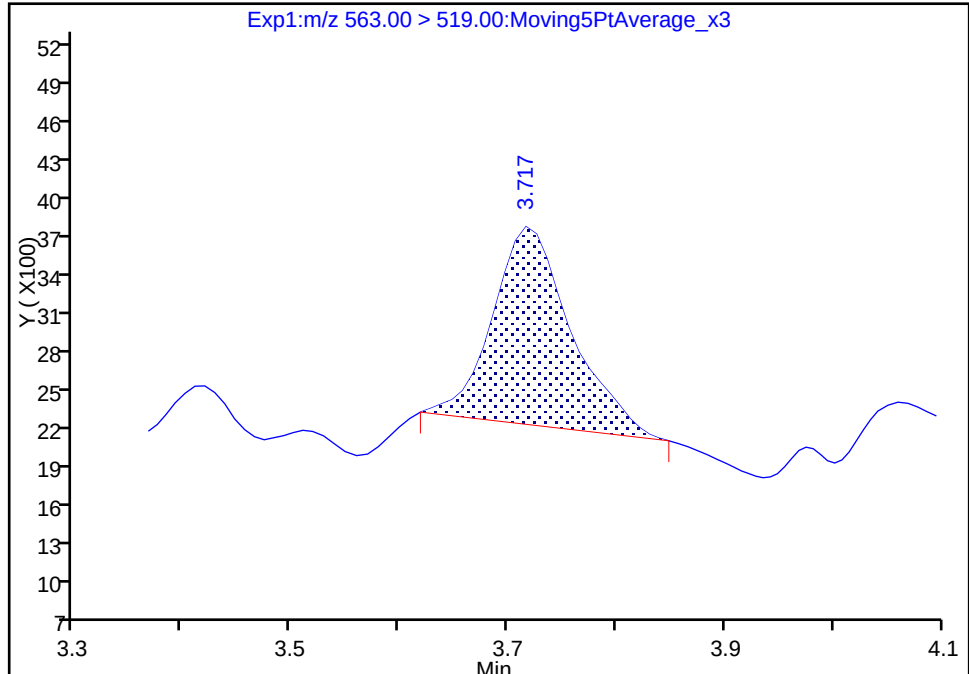
Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\2017.10.20B_045.d
Injection Date: 21-Oct-2017 02:48:07 Instrument ID: A8_N
Lims ID: 480-125692-A-19-A Lab Sample ID: 320-125692-19
Client ID: DGC-8S
Operator ID: SACINSTLCMS01 ALS Bottle#: 34 Worklist Smp#: 22
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: A8_N Limit Group: LC PFC ICAL
Column: Detector EXP1

31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 1

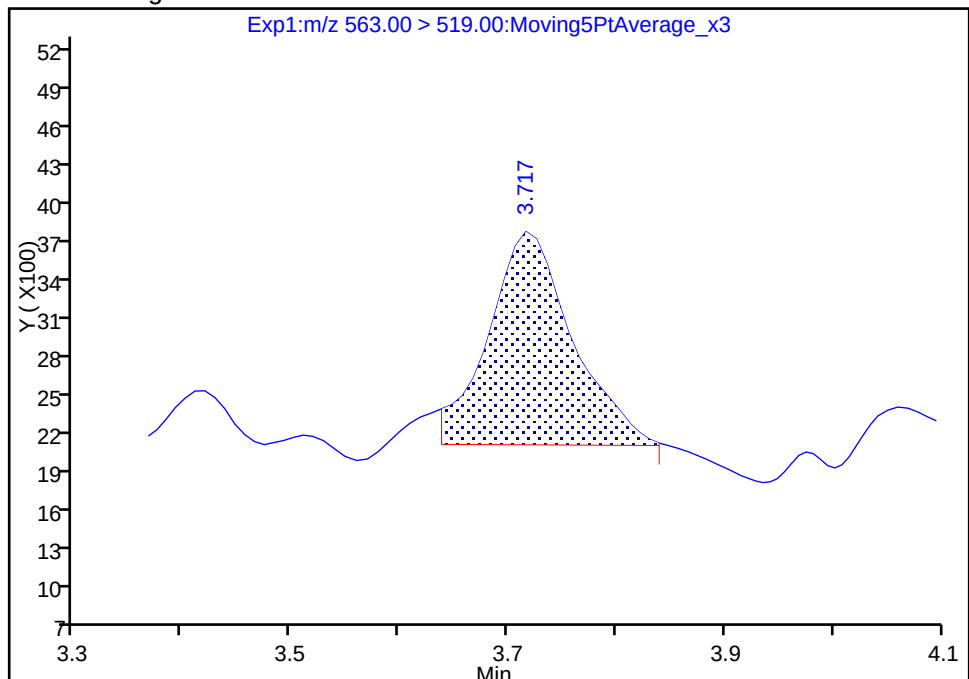
RT: 3.72
Area: 7774
Amount: 0.096543
Amount Units: ng/ml

Processing Integration Results



RT: 3.72
Area: 8946
Amount: 0.111098
Amount Units: ng/ml

Manual Integration Results



Reviewer: barnettj, 23-Oct-2017 14:10:46
Audit Action: Manually Integrated

Audit Reason: Baseline
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TestAmerica Sacramento

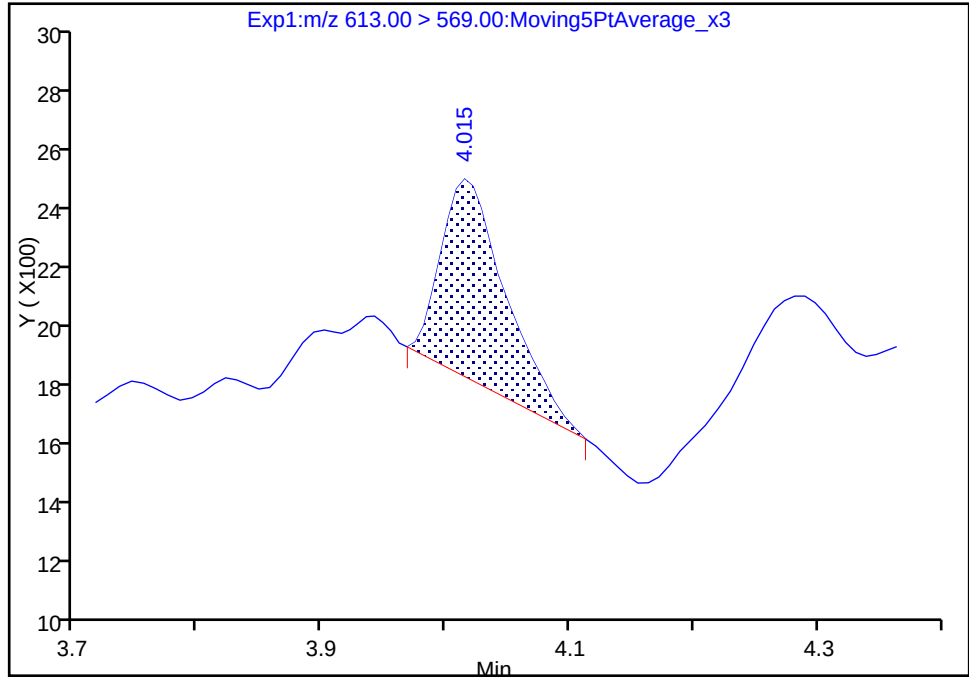
Data File:	\\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\2017.10.20B_045.d				
Injection Date:	21-Oct-2017 02:48:07	Instrument ID:	A8_N		
Lims ID:	480-125692-A-19-A	Lab Sample ID:	320-125692-19		
Client ID:	DGC-8S				
Operator ID:	SACINSTLCMS01	ALS Bottle#:	34	Worklist Smp#:	22
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	A8_N	Limit Group:	LC PFC ICAL		
Column:		Detector	EXP1		

37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 1

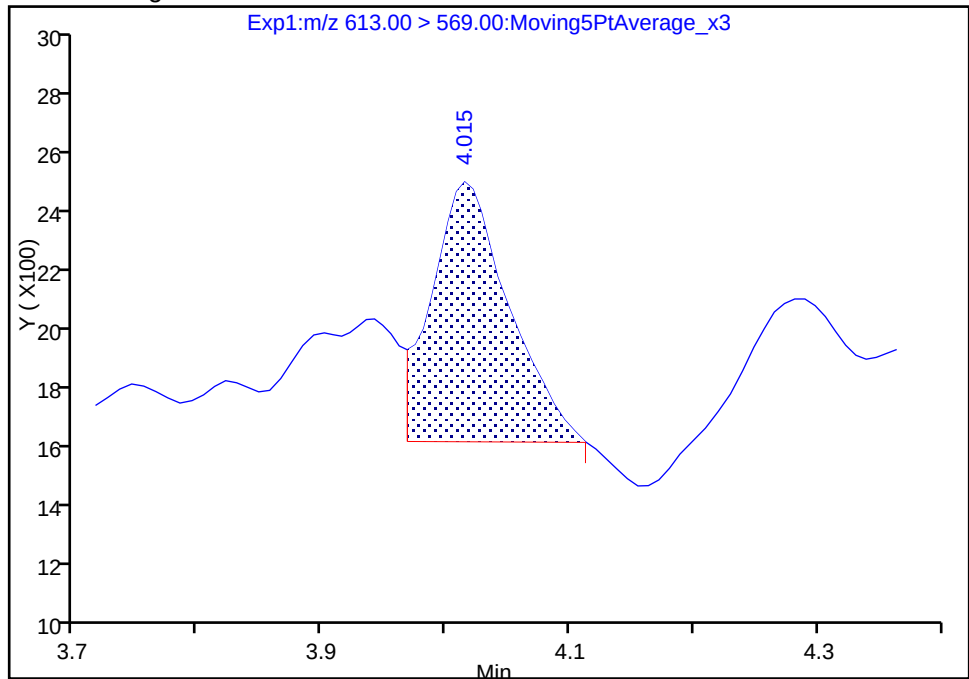
RT: 4.01
Area: 2386
Amount: 0.036982
Amount Units: ng/ml

Processing Integration Results



RT: 4.01
Area: 3703
Amount: 0.057396
Amount Units: ng/ml

Manual Integration Results



Reviewer: barnettj, 23-Oct-2017 14:10:33
Audit Action: Manually Integrated

Audit Reason: Baseline
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TestAmerica Sacramento

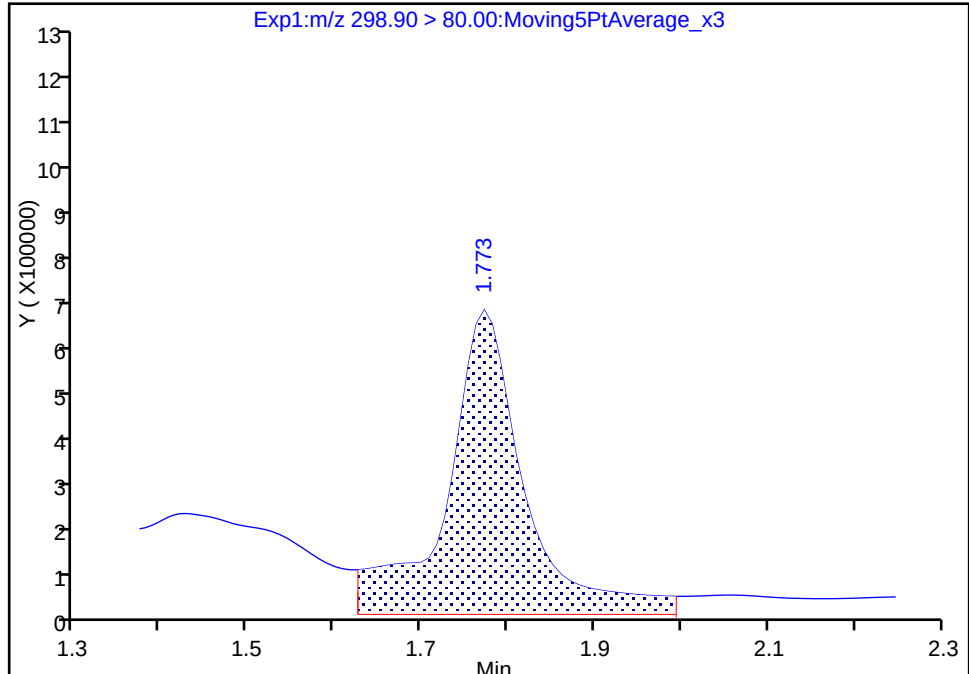
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Injection Date:	21-Oct-2017 02:48:07	Instrument ID:	A8_N		
Lims ID:	480-125692-A-19-A	Lab Sample ID:	320-125692-19		
Client ID:	DGC-8S				
Operator ID:	SACINSTLCMS01	ALS Bottle#:	34	Worklist Smp#:	22
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	A8_N	Limit Group:	LC PFC ICAL		
Column:		Detector:	EXP1		

5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

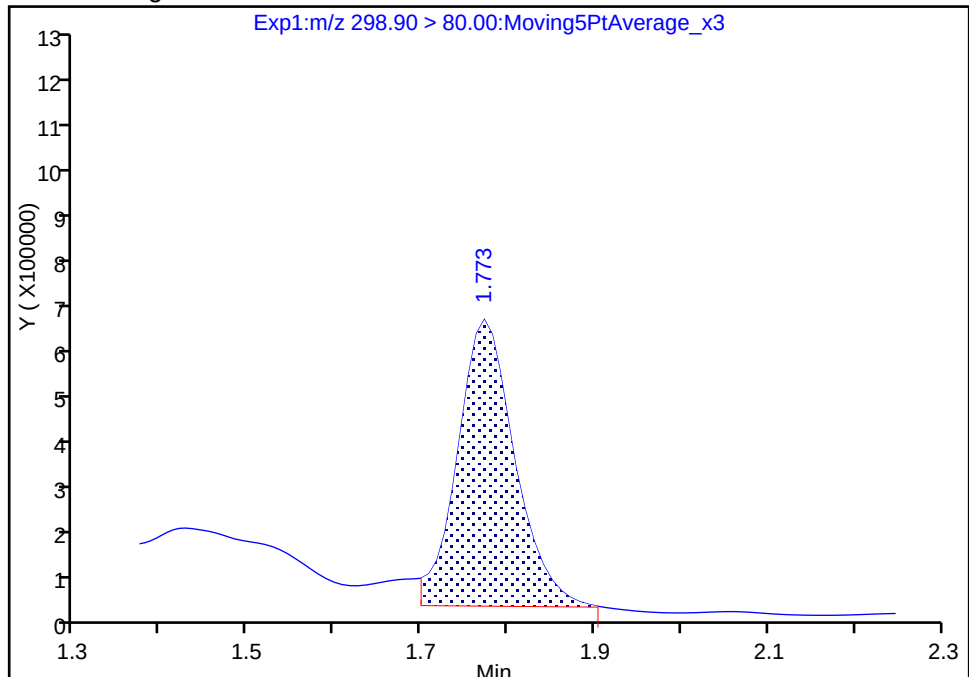
RT: 1.77
Area: 4041927
Amount: 13.562529
Amount Units: ng/ml

Processing Integration Results



RT: 1.77
Area: 2720298
Amount: 9.127854
Amount Units: ng/ml

Manual Integration Results



Reviewer: barnettj, 23-Oct-2017 14:09:31
Audit Action: Manually Integrated

Audit Reason: Baseline
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10/24/2017

TestAmerica Sacramento

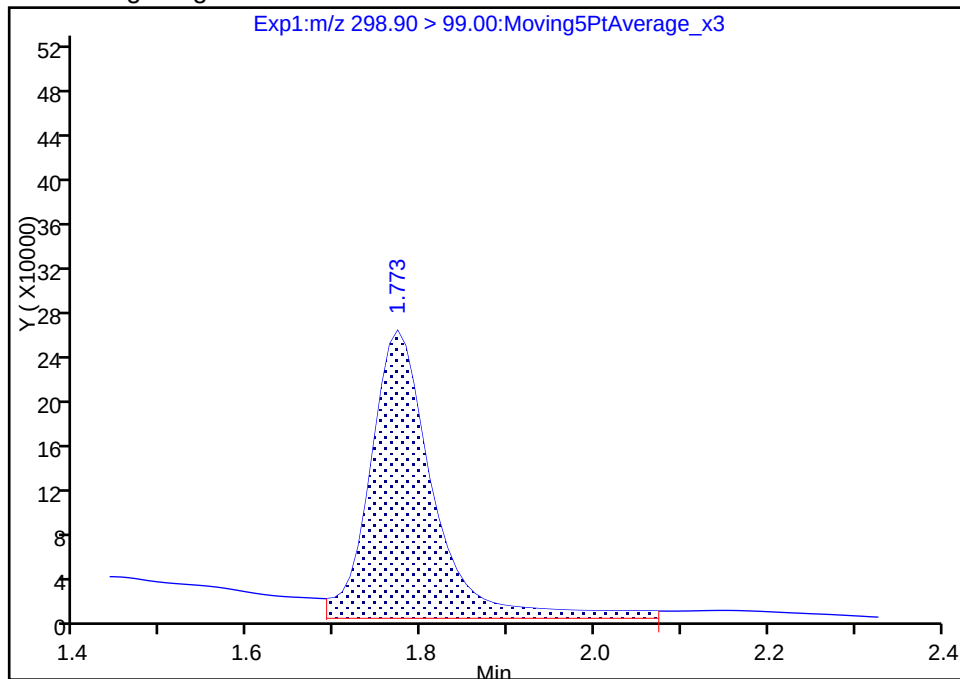
Data File:	\\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\2017.10.20B_045.d				
Injection Date:	21-Oct-2017 02:48:07	Instrument ID:	A8_N		
Lims ID:	480-125692-A-19-A	Lab Sample ID:	320-125692-19		
Client ID:	DGC-8S				
Operator ID:	SACINSTLCMS01	ALS Bottle#:	34	Worklist Smp#:	22
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	A8_N	Limit Group:	LC PFC ICAL		
Column:		Detector	EXP1		

5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 2

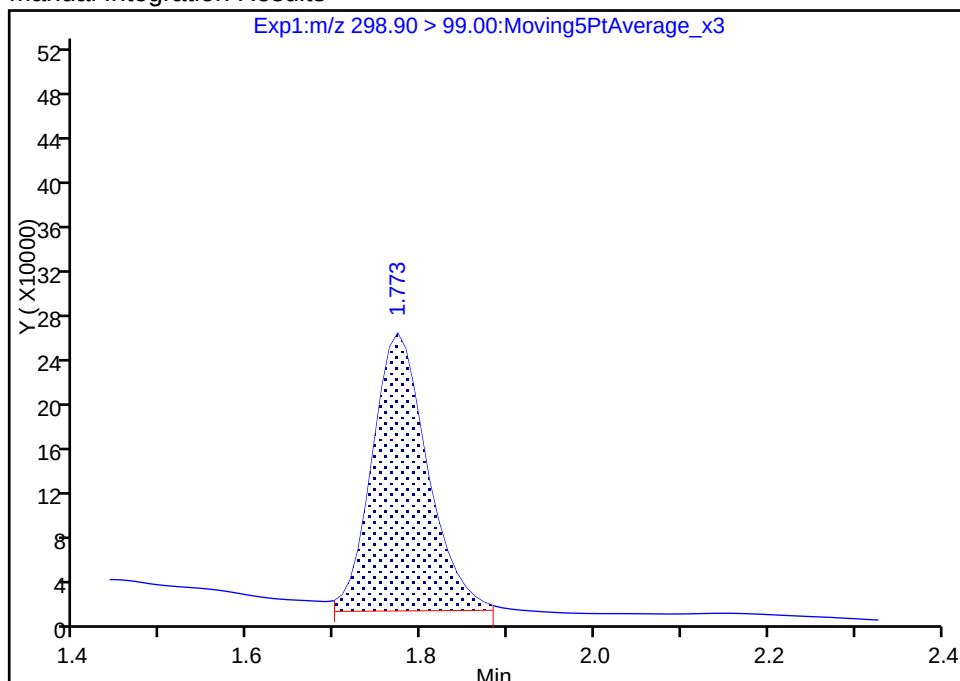
RT: 1.77
Area: 1300564
Amount: 13.562529
Amount Units: ng/ml

Processing Integration Results



RT: 1.77
Area: 1096680
Amount: 9.127854
Amount Units: ng/ml

Manual Integration Results



Reviewer: barnettj, 23-Oct-2017 14:09:44

Audit Action: Manually Integrated

Audit Reason: Baseline

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Sacramento</u>	Job No.: <u>480-125692-1</u>
SDG No.: _____	
Client Sample ID: <u>PUMP CULVERT (TRENCH)</u>	Lab Sample ID: <u>480-125692-20</u>
Matrix: <u>Water</u>	Lab File ID: <u>2017.10.20B_046.d</u>
Analysis Method: <u>537 (modified)</u>	Date Collected: <u>10/10/2017 13:47</u>
Extraction Method: <u>3535</u>	Date Extracted: <u>10/17/2017 08:45</u>
Sample wt/vol: <u>256.8 (mL)</u>	Date Analyzed: <u>10/21/2017 02:55</u>
Con. Extract Vol.: <u>0.50 (mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>2 (uL)</u>	GC Column: <u>GeminiC18 3x100 ID: 3 (mm)</u>
% Moisture: _____	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>190434</u>	Units: <u>ng/L</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	60	B	1.9	0.45
2706-90-3	Perfluoropentanoic acid (PFPeA)	48		1.9	0.96
307-24-4	Perfluorohexanoic acid (PFHxA)	46		1.9	0.77
375-85-9	Perfluoroheptanoic acid (PFHpA)	42		1.9	0.78
335-67-1	Perfluorooctanoic acid (PFOA)	95		1.9	0.73
375-95-1	Perfluorononanoic acid (PFNA)	7.4	B	1.9	0.64
335-76-2	Perfluorodecanoic acid (PFDA)	1.4	J B	1.9	0.43
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		1.9	0.73
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		1.9	0.57
72629-94-8	Perfluorotridecanoic Acid (PFTriA)	ND		1.9	0.54
376-06-7	Perfluorotetradecanoic acid (PFTeA)	ND		1.9	0.19
375-73-5	Perfluorobutanesulfonic acid (PFBS)	11		1.9	0.89
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	44		1.9	0.85
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	3.4		1.9	0.69
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	160		1.9	1.2
335-77-3	Perfluorodecanesulfonic acid (PFDS)	ND		1.9	1.2

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00992	13C4 PFBA	21	*	25-150
STL01893	13C5 PFPeA	53		25-150
STL00993	13C2 PFHxA	63		25-150
STL01892	13C4-PFHpA	70		25-150
STL00990	13C4 PFOA	74		25-150
STL00995	13C5 PFNA	73		25-150
STL00996	13C2 PFDA	72		25-150
STL00997	13C2 PFUnA	77		25-150
STL00998	13C2 PFDoA	73		25-150
STL00994	18O2 PFHxS	82		25-150
STL00991	13C4 PFOS	85		25-150

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\2017.10.20B_046.d
 Lims ID: 480-125692-A-20-A
 Client ID: PUMP CULVERT (TRENCH)
 Sample Type: Client
 Inject. Date: 21-Oct-2017 02:55:01 ALS Bottle#: 35 Worklist Smp#: 23
 Injection Vol: 2.0 ul Dil. Factor: 1.0000
 Sample Info: 480-125692-a-20-a
 Misc. Info.: Plate: 1 Rack: 4
 Operator ID: SACINSTLCMS01 Instrument ID: A8_N
 Method: \\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\A8_N.m
 Limit Group: LC PFC ICAL
 Last Update: 23-Oct-2017 14:17:58 Calib Date: 12-Oct-2017 11:11:26
 Integrator: Picker
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20171012-49071.b\2017.10.12ICAL_010.d

Column 1 : Det: EXP1
 Process Host: XAWRK012

First Level Reviewer: barnettj

Date: 23-Oct-2017 14:13:42

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
2 Perfluorobutyric acid										M
212.90 > 169.00	1.551	1.545	0.006	1.000	2236886	30.9			21.2	M
D 1 13C4 PFBA										
217.00 > 172.00	1.551	1.545	0.006		3893879	10.4		20.7	5615	
4 Perfluoropentanoic acid										M
262.90 > 219.00	1.751	1.754	-0.003	1.000	3408066	24.7			40.5	M
D 3 13C5-PFPeA										
267.90 > 223.00	1.751	1.754	-0.003		6303594	26.7		53.5	5130	
D 47 13C3-PFBS										
301.90 > 83.00	1.769	1.773	-0.004		203477	29.7		63.8	266	
5 Perfluorobutanesulfonic acid										M
298.90 > 80.00	1.778	1.782	-0.004	1.000	1819453	5.80			49.4	M
298.90 > 99.00	1.778	1.782	-0.004	1.000	708269		2.57(0.00-0.00)		64.9	M
6 Perfluorohexanoic acid										M
313.00 > 269.00	2.012	2.017	-0.005	1.000	3777138	23.8			82.4	M
D 7 13C2 PFHxA										
315.00 > 270.00	2.012	2.017	-0.005		8107852	31.6		63.2	22551	
10 Perfluoroheptanoic acid										
363.00 > 319.00	2.332	2.324	0.008	1.000	3653558	21.8			278	
D 9 13C4-PFHpA										
367.00 > 322.00	2.332	2.324	0.008		8394118	35.1		70.3	20876	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	2.340	2.348	-0.008	1.000	7122964	22.5			573	
D 11 18O2 PFHxS										
403.00 > 84.00	2.340	2.348	-0.008		13877375	38.7		81.8	25632	
* 62 13C2-PFOA										
415.00 > 370.00	2.666	2.671	-0.005		10746368	50.0			13852	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
15 Perfluorooctanoic acid										
413.00 > 369.00	2.673	2.671	0.002	1.000	8760084	48.7			761	
413.00 > 169.00	2.673	2.671	0.002	1.000	5007037		1.75(0.90-1.10)		4486	
D 14 13C4 PFOA										
417.00 > 372.00	2.673	2.671	0.002		8318261	37.0		74.1	17496	
16 Perfluoroheptanesulfonic Acid										
449.00 > 80.00	2.680	2.678	0.002	1.000	457116	1.76			89.8	
17 Perfluorooctane sulfonic acid										
499.00 > 80.00	3.044	3.035	0.009	1.000	18842565	83.7			2767	
499.00 > 99.00	3.044	3.035	0.009	1.000	3306546		5.70(0.90-1.10)		2269	
20 Perfluorononanoic acid										
463.00 > 419.00	3.044	3.035	0.009	1.000	462552	3.83			97.4	
D 18 13C4 PFOS										
503.00 > 80.00	3.044	3.035	0.009		10234241	40.6		84.9	7000	
D 19 13C5 PFNA										
468.00 > 423.00	3.044	3.035	0.009		6289039	36.7		73.3	12841	
24 Perfluorodecanoic acid										
513.00 > 469.00	3.398	3.393	0.005	1.000	69438	0.7118			30.2	
D 23 13C2 PFDA										
515.00 > 470.00	3.398	3.393	0.005		5326267	36.0		72.0	15934	
31 Perfluoroundecanoic acid										
563.00 > 519.00	3.724	3.720	0.004	1.000	15519	0.1931			8.1	M
D 30 13C2 PFUnA										
565.00 > 520.00	3.724	3.720	0.004		3727105	38.3		76.6	6838	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.021	4.014	0.007	1.000	4842	0.0797			4.4	M
D 36 13C2 PFDoA										
615.00 > 570.00	4.014	4.014	0.0		3321231	36.4		72.7	6362	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.278	4.279	-0.001	1.000	2234	0.0378			0.6	
D 43 13C2-PFTeDA										
715.00 > 670.00	4.520	4.514	0.006		4413317	55.1		110	17479	

QC Flag Legend

Review Flags

M - Manually Integrated

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\2017.10.20B_046.d

Injection Date: 21-Oct-2017 02:55:01

Instrument ID: A8_N

Lims ID: 480-125692-A-20-A

Lab Sample ID: 320-125692-20

Client ID: PUMP CULVERT (TRENCH)

Operator ID: SACINSTLCMS01

ALS Bottle#: 35

Worklist Smp#: 23

Injection Vol: 2.0 ul

Dil. Factor: 1.0000

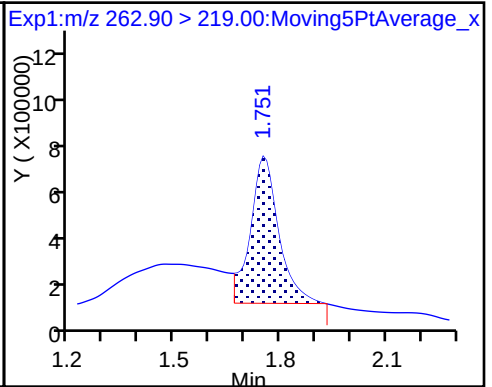
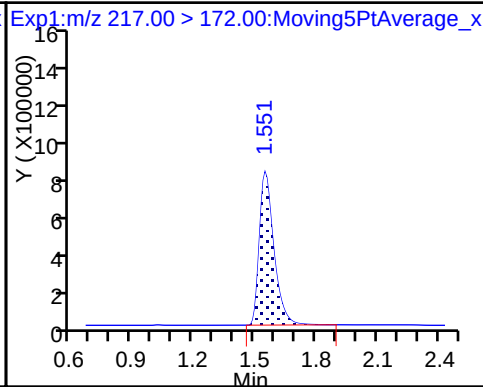
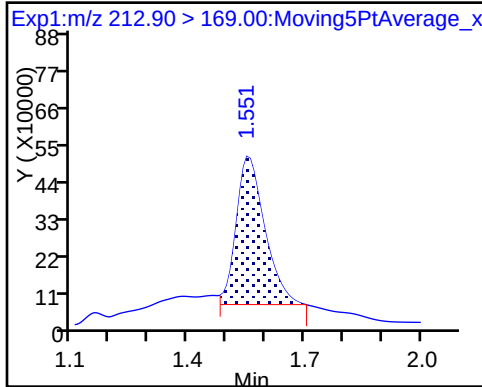
Method: A8_N

Limit Group: LC PFC ICAL

2 Perfluorobutyric acid (M)

D 1 13C4 PFBA

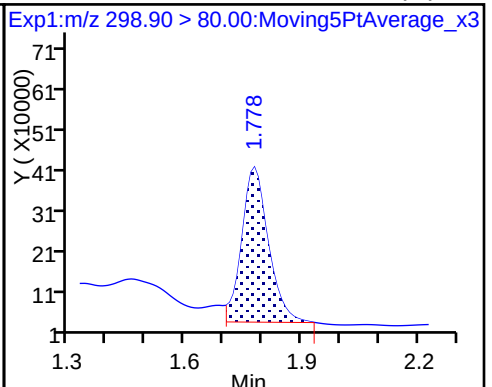
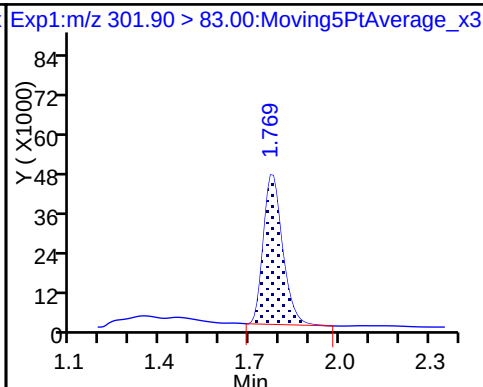
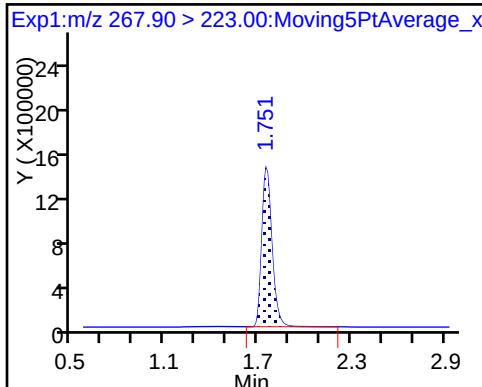
4 Perfluoropentanoic acid (M)



D 3 13C5-PFPeA

D 47 13C3-PFBS

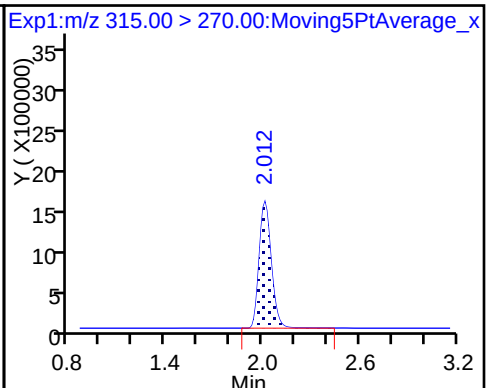
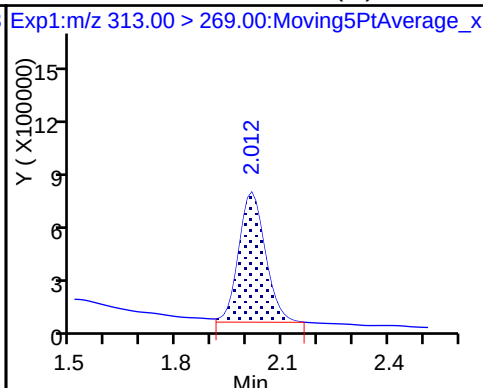
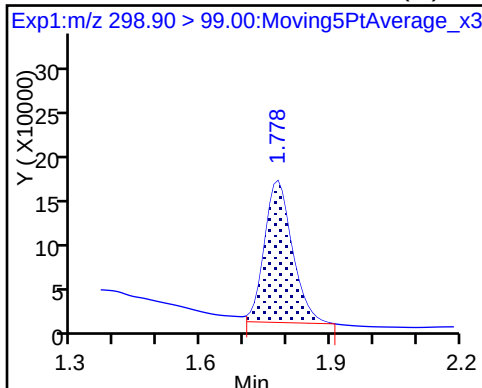
5 Perfluorobutanesulfonic acid (M)



5 Perfluorobutanesulfonic acid (M)

6 Perfluorohexanoic acid (M)

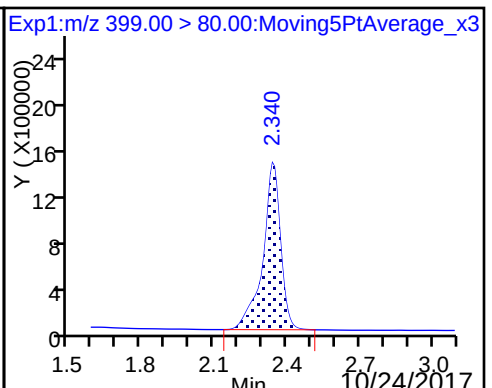
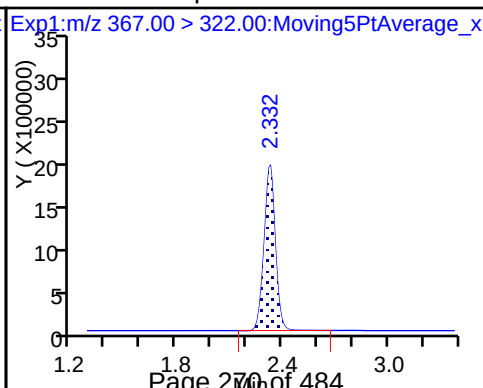
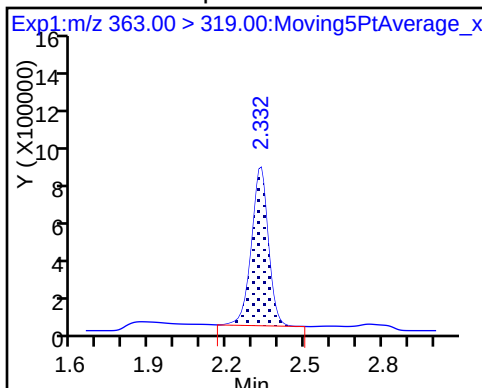
D 7 13C2 PFHxA



10 Perfluoroheptanoic acid

D 9 13C4-PFHpA

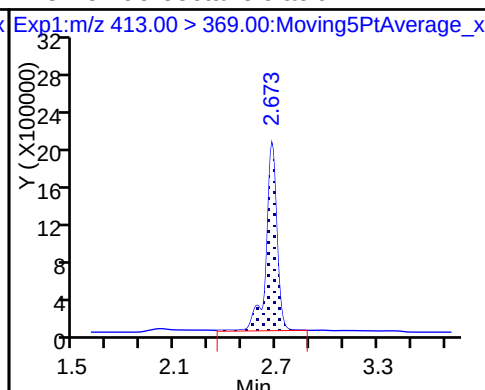
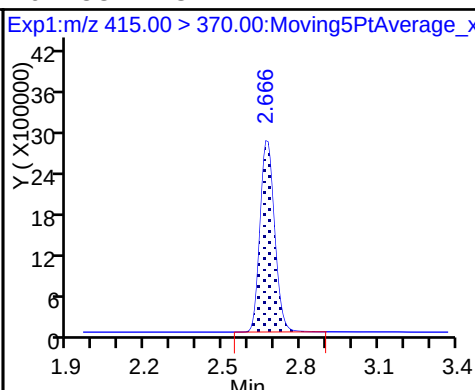
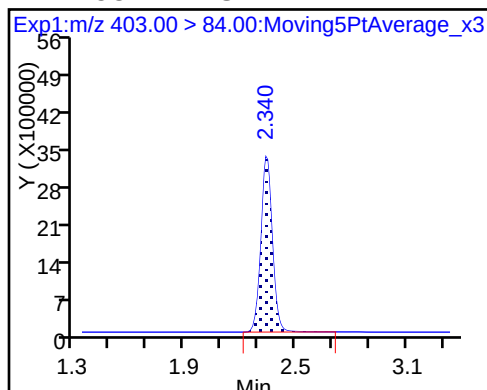
8 Perfluorohexanesulfonic acid



D 11 18O2 PFHxS

* 62 13C2-PFOA

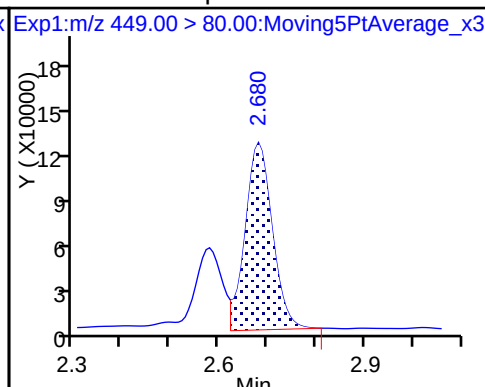
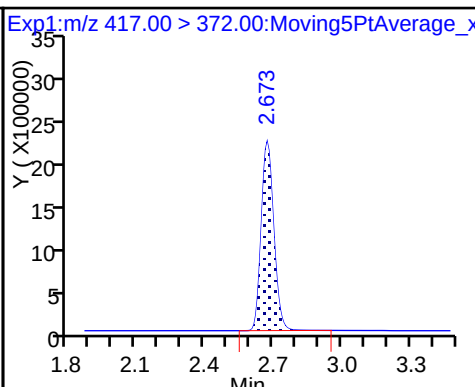
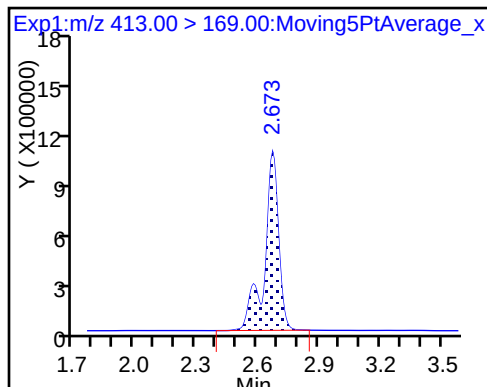
15 Perfluorooctanoic acid



15 Perfluorooctanoic acid

D 14 13C4 PFOA

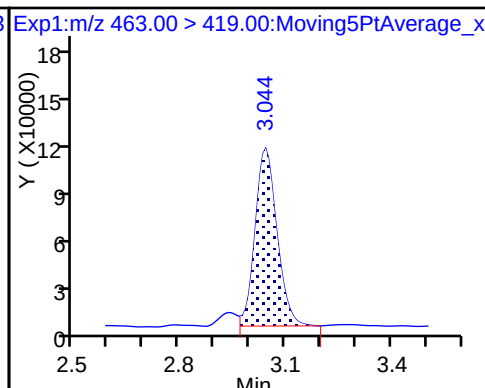
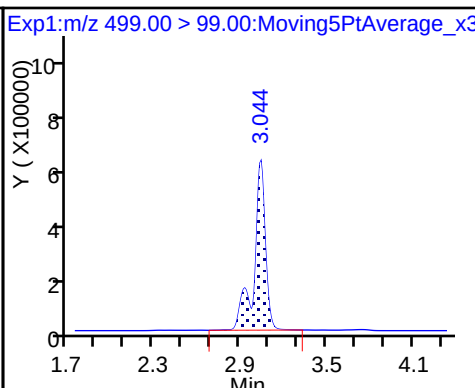
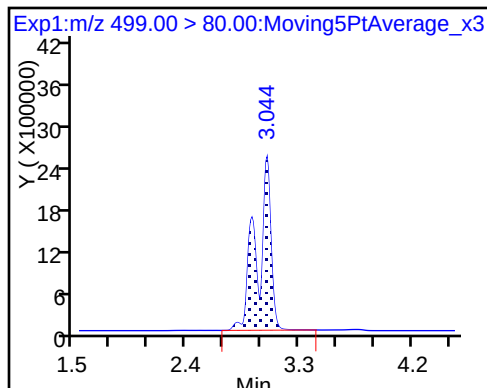
16 Perfluoroheptanesulfonic Acid



17 Perfluorooctane sulfonic acid

17 Perfluorooctane sulfonic acid

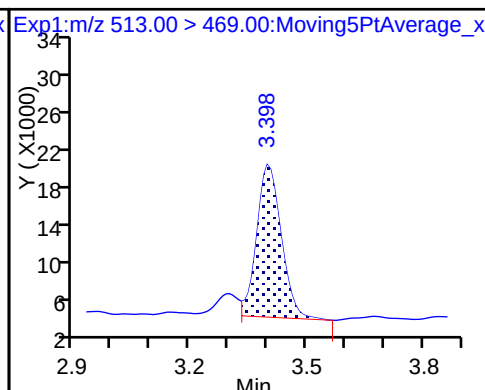
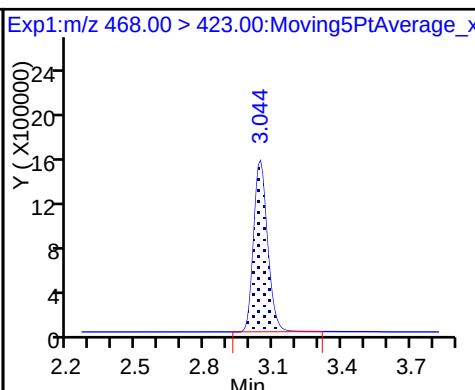
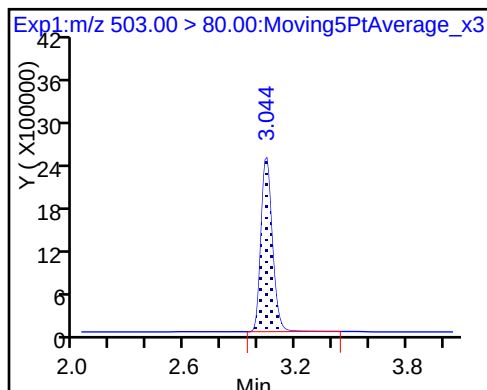
20 Perfluorononanoic acid



D 18 13C4 PFOS

D 19 13C5 PFNA

24 Perfluorodecanoic acid

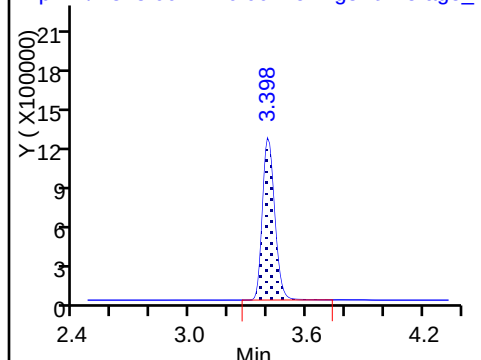


D 23 13C2 PFDA

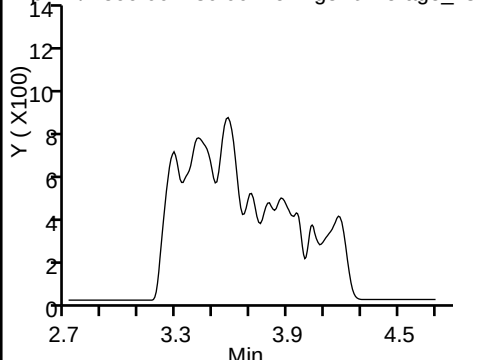
29 Perfluorodecane Sulfonic acid (ND)

31 Perfluoroundecanoic acid (M)

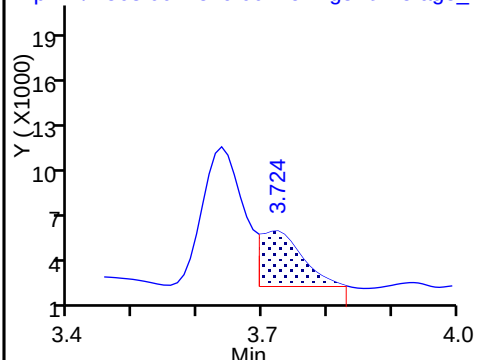
Exp1:m/z 515.00 > 470.00:Moving5PtAverage_x



Exp1:m/z 599.00 > 80.00:Moving5PtAverage_x3



Exp1:m/z 563.00 > 519.00:Moving5PtAverage_x

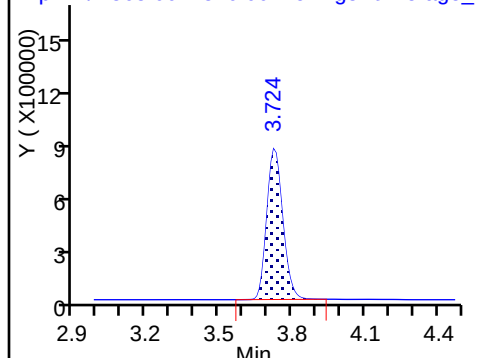


D 30 13C2 PFUnA

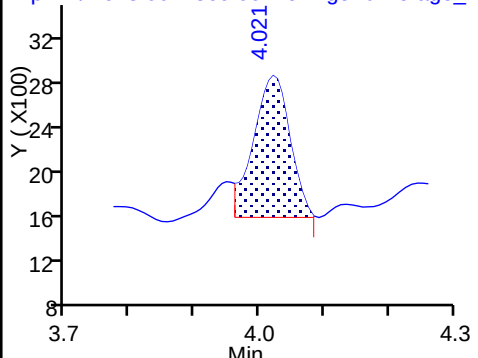
37 Perfluorododecanoic acid (M)

D 36 13C2 PFDaA

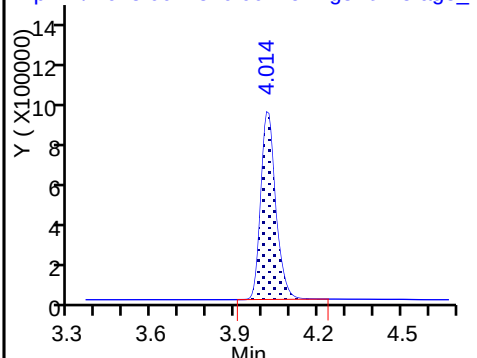
Exp1:m/z 565.00 > 520.00:Moving5PtAverage_x



Exp1:m/z 613.00 > 569.00:Moving5PtAverage_x



Exp1:m/z 615.00 > 570.00:Moving5PtAverage_x

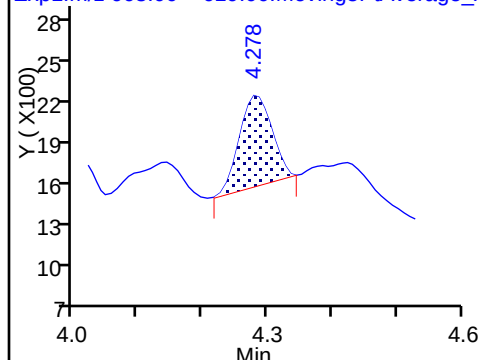


41 Perfluorotridecanoic acid

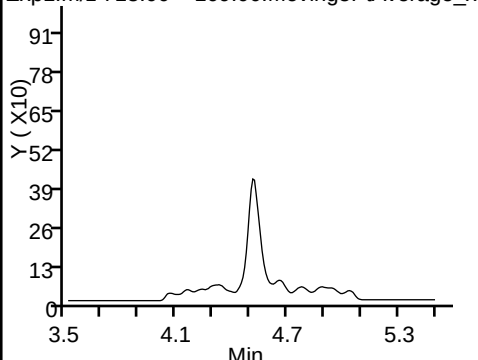
42 Perfluorotetradecanoic acid (ND)

42 Perfluorotetradecanoic acid (ND)

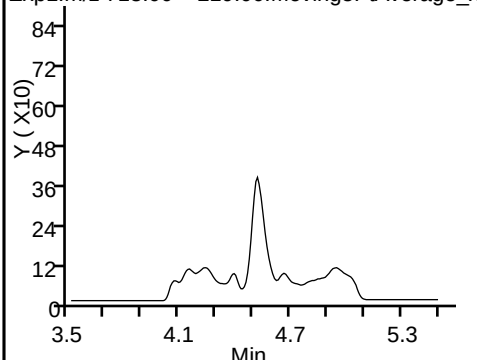
Exp1:m/z 663.00 > 619.00:Moving5PtAverage_x



Exp1:m/z 713.00 > 169.00:Moving5PtAverage_x

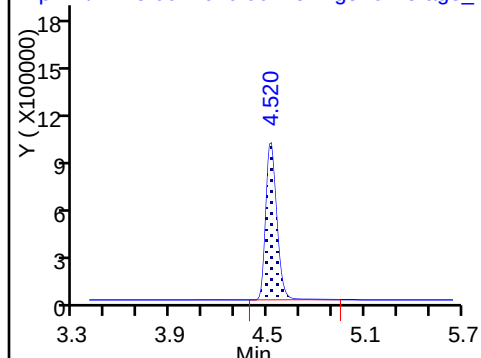


Exp1:m/z 713.00 > 219.00:Moving5PtAverage_x



D 43 13C2-PFTeDA

Exp1:m/z 715.00 > 670.00:Moving5PtAverage_x



TestAmerica Sacramento

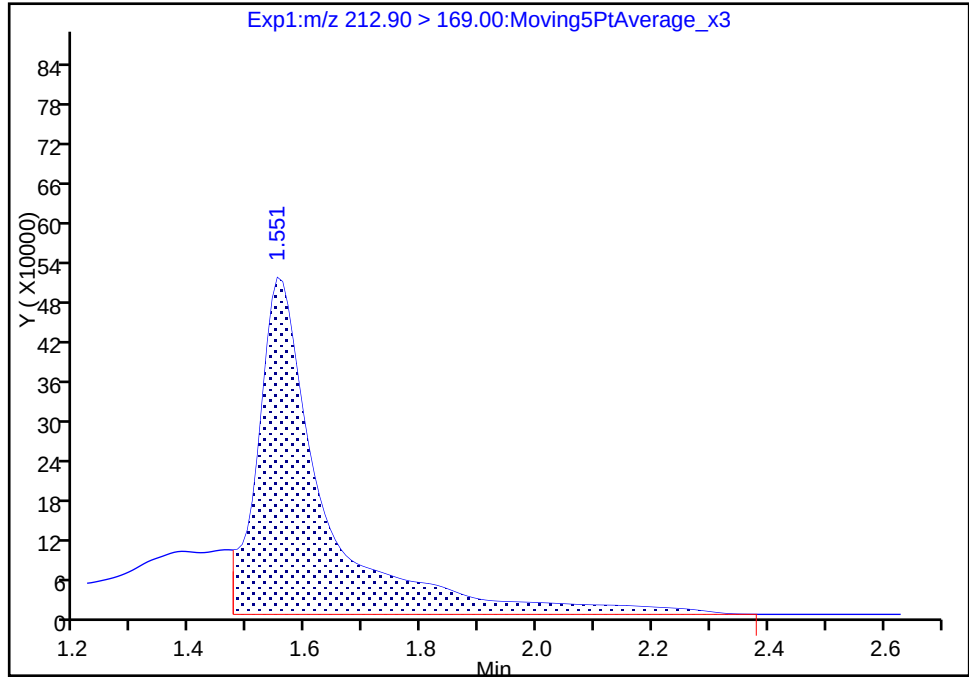
Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\2017.10.20B_046.d
Injection Date: 21-Oct-2017 02:55:01 Instrument ID: A8_N
Lims ID: 480-125692-A-20-A Lab Sample ID: 320-125692-20
Client ID: PUMP CULVERT (TRENCH)
Operator ID: SACINSTLCMS01 ALS Bottle#: 35 Worklist Smp#: 23
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: A8_N Limit Group: LC PFC ICAL
Column: Detector EXP1

2 Perfluorobutyric acid, CAS: 375-22-4

Signal: 1

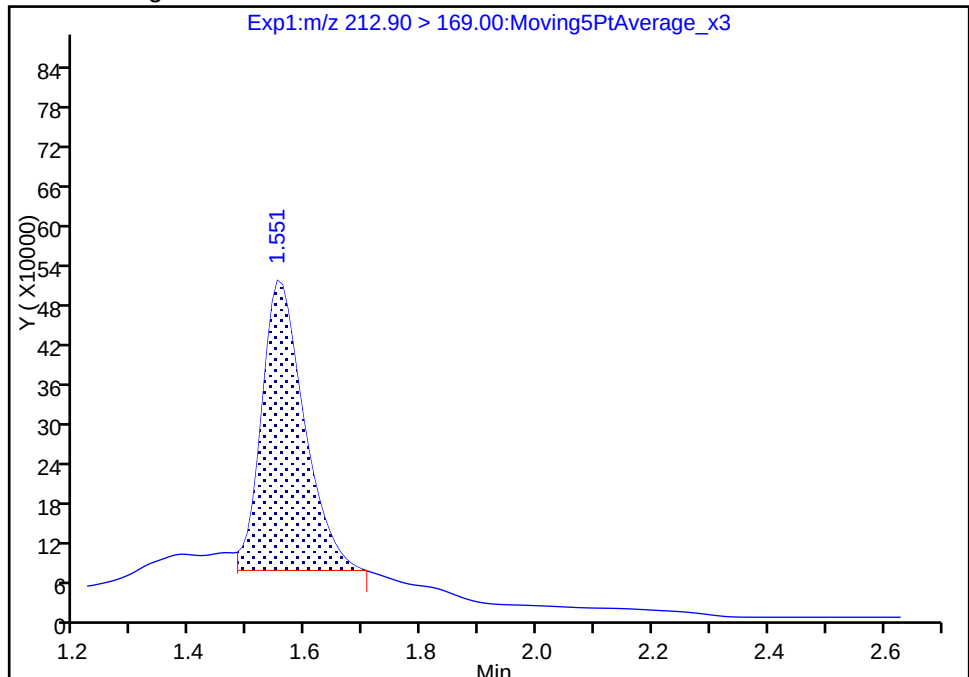
RT: 1.55
Area: 4116561
Amount: 56.804073
Amount Units: ng/ml

Processing Integration Results



RT: 1.55
Area: 2236886
Amount: 30.866598
Amount Units: ng/ml

Manual Integration Results



Reviewer: barnettj, 23-Oct-2017 14:11:33
Audit Action: Manually Integrated

Audit Reason: Baseline

TestAmerica Sacramento

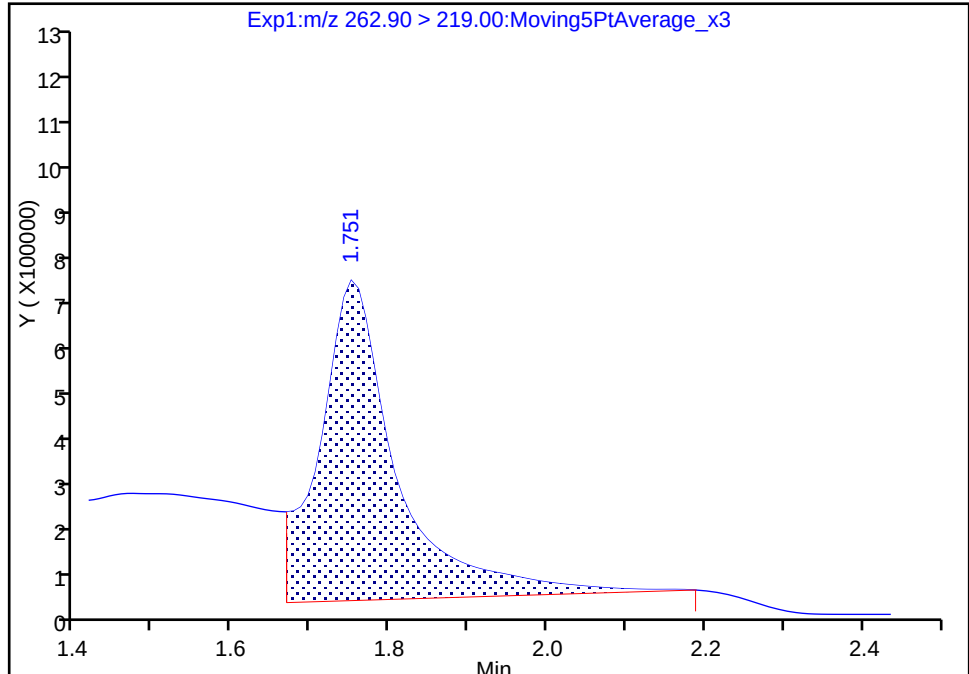
Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\2017.10.20B_046.d
Injection Date: 21-Oct-2017 02:55:01 Instrument ID: A8_N
Lims ID: 480-125692-A-20-A Lab Sample ID: 320-125692-20
Client ID: PUMP CULVERT (TRENCH)
Operator ID: SACINSTLCMS01 ALS Bottle#: 35 Worklist Smp#: 23
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: A8_N Limit Group: LC PFC ICAL
Column: Detector EXP1

4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

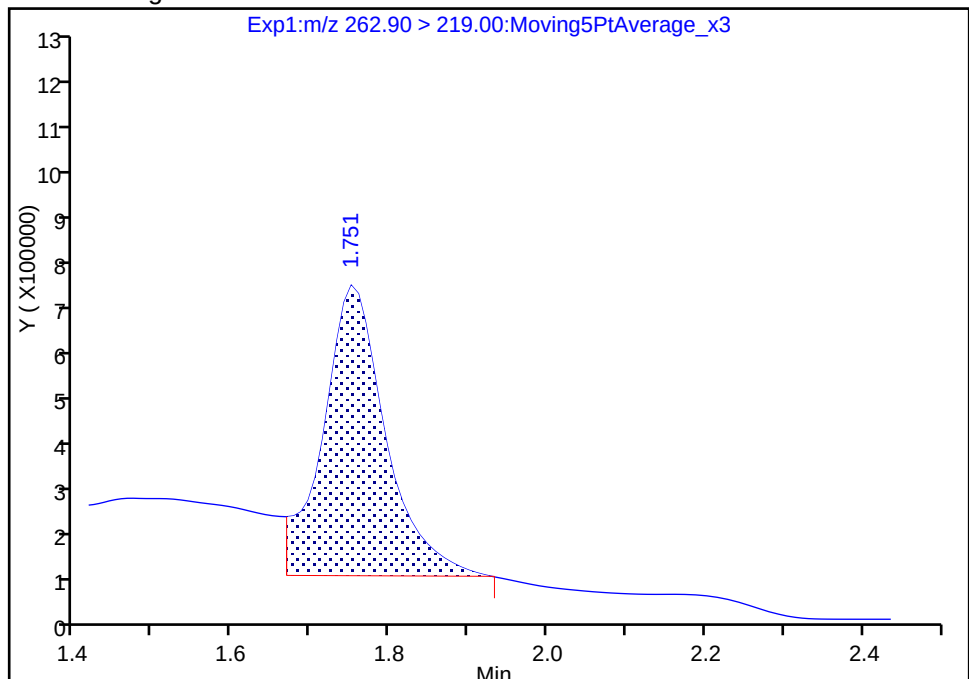
RT: 1.75
Area: 4633983
Amount: 33.609244
Amount Units: ng/ml

Processing Integration Results



RT: 1.75
Area: 3408066
Amount: 24.717942
Amount Units: ng/ml

Manual Integration Results



Reviewer: barnettj, 23-Oct-2017 14:11:45
Audit Action: Manually Integrated

Audit Reason: Baseline

TestAmerica Sacramento

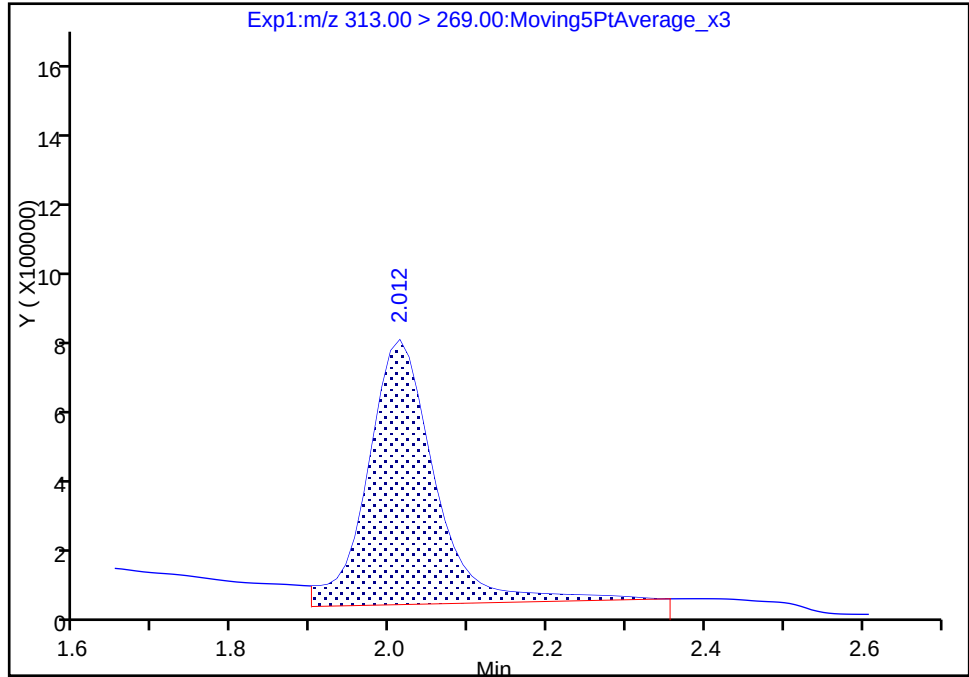
Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\2017.10.20B_046.d
Injection Date: 21-Oct-2017 02:55:01 Instrument ID: A8_N
Lims ID: 480-125692-A-20-A Lab Sample ID: 320-125692-20
Client ID: PUMP CULVERT (TRENCH)
Operator ID: SACINSTLCMS01 ALS Bottle#: 35 Worklist Smp#: 23
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: A8_N Limit Group: LC PFC ICAL
Column: Detector EXP1

6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

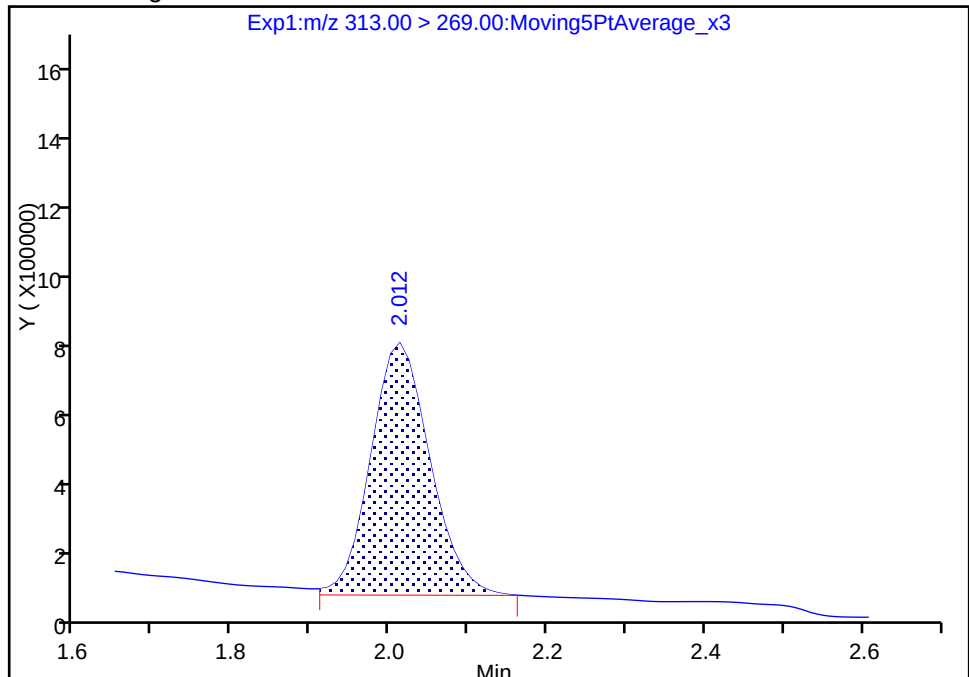
RT: 2.01
Area: 4490458
Amount: 28.267484
Amount Units: ng/ml

Processing Integration Results



RT: 2.01
Area: 3777138
Amount: 23.777126
Amount Units: ng/ml

Manual Integration Results



Reviewer: barnettj, 23-Oct-2017 14:12:24
Audit Action: Manually Integrated

Audit Reason: Baseline
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TestAmerica Sacramento

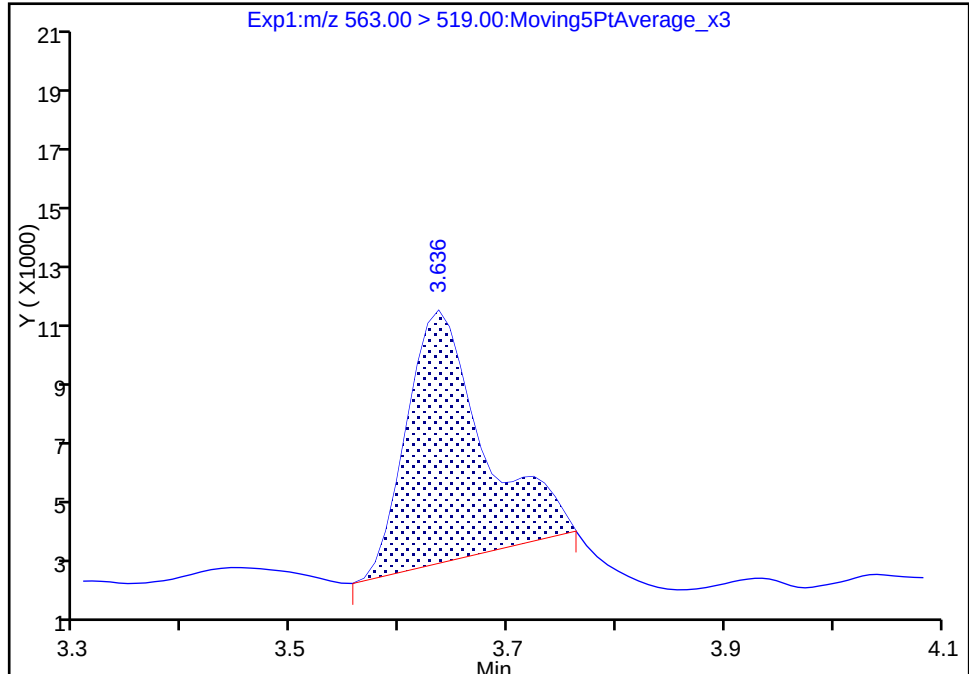
Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\2017.10.20B_046.d
Injection Date: 21-Oct-2017 02:55:01 Instrument ID: A8_N
Lims ID: 480-125692-A-20-A Lab Sample ID: 320-125692-20
Client ID: PUMP CULVERT (TRENCH)
Operator ID: SACINSTLCMS01 ALS Bottle#: 35 Worklist Smp#: 23
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: A8_N Limit Group: LC PFC ICAL
Column: Detector EXP1

31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 1

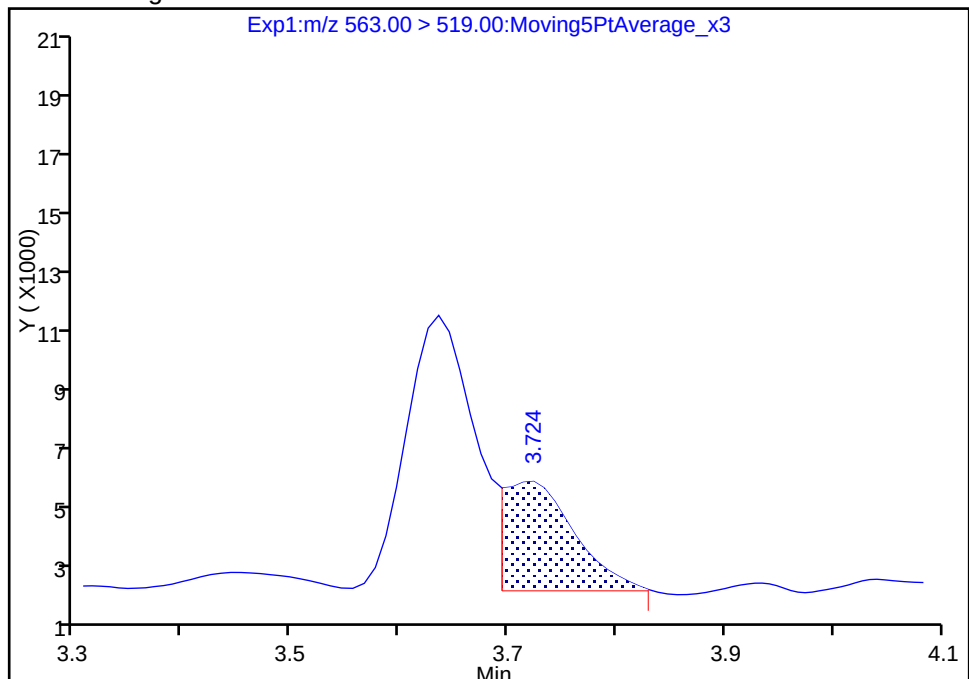
RT: 3.64
Area: 40728
Amount: 0.506732
Amount Units: ng/ml

Processing Integration Results



RT: 3.72
Area: 15519
Amount: 0.193085
Amount Units: ng/ml

Manual Integration Results



Reviewer: barnettj, 23-Oct-2017 14:13:13
Audit Action: Manually Integrated

Audit Reason: Split Peak

TestAmerica Sacramento

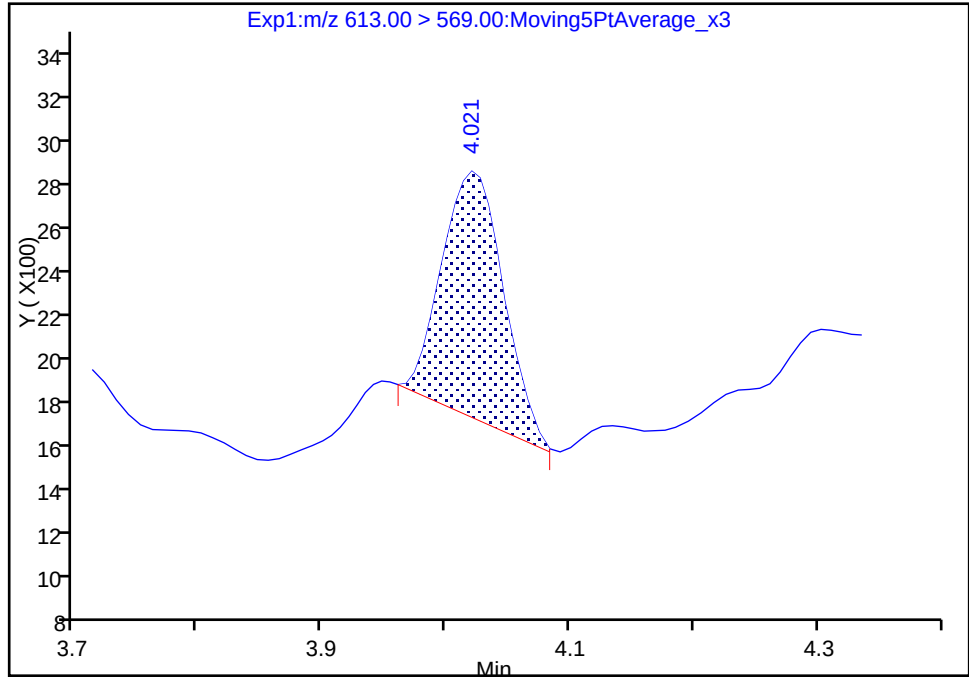
Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\2017.10.20B_046.d
Injection Date: 21-Oct-2017 02:55:01 Instrument ID: A8_N
Lims ID: 480-125692-A-20-A Lab Sample ID: 320-125692-20
Client ID: PUMP CULVERT (TRENCH)
Operator ID: SACINSTLCMS01 ALS Bottle#: 35 Worklist Smp#: 23
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: A8_N Limit Group: LC PFC ICAL
Column: Detector EXP1

37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 1

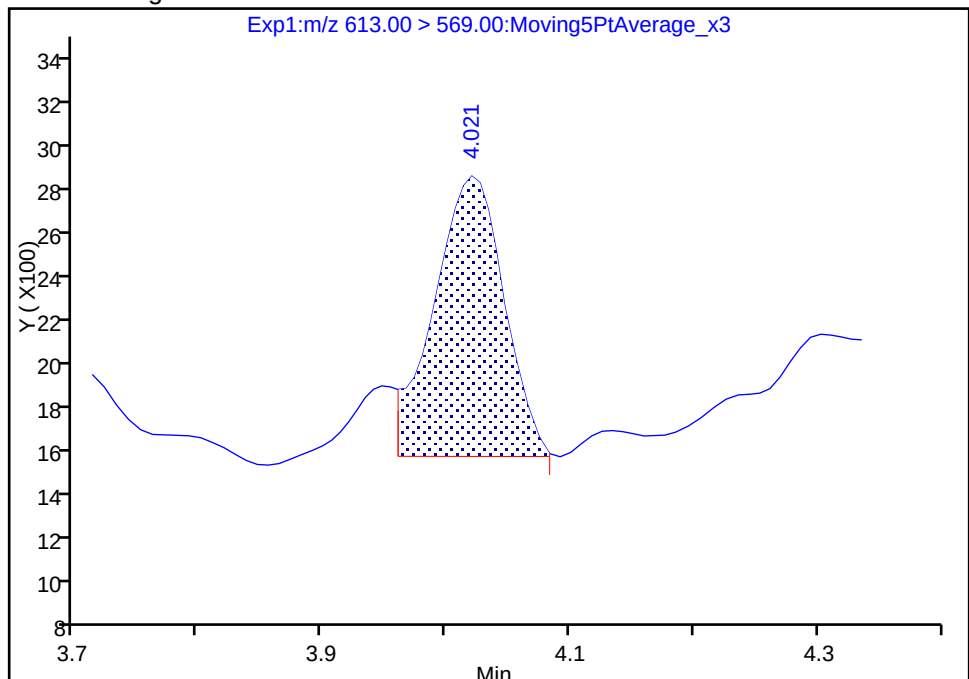
RT: 4.02
Area: 3758
Amount: 0.061884
Amount Units: ng/ml

Processing Integration Results



RT: 4.02
Area: 4842
Amount: 0.079734
Amount Units: ng/ml

Manual Integration Results



Reviewer: barnettj, 23-Oct-2017 14:13:29
Audit Action: Manually Integrated

Audit Reason: Split Peak

TestAmerica Sacramento

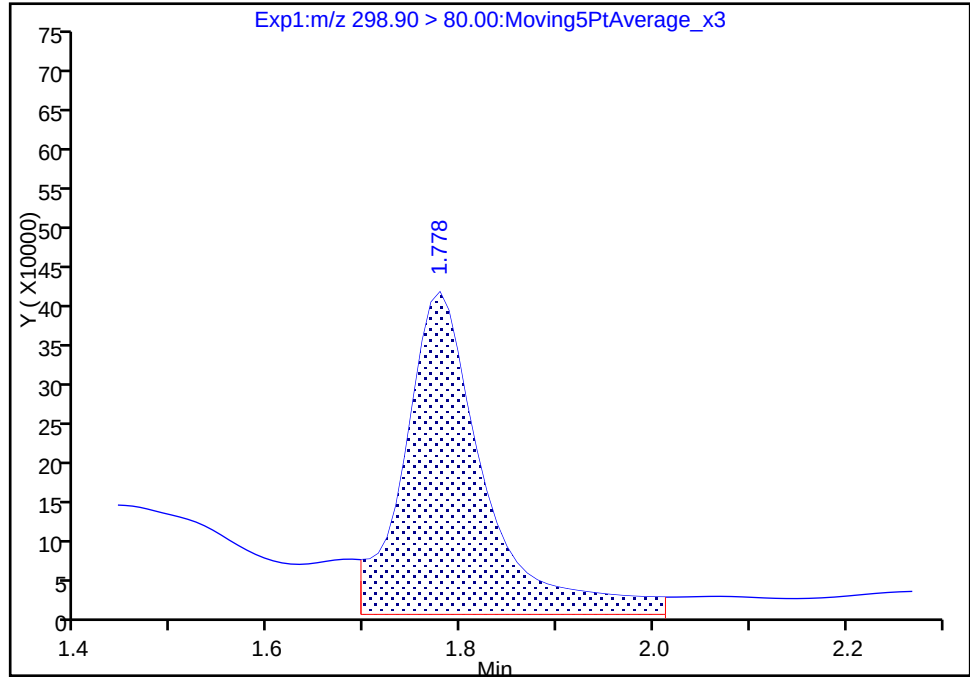
Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\2017.10.20B_046.d
Injection Date: 21-Oct-2017 02:55:01 Instrument ID: A8_N
Lims ID: 480-125692-A-20-A Lab Sample ID: 320-125692-20
Client ID: PUMP CULVERT (TRENCH)
Operator ID: SACINSTLCMS01 ALS Bottle#: 35 Worklist Smp#: 23
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: A8_N Limit Group: LC PFC ICAL
Column: Detector EXP1

5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

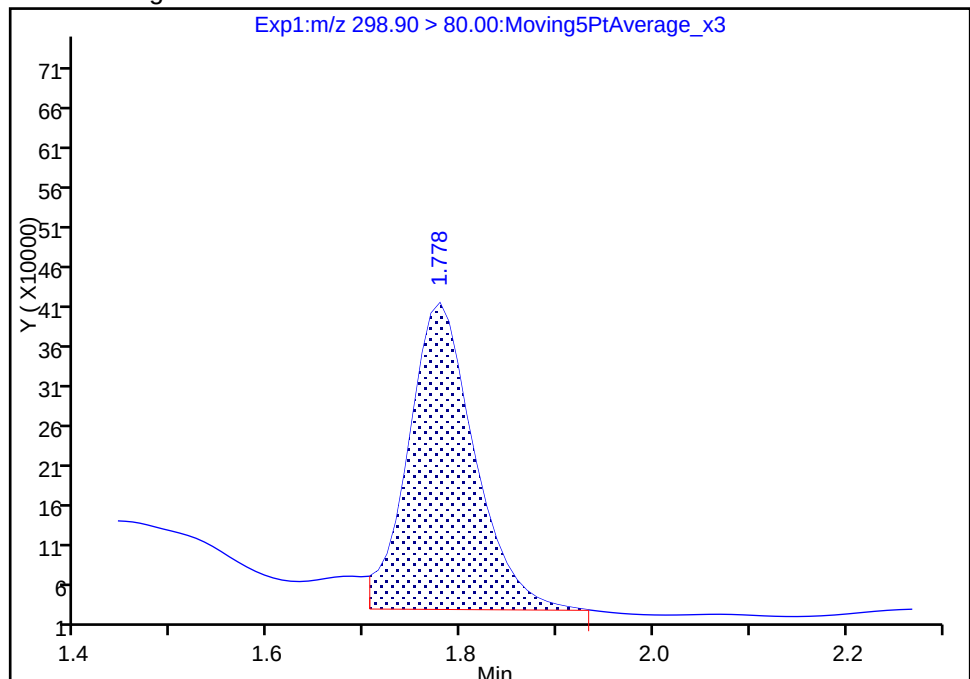
RT: 1.78
Area: 2366674
Amount: 7.540622
Amount Units: ng/ml

Processing Integration Results



RT: 1.78
Area: 1819453
Amount: 5.797084
Amount Units: ng/ml

Manual Integration Results



Reviewer: barnettj, 23-Oct-2017 14:11:56
Audit Action: Manually Integrated

Audit Reason: Baseline
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TestAmerica Sacramento

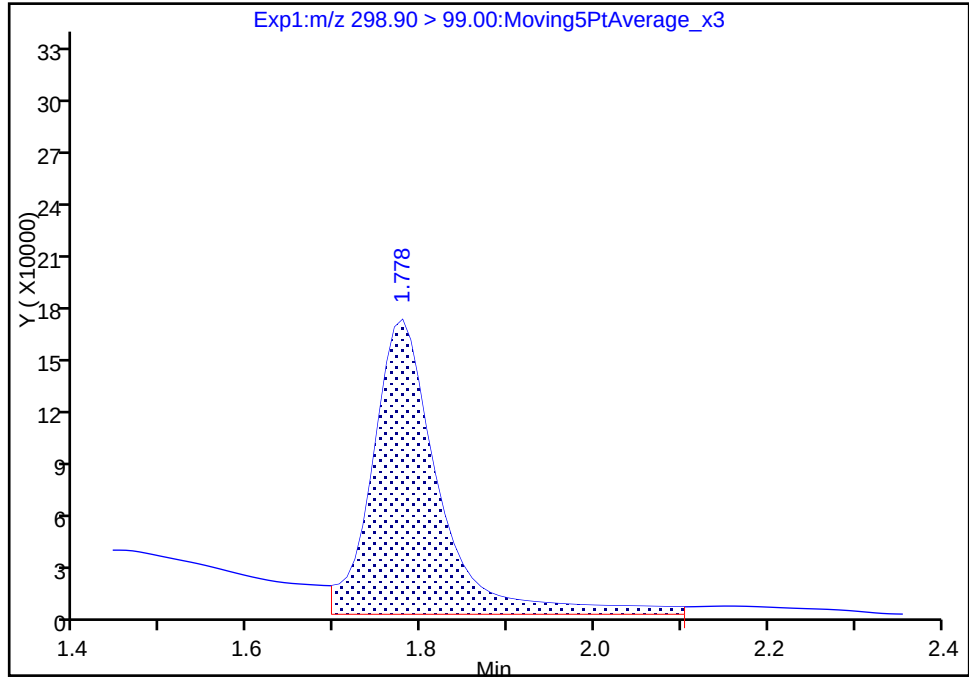
Data File:	\\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\2017.10.20B_046.d				
Injection Date:	21-Oct-2017 02:55:01	Instrument ID:	A8_N		
Lims ID:	480-125692-A-20-A	Lab Sample ID:	320-125692-20		
Client ID:	PUMP CULVERT (TRENCH)				
Operator ID:	SACINSTLCMS01	ALS Bottle#:	35	Worklist Smp#:	23
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	A8_N	Limit Group:	LC PFC ICAL		
Column:		Detector	EXP1		

5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 2

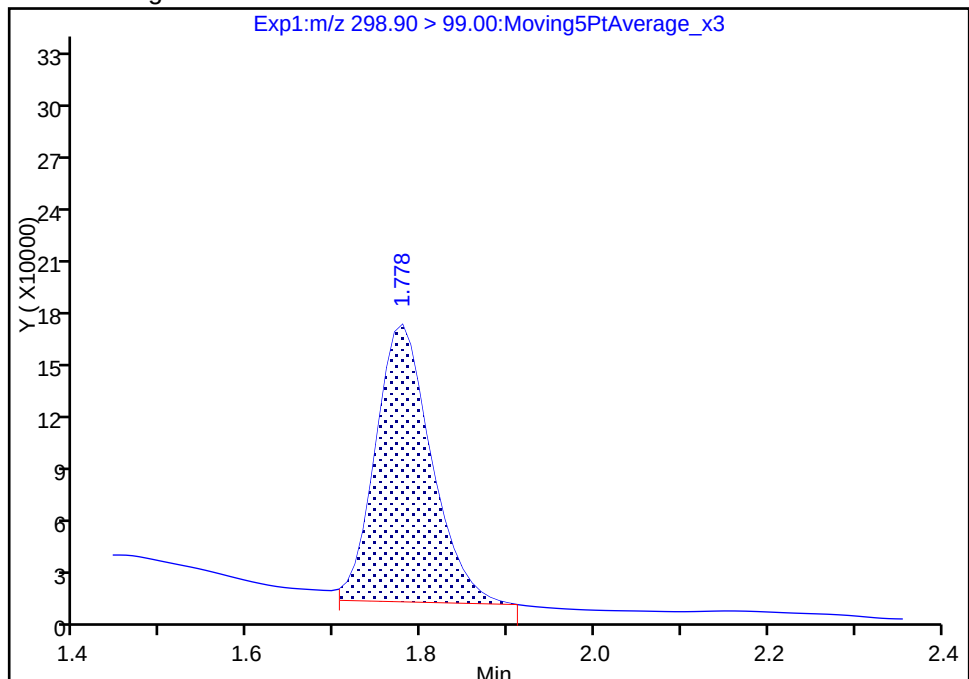
RT: 1.78
Area: 898384
Amount: 7.540622
Amount Units: ng/ml

Processing Integration Results



RT: 1.78
Area: 708269
Amount: 5.797084
Amount Units: ng/ml

Manual Integration Results



Reviewer: barnettj, 23-Oct-2017 14:12:11

Audit Action: Manually Integrated

Audit Reason: Baseline

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 480-125692-1

SDG No.: _____

Client Sample ID: RECIRCULATION TANK (DISCHARGE) Lab Sample ID: 480-125692-21

Matrix: Water Lab File ID: 2017.10.20B_047.d

Analysis Method: 537 (modified) Date Collected: 10/10/2017 13:53

Extraction Method: 3535 Date Extracted: 10/17/2017 08:45

Sample wt/vol: 254.8 (mL) Date Analyzed: 10/21/2017 03:01

Con. Extract Vol.: 0.50 (mL) Dilution Factor: 1

Injection Volume: 2 (uL) GC Column: GeminiC18 3x100 ID: 3 (mm)

% Moisture: _____ GPC Cleanup: (Y/N) N

Analysis Batch No.: 190434 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	53	B	2.0	0.45
2706-90-3	Perfluoropentanoic acid (PFPeA)	45		2.0	0.97
307-24-4	Perfluorohexanoic acid (PFHxA)	43		2.0	0.77
375-85-9	Perfluoroheptanoic acid (PFHpA)	41		2.0	0.79
335-67-1	Perfluorooctanoic acid (PFOA)	92		2.0	0.73
375-95-1	Perfluorononanoic acid (PFNA)	7.1	B	2.0	0.64
335-76-2	Perfluorodecanoic acid (PFDA)	1.5	J B	2.0	0.43
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		2.0	0.73
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		2.0	0.57
72629-94-8	Perfluorotridecanoic Acid (PFTriA)	ND		2.0	0.54
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.22	J B	2.0	0.20
375-73-5	Perfluorobutanesulfonic acid (PFBS)	11		2.0	0.90
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	42		2.0	0.85
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	3.8		2.0	0.70
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	190		2.0	1.3
335-77-3	Perfluorodecanesulfonic acid (PFDS)	ND		2.0	1.2

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00992	13C4 PFBA	21	*	25-150
STL01893	13C5 PFPeA	53		25-150
STL00993	13C2 PFHxA	63		25-150
STL01892	13C4-PFHpA	70		25-150
STL00990	13C4 PFOA	77		25-150
STL00995	13C5 PFNA	82		25-150
STL00996	13C2 PFDA	84		25-150
STL00997	13C2 PFUnA	88		25-150
STL00998	13C2 PFDoA	83		25-150
STL00994	18O2 PFHxS	82		25-150
STL00991	13C4 PFOS	86		25-150

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\2017.10.20B_047.d
 Lims ID: 480-125692-A-21-A
 Client ID: RECIRCULATION TANK (DISCHARGE)
 Sample Type: Client
 Inject. Date: 21-Oct-2017 03:01:55 ALS Bottle#: 36 Worklist Smp#: 24
 Injection Vol: 2.0 ul Dil. Factor: 1.0000
 Sample Info: 480-125692-a-21-a
 Misc. Info.: Plate: 1 Rack: 4
 Operator ID: SACINSTLCMS01 Instrument ID: A8_N
 Method: \\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\A8_N.m
 Limit Group: LC PFC ICAL
 Last Update: 23-Oct-2017 14:17:58 Calib Date: 12-Oct-2017 11:11:26
 Integrator: Picker
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20171012-49071.b\2017.10.12ICAL_010.d

Column 1 : Det: EXP1

Process Host: XAWRK012

First Level Reviewer: barnettj

Date: 23-Oct-2017 14:15:44

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
2 Perfluorobutyric acid										M
212.90 > 169.00	1.554	1.545	0.009	1.000	1933008	26.9			15.6	M
D 1 13C4 PFBA										
217.00 > 172.00	1.554	1.545	0.009		3866807	10.3		20.6	6062	
4 Perfluoropentanoic acid										M
262.90 > 219.00	1.755	1.754	0.001	1.000	3088989	22.8			35.0	M
D 3 13C5-PFPeA										
267.90 > 223.00	1.755	1.754	0.001		6188054	26.3		52.5	4434	
D 47 13C3-PFBS										
301.90 > 83.00	1.773	1.773	0.0		205128	29.9		64.3	260	
5 Perfluorobutanesulfonic acid										M
298.90 > 80.00	1.782	1.782	0.0	1.000	1753268	5.54			48.4	M
298.90 > 99.00	1.782	1.782	0.0	1.000	709818		2.47(0.00-0.00)		61.7	M
6 Perfluorohexanoic acid										M
313.00 > 269.00	2.017	2.017	0.0	1.000	3452262	21.8			69.9	M
D 7 13C2 PFHxA										
315.00 > 270.00	2.017	2.017	0.0		8090223	31.5		63.1	17755	
10 Perfluoroheptanoic acid										
363.00 > 319.00	2.328	2.324	0.004	1.000	3527411	21.0			256	
D 9 13C4-PFHpA										
367.00 > 322.00	2.328	2.324	0.004		8404492	35.2		70.4	13650	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	2.344	2.348	-0.004	1.000	6750608	21.3			529	
D 11 18O2 PFHxS										
403.00 > 84.00	2.344	2.348	-0.004		13879840	38.7		81.9	26335	
* 62 13C2-PFOA										
415.00 > 370.00	2.664	2.671	-0.007		10720583	50.0			20655	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
15 Perfluorooctanoic acid										
413.00 > 369.00	2.671	2.671	0.0	1.000	8761601	47.0			710	
413.00 > 169.00	2.671	2.671	0.0	1.000	5319222		1.65(0.90-1.10)		4996	
D 14 13C4 PFOA										
417.00 > 372.00	2.671	2.671	0.0		8621072	38.4		76.8	17650	
16 Perfluoroheptanesulfonic Acid										
449.00 > 80.00	2.678	2.678	0.0	1.000	507905	1.93			99.8	
17 Perfluorooctane sulfonic acid										
499.00 > 80.00	3.041	3.035	0.006	1.000	21727825	95.3			3619	
499.00 > 99.00	3.033	3.035	-0.002	0.997	3913550		5.55(0.90-1.10)		2760	
20 Perfluorononanoic acid										
463.00 > 419.00	3.041	3.035	0.006	1.000	489993	3.62			93.7	
D 18 13C4 PFOS										
503.00 > 80.00	3.033	3.035	-0.002		10363182	41.1		86.0	5771	
D 19 13C5 PFNA										
468.00 > 423.00	3.033	3.035	-0.002		7047257	41.1		82.2	11073	
24 Perfluorodecanoic acid										
513.00 > 469.00	3.394	3.393	0.001	1.000	85130	0.7486			36.6	
D 23 13C2 PFDA										
515.00 > 470.00	3.394	3.393	0.001		6209201	42.0		84.0	15291	
29 Perfluorodecane Sulfonic acid										
599.00 > 80.00	3.710	3.710	0.0	1.000	3027	0.0232			10.0	
31 Perfluoroundecanoic acid										
563.00 > 519.00	3.719	3.720	-0.001	1.000	20887	0.2258			11.2	
D 30 13C2 PFUnA										
565.00 > 520.00	3.729	3.720	0.009		4288733	44.0		88.1	8529	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.025	4.014	0.011	1.000	5562	0.0800			5.4	
D 36 13C2 PFDaA										
615.00 > 570.00	4.018	4.014	0.004		3803716	41.6		83.3	12799	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.284	4.279	0.005	1.000	8994	0.1329			1.9	
42 Perfluorotetradecanoic acid										
713.00 > 169.00	4.517	4.505	0.012	1.000	2172	0.1131			50.4	
713.00 > 219.00	4.526	4.505	0.021	1.002	2172		1.00(0.00-0.00)		34.8	
D 43 13C2-PFTeDA										
715.00 > 670.00	4.517	4.514	0.003		4086290	51.0		102	11233	

QC Flag Legend

Review Flags

M - Manually Integrated

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\2017.10.20B_047.d

Injection Date: 21-Oct-2017 03:01:55

Instrument ID: A8_N

Lims ID: 480-125692-A-21-A

Lab Sample ID: 320-125692-21

Client ID: RECIRCULATION TANK (DISCHARGE)

Operator ID: SACINSTLCMS01

ALS Bottle#: 36

Worklist Smp#: 24

Injection Vol: 2.0 ul

Dil. Factor: 1.0000

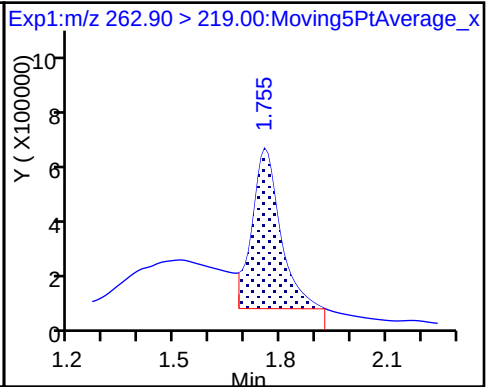
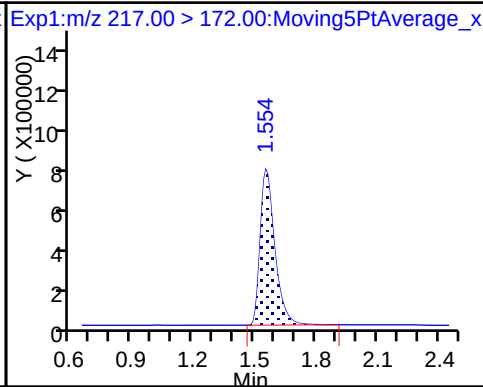
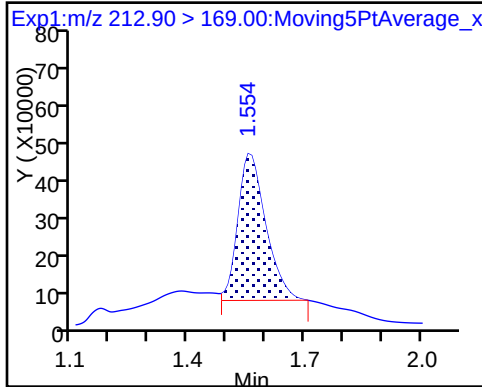
Method: A8_N

Limit Group: LC PFC ICAL

2 Perfluorobutyric acid (M)

D 1 13C4 PFBA

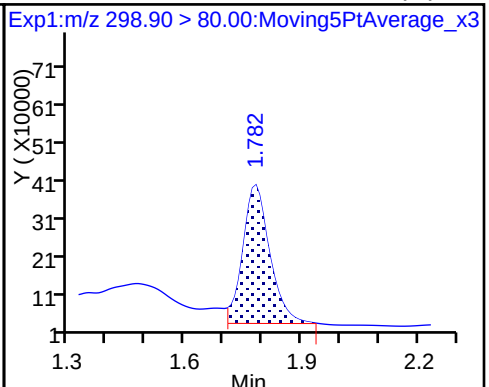
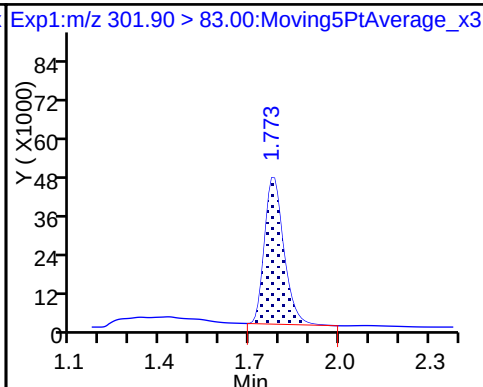
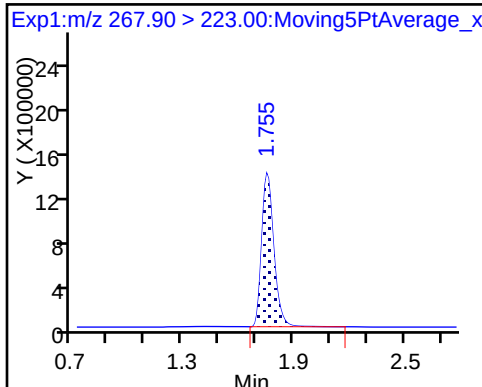
4 Perfluoropentanoic acid (M)



D 3 13C5-PFPeA

D 47 13C3-PFBS

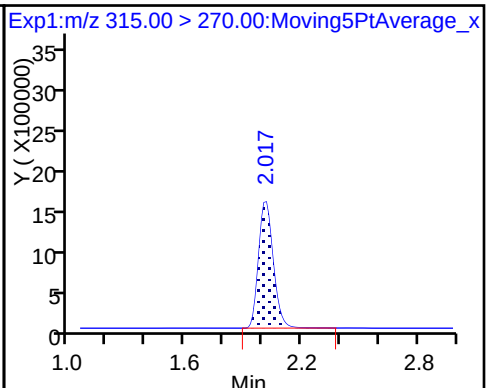
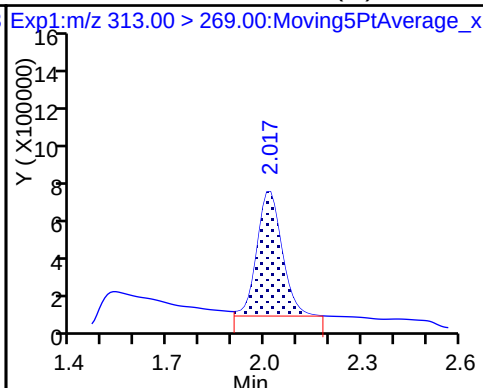
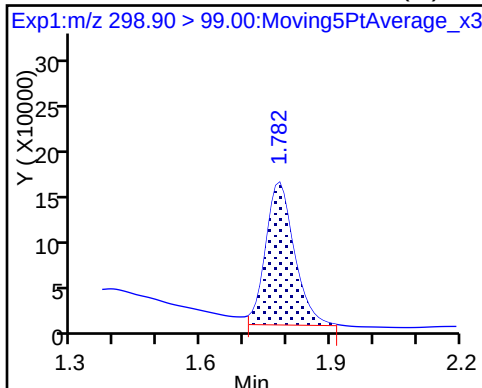
5 Perfluorobutanesulfonic acid (M)



5 Perfluorobutanesulfonic acid (M)

6 Perfluorohexanoic acid (M)

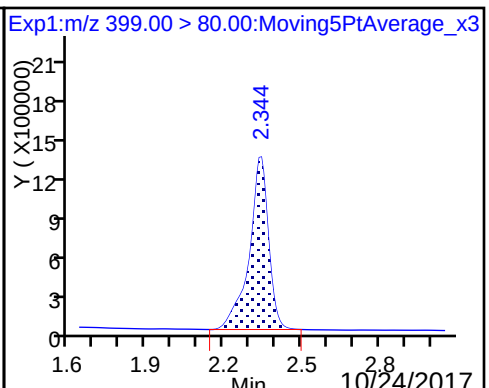
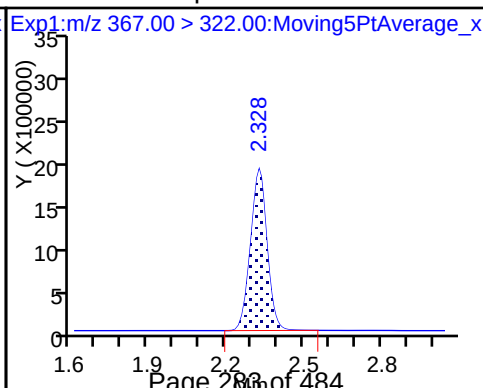
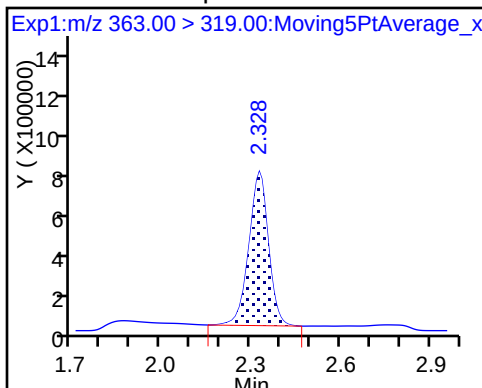
D 7 13C2 PFHxA



10 Perfluoroheptanoic acid

D 9 13C4-PFHpA

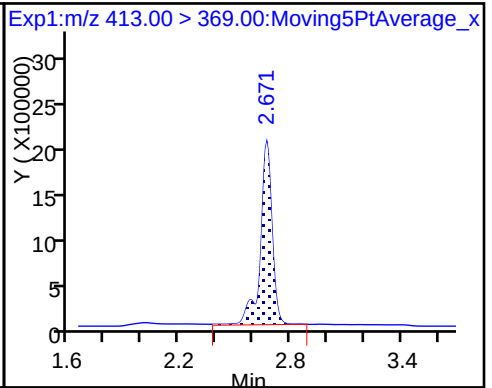
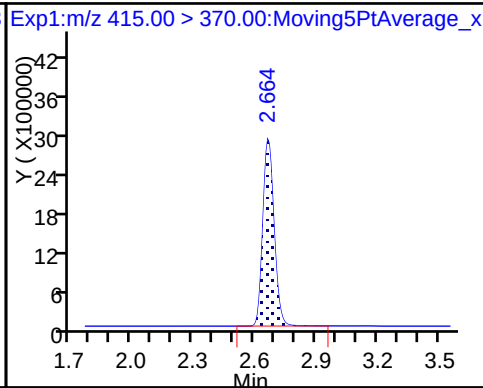
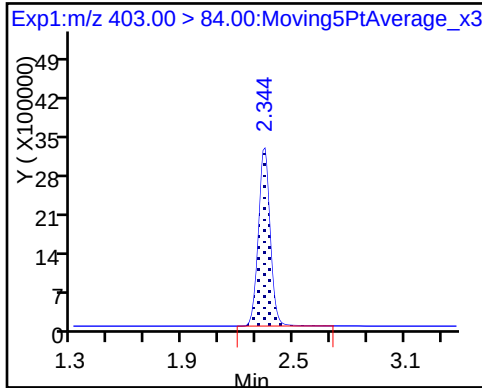
8 Perfluorohexanesulfonic acid



D 11 18O2 PFHxS

* 62 13C2-PFOA

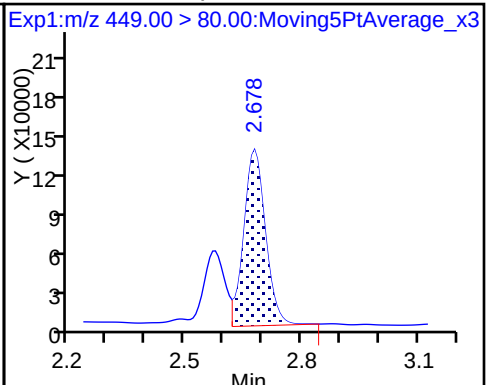
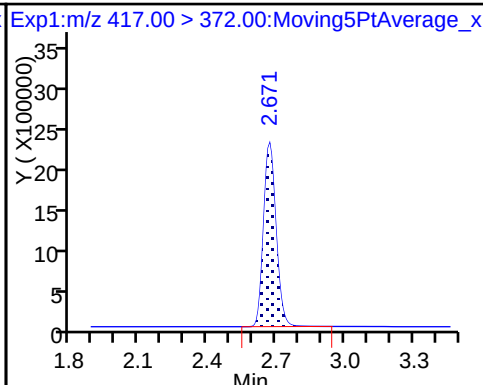
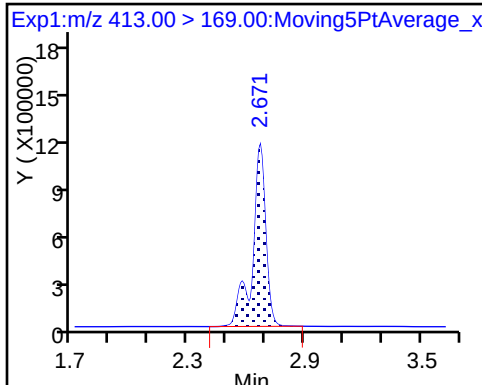
15 Perfluorooctanoic acid



15 Perfluorooctanoic acid

D 14 13C4 PFOA

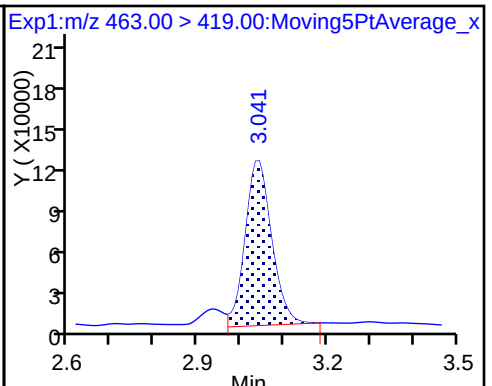
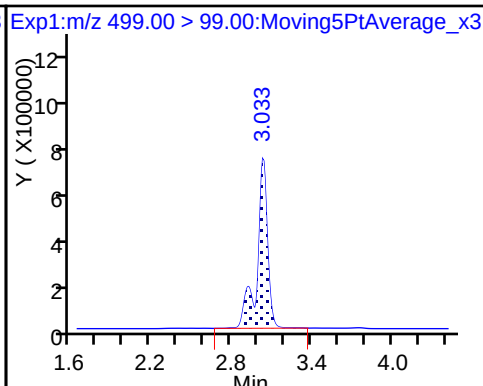
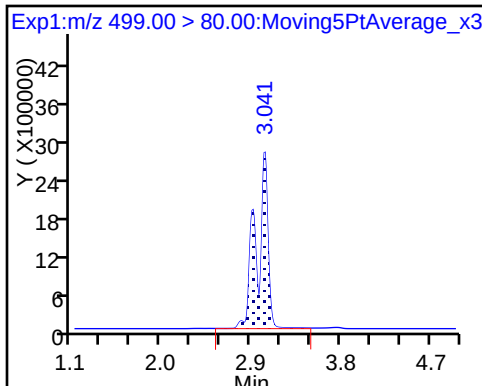
16 Perfluoroheptanesulfonic Acid



17 Perfluorooctane sulfonic acid

17 Perfluorooctane sulfonic acid

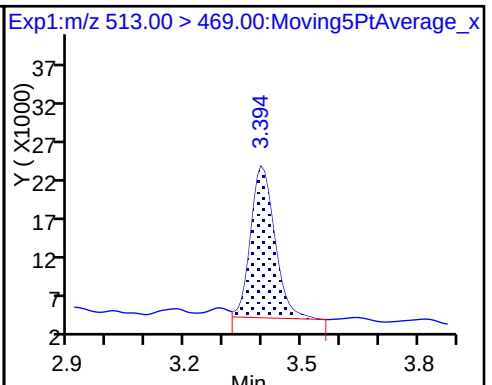
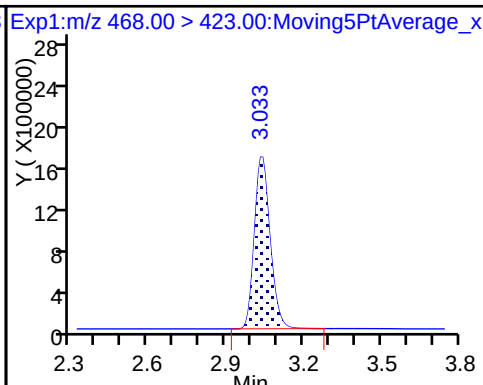
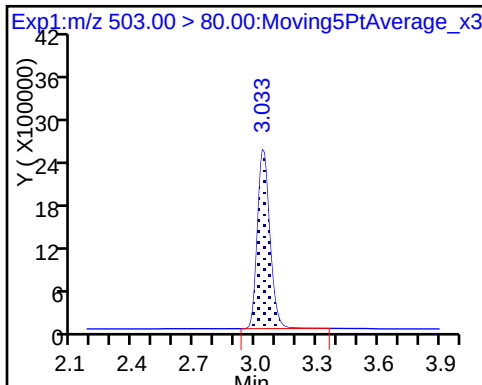
20 Perfluorononanoic acid



D 18 13C4 PFOS

D 19 13C5 PFNA

24 Perfluorodecanoic acid

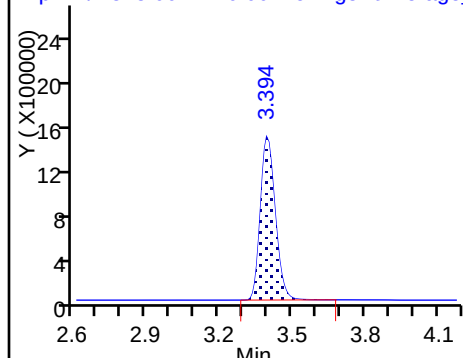


D 23 13C2 PFDA

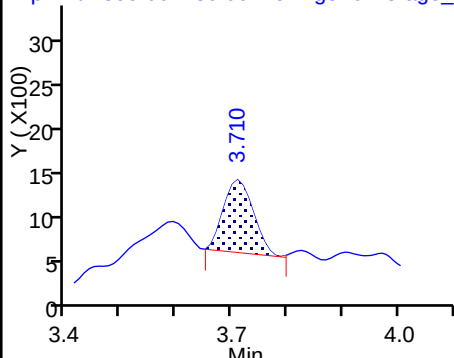
29 Perfluorodecane Sulfonic acid

31 Perfluoroundecanoic acid

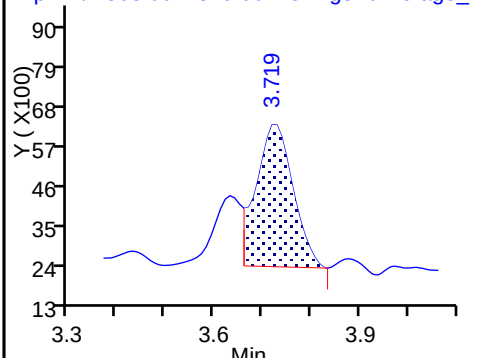
Exp1:m/z 515.00 > 470.00:Moving5PtAverage_x



Exp1:m/z 599.00 > 80.00:Moving5PtAverage_x3



Exp1:m/z 563.00 > 519.00:Moving5PtAverage_x

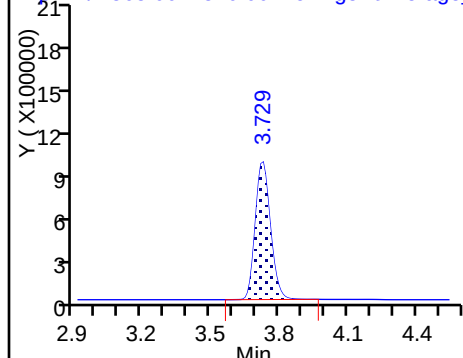


D 30 13C2 PFUnA

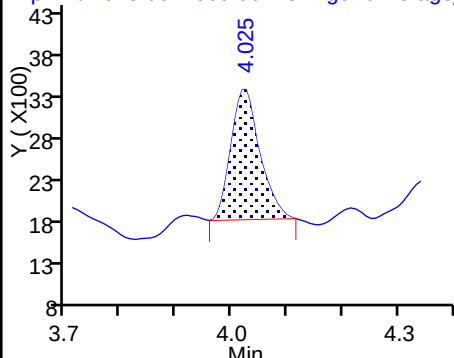
37 Perfluorododecanoic acid

D 36 13C2 PFDaA

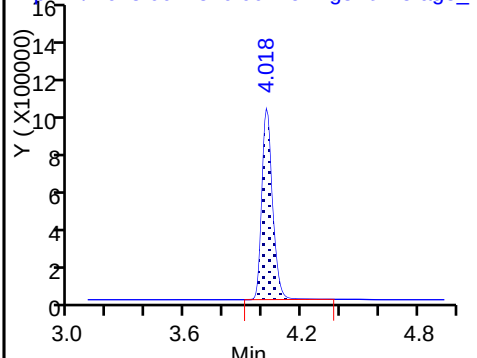
Exp1:m/z 565.00 > 520.00:Moving5PtAverage_x



Exp1:m/z 613.00 > 569.00:Moving5PtAverage_x



Exp1:m/z 615.00 > 570.00:Moving5PtAverage_x

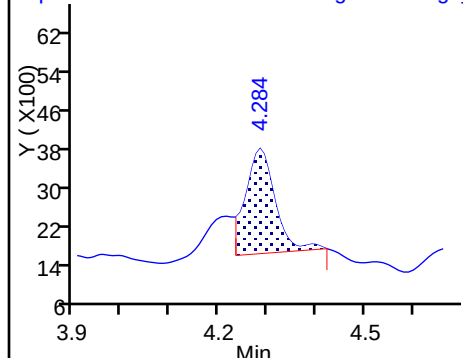


41 Perfluorotridecanoic acid

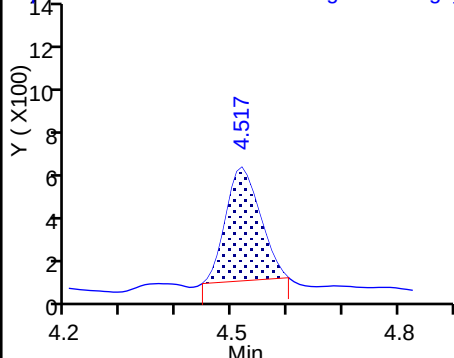
42 Perfluorotetradecanoic acid

42 Perfluorotetradecanoic acid

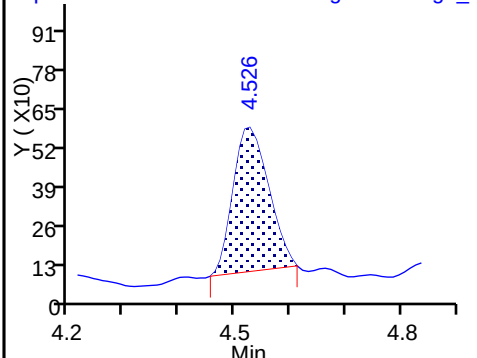
Exp1:m/z 663.00 > 619.00:Moving5PtAverage_x



Exp1:m/z 713.00 > 169.00:Moving5PtAverage_x

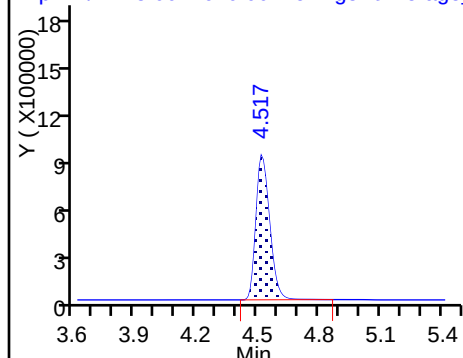


Exp1:m/z 713.00 > 219.00:Moving5PtAverage_x



D 43 13C2-PFTeDA

Exp1:m/z 715.00 > 670.00:Moving5PtAverage_x



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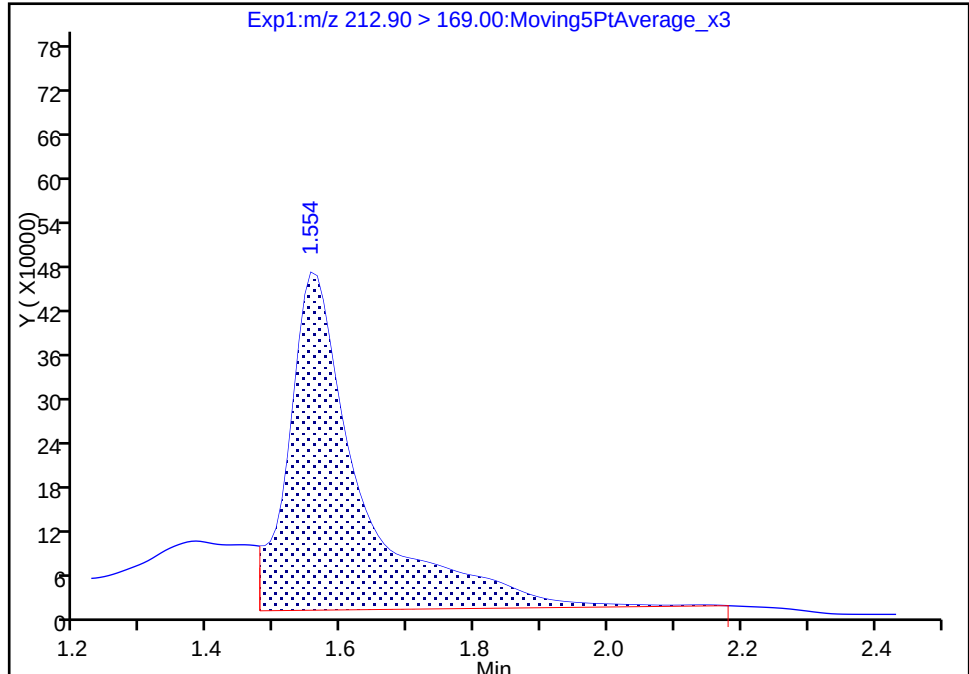
Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\2017.10.20B_047.d
Injection Date: 21-Oct-2017 03:01:55 Instrument ID: A8_N
Lims ID: 480-125692-A-21-A Lab Sample ID: 320-125692-21
Client ID: RECIRCULATION TANK (DISCHARGE)
Operator ID: SACINSTLCMS01 ALS Bottle#: 36 Worklist Smp#: 24
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: A8_N Limit Group: LC PFC ICAL
Column: Detector EXP1

2 Perfluorobutyric acid, CAS: 375-22-4

Signal: 1

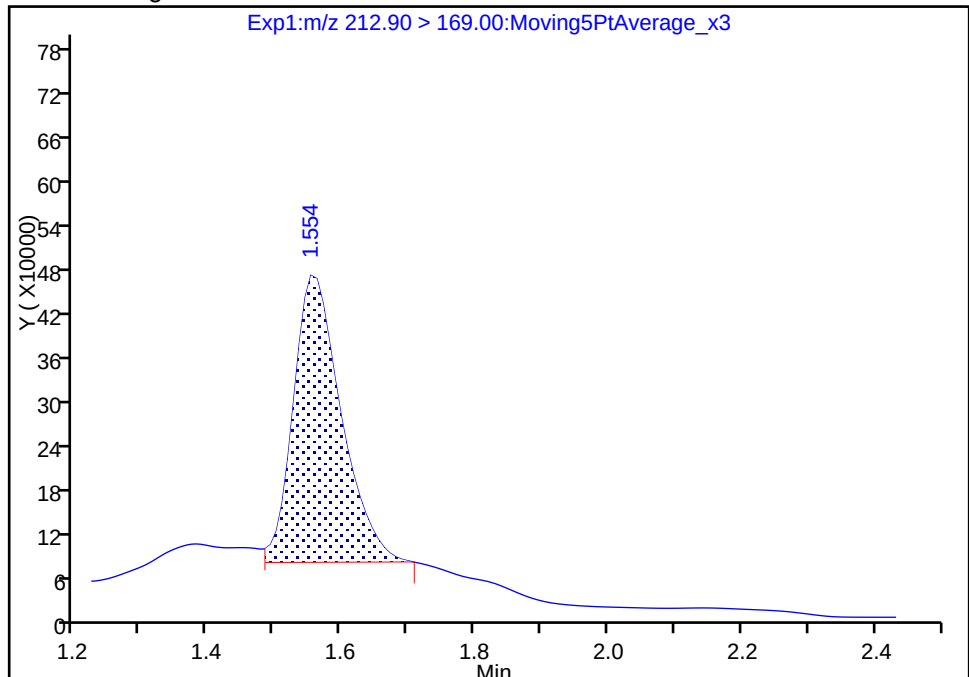
RT: 1.55
Area: 3440019
Amount: 47.800861
Amount Units: ng/ml

Processing Integration Results



RT: 1.55
Area: 1933008
Amount: 26.860156
Amount Units: ng/ml

Manual Integration Results



Reviewer: barnettj, 23-Oct-2017 14:14:04
Audit Action: Manually Integrated

Audit Reason: Baseline
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TestAmerica Sacramento

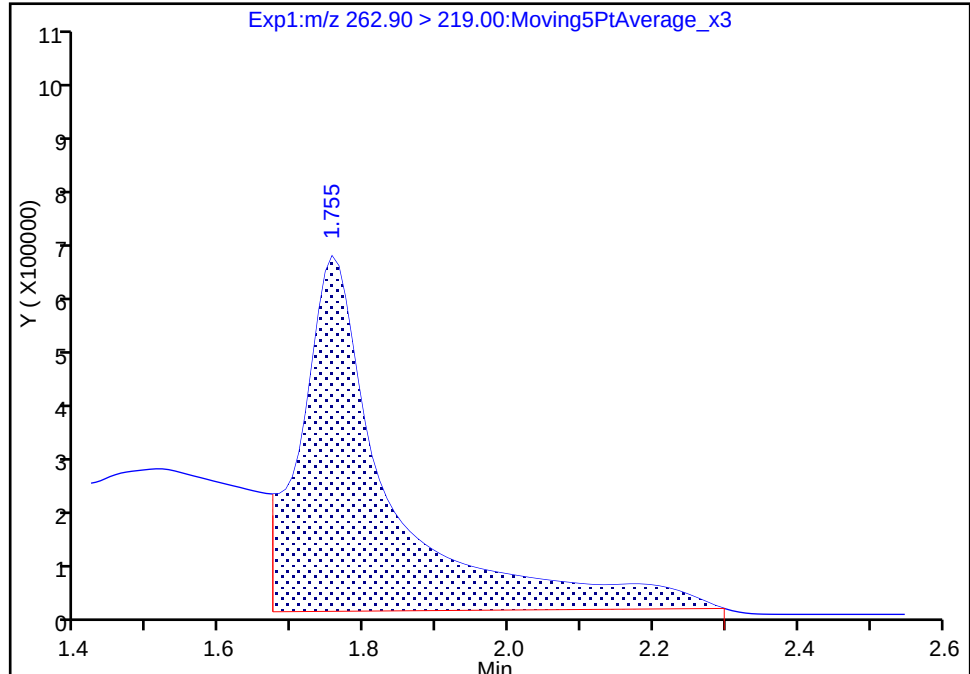
Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\2017.10.20B_047.d
Injection Date: 21-Oct-2017 03:01:55 Instrument ID: A8_N
Lims ID: 480-125692-A-21-A Lab Sample ID: 320-125692-21
Client ID: RECIRCULATION TANK (DISCHARGE)
Operator ID: SACINSTLCMS01 ALS Bottle#: 36 Worklist Smp#: 24
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: A8_N Limit Group: LC PFC ICAL
Column: Detector EXP1

4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

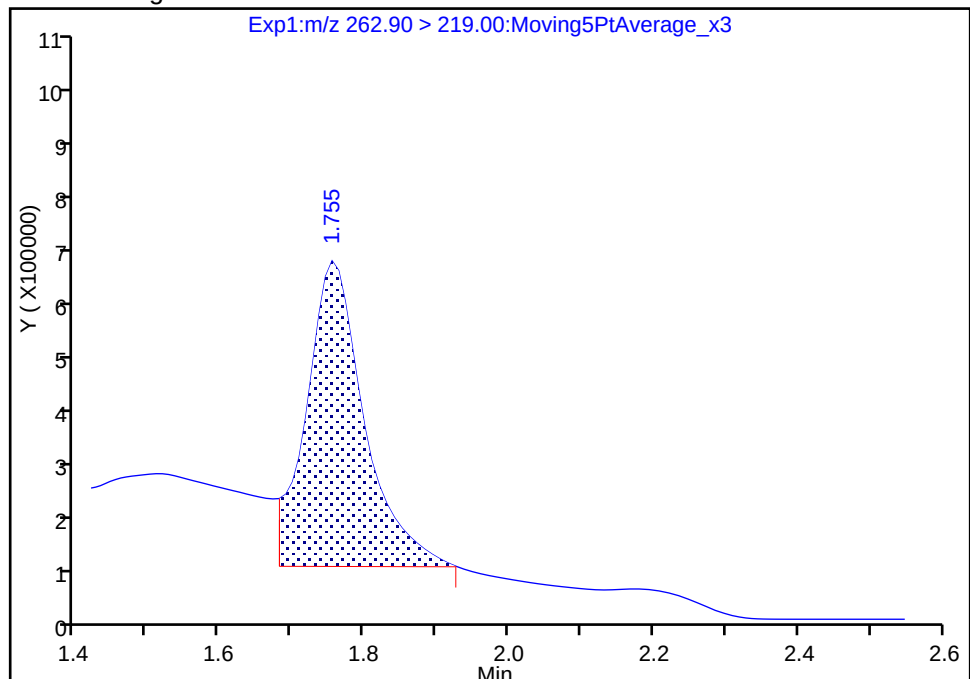
RT: 1.75
Area: 5610714
Amount: 41.453058
Amount Units: ng/ml

Processing Integration Results



RT: 1.75
Area: 3088989
Amount: 22.822058
Amount Units: ng/ml

Manual Integration Results



Reviewer: barnettj, 23-Oct-2017 14:14:17

Audit Action: Manually Integrated

Audit Reason: Baseline

TestAmerica Sacramento

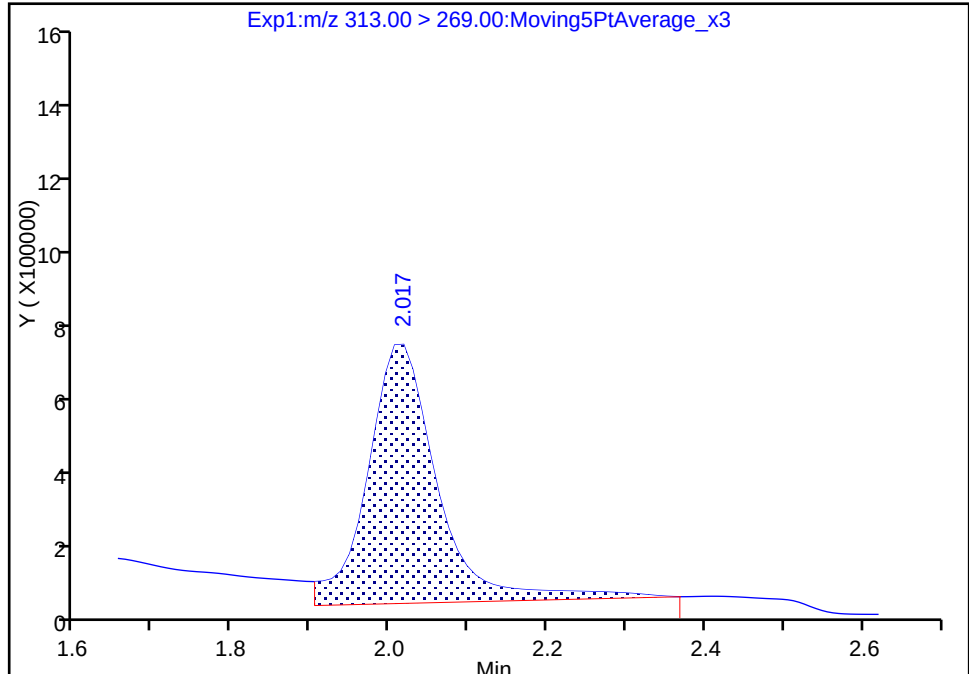
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Injection Date: 21-Oct-2017 03:01:55 Instrument ID: A8_N
Lims ID: 480-125692-A-21-A Lab Sample ID: 320-125692-21
Client ID: RECIRCULATION TANK (DISCHARGE)
Operator ID: SACINSTLCMS01 ALS Bottle#: 36 Worklist Smp#: 24
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: A8_N Limit Group: LC PFC ICAL
Column: Detector EXP1

6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

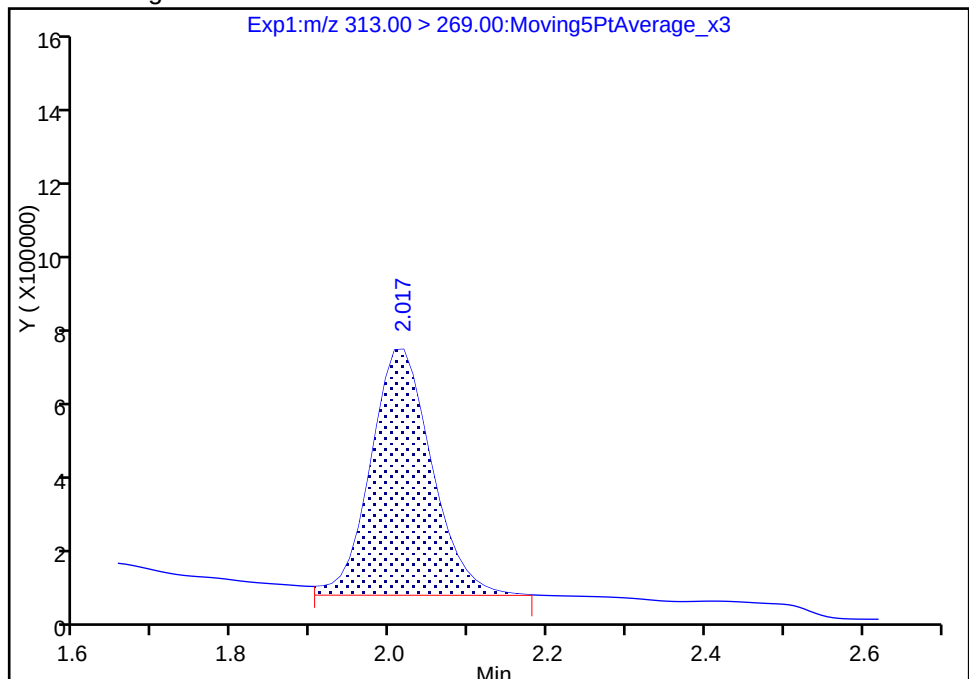
RT: 2.02
Area: 4161281
Amount: 26.252392
Amount Units: ng/ml

Processing Integration Results



RT: 2.02
Area: 3452262
Amount: 21.779383
Amount Units: ng/ml

Manual Integration Results



Reviewer: barnettj, 23-Oct-2017 14:15:02
Audit Action: Manually Integrated

Audit Reason: Baseline
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TestAmerica Sacramento

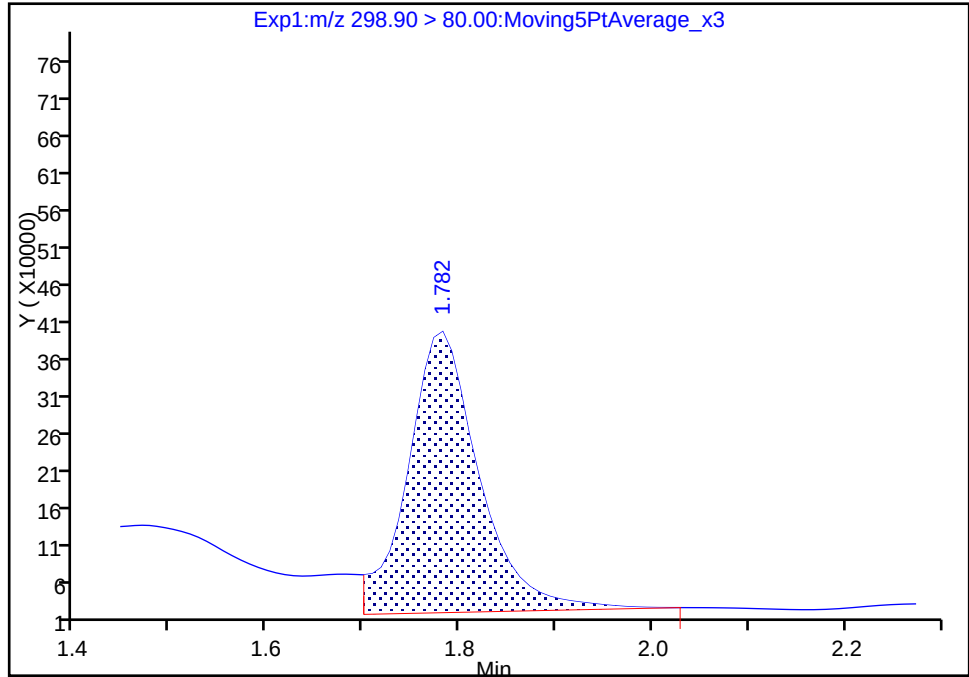
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Injection Date: 21-Oct-2017 03:01:55 Instrument ID: A8_N
Lims ID: 480-125692-A-21-A Lab Sample ID: 320-125692-21
Client ID: RECIRCULATION TANK (DISCHARGE)
Operator ID: SACINSTLCMS01 ALS Bottle#: 36 Worklist Smp#: 24
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: A8_N Limit Group: LC PFC ICAL
Column: Detector EXP1

5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

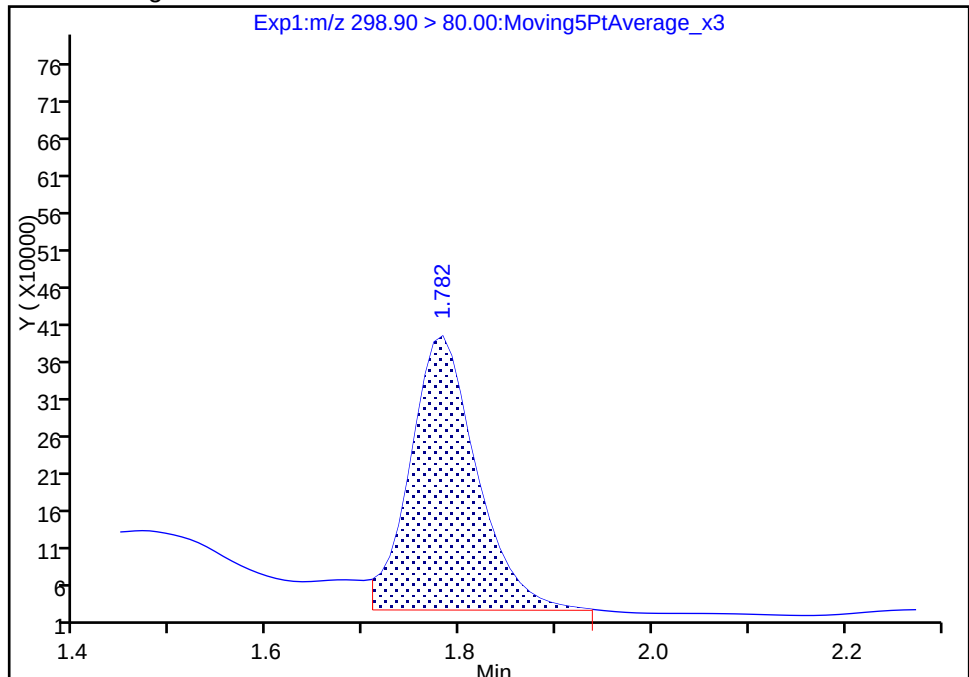
RT: 1.78
Area: 1935131
Amount: 6.116028
Amount Units: ng/ml

Processing Integration Results



RT: 1.78
Area: 1753268
Amount: 5.541246
Amount Units: ng/ml

Manual Integration Results



Reviewer: barnettj, 23-Oct-2017 14:14:28
Audit Action: Manually Integrated

Audit Reason: Baseline
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TestAmerica Sacramento

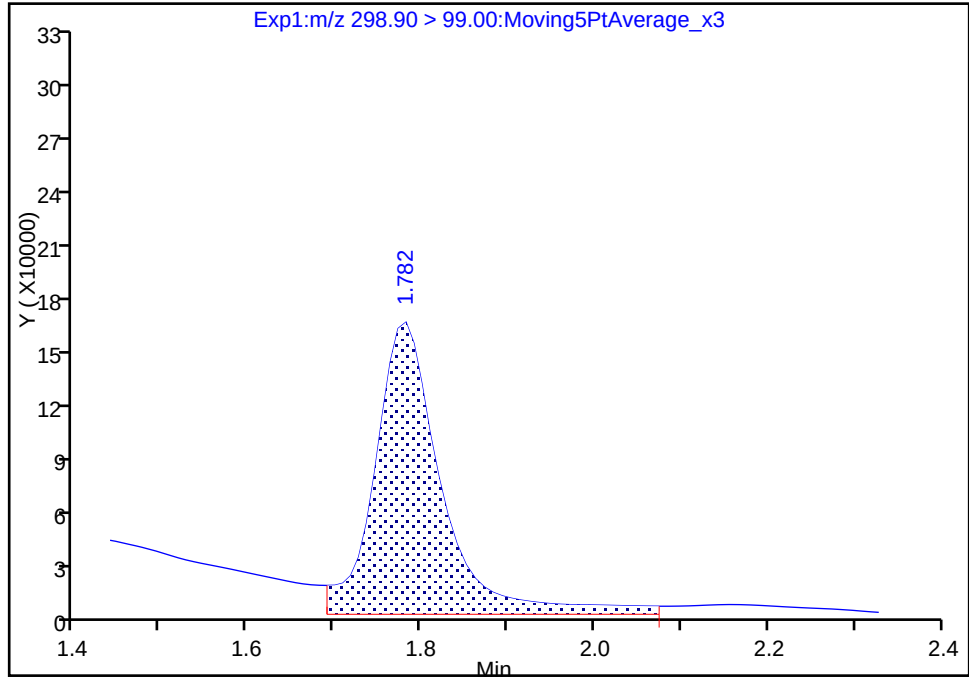
Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\2017.10.20B_047.d
Injection Date: 21-Oct-2017 03:01:55 Instrument ID: A8_N
Lims ID: 480-125692-A-21-A Lab Sample ID: 320-125692-21
Client ID: RECIRCULATION TANK (DISCHARGE)
Operator ID: SACINSTLCMS01 ALS Bottle#: 36 Worklist Smp#: 24
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: A8_N Limit Group: LC PFC ICAL
Column: Detector EXP1

5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 2

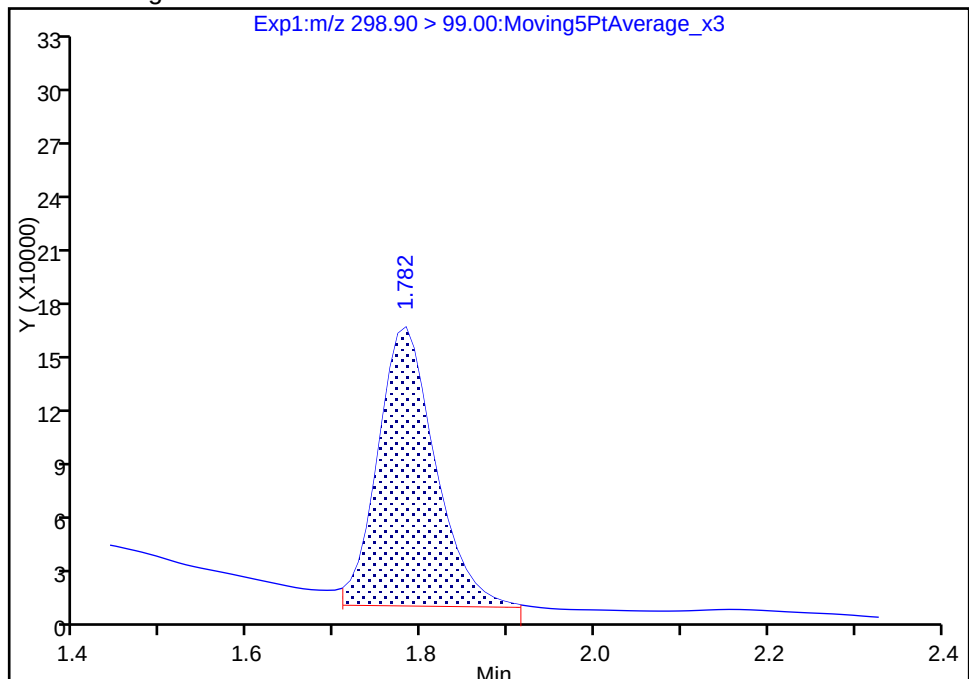
RT: 1.78
Area: 867295
Amount: 6.116028
Amount Units: ng/ml

Processing Integration Results



RT: 1.78
Area: 709818
Amount: 5.541246
Amount Units: ng/ml

Manual Integration Results



Reviewer: barnettj, 23-Oct-2017 14:14:48

Audit Action: Manually Integrated

Audit Reason: Baseline

FORM VI
LCMS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 480-125692-1 Analy Batch No.: 189059

SDG No.: _____

Instrument ID: A8_N GC Column: GeminiC18 3 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/12/2017 10:23 Calibration End Date: 10/12/2017 11:11 Calibration ID: 35185

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 320-189059/3	2017.10.12ICAL_003.d
Level 2	IC 320-189059/4	2017.10.12ICAL_004.d
Level 3	IC 320-189059/5	2017.10.12ICAL_005.d
Level 4	IC 320-189059/6	2017.10.12ICAL_006.d
Level 5	IC 320-189059/10	2017.10.12ICAL_010.d
Level 6	IC 320-189059/7	2017.10.12ICAL_007.d
Level 7	IC 320-189059/8	2017.10.12ICAL_008.d
Level 8	IC 320-189059/9	2017.10.12ICAL_009.d

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8			RT WINDOW	AVG RT
Perfluorobutanoic acid (PFBA)	1.551	1.546	1.556	1.554		1.545	1.554	1.550			1.301 - 1.801	1.551
Perfluoropentanoic acid (PFPeA)	1.760	1.755	1.757	1.755		1.755	1.764	1.751			1.507 - 2.007	1.757
Perfluorobutanesulfonic acid (PFBS)	1.787	1.782	1.784	1.782		1.773	1.782	++++			1.601 - 1.961	1.782
4:2 FTS	1.990	1.983	1.986	1.983		1.983	1.983	1.978			1.734 - 2.234	1.984
Perfluorohexanoic acid (PFHxA)	2.024	2.018	2.032	2.029		2.017	2.029	2.012			1.773 - 2.273	2.023
Perfluoroheptanoic acid (PFHpA)	2.358	2.350	2.350	2.352		2.345	2.350	2.333			2.098 - 2.598	2.348
Perfluorohexanesulfonic acid (PFHxS)	++++	2.358	2.368	2.360		2.353	2.361	2.345			2.109 - 2.609	2.358
6:2FTS	++++	2.674	2.676	2.672		2.668	2.672	2.656			2.421 - 2.921	2.670
Perfluorooctanoic acid (PFOA)	2.710	2.703	2.704	2.701		2.697	2.694	2.685			2.449 - 2.949	2.699
Perfluoroheptanesulfonic Acid (PFHpS)	2.718	2.710	2.712	2.708		2.704	2.701	2.693			2.457 - 2.957	2.707
Perfluorononanoic acid (PFNA)	3.090	3.080	3.073	3.074		3.067	3.066	3.054			2.822 - 3.322	3.072
Perfluorooctanesulfonic acid (PFOS)	3.090	3.080	3.073	3.074		3.067	3.066	3.054			2.822 - 3.322	3.072
Perfluorooctane Sulfonamide (FOSA)	3.392	3.389	3.391	3.396		3.392	3.392	++++			3.141 - 3.641	3.392
8:2FTS	++++	3.433	3.428	3.424		3.419	3.420	3.412			3.175 - 3.675	3.423
Perfluorodecanoic acid (PFDA)	3.454	3.442	3.444	3.433		3.428	3.429	3.421			3.186 - 3.686	3.436
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)	3.610	3.607	3.599	3.600		3.586	3.587	3.577			3.345 - 3.845	3.595
Perfluorodecanesulfonic acid (PFDS)	3.767	3.753	3.756	3.747		3.744	3.745	3.735			3.500 - 4.000	3.750
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)	3.787	3.773	3.776	3.767		3.763	3.764	3.745			3.518 - 4.018	3.768
Perfluoroundecanoic acid (PFUnA)	3.787	3.773	3.776	3.767		3.763	3.764	3.755			3.519 - 4.019	3.769
MeFOSA	3.886	3.881	3.893	3.887		3.884	3.888	3.878			3.635 - 4.135	3.885
Perfluorododecanoic acid (PFDoA)	4.081	4.074	4.069	4.062		4.053	4.060	4.039			3.813 - 4.313	4.063
N-EtFOSA-M	4.072	4.074	4.079	4.080		4.071	4.079	4.074			3.825 - 4.325	4.076
Perfluorotridecanoic Acid (PFTriA)	4.356	4.337	4.337	4.336		4.322	4.325	4.310			4.082 - 4.582	4.332
Perfluorotetradecanoic acid (PFTeA)	4.593	4.580	4.580	4.575		4.560	4.563	4.539			4.320 - 4.820	4.570
Perfluoro-n-hexadecanoic acid (PFHxDA)	++++	5.007	5.008	5.003		4.983	4.989	4.977			4.749 - 5.249	4.995
Perfluoro-n-octadecanoic acid (PFODA)	5.398	5.379	5.373	5.360		5.352	5.349	5.334			5.114 - 5.614	5.364
13C4 PFBA	1.551	1.546	1.547	1.554		1.545	1.554	1.542			1.298 - 1.798	1.548
13C5 PFPeA	1.760	1.755	1.757	1.755		1.755	1.755	1.751			1.505 - 2.005	1.755
13C3-PFBS	1.778	1.773	1.784	1.782		1.773	1.782	1.769			1.677 - 1.877	1.777
M2-4:2FTS					1.983						1.883 - 2.083	1.983
13C2 PFHxA	2.024	2.018	2.032	2.029		2.017	2.029	2.012			1.773 - 2.273	2.023

FORM VI
LCMS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 480-125692-1 Analy Batch No.: 189059
SDG No.: _____
Instrument ID: A8_N GC Column: GeminiC18 3 ID: 3(mm) Heated Purge: (Y/N) N
Calibration Start Date: 10/12/2017 10:23 Calibration End Date: 10/12/2017 11:11 Calibration ID: 35185

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8			RT WINDOW	AVG RT
13C4-PFHpa	2.358	2.350	2.350	2.352		2.345	2.350	2.333			2.098 - 2.598	2.348
18O2 PFHxS	2.366	2.358	2.368	2.360		2.353	2.361	2.345			2.109 - 2.609	2.359
M2-6:2FTS	+++++	2.674	2.676	2.672		2.668	2.665	2.656			2.420 - 2.920	2.669
13C4 PFOA	2.710	2.703	2.704	2.701		2.697	2.694	2.685			2.449 - 2.949	2.699
13C4 PFOS	3.090	3.080	3.073	3.074		3.067	3.066	3.054			2.822 - 3.322	3.072
13C5 PFNA	3.090	3.080	3.073	3.074		3.067	3.066	3.054			2.822 - 3.322	3.072
13C8 FOSA	3.392	3.389	3.391	3.388		3.392	3.392	3.377			3.139 - 3.639	3.389
M2-8:2FTS	+++++	3.433	3.428	3.424		3.419	3.420	3.403			3.173 - 3.673	3.421
13C2 PFDA	3.454	3.442	3.444	3.433		3.428	3.429	3.421			3.186 - 3.686	3.436
d3-NMeFOSAA	3.610	3.596	3.599	3.589		3.586	3.587	3.577			3.342 - 3.842	3.592
d5-NEtFOSAA	3.777	3.763	3.766	3.757		3.753	3.755	3.745			3.509 - 4.009	3.759
13C2 PFUnA	3.787	3.773	3.776	3.767		3.763	3.764	3.745			3.518 - 4.018	3.768
d-N-MeFOSA-M	3.877	3.881	3.884	3.887		3.875	3.888	3.878			3.631 - 4.131	3.881
13C2 PFDoA	4.081	4.074	4.069	4.062		4.053	4.060	4.039			3.813 - 4.313	4.063
d-N-EtFOSA-M	4.062	4.064	4.069	4.071		4.062	4.069	4.065			3.816 - 4.316	4.066
13C2-PFTeDA	4.593	4.590	4.580	4.575		4.572	4.563	4.552			4.325 - 4.825	4.575
13C2-PFHxDA	5.020	5.007	5.008	4.993		4.983	4.989	4.977			4.747 - 5.247	4.997

FORM VI
LCMS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Sacramento Job No.: 480-125692-1 Analy Batch No.: 189059

SDG No.: _____

Instrument ID: A8_N GC Column: GeminiC18 3 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/12/2017 10:23 Calibration End Date: 10/12/2017 11:11 Calibration ID: 35185

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 320-189059/3	2017.10.12ICAL_003.d
Level 2	IC 320-189059/4	2017.10.12ICAL_004.d
Level 3	IC 320-189059/5	2017.10.12ICAL_005.d
Level 4	IC 320-189059/6	2017.10.12ICAL_006.d
Level 5	IC 320-189059/10	2017.10.12ICAL_010.d
Level 6	IC 320-189059/7	2017.10.12ICAL_007.d
Level 7	IC 320-189059/8	2017.10.12ICAL_008.d
Level 8	IC 320-189059/9	2017.10.12ICAL_009.d

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
13C4 PFBA	475632	346031 338386	449970 347936	335246 335376	Ave		375511.051				16.1		50.0			
13C5 PFPeA	308237	221400 208663	291979 215516	209796 194233	Ave		235689.120				19.1		50.0			
13C3-PFBS	8983.8	6224.8 5852.9	8633.0 6343.3	5950.2 6036.9	Ave		6860.70968				19.6		50.0			
M2-4:2FTS	84133				Ave		84132.9764						50.0			
13C2 PFHxA	330273	237503 229643	314907 237375	225309 220122	Ave		256447.340				17.9		50.0			
13C4-PFHpA	310288	231191 219398	301505 207040	222699 179614	Ave		238819.297				20.4		50.0			
18O2 PFHxS	438244	330297 344735	422848 340494	321359 311526	Ave		358500.356				14.1		50.0			
M2-6:2FTS	+++++	93373 83745	117116 80074	84623 72516	Ave		88574.4632				17.5		50.0			
13C4 PFOA	282654	226355 209777	278991 190233	210483 173533	Ave		224575.074				18.7		50.0			
13C4 PFOS	319823	230325 221115	312317 235045	215493 231266	Ave		252197.699				17.5		50.0			
13C5 PFNA	224383	163785 149578	218065 153379	150317 141003	Ave		171501.357				20.2		50.0			
13C8 FOSA	437261	328356 326755	435727 341799	316660 333169	Ave		359961.066				14.7		50.0			
M2-8:2FTS	+++++	69725 63375	95295 64663	64746 55748	Ave		68925.1253				19.9		50.0			
13C2 PFDA	195643	135807 128930	190831 135099	125523 123186	Ave		147859.769				21.2		50.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
LCMS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Sacramento Job No.: 480-125692-1 Analy Batch No.: 189059
SDG No.: _____
Instrument ID: A8_N GC Column: GeminiC18 3 ID: 3(mm) Heated Purge: (Y/N) N
Calibration Start Date: 10/12/2017 10:23 Calibration End Date: 10/12/2017 11:11 Calibration ID: 35185

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
d3-NMeFOSAA	59161	42519 41811	59734 43566	39165 46246	Ave		47457.2943				17.8		50.0			
d5-NEtFOSAA	61522	41254 39937	58641 42257	40358 40070	Ave		46291.5257				20.5		50.0			
13C2 PFUnA	132564	87646 86668	125004 83707	82206 83806	Ave		97371.8543				22.2		50.0			
d-N-MeFOSA-M	97951	75381 81394	101897 89705	73715 90311	Ave		87193.3686				12.4		50.0			
13C2 PFDoA	118384	79422 78616	115036 87081	75340 85502	Ave		91340.0914				19.5		50.0			
d-N-EtFOSA-M	90009	69677 71494	92954 79736	67361 81054	Ave		78897.8200				12.7		50.0			
13C2-PFTeDA	106415	76234 72330	99479 68526	67258 70350	Ave		80084.5914				20.0		50.0			
13C2-PFHxDA	132367	99667 95062	134182 99110	94475 98940	Ave		107686.031				16.3		50.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
LCMS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Sacramento Job No.: 480-125692-1 Analy Batch No.: 189059
SDG No.: _____
Instrument ID: A8_N GC Column: GeminiC18 3 ID: 3(mm) Heated Purge: (Y/N) N
Calibration Start Date: 10/12/2017 10:23 Calibration End Date: 10/12/2017 11:11 Calibration ID: 35185

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Perfluorobutanoic acid (PFBA)	1.1364 0.9109	0.9876 0.7872	1.0621 0.6579	0.9718		AveID		0.9306				17.5		35.0			
Perfluoropentanoic acid (PFPeA)	1.3307 1.0810	1.2022 0.9485	1.1813 0.8035	1.1083		AveID		1.0936				15.9		35.0			
Perfluorobutanesulfonic acid (PFBS)	81.732 66.749	76.838 54.299	77.686 +++++	73.043		AveID		71.725				13.8		50.0			
4:2 FTS	1.1710	1.2213	1.0963	1.1378		AveID		1.1842				5.5		50.0			
Perfluorohexanoic acid (PFHxA)	1.1808 0.9625	1.0539 0.8557	1.0798 0.7281	0.9968		AveID		0.9796				15.3		35.0			
Perfluoroheptanoic acid (PFHpA)	1.1215 0.9970	1.0248 0.9124	1.0820 0.8029	1.0399		AveID		0.9972				10.8		35.0			
Perfluorohexanesulfonic acid (PFHxS)	+++++ 1.0281	1.2728 0.9512	1.2776 0.8399	1.1067		AveID		1.0794				16.3		35.0			
6:2FTS	+++++ 1.2202	1.4042 1.1976	1.2170 1.1353	1.1765		AveID		1.2251				7.6		35.0			
Perfluorooctanoic acid (PFOA)	1.3051 1.0421	1.2188 0.9733	1.0945 0.8425	1.0887		AveID		1.0807				14.1		35.0			
Perfluoroheptanesulfonic Acid (PFHpS)	1.3855 1.2494	1.2695 1.0552	1.3677 0.8590	1.2996		AveID		1.2123				15.6		50.0			
Perfluorononanoic acid (PFNA)	1.0282 0.9726	0.9629 0.9431	1.0141 0.8647	0.9429		AveID		0.9612				5.6		35.0			
Perfluorooctanesulfonic acid (PFOS)	1.1990 1.0361	1.0573 1.0015	1.1082 0.9282	1.0283		AveID		1.0512				8.1		35.0			
Perfluorooctane Sulfonamide (FOSA)	1.1798 0.9569	1.0960 0.8134	1.1122 +++++	1.0351		AveID		1.0322				12.7		35.0			
8:2FTS	+++++ 1.0904	1.1573 1.0946	1.1274 1.1229	1.0624		AveID		1.1092				3.0		35.0			
Perfluorodecanoic acid (PFDA)	0.9740 0.8785	0.9687 0.9192	0.8850 0.8570	0.9278		AveID		0.9157				4.9		35.0			
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)	1.0167 0.9228	0.8453 0.9929	0.8816 0.9599	0.9183		AveID		0.9339				6.5		35.0			
Perfluorodecanesulfonic acid (PFDS)	0.6569 0.6240	0.5618 0.6040	0.6394 0.5141	0.6141		AveID		0.6020				8.1		50.0			
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)	0.8167 0.8914	0.8016 0.8758	0.8474 0.8739	0.8370		AveID		0.8491				3.9		35.0			
Perfluoroundecanoic acid (PFUnA)	1.3064 1.0181	1.1561 1.0236	1.0348 0.9720	1.0366		AveID		1.0782				10.7		35.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
LCMS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Sacramento Job No.: 480-125692-1 Analy Batch No.: 189059

SDG No.: _____

Instrument ID: A8_N GC Column: GeminiC18 3 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/12/2017 10:23 Calibration End Date: 10/12/2017 11:11 Calibration ID: 35185

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
MeFOSA	0.8916 0.8874	0.9113 0.8862	0.9078 0.8553	0.8599		AveID		0.8856				2.4		50.0			
Perfluorododecanoic acid (PFDoA)	0.9091 0.9418	0.9594 0.9090	0.8951 0.8598	0.9253		AveID		0.9142				3.5		35.0			
N-EtFOSA-M	0.9315 0.9381	1.0020 0.9465	0.9458 0.8826	0.9432		AveID		0.9414				3.7		35.0			
Perfluorotridecanoic Acid (PFTriA)	0.9694 0.8738	0.9691 0.8376	0.8949 0.8130	0.8690		AveID		0.8895				6.8		50.0			
Perfluorotetradecanoic acid (PFTeA)	0.2742 0.2186	0.2047 0.2466	0.2523 0.2248	0.2239		AveID		0.2350				10.1		50.0			
Perfluoro-n-hexadecanoic acid (PFHxDA)	++++ 0.9079	1.3065 0.8877	0.9255 0.7966	0.8670		AveID		0.9485				19.1		50.0			
Perfluoro-n-octadecanoic acid (PFODA)	0.9230 0.9858	0.9828 0.8590	0.8344 0.8913	0.8858		AveID		0.9089				6.4		50.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
LCMS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Sacramento Job No.: 480-125692-1 Analy Batch No.: 189059

SDG No.: _____

Instrument ID: A8_N GC Column: GeminiC18 3 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/12/2017 10:23 Calibration End Date: 10/12/2017 11:11 Calibration ID: 35185

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 320-189059/3	2017.10.12ICAL_003.d
Level 2	IC 320-189059/4	2017.10.12ICAL_004.d
Level 3	IC 320-189059/5	2017.10.12ICAL_005.d
Level 4	IC 320-189059/6	2017.10.12ICAL_006.d
Level 5	IC 320-189059/10	2017.10.12ICAL_010.d
Level 6	IC 320-189059/7	2017.10.12ICAL_007.d
Level 7	IC 320-189059/8	2017.10.12ICAL_008.d
Level 8	IC 320-189059/9	2017.10.12ICAL_009.d

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
13C4 PFBA	Ave	23781618 16919316	17301557 17396791	22498487 16768796	16762303		50.0 50.0	50.0 50.0	50.0 50.0	50.0	
13C5 PFPeA	Ave	15411853 10433137	11069995 10775788	14598964 9711662	10489793		50.0 50.0	50.0 50.0	50.0 50.0	50.0	
13C3-PFBS	Ave	417749 272160	289455 294963	401433 280718	276683		46.5 46.5	46.5 46.5	46.5 46.5	46.5	
M2-4:2FTS	Ave					3929010					46.7
13C2 PFHxA	Ave	16513630 11482159	11875130 11868749	15745369 11006106	11265426		50.0 50.0	50.0 50.0	50.0 50.0	50.0	
13C4-PFHpA	Ave	15514417 10969892	11559540 10351978	15075247 8980712	11134968		50.0 50.0	50.0 50.0	50.0 50.0	50.0	
18O2 PFHxS	Ave	20728952 16305959	15623033 16105373	20000713 14735180	15200258		47.3 47.3	47.3 47.3	47.3 47.3	47.3	
M2-6:2FTS	Ave	+++++ 3977881	4435219 3803514	5562997 3444512	4019599		+++++ 47.5	47.5 47.5	47.5 47.5	47.5	
13C4 PFOA	Ave	14132686 10488859	11317773 9511650	13949539 8676634	10524135		50.0 50.0	50.0 50.0	50.0 50.0	50.0	
13C4 PFOS	Ave	15287545 10569289	11009535 11235148	14928761 11054524	10300548		47.8 47.8	47.8 47.8	47.8 47.8	47.8	
13C5 PFNA	Ave	11219158 7478900	8189240 7668932	10903269 7050131	7515845		50.0 50.0	50.0 50.0	50.0 50.0	50.0	
13C8 FOSA	Ave	21863036 16337753	16417820 17089943	21786369 16658432	15833020		50.0 50.0	50.0 50.0	50.0 50.0	50.0	
M2-8:2FTS	Ave	+++++ 3035645	3339820 3097344	4564628 2670318	3101326		+++++ 47.9	47.9 47.9	47.9 47.9	47.9	
13C2 PFDA	Ave	9782137 6446484	6790374 6754959	9541536 6159296	6276133		50.0 50.0	50.0 50.0	50.0 50.0	50.0	
d3-NMeFOSAA	Ave	2958071 2090545	2125943 2178278	2986683 2312297	1958236		50.0 50.0	50.0 50.0	50.0 50.0	50.0	

FORM VI
LCMS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Sacramento Job No.: 480-125692-1 Analy Batch No.: 189059

SDG No.: _____

Instrument ID: A8_N GC Column: GeminiC18 3 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/12/2017 10:23 Calibration End Date: 10/12/2017 11:11 Calibration ID: 35185

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
d5-NEtFOSAA	Ave	3076118 1996873	2062713 2112852	2932065 2003497	2017916		50.0 50.0	50.0 50.0	50.0 50.0	50.0	
13C2 PFUnA	Ave	6628223 4333416	4382315 4185367	6250195 4190317	4110316		50.0 50.0	50.0 50.0	50.0 50.0	50.0	
d-N-MeFOSA-M	Ave	4897565 4069680	3769029 4485253	5094857 4515549	3685746		50.0 50.0	50.0 50.0	50.0 50.0	50.0	
13C2 PFDoA	Ave	5919191 3930779	3971115 4354032	5751816 4275084	3767015		50.0 50.0	50.0 50.0	50.0 50.0	50.0	
d-N-EtFOSA-M	Ave	4500432 3574681	3483867 3986789	4647711 4052684	3368073		50.0 50.0	50.0 50.0	50.0 50.0	50.0	
13C2-PFTeDA	Ave	5320756 3616500	3811717 3426298	4973963 3517497	3362876		50.0 50.0	50.0 50.0	50.0 50.0	50.0	
13C2-PFHxDA	Ave	6618336 4753078	4983357 4955484	6709118 4946978	4723760		50.0 50.0	50.0 50.0	50.0 50.0	50.0	

Curve Type Legend:

Ave = Average

FORM VI
LCMS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Sacramento Job No.: 480-125692-1 Analy Batch No.: 189059

SDG No.: _____

Instrument ID: A8_N GC Column: GeminiC18 3 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/12/2017 10:23 Calibration End Date: 10/12/2017 11:11 Calibration ID: 35185

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 320-189059/3	2017.10.12ICAL_003.d
Level 2	IC 320-189059/4	2017.10.12ICAL_004.d
Level 3	IC 320-189059/5	2017.10.12ICAL_005.d
Level 4	IC 320-189059/6	2017.10.12ICAL_006.d
Level 5	IC 320-189059/10	2017.10.12ICAL_010.d
Level 6	IC 320-189059/7	2017.10.12ICAL_007.d
Level 7	IC 320-189059/8	2017.10.12ICAL_008.d
Level 8	IC 320-189059/9	2017.10.12ICAL_009.d

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Perfluorobutanoic acid (PFBA)		AveID	270265 15412453	341736 27388502	2389456 44128266	6515893		0.500 50.0	1.00 100	5.00 200	20.0	
Perfluoropentanoic acid (PFPeA)		AveID	205078 11278133	266174 20442592	1724521 31214387	4650444		0.500 50.0	1.00 100	5.00 200	20.0	
Perfluorobutanesulfonic acid (PFBS)		AveID	324548 17267964	422822 30448259	2964329 +++++	7684015		0.442 44.2	0.884 88.4	4.42 +++++	17.7	
4:2 FTS		AveID	75141 4579600	100629 9133897	664764 14850836	1798516		0.467 46.7	0.934 93.4	4.67 187	18.7	
Perfluorohexanoic acid (PFHxA)		AveID	194997 11051225	250295 20311544	1700216 32054133	4491528		0.500 50.0	1.00 100	5.00 200	20.0	
Perfluoroheptanoic acid (PFHpA)		AveID	173994 10936441	236918 18889346	1631079 28843279	4631573		0.500 50.0	1.00 100	5.00 200	20.0	
Perfluorohexanesulfonic acid (PFHxS)		AveID	++++ 16126484	382576 29471564	2458081 47619277	6473056		++++ 45.5	0.910 91.0	4.55 182	18.2	
6:2FTS		AveID	++++ 4843669	124297 9090625	675574 15608942	1887653		++++ 47.4	0.948 94.8	4.74 190	19.0	
Perfluorooctanoic acid (PFOA)		AveID	184448 10930414	275879 18515543	1526777 29241178	4583217		0.500 50.0	1.00 100	5.00 200	20.0	
Perfluoroheptanesulfonic Acid (PFHpS)		AveID	210921 13149560	278359 23611453	2033215 37824919	5332188		0.476 47.6	0.952 95.2	4.76 190	19.0	
Perfluorononanoic acid (PFNA)		AveID	115359 7274310	157715 14464494	1105677 24384416	2834536		0.500 50.0	1.00 100	5.00 200	20.0	
Perfluorooctanesulfonic acid (PFOS)		AveID	177930 10629617	225979 21845584	1605967 39843216	4112880		0.464 46.4	0.928 92.8	4.64 186	18.6	
Perfluorooctane Sulfonamide (FOSA)		AveID	257934 15632799	359884 27802072	2423122 +++++	6555816		0.500 50.0	1.00 100	5.00 +++++	20.0	
8:2FTS		AveID	++++ 3310109	77302 6781002	514621 11993486	1317954		++++ 47.9	0.958 95.8	4.79 192	19.2	
Perfluorodecanoic acid (PFDA)		AveID	95275 5663538	131554 12418898	844418 21114828	2329136		0.500 50.0	1.00 100	5.00 200	20.0	

FORM VI
LCMS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Sacramento Job No.: 480-125692-1 Analy Batch No.: 189059

SDG No.: _____

Instrument ID: A8_N GC Column: GeminiC18 3 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/12/2017 10:23 Calibration End Date: 10/12/2017 11:11 Calibration ID: 35185

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)		AveID	30075 1929120	35940 4325683	263313 8878705	719262		0.500 50.0	1.00 100	5.00 200	20.0	
Perfluorodecanesulfonic acid (PFDS)		AveID	101261 6650889	124732 13686458	962564 22921575	2551249		0.482 48.2	0.964 96.4	4.82 193	19.3	
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)		AveID	25122 1780104	33068 3700976	248464 7003032	675622		0.500 50.0	1.00 100	5.00 200	20.0	
Perfluoroundecanoic acid (PFUnA)		AveID	86588 4411982	101332 8568486	646801 16291508	1704240		0.500 50.0	1.00 100	5.00 200	20.0	
MeFOSA		AveID	43669 3611457	68698 7949524	462488 15448374	1267717		0.500 50.0	1.00 100	5.00 200	20.0	
Perfluorododecanoic acid (PFDoA)		AveID	53813 3702195	76197 7915512	514859 14702326	1394268		0.500 50.0	1.00 100	5.00 200	20.0	
N-EtFOSA-M		AveID	41921 3353332	69818 7547201	439598 14308406	1270693		0.500 50.0	1.00 100	5.00 200	20.0	
Perfluorotridecanoic Acid (PFTriA)		AveID	57379 3434648	76968 7293647	514705 13902609	1309427		0.500 50.0	1.00 100	5.00 200	20.0	
Perfluorotetradecanoic acid (PFTeA)		AveID	14588 790642	15604 1689864	125476 3162830	301201		0.500 50.0	1.00 100	5.00 200	20.0	
Perfluoro-n-hexadecanoic acid (PFHxDA)		AveID	+++++ 4315320	130217 8797516	620910 15763731	1638260		+++++ 50.0	1.00 100	5.00 200	20.0	
Perfluoro-n-octadecanoic acid (PFODA)		AveID	61089 4685437	97953 8513948	559801 17637890	1673681		0.500 50.0	1.00 100	5.00 200	20.0	

Curve Type Legend:

AveID = Average isotope dilution

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171012-49071.b\2017.10.12\ICAL_003.d
 Lims ID: IC L1 Full
 Client ID:
 Sample Type: IC Calib Level: 1
 Inject. Date: 12-Oct-2017 10:23:09 ALS Bottle#: 28 Worklist Smp#: 3
 Injection Vol: 2.0 ul Dil. Factor: 1.0000
 Sample Info: L1-FULL
 Misc. Info.: Plate: 1 Rack: 1
 Operator ID: SACINSTLCMS01 Instrument ID: A8_N
 Sublist: chrom-A8_N*sub19
 Method: \\ChromNa\Sacramento\ChromData\A8_N\20171012-49071.b\A8_N.m
 Limit Group: LC PFC ICAL
 Last Update: 16-Oct-2017 12:12:25 Calib Date: 12-Oct-2017 11:11:26
 Integrator: Picker
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last Ical File: \\ChromNa\Sacramento\ChromData\A8_N\20171012-49071.b\2017.10.12\ICAL_010.d

Column 1 : Det: EXP1

Process Host: XAWRK027

First Level Reviewer: phomsophat

Date: 12-Oct-2017 12:27:54

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	1.551	1.548	0.003		23781618	63.3		127	17002	
2 Perfluorobutyric acid										M
212.90 > 169.00	1.551	1.551	0.0	1.000	270265	0.6106		122	41.5	M
D 3 13C5-PFPeA										
267.90 > 223.00	1.760	1.755	0.005		15411853	65.4		131	38190	
4 Perfluoropentanoic acid										M
262.90 > 219.00	1.760	1.757	0.003	1.000	205078	0.6084		122	83.3	M
D 47 13C3-PFBS										
301.90 > 83.00	1.778	1.777	0.001		417749	60.9		131	10436	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	1.787	1.781	0.006	1.000	324548	0.5037		114	2441	
298.90 > 99.00	1.787	1.781	0.006	1.000	136763		2.37(0.00-0.00)	114	2048	
61 Sodium 1H,1H,2H,2H-perfluorohexane										
327.00 > 307.00	1.990	1.984	0.006	1.000	75141	0.5101		109	3724	
D 7 13C2 PFHxA										
315.00 > 270.00	2.024	2.023	0.001		16513630	64.4		129	19660	
6 Perfluorohexanoic acid										
313.00 > 269.00	2.024	2.023	0.001	1.000	194997	0.6027		121	369	
10 Perfluoroheptanoic acid										
363.00 > 319.00	2.358	2.348	0.010	1.000	173994	0.5623		112	252	
D 9 13C4-PFHpA										
367.00 > 322.00	2.358	2.348	0.010		15514417	65.0		130	21443	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	2.366	2.359	0.007	1.000	332615	0.7031		155	2385	
D 11 18O2 PFHxS										
403.00 > 84.00	2.366	2.359	0.007		20728952	57.8		122	28613	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 12 M2-6:2FTS										
429.00 > 81.00	2.682	2.670	0.012		5908883	66.7		140	15603	
13 Sodium 1H,1H,2H,2H-perfluorooctane										
427.00 > 407.00	2.682	2.671	0.011	1.000	105729	0.6938		146	3142	
* 62 13C2-PFOA										
415.00 > 370.00	2.703	2.692	0.011		14047039	50.0			23784	
D 14 13C4 PFOA										
417.00 > 372.00	2.710	2.699	0.011		14132686	62.9		126	35313	
15 Perfluorooctanoic acid										
413.00 > 369.00	2.710	2.699	0.011	1.000	184448	0.6038		121	23.1	
413.00 > 169.00	2.710	2.699	0.011	1.000	101976		1.81(0.90-1.10)	121	852	
16 Perfluoroheptanesulfonic Acid										
449.00 > 80.00	2.718	2.707	0.011	1.000	210921	0.5440		114	3149	
D 19 13C5 PFNA										
468.00 > 423.00	3.090	3.072	0.018		11219158	65.4		131	19604	
D 18 13C4 PFOS										
503.00 > 80.00	3.090	3.072	0.018		15287545	60.6		127	40941	
17 Perfluorooctane sulfonic acid										M
499.00 > 80.00	3.090	3.072	0.018	1.000	177930	0.5292		114	1248	M
499.00 > 99.00	3.090	3.072	0.018	1.000	37840		4.70(0.90-1.10)	114	332	M
20 Perfluorononanoic acid										
463.00 > 419.00	3.090	3.072	0.018	1.000	115359	0.5349		107	106	
D 21 13C8 FOSA										
506.00 > 78.00	3.392	3.389	0.003		21863036	60.7		121	20974	
22 Perfluorooctane Sulfonamide										
498.00 > 78.00	3.392	3.391	0.001	1.000	257934	0.5715		114	3834	
D 26 M2-8:2FTS										
529.00 > 81.00	3.437	3.423	0.014		4904806	71.2		149	16468	
25 Sodium 1H,1H,2H,2H-perfluorodecane										
527.00 > 507.00	3.437	3.425	0.012	1.000	54696	0.4816		101	2102	
D 23 13C2 PFDA										
515.00 > 470.00	3.454	3.436	0.018		9782137	66.2		132	16372	
24 Perfluorodecanoic acid										
513.00 > 469.00	3.454	3.436	0.018	1.000	95275	0.5318		106	141	
D 27 d3-NMeFOSAA										
573.00 > 419.00	3.610	3.592	0.018		2958071	62.3		125	7738	
28 N-methyl perfluorooctane sulfonami										
570.00 > 419.00	3.610	3.595	0.015	1.000	30075	0.5443		109	490	
29 Perfluorodecane Sulfonic acid										
599.00 > 80.00	3.767	3.750	0.017	1.000	101261	0.5259		109	2507	
D 32 d5-NEtFOSAA										
589.00 > 419.00	3.777	3.759	0.018		3076118	66.5		133	2937	
D 30 13C2 PFUnA										
565.00 > 520.00	3.787	3.768	0.019		6628223	68.1		136	13417	
33 N-ethyl perfluorooctane sulfonamid										
584.00 > 419.00	3.787	3.768	0.019	1.003	25122	0.4809		96.2	346	
31 Perfluoroundecanoic acid										
563.00 > 519.00	3.787	3.769	0.018	1.000	86588	0.6058		121	167	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 34 d-N-MeFOSA-M	515.00 > 169.00	3.877	3.881	-0.004	4897565	56.2		112	455	
35 MeFOSA	512.00 > 169.00	3.886	3.885	0.001	43669	0.5034		101	1344	
37 Perfluorododecanoic acid	613.00 > 569.00	4.081	4.063	0.018	53813	0.4972		99.4	20.6	
D 36 13C2 PFDaA	615.00 > 570.00	4.081	4.063	0.018	5919191	64.8		130	12340	
D 38 d-N-EtFOSA-M	531.00 > 169.00	4.062	4.066	-0.004	4500432	57.0		114	5377	
39 N-ethylperfluoro-1-octanesulfonami	526.00 > 169.00	4.072	4.075	-0.003	41921	0.4947		98.9	935	
41 Perfluorotridecanoic acid	663.00 > 619.00	4.356	4.332	0.024	57379	0.5449		109	4.2	
42 Perfluorotetradecanoic acid	713.00 > 169.00	4.593	4.570	0.023	14588	0.5833		117	95.8	
713.00 > 219.00	4.604	4.570	0.034	1.002	10284		1.42(0.00-0.00)	117	64.7	
D 43 13C2-PFTeDA	715.00 > 670.00	4.593	4.575	0.018	5320756	66.4		133	15371	
D 44 13C2-PFHxDA	815.00 > 770.00	5.020	4.997	0.023	6618336	61.5		123	7777	
45 Perfluorohexadecanoic acid	813.00 > 769.00	5.030	4.999	0.031	114185	0.9094		182	6.4	
46 Perfluorooctadecanoic acid	913.00 > 869.00	5.398	5.364	0.034	61089	0.5078		102	4.8	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

LCPFC_FULL-L1_00005

Amount Added: 1.00

Units: mL

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171012-49071.b\2017.10.12\ICAL_003.d

Injection Date: 12-Oct-2017 10:23:09

Instrument ID: A8_N

Lims ID: IC L1 Full

Client ID:

Operator ID: SACINSTLCMS01

ALS Bottle#: 28

Worklist Smp#: 3

Injection Vol: 2.0 ul

Dil. Factor: 1.0000

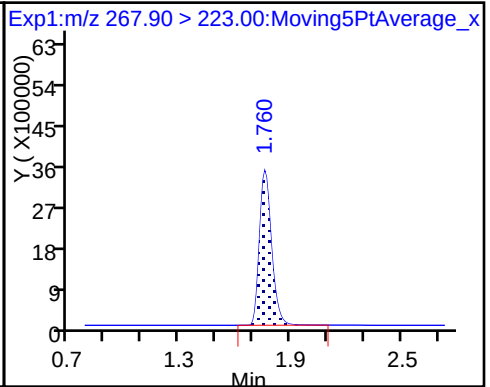
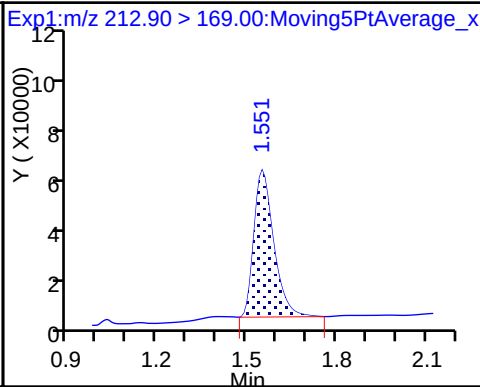
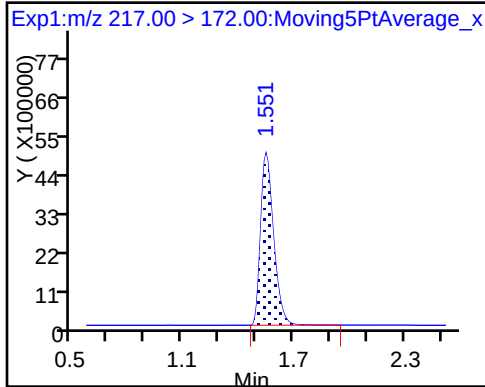
Method: A8_N

Limit Group: LC PFC ICAL

D 1 13C4 PFBA

2 Perfluorobutyric acid (M)

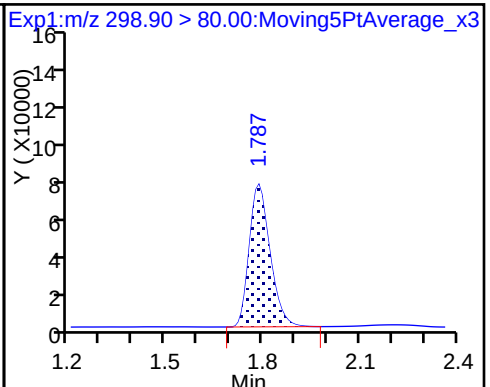
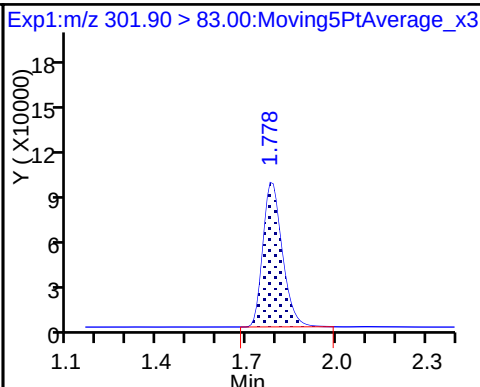
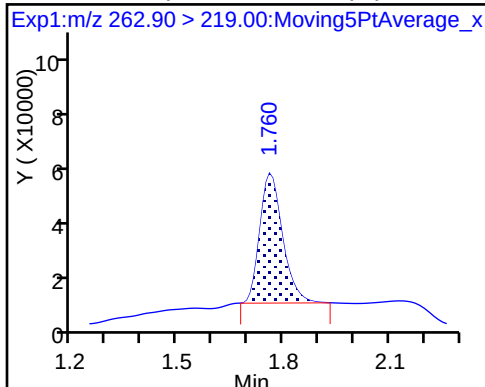
D 3 13C5-PFPeA



4 Perfluoropentanoic acid (M)

D 47 13C3-PFBS

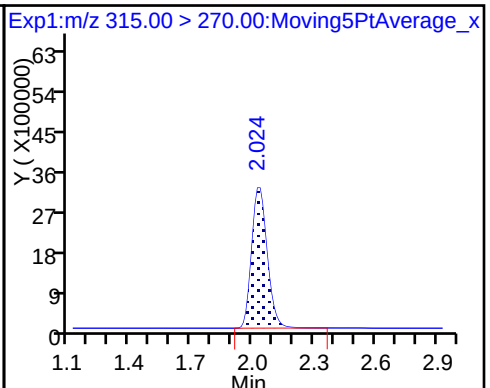
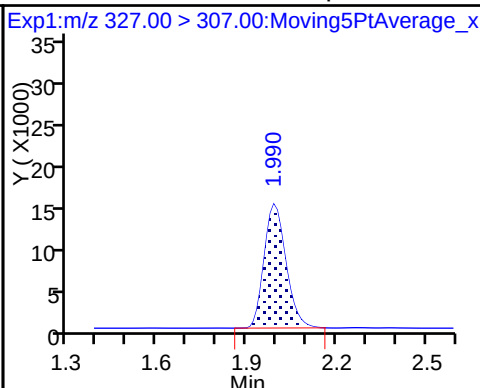
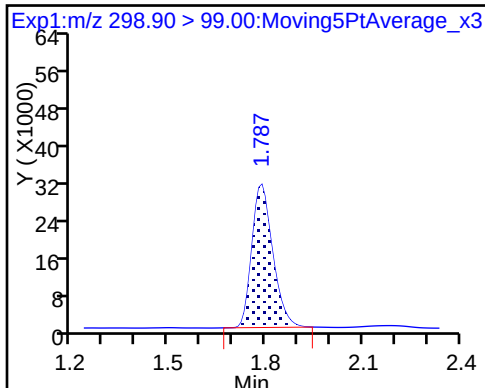
5 Perfluorobutanesulfonic acid



5 Perfluorobutanesulfonic acid

61 Sodium 1H,1H,2H,2H-perfluorohexa

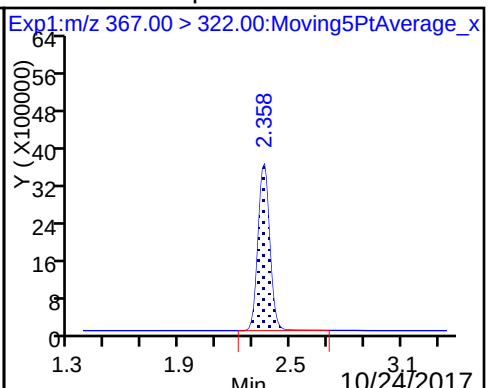
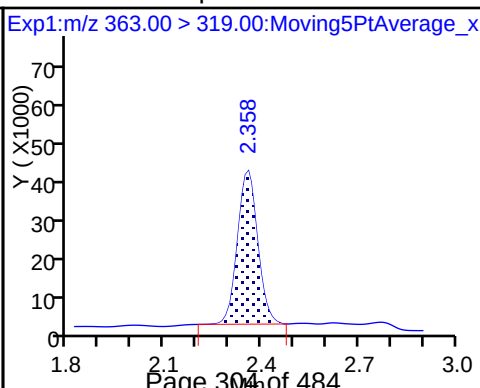
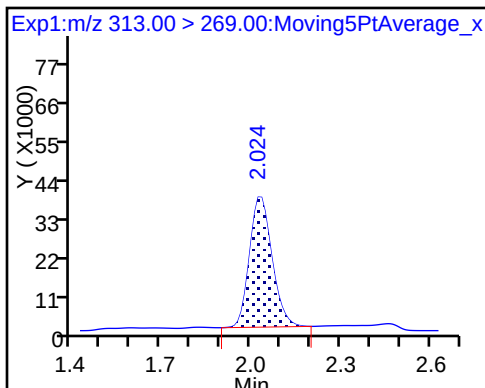
De 7 13C2 PFHxA



6 Perfluorohexanoic acid

10 Perfluoroheptanoic acid

D 9 13C4-PFHpA

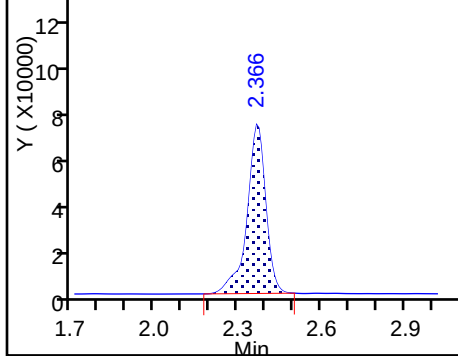


8 Perfluorohexanesulfonic acid

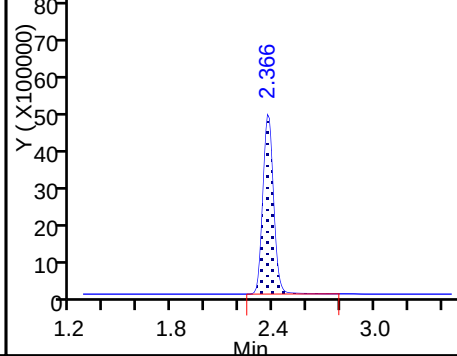
D 11 18O2 PFHxS

D 12 M2-6:2FTS

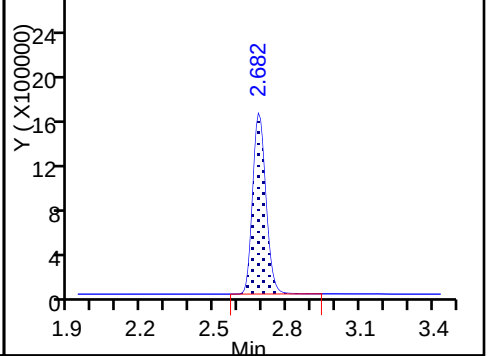
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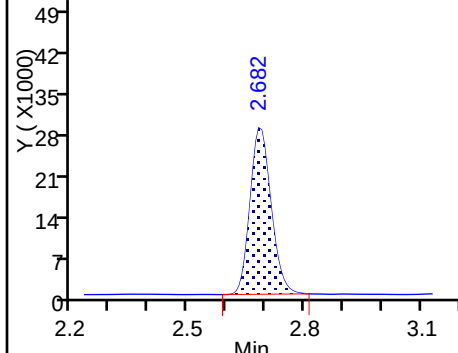
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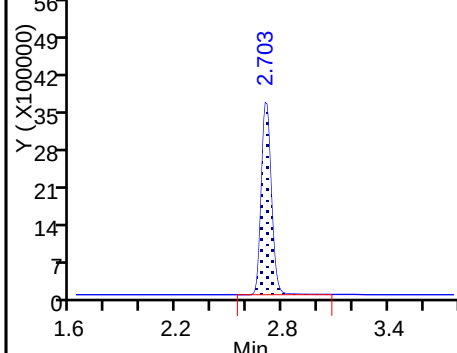
13 Sodium 1H,1H,2H,2H-perfluorooctanoate

D 14 13C4 PFOA

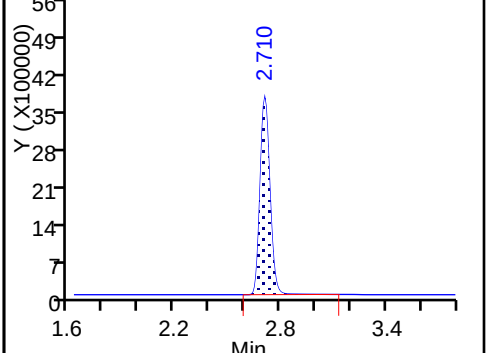
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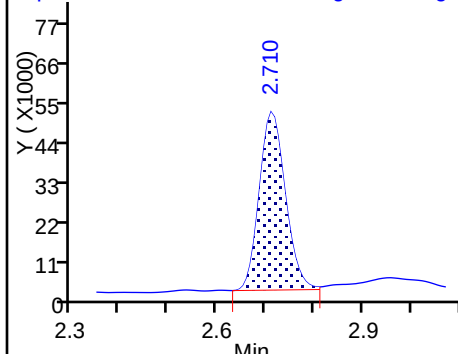


15 Perfluorooctanoic acid

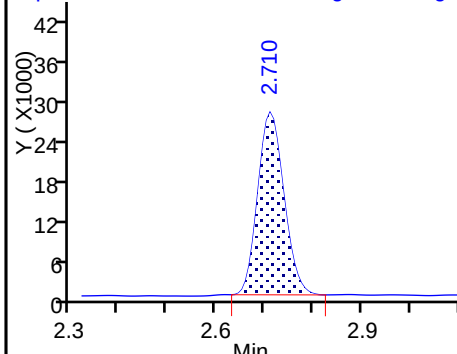
15 Perfluorooctanoic acid

16 Perfluoroheptanesulfonic Acid

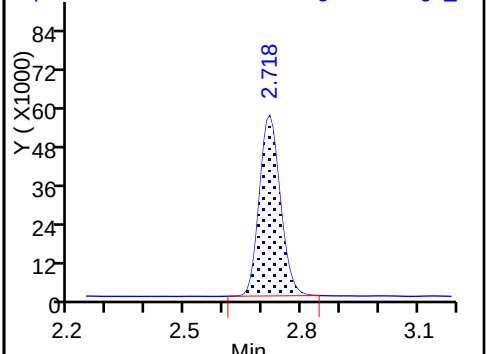
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Exp1:m/z 449.00 > 80.00:Moving5PtAverage_x3

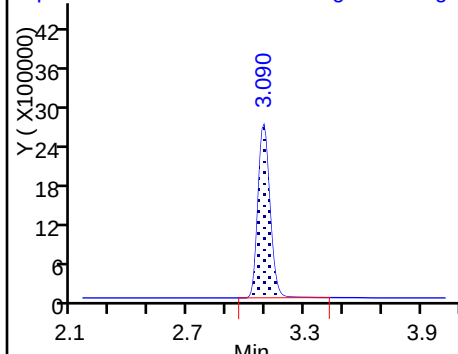


D 19 13C5 PFNA

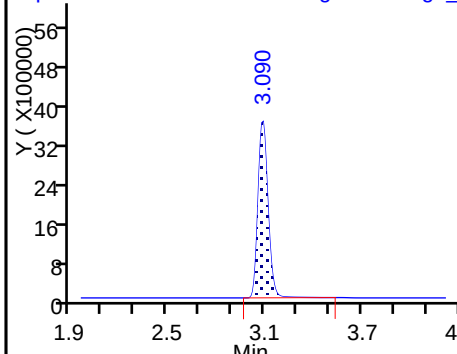
D 18 13C4 PFOS

17 Perfluorooctane sulfonic acid (M)

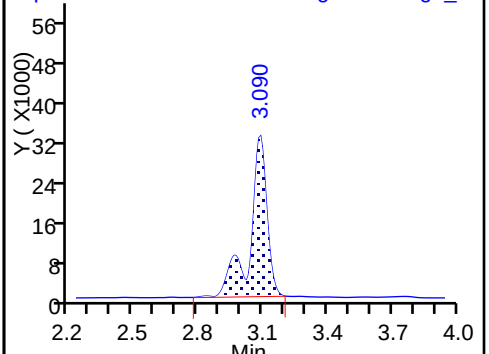
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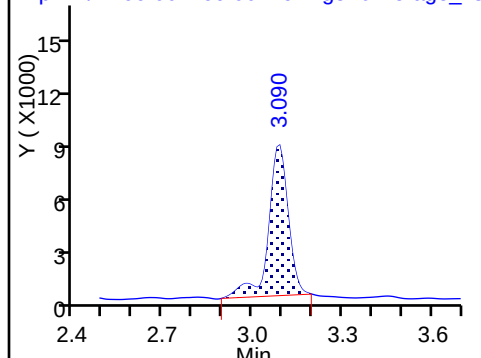


17 Perfluorooctane sulfonic acid (M)

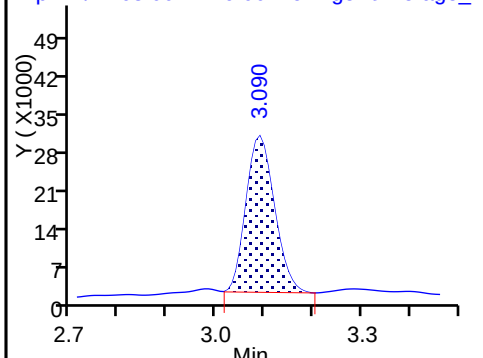
20 Perfluorononanoic acid

D 21 13C8 FOSA

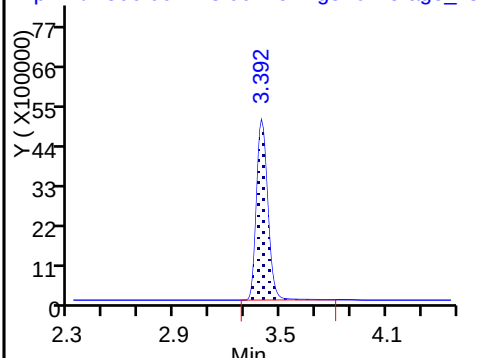
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Exp1:m/z 463.00 > 419.00:Moving5PtAverage_x3



Exp1:m/z 506.00 > 78.00:Moving5PtAverage_x3

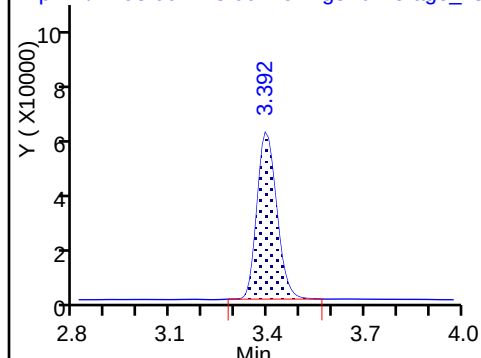


22 Perfluorooctane Sulfonamide

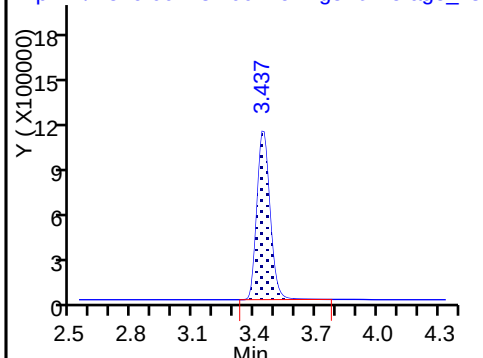
D 26 M2-8:2FTS

25 Sodium 1H,1H,2H,2H-perfluorodecane

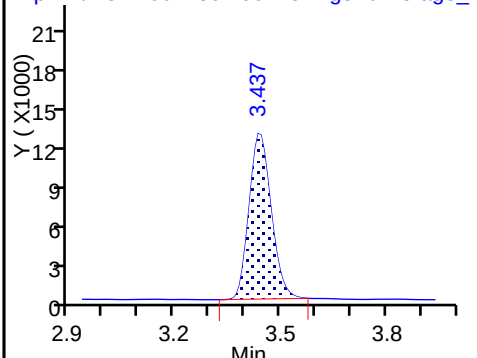
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Exp1:m/z 529.00 > 81.00:Moving5PtAverage_x3



Exp1:m/z 527.00 > 507.00:Moving5PtAverage_x3

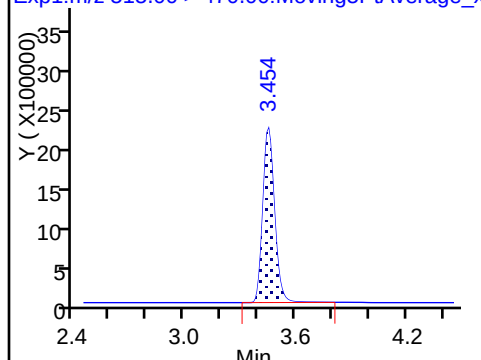


D 23 13C2 PFDA

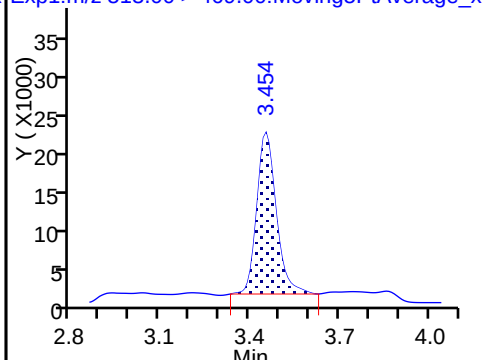
24 Perfluorodecanoic acid

D 27 d3-NMeFOSAA

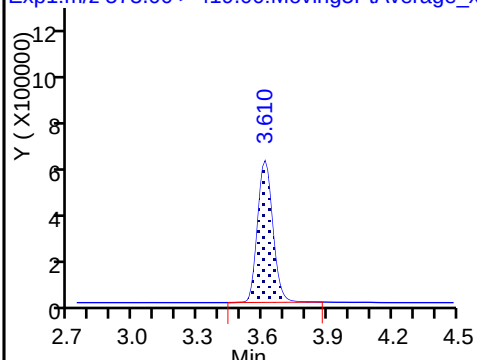
Exp1:m/z 515.00 > 470.00:Moving5PtAverage_x3



Exp1:m/z 513.00 > 469.00:Moving5PtAverage_x3



Exp1:m/z 573.00 > 419.00:Moving5PtAverage_x3

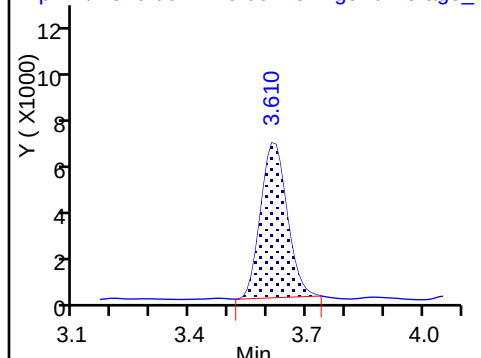


28 N-methyl perfluorooctane sulfonami

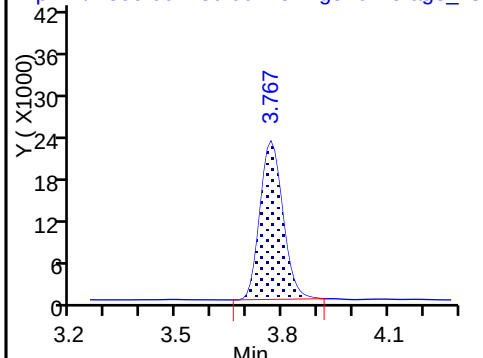
29 Perfluorodecane Sulfonic acid

D 32 d5-NEtFOSAA

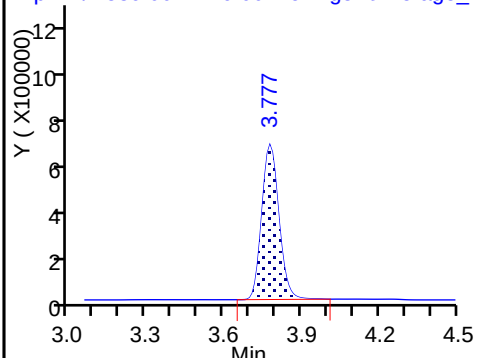
Exp1:m/z 570.00 > 419.00:Moving5PtAverage_x3



Exp1:m/z 599.00 > 80.00:Moving5PtAverage_x3



Exp1:m/z 589.00 > 419.00:Moving5PtAverage_x3

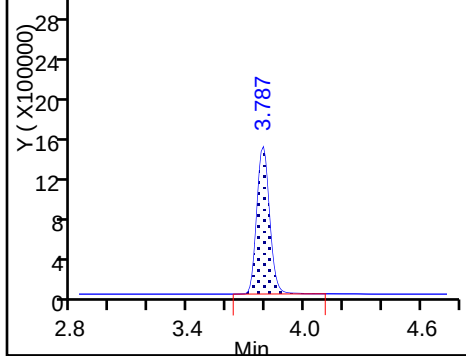


D 30 13C2 PFUnA

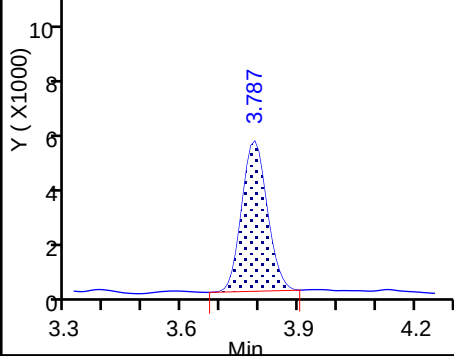
33 N-ethyl perfluorooctane sulfonamid

31 Perfluoroundecanoic acid

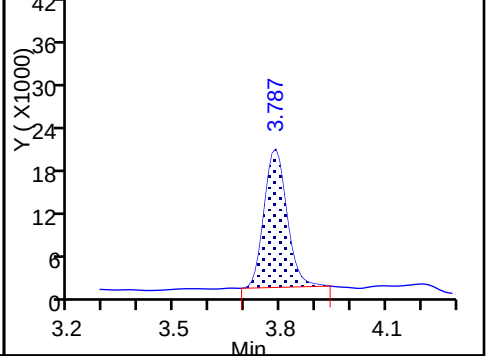
Exp1:m/z 565.00 > 520.00:Moving5PtAverage_x



Exp1:m/z 584.00 > 419.00:Moving5PtAverage_x



Exp1:m/z 563.00 > 519.00:Moving5PtAverage_x

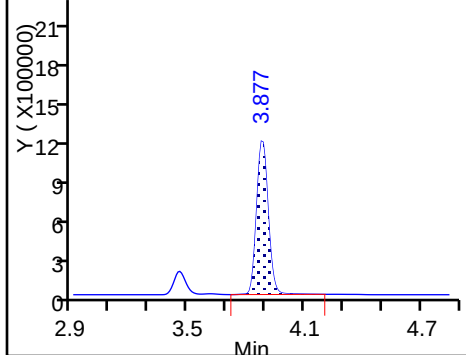


D 34 d-N-MeFOSA-M

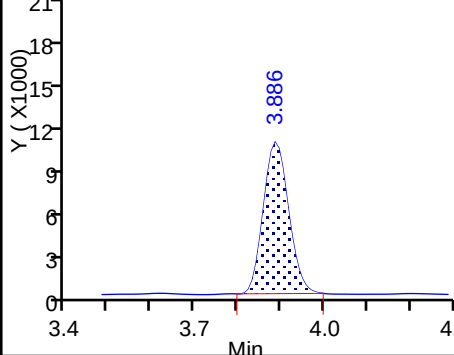
35 MeFOSA

37 Perfluorododecanoic acid

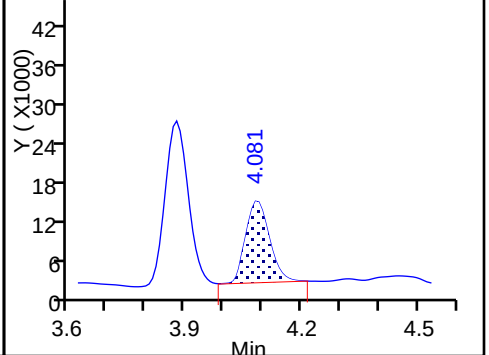
Exp1:m/z 515.00 > 169.00:Moving5PtAverage_x



Exp1:m/z 512.00 > 169.00:Moving5PtAverage_x



Exp1:m/z 613.00 > 569.00:Moving5PtAverage_x

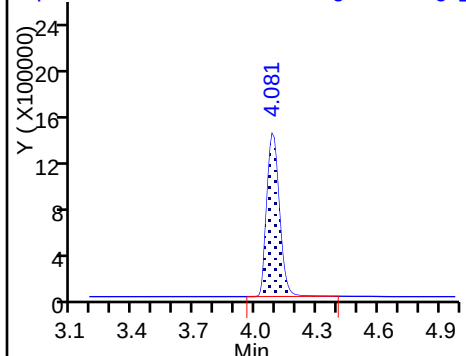


D 36 13C2 PFDaA

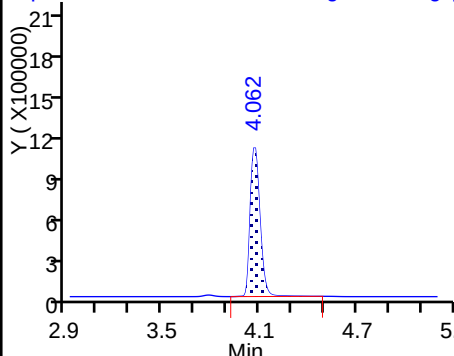
D 38 d-N-EtFOSA-M

39 N-ethylperfluoro-1-octanesulfonami

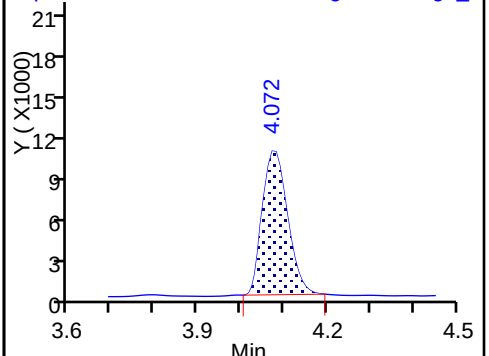
Exp1:m/z 615.00 > 570.00:Moving5PtAverage_x



Exp1:m/z 531.00 > 169.00:Moving5PtAverage_x



Exp1:m/z 526.00 > 169.00:Moving5PtAverage_x

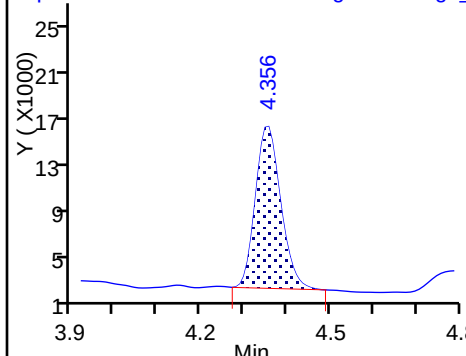


41 Perfluorotridecanoic acid

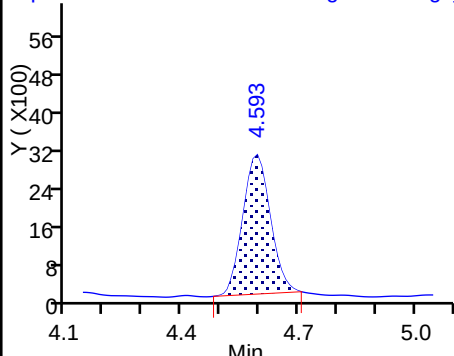
42 Perfluorotetradecanoic acid

42 Perfluorotetradecanoic acid

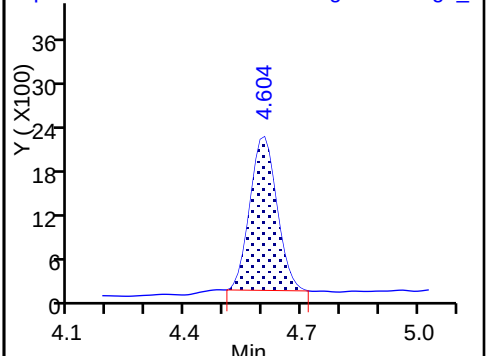
Exp1:m/z 663.00 > 619.00:Moving5PtAverage_x



Exp1:m/z 713.00 > 169.00:Moving5PtAverage_x



Exp1:m/z 713.00 > 219.00:Moving5PtAverage_x

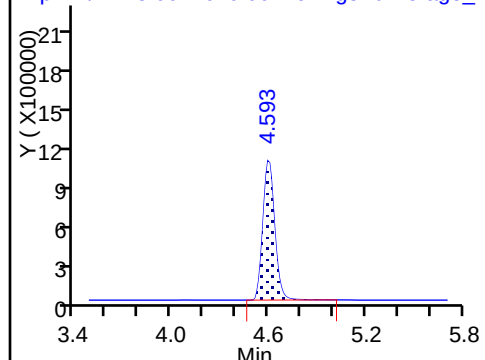


D 43 13C2-PFTeDA

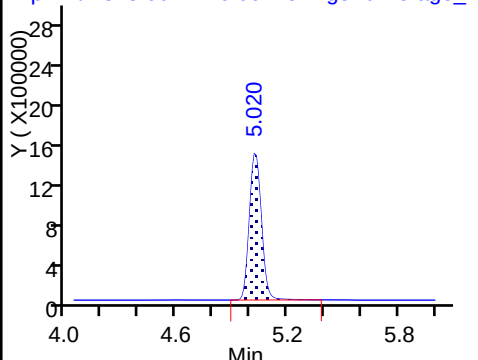
D 44 13C2-PFHxDA

45 Perfluorohexadecanoic acid

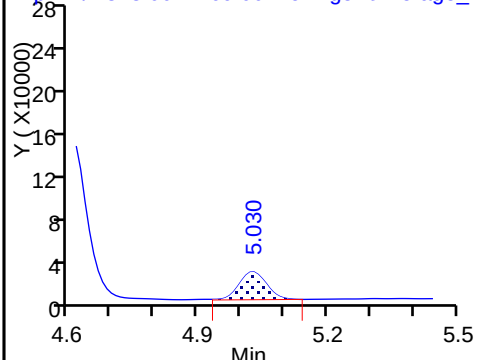
Exp1:m/z 715.00 > 670.00:Moving5PtAverage_x



Exp1:m/z 815.00 > 770.00:Moving5PtAverage_x

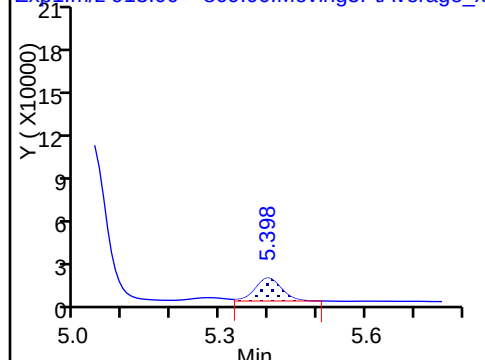


Exp1:m/z 813.00 > 769.00:Moving5PtAverage_x



46 Perfluorooctadecanoic acid

Exp1:m/z 913.00 > 869.00:Moving5PtAverage_x



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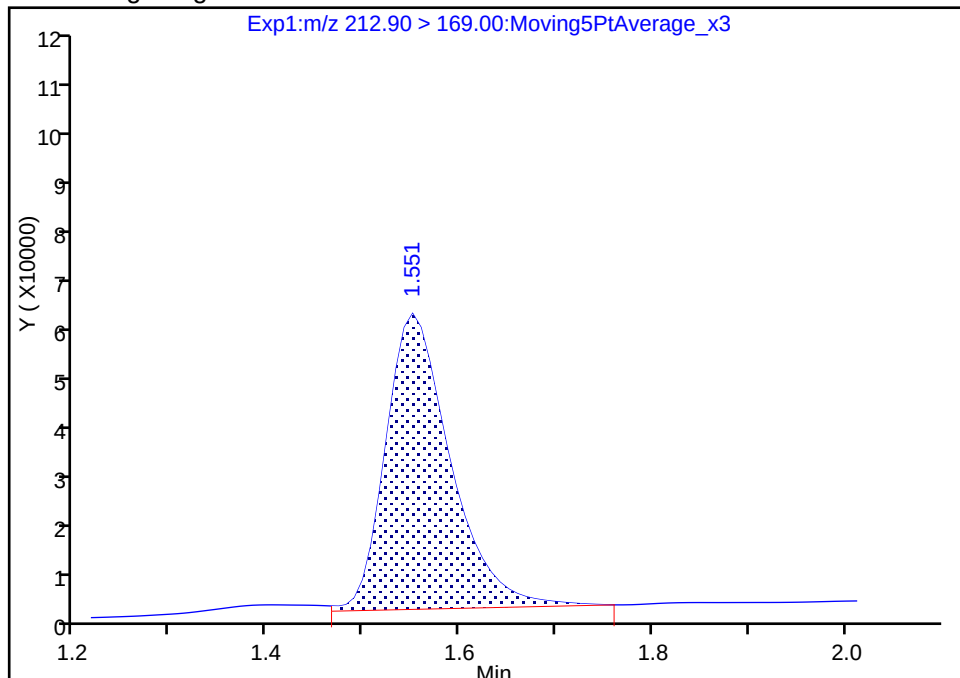
Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171012-49071.b\2017.10.12\ICAL_003.d
Injection Date: 12-Oct-2017 10:23:09 Instrument ID: A8_N
Lims ID: IC L1 Full
Client ID:
Operator ID: SACINSTLCMS01 ALS Bottle#: 28 Worklist Smp#: 3
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: A8_N Limit Group: LC PFC ICAL
Column: Detector EXP1

2 Perfluorobutyric acid, CAS: 375-22-4

Signal: 1

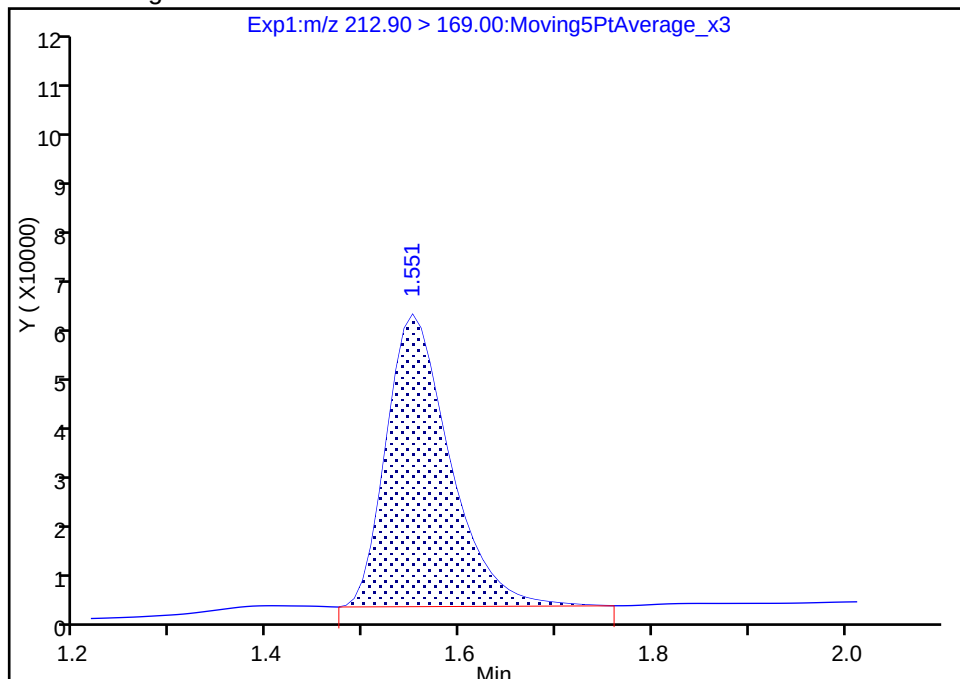
RT: 1.55
Area: 279172
Amount: 0.594183
Amount Units: ng/ml

Processing Integration Results



RT: 1.55
Area: 270265
Amount: 0.610627
Amount Units: ng/ml

Manual Integration Results



Reviewer: phomsophat, 12-Oct-2017 16:20:15
Audit Action: Manually Integrated

Audit Reason: Assign Peak
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TestAmerica Sacramento

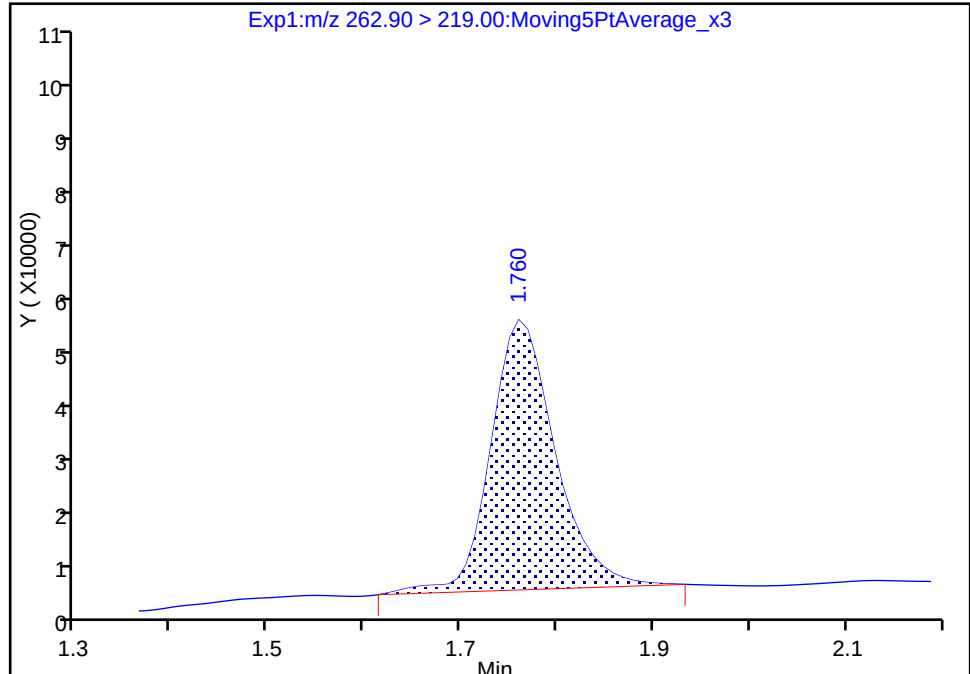
Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171012-49071.b\2017.10.12\ICAL_003.d
Injection Date: 12-Oct-2017 10:23:09 Instrument ID: A8_N
Lims ID: IC L1 Full
Client ID:
Operator ID: SACINSTLCMS01 ALS Bottle#: 28 Worklist Smp#: 3
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: A8_N Limit Group: LC PFC ICAL
Column: Detector EXP1

4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

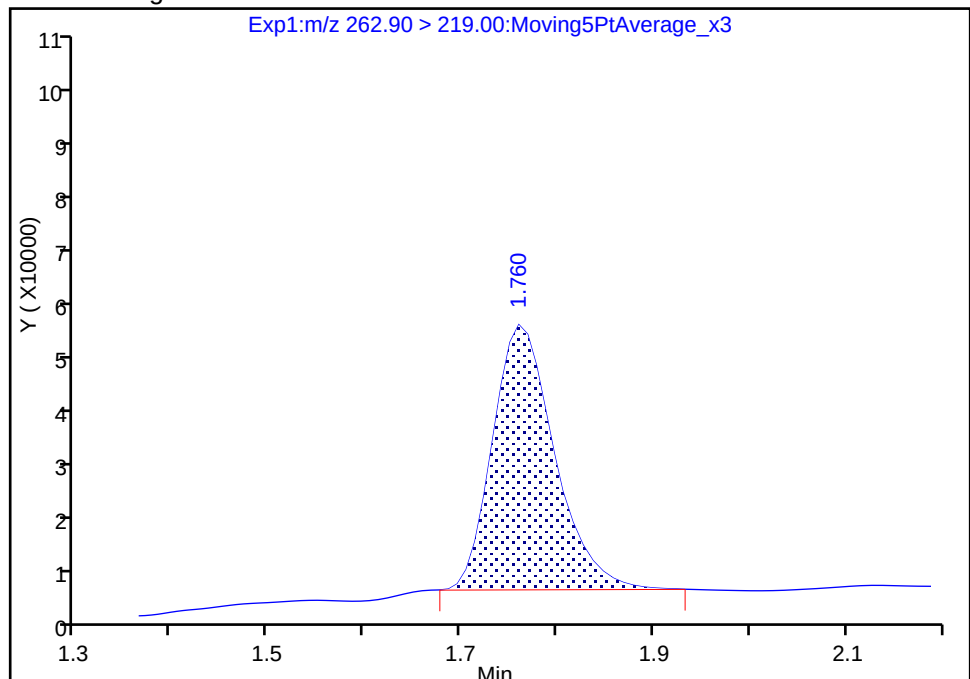
RT: 1.76
Area: 217902
Amount: 0.631830
Amount Units: ng/ml

Processing Integration Results



RT: 1.76
Area: 205078
Amount: 0.608355
Amount Units: ng/ml

Manual Integration Results



Reviewer: phomsophat, 12-Oct-2017 16:20:23
Audit Action: Manually Integrated

Audit Reason: Assign Peak
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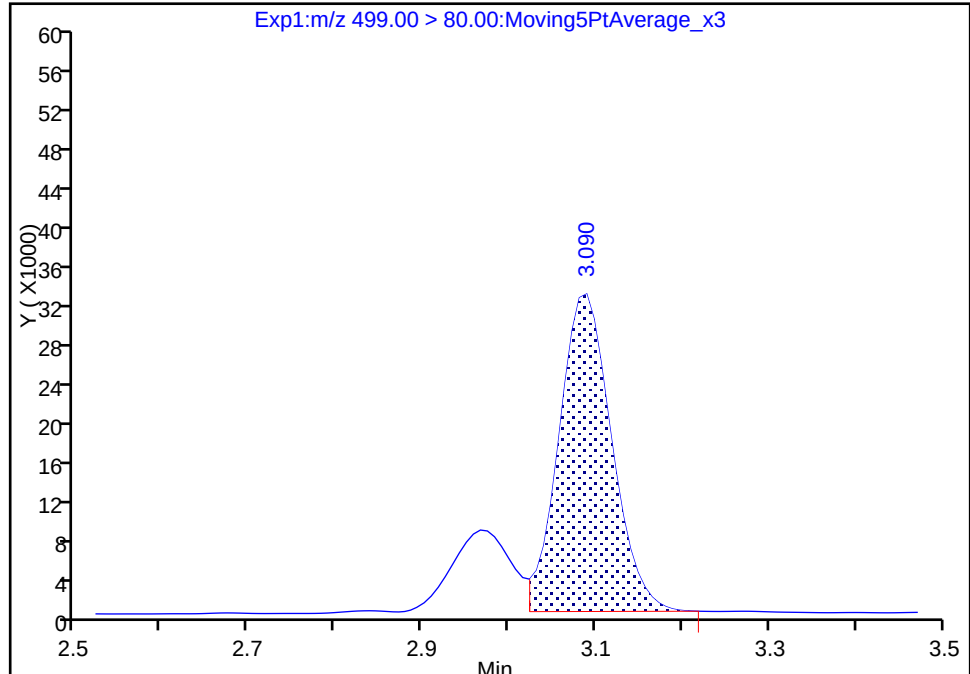
Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171012-49071.b\2017.10.12\ICAL_003.d
Injection Date: 12-Oct-2017 10:23:09 Instrument ID: A8_N
Lims ID: IC L1 Full
Client ID:
Operator ID: SACINSTLCMS01 ALS Bottle#: 28 Worklist Smp#: 3
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: A8_N Limit Group: LC PFC ICAL
Column: Detector EXP1

17 Perfluorooctane sulfonic acid, CAS: 1763-23-1

Signal: 1

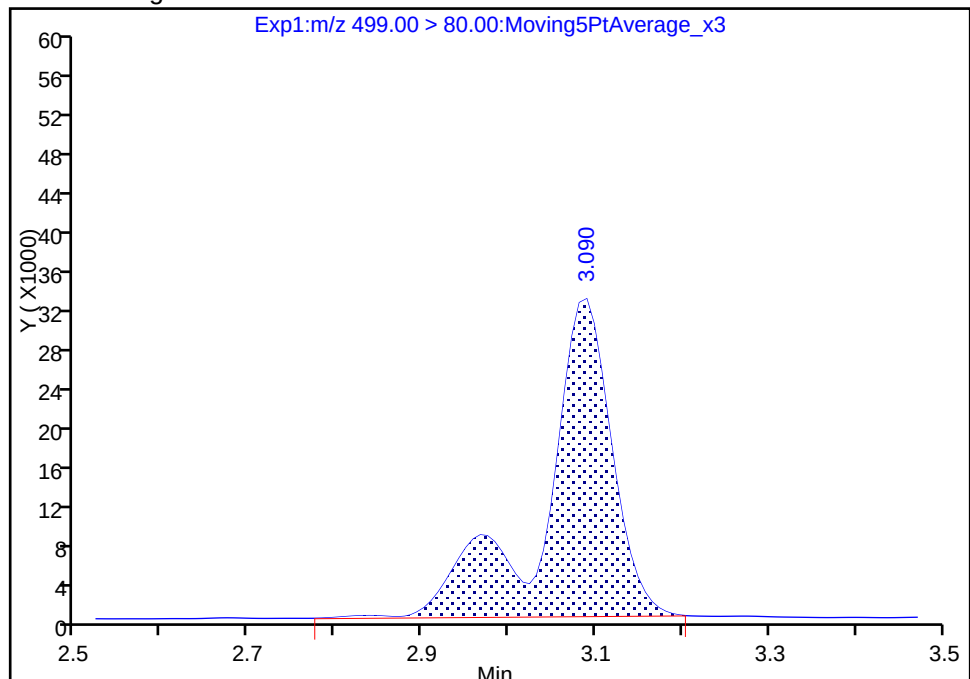
RT: 3.09
Area: 136374
Amount: 0.528759
Amount Units: ng/ml

Processing Integration Results



RT: 3.09
Area: 177930
Amount: 0.529224
Amount Units: ng/ml

Manual Integration Results



Reviewer: phomsophat, 12-Oct-2017 16:18:44

Audit Action: Manually Integrated

Audit Reason: Assign Peak

TestAmerica Sacramento

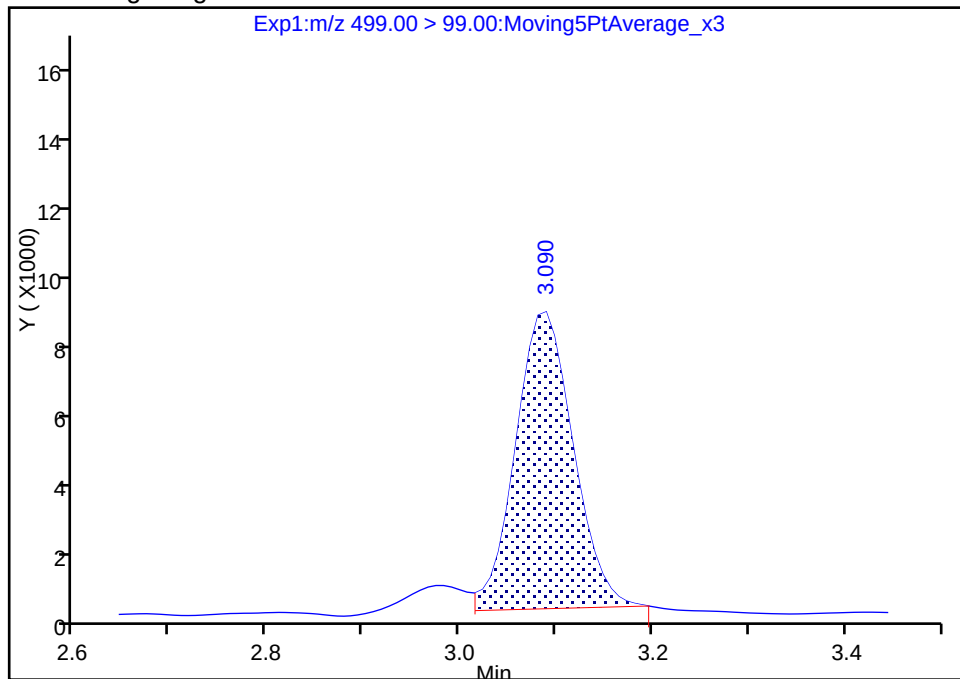
Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171012-49071.b\2017.10.12ICAL_003.d
Injection Date: 12-Oct-2017 10:23:09 Instrument ID: A8_N
Lims ID: IC L1 Full
Client ID:
Operator ID: SACINSTLCMS01 ALS Bottle#: 28 Worklist Smp#: 3
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: A8_N Limit Group: LC PFC ICAL
Column: Detector EXP1

17 Perfluorooctane sulfonic acid, CAS: 1763-23-1

Signal: 2

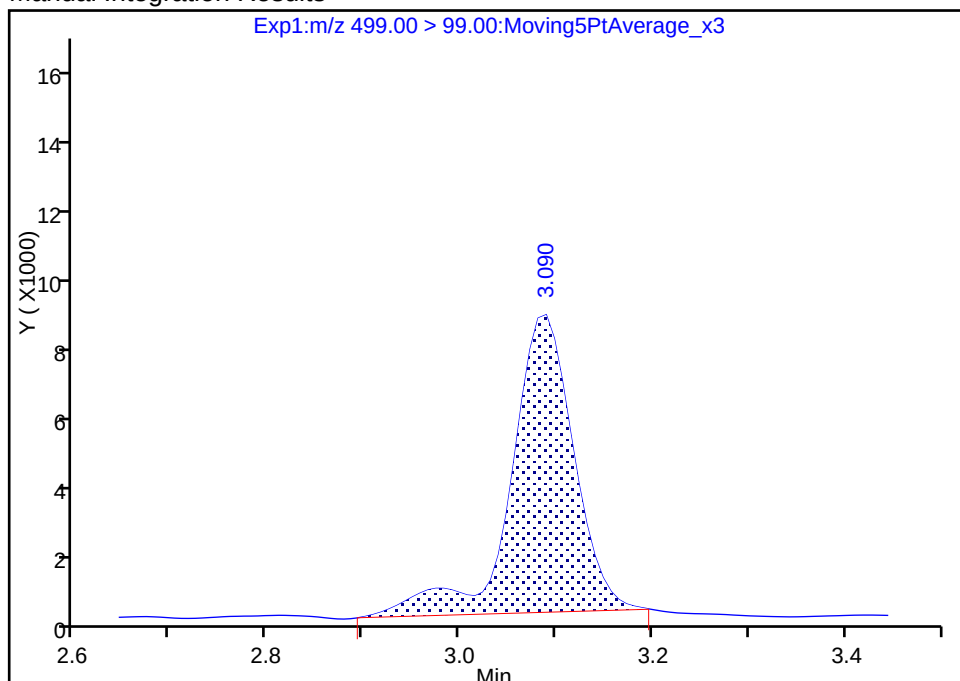
RT: 3.09
Area: 34389
Amount: 0.528759
Amount Units: ng/ml

Processing Integration Results



RT: 3.09
Area: 37840
Amount: 0.529224
Amount Units: ng/ml

Manual Integration Results



Reviewer: phomsophat, 12-Oct-2017 16:19:03

Audit Action: Manually Integrated

Audit Reason: Assign Peak

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171012-49071.b\2017.10.12\ICAL_004.d
 Lims ID: IC L2 Full
 Client ID:
 Sample Type: IC Calib Level: 2
 Inject. Date: 12-Oct-2017 10:30:03 ALS Bottle#: 29 Worklist Smp#: 4
 Injection Vol: 2.0 ul Dil. Factor: 1.0000
 Sample Info: L2-FULL
 Misc. Info.: Plate: 1 Rack: 1
 Operator ID: SACINSTLCMS01 Instrument ID: A8_N
 Sublist: chrom-A8_N*sub19
 Method: \\ChromNa\Sacramento\ChromData\A8_N\20171012-49071.b\A8_N.m
 Limit Group: LC PFC ICAL
 Last Update: 16-Oct-2017 12:12:28 Calib Date: 12-Oct-2017 11:11:26
 Integrator: Picker
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last Ical File: \\ChromNa\Sacramento\ChromData\A8_N\20171012-49071.b\2017.10.12\ICAL_010.d

Column 1 : Det: EXP1

Process Host: XAWRK027

First Level Reviewer: phomsophat

Date: 12-Oct-2017 13:55:44

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	1.546	1.548	-0.002		17301557	46.1		92.1	23978	
2 Perfluorobutyric acid										M
212.90 > 169.00	1.546	1.551	-0.005	1.000	341736	1.06		106	59.9	M
D 3 13C5-PFPeA										
267.90 > 223.00	1.755	1.755	0.0		11069995	47.0		93.9	57250	
4 Perfluoropentanoic acid										M
262.90 > 219.00	1.755	1.757	-0.002	1.000	266174	1.10		110	107	M
D 47 13C3-PFBS										
301.90 > 83.00	1.773	1.777	-0.004		289455	42.2		90.7	7259	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	1.782	1.781	0.001	1.000	422822	0.9470		107	3233	
298.90 > 99.00	1.782	1.781	0.001	1.000	177765		2.38(0.00-0.00)	107	2538	
61 Sodium 1H,1H,2H,2H-perfluorohexane										
327.00 > 307.00	1.983	1.984	-0.001	1.000	100629	0.9101		97.4	4018	
6 Perfluorohexanoic acid										
313.00 > 269.00	2.018	2.023	-0.005	1.000	250295	1.08		108	457	
D 7 13C2 PFHxA										
315.00 > 270.00	2.018	2.023	-0.005		11875130	46.3		92.6	31642	
D 9 13C4-PFHpA										
367.00 > 322.00	2.350	2.348	0.002		11559540	48.4		96.8	28251	
10 Perfluoroheptanoic acid										
363.00 > 319.00	2.350	2.348	0.002	1.000	236918	1.03		103	367	
D 11 18O2 PFHxS										
403.00 > 84.00	2.358	2.359	-0.001		15623033	43.6		92.1	31052	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	2.358	2.359	-0.001	1.000	382576	1.07		118	3079	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 12 M2-6:2FTS										
429.00 > 81.00	2.674	2.670	0.004		4435219	50.1		105	17713	
13 Sodium 1H,1H,2H,2H-perfluorooctane										
427.00 > 407.00	2.674	2.671	0.003	1.000	124297	1.09		115	2499	
* 62 13C2-PFOA										
415.00 > 370.00	2.695	2.692	0.003		11283133	50.0			32046	
15 Perfluorooctanoic acid										
413.00 > 369.00	2.703	2.699	0.004	1.000	275879	1.13		113	44.5	
413.00 > 169.00	2.703	2.699	0.004	1.000	145166		1.90(0.90-1.10)	113	1431	
D 14 13C4 PFOA										
417.00 > 372.00	2.703	2.699	0.004		11317773	50.4		101	28779	
16 Perfluoroheptanesulfonic Acid										
449.00 > 80.00	2.710	2.707	0.003	1.000	278359	1.00		105	4660	
17 Perfluorooctane sulfonic acid										
499.00 > 80.00	3.080	3.072	0.008	1.000	225979	0.9333		101	1998	M
499.00 > 99.00	3.080	3.072	0.008	1.000	47701		4.74(0.90-1.10)	101	425	M
20 Perfluorononanoic acid										
463.00 > 419.00	3.080	3.072	0.008	1.000	157715	1.00		100	180	
D 19 13C5 PFNA										
468.00 > 423.00	3.080	3.072	0.008		8189240	47.8		95.5	22115	
D 18 13C4 PFOS										
503.00 > 80.00	3.080	3.072	0.008		11009535	43.7		91.3	72730	
D 21 13C8 FOSA										
506.00 > 78.00	3.389	3.389	0.0		16417820	45.6		91.2	28480	
22 Perfluorooctane Sulfonamide										
498.00 > 78.00	3.389	3.391	-0.002	1.000	359884	1.06		106	5104	
D 26 M2-8:2FTS										
529.00 > 81.00	3.433	3.423	0.010		3339820	48.5		101	13333	
25 Sodium 1H,1H,2H,2H-perfluorodecane										
527.00 > 507.00	3.433	3.425	0.008	1.000	77302	1.00		104	2263	
24 Perfluorodecanoic acid										
513.00 > 469.00	3.442	3.436	0.006	1.000	131554	1.06		106	239	
D 23 13C2 PFDA										
515.00 > 470.00	3.442	3.436	0.006		6790374	45.9		91.8	14207	
D 27 d3-NMeFOSAA										
573.00 > 419.00	3.596	3.592	0.004		2125943	44.8		89.6	9594	
28 N-methyl perfluorooctane sulfonami										
570.00 > 419.00	3.607	3.595	0.012	1.003	35940	0.9051		90.5	415	
29 Perfluorodecane Sulfonic acid										
599.00 > 80.00	3.753	3.750	0.003	1.000	124732	0.8995		93.3	1987	
D 32 d5-NEtFOSAA										
589.00 > 419.00	3.763	3.759	0.004		2062713	44.6		89.1	2582	
33 N-ethyl perfluorooctane sulfonamid										
584.00 > 419.00	3.773	3.768	0.005	1.003	33068	0.9440		94.4	526	
D 30 13C2 PFUnA										
565.00 > 520.00	3.773	3.768	0.005		4382315	45.0		90.0	9508	
31 Perfluoroundecanoic acid										
563.00 > 519.00	3.773	3.769	0.004	1.000	101332	1.07		107	160	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 34 d-N-MeFOSA-M										
515.00 > 169.00	3.881	3.881	0.0		3769029	43.2		86.5	503	
35 MeFOSA										
512.00 > 169.00	3.881	3.885	-0.004	1.000	68698	1.03		103	1566	
D 36 13C2 PFDaA										
615.00 > 570.00	4.074	4.063	0.011		3971115	43.5		87.0	7648	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.074	4.063	0.011	1.000	76197	1.05		105	38.0	
D 38 d-N-EtFOSA-M										
531.00 > 169.00	4.064	4.066	-0.002		3483867	44.2		88.3	4588	
39 N-ethylperfluoro-1-octanesulfonami										
526.00 > 169.00	4.074	4.075	-0.001	1.000	69818	1.06		106	1596	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.337	4.332	0.005	1.000	76968	1.09		109	7.4	
42 Perfluorotetradecanoic acid										
713.00 > 169.00	4.580	4.570	0.010	1.000	15604	0.8710		87.1	144	
713.00 > 219.00	4.590	4.570	0.020	1.002	13575		1.15(0.00-0.00)	87.1	116	
D 43 13C2-PFTeDA										
715.00 > 670.00	4.590	4.575	0.015		3811717	47.6		95.2	4788	
D 44 13C2-PFHxDA										
815.00 > 770.00	5.007	4.997	0.010		4983357	46.3		92.6	3586	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	5.007	4.999	0.008	1.000	130217	1.38		138	8.2	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	5.379	5.364	0.015	1.000	97953	1.08		108	8.4	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

LCPFC_FULL-L2_00006

Amount Added: 1.00

Units: mL

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171012-49071.b\2017.10.12\ICAL_004.d

Injection Date: 12-Oct-2017 10:30:03

Instrument ID: A8_N

Lims ID: IC L2 Full

Client ID:

Operator ID: SACINSTLCMS01

ALS Bottle#: 29

Worklist Smp#: 4

Injection Vol: 2.0 ul

Dil. Factor: 1.0000

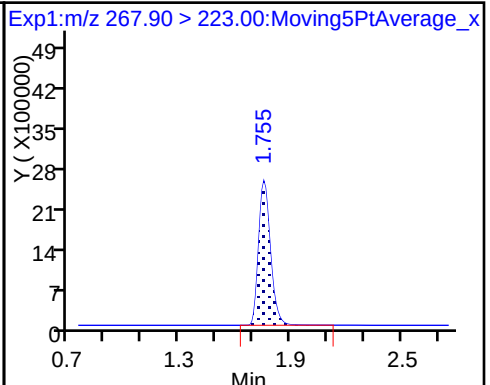
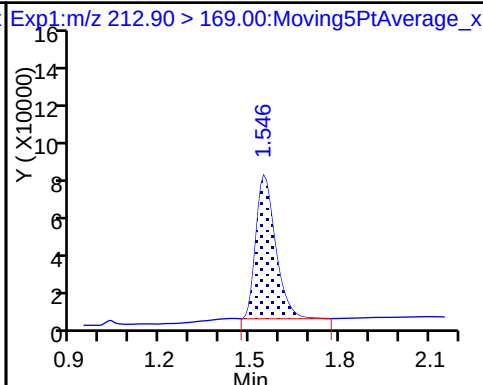
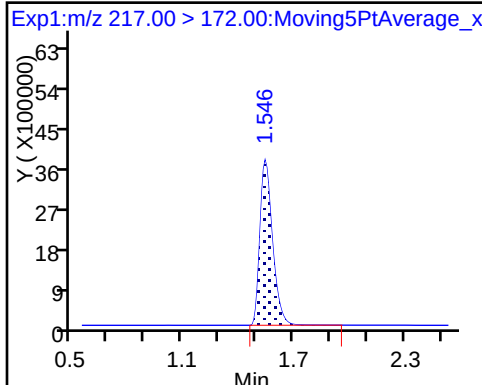
Method: A8_N

Limit Group: LC PFC ICAL

D 1 13C4 PFBA

2 Perfluorobutyric acid (M)

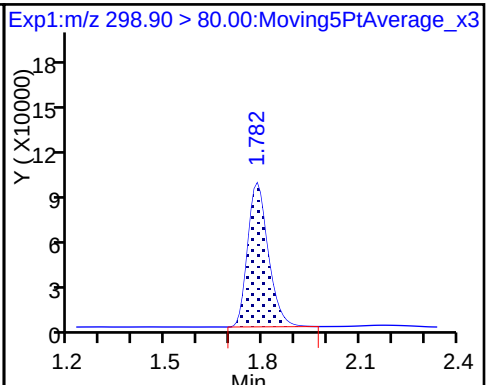
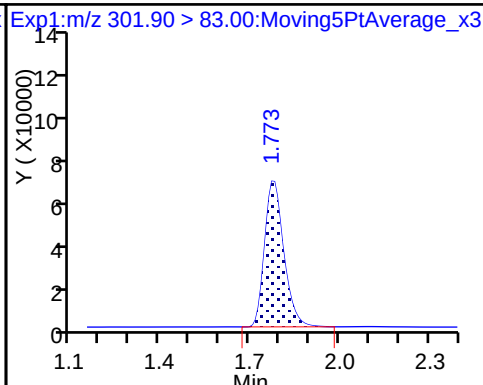
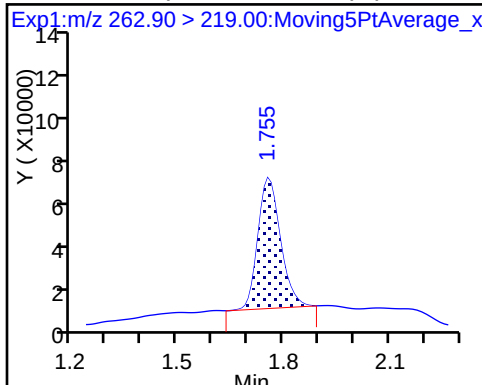
D 3 13C5-PFPeA



4 Perfluoropentanoic acid (M)

D 47 13C3-PFBS

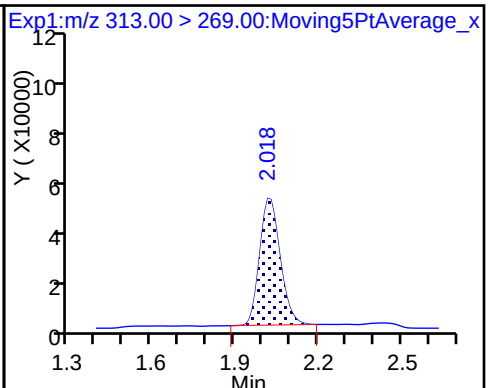
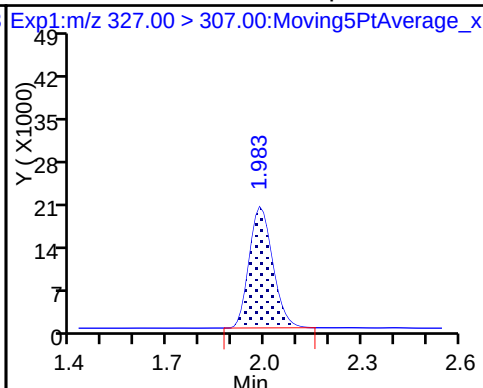
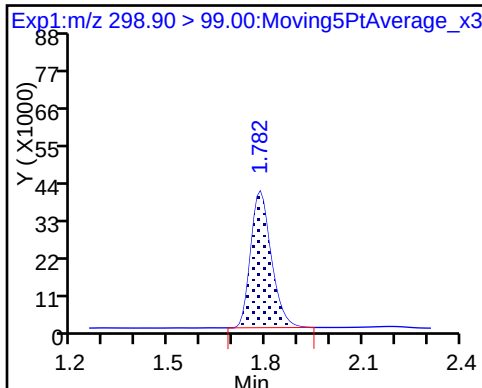
5 Perfluorobutanesulfonic acid



5 Perfluorobutanesulfonic acid

61 Sodium 1H,1H,2H,2H-perfluorohexanoic acid

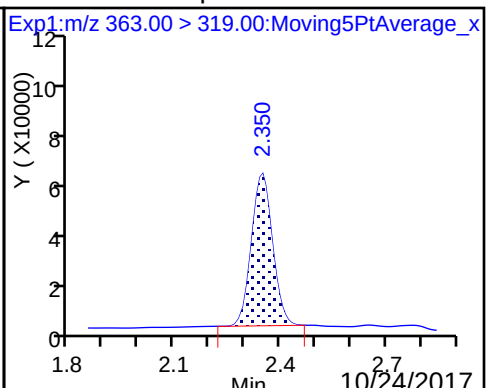
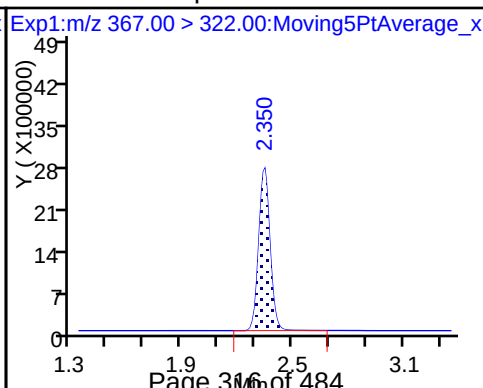
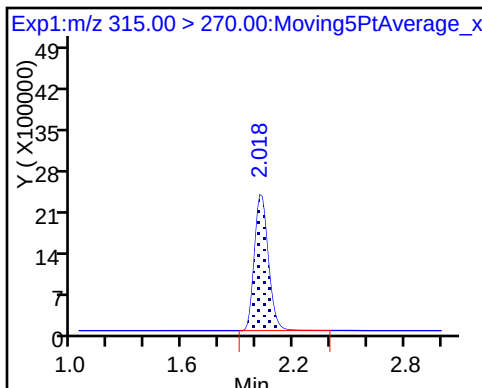
6 Perfluorohexanoic acid



D 7 13C2 PFHxA

D 9 13C4-PFHpA

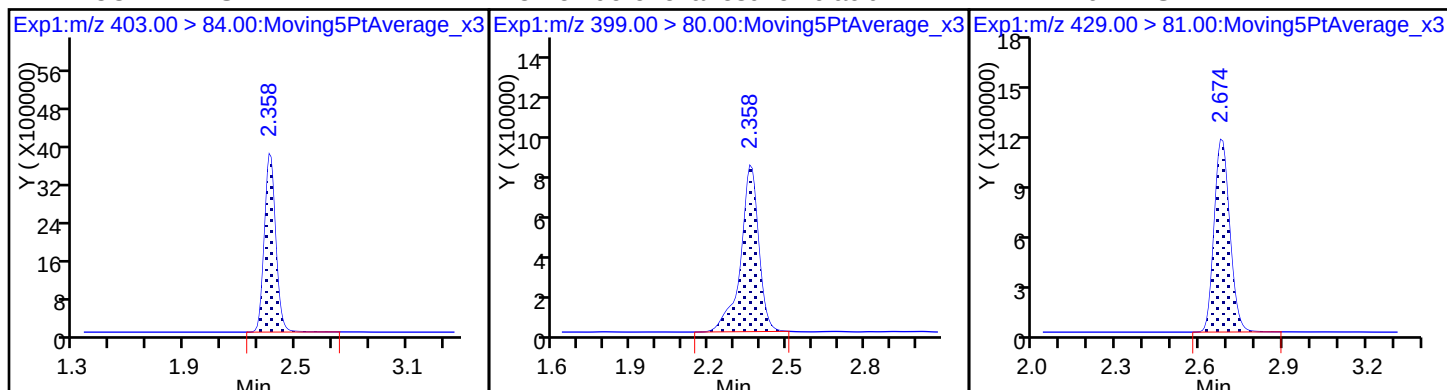
10 Perfluoroheptanoic acid



D 11 18O2 PFHxS

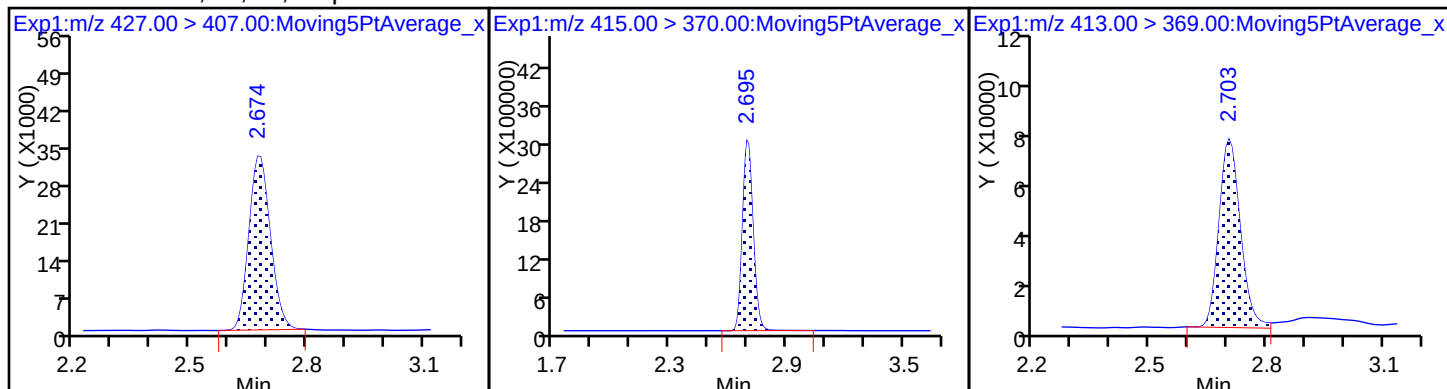
8 Perfluorohexanesulfonic acid

D 12 M2-6:2FTS



13 Sodium 1H,1H,2H,2H-perfluorooctane

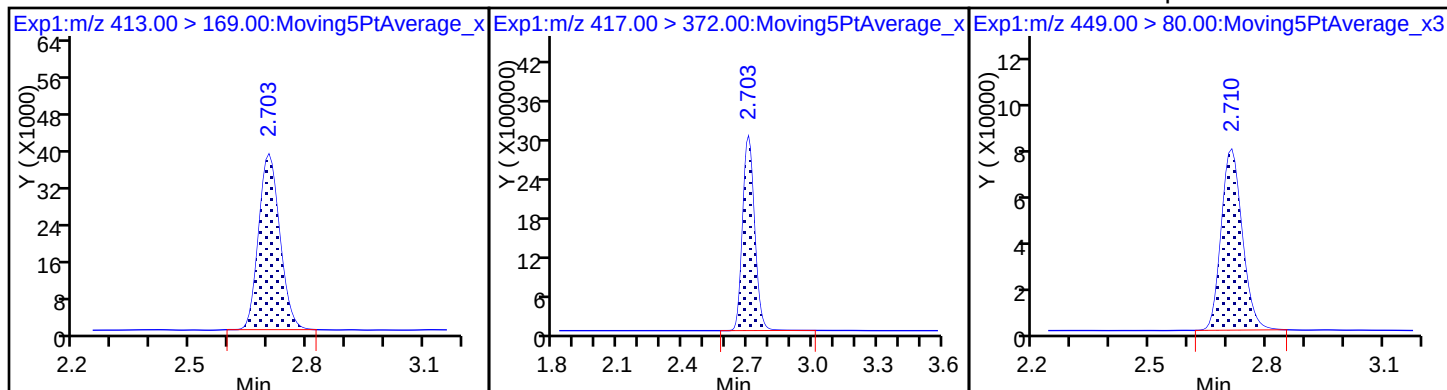
15 Perfluorooctanoic acid



15 Perfluorooctanoic acid

D 14 13C4 PFOA

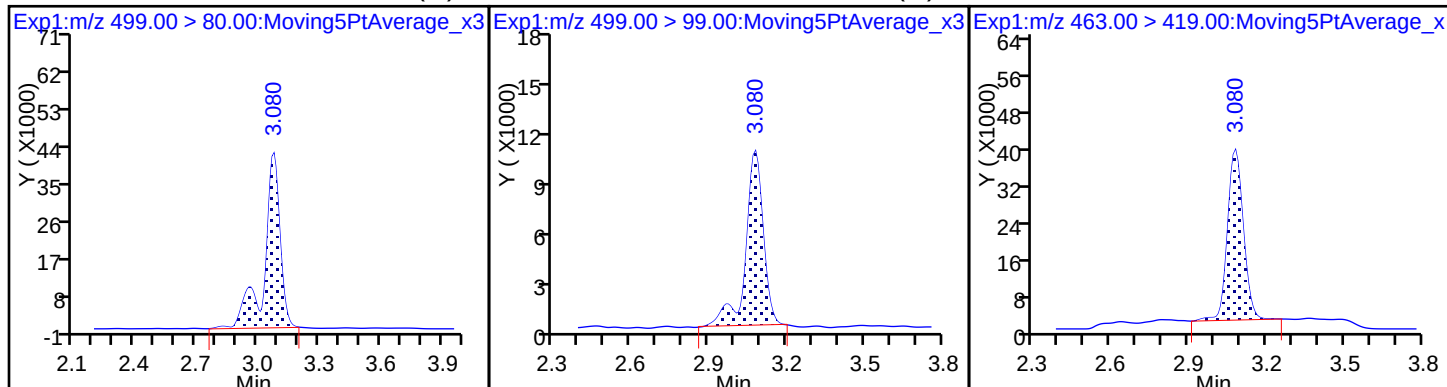
16 Perfluoroheptanesulfonic Acid



17 Perfluorooctane sulfonic acid (M)

17 Perfluorooctane sulfonic acid (M)

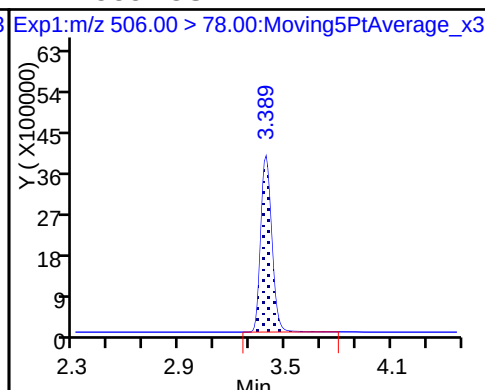
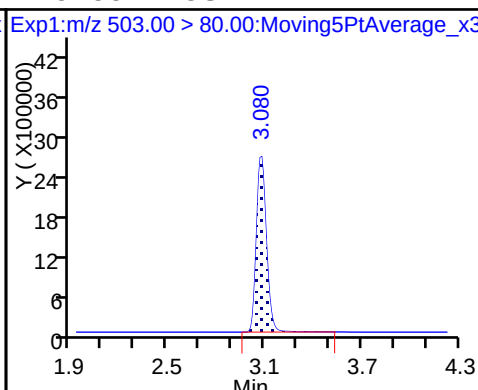
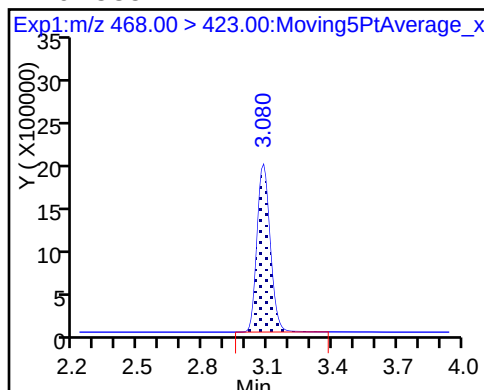
20 Perfluorononanoic acid



D 19 13C5 PFNA

D 18 13C4 PFOS

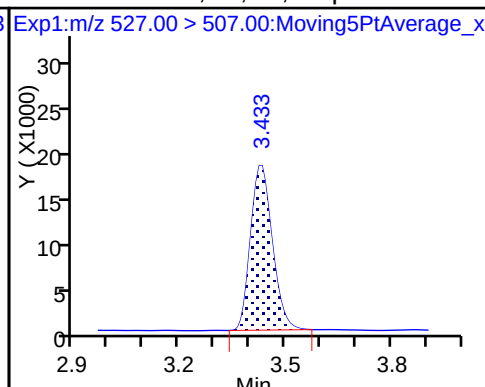
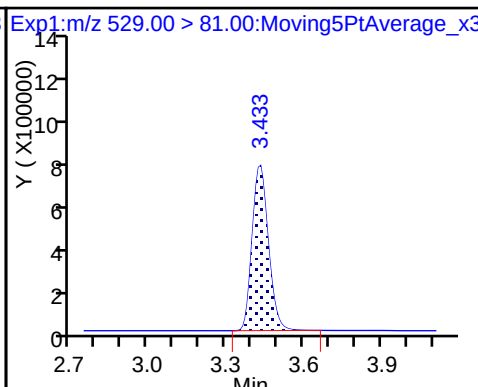
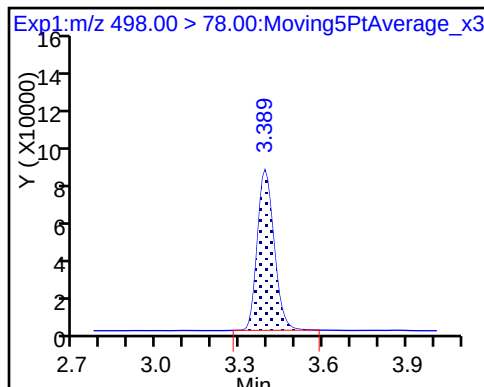
D 21 13C8 FOSA



22 Perfluorooctane Sulfonamide

D 26 M2-8:2FTS

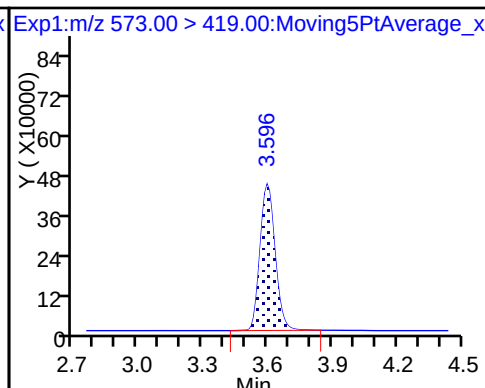
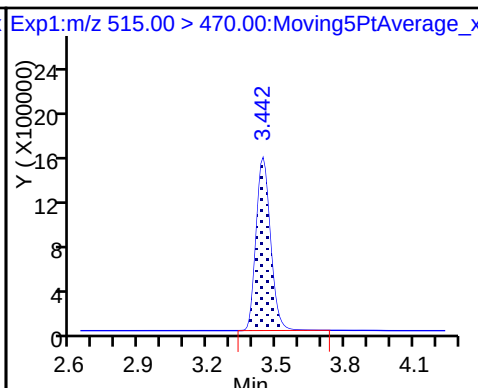
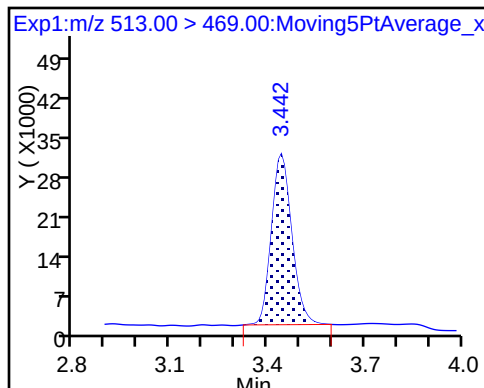
25 Sodium 1H,1H,2H,2H-perfluorodecane



24 Perfluorodecanoic acid

D 23 13C2 PFDA

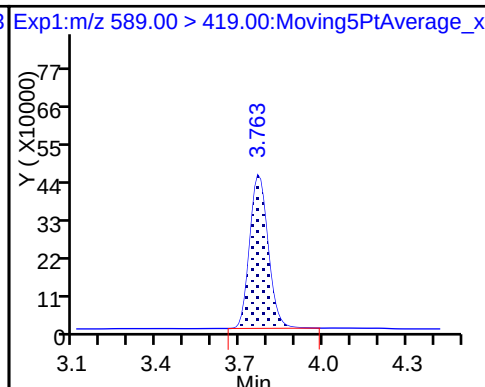
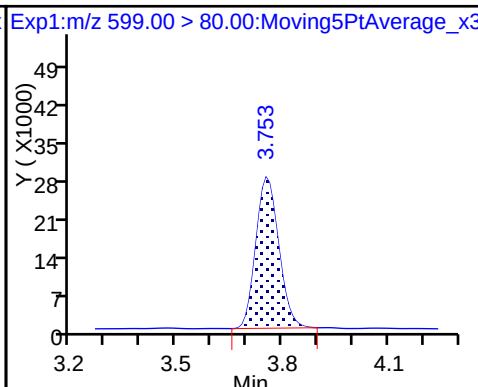
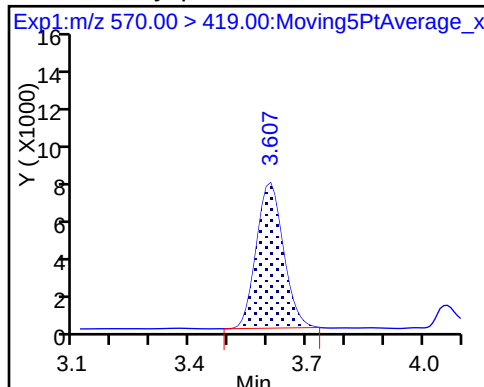
D 27 d3-NMeFOSAA



28 N-methyl perfluorooctane sulfonami

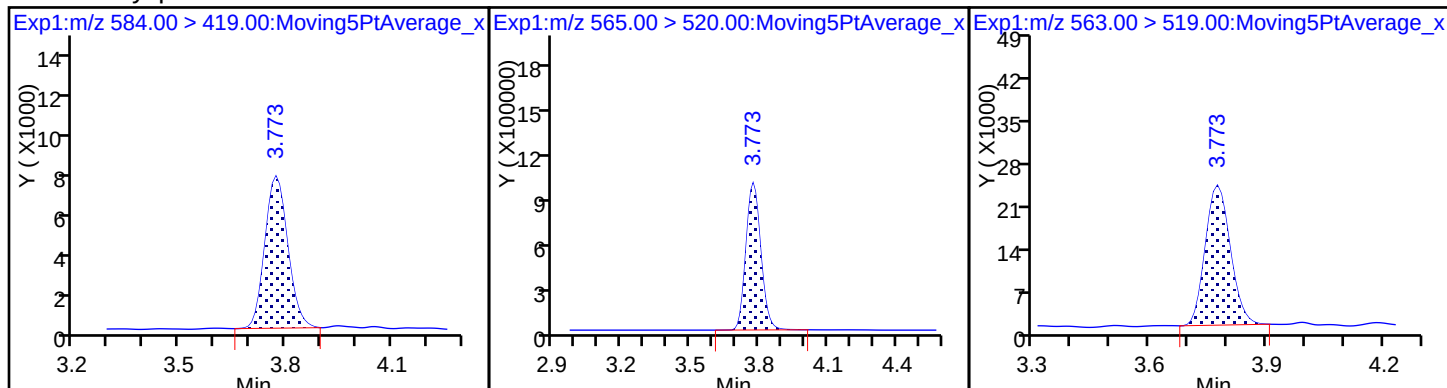
29 Perfluorodecane Sulfonic acid

D 32 d5-NEtFOSAA



33 N-ethyl perfluorooctane sulfonamid D 30 13C2 PFUnA

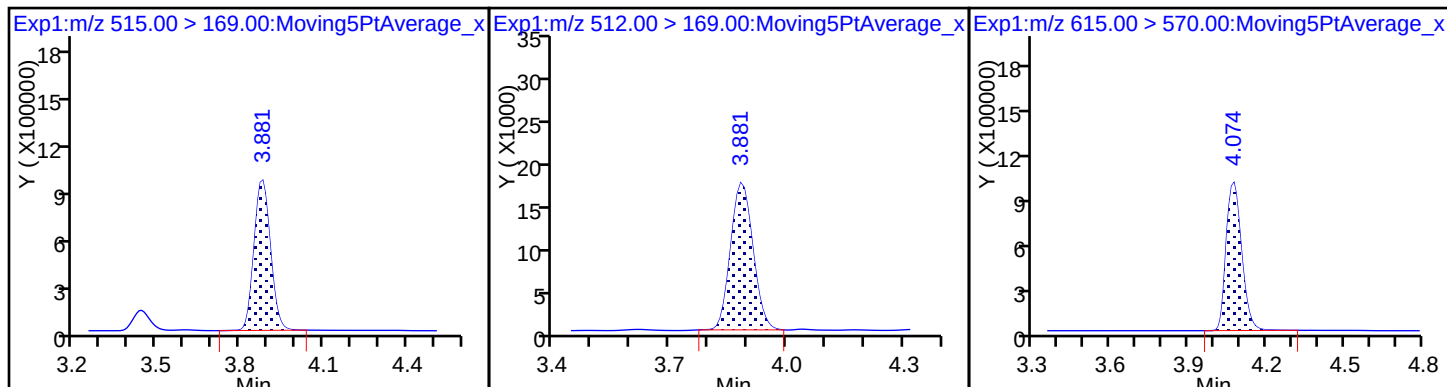
31 Perfluoroundecanoic acid



D 34 d-N-MeFOSA-M

35 MeFOSA

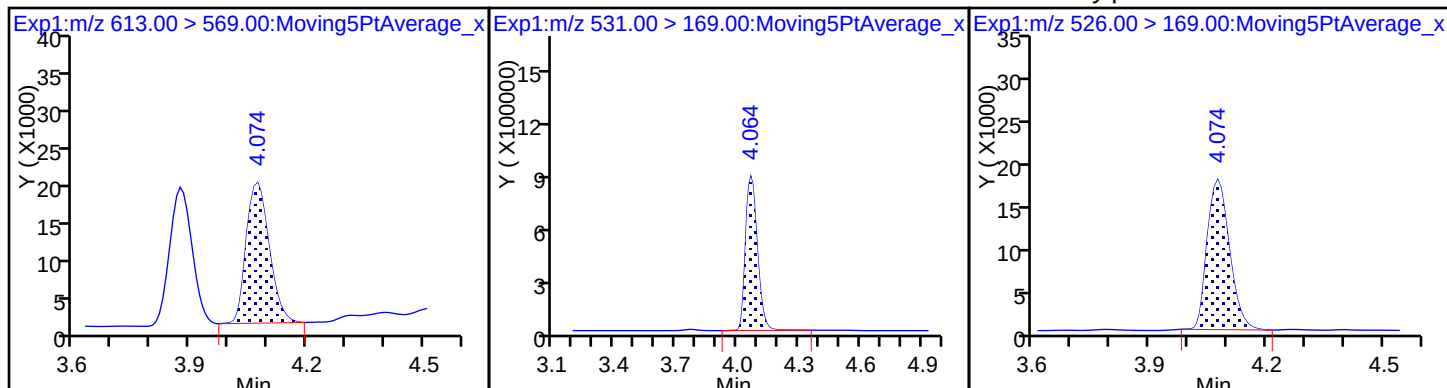
D 36 13C2 PFDaA



37 Perfluorododecanoic acid

D 38 d-N-EtFOSA-M

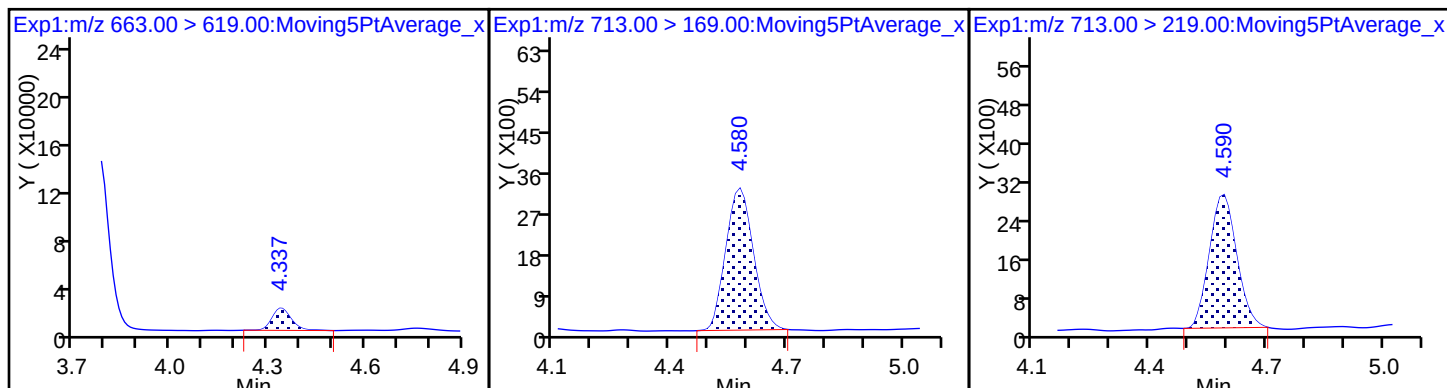
39 N-ethylperfluoro-1-octanesulfonami



41 Perfluorotridecanoic acid

42 Perfluorotetradecanoic acid

42 Perfluorotetradecanoic acid

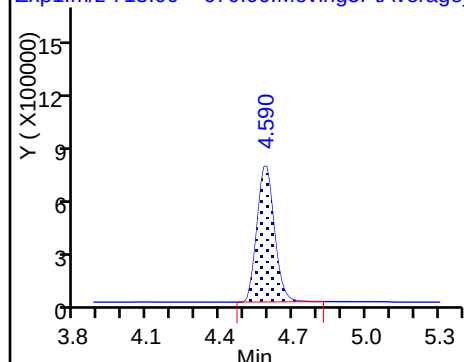


D 43 13C2-PFTeDA

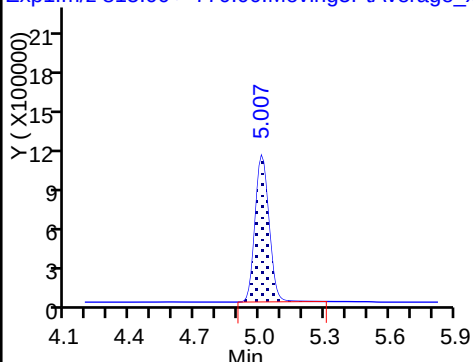
D 44 13C2-PFHxDA

45 Perfluorohexadecanoic acid

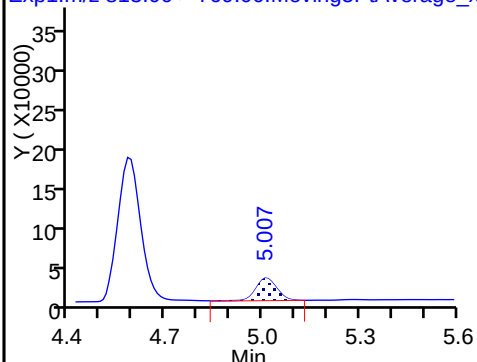
Exp1:m/z 715.00 > 670.00:Moving5PtAverage_x



Exp1:m/z 815.00 > 770.00:Moving5PtAverage_x

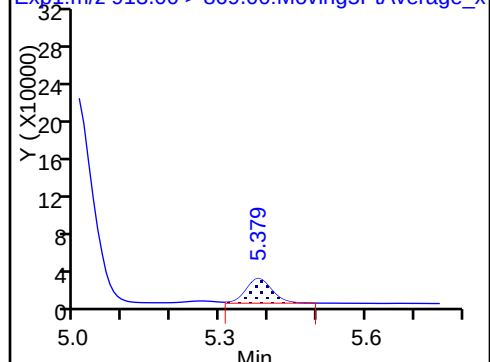


Exp1:m/z 813.00 > 769.00:Moving5PtAverage_x



46 Perfluorooctadecanoic acid

Exp1:m/z 913.00 > 869.00:Moving5PtAverage_x



TestAmerica Sacramento

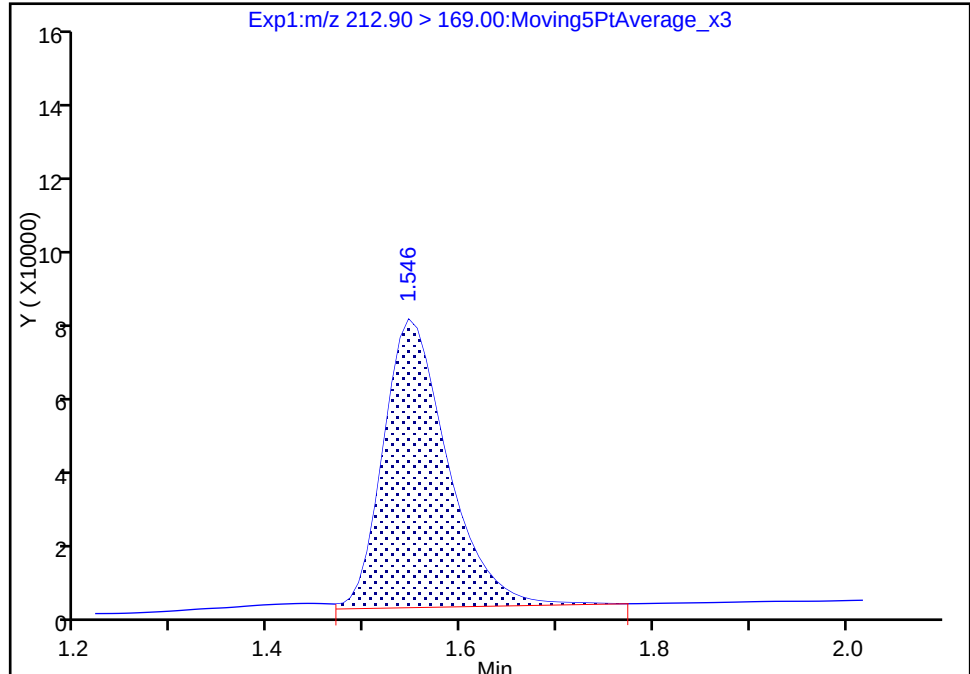
Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171012-49071.b\2017.10.12\ICAL_004.d
Injection Date: 12-Oct-2017 10:30:03 Instrument ID: A8_N
Lims ID: IC L2 Full
Client ID:
Operator ID: SACINSTLCMS01 ALS Bottle#: 29 Worklist Smp#: 4
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: A8_N Limit Group: LC PFC ICAL
Column: Detector EXP1

2 Perfluorobutyric acid, CAS: 375-22-4

Signal: 1

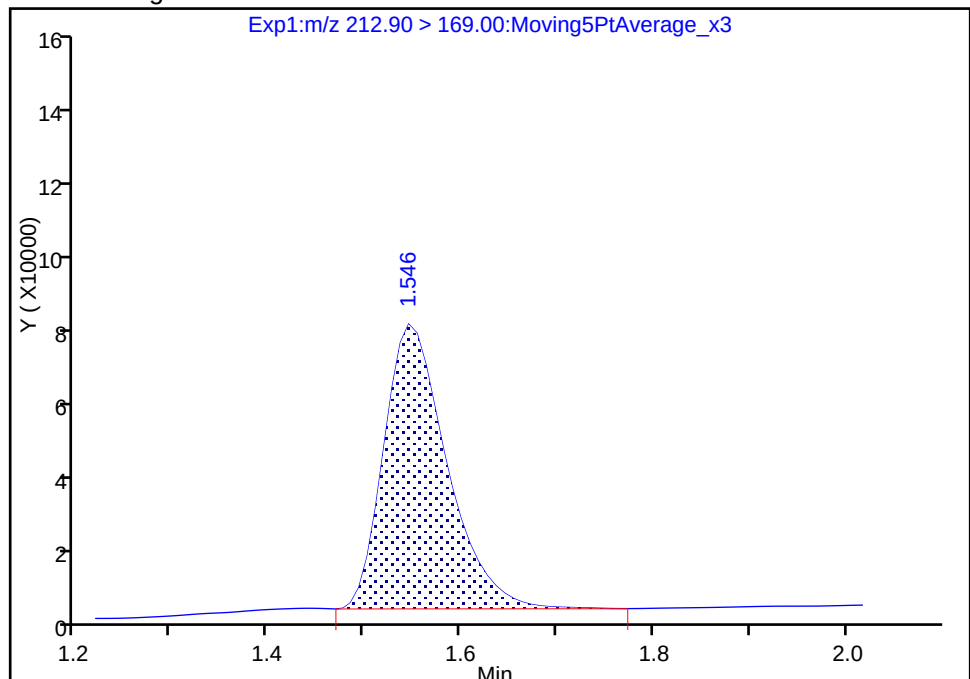
RT: 1.55
Area: 353328
Amount: 1.040245
Amount Units: ng/ml

Processing Integration Results



RT: 1.55
Area: 341736
Amount: 1.061287
Amount Units: ng/ml

Manual Integration Results



Reviewer: phomsophat, 12-Oct-2017 16:21:27

Audit Action: Manually Integrated

Audit Reason: Assign Peak

TestAmerica Sacramento

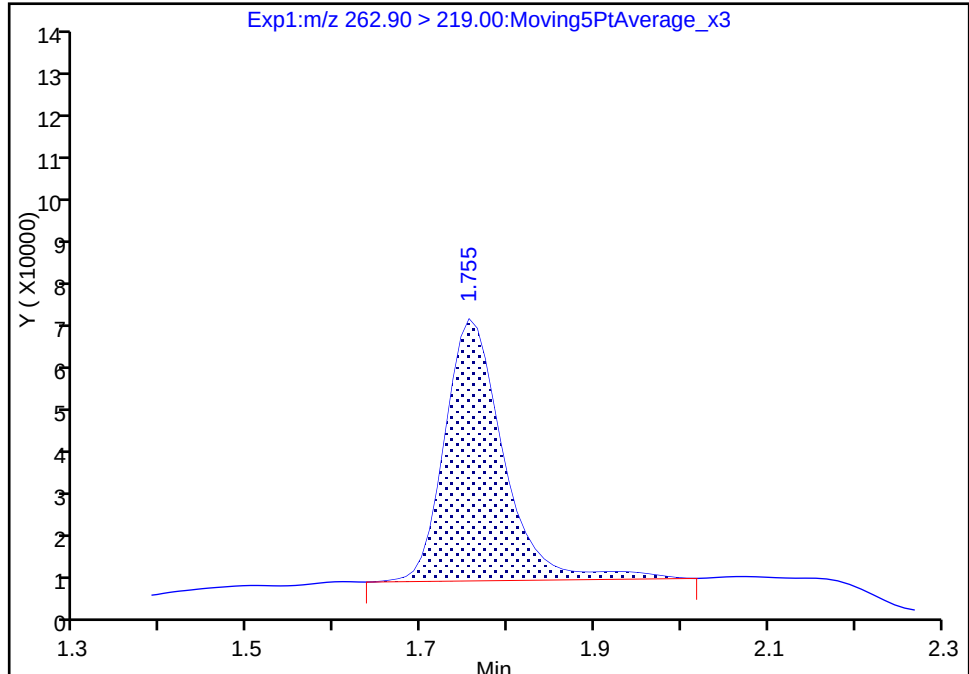
Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171012-49071.b\2017.10.12\ICAL_004.d
Injection Date: 12-Oct-2017 10:30:03 Instrument ID: A8_N
Lims ID: IC L2 Full
Client ID:
Operator ID: SACINSTLCMS01 ALS Bottle#: 29 Worklist Smp#: 4
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: A8_N Limit Group: LC PFC ICAL
Column: Detector EXP1

4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

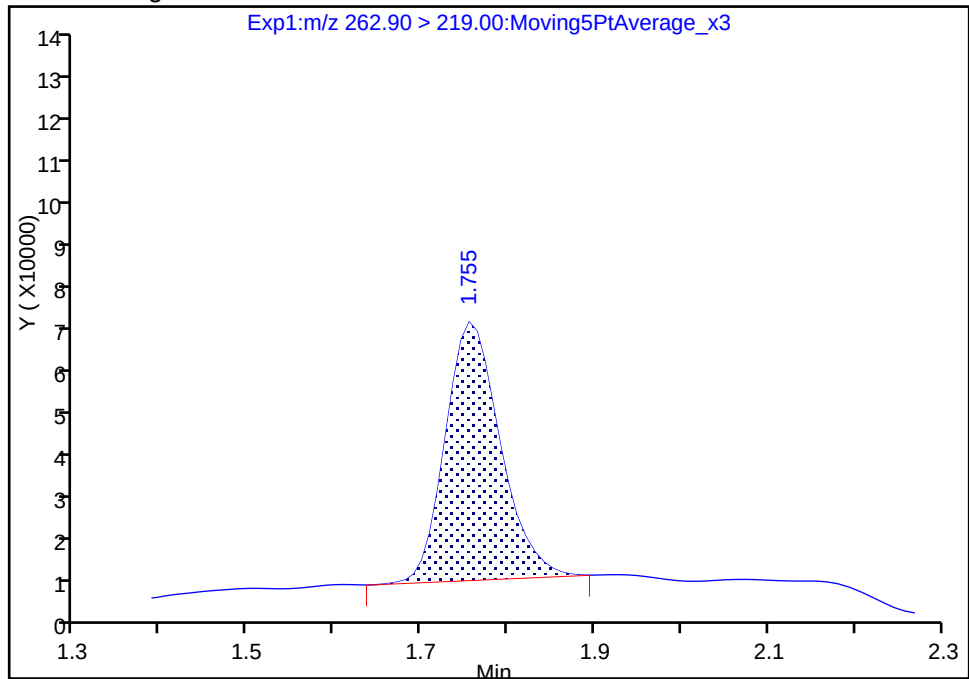
RT: 1.76
Area: 286827
Amount: 1.170322
Amount Units: ng/ml

Processing Integration Results



RT: 1.76
Area: 266174
Amount: 1.099286
Amount Units: ng/ml

Manual Integration Results



Reviewer: phomsophat, 12-Oct-2017 16:21:36
Audit Action: Manually Integrated

Audit Reason: Assign Peak
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10/24/2017

TestAmerica Sacramento

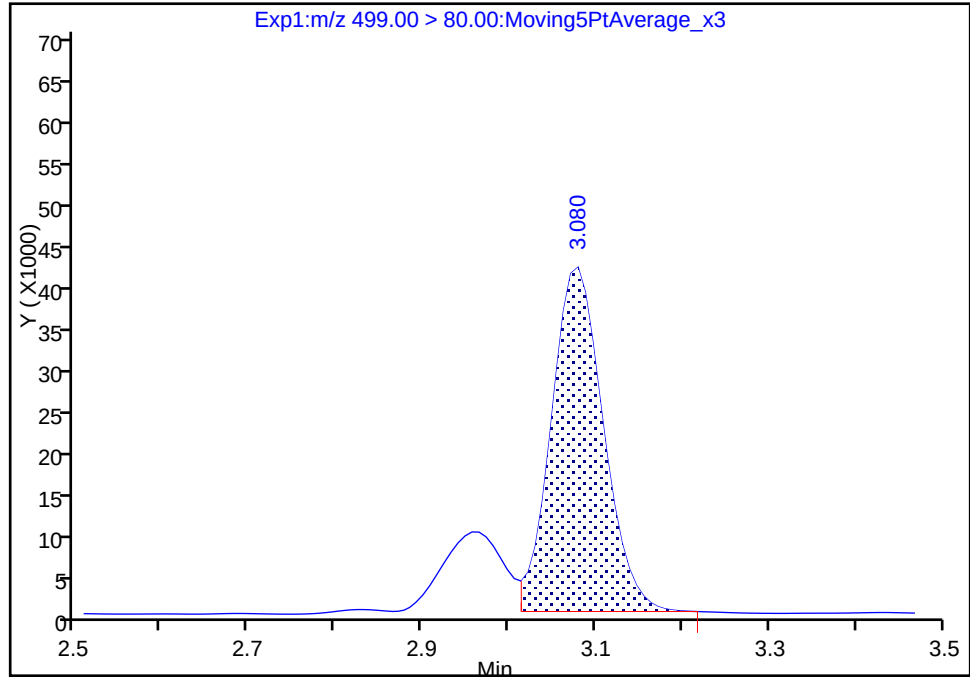
Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171012-49071.b\2017.10.12\ICAL_004.d
Injection Date: 12-Oct-2017 10:30:03 Instrument ID: A8_N
Lims ID: IC L2 Full
Client ID:
Operator ID: SACINSTLCMS01 ALS Bottle#: 29 Worklist Smp#: 4
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: A8_N Limit Group: LC PFC ICAL
Column: Detector EXP1

17 Perfluorooctane sulfonic acid, CAS: 1763-23-1

Signal: 1

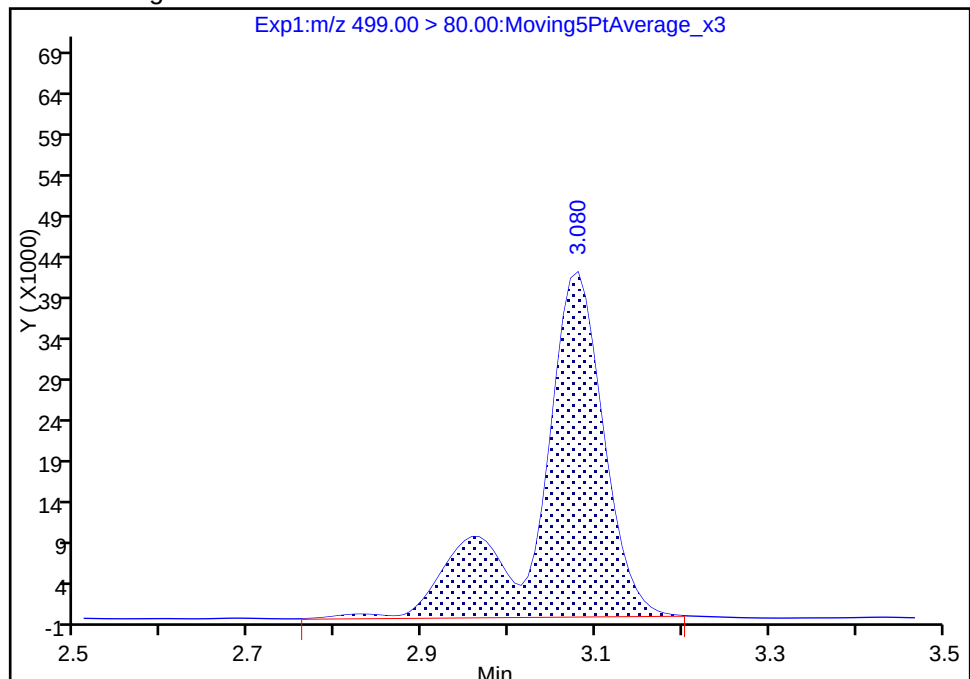
RT: 3.08
Area: 174268
Amount: 0.893893
Amount Units: ng/ml

Processing Integration Results



RT: 3.08
Area: 225979
Amount: 0.933313
Amount Units: ng/ml

Manual Integration Results



Reviewer: phomsophat, 12-Oct-2017 16:20:59

Audit Action: Manually Integrated

Audit Reason: Assign Peak

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171012-49071.b\2017.10.12ICAL_004.d

Injection Date: 12-Oct-2017 10:30:03

Instrument ID: A8_N

Lims ID: IC L2 Full

Client ID:

Operator ID: SACINSTLCMS01

ALS Bottle#:

29

Worklist Smp#: 4

Injection Vol: 2.0 ul

Dil. Factor:

1.0000

Method: A8_N

Limit Group:

LC PFC ICAL

Column:

Detector

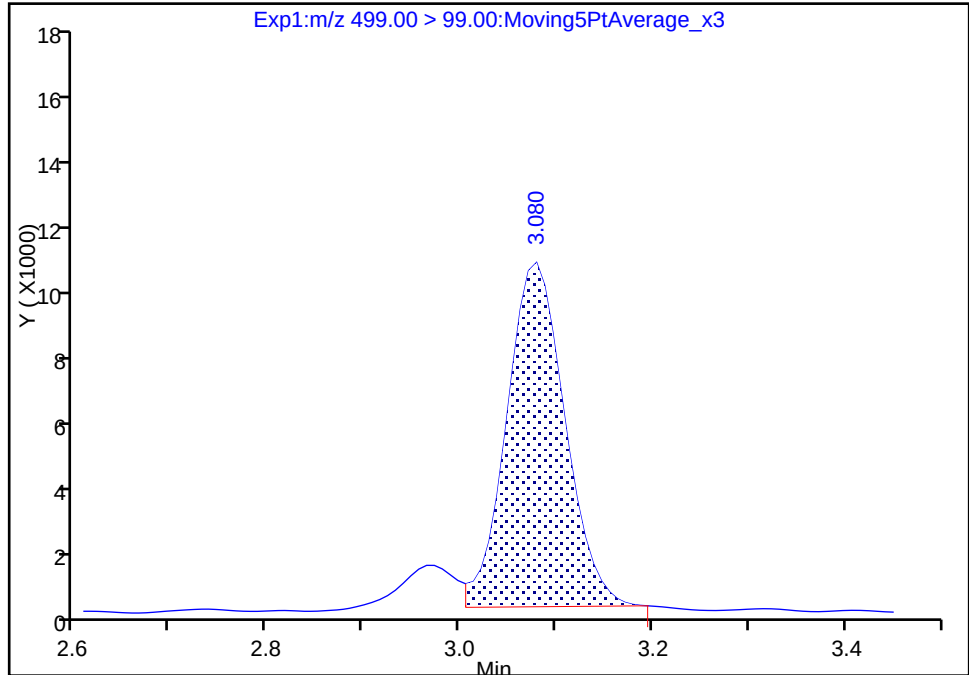
EXP1

17 Perfluorooctane sulfonic acid, CAS: 1763-23-1

Signal: 2

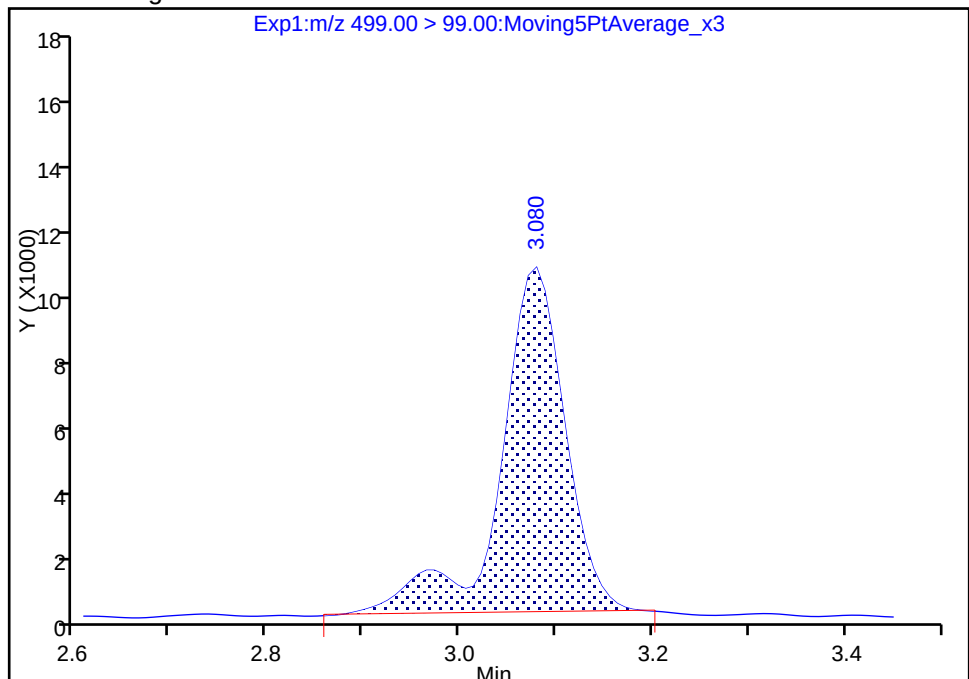
RT: 3.08
Area: 42750
Amount: 0.893893
Amount Units: ng/ml

Processing Integration Results



RT: 3.08
Area: 47701
Amount: 0.933313
Amount Units: ng/ml

Manual Integration Results



Reviewer: phomsophat, 12-Oct-2017 16:21:04

Audit Action: Manually Integrated

Audit Reason: Assign Peak

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171012-49071.b\2017.10.12ICAL_005.d
 Lims ID: IC L3 Full
 Client ID:
 Sample Type: IC Calib Level: 3
 Inject. Date: 12-Oct-2017 10:36:57 ALS Bottle#: 30 Worklist Smp#: 5
 Injection Vol: 2.0 ul Dil. Factor: 1.0000
 Sample Info: L3-FULL
 Misc. Info.: Plate: 1 Rack: 1
 Operator ID: SACINSTLCMS01 Instrument ID: A8_N
 Sublist: chrom-A8_N*sub19
 Method: \\ChromNa\Sacramento\ChromData\A8_N\20171012-49071.b\A8_N.m
 Limit Group: LC PFC ICAL
 Last Update: 16-Oct-2017 12:12:31 Calib Date: 12-Oct-2017 11:11:26
 Integrator: Picker
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last Ical File: \\ChromNa\Sacramento\ChromData\A8_N\20171012-49071.b\2017.10.12ICAL_010.d

Column 1 : Det: EXP1

Process Host: XAWRK027

First Level Reviewer: phomsophat

Date: 12-Oct-2017 14:26:15

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	1.547	1.548	-0.001		22498487	59.9		120	13329	
2 Perfluorobutyric acid										
212.90 > 169.00	1.556	1.551	0.005	1.000	2389456	5.71		114	363	
D 3 13C5-PFPeA										
267.90 > 223.00	1.757	1.755	0.001		14598964	61.9		124	36485	
4 Perfluoropentanoic acid										
262.90 > 219.00	1.757	1.757	-0.001	1.000	1724521	5.40		108	799	
D 47 13C3-PFBS										
301.90 > 83.00	1.784	1.777	0.007		401433	58.5		126	10104	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	1.784	1.781	0.003	1.000	2964329	4.79		108	13561	
298.90 > 99.00	1.784	1.781	0.003	1.000	1228403		2.41(0.00-0.00)	108	10606	
61 Sodium 1H,1H,2H,2H-perfluorohexane										
327.00 > 307.00	1.986	1.984	0.002	1.000	664764	4.79		103	13258	
D 7 13C2 PFHxA										
315.00 > 270.00	2.032	2.023	0.009		15745369	61.4		123	23196	
6 Perfluorohexanoic acid										
313.00 > 269.00	2.032	2.023	0.009	1.000	1700216	5.51		110	3334	
10 Perfluoroheptanoic acid										
363.00 > 319.00	2.350	2.348	0.002	1.000	1631079	5.43		109	2340	
D 9 13C4-PFHpA										
367.00 > 322.00	2.350	2.348	0.002		15075247	63.1		126	18907	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	2.368	2.359	0.009	1.000	2458081	5.39		118	5579	
D 11 18O2 PFHxS										
403.00 > 84.00	2.368	2.359	0.009		20000713	55.8		118	17569	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 12 M2-6:2FTS										
429.00 > 81.00	2.676	2.670	0.006		5562997	62.8		132	16601	
13 Sodium 1H,1H,2H,2H-perfluorooctane										
427.00 > 407.00	2.676	2.671	0.005	1.000	675574	4.71		99.3	7940	
* 62 13C2-PFOA										
415.00 > 370.00	2.697	2.692	0.005		13609596	50.0			21403	
D 14 13C4 PFOA										
417.00 > 372.00	2.704	2.699	0.005		13949539	62.1		124	26301	
15 Perfluorooctanoic acid										
413.00 > 369.00	2.704	2.699	0.005	1.000	1526777	5.06		101	196	
413.00 > 169.00	2.704	2.699	0.005	1.000	836889		1.82(0.90-1.10)	101	3903	
16 Perfluoroheptanesulfonic Acid										
449.00 > 80.00	2.712	2.707	0.005	1.000	2033215	5.37		113	11339	
D 19 13C5 PFNA										
468.00 > 423.00	3.073	3.072	0.001		10903269	63.6		127	18979	
D 18 13C4 PFOS										
503.00 > 80.00	3.073	3.072	0.001		14928761	59.2		124	18041	
17 Perfluorooctane sulfonic acid										M
499.00 > 80.00	3.073	3.072	0.001	1.000	1605967	4.89		105	3468	M
499.00 > 99.00	3.073	3.072	0.001	1.000	360846		4.45(0.90-1.10)	105	2100	M
20 Perfluorononanoic acid										
463.00 > 419.00	3.073	3.072	0.001	1.000	1105677	5.27		105	968	
D 21 13C8 FOSA										
506.00 > 78.00	3.391	3.389	0.002		21786369	60.5		121	21225	
22 Perfluorooctane Sulfonamide										
498.00 > 78.00	3.391	3.391	0.0	1.000	2423122	5.39		108	10628	
D 26 M2-8:2FTS										
529.00 > 81.00	3.428	3.423	0.005		4564628	66.2		138	10891	
25 Sodium 1H,1H,2H,2H-perfluorodecane										
527.00 > 507.00	3.428	3.425	0.003	1.000	514621	4.87		102	8424	
D 23 13C2 PFDA										
515.00 > 470.00	3.444	3.436	0.008		9541536	64.5		129	16493	
24 Perfluorodecanoic acid										
513.00 > 469.00	3.444	3.436	0.008	1.000	844418	4.83		96.6	1121	
D 27 d3-NMeFOSAA										
573.00 > 419.00	3.599	3.592	0.007		2986683	62.9		126	9254	
28 N-methyl perfluorooctane sulfonami										
570.00 > 419.00	3.599	3.595	0.004	1.000	263313	4.72		94.4	1331	
29 Perfluorodecane Sulfonic acid										
599.00 > 80.00	3.756	3.750	0.006	1.000	962564	5.12		106	6102	
D 32 d5-NEtFOSAA										
589.00 > 419.00	3.766	3.759	0.007		2932065	63.3		127	2372	
D 30 13C2 PFUnA										
565.00 > 520.00	3.776	3.768	0.008		6250195	64.2		128	14522	
33 N-ethyl perfluorooctane sulfonamid										
584.00 > 419.00	3.776	3.768	0.008	1.003	248464	4.99		99.8	2097	
31 Perfluoroundecanoic acid										
563.00 > 519.00	3.776	3.769	0.007	1.000	646801	4.80		96.0	1115	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 34 d-N-MeFOSA-M										
515.00 > 169.00	3.884	3.881	0.003		5094857	58.4		117	499	
35 MeFOSA										
512.00 > 169.00	3.893	3.885	0.008	1.000	462488	5.12		102	3243	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.069	4.063	0.006	1.000	514859	4.90		97.9	194	
D 36 13C2 PFDaA										
615.00 > 570.00	4.069	4.063	0.006		5751816	63.0		126	11214	
D 38 d-N-EtFOSA-M										
531.00 > 169.00	4.069	4.066	0.003		4647711	58.9		118	4110	
39 N-ethylperfluoro-1-octanesulfonami										
526.00 > 169.00	4.079	4.075	0.004	1.000	439598	5.02		100	2941	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.337	4.332	0.005	1.000	514705	5.03		101	36.4	
42 Perfluorotetradecanoic acid										
713.00 > 169.00	4.580	4.570	0.010	1.000	125476	5.37		107	676	
713.00 > 219.00	4.580	4.570	0.010	1.000	94443		1.33(0.00-0.00)	107	529	
D 43 13C2-PFTeDA										
715.00 > 670.00	4.580	4.575	0.005		4973963	62.1		124	16621	
D 44 13C2-PFHxDA										
815.00 > 770.00	5.008	4.997	0.011		6709118	62.3		125	7020	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	5.008	4.999	0.009	1.000	620910	4.88		97.6	31.8	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	5.373	5.364	0.009	1.000	559801	4.59		91.8	36.4	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

LCPFC_FULL-L3_00005

Amount Added: 1.00

Units: mL

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171012-49071.b\2017.10.12\ICAL_005.d

Injection Date: 12-Oct-2017 10:36:57

Instrument ID: A8_N

Lims ID: IC L3 Full

Client ID:

Operator ID: SACINSTLCMS01

ALS Bottle#: 30

Worklist Smp#: 5

Injection Vol: 2.0 ul

Dil. Factor: 1.0000

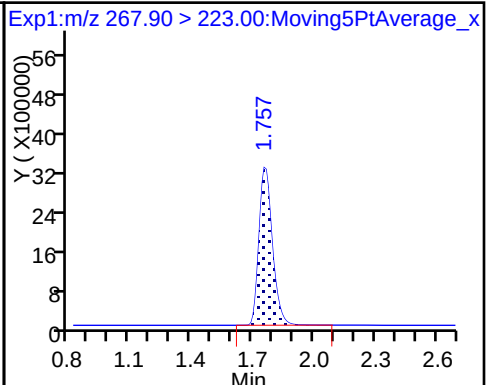
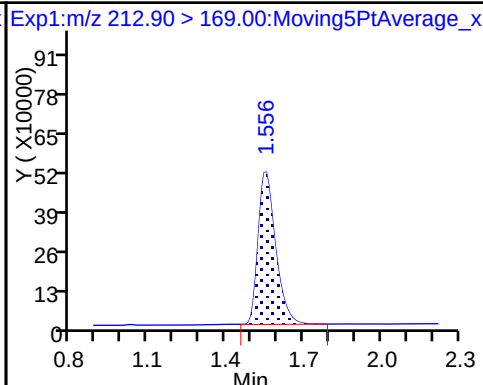
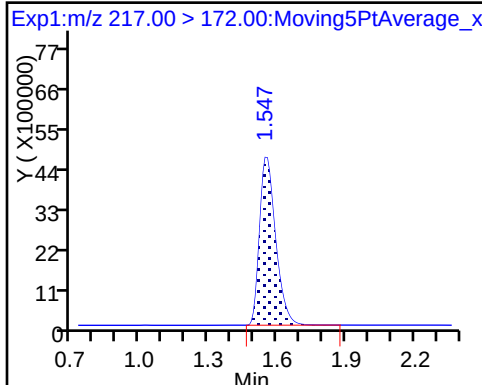
Method: A8_N

Limit Group: LC PFC ICAL

D 1 13C4 PFBA

2 Perfluorobutyric acid

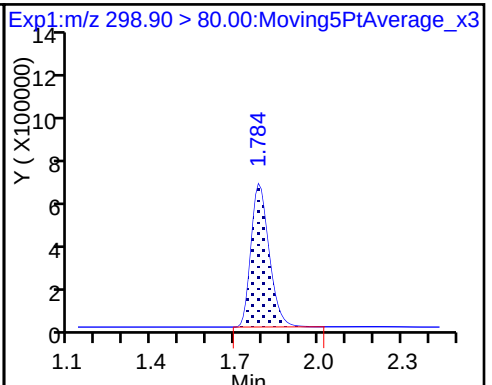
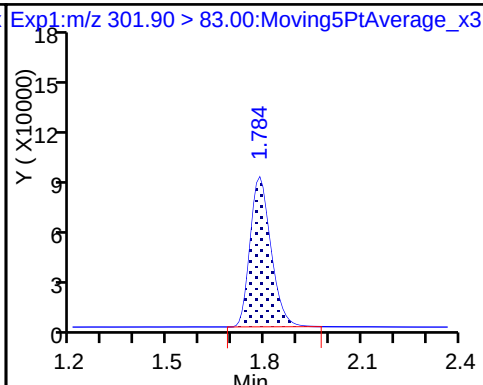
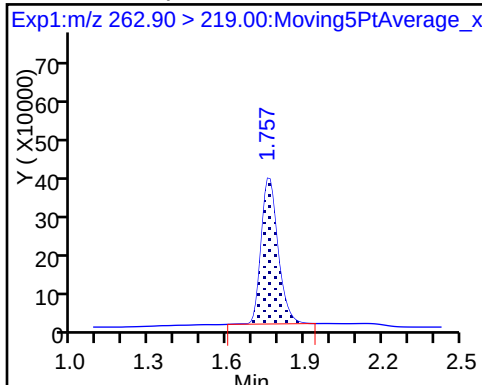
D 3 13C5-PFPeA



4 Perfluoropentanoic acid

D 47 13C3-PFBS

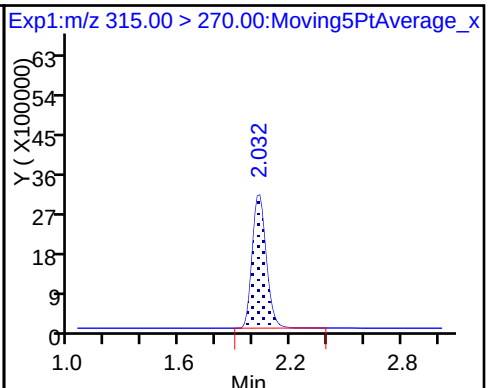
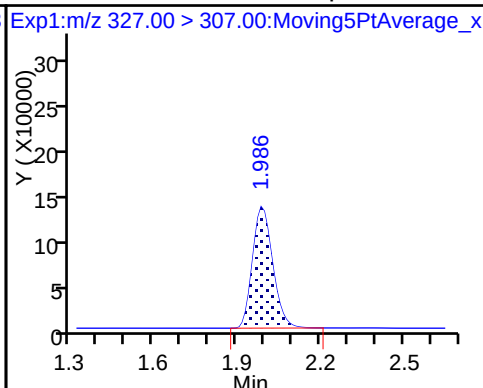
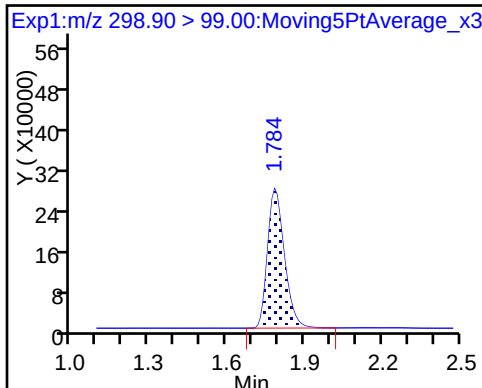
5 Perfluorobutanesulfonic acid



5 Perfluorobutanesulfonic acid

61 Sodium 1H,1H,2H,2H-perfluorohexa

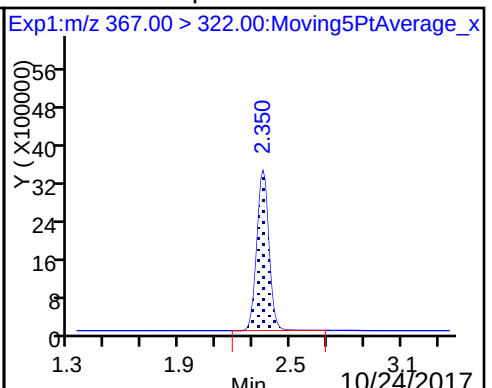
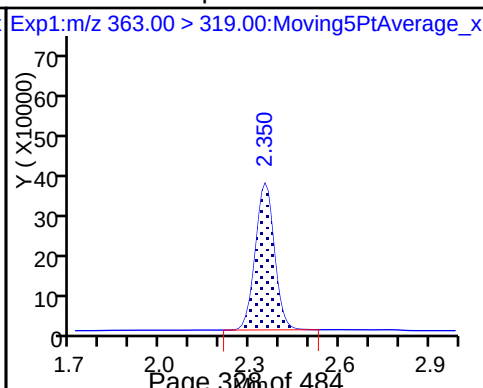
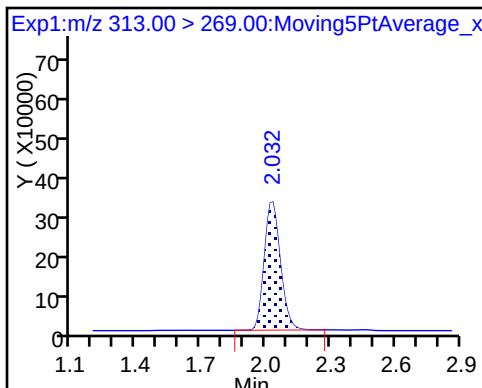
De 7 13C2 PFHxA



6 Perfluorohexanoic acid

10 Perfluoroheptanoic acid

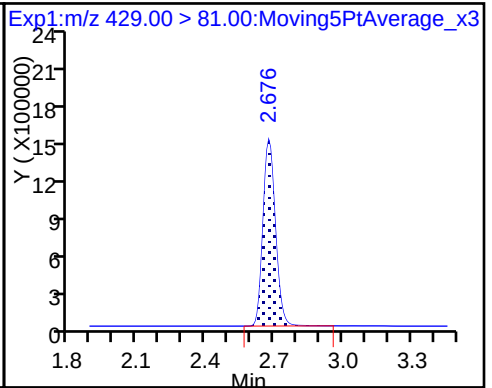
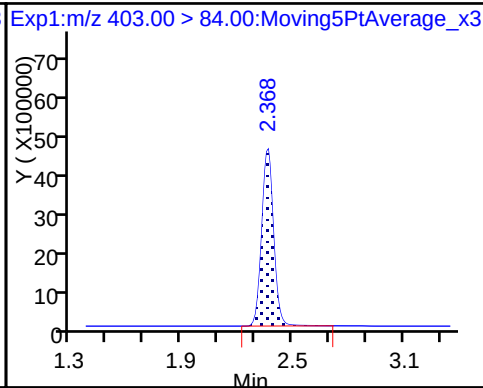
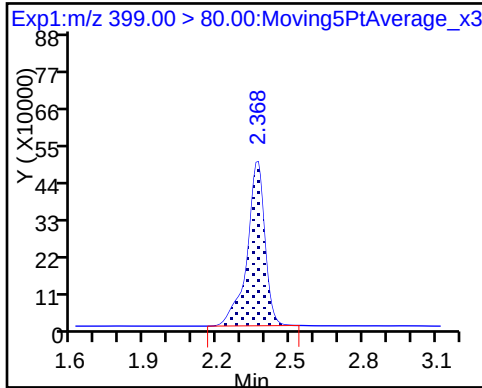
D 9 13C4-PFHpA



8 Perfluorohexanesulfonic acid

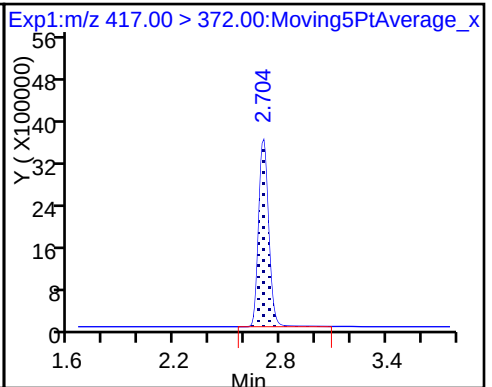
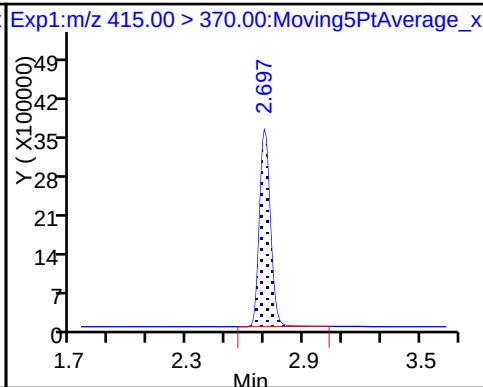
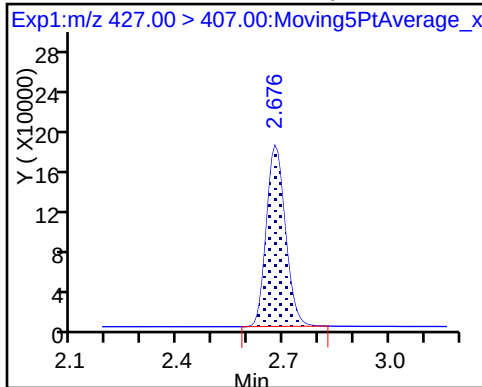
D 11 18O2 PFHxS

D 12 M2-6:2FTS



13 Sodium 1H,1H,2H,2H-perfluorooctanoate

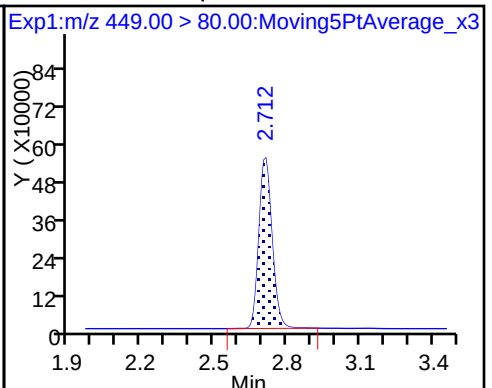
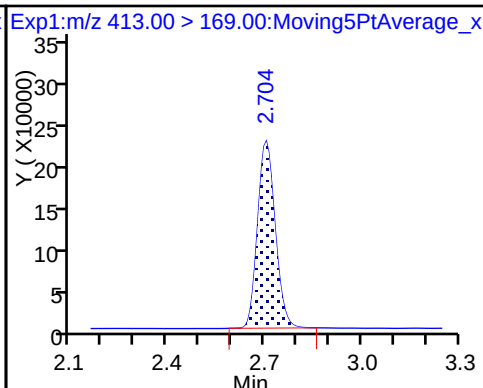
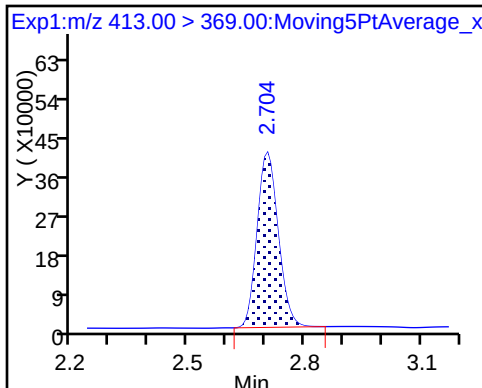
D 14 13C4 PFOA



15 Perfluorooctanoic acid

15 Perfluorooctanoic acid

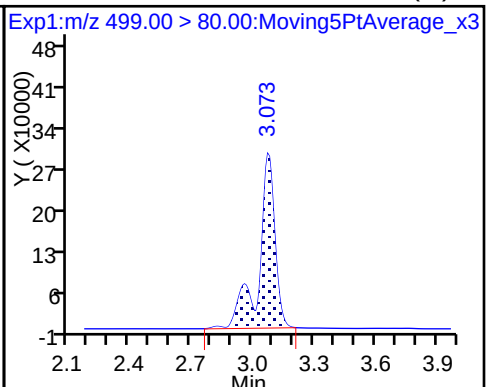
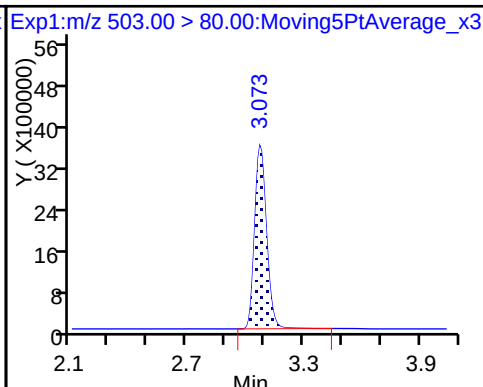
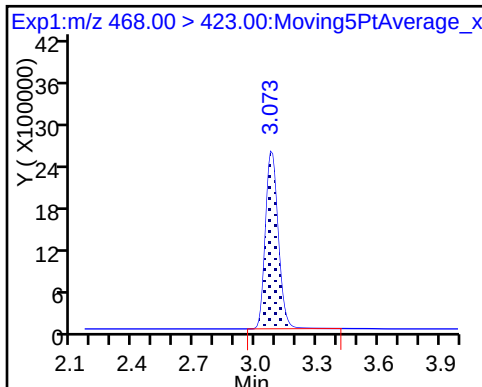
16 Perfluoroheptanesulfonic Acid



D 19 13C5 PFNA

D 18 13C4 PFOS

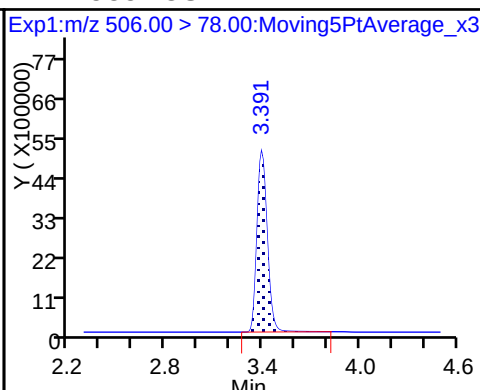
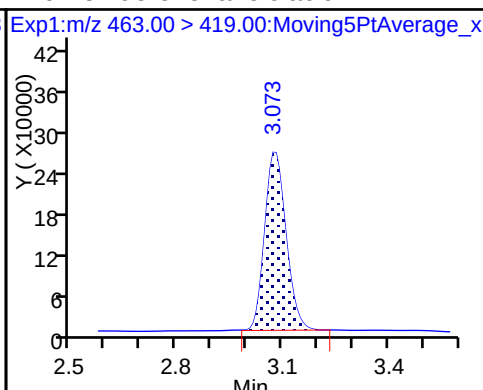
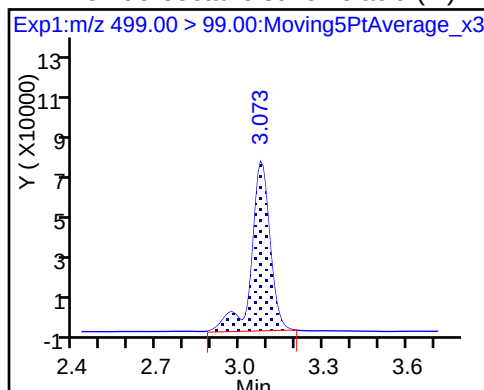
17 Perfluorooctane sulfonic acid (M)



17 Perfluorooctane sulfonic acid (M)

20 Perfluorononanoic acid

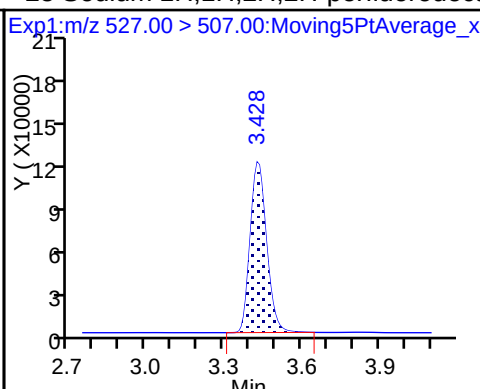
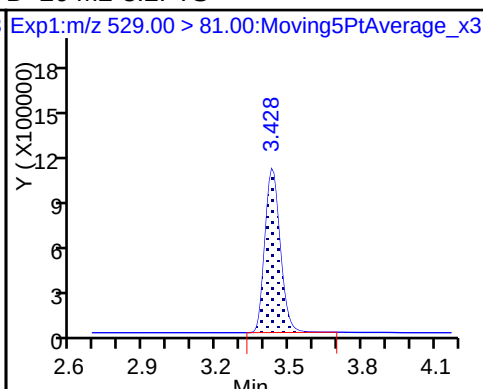
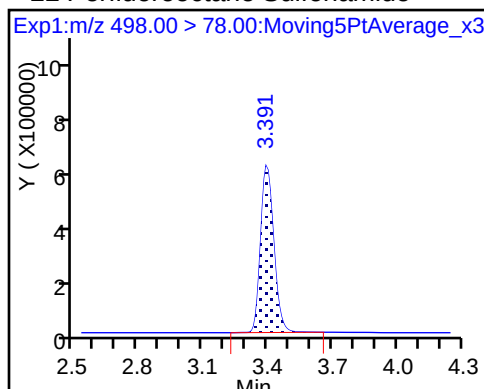
D 21 13C8 FOSA



22 Perfluorooctane Sulfonamide

D 26 M2-8:2FTS

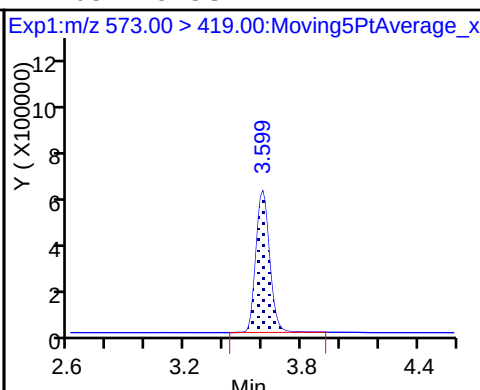
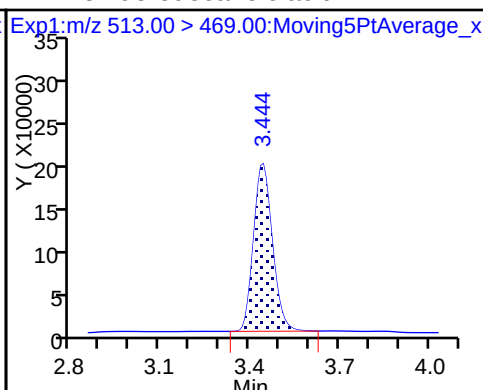
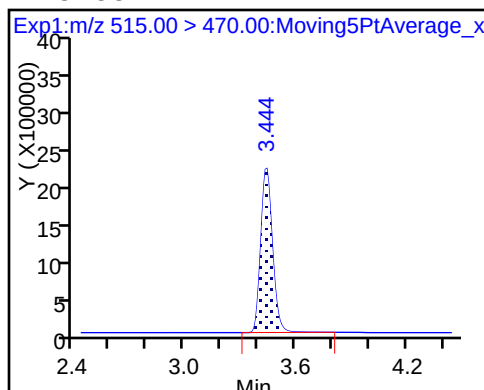
25 Sodium 1H,1H,2H,2H-perfluorodecane



D 23 13C2 PFDA

24 Perfluorodecanoic acid

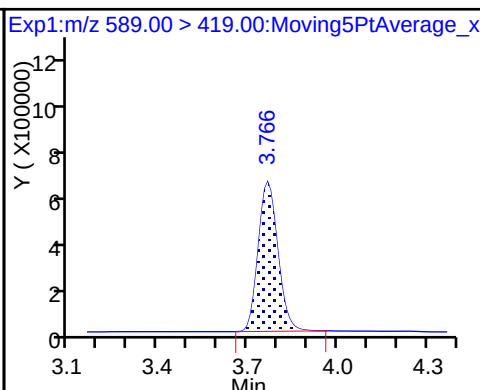
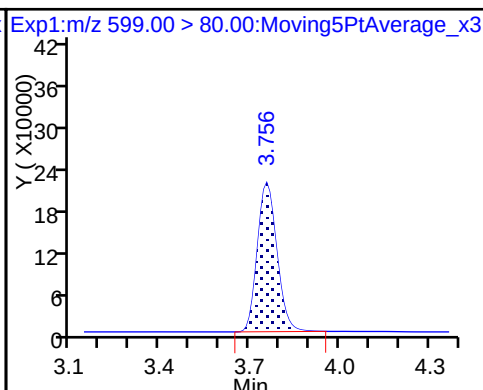
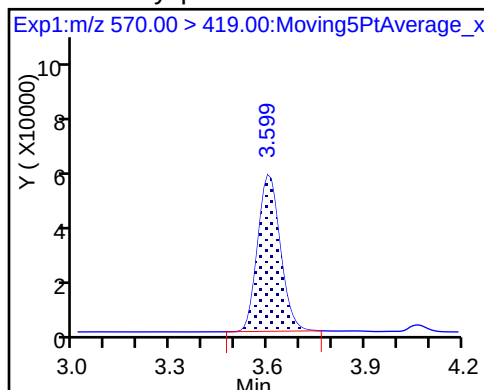
D 27 d3-NMeFOSAA



28 N-methyl perfluorooctane sulfonami

29 Perfluorodecane Sulfonic acid

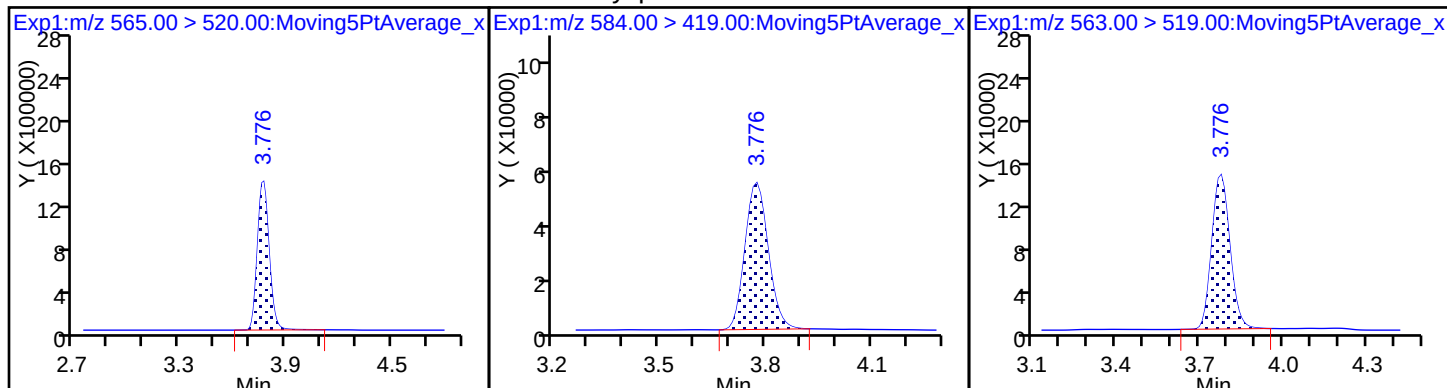
D 32 d5-NEtFOSAA



D 30 13C2 PFUnA

33 N-ethyl perfluorooctane sulfonamid

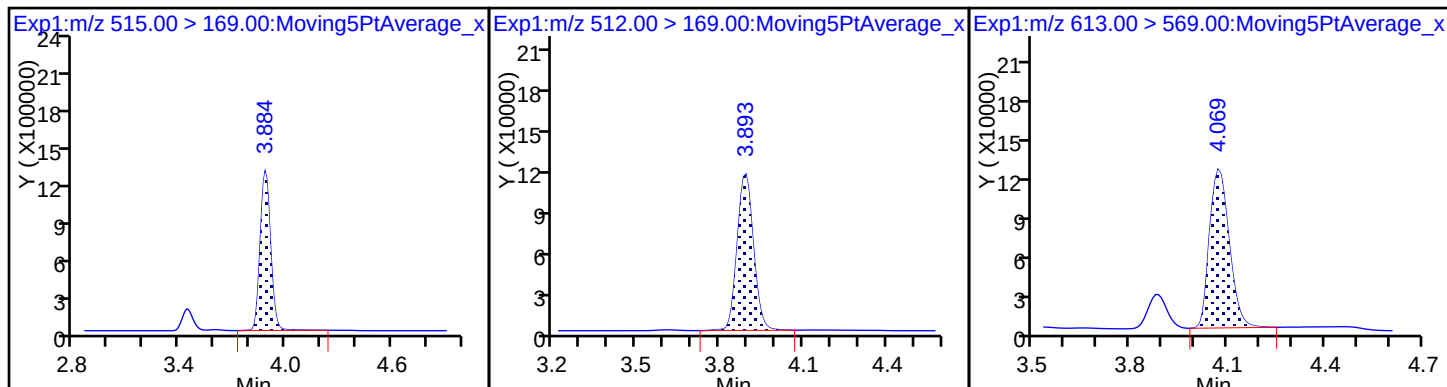
31 Perfluoroundecanoic acid



D 34 d-N-MeFOSA-M

35 MeFOSA

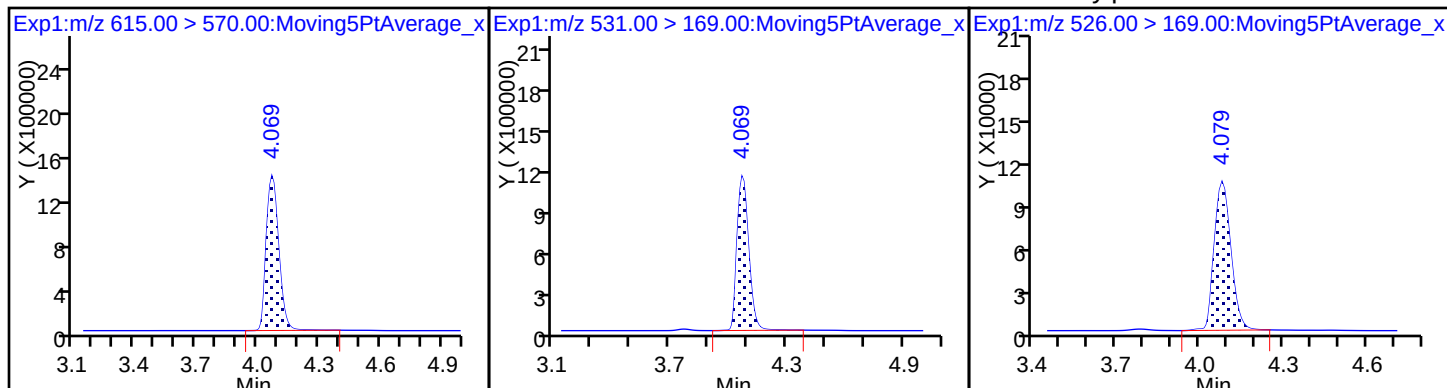
37 Perfluorododecanoic acid



D 36 13C2 PFDaA

D 38 d-N-EtFOSA-M

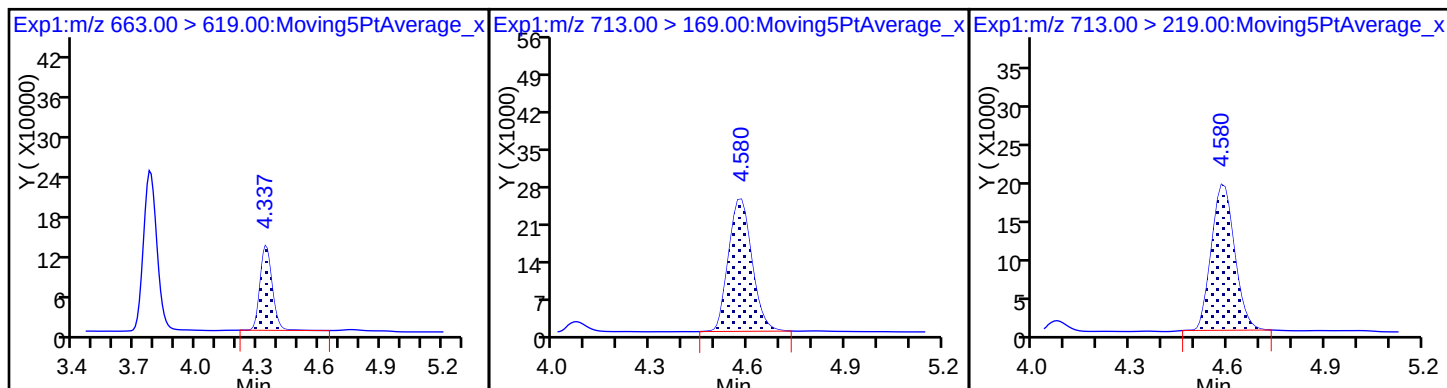
39 N-ethylperfluoro-1-octanesulfonami



41 Perfluorotridecanoic acid

42 Perfluorotetradecanoic acid

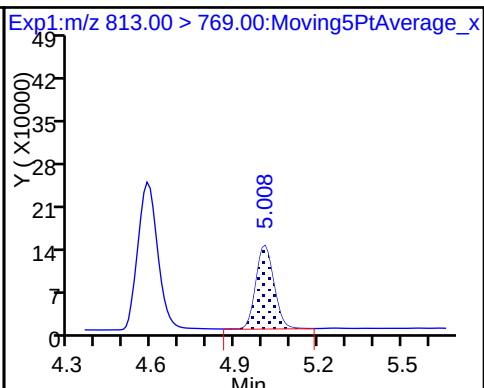
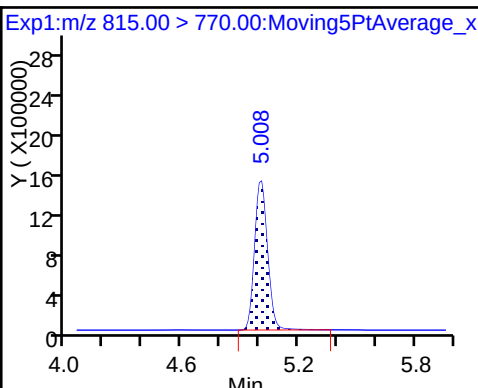
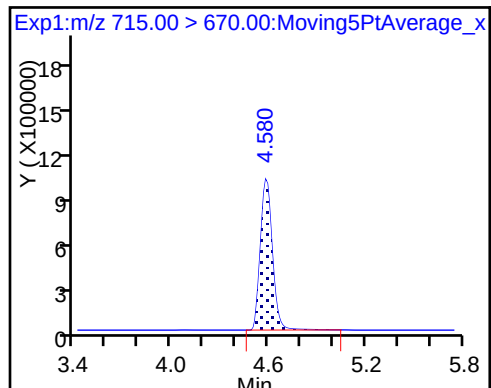
42 Perfluorotetradecanoic acid



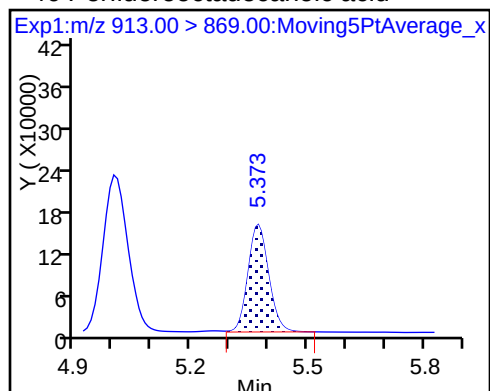
D 43 13C2-PFTeDA

D 44 13C2-PFHxDA

45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid



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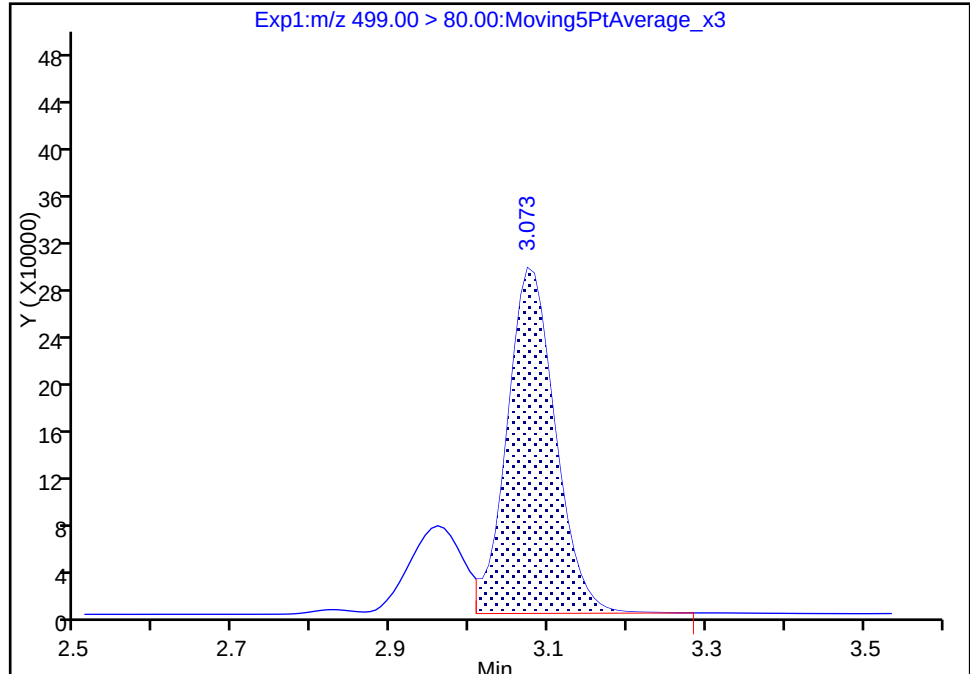
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Injection Date: 12-Oct-2017 10:36:57 Instrument ID: A8_N
Lims ID: IC L3 Full
Client ID:
Operator ID: SACINSTLCMS01 ALS Bottle#: 30 Worklist Smp#: 5
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: A8_N Limit Group: LC PFC ICAL
Column: Detector EXP1

17 Perfluorooctane sulfonic acid, CAS: 1763-23-1

Signal: 1

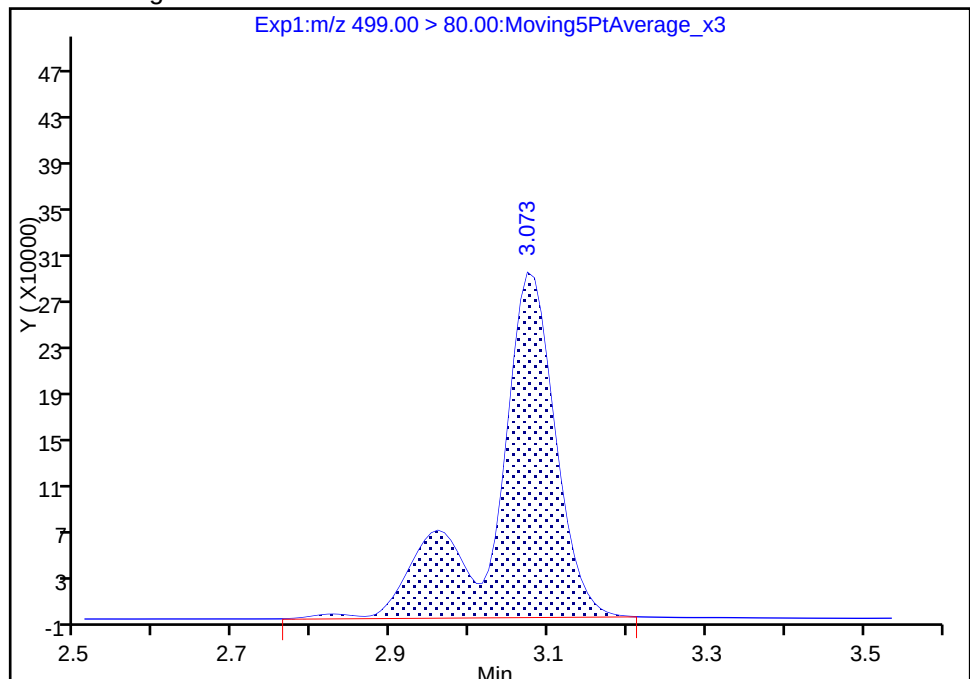
RT: 3.07
Area: 1250118
Amount: 4.543424
Amount Units: ng/ml

Processing Integration Results



RT: 3.07
Area: 1605967
Amount: 4.891490
Amount Units: ng/ml

Manual Integration Results



Reviewer: phomsophat, 12-Oct-2017 16:22:27

Audit Action: Manually Integrated

Audit Reason: Assign Peak

TestAmerica Sacramento

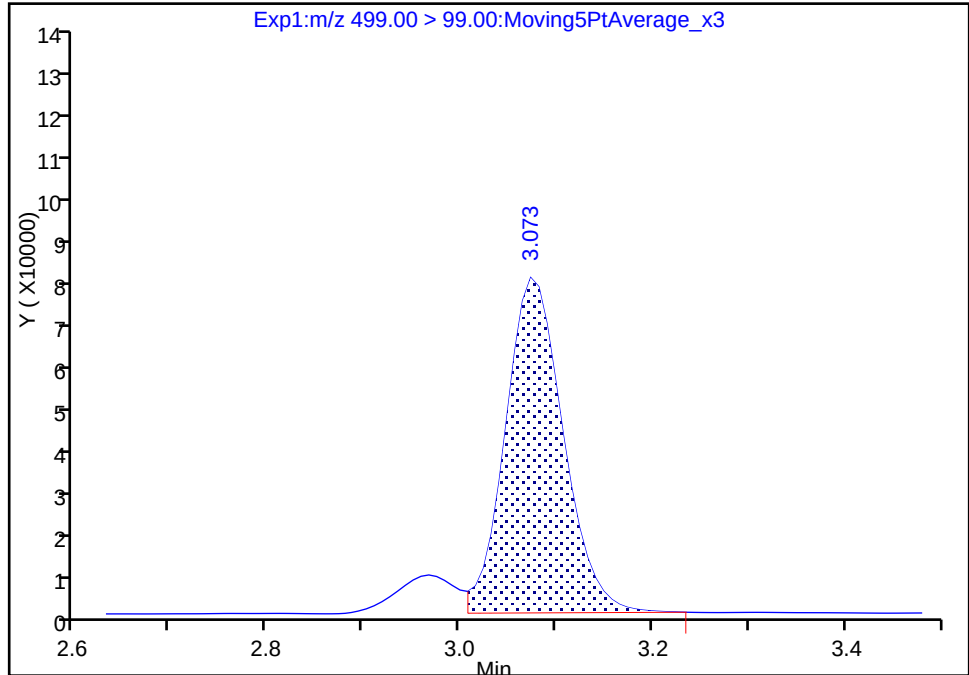
Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171012-49071.b\2017.10.12ICAL_005.d
Injection Date: 12-Oct-2017 10:36:57 Instrument ID: A8_N
Lims ID: IC L3 Full
Client ID:
Operator ID: SACINSTLCMS01 ALS Bottle#: 30 Worklist Smp#: 5
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: A8_N Limit Group: LC PFC ICAL
Column: Detector EXP1

17 Perfluorooctane sulfonic acid, CAS: 1763-23-1

Signal: 2

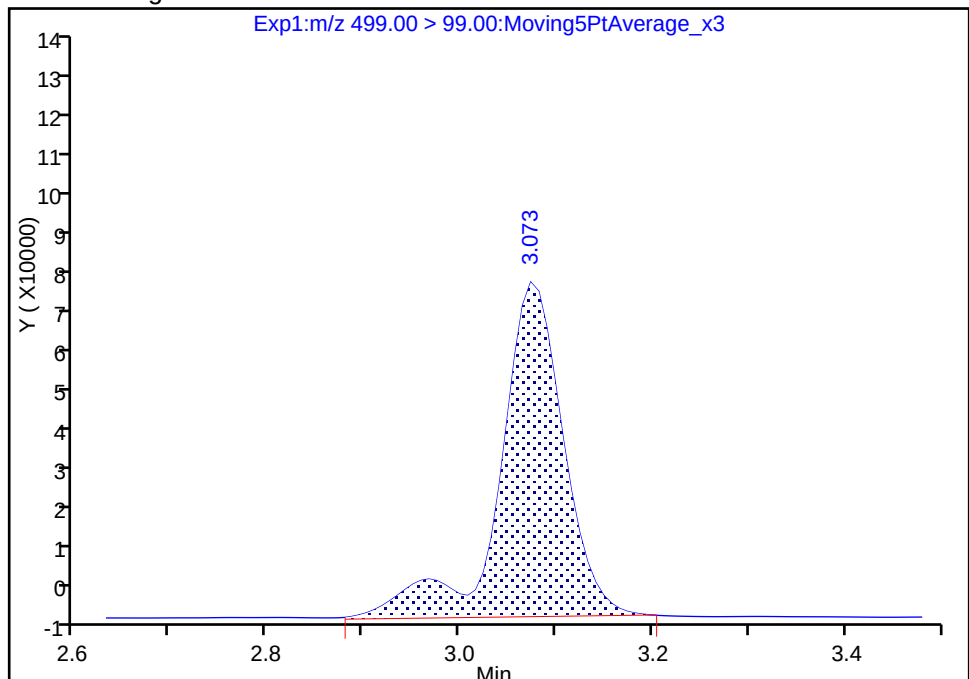
RT: 3.07
Area: 323316
Amount: 4.543424
Amount Units: ng/ml

Processing Integration Results



RT: 3.07
Area: 360846
Amount: 4.891490
Amount Units: ng/ml

Manual Integration Results



Reviewer: phomsophat, 12-Oct-2017 16:22:31

Audit Action: Manually Integrated

Audit Reason: Assign Peak

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171012-49071.b\2017.10.12ICAL_006.d
 Lims ID: IC L4 Full
 Client ID:
 Sample Type: IC Calib Level: 4
 Inject. Date: 12-Oct-2017 10:43:50 ALS Bottle#: 31 Worklist Smp#: 6
 Injection Vol: 2.0 ul Dil. Factor: 1.0000
 Sample Info: L4-FULL
 Misc. Info.: Plate: 1 Rack: 1
 Operator ID: SACINSTLCMS01 Instrument ID: A8_N
 Sublist: chrom-A8_N*sub19
 Method: \\ChromNa\Sacramento\ChromData\A8_N\20171012-49071.b\A8_N.m
 Limit Group: LC PFC ICAL
 Last Update: 16-Oct-2017 12:12:34 Calib Date: 12-Oct-2017 11:11:26
 Integrator: Picker
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last Ical File: \\ChromNa\Sacramento\ChromData\A8_N\20171012-49071.b\2017.10.12ICAL_010.d

Column 1 : Det: EXP1

Process Host: XAWRK027

First Level Reviewer: phomsophat

Date: 12-Oct-2017 13:49:55

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	1.554	1.548	0.006		16762303	44.6		89.3	28299	
2 Perfluorobutyric acid										
212.90 > 169.00	1.554	1.551	0.003	1.000	6515893	20.9		104	917	
D 3 13C5-PFPeA										
267.90 > 223.00	1.755	1.755	0.0		10489793	44.5		89.0	56138	
4 Perfluoropentanoic acid										
262.90 > 219.00	1.755	1.757	-0.002	1.000	4650444	20.3		101	2020	
D 47 13C3-PFBS										
301.90 > 83.00	1.782	1.777	0.005		276683	40.3		86.7	9011	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	1.782	1.781	0.001	1.000	7684015	18.0		102	24984	
298.90 > 99.00	1.782	1.781	0.001	1.000	3318075		2.32(0.00-0.00)	102	22066	
61 Sodium 1H,1H,2H,2H-perfluorohexane										
327.00 > 307.00	1.983	1.984	-0.001	1.000	1798516	17.9		96.1	23747	
6 Perfluorohexanoic acid										
313.00 > 269.00	2.029	2.023	0.006	1.000	4491528	20.3		102	5698	
D 7 13C2 PFHxA										
315.00 > 270.00	2.029	2.023	0.006		11265426	43.9		87.9	25911	
D 9 13C4-PFHpA										
367.00 > 322.00	2.352	2.348	0.004		11134968	46.6		93.3	22821	
10 Perfluoroheptanoic acid										
363.00 > 319.00	2.352	2.348	0.004	1.000	4631573	20.9		104	5139	
D 11 18O2 PFHxS										
403.00 > 84.00	2.360	2.359	0.001		15200258	42.4		89.6	22659	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	2.360	2.359	0.001	1.000	6473056	18.7		103	8696	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 12 M2-6:2FTS										
429.00 > 81.00	2.672	2.670	0.002		4019599	45.4		95.5	14192	
13 Sodium 1H,1H,2H,2H-perfluorooctane										
427.00 > 407.00	2.672	2.671	0.001	1.000	1887653	18.2		96.0	15812	
* 62 13C2-PFOA										
415.00 > 370.00	2.694	2.692	0.002		10413255	50.0			27466	
15 Perfluorooctanoic acid										
413.00 > 369.00	2.701	2.699	0.002	1.000	4583217	20.1		101	755	
413.00 > 169.00	2.701	2.699	0.002	1.000	2519263		1.82(0.90-1.10)	101	8004	
D 14 13C4 PFOA										
417.00 > 372.00	2.701	2.699	0.002		10524135	46.9		93.7	18594	
16 Perfluoroheptanesulfonic Acid										
449.00 > 80.00	2.708	2.707	0.001	1.000	5332188	20.4		107	20047	
17 Perfluorooctane sulfonic acid										
499.00 > 80.00	3.074	3.072	0.002	1.000	4112880	18.2		97.8	4084	M
499.00 > 99.00	3.074	3.072	0.002	1.000	896864		4.59(0.90-1.10)	97.8	3498	M
20 Perfluorononanoic acid										
463.00 > 419.00	3.074	3.072	0.002	1.000	2834536	19.6		98.1	2726	
D 19 13C5 PFNA										
468.00 > 423.00	3.074	3.072	0.002		7515845	43.8		87.6	12793	
D 18 13C4 PFOS										
503.00 > 80.00	3.074	3.072	0.002		10300548	40.8		85.4	13295	
D 21 13C8 FOSA										
506.00 > 78.00	3.388	3.389	-0.001		15833020	44.0		88.0	38097	
22 Perfluorooctane Sulfonamide										
498.00 > 78.00	3.396	3.391	0.005	1.000	6555816	20.1		100	16614	
D 26 M2-8:2FTS										
529.00 > 81.00	3.424	3.423	0.001		3101326	45.0		93.9	12010	
25 Sodium 1H,1H,2H,2H-perfluorodecane										
527.00 > 507.00	3.424	3.425	-0.001	1.000	1317954	18.4		95.8	10281	
24 Perfluorodecanoic acid										
513.00 > 469.00	3.433	3.436	-0.003	1.000	2329136	20.3		101	3649	
D 23 13C2 PFDA										
515.00 > 470.00	3.433	3.436	-0.003		6276133	42.4		84.9	12635	
D 27 d3-NMeFOSAA										
573.00 > 419.00	3.589	3.592	-0.003		1958236	41.3		82.5	6131	
28 N-methyl perfluorooctane sulfonami										
570.00 > 419.00	3.600	3.595	0.005	1.003	719262	19.7		98.3	3899	
29 Perfluorodecane Sulfonic acid										
599.00 > 80.00	3.747	3.750	-0.003	1.000	2551249	19.7		102	6094	
D 32 d5-NEtFOSAA										
589.00 > 419.00	3.757	3.759	-0.002		2017916	43.6		87.2	2337	
33 N-ethyl perfluorooctane sulfonamid										
584.00 > 419.00	3.767	3.768	-0.001	1.003	675622	19.7		98.6	4062	
D 30 13C2 PFUnA										
565.00 > 520.00	3.767	3.768	-0.001		4110316	42.2		84.4	7129	
31 Perfluoroundecanoic acid										
563.00 > 519.00	3.767	3.769	-0.002	1.000	1704240	19.2		96.1	2369	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 34 d-N-MeFOSA-M										
515.00 > 169.00	3.887	3.881	0.006		3685746	42.3		84.5	562	
35 MeFOSA										
512.00 > 169.00	3.887	3.885	0.002	1.000	1267717	19.4		97.1	3708	
D 36 13C2 PFDaA										
615.00 > 570.00	4.062	4.063	-0.001		3767015	41.2		82.5	7152	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.062	4.063	-0.001	1.000	1394268	20.2		101	677	
D 38 d-N-EtFOSA-M										
531.00 > 169.00	4.071	4.066	0.005		3368073	42.7		85.4	3039	
39 N-ethylperfluoro-1-octanesulfonami										
526.00 > 169.00	4.080	4.075	0.005	1.000	1270693	20.0		100	3815	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.336	4.332	0.004	1.000	1309427	19.5		97.7	126	
42 Perfluorotetradecanoic acid										
713.00 > 169.00	4.575	4.570	0.005	1.000	301201	19.1		95.3	1884	
713.00 > 219.00	4.575	4.570	0.005	1.000	233087		1.29(0.00-0.00)	95.3	1394	
D 43 13C2-PFTeDA										
715.00 > 670.00	4.575	4.575	0.0		3362876	42.0		84.0	7281	
D 44 13C2-PFHxDA										
815.00 > 770.00	4.993	4.997	-0.004		4723760	43.9		87.7	5926	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	5.003	4.999	0.004	1.000	1638260	18.3		91.4	104	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	5.360	5.364	-0.004	1.000	1673681	19.5		97.5	131	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

LCPFC_FULL-L4_00008

Amount Added: 1.00

Units: mL

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171012-49071.b\2017.10.12\ICAL_006.d

Injection Date: 12-Oct-2017 10:43:50

Instrument ID: A8_N

Lims ID: IC L4 Full

Client ID:

Operator ID: SACINSTLCMS01

ALS Bottle#: 31

Worklist Smp#: 6

Injection Vol: 2.0 ul

Dil. Factor: 1.0000

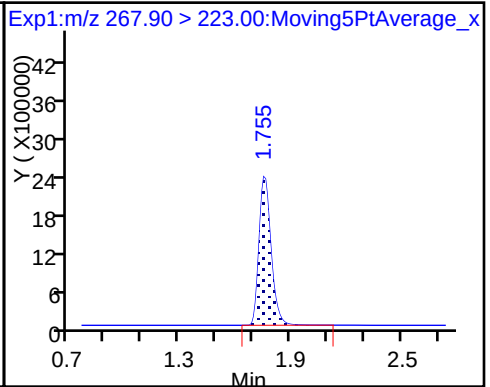
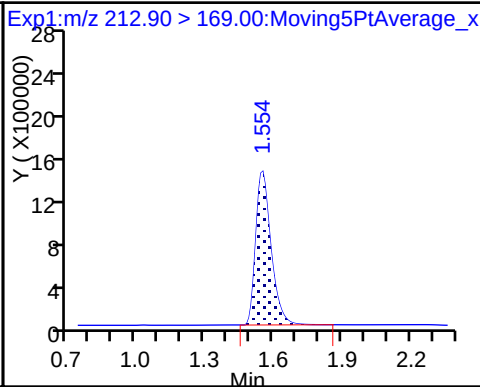
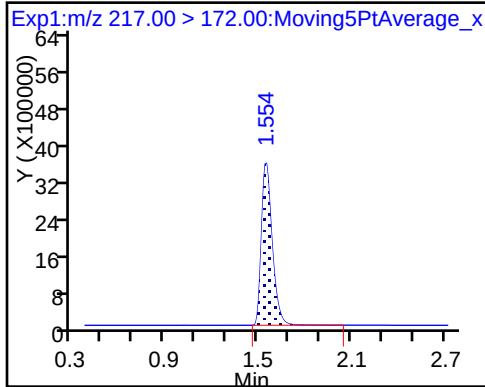
Method: A8_N

Limit Group: LC PFC ICAL

D 1 13C4 PFBA

2 Perfluorobutyric acid

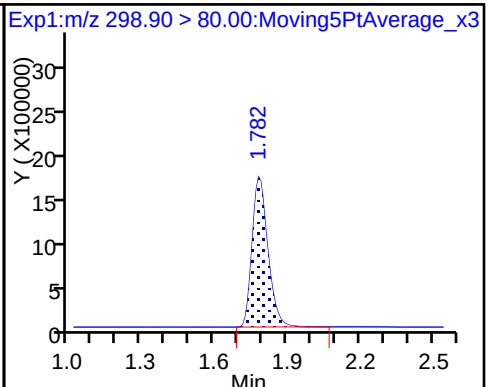
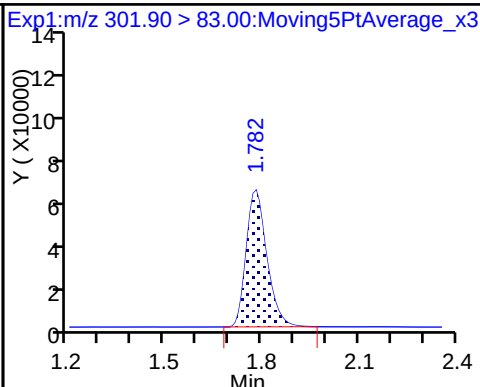
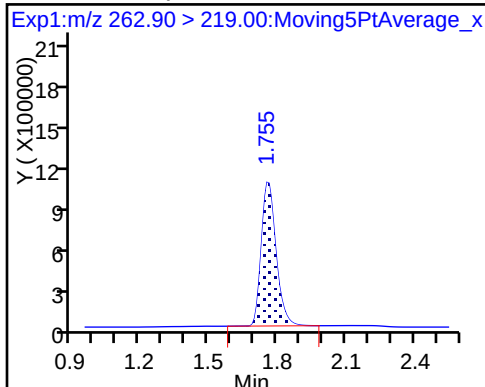
D 3 13C5-PFPeA



4 Perfluoropentanoic acid

D 47 13C3-PFBS

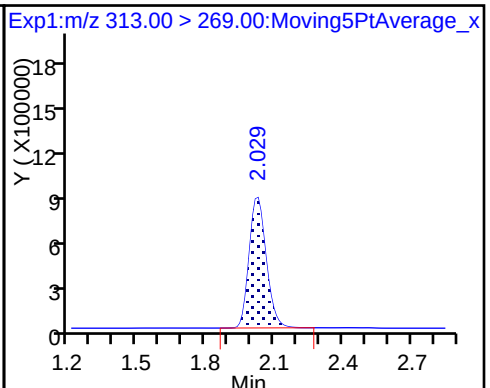
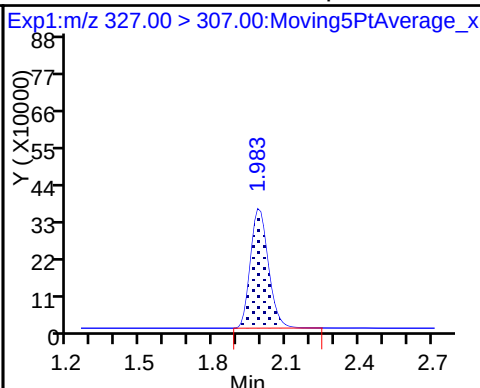
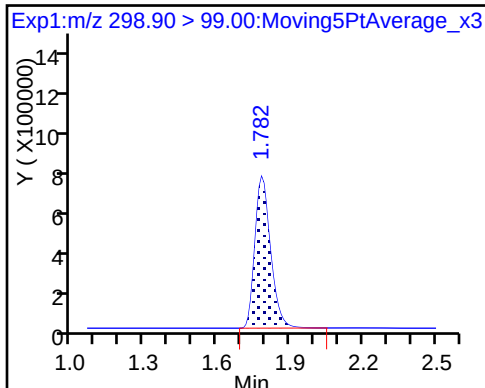
5 Perfluorobutanesulfonic acid



5 Perfluorobutanesulfonic acid

61 Sodium 1H,1H,2H,2H-perfluorohexanoate

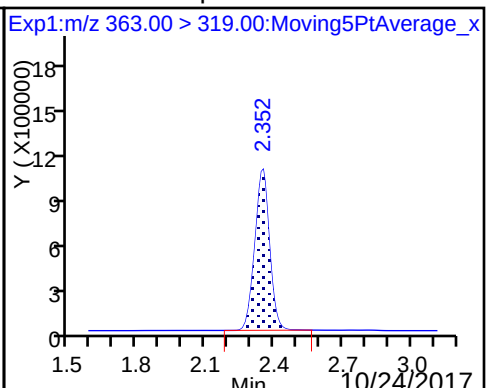
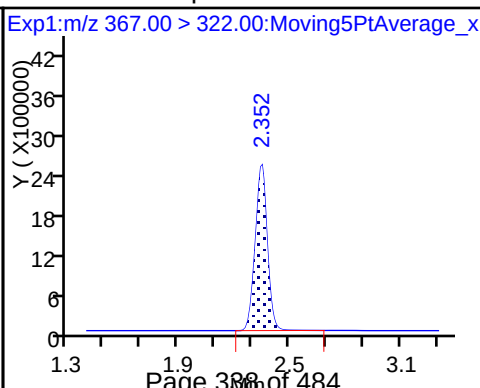
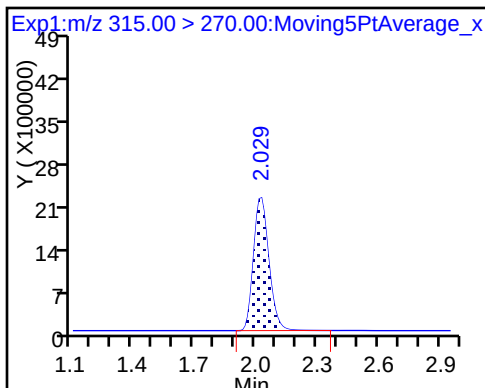
6 Perfluorohexanoic acid



D 7 13C2 PFHxA

D 9 13C4-PFHpA

10 Perfluoroheptanoic acid

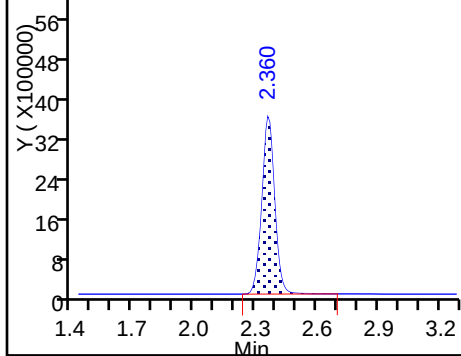


D 11 18O2 PFHxS

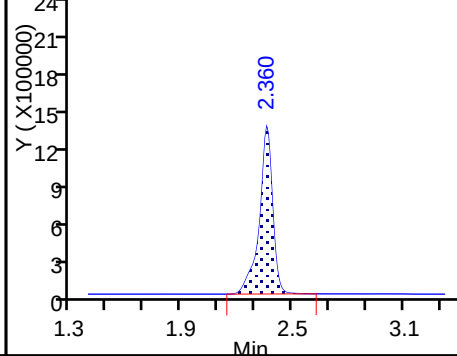
8 Perfluorohexanesulfonic acid

D 12 M2-6:2FTS

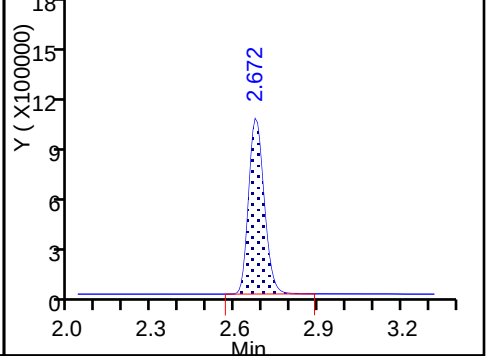
Exp1:m/z 403.00 > 84.00:Moving5PtAverage_x3



Exp1:m/z 399.00 > 80.00:Moving5PtAverage_x3



Exp1:m/z 429.00 > 81.00:Moving5PtAverage_x3

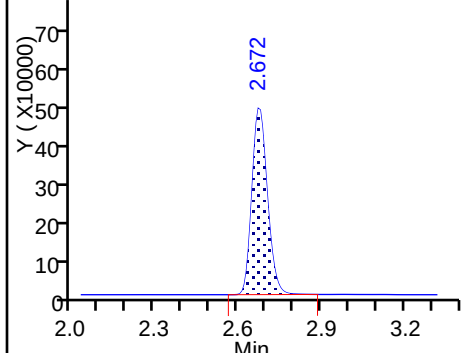


13 Sodium 1H,1H,2H,2H-perfluorooctane

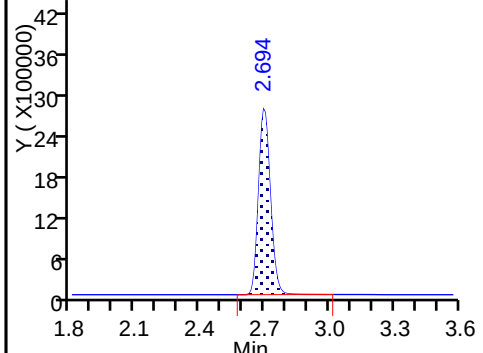
62 13C2-PFOA

15 Perfluorooctanoic acid

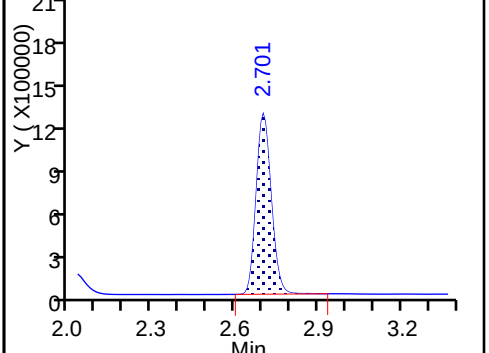
Exp1:m/z 427.00 > 407.00:Moving5PtAverage_x3



Exp1:m/z 415.00 > 370.00:Moving5PtAverage_x3



Exp1:m/z 413.00 > 369.00:Moving5PtAverage_x3

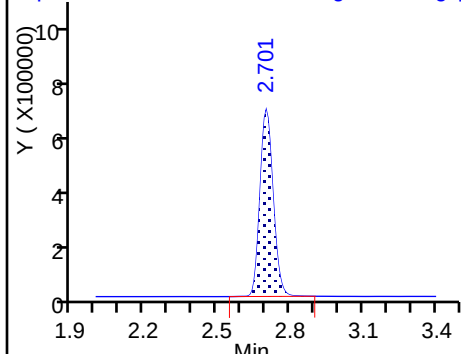


15 Perfluorooctanoic acid

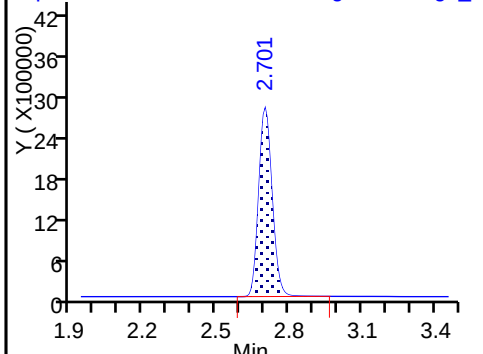
D 14 13C4 PFOA

16 Perfluoroheptanesulfonic Acid

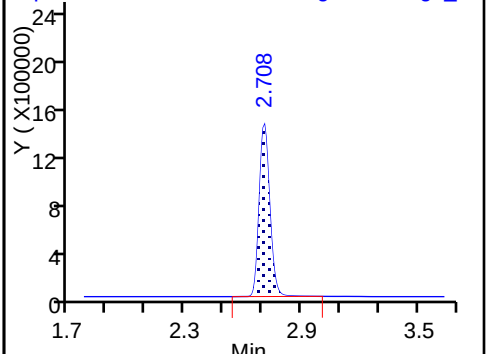
Exp1:m/z 413.00 > 169.00:Moving5PtAverage_x3



Exp1:m/z 417.00 > 372.00:Moving5PtAverage_x3



Exp1:m/z 449.00 > 80.00:Moving5PtAverage_x3

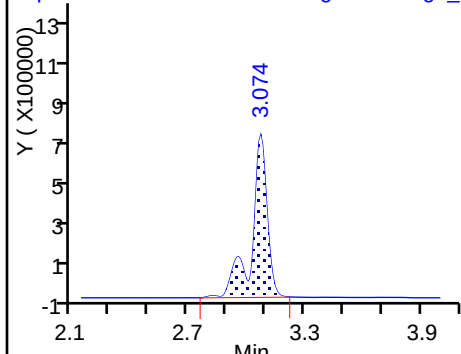


17 Perfluorooctane sulfonic acid (M)

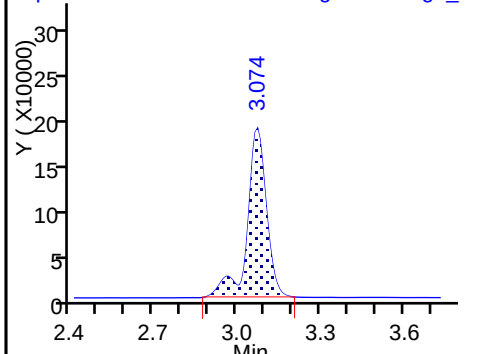
17 Perfluorooctane sulfonic acid (M)

20 Perfluorononanoic acid

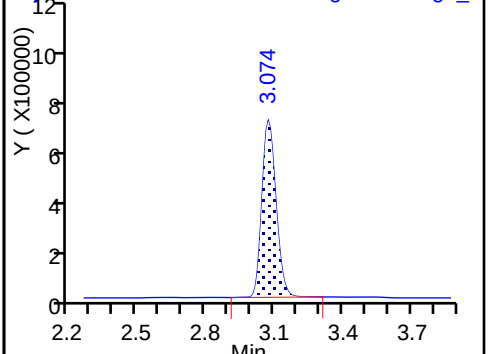
Exp1:m/z 499.00 > 80.00:Moving5PtAverage_x3



Exp1:m/z 499.00 > 99.00:Moving5PtAverage_x3



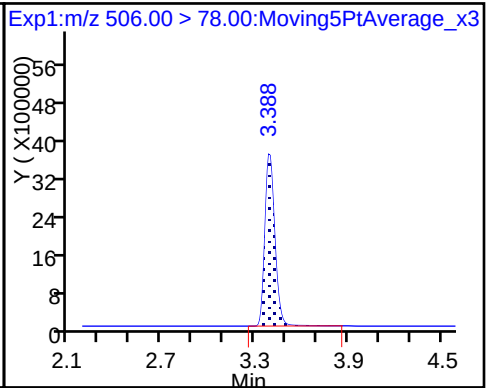
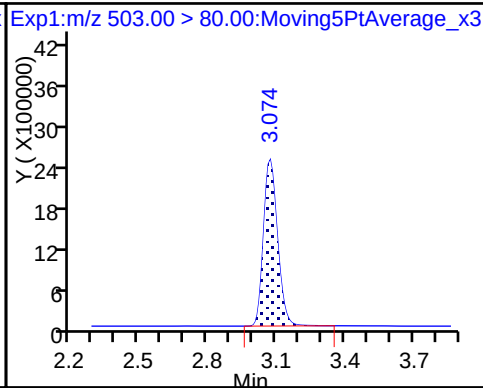
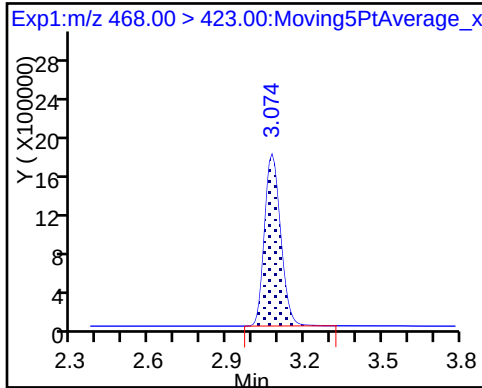
Exp1:m/z 463.00 > 419.00:Moving5PtAverage_x3



D 19 13C5 PFNA

D 18 13C4 PFOS

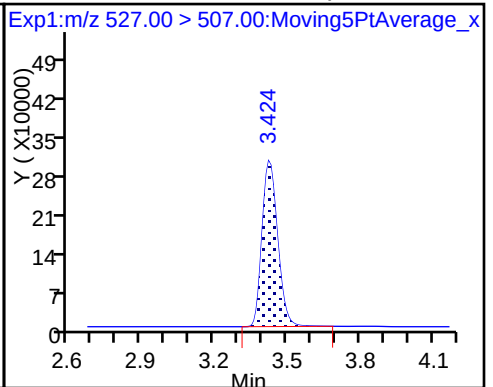
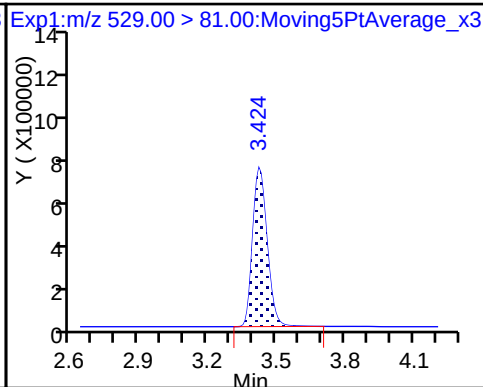
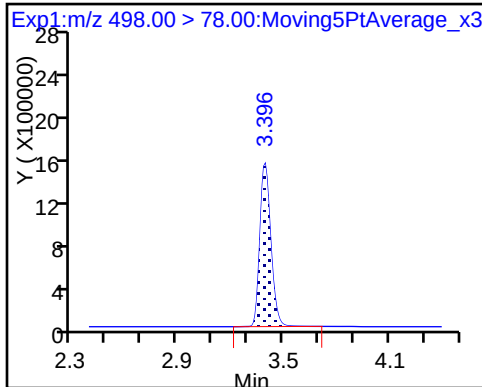
D 21 13C8 FOSA



22 Perfluorooctane Sulfonamide

D 26 M2-8:2FTS

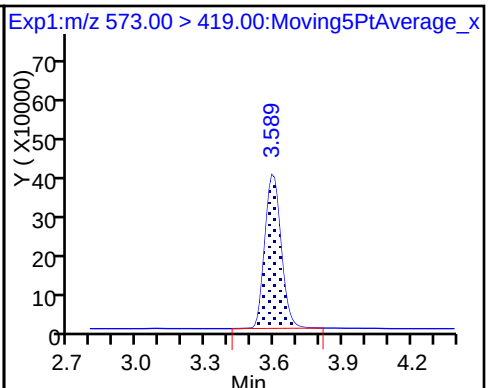
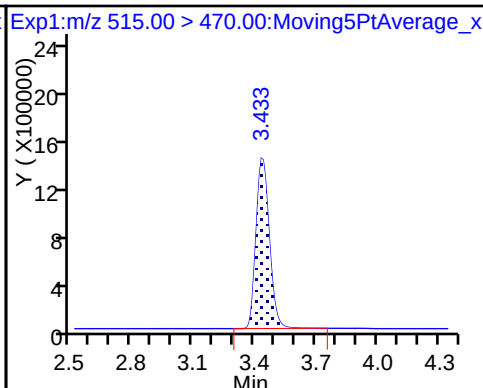
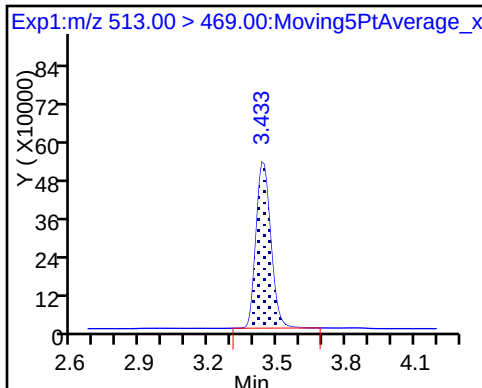
25 Sodium 1H,1H,2H,2H-perfluorodecane



24 Perfluorodecanoic acid

D 23 13C2 PFDA

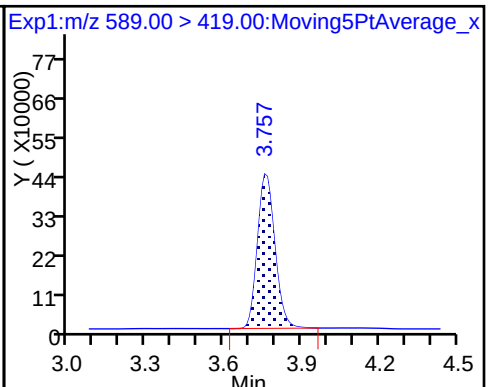
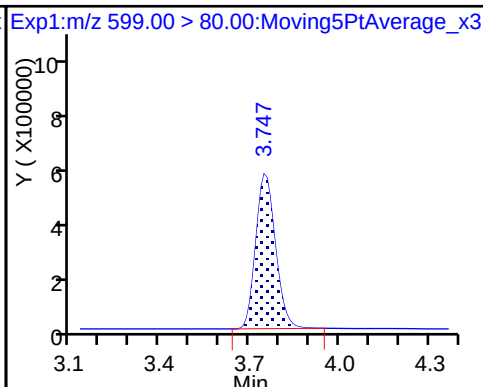
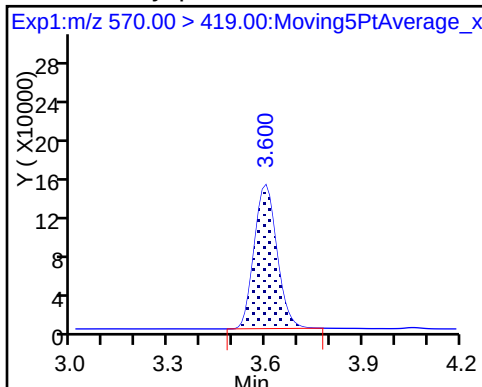
D 27 d3-NMeFOSAA



28 N-methyl perfluorooctane sulfonami

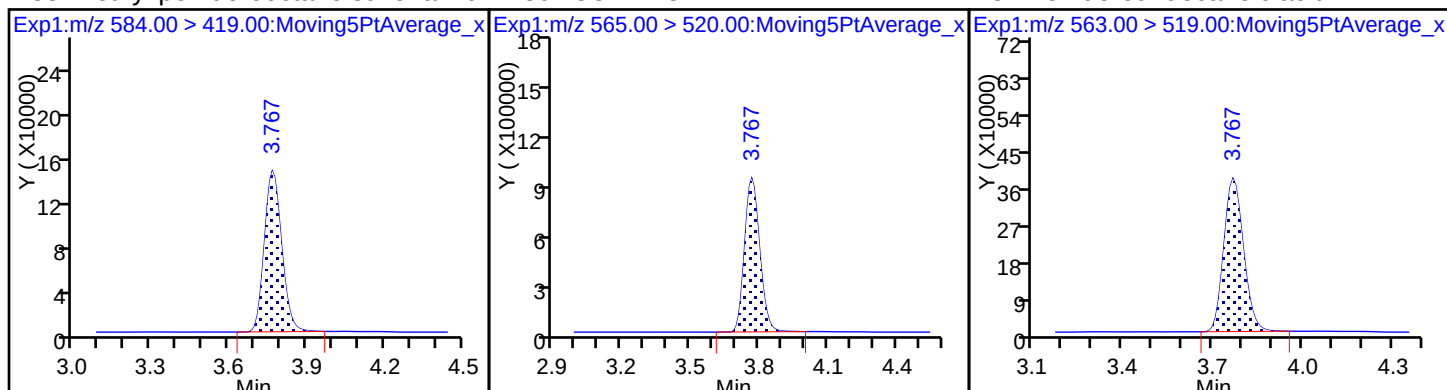
29 Perfluorodecane Sulfonic acid

D 32 d5-NEtFOSAA



33 N-ethyl perfluorooctane sulfonamid D 30 13C2 PFUnA

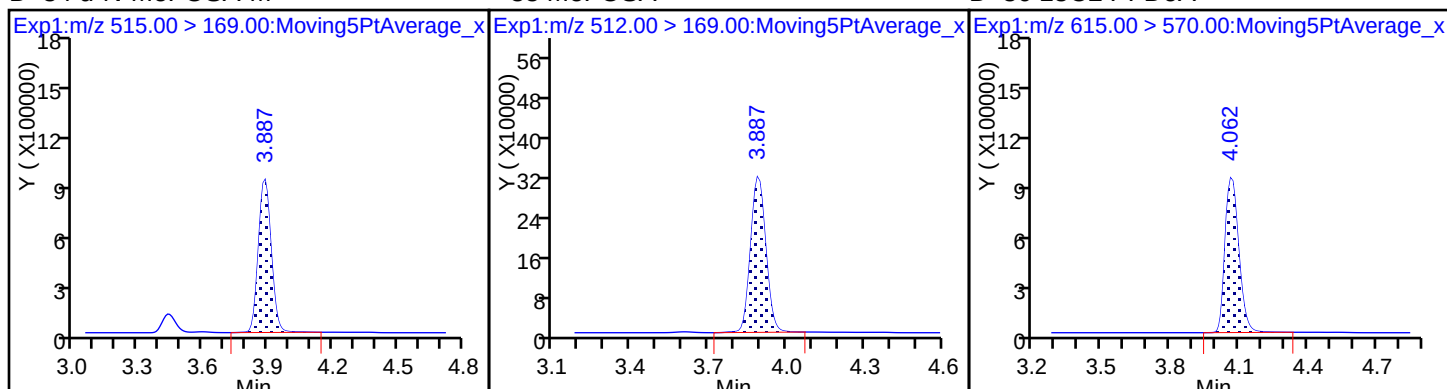
31 Perfluoroundecanoic acid



D 34 d-N-MeFOSA-M

35 MeFOSA

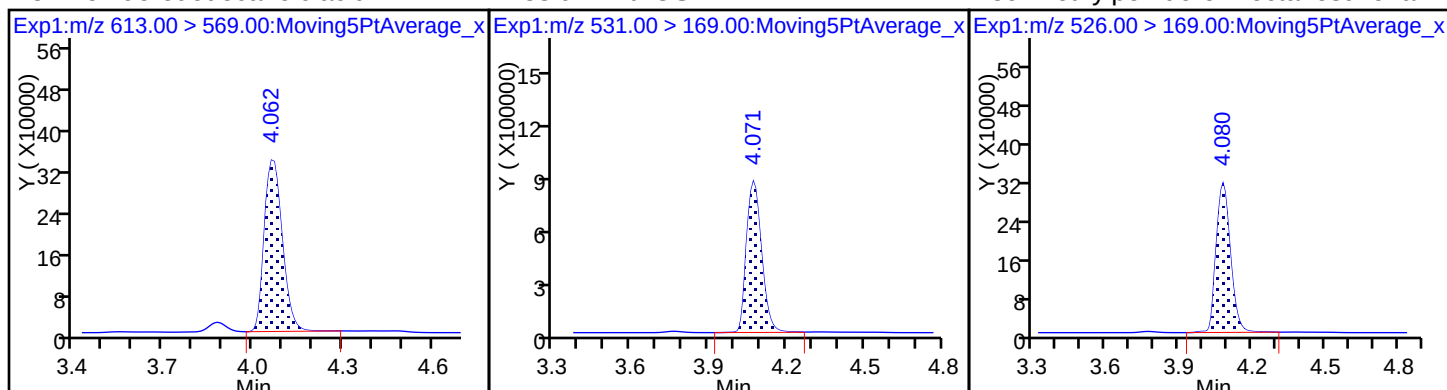
D 36 13C2 PFDaA



37 Perfluorododecanoic acid

D 38 d-N-EtFOSA-M

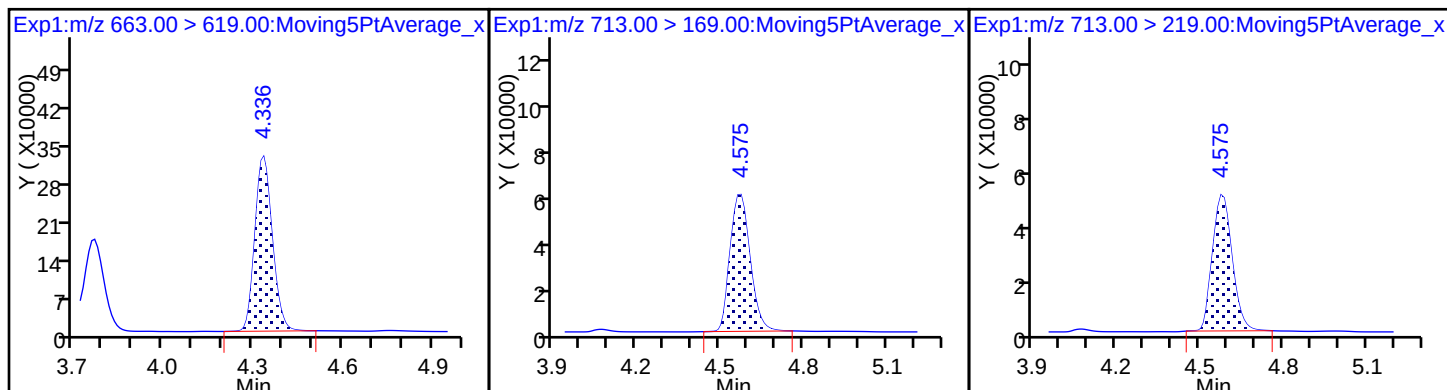
39 N-ethylperfluoro-1-octanesulfonami



41 Perfluorotridecanoic acid

42 Perfluorotetradecanoic acid

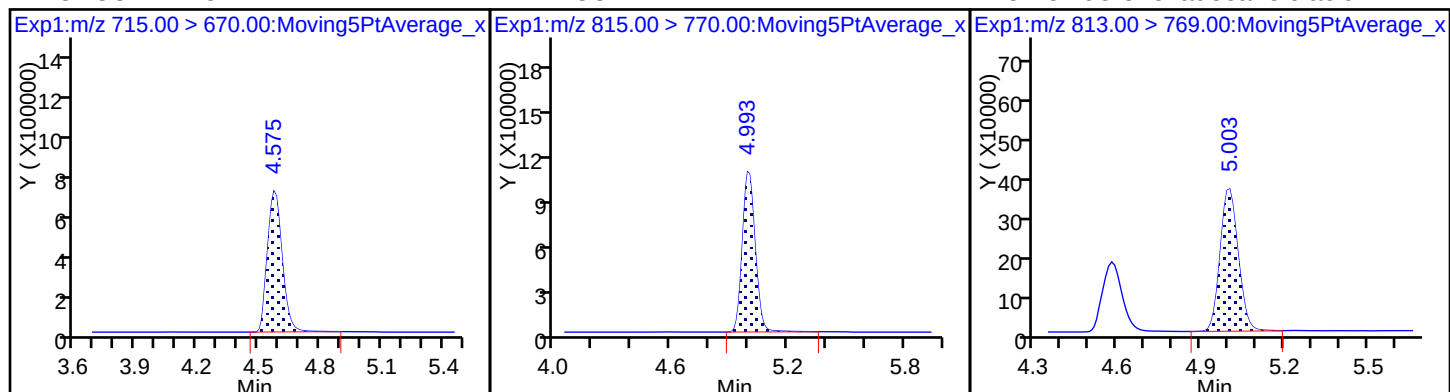
42 Perfluorotetradecanoic acid



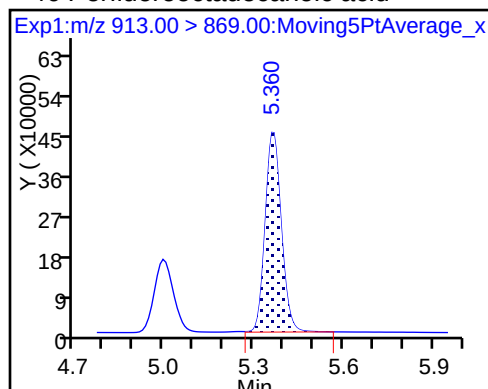
D 43 13C2-PFTeDA

D 44 13C2-PFHxDA

45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid



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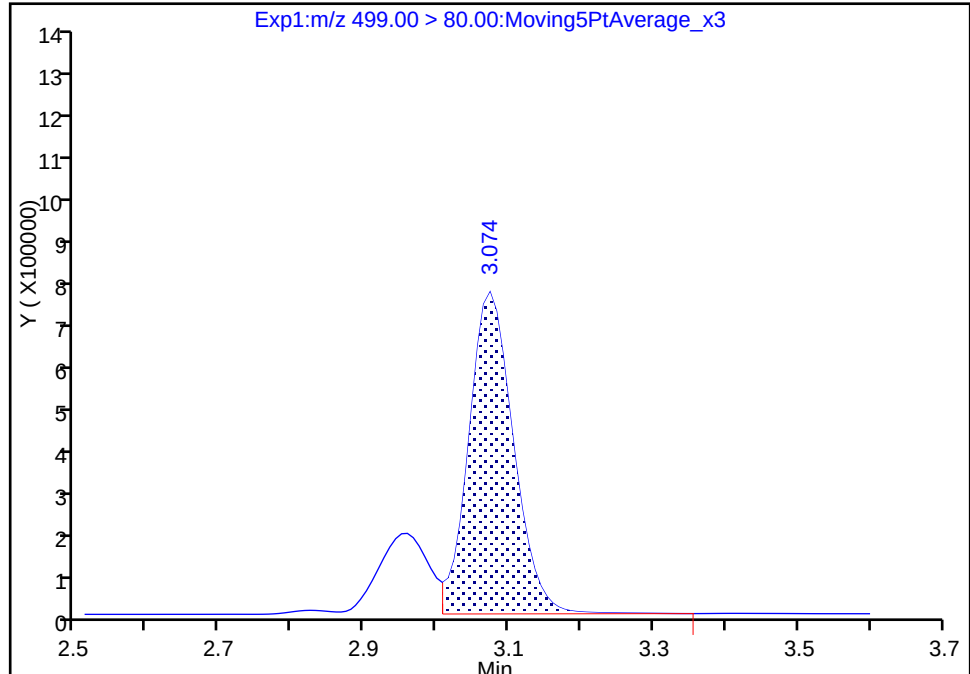
Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171012-49071.b\2017.10.12\ICAL_006.d
Injection Date: 12-Oct-2017 10:43:50 Instrument ID: A8_N
Lims ID: IC L4 Full
Client ID:
Operator ID: SACINSTLCMS01 ALS Bottle#: 31 Worklist Smp#: 6
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: A8_N Limit Group: LC PFC ICAL
Column: Detector EXP1

17 Perfluorooctane sulfonic acid, CAS: 1763-23-1

Signal: 1

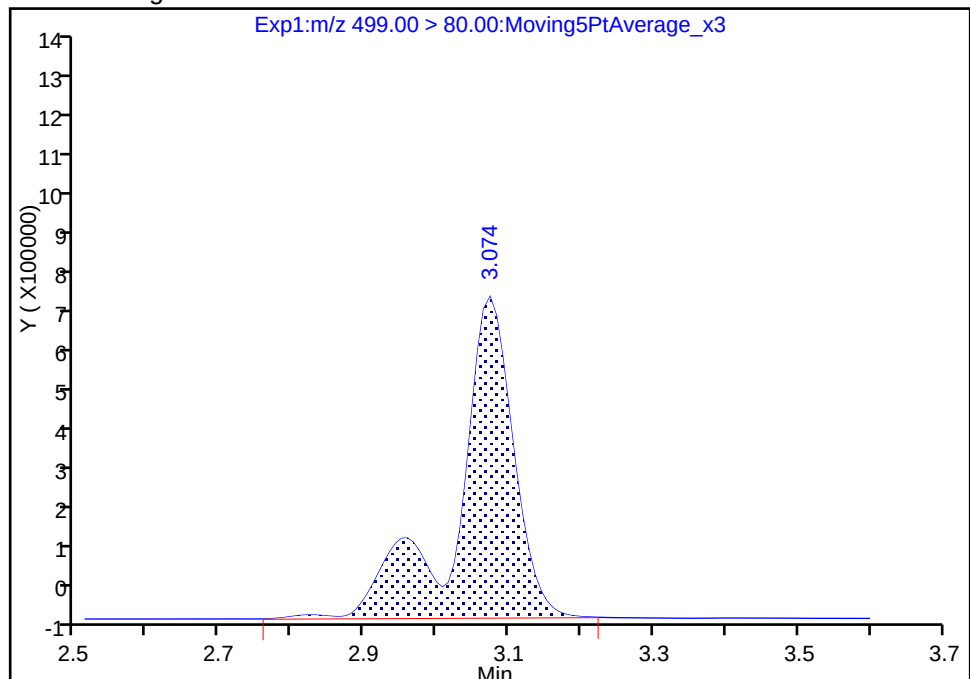
RT: 3.07
Area: 3207158
Amount: 16.246454
Amount Units: ng/ml

Processing Integration Results



RT: 3.07
Area: 4112880
Amount: 18.155742
Amount Units: ng/ml

Manual Integration Results



Reviewer: phomsophat, 12-Oct-2017 16:23:14

Audit Action: Manually Integrated

Audit Reason: Assign Peak

TestAmerica Sacramento

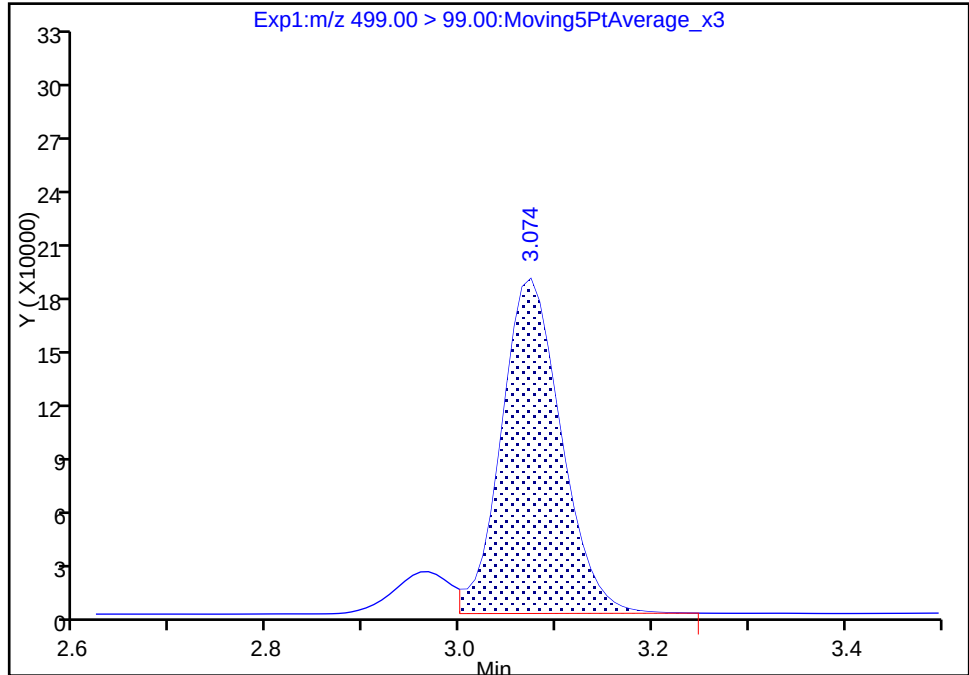
Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171012-49071.b\2017.10.12ICAL_006.d
Injection Date: 12-Oct-2017 10:43:50 Instrument ID: A8_N
Lims ID: IC L4 Full
Client ID:
Operator ID: SACINSTLCMS01 ALS Bottle#: 31 Worklist Smp#: 6
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: A8_N Limit Group: LC PFC ICAL
Column: Detector EXP1

17 Perfluorooctane sulfonic acid, CAS: 1763-23-1

Signal: 2

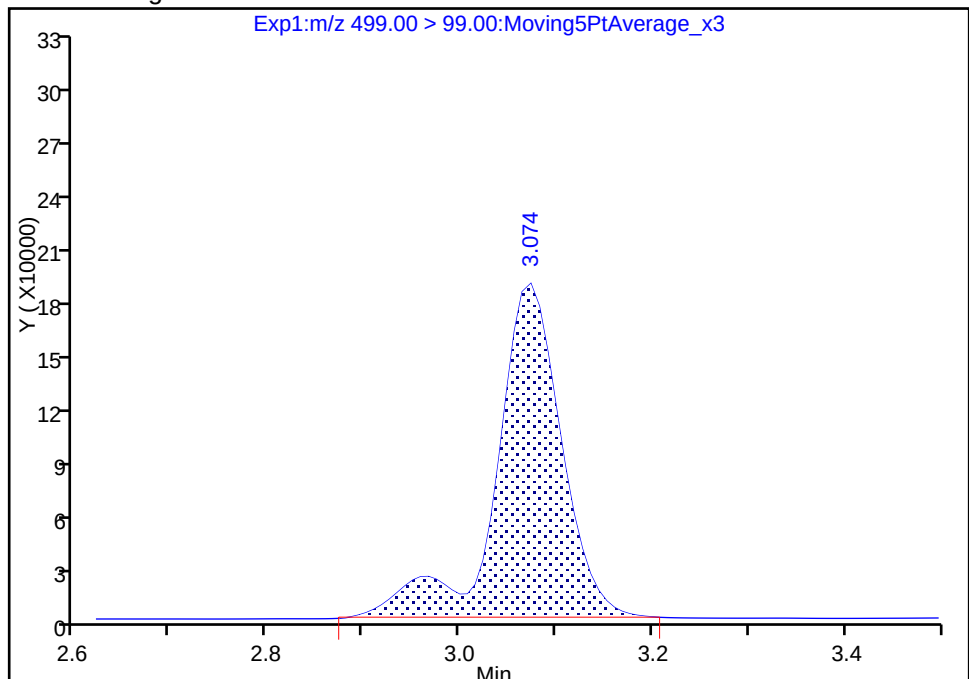
RT: 3.07
Area: 815395
Amount: 16.246454
Amount Units: ng/ml

Processing Integration Results



RT: 3.07
Area: 896864
Amount: 18.155742
Amount Units: ng/ml

Manual Integration Results



Reviewer: phomsophat, 12-Oct-2017 16:23:22

Audit Action: Manually Integrated

Audit Reason: Assign Peak

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171012-49071.b\2017.10.12ICAL_007.d
 Lims ID: IC L5 Full
 Client ID:
 Sample Type: IC Calib Level: 5
 Inject. Date: 12-Oct-2017 10:50:44 ALS Bottle#: 32 Worklist Smp#: 7
 Injection Vol: 2.0 ul Dil. Factor: 1.0000
 Sample Info: L5-FULL
 Misc. Info.: Plate: 1 Rack: 1
 Operator ID: SACINSTLCMS01 Instrument ID: A8_N
 Sublist: chrom-A8_N*sub19
 Method: \\ChromNa\Sacramento\ChromData\A8_N\20171012-49071.b\A8_N.m
 Limit Group: LC PFC ICAL
 Last Update: 16-Oct-2017 12:12:37 Calib Date: 12-Oct-2017 11:11:26
 Integrator: Picker
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last Ical File: \\ChromNa\Sacramento\ChromData\A8_N\20171012-49071.b\2017.10.12ICAL_010.d

Column 1 : Det: EXP1

Process Host: XAWRK027

First Level Reviewer: phomsophat

Date: 12-Oct-2017 16:24:53

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	1.545	1.548	-0.003		16919316	45.1		90.1	17906	
2 Perfluorobutyric acid										
212.90 > 169.00	1.545	1.551	-0.006	1.000	15412453	48.9		97.9	1742	
D 3 13C5-PFPeA										
267.90 > 223.00	1.755	1.755	0.0		10433137	44.3		88.5	52728	
4 Perfluoropentanoic acid										
262.90 > 219.00	1.755	1.757	-0.002	1.000	11278133	49.4		98.8	4559	
D 47 13C3-PFBS										
301.90 > 83.00	1.773	1.777	-0.004		272160	39.7		85.3	7736	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	1.773	1.781	-0.008	1.000	17267964	41.1		93.1	28476	
298.90 > 99.00	1.773	1.781	-0.008	1.000	8196195		2.11(0.00-0.00)	93.1	55543	
61 Sodium 1H,1H,2H,2H-perfluorohexane										
327.00 > 307.00	1.983	1.984	-0.001	1.000	4579600	46.2		98.9	32171	
D 7 13C2 PFHxA										
315.00 > 270.00	2.017	2.023	-0.006		11482159	44.8		89.5	25382	
6 Perfluorohexanoic acid										
313.00 > 269.00	2.017	2.023	-0.006	1.000	11051225	49.1		98.2	11421	
10 Perfluoroheptanoic acid										
363.00 > 319.00	2.345	2.348	-0.003	1.000	10936441	50.0		100.0	12175	
D 9 13C4-PFHpA										
367.00 > 322.00	2.345	2.348	-0.003		10969892	45.9		91.9	12431	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	2.353	2.359	-0.006	1.000	16126484	43.3		95.2	13890	
D 11 18O2 PFHxS										
403.00 > 84.00	2.353	2.359	-0.006		16305959	45.5		96.2	22926	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 12 M2-6:2FTS										
429.00 > 81.00	2.668	2.670	-0.002		3977881	44.9		94.5	14263	
13 Sodium 1H,1H,2H,2H-perfluorooctane										
427.00 > 407.00	2.668	2.671	-0.003	1.000	4843669	47.2		99.6	15610	
* 62 13C2-PFOA										
415.00 > 370.00	2.690	2.692	-0.002		10196396	50.0			18097	
D 14 13C4 PFOA										
417.00 > 372.00	2.697	2.699	-0.002		10488859	46.7		93.4	28556	
15 Perfluorooctanoic acid										
413.00 > 369.00	2.697	2.699	-0.002	1.000	10930414	48.2		96.4	1724	
413.00 > 169.00	2.697	2.699	-0.002	1.000	6244677		1.75(0.90-1.10)	96.4	8568	
16 Perfluoroheptanesulfonic Acid										
449.00 > 80.00	2.704	2.707	-0.003	1.000	13149560	49.1		103	20191	
D 19 13C5 PFNA										
468.00 > 423.00	3.067	3.072	-0.005		7478900	43.6		87.2	21793	
D 18 13C4 PFOS										
503.00 > 80.00	3.067	3.072	-0.005		10569289	41.9		87.7	11916	
17 Perfluorooctane sulfonic acid										M
499.00 > 80.00	3.067	3.072	-0.005	1.000	10629617	45.7		98.6	4144	M
499.00 > 99.00	3.067	3.072	-0.005	1.000	2433730		4.37(0.90-1.10)	98.6	3755	M
20 Perfluorononanoic acid										
463.00 > 419.00	3.067	3.072	-0.005	1.000	7274310	50.6		101	6825	
D 21 13C8 FOSA										
506.00 > 78.00	3.392	3.389	0.003		16337753	45.4		90.8	11919	
22 Perfluorooctane Sulfonamide										
498.00 > 78.00	3.392	3.391	0.001	1.000	15632799	46.3		92.7	21690	
D 26 M2-8:2FTS										
529.00 > 81.00	3.419	3.423	-0.004		3035645	44.0		91.9	12720	
25 Sodium 1H,1H,2H,2H-perfluorodecane										
527.00 > 507.00	3.419	3.425	-0.006	1.000	3310109	47.1		98.3	13878	
D 23 13C2 PFDA										
515.00 > 470.00	3.428	3.436	-0.008		6446484	43.6		87.2	15029	
24 Perfluorodecanoic acid										
513.00 > 469.00	3.428	3.436	-0.008	1.000	5663538	48.0		95.9	6585	
D 27 d3-NMeFOSAA										
573.00 > 419.00	3.586	3.592	-0.006		2090545	44.1		88.1	5968	
28 N-methyl perfluorooctane sulfonami										
570.00 > 419.00	3.586	3.595	-0.009	1.000	1929120	49.4		98.8	4652	
29 Perfluorodecane Sulfonic acid										
599.00 > 80.00	3.744	3.750	-0.006	1.000	6650889	50.0		104	14499	
D 32 d5-NEtFOSAA										
589.00 > 419.00	3.753	3.759	-0.006		1996873	43.1		86.3	2171	
D 30 13C2 PFUnA										
565.00 > 520.00	3.763	3.768	-0.005		4333416	44.5		89.0	7796	
33 N-ethyl perfluorooctane sulfonamid										
584.00 > 419.00	3.763	3.768	-0.005	1.003	1780104	52.5		105	6170	
31 Perfluoroundecanoic acid										
563.00 > 519.00	3.763	3.769	-0.006	1.000	4411982	47.2		94.4	4441	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 34 d-N-MeFOSA-M										
515.00 > 169.00	3.875	3.881	-0.006		4069680	46.7		93.3	545	
35 MeFOSA										
512.00 > 169.00	3.884	3.885	-0.001	1.000	3611457	50.1		100	5856	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.053	4.063	-0.010	1.000	3702195	51.5		103	1552	
D 36 13C2 PFDaA										
615.00 > 570.00	4.053	4.063	-0.010		3930779	43.0		86.1	8219	
D 38 d-N-EtFOSA-M										
531.00 > 169.00	4.062	4.066	-0.004		3574681	45.3		90.6	3029	
39 N-ethylperfluoro-1-octanesulfonami										
526.00 > 169.00	4.071	4.075	-0.004	1.000	3353332	49.8		99.6	4237	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.322	4.332	-0.010	1.000	3434648	49.1		98.2	313	
42 Perfluorotetradecanoic acid										
713.00 > 169.00	4.560	4.570	-0.010	1.000	790642	46.5		93.0	3243	
713.00 > 219.00	4.572	4.570	0.002	1.003	612133		1.29(0.00-0.00)	93.0	2769	
D 43 13C2-PFTeDA										
715.00 > 670.00	4.572	4.575	-0.003		3616500	45.2		90.3	5684	
D 44 13C2-PFHxDA										
815.00 > 770.00	4.983	4.997	-0.014		4753078	44.1		88.3	5341	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	4.983	4.999	-0.016	1.000	4315320	47.9		95.7	233	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	5.352	5.364	-0.012	1.000	4685437	54.2		108	328	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

LCPFC_FULL-L5_00008

Amount Added: 1.00

Units: mL

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171012-49071.b\2017.10.12\ICAL_007.d

Injection Date: 12-Oct-2017 10:50:44

Instrument ID: A8_N

Lims ID: IC L5 Full

Client ID:

Operator ID: SACINSTLCMS01

ALS Bottle#: 32

Worklist Smp#: 7

Injection Vol: 2.0 ul

Dil. Factor: 1.0000

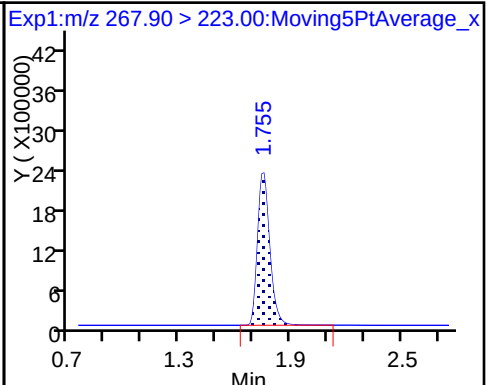
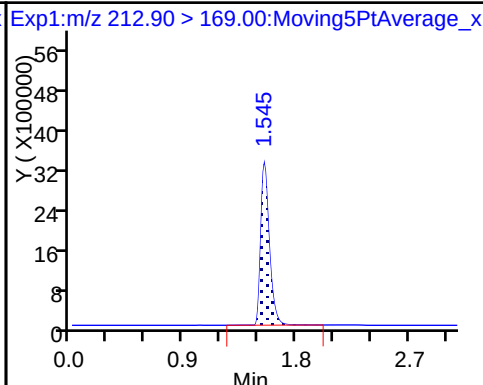
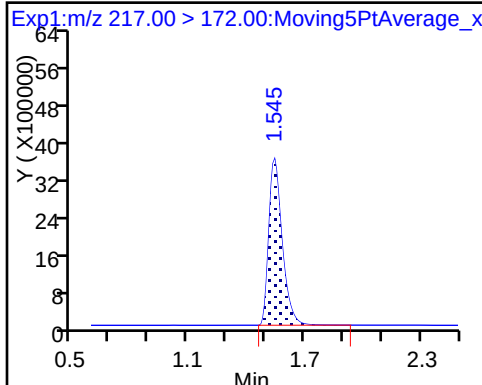
Method: A8_N

Limit Group: LC PFC ICAL

D 1 13C4 PFBA

2 Perfluorobutyric acid

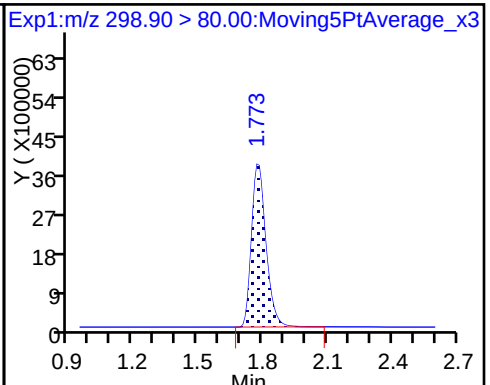
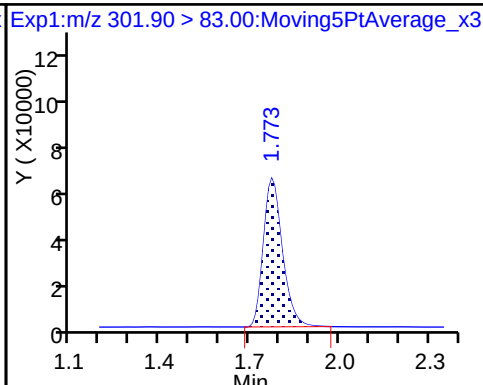
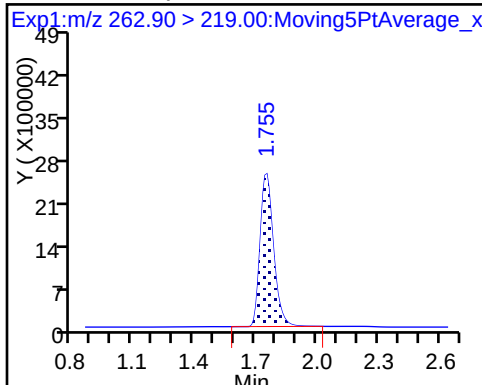
D 3 13C5-PFPeA



4 Perfluoropentanoic acid

D 47 13C3-PFBS

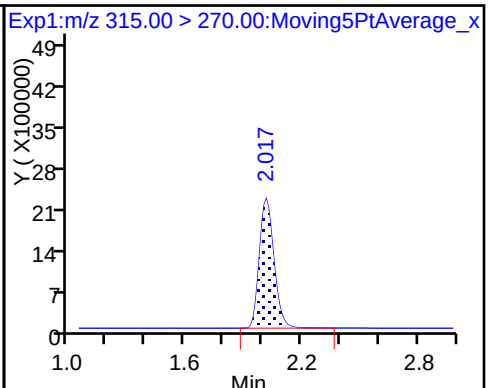
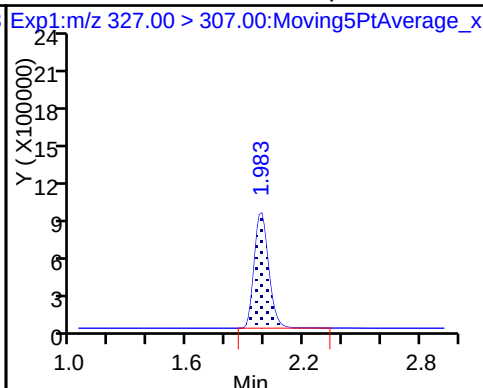
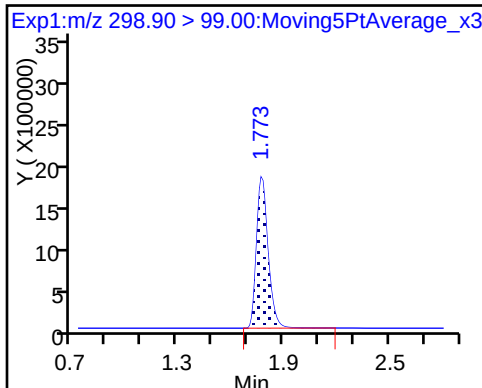
5 Perfluorobutanesulfonic acid



5 Perfluorobutanesulfonic acid

61 Sodium 1H,1H,2H,2H-perfluorohexa

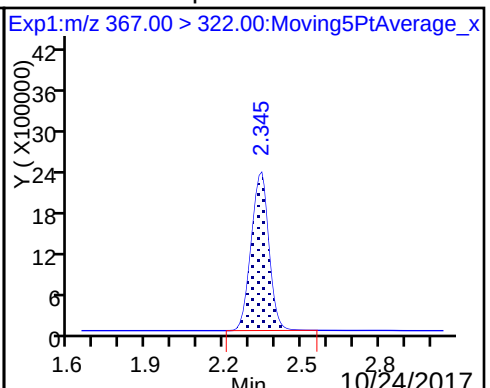
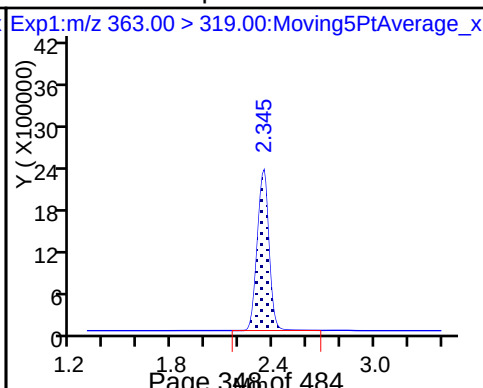
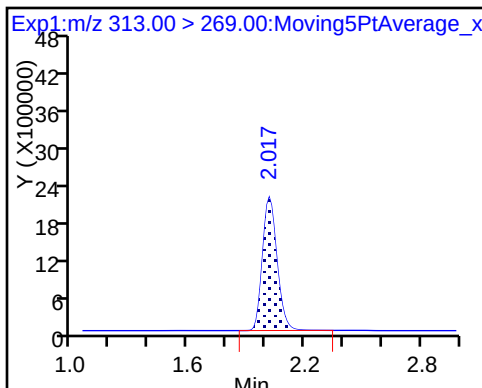
De 7 13C2 PFHxA



6 Perfluorohexanoic acid

10 Perfluoroheptanoic acid

D 9 13C4-PFHpA

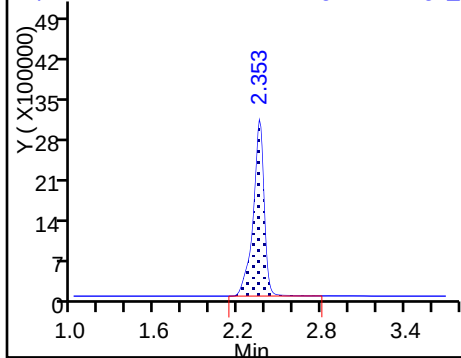


8 Perfluorohexanesulfonic acid

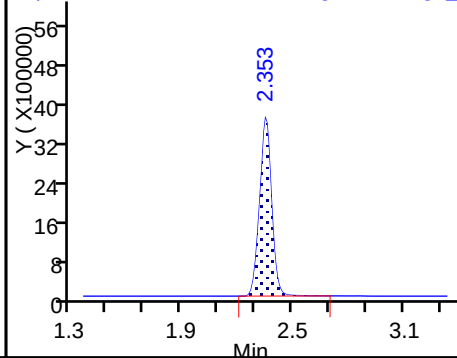
D 11 18O2 PFHxS

D 12 M2-6:2FTS

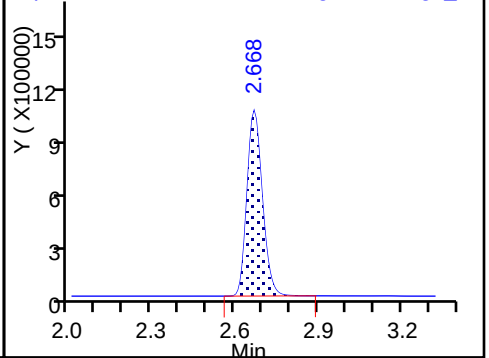
Exp1:m/z 399.00 > 80.00:Moving5PtAverage_x3



Exp1:m/z 403.00 > 84.00:Moving5PtAverage_x3



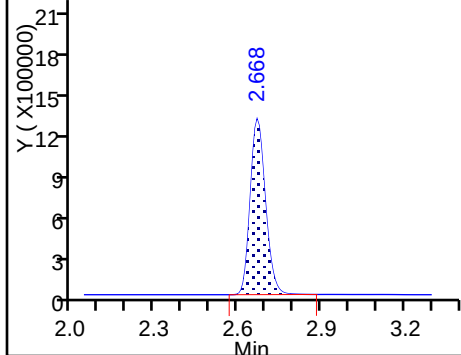
Exp1:m/z 429.00 > 81.00:Moving5PtAverage_x3



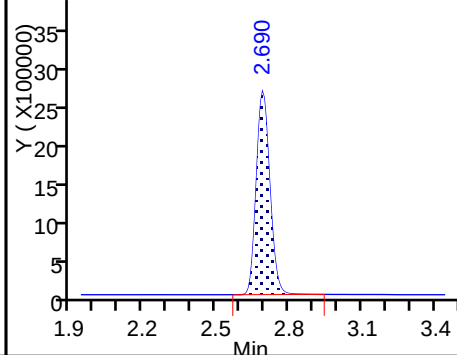
13 Sodium 1H,1H,2H,2H-perfluorooctanoate

D 14 13C4 PFOA

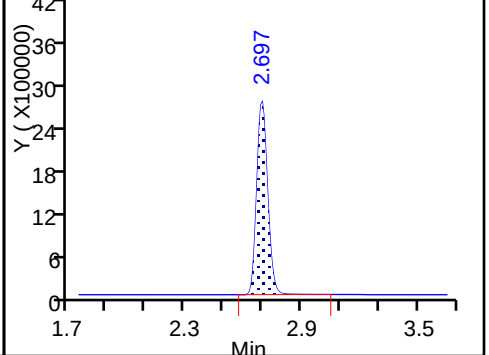
Exp1:m/z 427.00 > 407.00:Moving5PtAverage_x3



Exp1:m/z 415.00 > 370.00:Moving5PtAverage_x3



Exp1:m/z 417.00 > 372.00:Moving5PtAverage_x3

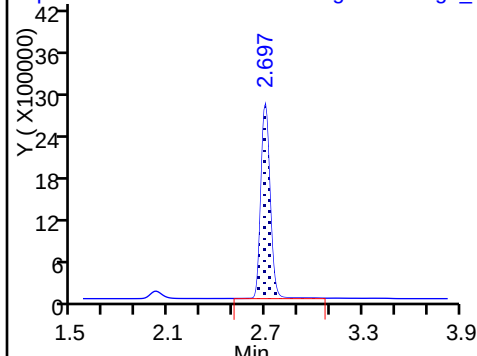


15 Perfluorooctanoic acid

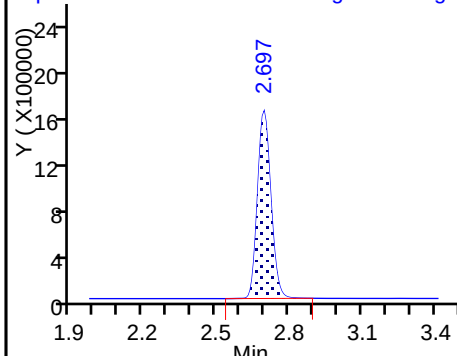
15 Perfluorooctanoic acid

16 Perfluoroheptanesulfonic Acid

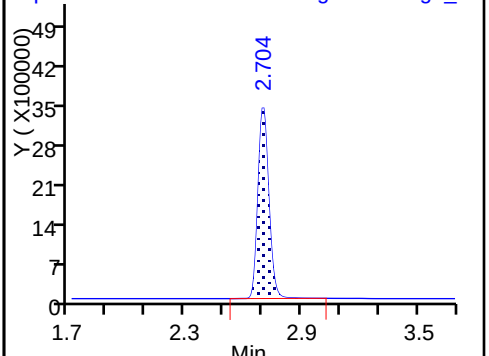
Exp1:m/z 413.00 > 369.00:Moving5PtAverage_x3



Exp1:m/z 413.00 > 169.00:Moving5PtAverage_x3



Exp1:m/z 449.00 > 80.00:Moving5PtAverage_x3

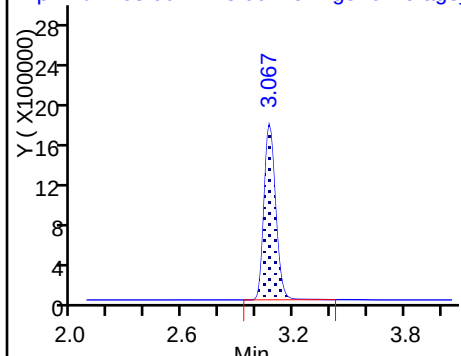


D 19 13C5 PFNA

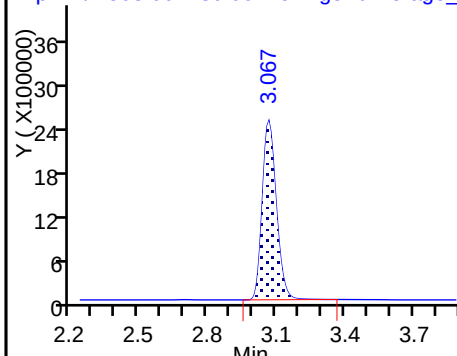
D 18 13C4 PFOS

17 Perfluorooctane sulfonic acid (M)

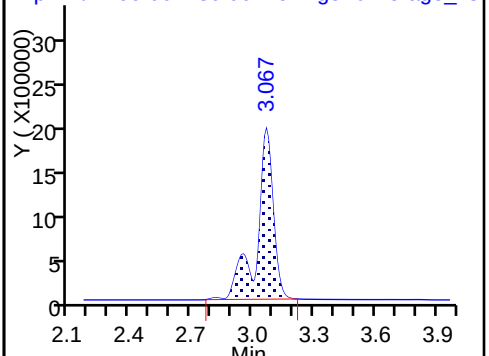
Exp1:m/z 468.00 > 423.00:Moving5PtAverage_x3



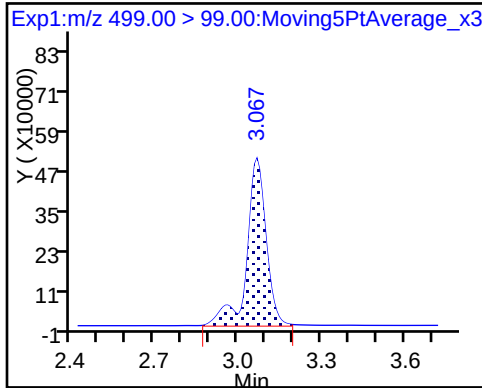
Exp1:m/z 503.00 > 80.00:Moving5PtAverage_x3



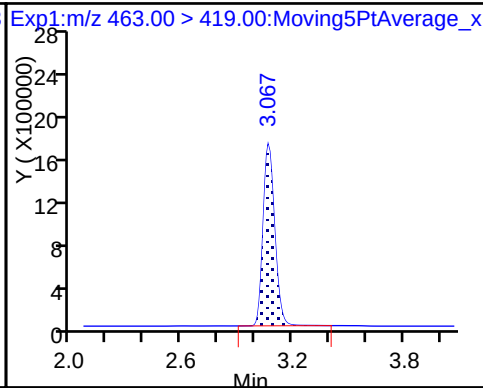
Exp1:m/z 499.00 > 80.00:Moving5PtAverage_x3



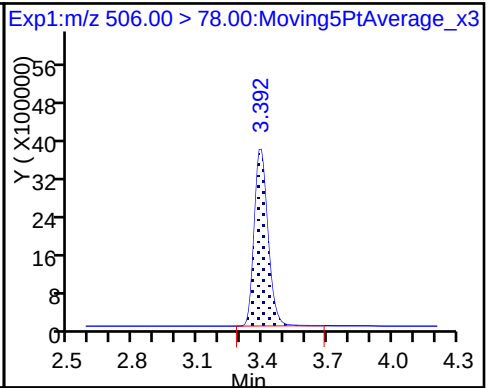
17 Perfluorooctane sulfonic acid (M)



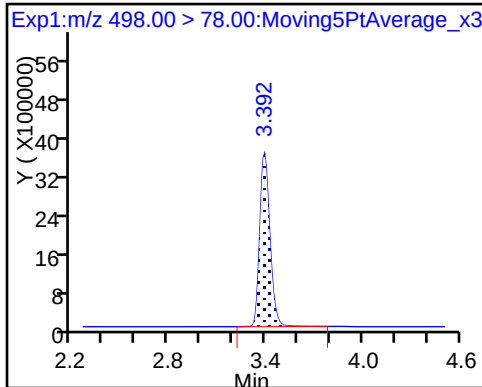
20 Perfluorononanoic acid



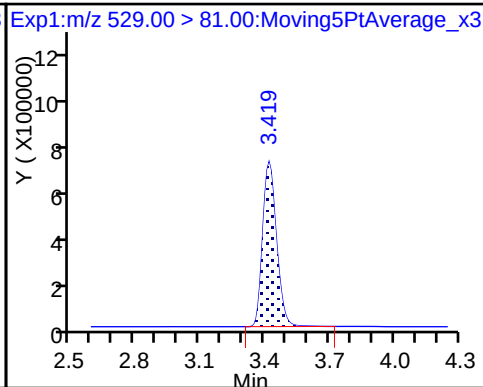
D 21 13C8 FOSA



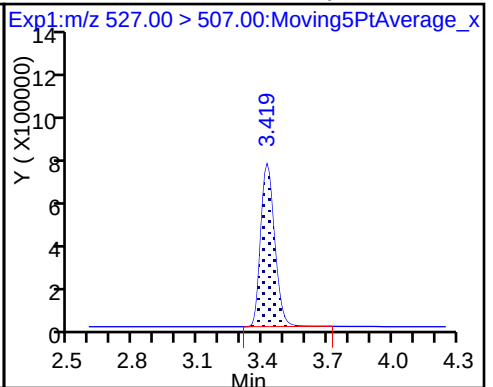
22 Perfluorooctane Sulfonamide



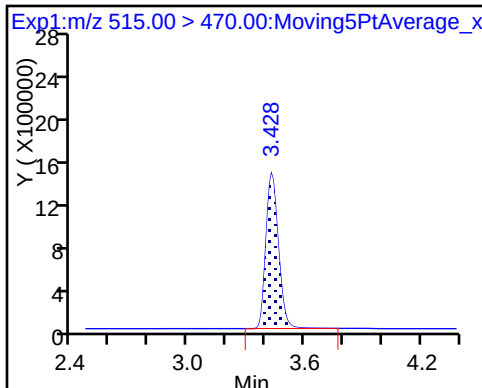
D 26 M2-8:2FTS



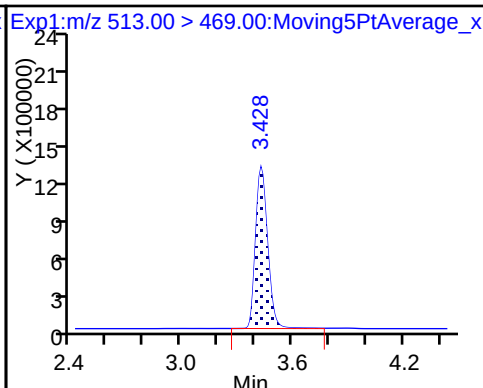
25 Sodium 1H,1H,2H,2H-perfluorodecane



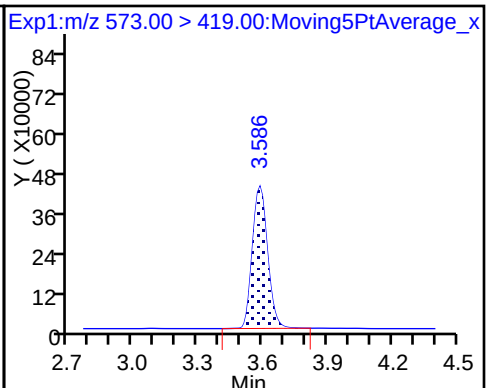
D 23 13C2 PFDA



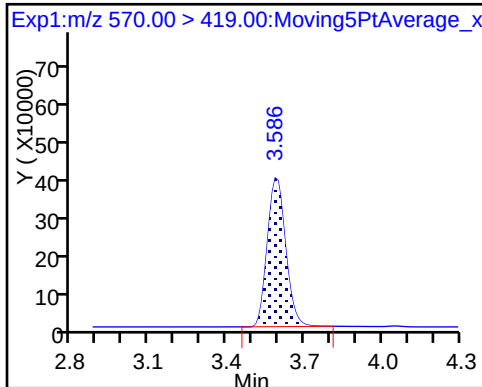
24 Perfluorodecanoic acid



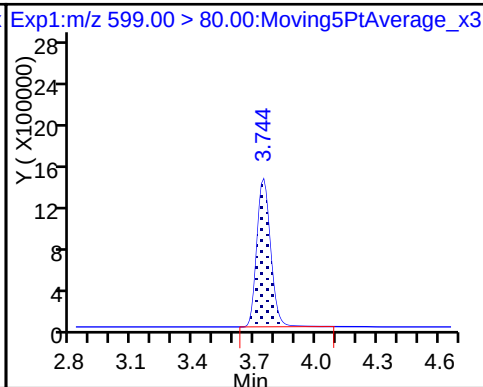
D 27 d3-NMeFOSAA



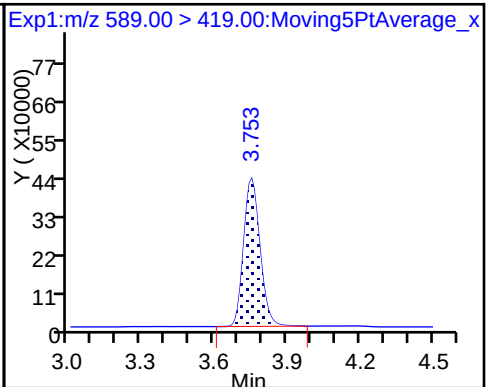
28 N-methyl perfluorooctane sulfonami



29 Perfluorodecane Sulfonic acid



D 32 d5-NEtFOSAA

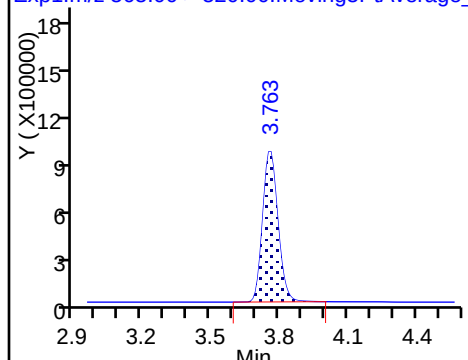


D 30 13C2 PFUnA

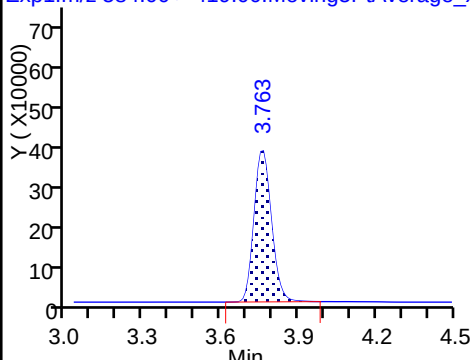
33 N-ethyl perfluorooctane sulfonamid

31 Perfluoroundecanoic acid

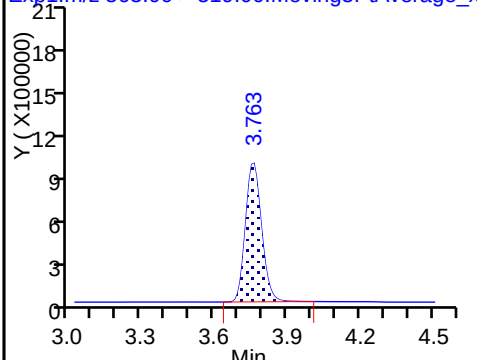
Exp1:m/z 565.00 > 520.00:Moving5PtAverage_x



Exp1:m/z 584.00 > 419.00:Moving5PtAverage_x



Exp1:m/z 563.00 > 519.00:Moving5PtAverage_x

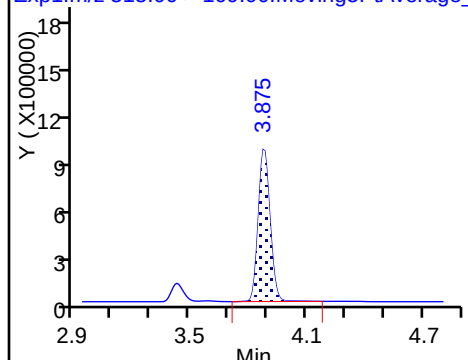


D 34 d-N-MeFOSA-M

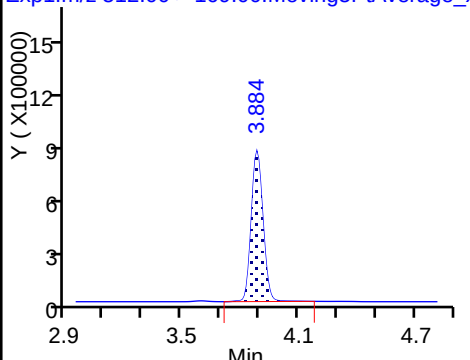
35 MeFOSA

37 Perfluorododecanoic acid

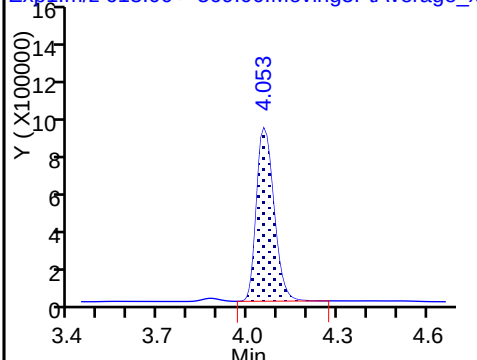
Exp1:m/z 515.00 > 169.00:Moving5PtAverage_x



Exp1:m/z 512.00 > 169.00:Moving5PtAverage_x



Exp1:m/z 613.00 > 569.00:Moving5PtAverage_x

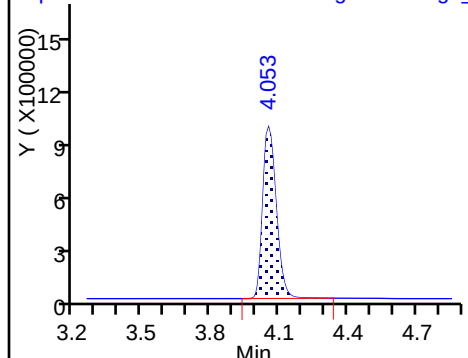


D 36 13C2 PFDaA

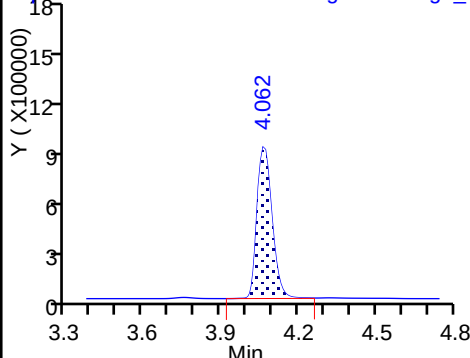
D 38 d-N-EtFOSA-M

39 N-ethylperfluoro-1-octanesulfonami

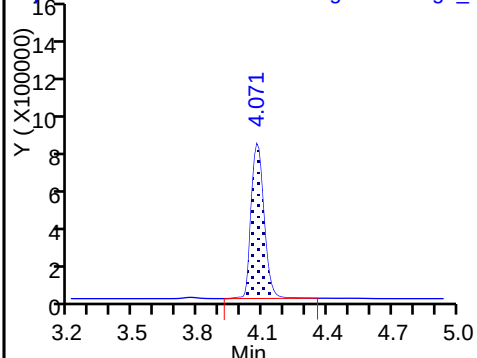
Exp1:m/z 615.00 > 570.00:Moving5PtAverage_x



Exp1:m/z 531.00 > 169.00:Moving5PtAverage_x



Exp1:m/z 526.00 > 169.00:Moving5PtAverage_x

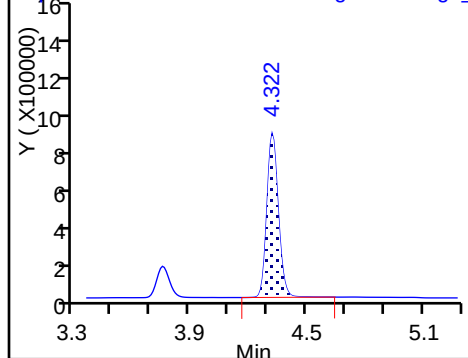


41 Perfluorotridecanoic acid

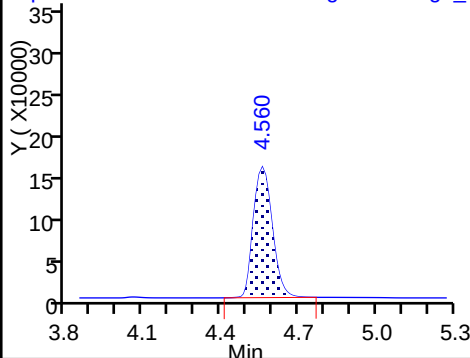
42 Perfluorotetradecanoic acid

42 Perfluorotetradecanoic acid

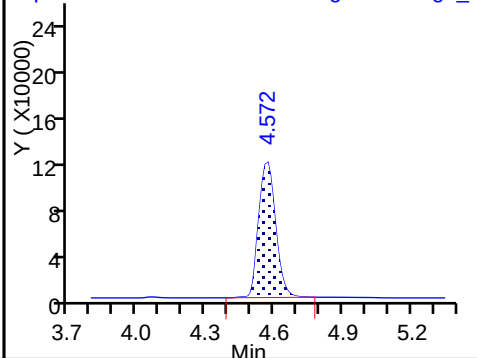
Exp1:m/z 663.00 > 619.00:Moving5PtAverage_x



Exp1:m/z 713.00 > 169.00:Moving5PtAverage_x



Exp1:m/z 713.00 > 219.00:Moving5PtAverage_x

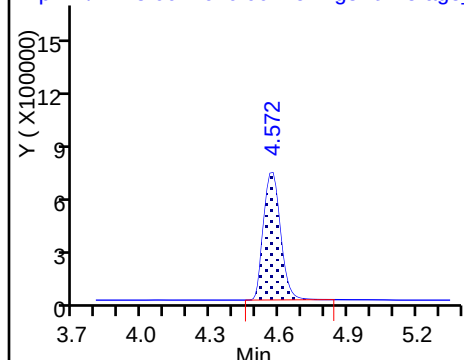


D 43 13C2-PFTeDA

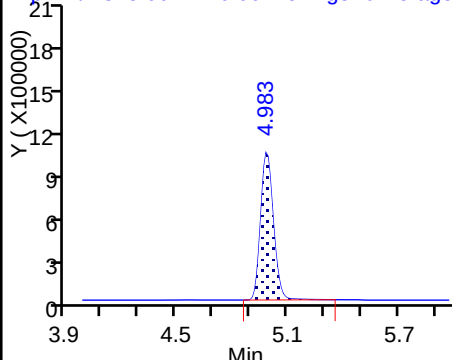
D 44 13C2-PFHxDA

45 Perfluorohexadecanoic acid

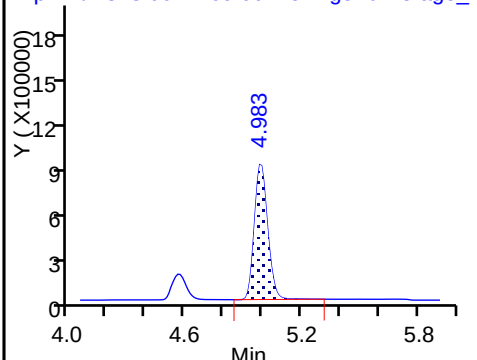
Exp1:m/z 715.00 > 670.00:Moving5PtAverage_x



Exp1:m/z 815.00 > 770.00:Moving5PtAverage_x

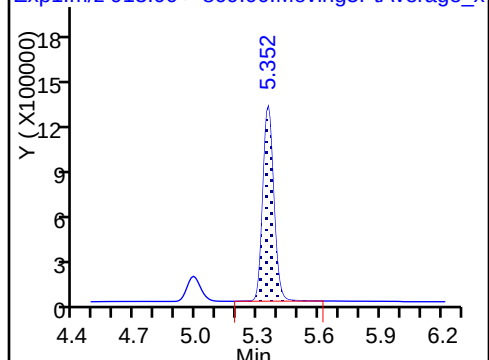


Exp1:m/z 813.00 > 769.00:Moving5PtAverage_x



46 Perfluorooctadecanoic acid

Exp1:m/z 913.00 > 869.00:Moving5PtAverage_x



TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171012-49071.b\2017.10.12\ICAL_007.d

Injection Date: 12-Oct-2017 10:50:44

Instrument ID: A8_N

Lims ID: IC L5 Full

Client ID:

Operator ID: SACINSTLCMS01

ALS Bottle#: 32 Worklist Smp#: 7

Injection Vol: 2.0 ul

Dil. Factor: 1.0000

Method: A8_N

Limit Group: LC PFC ICAL

Column:

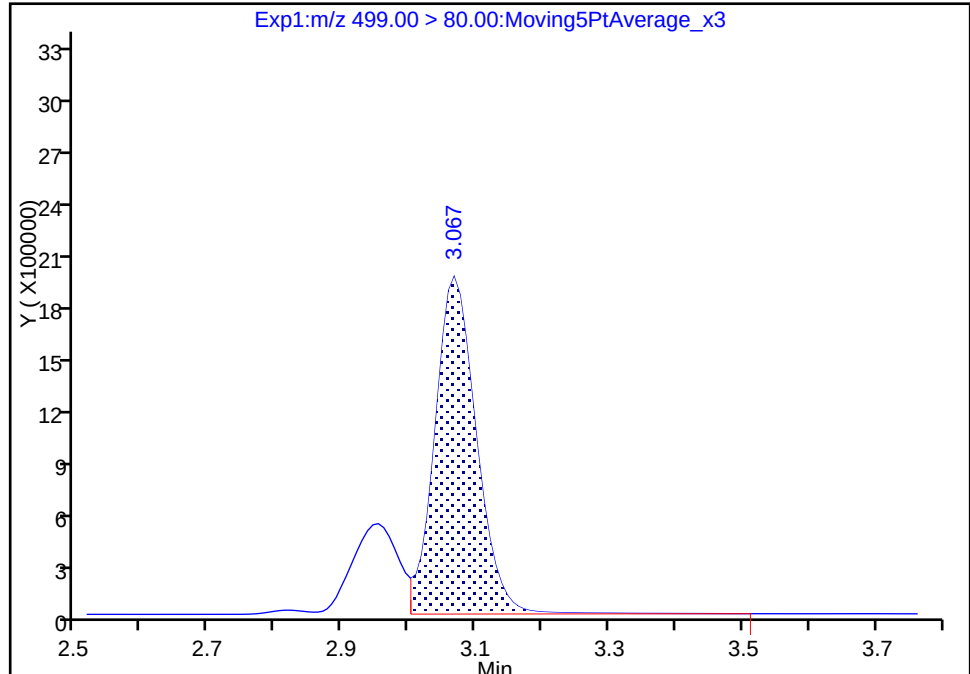
Detector EXP1

17 Perfluorooctane sulfonic acid, CAS: 1763-23-1

Signal: 1

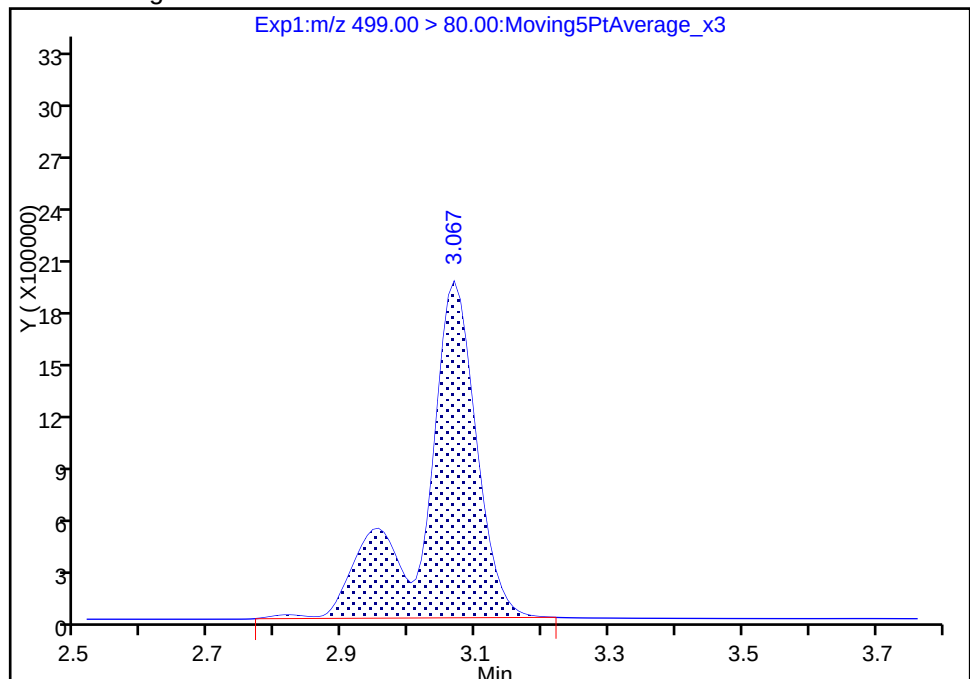
RT: 3.07
Area: 8286499
Amount: 39.514041
Amount Units: ng/ml

Processing Integration Results



RT: 3.07
Area: 10629617
Amount: 45.729889
Amount Units: ng/ml

Manual Integration Results



Reviewer: phomsophat, 12-Oct-2017 16:24:24

Audit Action: Manually Integrated

Audit Reason: Assign Peak

TestAmerica Sacramento

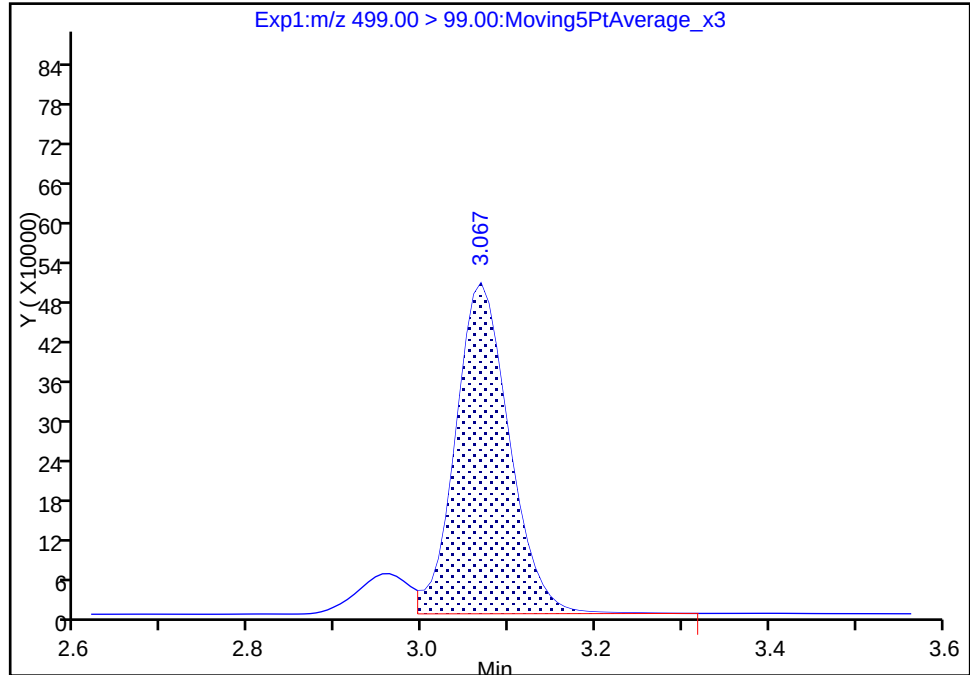
Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171012-49071.b\2017.10.12ICAL_007.d
Injection Date: 12-Oct-2017 10:50:44 Instrument ID: A8_N
Lims ID: IC L5 Full
Client ID:
Operator ID: SACINSTLCMS01 ALS Bottle#: 32 Worklist Smp#: 7
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: A8_N Limit Group: LC PFC ICAL
Column: Detector EXP1

17 Perfluorooctane sulfonic acid, CAS: 1763-23-1

Signal: 2

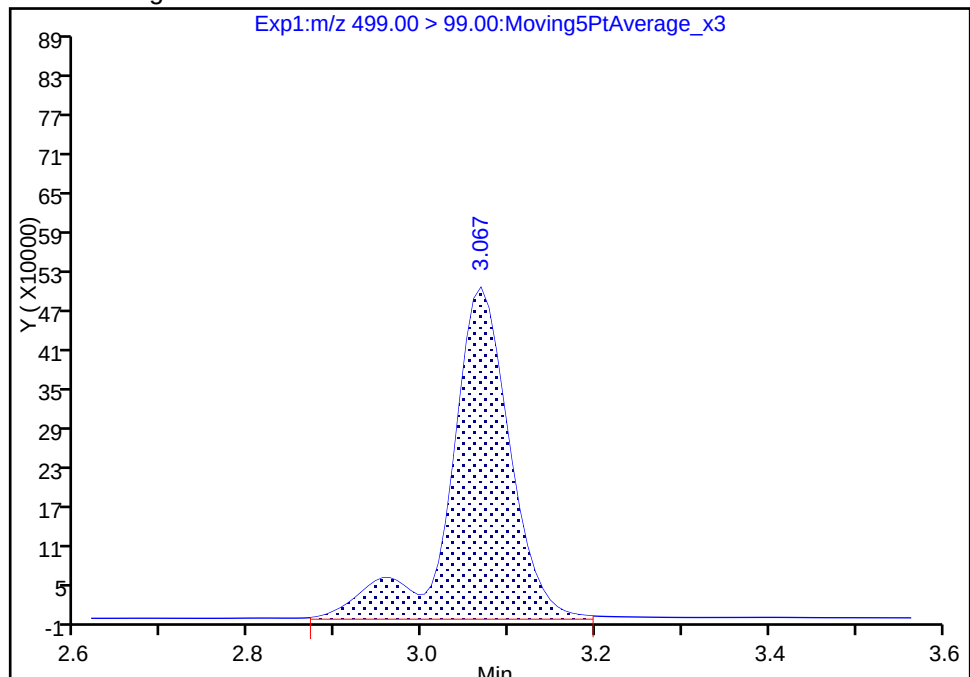
RT: 3.07
Area: 2149398
Amount: 39.514041
Amount Units: ng/ml

Processing Integration Results



RT: 3.07
Area: 2433730
Amount: 45.729889
Amount Units: ng/ml

Manual Integration Results



Reviewer: phomsophat, 12-Oct-2017 16:24:28

Audit Action: Manually Integrated

Audit Reason: Assign Peak

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171012-49071.b\2017.10.12ICAL_008.d
 Lims ID: IC L6 Full
 Client ID:
 Sample Type: IC Calib Level: 6
 Inject. Date: 12-Oct-2017 10:57:39 ALS Bottle#: 33 Worklist Smp#: 8
 Injection Vol: 2.0 ul Dil. Factor: 1.0000
 Sample Info: L6-FULL
 Misc. Info.: Plate: 1 Rack: 1
 Operator ID: SACINSTLCMS01 Instrument ID: A8_N
 Sublist: chrom-A8_N*sub19
 Method: \\ChromNa\Sacramento\ChromData\A8_N\20171012-49071.b\A8_N.m
 Limit Group: LC PFC ICAL
 Last Update: 16-Oct-2017 12:12:41 Calib Date: 12-Oct-2017 11:11:26
 Integrator: Picker
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last Ical File: \\ChromNA\Sacramento\ChromData\A8_N\20171012-49071.b\2017.10.12ICAL_010.d

Column 1 : Det: EXP1

Process Host: XAWRK027

First Level Reviewer: phomsophat

Date: 12-Oct-2017 14:32:47

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	1.554	1.548	0.006		17396791	46.3		92.7	13385	
2 Perfluorobutyric acid										
212.90 > 169.00	1.554	1.551	0.003	1.000	27388502	84.6		84.6	1539	
D 3 13C5-PFPeA										
267.90 > 223.00	1.755	1.755	0.0		10775788	45.7		91.4	31241	
4 Perfluoropentanoic acid										
262.90 > 219.00	1.764	1.757	0.007	1.000	20442592	86.7		86.7	7504	
D 47 13C3-PFBS										
301.90 > 83.00	1.782	1.777	0.005		294963	43.0		92.5	6710	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	1.782	1.781	0.001	1.000	30448259	66.9		75.7	406661	
298.90 > 99.00	1.782	1.781	0.001	1.000	16397623		1.86(0.00-0.00)	75.7	402992	
61 Sodium 1H,1H,2H,2H-perfluorohexane										
327.00 > 307.00	1.983	1.984	-0.001	1.000	9133897	96.3		103	27526	
6 Perfluorohexanoic acid										
313.00 > 269.00	2.029	2.023	0.006	1.000	20311544	87.3		87.3	13201	
D 7 13C2 PFHxA										
315.00 > 270.00	2.029	2.023	0.006		11868749	46.3		92.6	20511	
D 9 13C4-PFHpA										
367.00 > 322.00	2.350	2.348	0.002		10351978	43.3		86.7	12904	
10 Perfluoroheptanoic acid										
363.00 > 319.00	2.350	2.348	0.002	1.000	18889346	91.5		91.5	14117	
D 11 18O2 PFHxS										
403.00 > 84.00	2.361	2.359	0.002		16105373	44.9		95.0	19396	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	2.361	2.359	0.002	1.000	29471564	80.2		88.1	11528	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 12 M2-6:2FTS										
429.00 > 81.00	2.665	2.670	-0.005		3803514	42.9		90.4	16729	
13 Sodium 1H,1H,2H,2H-perfluorooctane										
427.00 > 407.00	2.672	2.671	0.001	1.000	9090625	92.7		97.7	16640	
* 62 13C2-PFOA										
415.00 > 370.00	2.694	2.692	0.002		9374765	50.0			15292	
15 Perfluorooctanoic acid										
413.00 > 369.00	2.694	2.699	-0.005	1.000	18515543	90.1		90.1	2553	
413.00 > 169.00	2.694	2.699	-0.005	1.000	11156161		1.66(0.90-1.10)	90.1	12332	
D 14 13C4 PFOA										
417.00 > 372.00	2.694	2.699	-0.005		9511650	42.4		84.7	23855	
16 Perfluoroheptanesulfonic Acid										
449.00 > 80.00	2.701	2.707	-0.006	1.000	23611453	82.9		87.0	26781	
17 Perfluorooctane sulfonic acid										
499.00 > 80.00	3.066	3.072	-0.006	1.000	21845584	88.4		95.3	3774	M
499.00 > 99.00	3.066	3.072	-0.006	1.000	5215595		4.19(0.90-1.10)	95.3	4436	M
20 Perfluorononanoic acid										
463.00 > 419.00	3.066	3.072	-0.006	1.000	14464494	98.1		98.1	11022	
D 19 13C5 PFNA										
468.00 > 423.00	3.066	3.072	-0.006		7668932	44.7		89.4	21356	
D 18 13C4 PFOS										
503.00 > 80.00	3.066	3.072	-0.006		11235148	44.5		93.2	18871	
D 21 13C8 FOSA										
506.00 > 78.00	3.392	3.389	0.003		17089943	47.5		95.0	17503	
22 Perfluorooctane Sulfonamide										
498.00 > 78.00	3.392	3.391	0.001	1.000	27802072	78.8		78.8	15041	
D 26 M2-8:2FTS										
529.00 > 81.00	3.420	3.423	-0.003		3097344	44.9		93.8	16602	
25 Sodium 1H,1H,2H,2H-perfluorodecane										
527.00 > 507.00	3.420	3.425	-0.005	1.000	6781002	94.5		98.7	20218	
24 Perfluorodecanoic acid										
513.00 > 469.00	3.429	3.436	-0.007	1.000	12418898	100.4		100	9339	
D 23 13C2 PFDA										
515.00 > 470.00	3.429	3.436	-0.007		6754959	45.7		91.4	14091	
D 27 d3-NMeFOSAA										
573.00 > 419.00	3.587	3.592	-0.005		2178278	45.9		91.8	6140	
28 N-methyl perfluorooctane sulfonami										
570.00 > 419.00	3.587	3.595	-0.008	1.000	4325683	106.3		106	5797	
29 Perfluorodecane Sulfonic acid										
599.00 > 80.00	3.745	3.750	-0.005	1.000	13686458	96.7		100	16799	
D 32 d5-NEtFOSAA										
589.00 > 419.00	3.755	3.759	-0.004		2112852	45.6		91.3	2437	
33 N-ethyl perfluorooctane sulfonamid										
584.00 > 419.00	3.764	3.768	-0.004	1.003	3700976	103.1		103	9034	
D 30 13C2 PFUnA										
565.00 > 520.00	3.764	3.768	-0.004		4185367	43.0		86.0	6397	
31 Perfluoroundecanoic acid										
563.00 > 519.00	3.764	3.769	-0.005	1.000	8568486	94.9		94.9	7519	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 34 d-N-MeFOSA-M	515.00 > 169.00	3.888	3.881	0.007	4485253	51.4		103	583	
35 MeFOSA	512.00 > 169.00	3.888	3.885	0.003	1.000	7949524	100.1	100	5703	
D 36 13C2 PFDaA	615.00 > 570.00	4.060	4.063	-0.003	4354032	47.7		95.3	7305	
37 Perfluorododecanoic acid	613.00 > 569.00	4.060	4.063	-0.003	1.000	7915512	99.4	99.4	2740	
D 38 d-N-EtFOSA-M	531.00 > 169.00	4.069	4.066	0.003	3986789	50.5		101	2928	
39 N-ethylperfluoro-1-octanesulfonami	526.00 > 169.00	4.079	4.075	0.004	1.000	7547201	100.5	101	4346	
41 Perfluorotridecanoic acid	663.00 > 619.00	4.325	4.332	-0.007	1.000	7293647	94.2	94.2	676	
42 Perfluorotetradecanoic acid	713.00 > 169.00	4.563	4.570	-0.007	1.000	1689864	104.9	105	4742	
	713.00 > 219.00	4.563	4.570	-0.007	1.000	1286162	1.31(0.00-0.00)	105	3633	
D 43 13C2-PFTeDA	715.00 > 670.00	4.563	4.575	-0.012	3426298	42.8		85.6	6088	
D 44 13C2-PFHxDA	815.00 > 770.00	4.989	4.997	-0.008	4955484	46.0		92.0	5912	
45 Perfluorohexadecanoic acid	813.00 > 769.00	4.989	4.999	-0.010	1.000	8797516	93.6	93.6	442	
46 Perfluorooctadecanoic acid	913.00 > 869.00	5.349	5.364	-0.015	1.000	8513948	94.5	94.5	522	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

LCPFC_FULL-L6_00006

Amount Added: 1.00

Units: mL

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171012-49071.b\2017.10.12\ICAL_008.d

Injection Date: 12-Oct-2017 10:57:39

Instrument ID: A8_N

Lims ID: IC L6 Full

Client ID:

Operator ID: SACINSTLCMS01

ALS Bottle#: 33

Worklist Smp#: 8

Injection Vol: 2.0 ul

Dil. Factor: 1.0000

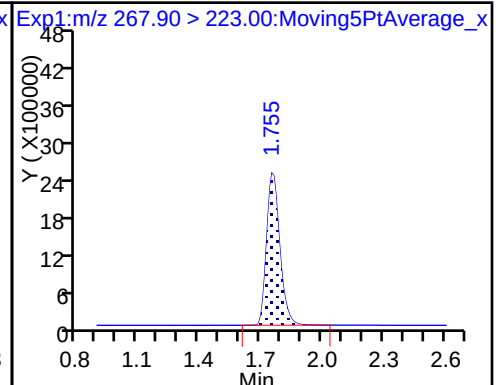
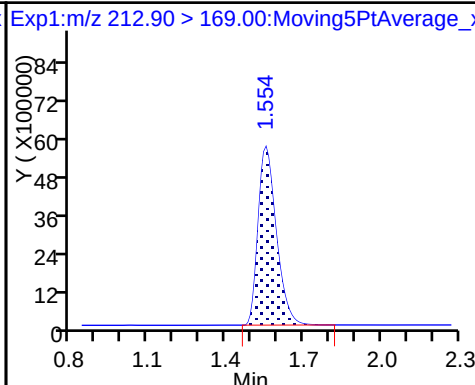
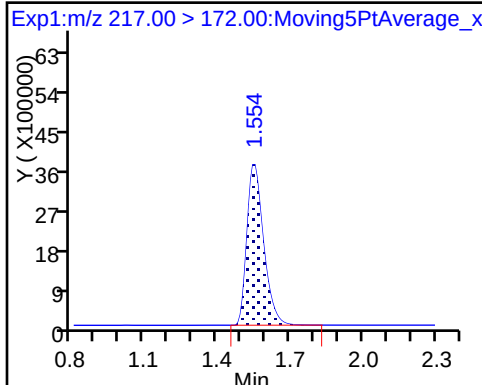
Method: A8_N

Limit Group: LC PFC ICAL

D 1 13C4 PFBA

2 Perfluorobutyric acid

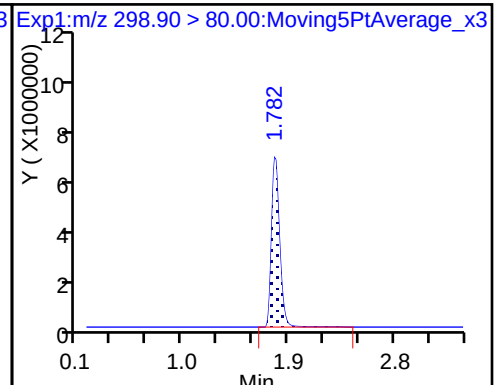
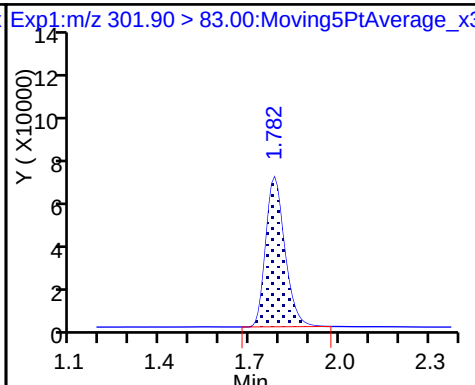
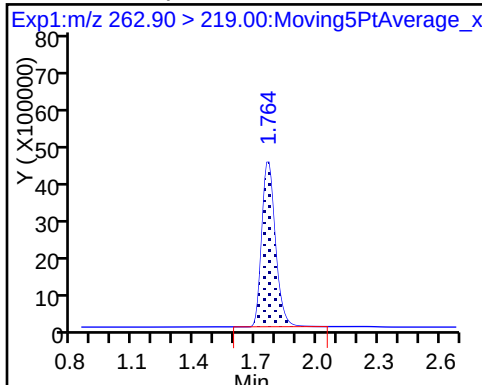
D 3 13C5-PFPeA



4 Perfluoropentanoic acid

D 47 13C3-PFBS

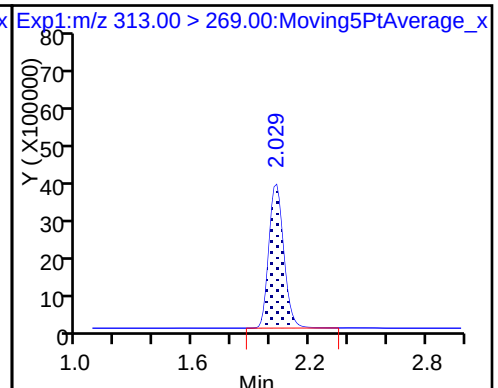
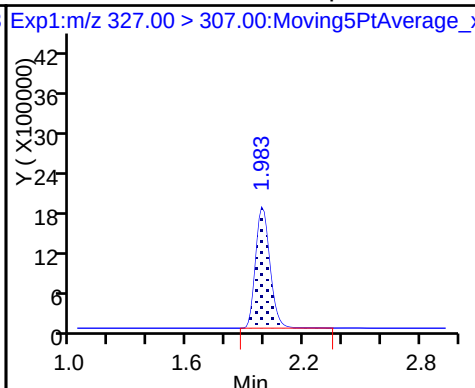
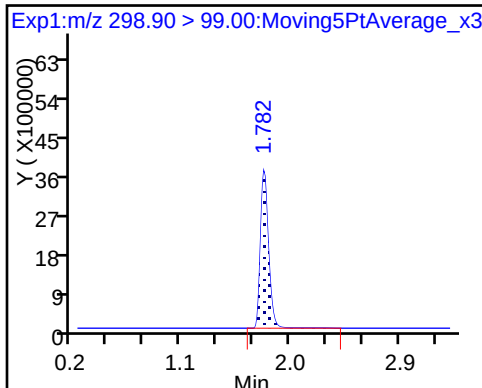
5 Perfluorobutanesulfonic acid



5 Perfluorobutanesulfonic acid

61 Sodium 1H,1H,2H,2H-perfluorohexanoic acid

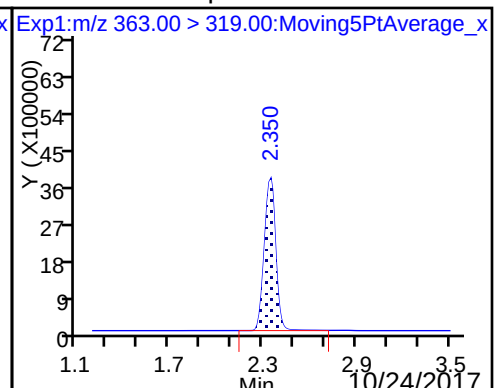
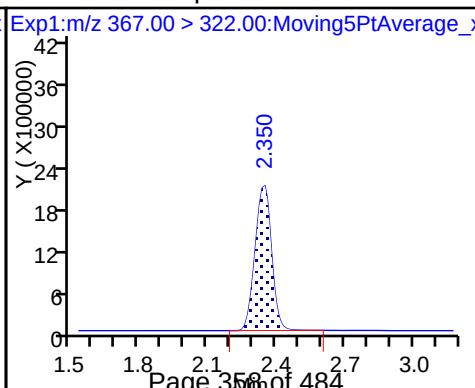
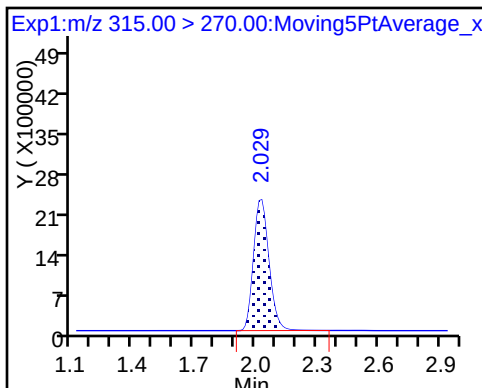
6 Perfluorohexanoic acid



D 7 13C2 PFHxA

D 9 13C4-PFHpA

10 Perfluoroheptanoic acid

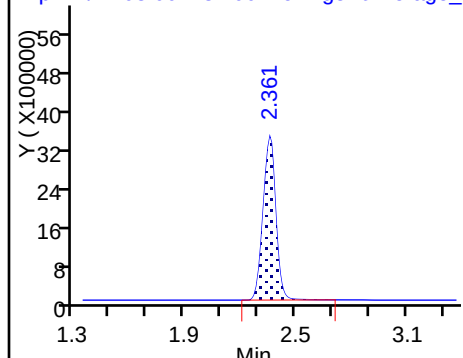


D 11 18O2 PFHxS

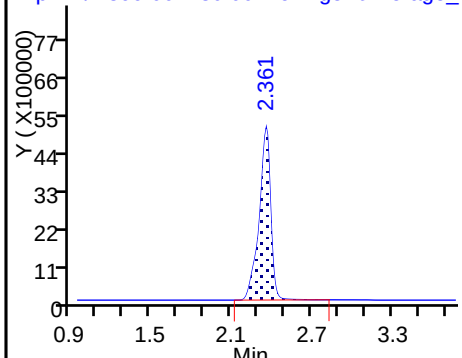
8 Perfluorohexanesulfonic acid

D 12 M2-6:2FTS

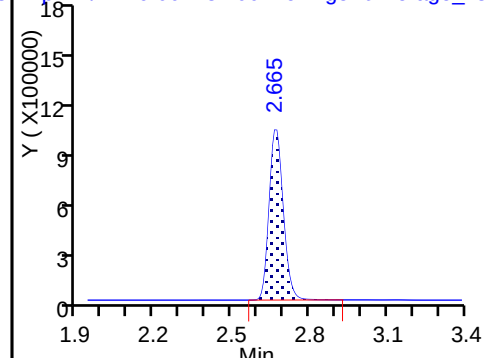
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Exp1:m/z 399.00 > 80.00:Moving5PtAverage_x3



Exp1:m/z 429.00 > 81.00:Moving5PtAverage_x3

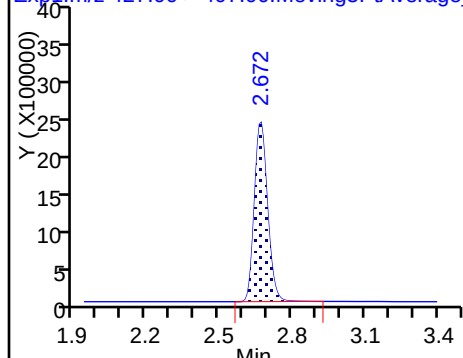


13 Sodium 1H,1H,2H,2H-perfluorooctane

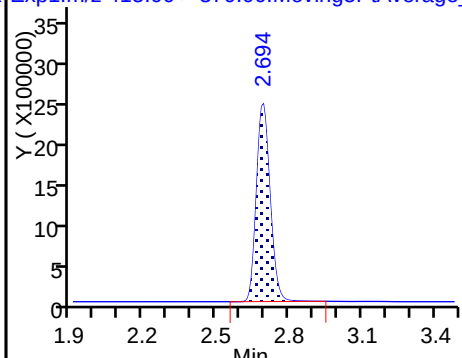
62 13C2-PFOA

15 Perfluorooctanoic acid

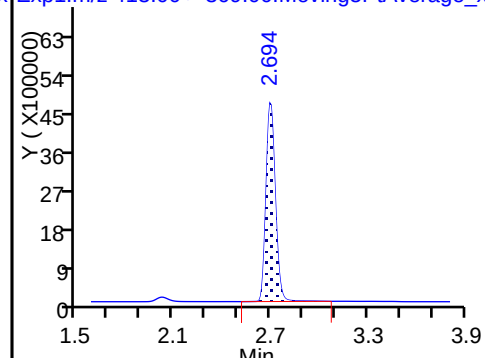
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Exp1:m/z 415.00 > 370.00:Moving5PtAverage_x3



Exp1:m/z 413.00 > 369.00:Moving5PtAverage_x3

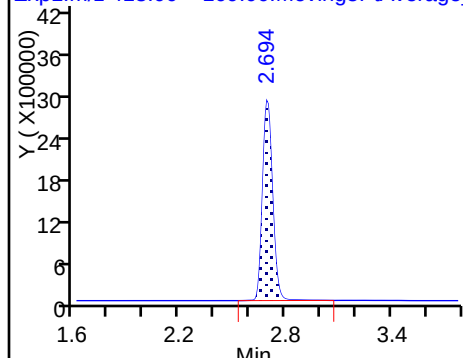


15 Perfluorooctanoic acid

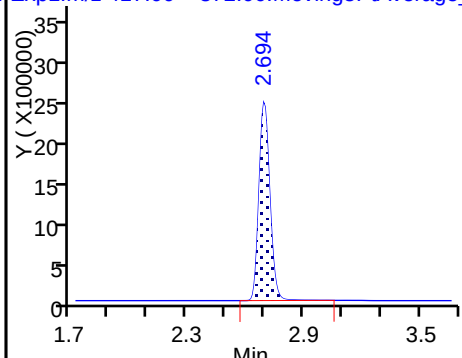
D 14 13C4 PFOA

16 Perfluoroheptanesulfonic Acid

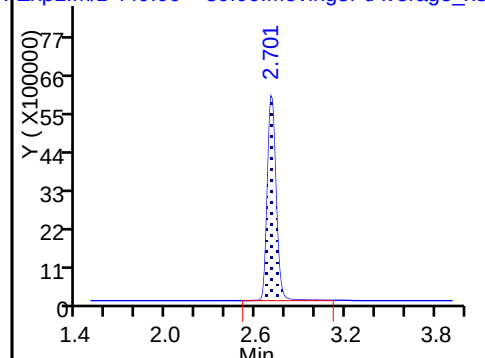
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Exp1:m/z 417.00 > 372.00:Moving5PtAverage_x3



Exp1:m/z 449.00 > 80.00:Moving5PtAverage_x3

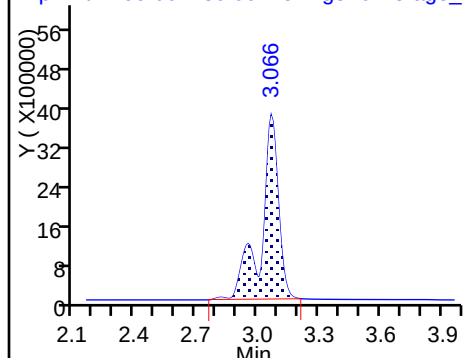


17 Perfluorooctane sulfonic acid (M)

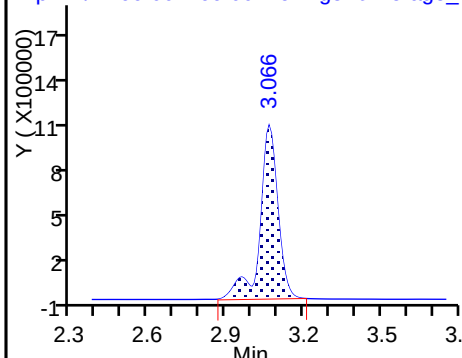
17 Perfluorooctane sulfonic acid (M)

20 Perfluorononanoic acid

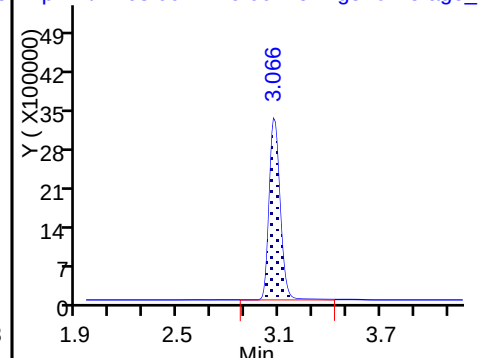
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Exp1:m/z 499.00 > 99.00:Moving5PtAverage_x3



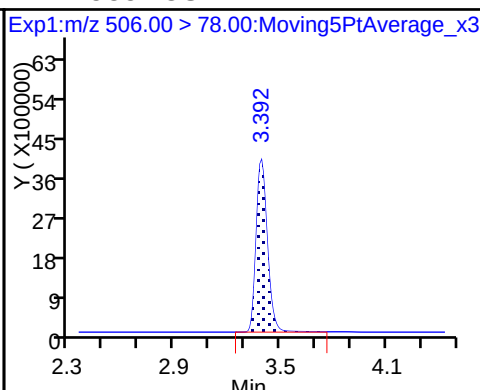
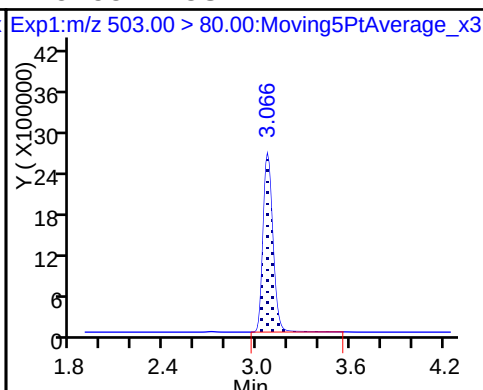
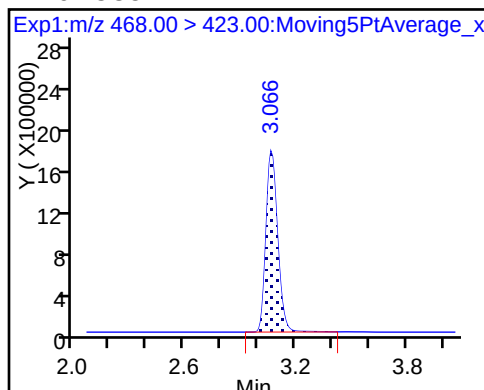
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D 19 13C5 PFNA

D 18 13C4 PFOS

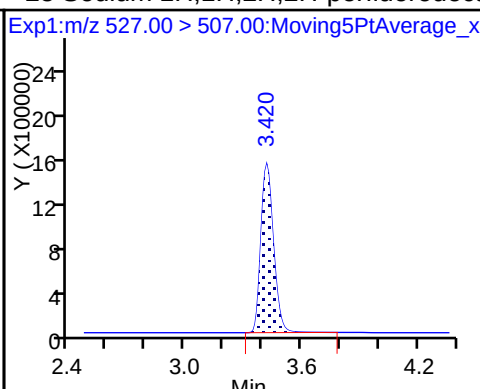
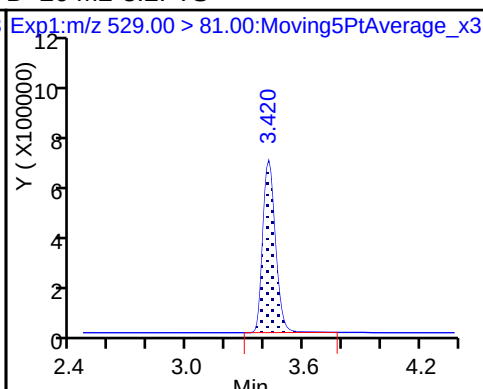
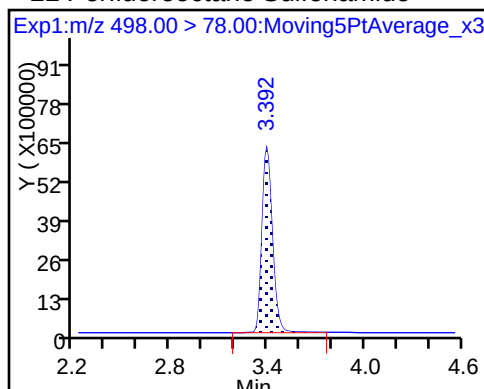
D 21 13C8 FOSA



22 Perfluorooctane Sulfonamide

D 26 M2-8:2FTS

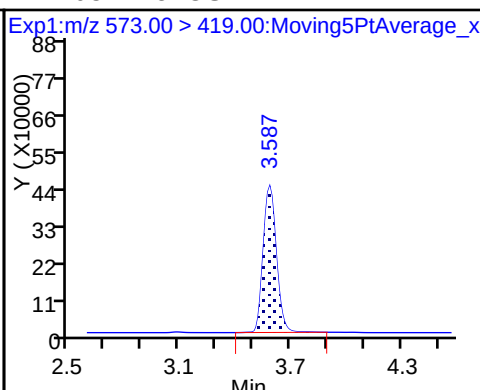
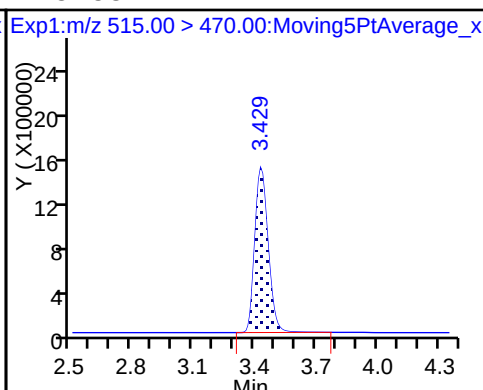
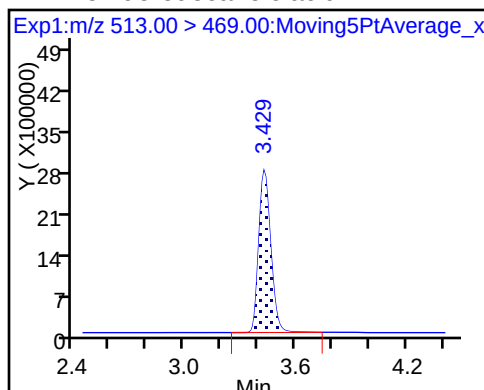
25 Sodium 1H,1H,2H,2H-perfluorodecane



24 Perfluorodecanoic acid

D 23 13C2 PFDA

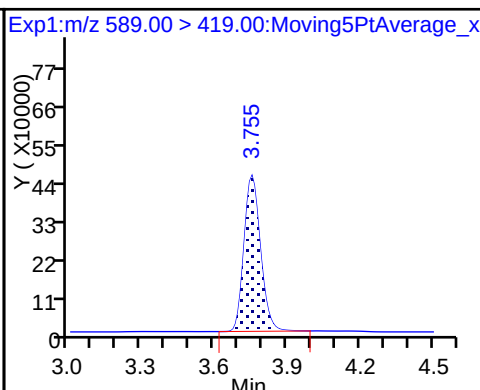
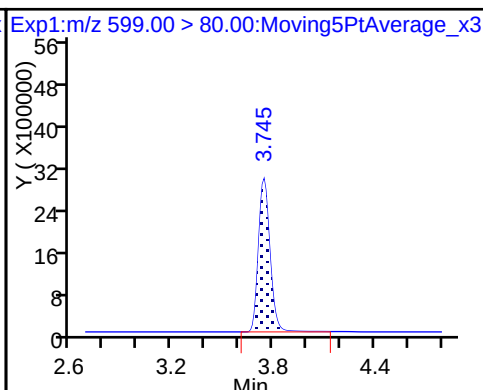
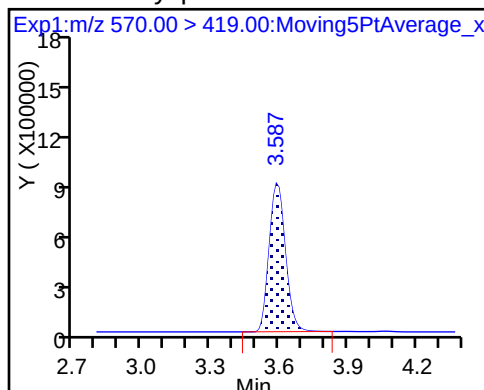
D 27 d3-NMeFOSAA



28 N-methyl perfluorooctane sulfonami

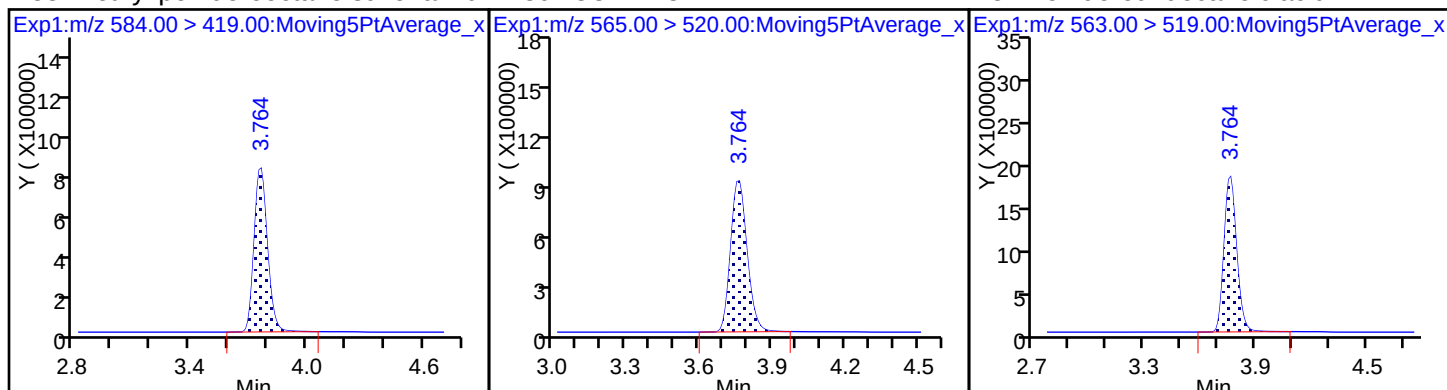
29 Perfluorodecane Sulfonic acid

D 32 d5-NEtFOSAA



33 N-ethyl perfluorooctane sulfonamid D 30 13C2 PFUnA

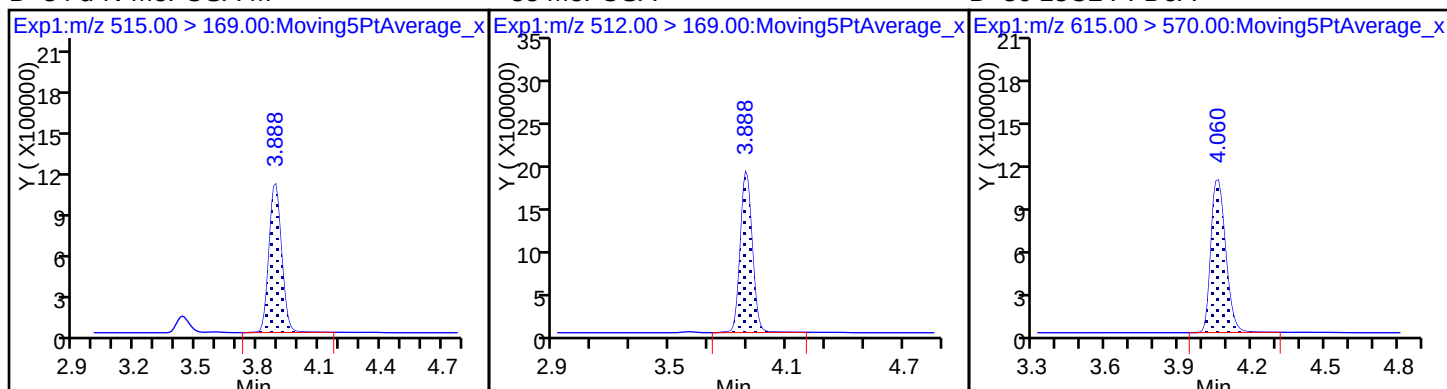
31 Perfluoroundecanoic acid



D 34 d-N-MeFOSA-M

35 MeFOSA

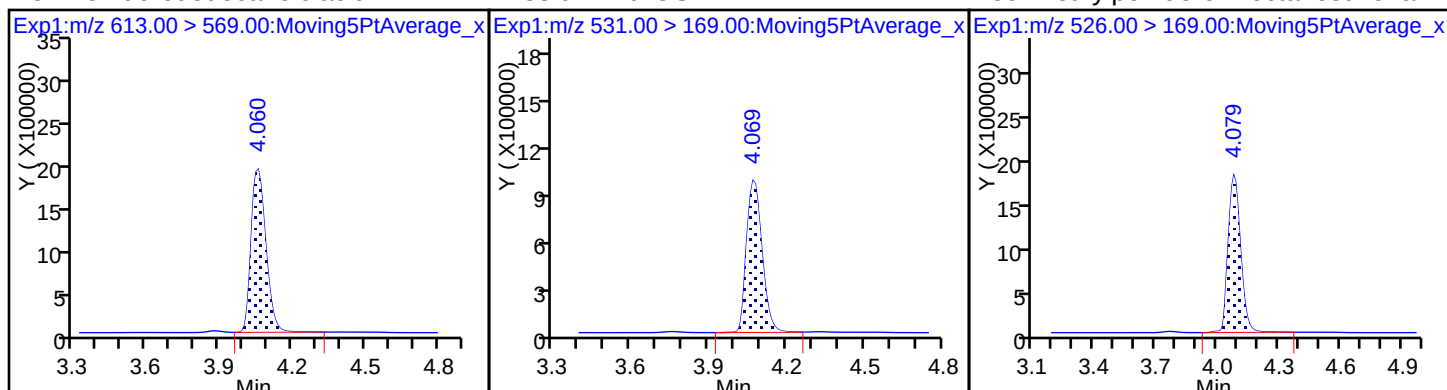
D 36 13C2 PFDaA



37 Perfluorododecanoic acid

D 38 d-N-EtFOSA-M

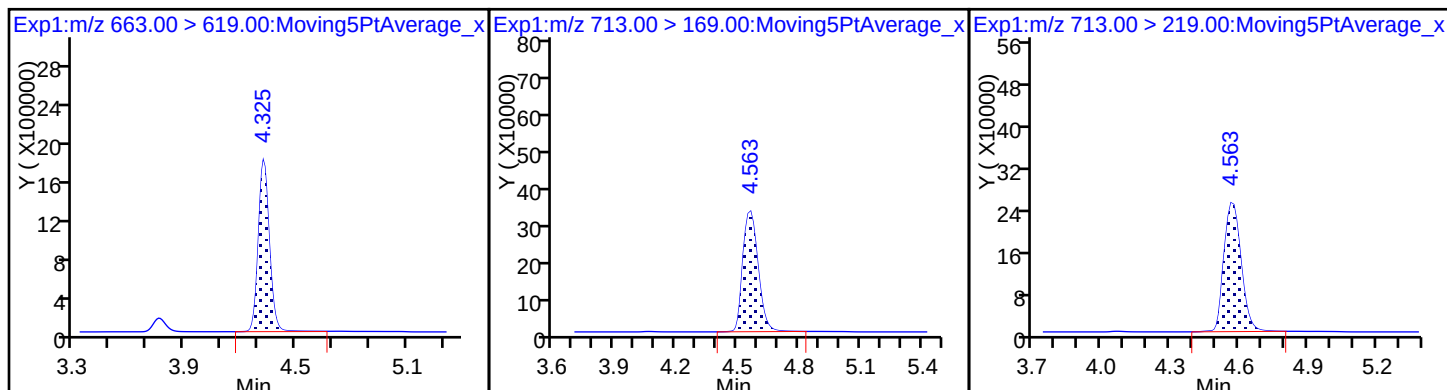
39 N-ethylperfluoro-1-octanesulfonami



41 Perfluorotridecanoic acid

42 Perfluorotetradecanoic acid

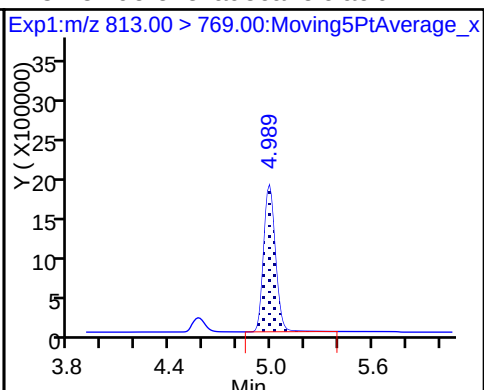
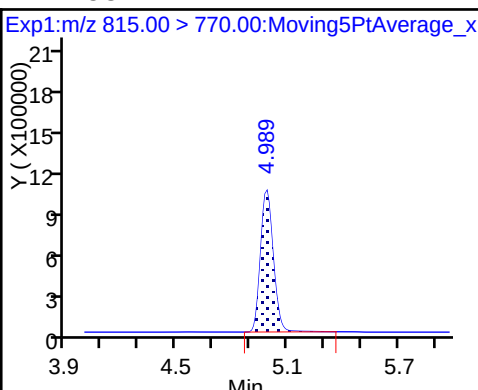
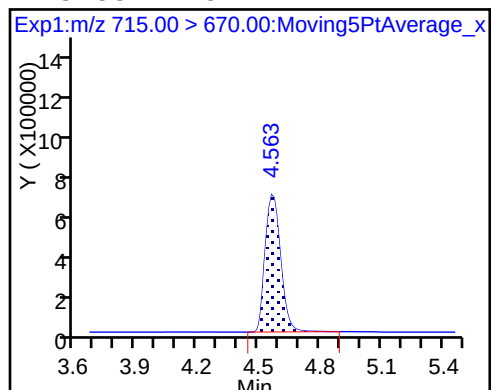
42 Perfluorotetradecanoic acid



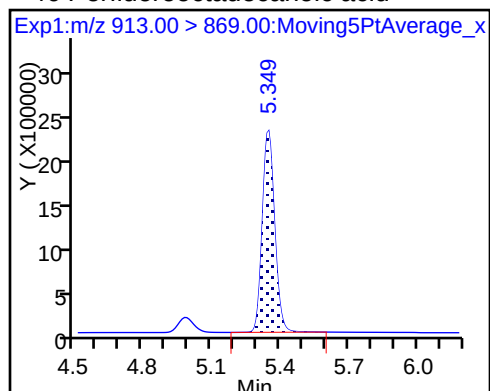
D 43 13C2-PFTeDA

D 44 13C2-PFHxDA

45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid



TestAmerica Sacramento

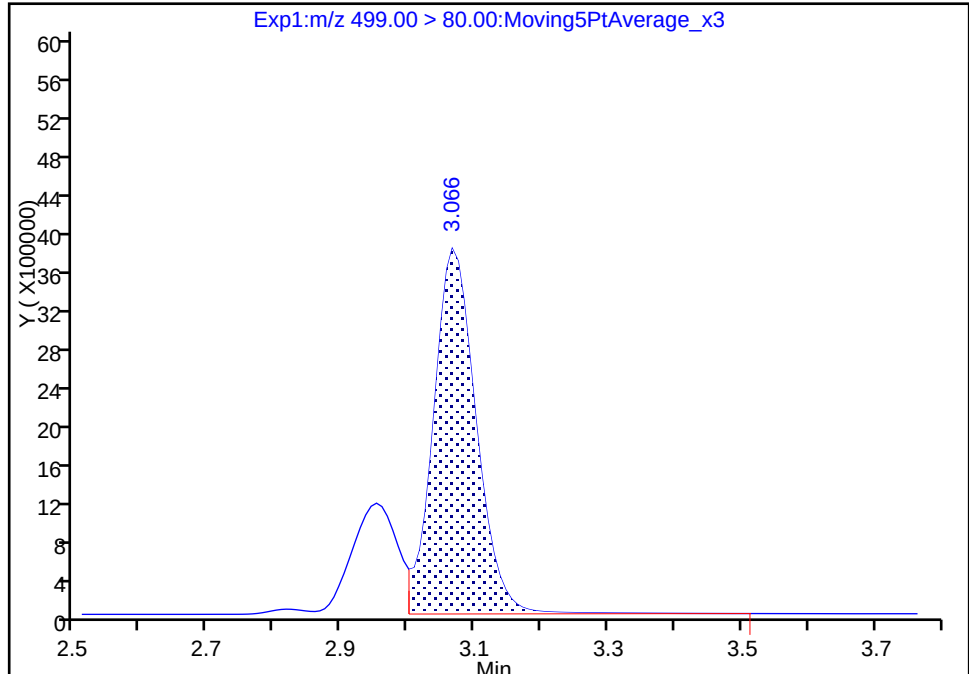
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Injection Date: 12-Oct-2017 10:57:39 Instrument ID: A8_N
Lims ID: IC L6 Full
Client ID:
Operator ID: SACINSTLCMS01 ALS Bottle#: 33 Worklist Smp#: 8
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: A8_N Limit Group: LC PFC ICAL
Column: Detector EXP1

17 Perfluorooctane sulfonic acid, CAS: 1763-23-1

Signal: 1

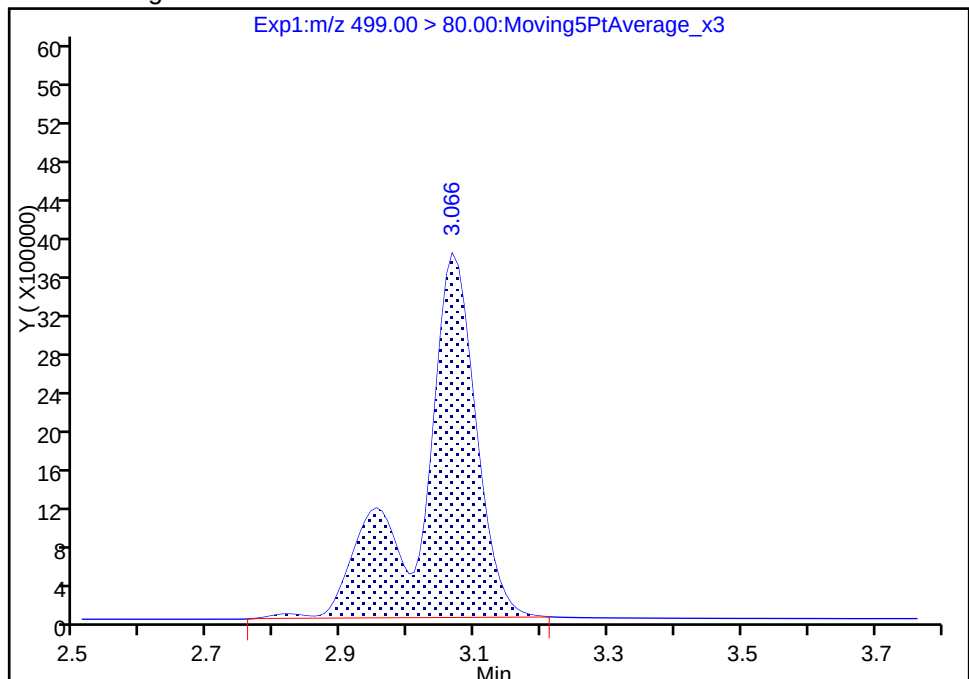
RT: 3.07
Area: 16735222
Amount: 72.575544
Amount Units: ng/ml

Processing Integration Results



RT: 3.07
Area: 21845584
Amount: 88.412397
Amount Units: ng/ml

Manual Integration Results



Reviewer: phomsophat, 12-Oct-2017 16:25:11
Audit Action: Manually Integrated

Audit Reason: Assign Peak
Page 363 of 484

10/24/2017

TestAmerica Sacramento

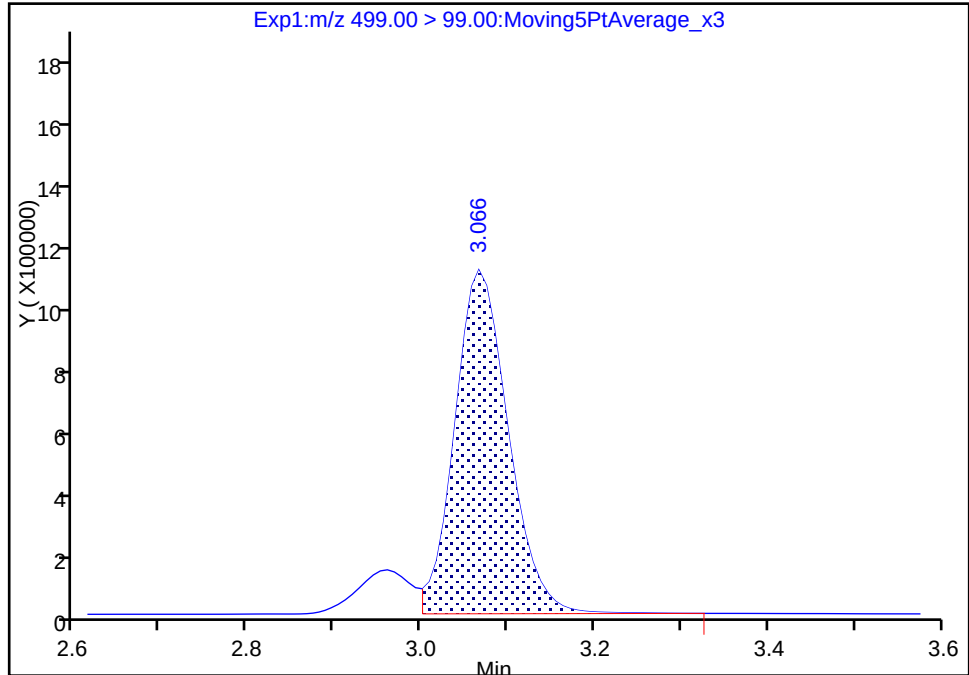
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Injection Date: 12-Oct-2017 10:57:39 Instrument ID: A8_N
Lims ID: IC L6 Full
Client ID:
Operator ID: SACINSTLCMS01 ALS Bottle#: 33 Worklist Smp#: 8
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: A8_N Limit Group: LC PFC ICAL
Column: Detector EXP1

17 Perfluorooctane sulfonic acid, CAS: 1763-23-1

Signal: 2

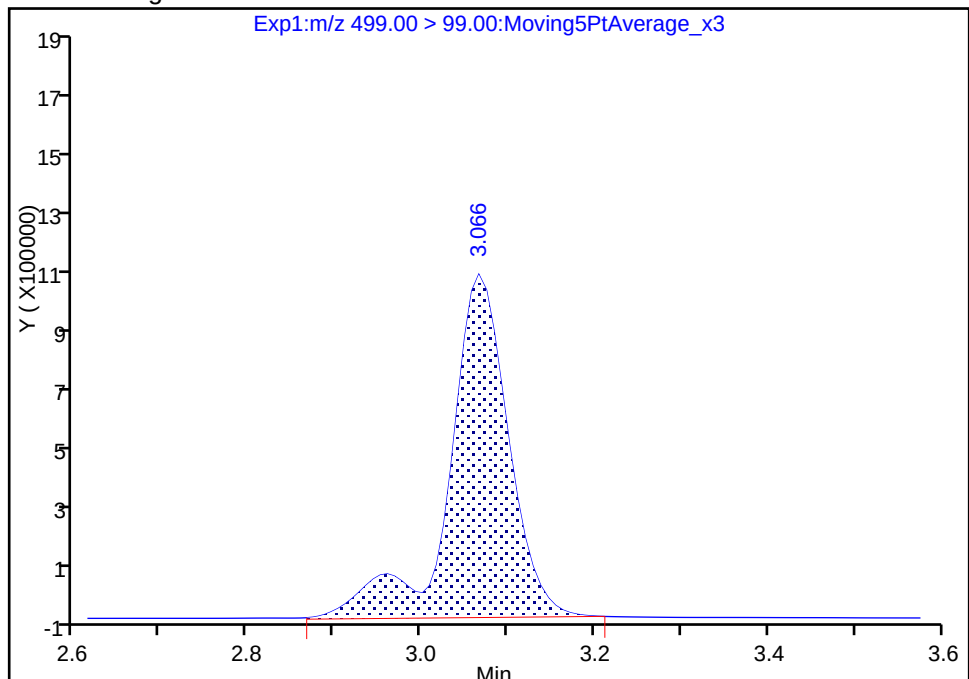
RT: 3.07
Area: 4634982
Amount: 72.575544
Amount Units: ng/ml

Processing Integration Results



RT: 3.07
Area: 5215595
Amount: 88.412397
Amount Units: ng/ml

Manual Integration Results



Reviewer: phomsophat, 12-Oct-2017 16:25:15

Audit Action: Manually Integrated

Audit Reason: Assign Peak

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171012-49071.b\2017.10.12ICAL_009.d
 Lims ID: IC L7 Full
 Client ID:
 Sample Type: IC Calib Level: 7
 Inject. Date: 12-Oct-2017 11:04:32 ALS Bottle#: 34 Worklist Smp#: 9
 Injection Vol: 2.0 ul Dil. Factor: 1.0000
 Sample Info: L7-FULL
 Misc. Info.: Plate: 1 Rack: 1
 Operator ID: SACINSTLCMS01 Instrument ID: A8_N
 Sublist: chrom-A8_N*sub19
 Method: \\ChromNa\Sacramento\ChromData\A8_N\20171012-49071.b\A8_N.m
 Limit Group: LC PFC ICAL
 Last Update: 16-Oct-2017 12:12:44 Calib Date: 12-Oct-2017 11:11:26
 Integrator: Picker
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last Ical File: \\ChromNa\Sacramento\ChromData\A8_N\20171012-49071.b\2017.10.12ICAL_010.d

Column 1 : Det: EXP1

Process Host: XAWRK027

First Level Reviewer: phomsophat

Date: 12-Oct-2017 14:25:03

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	1.542	1.548	-0.006		16768796	44.7		89.3	11207	
2 Perfluorobutyric acid										
212.90 > 169.00	1.550	1.551	-0.001	1.000	44128266	141.4		70.7	1912	
D 3 13C5-PFPeA										
267.90 > 223.00	1.751	1.755	-0.004		9711662	41.2		82.4	23782	
4 Perfluoropentanoic acid										
262.90 > 219.00	1.751	1.757	-0.006	1.000	31214387	146.9		73.5	14786	
D 47 13C3-PFBS										
301.90 > 83.00	1.769	1.777	-0.008		280718	40.9		88.0	6260	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	1.778	1.781	-0.003	1.000	46855944	108.2		61.2	691268	
298.90 > 99.00	1.778	1.781	-0.003	1.000	26606578		1.76(0.00-0.00)	61.2	40421	
61 Sodium 1H,1H,2H,2H-perfluorohexane										
327.00 > 307.00	1.978	1.984	-0.006	1.000	14850836	172.9		92.6	21703	
D 7 13C2 PFHxA										
315.00 > 270.00	2.012	2.023	-0.011		11006106	42.9		85.8	18180	
6 Perfluorohexanoic acid										
313.00 > 269.00	2.012	2.023	-0.011	1.000	32054133	148.6		74.3	11150	
10 Perfluoroheptanoic acid										
363.00 > 319.00	2.333	2.348	-0.015	1.000	28843279	161.0		80.5	9215	
D 9 13C4-PFHpA										
367.00 > 322.00	2.333	2.348	-0.015		8980712	37.6		75.2	14009	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	2.345	2.359	-0.014	1.000	47619277	141.6		77.8	4603	
D 11 18O2 PFHxS										
403.00 > 84.00	2.345	2.359	-0.014		14735180	41.1		86.9	14481	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 12 M2-6:2FTS										
429.00 > 81.00	2.656	2.670	-0.014		3444512	38.9		81.9	19439	
13 Sodium 1H,1H,2H,2H-perfluorooctane										
427.00 > 407.00	2.656	2.671	-0.015	1.000	15608942	175.7		92.7	24820	
* 62 13C2-PFOA										
415.00 > 370.00	2.678	2.692	-0.014		8223339	50.0			21718	
D 14 13C4 PFOA										
417.00 > 372.00	2.685	2.699	-0.014		8676634	38.6		77.3	20738	
15 Perfluorooctanoic acid										
413.00 > 369.00	2.685	2.699	-0.014	1.000	29241178	155.9		78.0	3087	
413.00 > 169.00	2.685	2.699	-0.014	1.000	18353306		1.59(0.90-1.10)	78.0	7933	
16 Perfluoroheptanesulfonic Acid										
449.00 > 80.00	2.693	2.707	-0.014	1.000	37824919	134.9		70.9	13700	
D 19 13C5 PFNA										
468.00 > 423.00	3.054	3.072	-0.018		7050131	41.1		82.2	16227	
D 18 13C4 PFOS										
503.00 > 80.00	3.054	3.072	-0.018		11054524	43.8		91.7	8132	
17 Perfluorooctane sulfonic acid										M
499.00 > 80.00	3.054	3.072	-0.018	1.000	39843216	163.9		88.3	2616	M
499.00 > 99.00	3.054	3.072	-0.018	1.000	9997231		3.99(0.90-1.10)	88.3	3526	M
20 Perfluorononanoic acid										
463.00 > 419.00	3.054	3.072	-0.018	1.000	24384416	179.9		90.0	10082	
D 21 13C8 FOSA										
506.00 > 78.00	3.377	3.389	-0.012		16658432	46.3		92.6	15136	
22 Perfluorooctane Sulfonamide										
498.00 > 78.00	3.386	3.391	-0.005	1.000	44383578	129.1		64.5	9414	
D 26 M2-8:2FTS										
529.00 > 81.00	3.403	3.423	-0.020		2670318	38.7		80.9	7215	
25 Sodium 1H,1H,2H,2H-perfluorodecane										
527.00 > 507.00	3.412	3.425	-0.013	1.003	11993486	194.0		101	11036	
D 23 13C2 PFDA										
515.00 > 470.00	3.421	3.436	-0.015		6159296	41.7		83.3	10660	
24 Perfluorodecanoic acid										
513.00 > 469.00	3.421	3.436	-0.015	1.000	21114828	187.2		93.6	8804	
D 27 d3-NMeFOSAA										
573.00 > 419.00	3.577	3.592	-0.015		2312297	48.7		97.4	3852	
28 N-methyl perfluorooctane sulfonami										
570.00 > 419.00	3.577	3.595	-0.018	1.000	8878705	205.6		103	12435	
29 Perfluorodecane Sulfonic acid										
599.00 > 80.00	3.735	3.750	-0.015	1.000	22921575	164.6		85.4	6798	
D 32 d5-NEtFOSAA										
589.00 > 419.00	3.745	3.759	-0.014		2003497	43.3		86.6	2143	
D 30 13C2 PFUnA										
565.00 > 520.00	3.745	3.768	-0.023		4190317	43.0		86.1	8595	
33 N-ethyl perfluorooctane sulfonamid										
584.00 > 419.00	3.745	3.768	-0.023	1.000	7003032	205.8		103	7383	
31 Perfluoroundecanoic acid										
563.00 > 519.00	3.755	3.769	-0.014	1.000	16291508	180.3		90.1	6207	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 34 d-N-MeFOSA-M										
515.00 > 169.00	3.878	3.881	-0.003		4515549	51.8		104	637	
35 MeFOSA										
512.00 > 169.00	3.878	3.885	-0.007	1.000	15448374	193.1		96.6	6635	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.039	4.063	-0.024	1.000	14702326	188.1		94.0	3506	
D 36 13C2 PFDaA										
615.00 > 570.00	4.039	4.063	-0.024		4275084	46.8		93.6	6684	
D 38 d-N-EtFOSA-M										
531.00 > 169.00	4.065	4.066	-0.001		4052684	51.4		103	2452	
39 N-ethylperfluoro-1-octanesulfonami										
526.00 > 169.00	4.074	4.075	-0.001	1.000	14308406	187.5		93.8	4889	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.310	4.332	-0.022	1.000	13902609	182.8		91.4	1199	
42 Perfluorotetradecanoic acid										
713.00 > 169.00	4.539	4.570	-0.031	1.000	3162830	191.3		95.7	6914	
713.00 > 219.00	4.552	4.570	-0.018	1.003	2462019		1.28(0.00-0.00)	95.7	4638	
D 43 13C2-PFTeDA										
715.00 > 670.00	4.552	4.575	-0.023		3517497	43.9		87.8	11313	
D 44 13C2-PFHxDA										
815.00 > 770.00	4.977	4.997	-0.020		4946978	45.9		91.9	4849	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	4.977	4.999	-0.022	1.000	15763731	168.0		84.0	647	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	5.334	5.364	-0.030	1.000	17637890	196.1		98.1	960	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

LCPFC_FULL-L7_00004

Amount Added: 1.00

Units: mL

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171012-49071.b\2017.10.12\ICAL_009.d

Injection Date: 12-Oct-2017 11:04:32

Instrument ID: A8_N

Lims ID: IC L7 Full

Client ID:

Operator ID: SACINSTLCMS01

ALS Bottle#: 34

Worklist Smp#: 9

Injection Vol: 2.0 ul

Dil. Factor: 1.0000

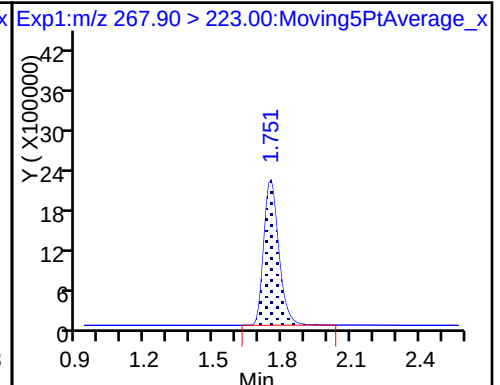
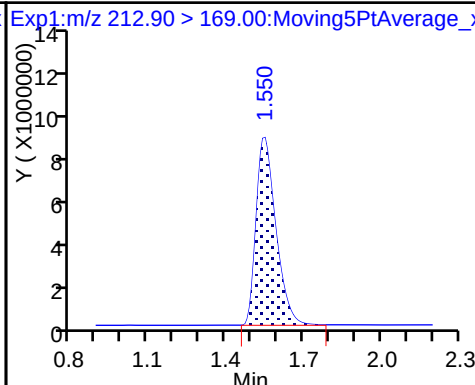
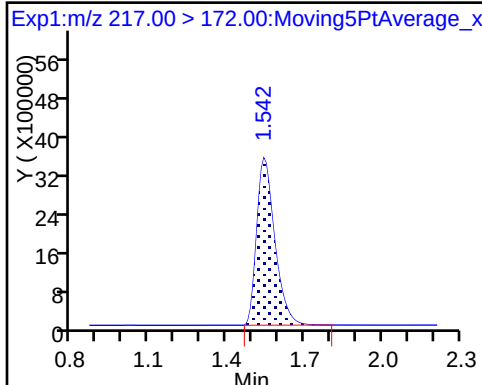
Method: A8_N

Limit Group: LC PFC ICAL

D 1 13C4 PFBA

2 Perfluorobutyric acid

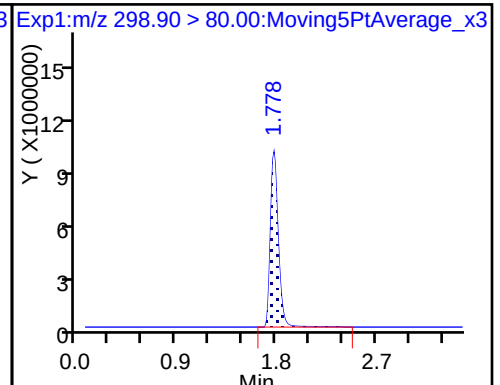
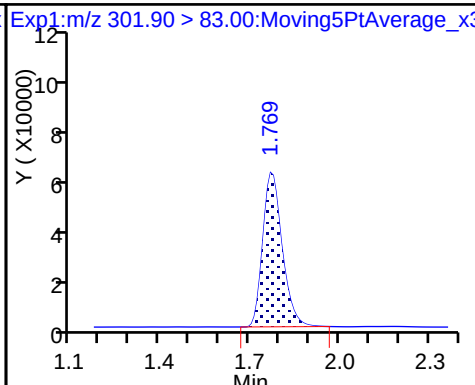
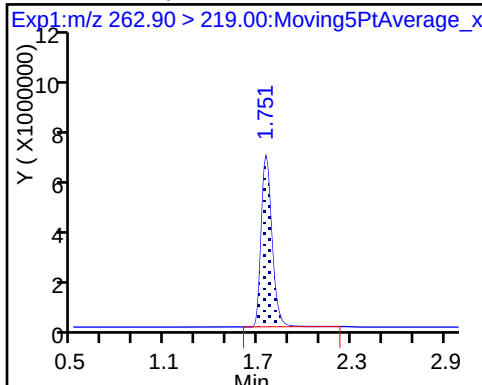
D 3 13C5-PFPeA



4 Perfluoropentanoic acid

D 47 13C3-PFBS

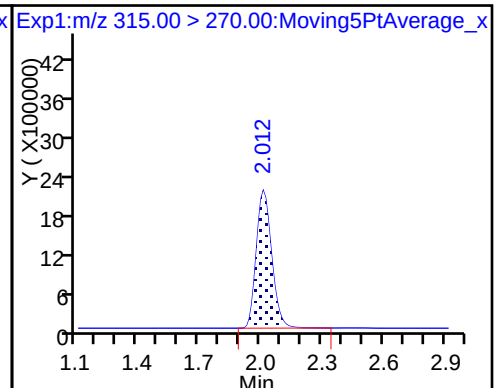
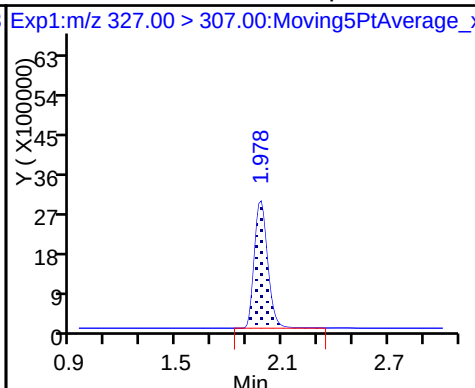
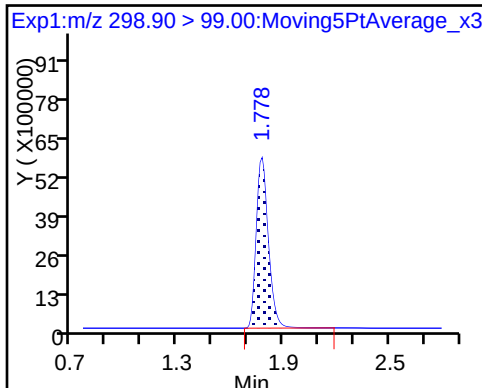
5 Perfluorobutanesulfonic acid



5 Perfluorobutanesulfonic acid

61 Sodium 1H,1H,2H,2H-perfluorohexa

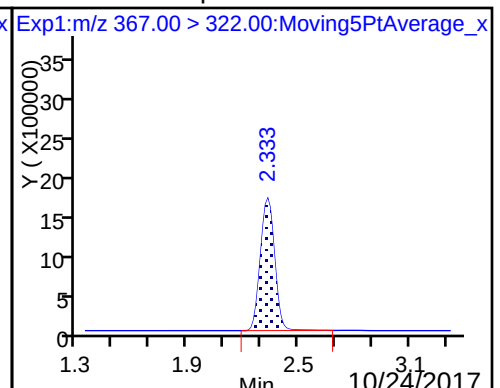
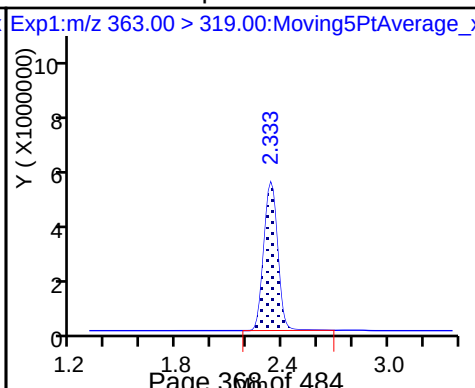
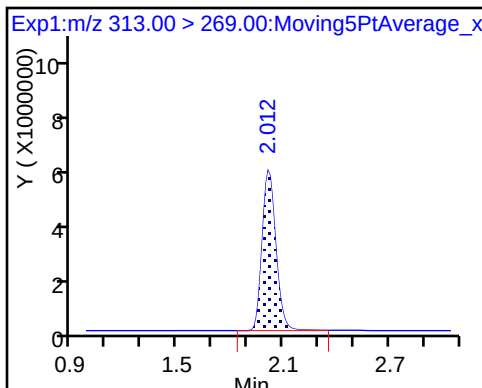
De 7 13C2 PFHxA



6 Perfluorohexanoic acid

10 Perfluoroheptanoic acid

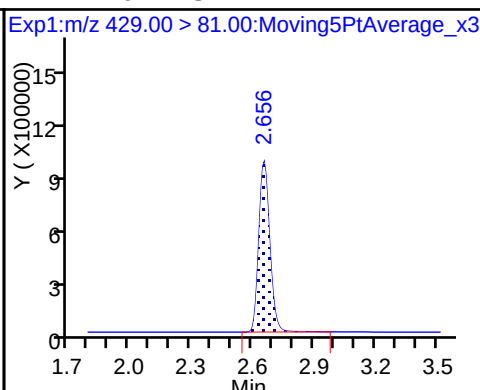
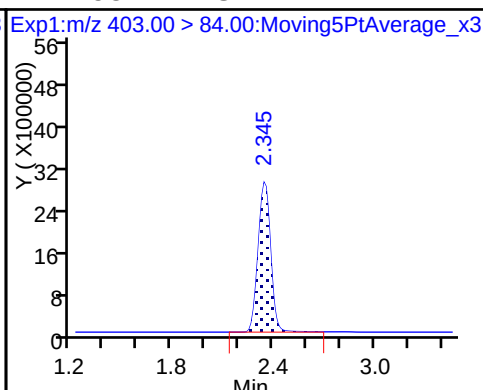
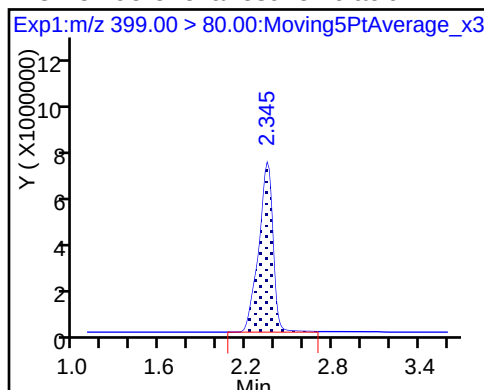
D 9 13C4-PFHpA



8 Perfluorohexanesulfonic acid

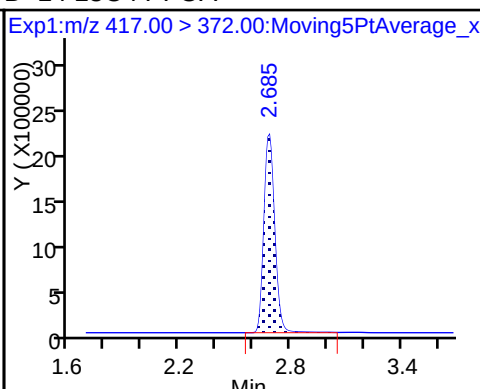
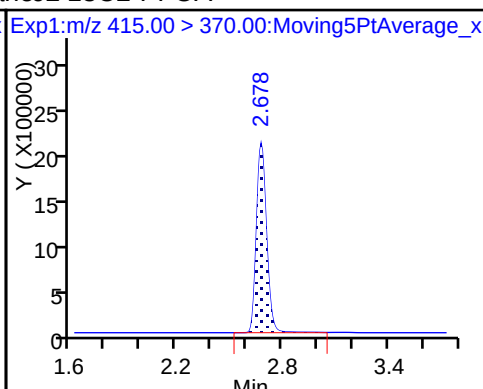
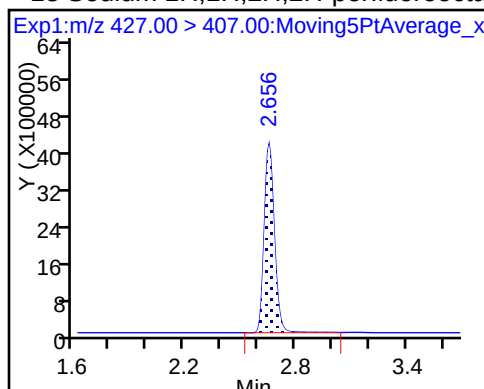
D 11 18O2 PFHxS

D 12 M2-6:2FTS



13 Sodium 1H,1H,2H,2H-perfluorooctanoate

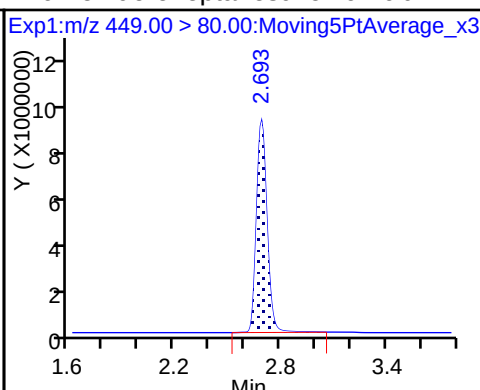
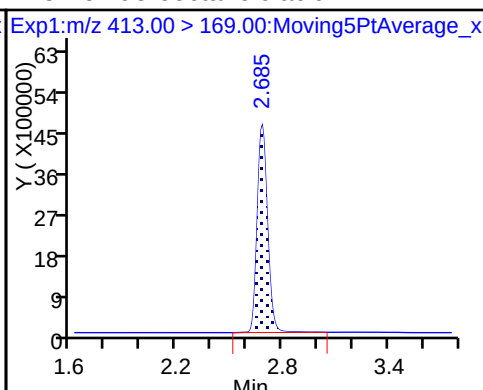
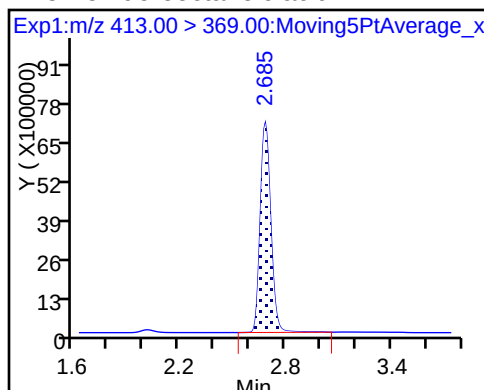
D 14 13C4 PFOA



15 Perfluorooctanoic acid

15 Perfluorooctanoic acid

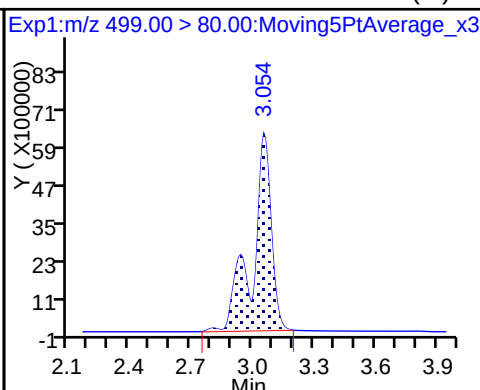
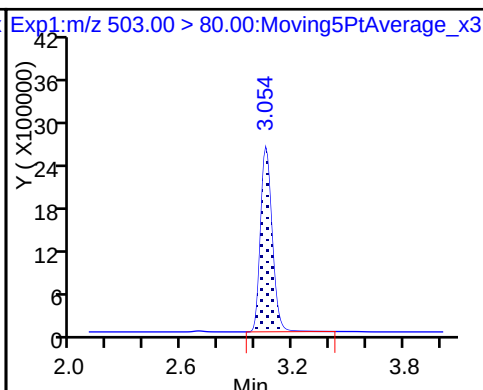
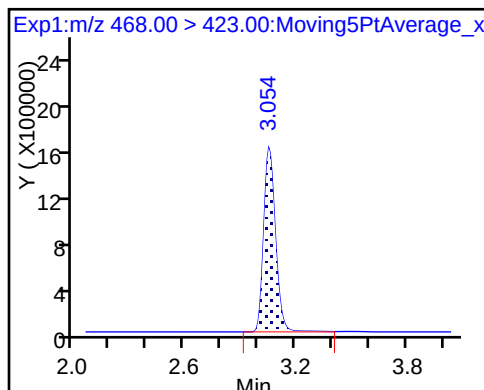
16 Perfluoroheptanesulfonic Acid



D 19 13C5 PFNA

D 18 13C4 PFOS

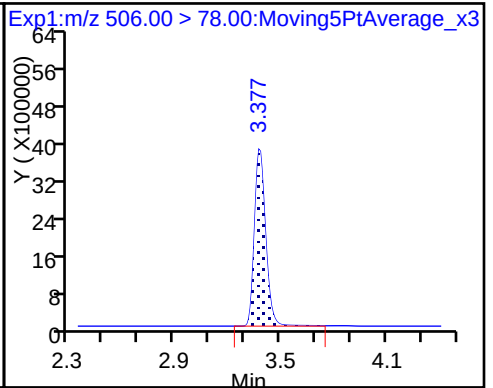
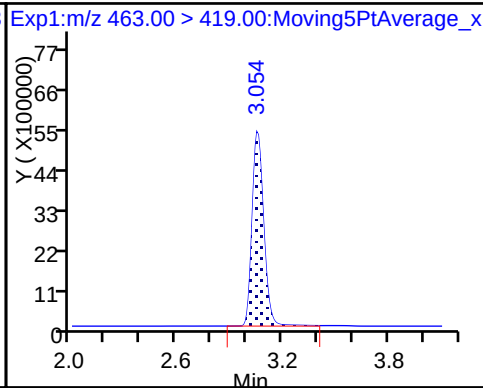
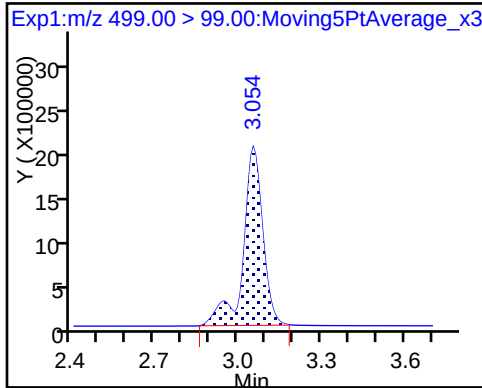
17 Perfluorooctane sulfonic acid (M)



17 Perfluorooctane sulfonic acid (M)

20 Perfluorononanoic acid

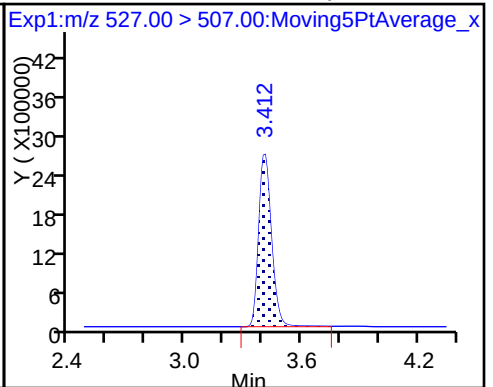
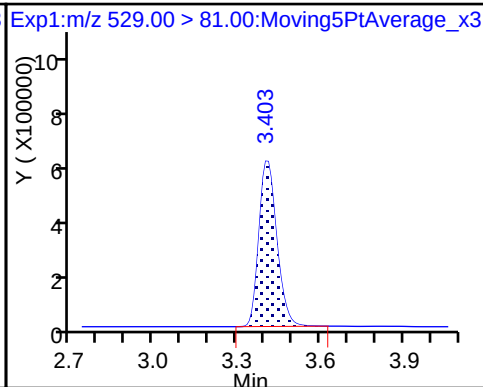
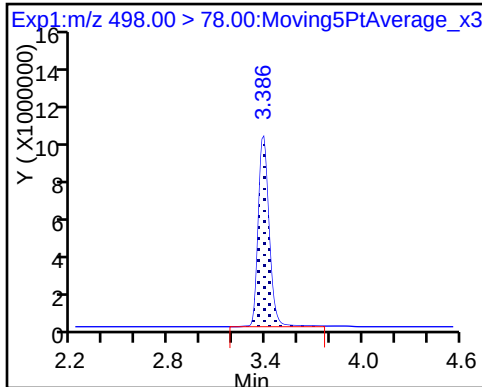
D 21 13C8 FOSA



22 Perfluorooctane Sulfonamide

D 26 M2-8:2FTS

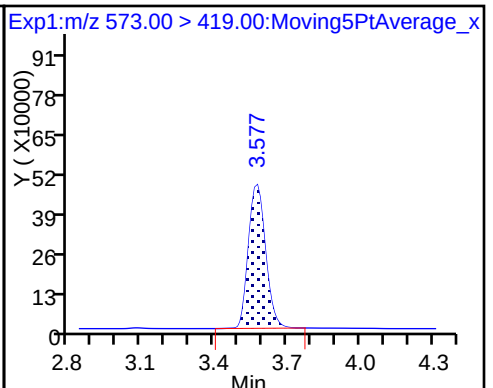
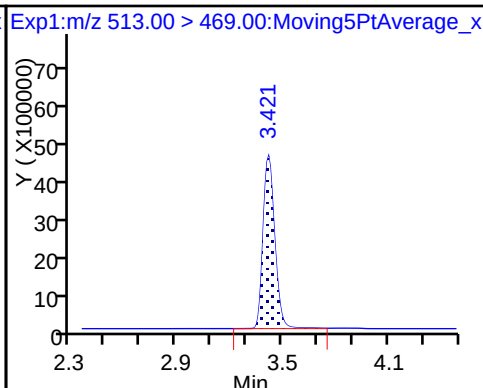
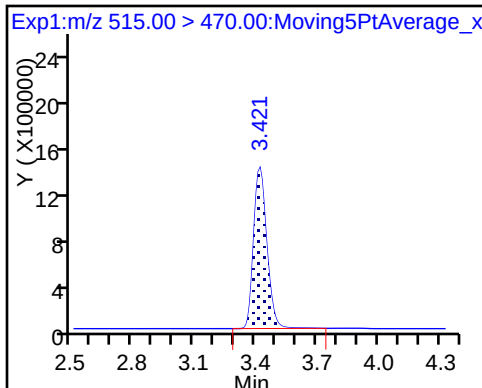
25 Sodium 1H,1H,2H,2H-perfluorodecane



D 23 13C2 PFDA

24 Perfluorodecanoic acid

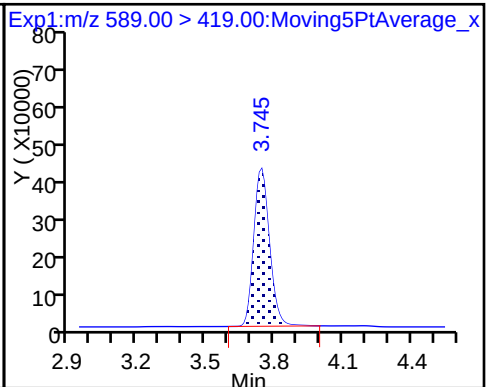
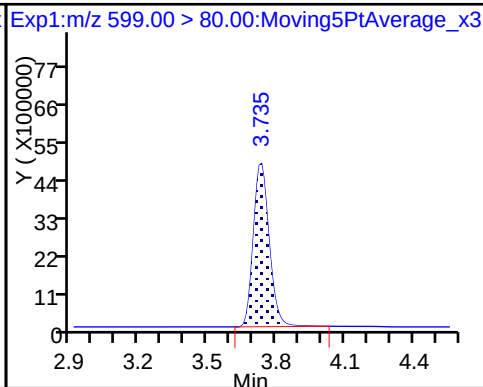
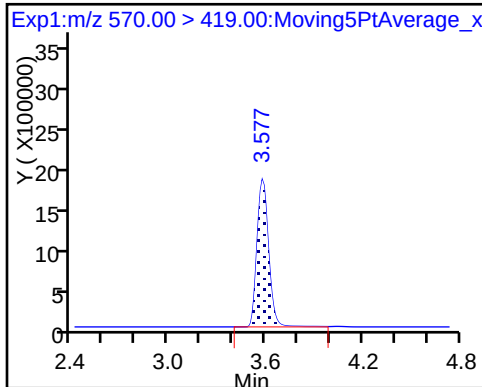
D 27 d3-NMeFOSAA



28 N-methyl perfluorooctane sulfonami

29 Perfluorodecane Sulfonic acid

D 32 d5-NEtFOSAA

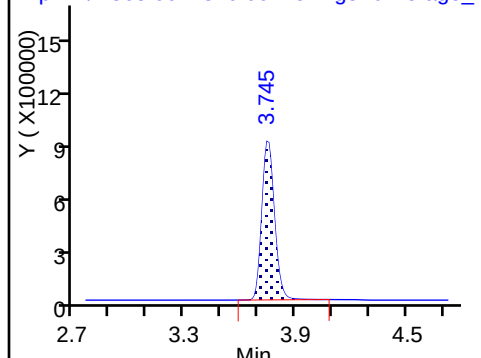


D 30 13C2 PFUnA

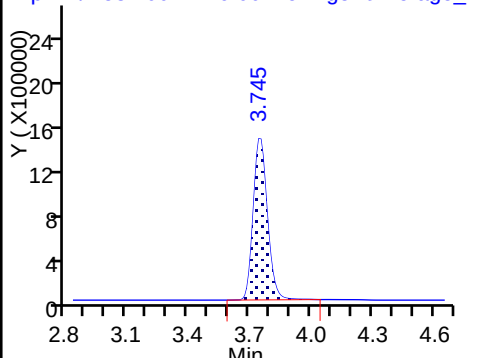
33 N-ethyl perfluorooctane sulfonamid

31 Perfluoroundecanoic acid

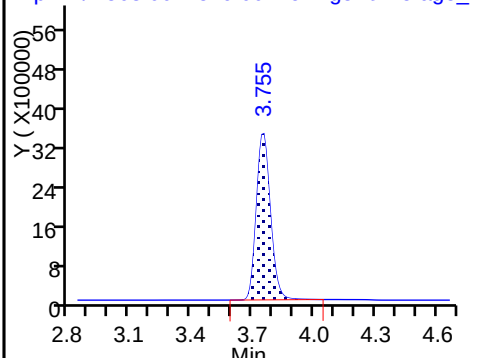
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Exp1:m/z 584.00 > 419.00:Moving5PtAverage_x



Exp1:m/z 563.00 > 519.00:Moving5PtAverage_x

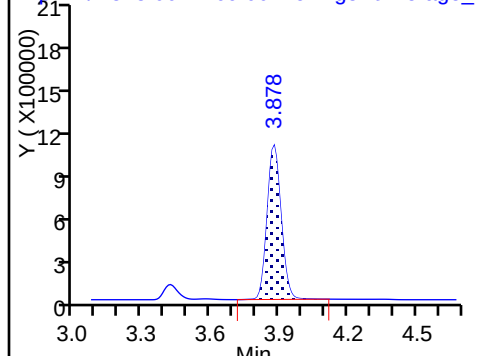


D 34 d-N-MeFOSA-M

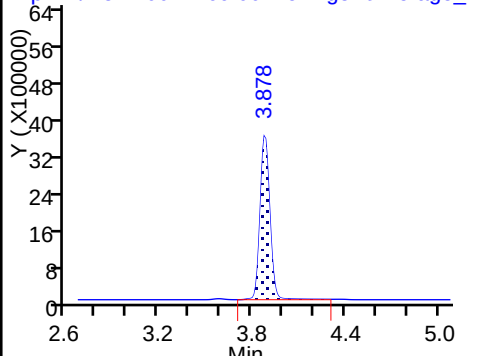
35 MeFOSA

37 Perfluorododecanoic acid

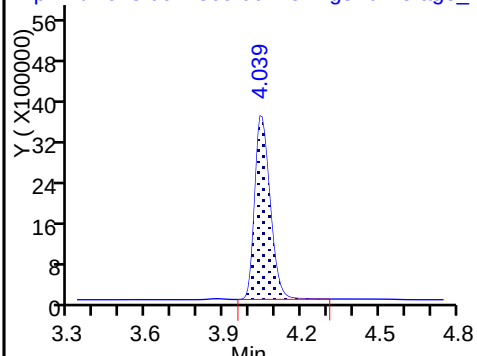
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Exp1:m/z 512.00 > 169.00:Moving5PtAverage_x



Exp1:m/z 613.00 > 569.00:Moving5PtAverage_x

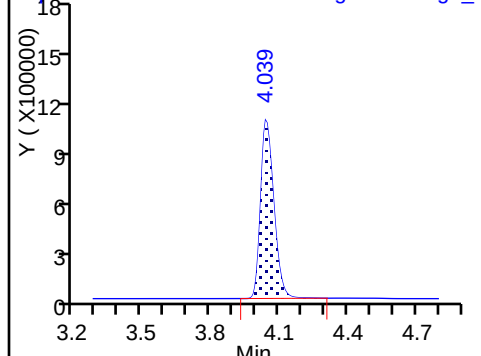


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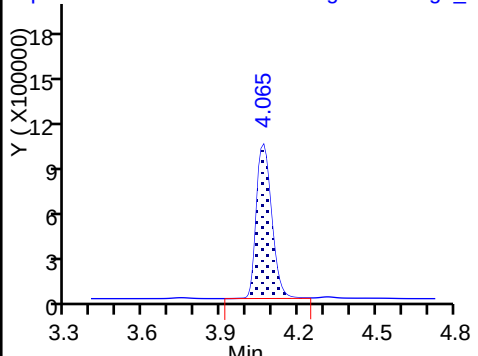
D 38 d-N-EtFOSA-M

39 N-ethylperfluoro-1-octanesulfonami

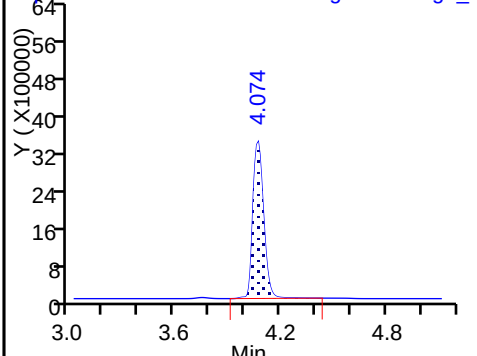
Exp1:m/z 615.00 > 570.00:Moving5PtAverage_x



Exp1:m/z 531.00 > 169.00:Moving5PtAverage_x



Exp1:m/z 526.00 > 169.00:Moving5PtAverage_x

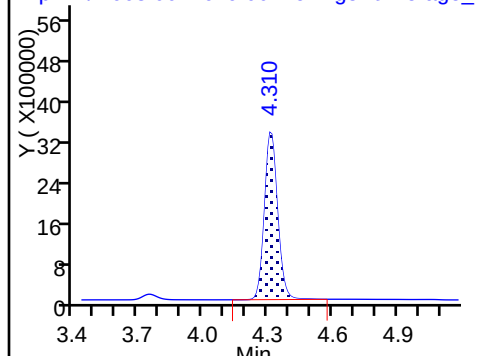


41 Perfluorotridecanoic acid

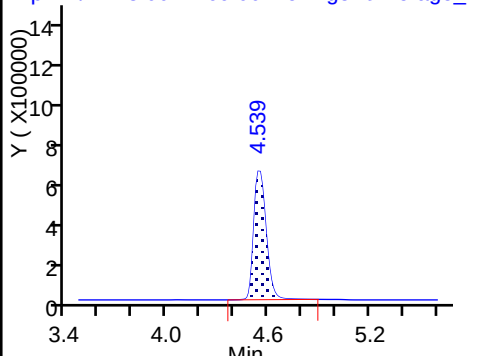
42 Perfluorotetradecanoic acid

42 Perfluorotetradecanoic acid

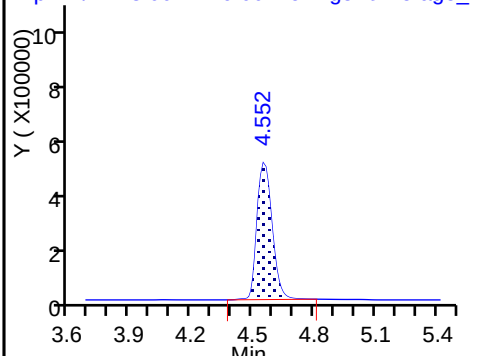
Exp1:m/z 663.00 > 619.00:Moving5PtAverage_x



Exp1:m/z 713.00 > 169.00:Moving5PtAverage_x



Exp1:m/z 713.00 > 219.00:Moving5PtAverage_x

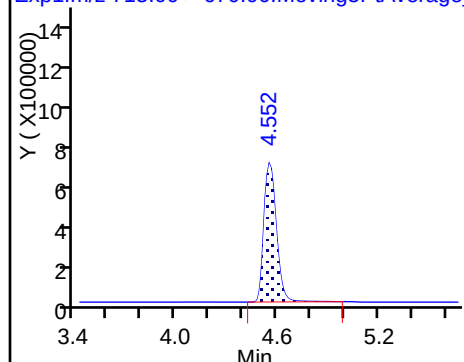


D 43 13C2-PFTeDA

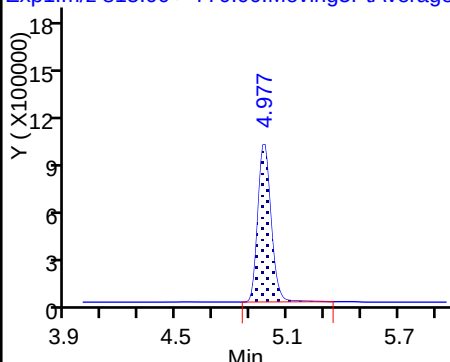
D 44 13C2-PFHxDA

45 Perfluorohexadecanoic acid

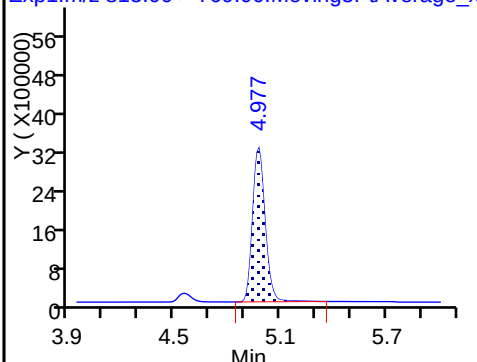
Exp1:m/z 715.00 > 670.00:Moving5PtAverage_x



Exp1:m/z 815.00 > 770.00:Moving5PtAverage_x

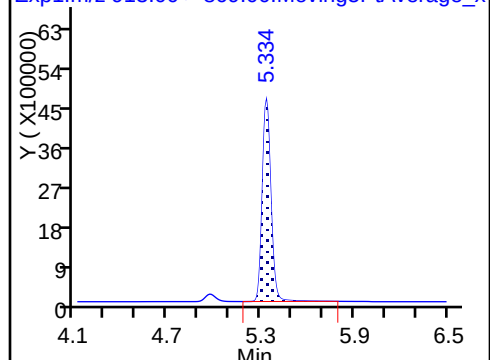


Exp1:m/z 813.00 > 769.00:Moving5PtAverage_x



46 Perfluorooctadecanoic acid

Exp1:m/z 913.00 > 869.00:Moving5PtAverage_x



TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171012-49071.b\2017.10.12\ICAL_009.d

Injection Date: 12-Oct-2017 11:04:32

Instrument ID: A8_N

Lims ID: IC L7 Full

Client ID:

Operator ID: SACINSTLCMS01

ALS Bottle#: 34 Worklist Smp#: 9

Injection Vol: 2.0 ul

Dil. Factor: 1.0000

Method: A8_N

Limit Group: LC PFC ICAL

Column:

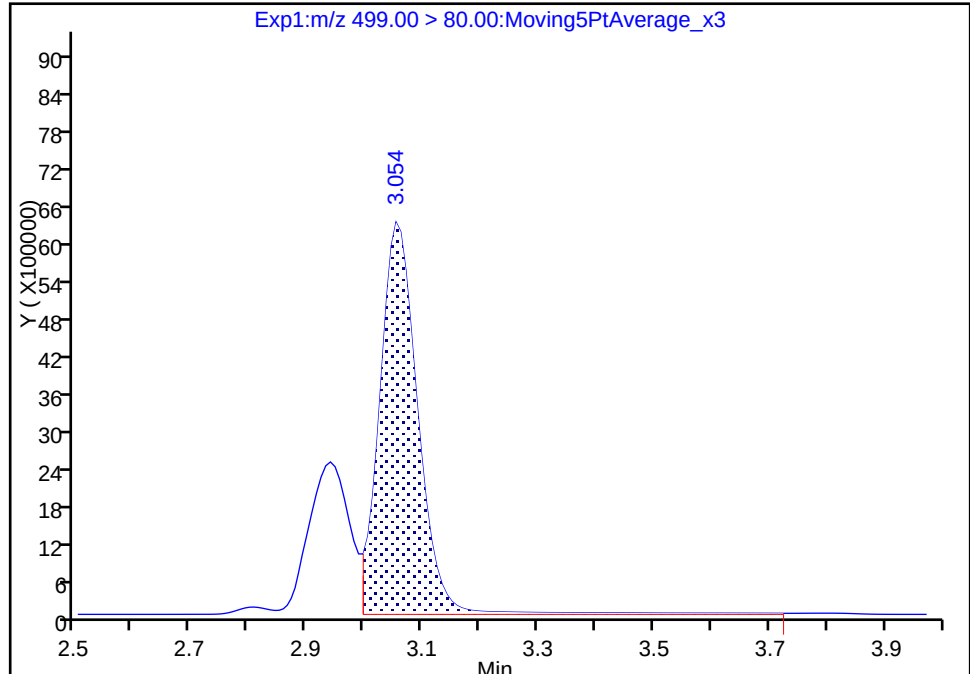
Detector EXP1

17 Perfluorooctane sulfonic acid, CAS: 1763-23-1

Signal: 1

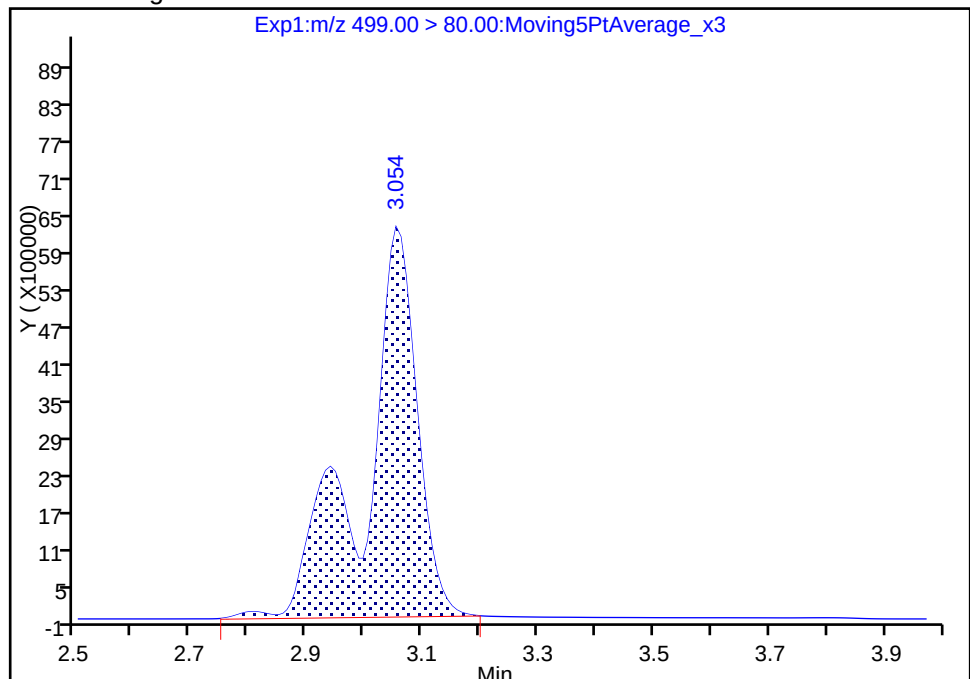
RT: 3.05
Area: 28811339
Amount: 122.7981
Amount Units: ng/ml

Processing Integration Results



RT: 3.05
Area: 39843216
Amount: 163.8863
Amount Units: ng/ml

Manual Integration Results



Reviewer: phomsophat, 12-Oct-2017 16:25:57

Audit Action: Manually Integrated

Audit Reason: Assign Peak

TestAmerica Sacramento

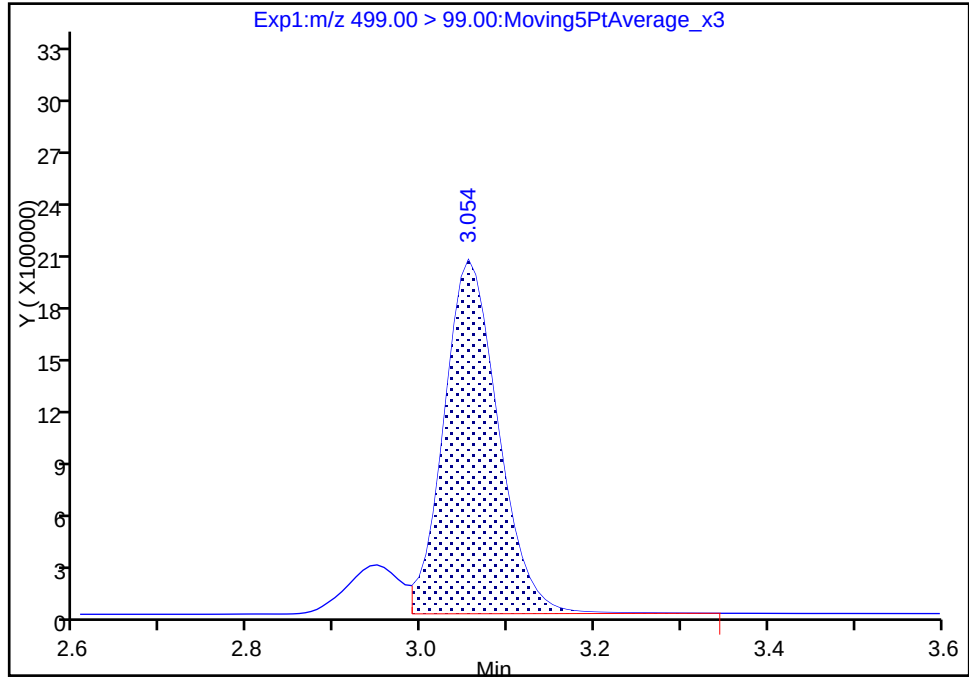
Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171012-49071.b\2017.10.12ICAL_009.d
Injection Date: 12-Oct-2017 11:04:32 Instrument ID: A8_N
Lims ID: IC L7 Full
Client ID:
Operator ID: SACINSTLCMS01 ALS Bottle#: 34 Worklist Smp#: 9
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: A8_N Limit Group: LC PFC ICAL
Column: Detector EXP1

17 Perfluorooctane sulfonic acid, CAS: 1763-23-1

Signal: 2

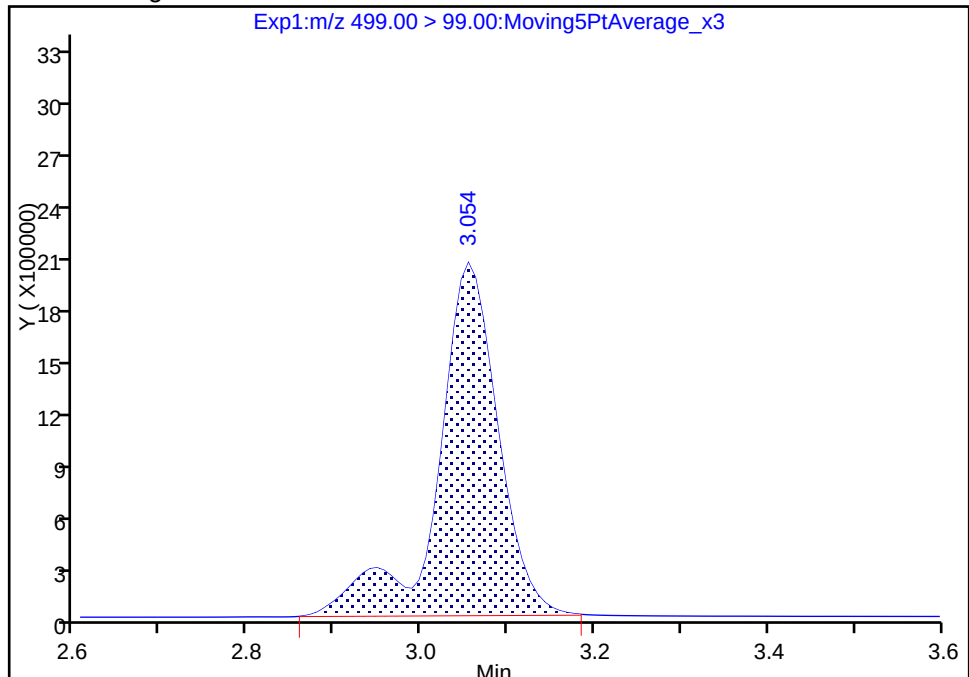
RT: 3.05
Area: 8894326
Amount: 122.7981
Amount Units: ng/ml

Processing Integration Results



RT: 3.05
Area: 9997231
Amount: 163.8863
Amount Units: ng/ml

Manual Integration Results



Reviewer: phomsophat, 12-Oct-2017 16:26:03

Audit Action: Manually Integrated

Audit Reason: Assign Peak

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171012-49071.b\2017.10.12ICAL_010.d
 Lims ID: IC M2-4:2FTS
 Client ID:
 Sample Type: IC Calib Level: 1
 Inject. Date: 12-Oct-2017 11:11:26 ALS Bottle#: 37 Worklist Smp#: 10
 Injection Vol: 2.0 ul Dil. Factor: 1.0000
 Sample Info: M2:4-2FTS Calibration Std
 Misc. Info.: Plate: 1 Rack: 1
 Operator ID: SACINSTLCMS01 Instrument ID: A8_N
 Sublist: chrom-A8_N*sub19
 Method: \\ChromNa\Sacramento\ChromData\A8_N\20171012-49071.b\A8_N.m
 Limit Group: LC PFC ICAL
 Last Update: 16-Oct-2017 12:12:47 Calib Date: 12-Oct-2017 11:11:26
 Integrator: Picker
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\ChromNa\Sacramento\ChromData\A8_N\20171012-49071.b\2017.10.12ICAL_010.d

Column 1 : Det: EXP1

Process Host: XAWRK027

First Level Reviewer: phomsophat

Date: 12-Oct-2017 17:00:53

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags

D 60 M2-4:2FTS

329.00 > 81.00 1.983 1.983 0.0 3929010 46.7 100 12031

* 62 13C2-PFOA

415.00 > 370.00 2.681 2.692 -0.011 13711822 50.0 148963

Reagents:

LCM2-4:2FTSIC_00003

Amount Added: 1.00

Units: mL

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171012-49071.b\2017.10.12\ICAL_010.d

Injection Date: 12-Oct-2017 11:11:26

Instrument ID: A8_N

Lims ID: IC M2-4:2FTS

Client ID:

Operator ID: SACINSTLCMS01

ALS Bottle#: 37

Worklist Smp#: 10

Injection Vol: 2.0 ul

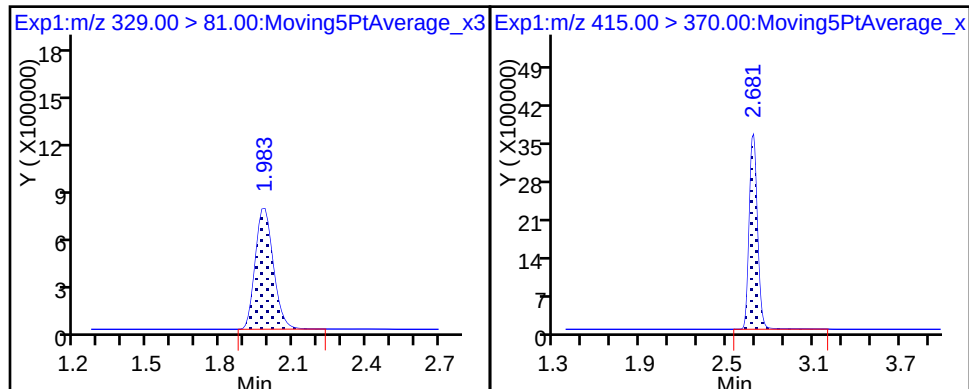
Dil. Factor: 1.0000

Method: A8_N

Limit Group: LC PFC ICAL

D 60 M2-4:2FTS

* 62 13C2-PFOA



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 480-125692-1

SDG No.: _____

Lab Sample ID: ICV 320-189059/12 Calibration Date: 10/12/2017 11:25

Instrument ID: A8_N Calib Start Date: 10/12/2017 10:23

GC Column: GeminiC18 3x100 ID: 3.00 (mm) Calib End Date: 10/12/2017 11:11

Lab File ID: 2017.10.12ICAL_012.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanoic acid (PFBA)	AveID	0.9306	0.8384		45.0	50.0	-9.9	40.0
Perfluoropentanoic acid (PFPeA)	AveID	1.094	1.023		46.8	50.0	-6.5	40.0
Perfluorobutanesulfonic acid (PFBS)	AveID	71.72	68.56		42.3	44.3	-4.4	50.0
4:2 FTS	AveID	1.184	1.231		48.6	46.7	4.0	50.0
Perfluorohexanoic acid (PFHxA)	AveID	0.9796	0.9416		48.1	50.0	-3.9	40.0
Perfluoroheptanoic acid (PFHpA)	AveID	0.997	0.9716		48.7	50.0	-2.6	40.0
Perfluorohexanesulfonic acid (PFHxS)	AveID	1.079	0.9512		41.6	47.3	-11.9	40.0
6:2FTS	AveID	1.225	1.190		46.1	47.4	-2.8	40.0
Perfluorooctanoic acid (PFOA)	AveID	1.081	0.9897		45.8	50.0	-8.4	40.0
Perfluorooctanesulfonic Acid (PFHpS)	AveID	1.212	1.159		45.5	47.6	-4.4	50.0
Perfluorononanoic acid (PFNA)	AveID	0.9612	0.9176		47.7	50.0	-4.5	40.0
Perfluorooctanesulfonic acid (PFOS)	AveID	1.051	0.9025		41.0	47.8	-14.2	40.0
Perfluorooctane Sulfonamide (FOSA)	AveID	1.032	0.9134		44.2	50.0	-11.5	40.0
8:2FTS	AveID	1.109	1.157		50.0	47.9	4.3	40.0
Perfluorodecanoic acid (PFDA)	AveID	0.9157	0.8810		48.1	50.0	-3.8	40.0
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)	AveID	0.9339	1.022		54.7	50.0	9.5	40.0
Perfluorodecanesulfonic acid (PFDS)	AveID	0.6020	0.5732		45.9	48.3	-4.8	50.0
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)	AveID	0.8491	0.8882		52.3	50.0	4.6	40.0
Perfluoroundecanoic acid (PFUnA)	AveID	1.078	0.9826		45.6	50.0	-8.9	40.0
MeFOSA	AveID	0.8856	0.9320		52.6	50.0	5.2	50.0
Perfluorododecanoic acid (PFDoA)	AveID	0.9142	0.8895		48.6	50.0	-2.7	40.0
N-EtFOSA-M	AveID	0.9414	1.028		54.6	50.0	9.2	40.0
Perfluorotridecanoic Acid (PFTriA)	AveID	0.8895	0.8374		47.1	50.0	-5.9	50.0
Perfluorotetradecanoic acid (PFTeA)	AveID	0.2350	0.2229		47.4	50.0	-5.2	50.0
Perfluoro-n-hexadecanoic acid (PFHxDA)	AveID	0.9485	0.9022		47.6	50.0	-4.9	50.0
Perfluoro-n-octadecanoic acid (PFODA)	AveID	0.9089	0.8867		48.8	50.0	-2.4	50.0
13C4 PFBA	Ave	375511	286554		38.2	50.0	-23.7	50.0
13C5 PFPeA	Ave	235689	173269		36.8	50.0	-26.5	50.0
13C3-PFBS	Ave	6861	4753		32.2	46.5	-30.7	50.0
13C2 PFHxA	Ave	256447	188796		36.8	50.0	-26.4	50.0
13C4-PFHpA	Ave	238819	186140		39.0	50.0	-22.1	50.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 480-125692-1
 SDG No.: _____
 Lab Sample ID: ICV 320-189059/12 Calibration Date: 10/12/2017 11:25
 Instrument ID: A8_N Calib Start Date: 10/12/2017 10:23
 GC Column: GeminiC18 3x100 ID: 3.00 (mm) Calib End Date: 10/12/2017 11:11
 Lab File ID: 2017.10.12ICAL_012.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
18O2 PFHxS	Ave	358500	282592		37.3	47.3	-21.2	50.0
M2-6:2FTS	Ave	88574	66534		35.7	47.5	-24.9	40.0
13C4 PFOA	Ave	224575	160311		35.7	50.0	-28.6	50.0
13C4 PFOS	Ave	252198	185623		35.2	47.8	-26.4	50.0
13C5 PFNA	Ave	171501	126376		36.8	50.0	-26.3	50.0
13C8 FOSA	Ave	359961	266995		37.1	50.0	-25.8	50.0
M2-8:2FTS	Ave	68925	50280		34.9	47.9	-27.1	40.0
13C2 PFDA	Ave	147860	100993		34.2	50.0	-31.7	50.0
d3-NMeFOSAA	Ave	47457	29616		31.2	50.0	-37.6	50.0
d5-NEtFOSAA	Ave	46292	31318		33.8	50.0	-32.3	50.0
13C2 PFUnA	Ave	97372	68972		35.4	50.0	-29.2	50.0
d-N-MeFOSA-M	Ave	87193	61275		35.1	50.0	-29.7	50.0
13C2 PFDoA	Ave	91340	65523		35.9	50.0	-28.3	50.0
d-N-EtFOSA-M	Ave	78898	55250		35.0	50.0	-30.0	50.0
13C2-PFTeDA	Ave	80085	54472		34.0	50.0	-32.0	50.0
13C2-PFHxDA	Ave	107686	73332		34.0	50.0	-31.9	50.0

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171012-49071.b\2017.10.12ICAL_012.d
 Lims ID: ICV Full
 Client ID:
 Sample Type: ICV
 Inject. Date: 12-Oct-2017 11:25:14 ALS Bottle#: 36 Worklist Smp#: 12
 Injection Vol: 2.0 ul Dil. Factor: 1.0000
 Sample Info: ICV
 Misc. Info.: Plate: 1 Rack: 1
 Operator ID: SACINSTLCMS01 Instrument ID: A8_N
 Sublist:
 Method: \\ChromNa\Sacramento\ChromData\A8_N\20171012-49071.b\A8_N.m
 Limit Group: LC PFC ICAL
 Last Update: 16-Oct-2017 12:13:40 Calib Date: 12-Oct-2017 11:11:26
 Integrator: Picker
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last Ical File: \\ChromNa\Sacramento\ChromData\A8_N\20171012-49071.b\2017.10.12ICAL_010.d

Column 1 : Det: EXP1

Process Host: XAWRK027

First Level Reviewer: phomsophat

Date: 12-Oct-2017 17:09:09

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags

D 1 13C4 PFBA

217.00 > 172.00 1.551 1.548 0.003 14327699 38.2 76.3 15469

2 Perfluorobutyric acid

212.90 > 169.00 1.551 1.551 0.0 1.000 12011916 45.0 1233

D 3 13C5-PFPeA

267.90 > 223.00 1.752 1.755 -0.003 8663469 36.8 73.5 24613

4 Perfluoropentanoic acid

262.90 > 219.00 1.752 1.757 -0.005 1.000 8859004 46.8 3356

D 47 13C3-PFBS

301.90 > 83.00 1.779 1.777 0.002 220993 32.2 69.3 5559

5 Perfluorobutanesulfonic acid

298.90 > 80.00 1.779 1.781 -0.002 1.000 14418071 42.3 451806

298.90 > 99.00 1.779 1.781 -0.002 1.000 6454312 2.23(0.00-0.00) 24280

61 Sodium 1H,1H,2H,2H-perfluorohexane

327.00 > 307.00 1.980 1.984 -0.004 1.000 3825425 48.6 18140

6 Perfluorohexanoic acid

313.00 > 269.00 2.014 2.023 -0.009 1.000 8888684 48.1 9639

D 7 13C2 PFHxA

315.00 > 270.00 2.014 2.023 -0.009 9439794 36.8 73.6 19502

D 9 13C4-PFHpA

367.00 > 322.00 2.342 2.348 -0.006 9307007 39.0 77.9 16931

10 Perfluoroheptanoic acid

363.00 > 319.00 2.342 2.348 -0.006 1.000 9043048 48.7 10795

D 11 18O2 PFHxS

403.00 > 84.00 2.350 2.359 -0.009 13366587 37.3 78.8 22699

8 Perfluorohexanesulfonic acid

399.00 > 80.00 2.350 2.359 -0.009 1.000 12700552 41.6 9220

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 12 M2-6:2FTS										
429.00 > 81.00	2.665	2.670	-0.005		3160360	35.7		75.1	12617	
13 Sodium 1H,1H,2H,2H-perfluorooctane										
427.00 > 407.00	2.665	2.671	-0.006	1.000	3754043	46.1			16161	
* 62 13C2-PFOA										
415.00 > 370.00	2.687	2.692	-0.005		8161463	50.0			11597	
15 Perfluorooctanoic acid										
413.00 > 369.00	2.687	2.699	-0.012	1.000	7932923	45.8			1449	
413.00 > 169.00	2.687	2.699	-0.012	1.000	4461098		1.78(0.90-1.10)		7121	
D 14 13C4 PFOA										
417.00 > 372.00	2.687	2.699	-0.012		8015546	35.7		71.4	23012	
16 Perfluoroheptanesulfonic Acid										
449.00 > 80.00	2.694	2.707	-0.013	1.000	10242387	45.5			33035	
17 Perfluorooctane sulfonic acid										
499.00 > 80.00	3.055	3.072	-0.017	1.000	7998856	41.0			10817	
499.00 > 99.00	3.055	3.072	-0.017	1.000	1904748		4.20(0.90-1.10)		5148	
20 Perfluorononanoic acid										
463.00 > 419.00	3.055	3.072	-0.017	1.000	5798128	47.7			3755	
D 19 13C5 PFNA										
468.00 > 423.00	3.055	3.072	-0.017		6318805	36.8		73.7	22404	
D 18 13C4 PFOS										
503.00 > 80.00	3.055	3.072	-0.017		8872797	35.2		73.6	17350	
D 21 13C8 FOSA										
506.00 > 78.00	3.386	3.389	-0.003		13349739	37.1		74.2	123436	
22 Perfluorooctane Sulfonamide										
498.00 > 78.00	3.394	3.391	0.003	1.000	12193892	44.2			42080	
D 26 M2-8:2FTS										
529.00 > 81.00	3.412	3.423	-0.011		2408423	34.9		72.9	8387	
25 Sodium 1H,1H,2H,2H-perfluorodecane										
527.00 > 507.00	3.412	3.425	-0.013	1.000	2786713	50.0			10007	
24 Perfluorodecanoic acid										
513.00 > 469.00	3.421	3.436	-0.015	1.000	4448599	48.1			6030	
D 23 13C2 PFDA										
515.00 > 470.00	3.421	3.436	-0.015		5049647	34.2		68.3	14832	
D 27 d3-NMeFOSAA										
573.00 > 419.00	3.576	3.592	-0.016		1480802	31.2		62.4	5541	
28 N-methyl perfluorooctane sulfonami										
570.00 > 419.00	3.587	3.595	-0.008	1.003	1513754	54.7			4367	
29 Perfluorodecane Sulfonic acid										
599.00 > 80.00	3.733	3.750	-0.017	1.000	5133905	45.9			10823	
D 32 d5-NEtFOSAA										
589.00 > 419.00	3.743	3.759	-0.016		1565893	33.8		67.7	1941	
33 N-ethyl perfluorooctane sulfonamid										
584.00 > 419.00	3.753	3.768	-0.015	1.003	1390759	52.3			4188	
D 30 13C2 PFUnA										
565.00 > 520.00	3.753	3.768	-0.015		3448624	35.4		70.8	7817	
31 Perfluoroundecanoic acid										
563.00 > 519.00	3.753	3.769	-0.016	1.000	3388572	45.6			4654	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 34 d-N-MeFOSA-M										
515.00 > 169.00	3.883	3.881	0.002		3063768	35.1		70.3	562	
35 MeFOSA										
512.00 > 169.00	3.892	3.885	0.007	1.000	2855551	52.6			5375	
D 36 13C2 PFDaA										
615.00 > 570.00	4.042	4.063	-0.021		3276149	35.9		71.7	8858	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.042	4.063	-0.021	1.000	2914166	48.6			1706	
D 38 d-N-EtFOSA-M										
531.00 > 169.00	4.069	4.066	0.003		2762494	35.0		70.0	3208	
39 N-ethylperfluoro-1-octanesulfonami										
526.00 > 169.00	4.079	4.075	0.004	1.000	2840932	54.6			4945	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.317	4.332	-0.015	1.000	2743295	47.1			326	
42 Perfluorotetradecanoic acid										
713.00 > 169.00	4.551	4.570	-0.019	1.000	606965	47.4			3595	
713.00 > 219.00	4.551	4.570	-0.019	1.000	430597		1.41(0.00-0.00)		2174	
D 43 13C2-PFTeDA										
715.00 > 670.00	4.551	4.575	-0.024		2723611	34.0		68.0	7200	
D 44 13C2-PFHxDA										
815.00 > 770.00	4.966	4.997	-0.031		3666624	34.0		68.1	3424	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	4.976	4.999	-0.023	1.000	3308067	47.6			207	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	5.330	5.364	-0.034	1.000	3251267	48.8			270	

Reagents:

LCPFCIC_FULL_00006

Amount Added: 1.00

Units: mL

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171012-49071.b\2017.10.12\ICAL_012.d

Injection Date: 12-Oct-2017 11:25:14

Instrument ID: A8_N

Lims ID: ICV Full

Client ID:

Operator ID: SACINSTLCMS01

ALS Bottle#: 36

Worklist Smp#: 12

Injection Vol: 2.0 ul

Dil. Factor: 1.0000

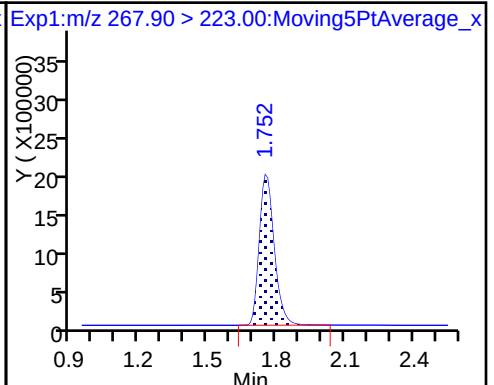
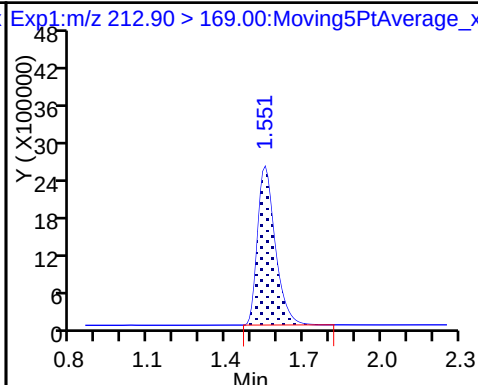
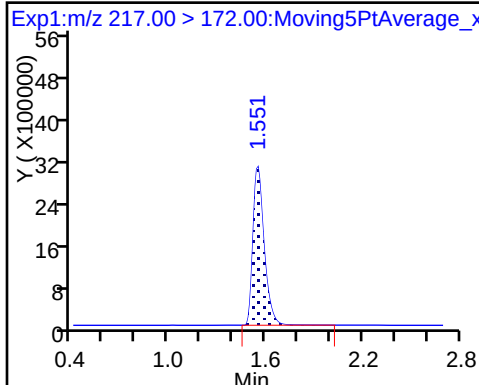
Method: A8_N

Limit Group: LC PFC ICAL

D 1 13C4 PFBA

2 Perfluorobutyric acid

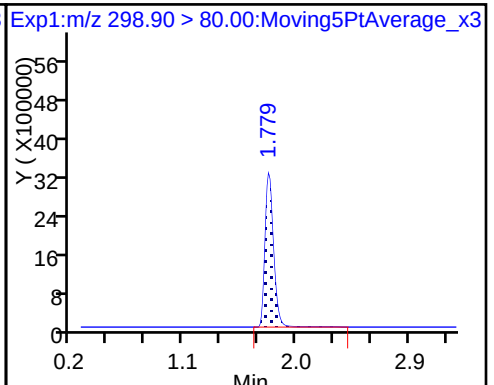
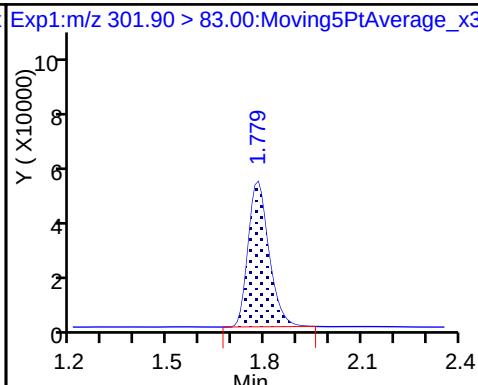
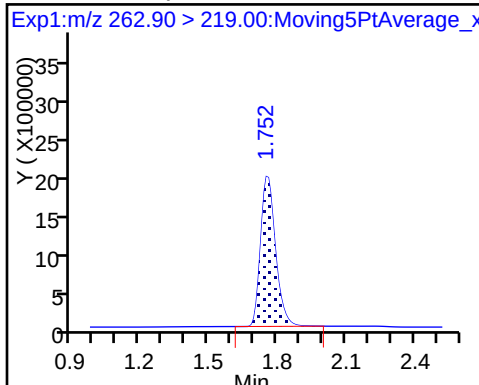
D 3 13C5-PFPeA



4 Perfluoropentanoic acid

D 47 13C3-PFBS

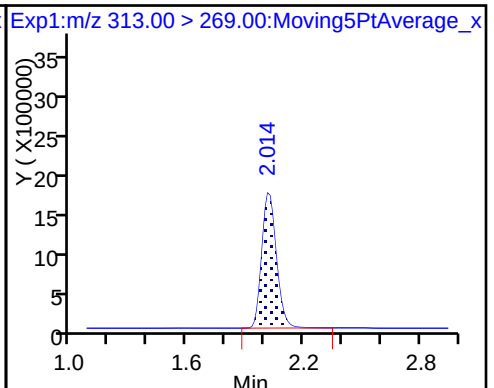
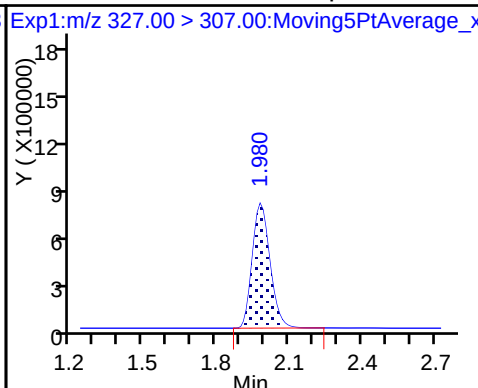
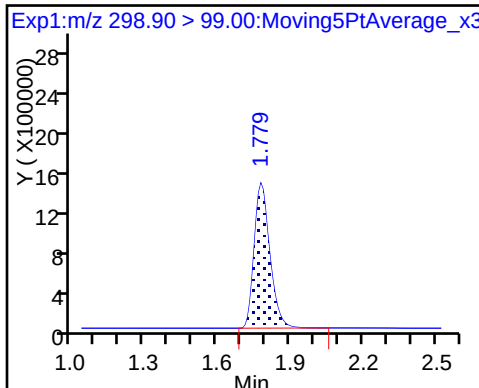
5 Perfluorobutanesulfonic acid



5 Perfluorobutanesulfonic acid

61 Sodium 1H,1H,2H,2H-perfluorohexanoic acid

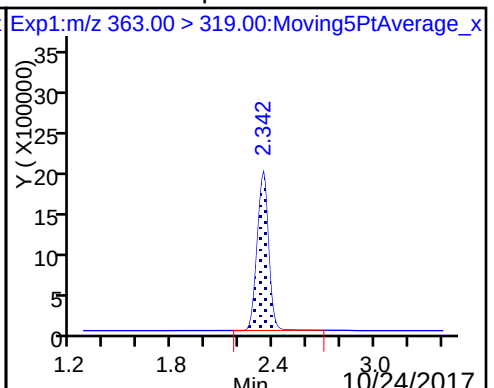
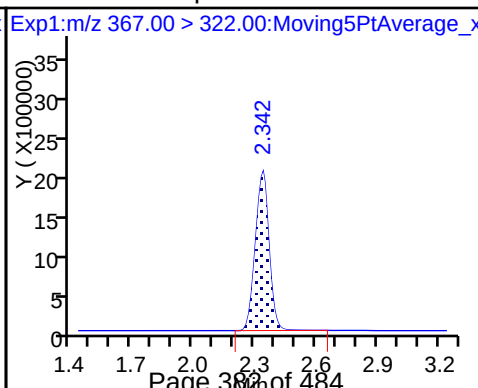
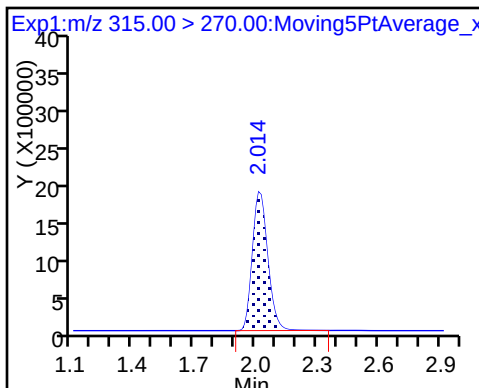
6 Perfluorohexanoic acid



D 7 13C2 PFHxA

D 9 13C4-PFHpA

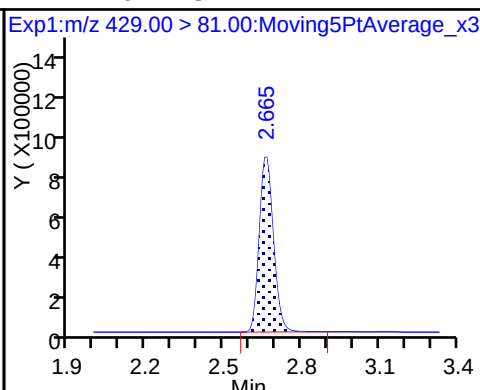
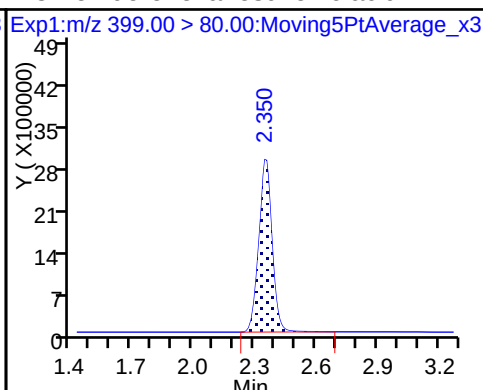
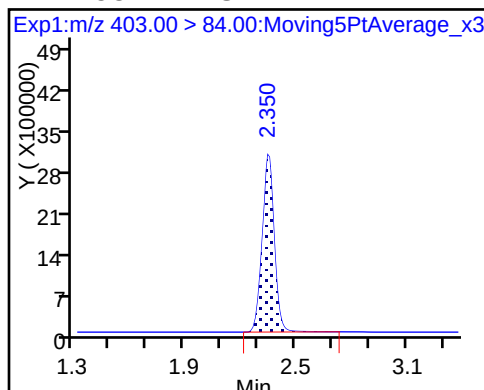
10 Perfluoroheptanoic acid



D 11 18O2 PFHxS

8 Perfluorohexanesulfonic acid

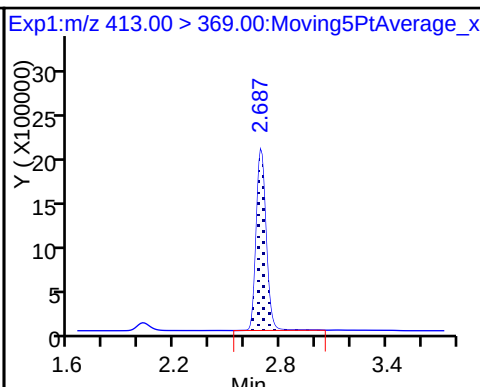
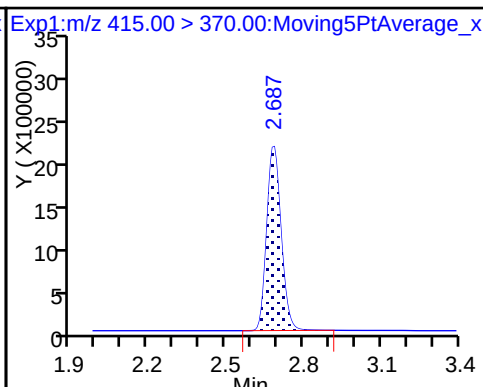
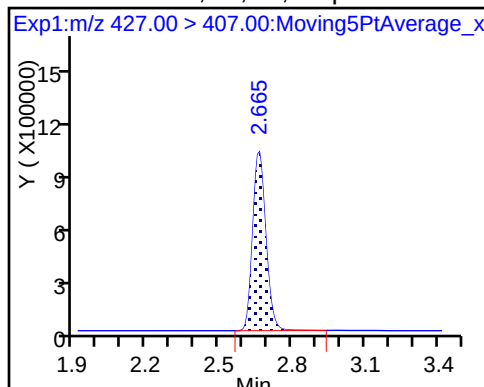
D 12 M2-6:2FTS



13 Sodium 1H,1H,2H,2H-perfluorooctane

62 13C2-PFOA

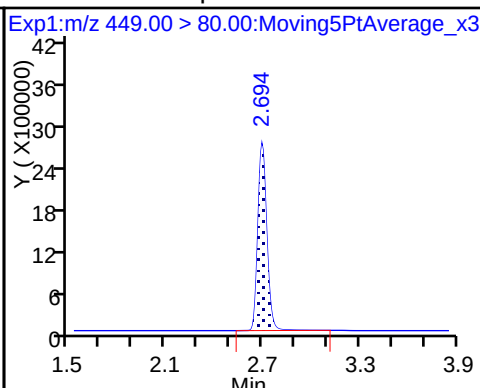
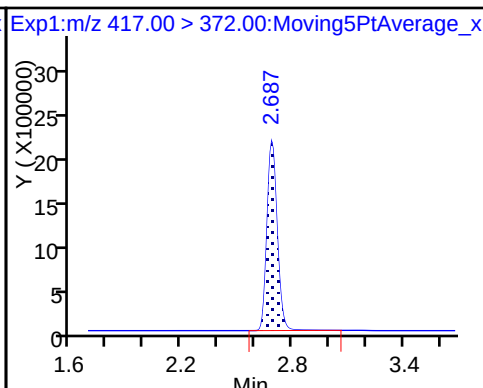
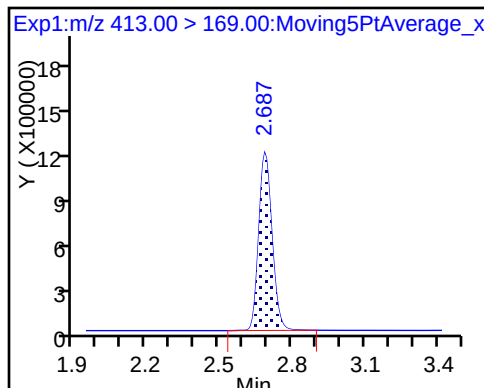
15 Perfluorooctanoic acid



15 Perfluorooctanoic acid

D 14 13C4 PFOA

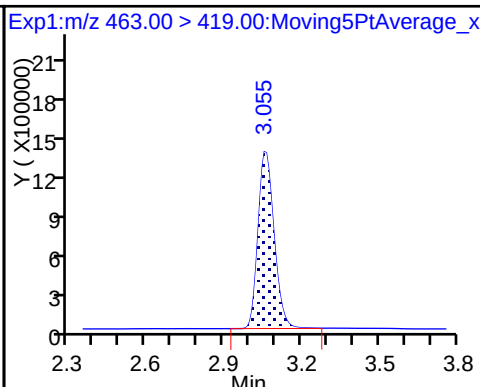
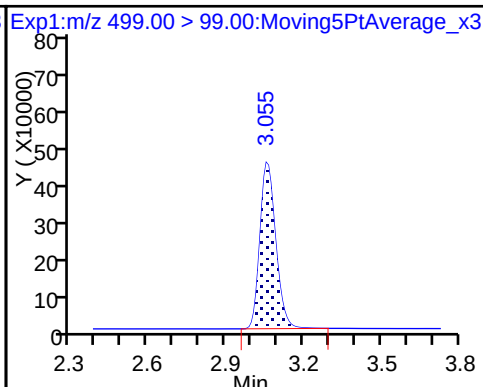
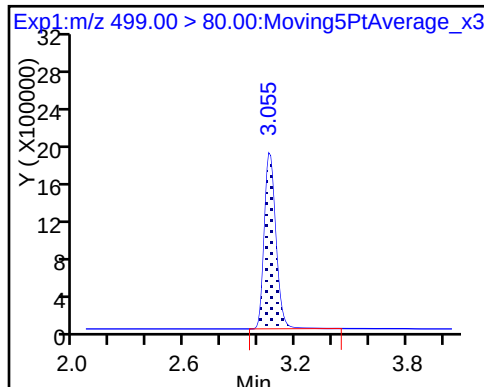
16 Perfluoroheptanesulfonic Acid



17 Perfluorooctane sulfonic acid

17 Perfluorooctane sulfonic acid

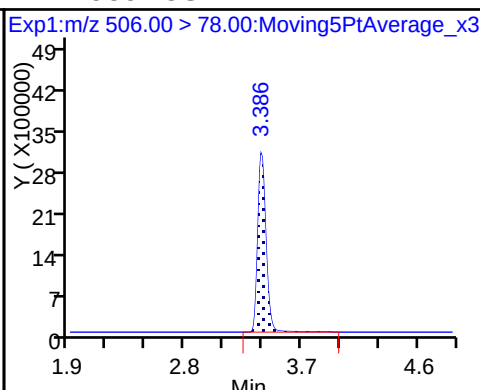
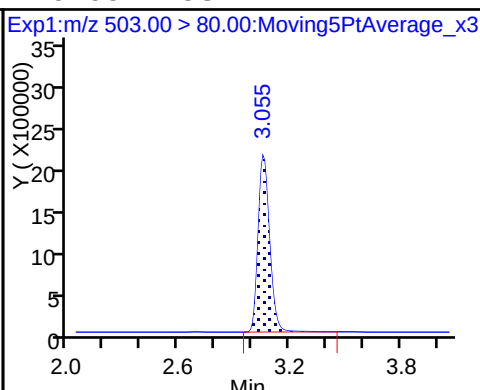
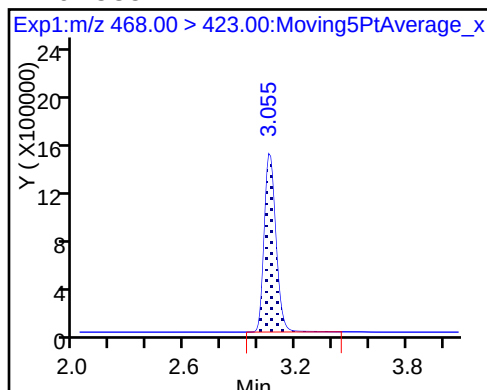
20 Perfluorononanoic acid



D 19 13C5 PFNA

D 18 13C4 PFOS

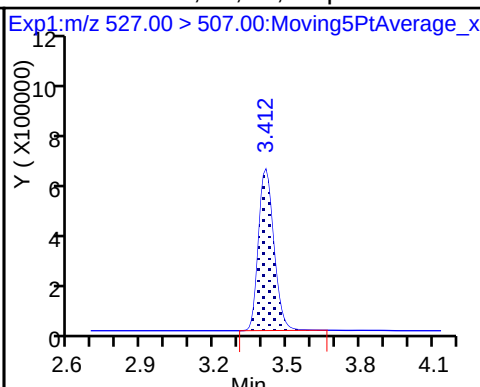
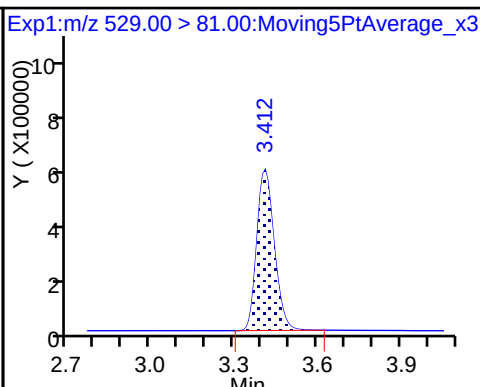
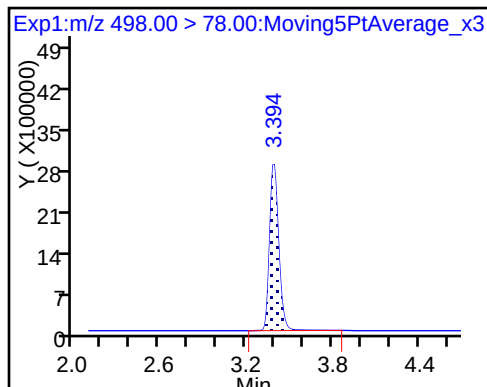
D 21 13C8 FOSA



22 Perfluorooctane Sulfonamide

D 26 M2-8:2FTS

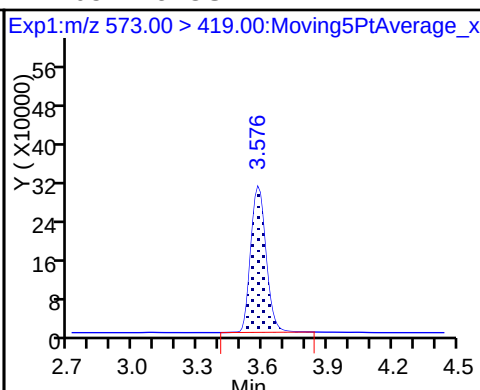
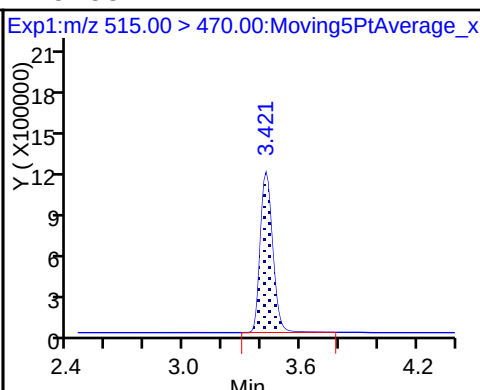
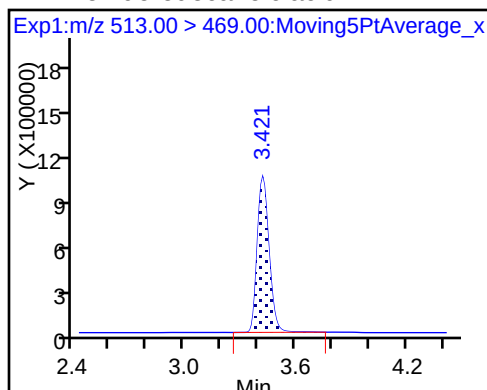
25 Sodium 1H,1H,2H,2H-perfluorodecane



24 Perfluorodecanoic acid

D 23 13C2 PFDA

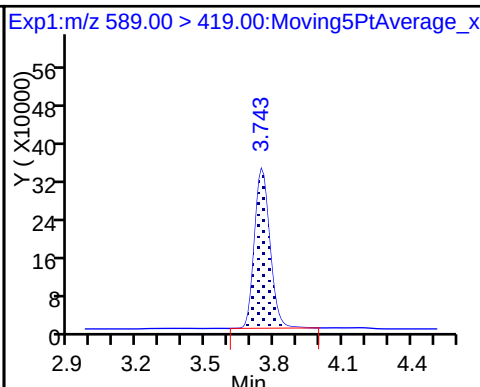
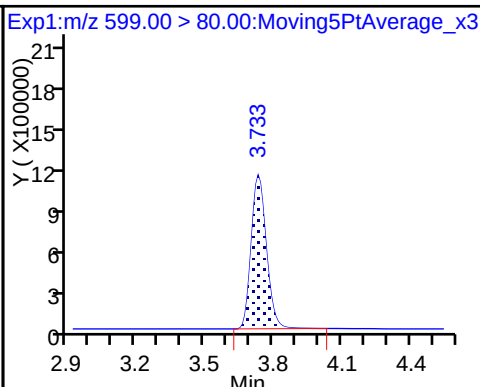
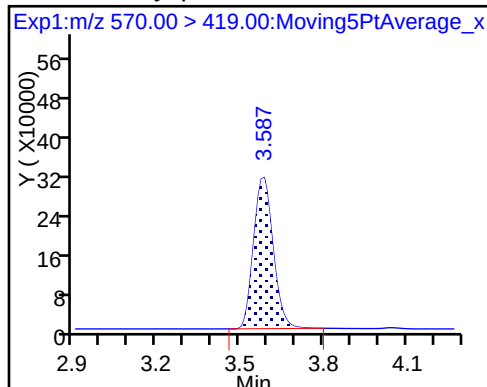
D 27 d3-NMeFOSAA



28 N-methyl perfluorooctane sulfonami

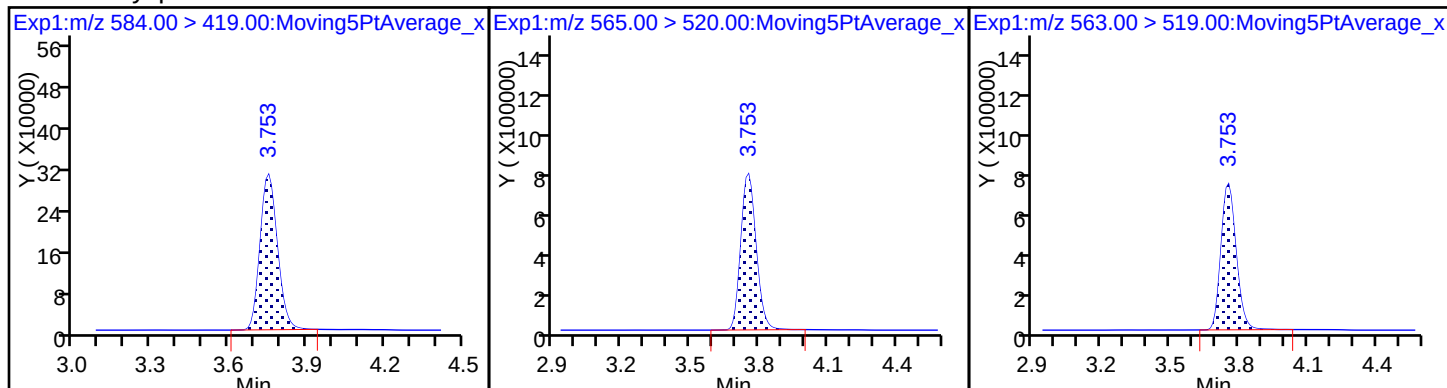
29 Perfluorodecane Sulfonic acid

D 32 d5-NEtFOSAA



33 N-ethyl perfluorooctane sulfonamid D 30 13C2 PFUnA

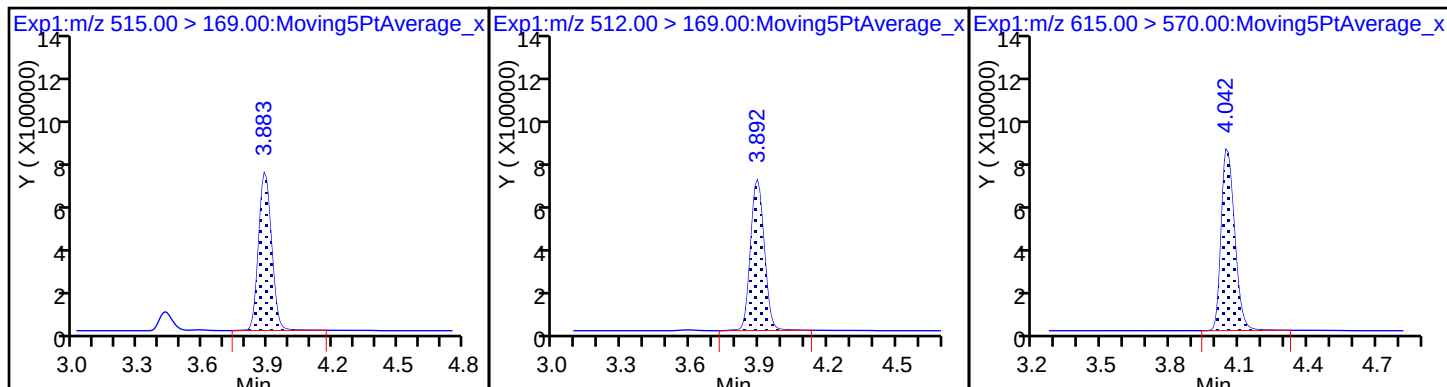
31 Perfluoroundecanoic acid



D 34 d-N-MeFOSA-M

35 MeFOSA

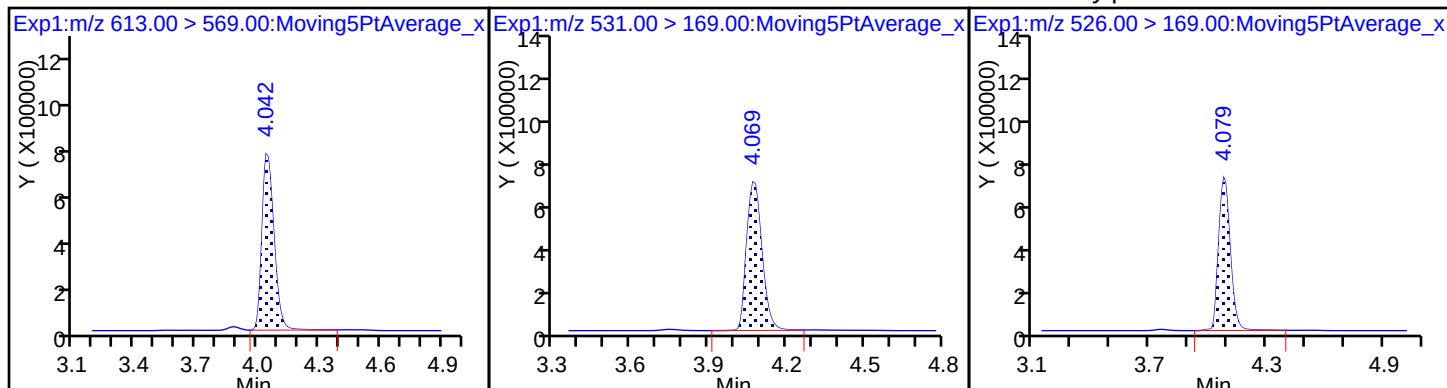
D 36 13C2 PFDaA



37 Perfluorododecanoic acid

D 38 d-N-EtFOSA-M

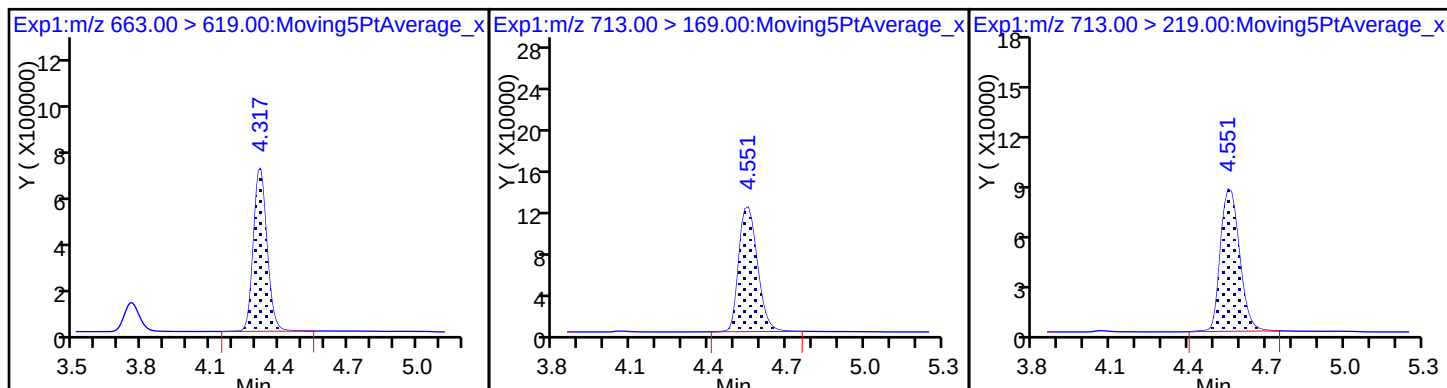
39 N-ethylperfluoro-1-octanesulfonami



41 Perfluorotridecanoic acid

42 Perfluorotetradecanoic acid

42 Perfluorotetradecanoic acid

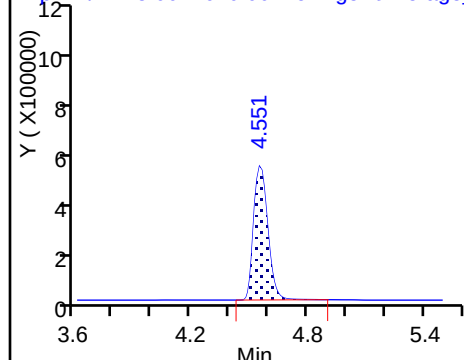


D 43 13C2-PFTeDA

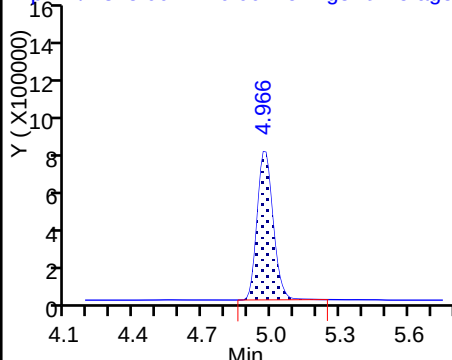
D 44 13C2-PFHxDA

45 Perfluorohexadecanoic acid

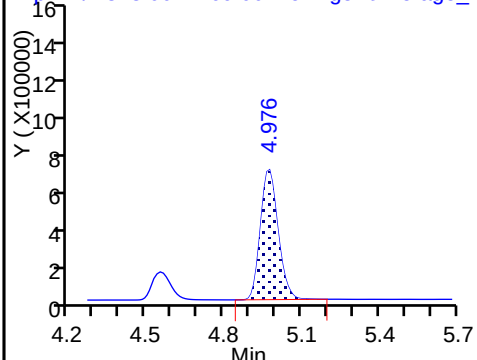
Exp1:m/z 715.00 > 670.00:Moving5PtAverage_x



Exp1:m/z 815.00 > 770.00:Moving5PtAverage_x

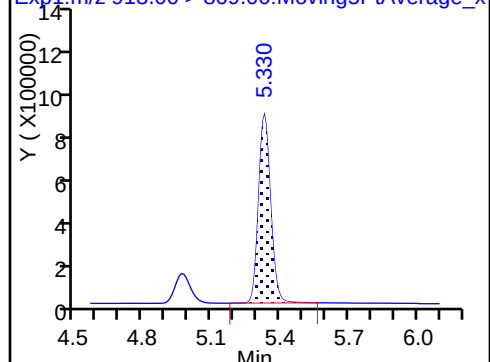


Exp1:m/z 813.00 > 769.00:Moving5PtAverage_x



46 Perfluorooctadecanoic acid

Exp1:m/z 913.00 > 869.00:Moving5PtAverage_x



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 480-125692-1

SDG No.: _____

Lab Sample ID: CCVL 320-190434/4 Calibration Date: 10/21/2017 00:43

Instrument ID: A8_N Calib Start Date: 10/12/2017 10:23

GC Column: GeminiC18 3x100 ID: 3.00 (mm) Calib End Date: 10/12/2017 11:11

Lab File ID: 2017.10.20B_027.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanoic acid (PFBA)	AveID	0.9306	1.005		1.08	1.00	8.0	50.0
Perfluoropentanoic acid (PFPeA)	AveID	1.094	1.197		1.09	1.00	9.4	50.0
Perfluorobutanesulfonic acid (PFBS)	AveID	71.72	77.16		0.951	0.884	7.6	50.0
4:2 FTS	AveID	1.184	1.284		1.01	0.934	8.4	
Perfluorohexanoic acid (PFHxA)	AveID	0.9796	1.006		1.03	1.00	2.6	50.0
Perfluoroheptanoic acid (PFHpA)	AveID	0.997	1.007		1.01	1.00	1.0	50.0
Perfluorohexanesulfonic acid (PFHxS)	AveID	1.079	1.295		1.09	0.910	20.0	50.0
6:2FTS	AveID	1.225	1.571			0.948	28.2	50.0
Perfluorooctanoic acid (PFOA)	AveID	1.081	1.075		0.995	1.00	-0.5	50.0
Perfluoroheptanesulfonic Acid (PFHpS)	AveID	1.212	1.281		1.01	0.952	5.7	50.0
Perfluorononanoic acid (PFNA)	AveID	0.9612	1.025		1.07	1.00	6.6	50.0
Perfluorooctanesulfonic acid (PFOS)	AveID	1.051	1.090			0.928	3.7	50.0
8:2FTS	AveID	1.109	1.084			0.958	-2.2	50.0
Perfluorodecanoic acid (PFDA)	AveID	0.9157	0.9134		0.997	1.00	-0.3	50.0
Perfluorooctane Sulfonamide (FOSA)	AveID	1.032	1.018		0.986	1.00	-1.4	50.0
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)	AveID	0.9339	0.9433			1.00	1.0	50.0
Perfluorodecanesulfonic acid (PFDS)	AveID	0.6020	0.5937			0.964	-1.4	50.0
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)	AveID	0.8491	0.8307			1.00	-2.2	50.0
Perfluoroundecanoic acid (PFUnA)	AveID	1.078	1.167		1.08	1.00	8.3	50.0
MeFOSA	AveID	0.8856	0.9014		1.02	1.00	1.8	50.0
Perfluorododecanoic acid (PFDoA)	AveID	0.9142	0.8961		0.980	1.00	-2.0	50.0
N-EtFOSA-M	AveID	0.9414	0.9394			1.00	-0.2	50.0
Perfluorotridecanoic Acid (PFTriA)	AveID	0.8895	0.8585		0.965	1.00	-3.5	50.0
Perfluorotetradecanoic acid (PFTeA)	AveID	0.2350	0.2308		0.982	1.00	-1.8	50.0
Perfluoro-n-hexadecanoic acid (PFHxDA)	AveID	0.9485	1.279		1.35	1.00	34.9	50.0
Perfluoro-n-octadecanoic acid (PFODA)	AveID	0.9089	0.9429		1.04	1.00	3.7	50.0
13C4 PFBA	Ave	375511	341915		45.5	50.0	-8.9	50.0
13C5 PFPeA	Ave	235689	223900		47.5	50.0	-5.0	50.0
13C3-PFBS	Ave	6861	6032		40.9	46.5	-12.1	50.0
13C2 PFHxA	Ave	256447	242249		47.2	50.0	-5.5	50.0
13C4-PFHpA	Ave	238819	231937		48.6	50.0	-2.9	50.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 480-125692-1
 SDG No.: _____
 Lab Sample ID: CCVL 320-190434/4 Calibration Date: 10/21/2017 00:43
 Instrument ID: A8_N Calib Start Date: 10/12/2017 10:23
 GC Column: GeminiC18 3x100 ID: 3.00 (mm) Calib End Date: 10/12/2017 11:11
 Lab File ID: 2017.10.20B_027.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
18O2 PFHxS	Ave	358500	315913		41.7	47.3	-11.9	50.0
M2-6:2FTS	Ave	88574	77018		41.3	47.5	-13.0	50.0
13C4 PFOA	Ave	224575	204465		45.5	50.0	-9.0	50.0
13C4 PFOS	Ave	252198	223289		42.3	47.8	-11.5	50.0
13C5 PFNA	Ave	171501	152442		44.4	50.0	-11.1	50.0
M2-8:2FTS	Ave	68925	61810		43.0	47.9	-10.3	50.0
13C2 PFDA	Ave	147860	129839		43.9	50.0	-12.2	50.0
13C8 FOSA	Ave	359961	318268		44.2	50.0	-11.6	50.0
d3-NMeFOSAA	Ave	47457	38379		40.4	50.0	-19.1	50.0
13C2 PFUnA	Ave	97372	85052		43.7	50.0	-12.7	50.0
d5-NEtFOSAA	Ave	46292	38497		41.6	50.0	-16.8	50.0
d-N-MeFOSA-M	Ave	87193	75522		43.3	50.0	-13.4	50.0
13C2 PFDoA	Ave	91340	77478		42.4	50.0	-15.2	50.0
d-N-EtFOSA-M	Ave	78898	71176		45.1	50.0	-9.8	50.0
13C2-PFTeDA	Ave	80085	67031		41.9	50.0	-16.3	50.0
13C2-PFHxDA	Ave	107686	89589		41.6	50.0	-16.8	50.0

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\2017.10.20B_027.d
 Lims ID: CCVL
 Client ID:
 Sample Type: CCVL
 Inject. Date: 21-Oct-2017 00:43:55 ALS Bottle#: 29 Worklist Smp#: 4
 Injection Vol: 2.0 ul Dil. Factor: 1.0000
 Sample Info: CCVL
 Misc. Info.: Plate: 1 Rack: 1
 Operator ID: SACINSTLCMS01 Instrument ID: A8_N
 Sublist: chrom-A8_N*sub18
 Method: \\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\A8_N.m
 Limit Group: LC PFC ICAL
 Last Update: 23-Oct-2017 14:16:02 Calib Date: 12-Oct-2017 11:11:26
 Integrator: Picker
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last Ical File: \\ChromNA\Sacramento\ChromData\A8_N\20171012-49071.b\2017.10.12ICAL_010.d

Column 1 : Det: EXP1

Process Host: XAWRK012

First Level Reviewer: barnettj

Date: 23-Oct-2017 13:42:40

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
2 Perfluorobutyric acid										
212.90 > 169.00	1.546	1.545	0.001	1.000	343674	1.08		108	44.9	
D 1 13C4 PFBA										
217.00 > 172.00	1.546	1.545	0.001		17095755	45.5		91.1	29898	
4 Perfluoropentanoic acid										
262.90 > 219.00	1.755	1.754	0.001	1.000	267936	1.09		109	106	
D 3 13C5-PFPeA										
267.90 > 223.00	1.746	1.754	-0.008		11194985	47.5		95.0	74462	
D 47 13C3-PFBS										
301.90 > 83.00	1.773	1.773	0.0		280478	40.9		87.9	6424	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	1.773	1.782	-0.009	1.000	411415	0.9510		108	4295	
298.90 > 99.00	1.773	1.782	-0.009	1.000	171752		2.40(0.00-0.00)		2634	
61 Sodium 1H,1H,2H,2H-perfluorohexane										
327.00 > 307.00	1.972	1.971	0.001	1.000	92347	1.01		108	4598	
6 Perfluorohexanoic acid										
313.00 > 269.00	2.006	2.017	-0.011	1.000	243582	1.03		103	356	
D 7 13C2 PFHxA										
315.00 > 270.00	2.006	2.017	-0.011		12112468	47.2		94.5	28264	
10 Perfluoroheptanoic acid										
363.00 > 319.00	2.321	2.324	-0.003	1.000	233544	1.01		101	313	
D 9 13C4-PFHpA										
367.00 > 322.00	2.321	2.324	-0.003		11596869	48.6		97.1	28799	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	2.331	2.348	-0.017	1.000	372231	1.09		120	2304	
D 11 18O2 PFHxS										
403.00 > 84.00	2.331	2.348	-0.017		14942708	41.7		88.1	27278	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
13 Sodium 1H,1H,2H,2H-perfluorooctane										
427.00 > 407.00	2.637	2.649	-0.013	1.000	114679	1.22		128	2337	
D 12 M2-6:2FTS										
429.00 > 81.00	2.637	2.649	-0.013		3658335	41.3		87.0	15853	
* 62 13C2-PFOA										
415.00 > 370.00	2.658	2.671	-0.013		10199899	50.0			30768	
15 Perfluorooctanoic acid										
413.00 > 369.00	2.665	2.671	-0.006	1.000	219870	1.00		99.5	29.0	
413.00 > 169.00	2.665	2.671	-0.006	1.000	124260		1.77(0.90-1.10)		1250	
D 14 13C4 PFOA										
417.00 > 372.00	2.665	2.671	-0.006		10223245	45.5		91.0	38381	
16 Perfluoroheptanesulfonic Acid										
449.00 > 80.00	2.673	2.678	-0.005	1.000	272282	1.01		106	3815	
17 Perfluorooctane sulfonic acid										
499.00 > 80.00	3.033	3.035	-0.002	1.000	225859	0.9622		104	189	
499.00 > 99.00	3.024	3.035	-0.011	0.997	50859		4.44(0.90-1.10)		168	
20 Perfluorononanoic acid										
463.00 > 419.00	3.033	3.035	-0.002	1.000	156222	1.07		107	146	
D 18 13C4 PFOS										
503.00 > 80.00	3.024	3.035	-0.011		10673225	42.3		88.5	19628	
D 19 13C5 PFNA										
468.00 > 423.00	3.024	3.035	-0.011		7622124	44.4		88.9	18651	
25 Sodium 1H,1H,2H,2H-perfluorodecane										
527.00 > 507.00	3.373	3.385	-0.012	1.000	64211	0.9366		97.8	1928	
D 26 M2-8:2FTS										
529.00 > 81.00	3.373	3.385	-0.012		2960716	43.0		89.7	15300	
D 21 13C8 FOSA										
506.00 > 78.00	3.390	3.385	0.005		15913416	44.2		88.4	20922	
22 Perfluorooctane Sulfonamide										
498.00 > 78.00	3.390	3.393	-0.003	1.000	323853	0.9858		98.6	4845	
24 Perfluorodecanoic acid										
513.00 > 469.00	3.390	3.393	-0.003	1.000	118592	1.00		99.7	185	
D 23 13C2 PFDA										
515.00 > 470.00	3.390	3.393	-0.003		6491932	43.9		87.8	15437	
28 N-methyl perfluorooctane sulfonami										
570.00 > 419.00	3.543	3.552	-0.009	1.000	36202	1.01		101	255	
D 27 d3-NMeFOSAA										
573.00 > 419.00	3.543	3.552	-0.009		1918965	40.4		80.9	10419	
29 Perfluorodecane Sulfonic acid										
599.00 > 80.00	3.701	3.710	-0.009	1.000	127793	0.9506		98.6	2561	
D 32 d5-NEtFOSAA										
589.00 > 419.00	3.711	3.710	0.001		1924857	41.6		83.2	2108	
33 N-ethyl perfluorooctane sulfonamid										
584.00 > 419.00	3.711	3.720	-0.009	1.000	31980	0.9783		97.8	451	
31 Perfluoroundecanoic acid										
563.00 > 519.00	3.711	3.720	-0.009	1.000	99290	1.08		108	164	
D 30 13C2 PFUnA										
565.00 > 520.00	3.711	3.720	-0.009		4252606	43.7		87.3	9208	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
35 MeFOSA										
512.00 > 169.00	3.896	3.897	-0.001	1.000	68072	1.02		102	1773	
D 34 d-N-MeFOSA-M										
515.00 > 169.00	3.896	3.897	-0.001		3776114	43.3		86.6	2081	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.005	4.014	-0.009	1.000	69430	0.9802		98.0	37.5	
D 36 13C2 PFDaA										
615.00 > 570.00	4.005	4.014	-0.009		3873910	42.4		84.8	10070	
D 38 d-N-EtFOSA-M										
531.00 > 169.00	4.081	4.084	-0.003		3558786	45.1		90.2	5049	
39 N-ethylperfluoro-1-octanesulfonami										
526.00 > 169.00	4.090	4.092	-0.002	1.000	66860	1.00		99.8	1851	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.268	4.279	-0.011	1.000	66511	0.9651		96.5	6.6	
42 Perfluorotetradecanoic acid										
713.00 > 169.00	4.500	4.505	-0.005	1.000	15472	0.9822		98.2	590	
713.00 > 219.00	4.500	4.505	-0.005	1.000	12848		1.20(0.00-0.00)		173	
D 43 13C2-PFTeDA										
715.00 > 670.00	4.500	4.514	-0.014		3351547	41.9		83.7	14660	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	4.911	4.920	-0.009	1.000	114597	1.35		135	5.9	
D 44 13C2-PFHxDA										
815.00 > 770.00	4.911	4.920	-0.009		4479425	41.6		83.2	5275	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	5.251	5.260	-0.009	1.000	84473	1.04		104	7.3	

Reagents:

LCPFC_FULL-L2_00009

Amount Added: 1.00

Units: mL

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\2017.10.20B_027.d

Injection Date: 21-Oct-2017 00:43:55

Instrument ID: A8_N

Lims ID: CCVL

Client ID:

Operator ID: SACINSTLCMS01

ALS Bottle#: 29

Worklist Smp#: 4

Injection Vol: 2.0 ul

Dil. Factor: 1.0000

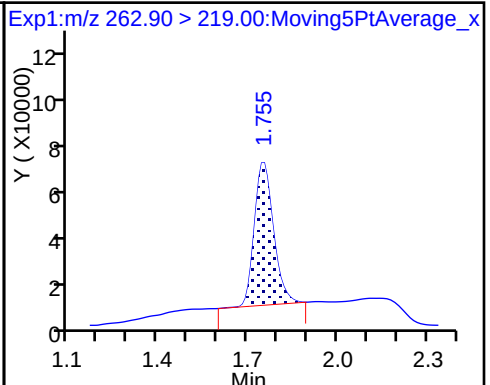
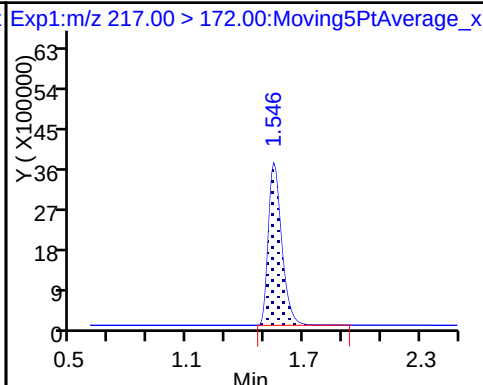
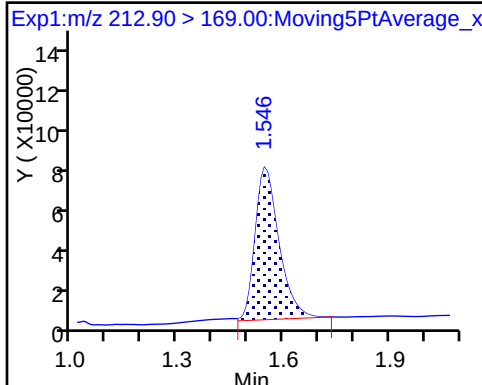
Method: A8_N

Limit Group: LC PFC ICAL

2 Perfluorobutyric acid

D 1 13C4 PFBA

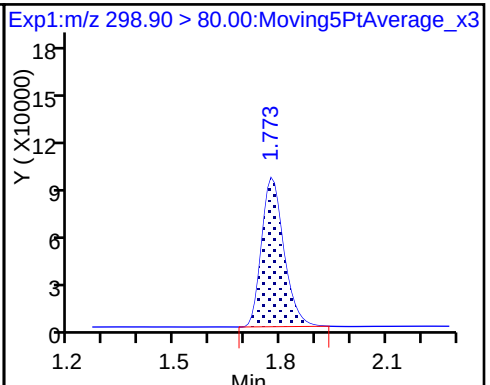
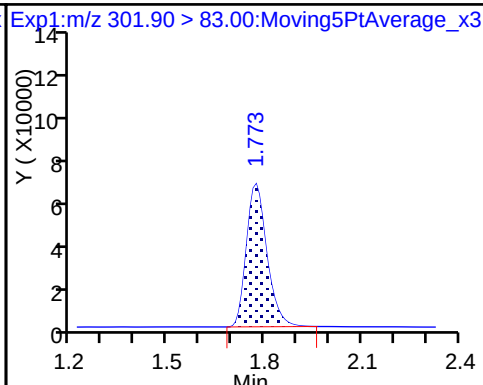
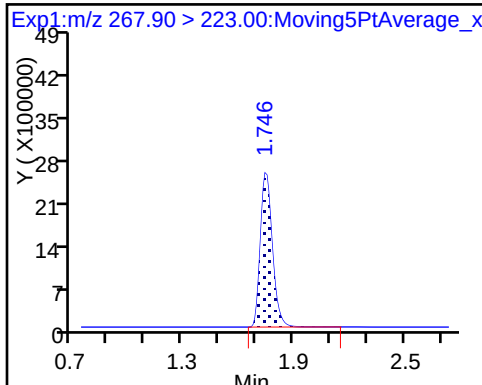
4 Perfluoropentanoic acid



D 3 13C5-PFPeA

D 47 13C3-PFBS

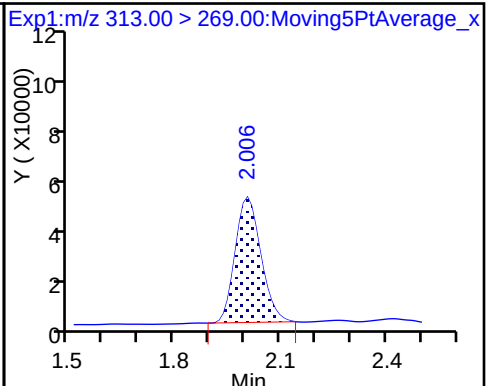
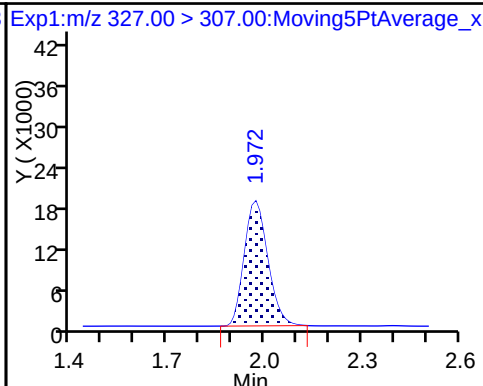
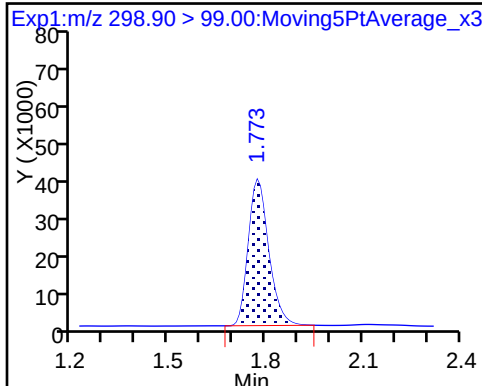
5 Perfluorobutanesulfonic acid



5 Perfluorobutanesulfonic acid

61 Sodium 1H,1H,2H,2H-perfluorohexanoate

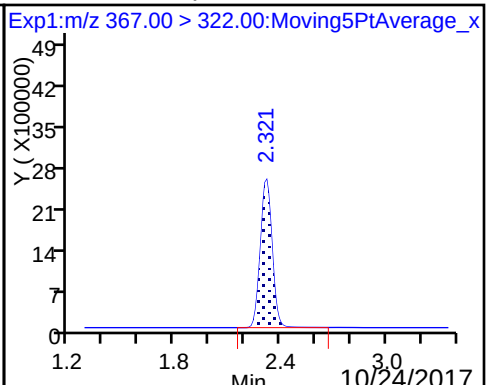
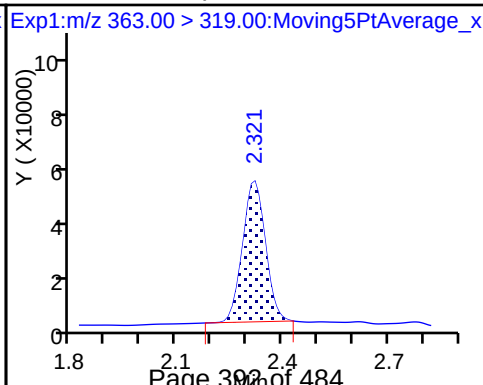
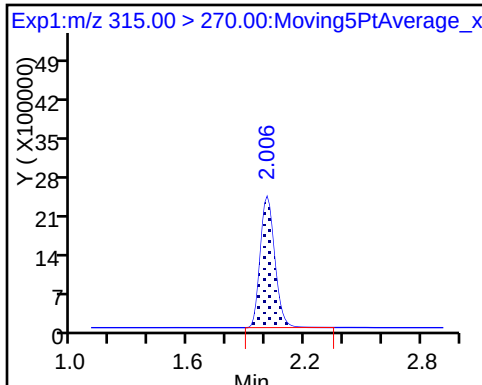
6 Perfluorohexanoic acid



D 7 13C2 PFHxA

10 Perfluoroheptanoic acid

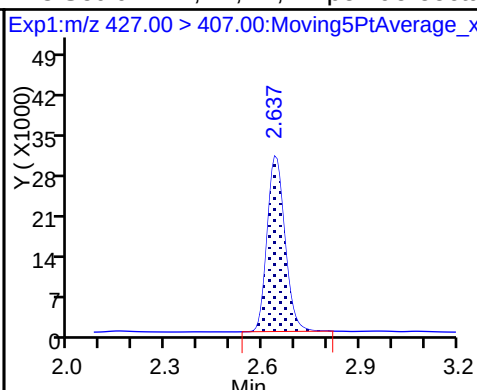
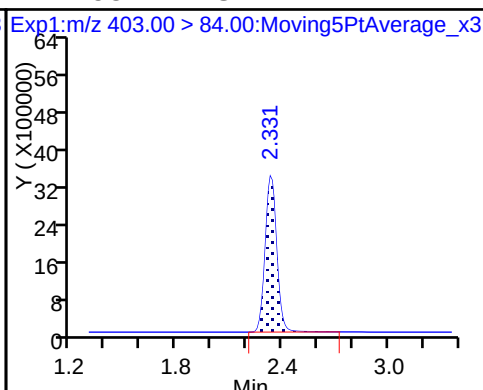
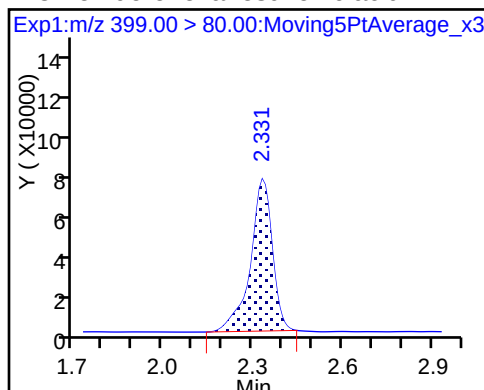
D 9 13C4-PFHpA



8 Perfluorohexanesulfonic acid

D 11 18O2 PFHxS

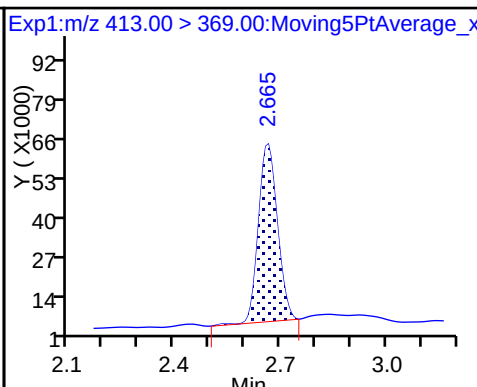
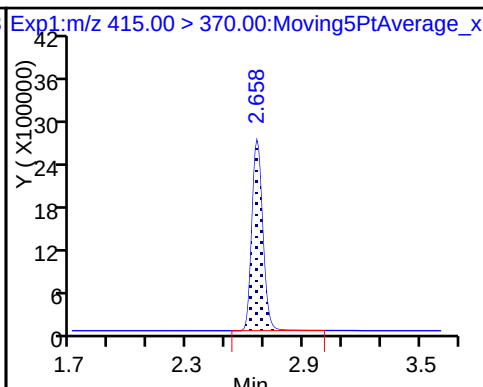
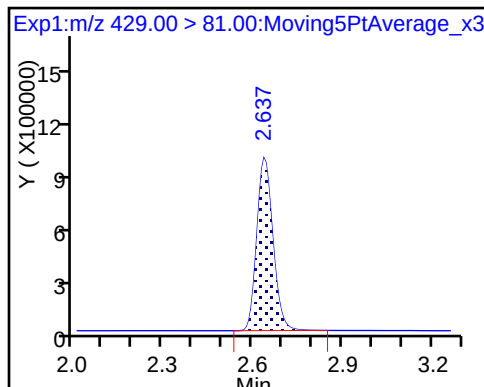
13 Sodium 1H,1H,2H,2H-perfluorooctane



D 12 M2-6:2FTS

* 62 13C2-PFOA

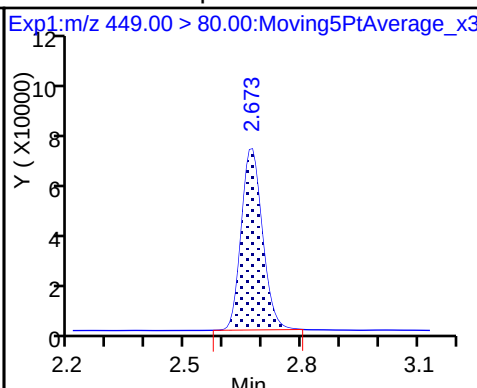
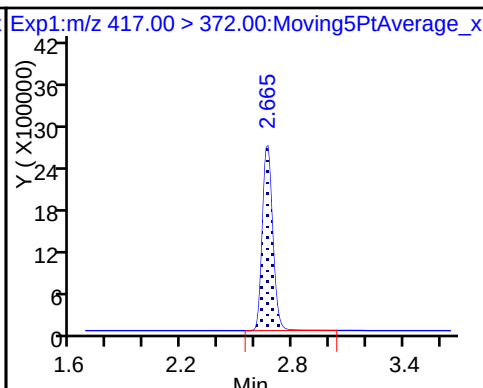
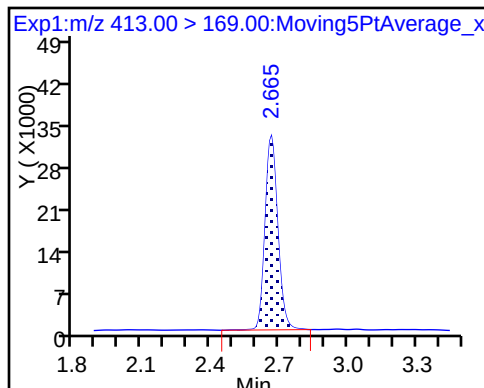
15 Perfluorooctanoic acid



15 Perfluorooctanoic acid

D 14 13C4 PFOA

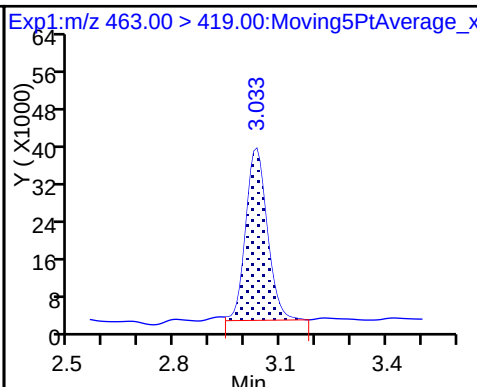
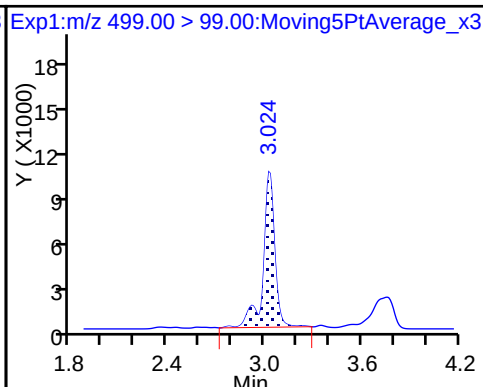
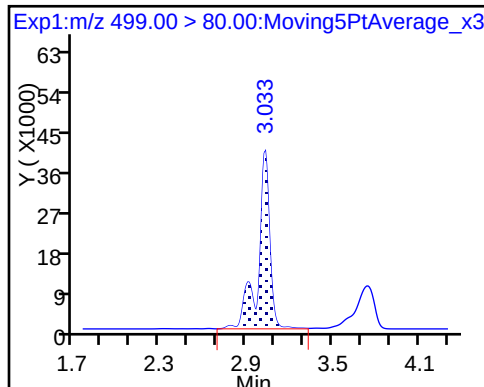
16 Perfluoroheptanesulfonic Acid



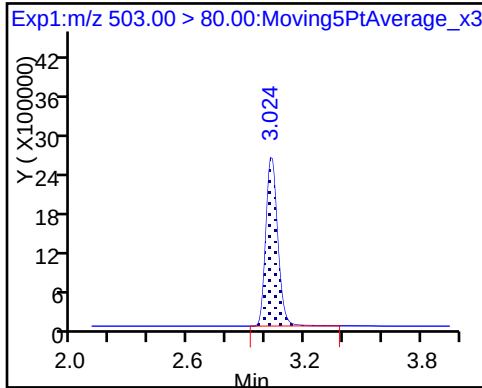
17 Perfluorooctane sulfonic acid

17 Perfluorooctane sulfonic acid

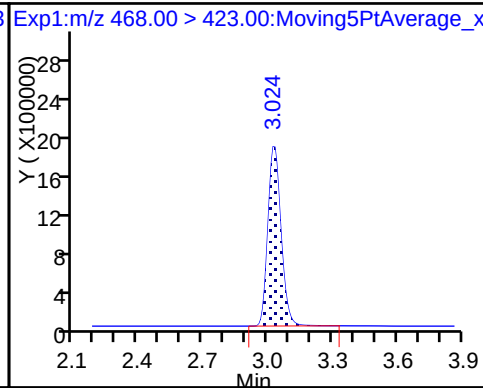
20 Perfluorononanoic acid



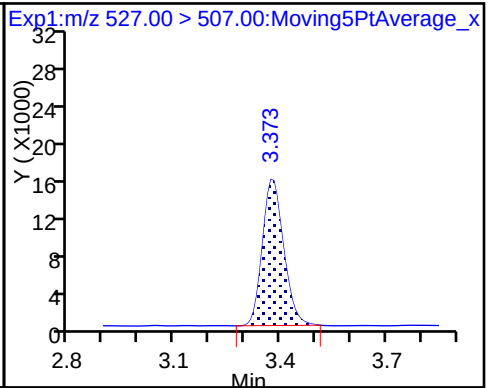
D 18 13C4 PFOS



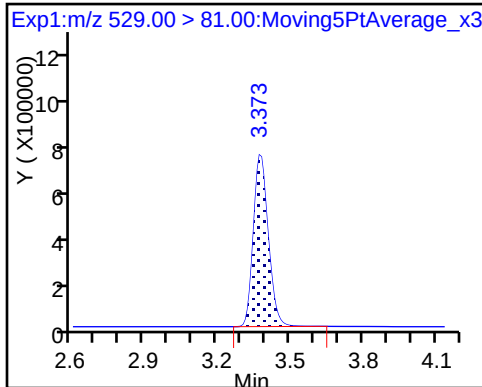
D 19 13C5 PFNA



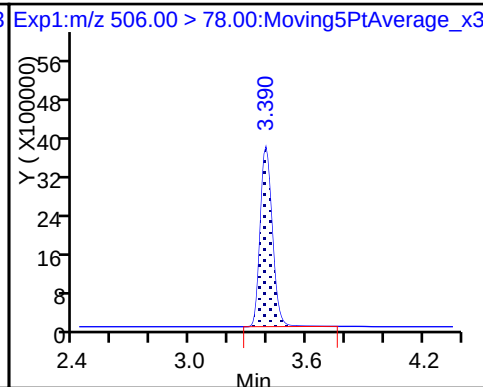
25 Sodium 1H,1H,2H,2H-perfluorodecane



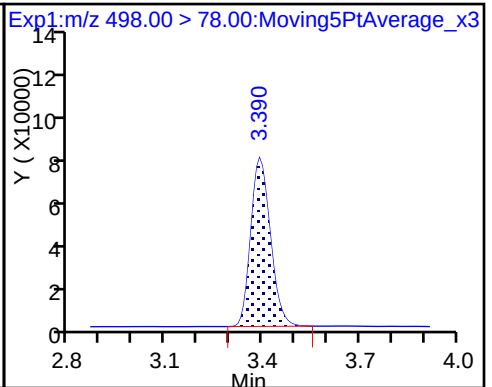
D 26 M2-8:2FTS



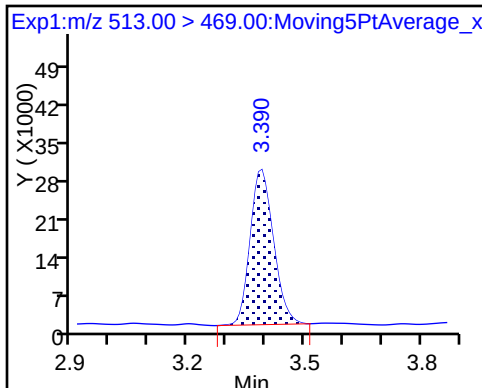
D 21 13C8 FOSA



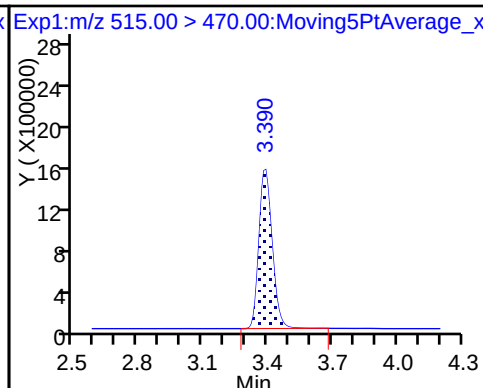
22 Perfluorooctane Sulfonamide



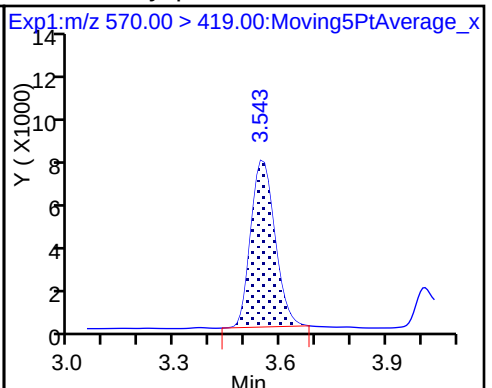
24 Perfluorodecanoic acid



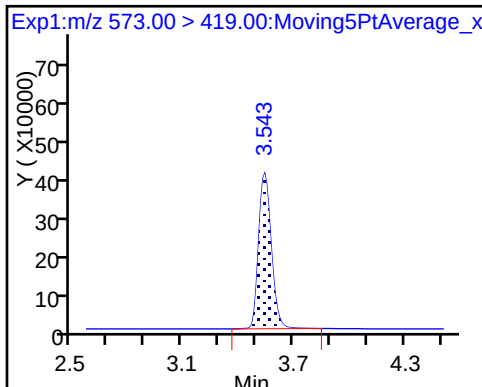
D 23 13C2 PFDA



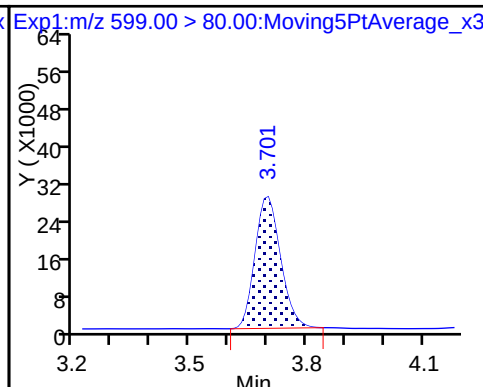
28 N-methyl perfluorooctane sulfonami



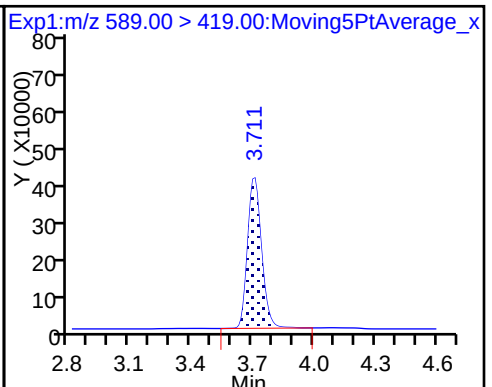
D 27 d3-NMeFOSAA



29 Perfluorodecane Sulfonic acid



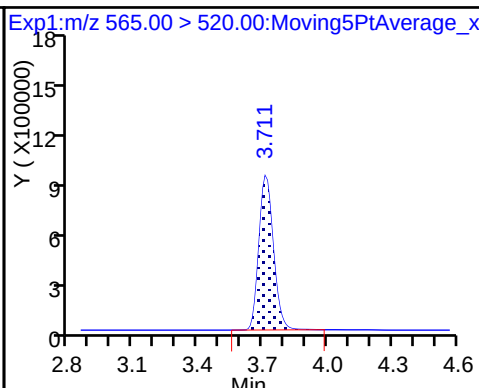
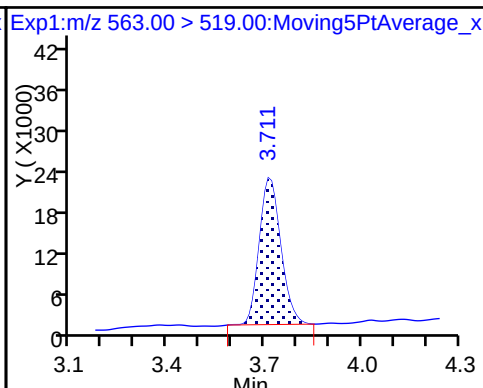
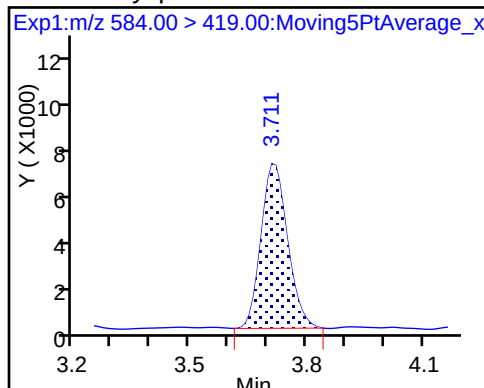
D 32 d5-NEtFOSAA



33 N-ethyl perfluorooctane sulfonamid

31 Perfluoroundecanoic acid

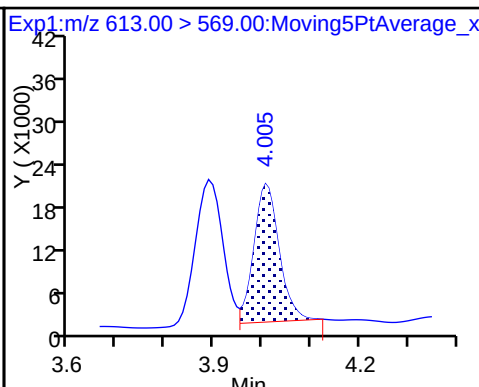
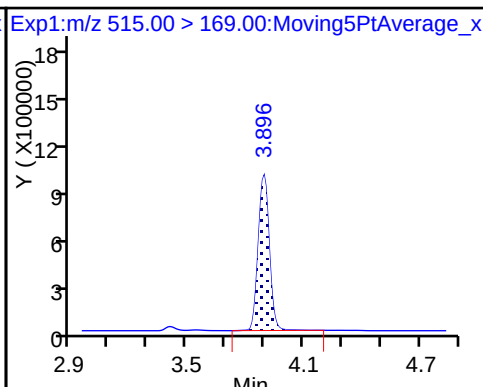
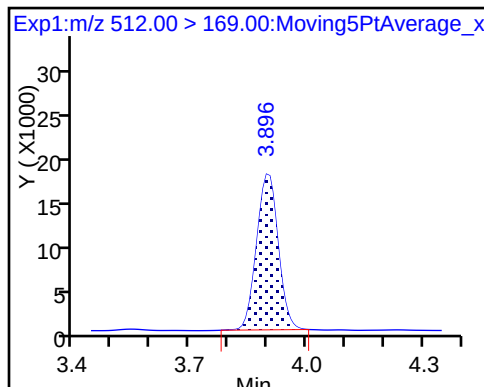
D 30 13C2 PFUnA



35 MeFOSA

D 34 d-N-MeFOSA-M

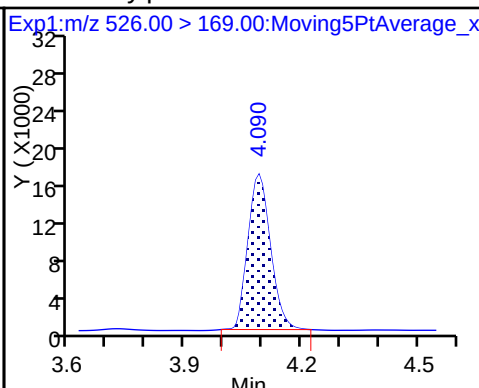
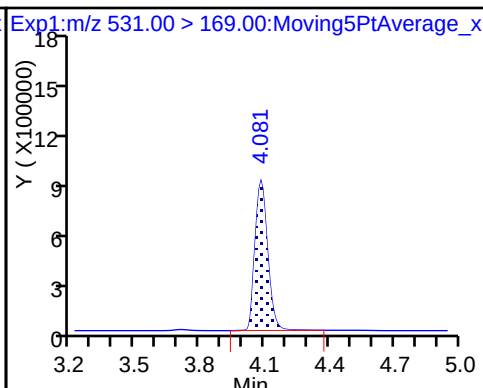
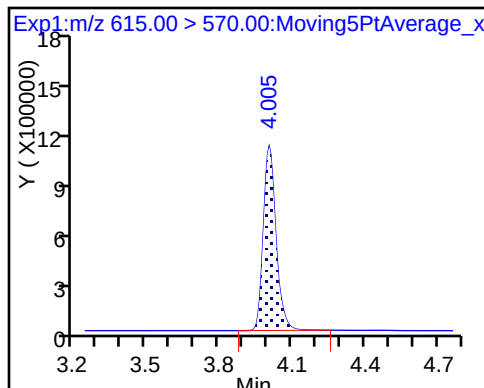
37 Perfluorododecanoic acid



D 36 13C2 PFDaA

D 38 d-N-EtFOSA-M

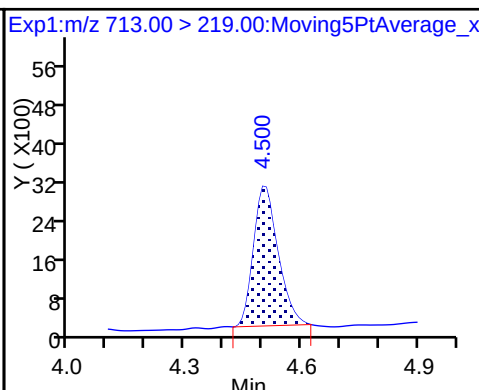
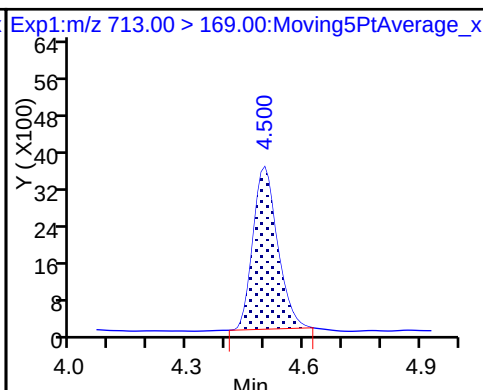
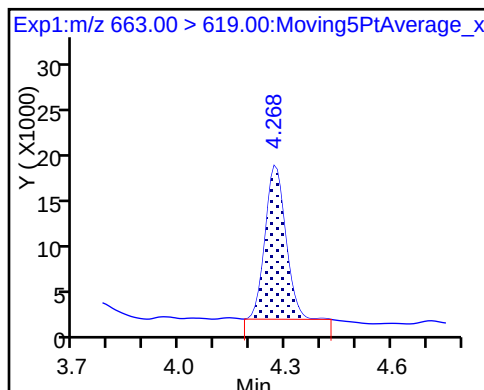
39 N-ethylperfluoro-1-octanesulfonami



41 Perfluorotridecanoic acid

42 Perfluorotetradecanoic acid

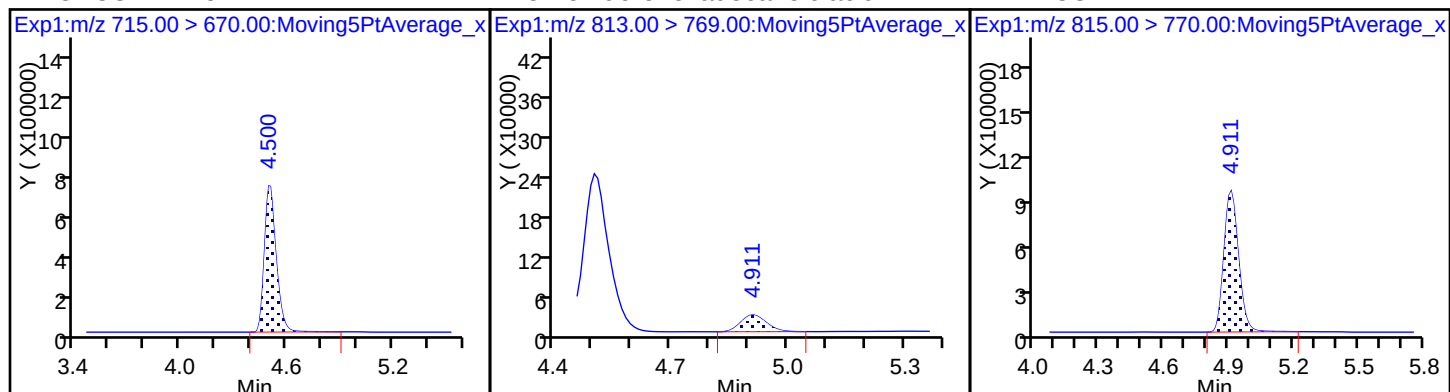
42 Perfluorotetradecanoic acid



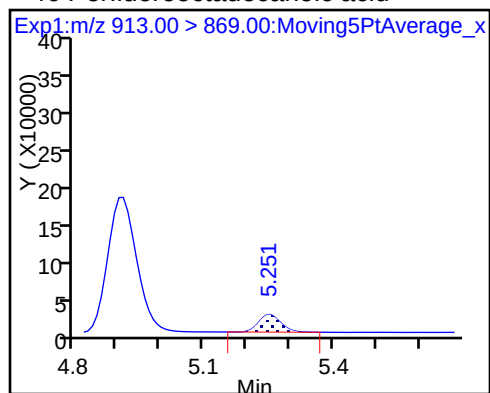
D 43 13C2-PFTeDA

45 Perfluorohexadecanoic acid

D 44 13C2-PFHxDA



46 Perfluorooctadecanoic acid



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 480-125692-1

SDG No.: _____

Lab Sample ID: CCV 320-190434/5 Calibration Date: 10/21/2017 00:50

Instrument ID: A8_N Calib Start Date: 10/12/2017 10:23

GC Column: GeminiC18 3x100 ID: 3.00 (mm) Calib End Date: 10/12/2017 11:11

Lab File ID: 2017.10.20B_028.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanoic acid (PFBA)	AveID	0.9306	0.9738		20.9	20.0	4.6	40.0
Perfluoropentanoic acid (PFPeA)	AveID	1.094	1.123		20.5	20.0	2.6	40.0
Perfluorobutanesulfonic acid (PFBS)	AveID	71.72	75.32		18.6	17.7	5.0	50.0
4:2 FTS	AveID	1.184	1.329		21.0	18.7	12.2	50.0
Perfluorohexanoic acid (PFHxA)	AveID	0.9796	0.9673		19.7	20.0	-1.3	40.0
Perfluoroheptanoic acid (PFHpA)	AveID	0.997	0.9885		19.8	20.0	-0.9	40.0
Perfluorohexanesulfonic acid (PFHxS)	AveID	1.079	1.120		18.9	18.2	3.8	40.0
6:2FTS	AveID	1.225	1.165		18.0	19.0	-4.9	40.0
Perfluorooctanoic acid (PFOA)	AveID	1.081	1.045		19.3	20.0	-3.3	40.0
Perfluoroheptanesulfonic Acid (PFHpS)	AveID	1.212	1.266		19.9	19.0	4.5	50.0
Perfluorononanoic acid (PFNA)	AveID	0.9612	0.9668		20.1	20.0	0.6	40.0
Perfluorooctanesulfonic acid (PFOS)	AveID	1.051	1.012		17.9	18.6	-3.7	40.0
8:2FTS	AveID	1.109	1.098		19.0	19.2	-1.0	40.0
Perfluorodecanoic acid (PFDA)	AveID	0.9157	0.9207		20.1	20.0	0.5	40.0
Perfluorooctane Sulfonamide (FOSA)	AveID	1.032	1.004		19.4	20.0	-2.8	40.0
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)	AveID	0.9339	0.8809		18.9	20.0	-5.7	40.0
Perfluorodecanesulfonic acid (PFDS)	AveID	0.6020	0.5837		18.7	19.3	-3.1	50.0
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)	AveID	0.8491	0.8459		19.9	20.0	-0.4	40.0
Perfluoroundecanoic acid (PFUnA)	AveID	1.078	1.054		19.5	20.0	-2.3	40.0
MeFOSA	AveID	0.8856	0.8564		19.3	20.0	-3.3	50.0
Perfluorododecanoic acid (PFDoA)	AveID	0.9142	0.9126		20.0	20.0	-0.2	40.0
N-EtFOSA-M	AveID	0.9414	0.9344		19.9	20.0	-0.7	40.0
Perfluorotridecanoic Acid (PFTriA)	AveID	0.8895	0.9080		20.4	20.0	2.1	50.0
Perfluorotetradecanoic acid (PFTeA)	AveID	0.2350	0.2112		18.0	20.0	-10.1	50.0
Perfluoro-n-hexadecanoic acid (PFHxDA)	AveID	0.9485	0.8643		18.2	20.0	-8.9	50.0
Perfluoro-n-octadecanoic acid (PFODA)	AveID	0.9089	0.9163		20.2	20.0	0.8	50.0
13C4 PFBA	Ave	375511	337427		44.9	50.0	-10.1	50.0
13C5 PFPeA	Ave	235689	214082		45.4	50.0	-9.2	50.0
13C3-PFBS	Ave	6861	6074		41.2	46.5	-11.5	50.0
13C2 PFHxA	Ave	256447	233579		45.5	50.0	-8.9	50.0
13C4-PFHpA	Ave	238819	222130		46.5	50.0	-7.0	50.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 480-125692-1
 SDG No.: _____
 Lab Sample ID: CCV 320-190434/5 Calibration Date: 10/21/2017 00:50
 Instrument ID: A8_N Calib Start Date: 10/12/2017 10:23
 GC Column: GeminiC18 3x100 ID: 3.00 (mm) Calib End Date: 10/12/2017 11:11
 Lab File ID: 2017.10.20B_028.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
18O2 PFHxS	Ave	358500	338656		44.7	47.3	-5.5	50.0
M2-6:2FTS	Ave	88574	74219		39.8	47.5	-16.2	40.0
13C4 PFOA	Ave	224575	199289		44.4	50.0	-11.3	50.0
13C4 PFOS	Ave	252198	228069		43.2	47.8	-9.6	50.0
13C5 PFNA	Ave	171501	150459		43.9	50.0	-12.3	50.0
M2-8:2FTS	Ave	68925	59231		41.2	47.9	-14.1	40.0
13C2 PFDA	Ave	147860	122839		41.5	50.0	-16.9	50.0
13C8 FOSA	Ave	359961	319519		44.4	50.0	-11.2	50.0
d3-NMeFOSAA	Ave	47457	41164		43.4	50.0	-13.3	50.0
d5-NEtFOSAA	Ave	46292	38039		41.1	50.0	-17.8	50.0
13C2 PFUnA	Ave	97372	84847		43.6	50.0	-12.9	50.0
d-N-MeFOSA-M	Ave	87193	77664		44.5	50.0	-10.9	50.0
13C2 PFDoA	Ave	91340	77488		42.4	50.0	-15.2	50.0
d-N-EtFOSA-M	Ave	78898	72869		46.2	50.0	-7.6	50.0
13C2-PFTeDA	Ave	80085	72280		45.1	50.0	-9.7	50.0
13C2-PFHxDA	Ave	107686	95913		44.5	50.0	-10.9	50.0

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\2017.10.20B_028.d
 Lims ID: CCV L4
 Client ID:
 Sample Type: CCV
 Inject. Date: 21-Oct-2017 00:50:48 ALS Bottle#: 31 Worklist Smp#: 5
 Injection Vol: 2.0 ul Dil. Factor: 1.0000
 Sample Info: CCV L4
 Misc. Info.: Plate: 1 Rack: 1
 Operator ID: SACINSTLCMS01 Instrument ID: A8_N
 Sublist: chrom-A8_N*sub18
 Method: \\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\A8_N.m
 Limit Group: LC PFC ICAL
 Last Update: 23-Oct-2017 14:16:11 Calib Date: 12-Oct-2017 11:11:26
 Integrator: Picker
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20171012-49071.b\2017.10.12ICAL_010.d

Column 1 : Det: EXP1

Process Host: XAWRK012

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
2 Perfluorobutyric acid										
212.90 > 169.00	1.545	1.545	0.0	1.000	6571860	20.9		105	751	
D 1 13C4 PFBA										
217.00 > 172.00	1.545	1.545	0.0		16871338	44.9		89.9	18439	
4 Perfluoropentanoic acid										
262.90 > 219.00	1.745	1.754	-0.009	1.000	4806242	20.5		103	1772	
D 3 13C5-PFPeA										
267.90 > 223.00	1.745	1.754	-0.009		10704080	45.4		90.8	59805	
D 47 13C3-PFBS										
301.90 > 83.00	1.773	1.773	0.0		282444	41.2		88.5	7160	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	1.773	1.782	-0.009	1.000	8088844	18.6		105	27532	
298.90 > 99.00	1.773	1.782	-0.009	1.000	3395446		2.38(0.00-0.00)		32397	
61 Sodium 1H,1H,2H,2H-perfluorohexane										
327.00 > 307.00	1.971	1.971	0.0	1.000	1842667	21.0		112	21633	
6 Perfluorohexanoic acid										
313.00 > 269.00	2.005	2.017	-0.012	1.000	4518736	19.7		98.7	5782	
D 7 13C2 PFHxA										
315.00 > 270.00	2.005	2.017	-0.012		11678934	45.5		91.1	30160	
10 Perfluoroheptanoic acid										
363.00 > 319.00	2.322	2.324	-0.002	1.000	4391697	19.8		99.1	3832	
D 9 13C4-PFHpA										
367.00 > 322.00	2.322	2.324	-0.002		11106504	46.5		93.0	12479	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	2.331	2.348	-0.017	1.000	6905079	18.9		104	6109	
D 11 18O2 PFHxS										
403.00 > 84.00	2.339	2.348	-0.009		16018451	44.7		94.5	35089	
13 Sodium 1H,1H,2H,2H-perfluorooctane										
427.00 > 407.00	2.636	2.649	-0.013	1.000	1638903	18.0		95.1	10613	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 12 M2-6:2FTS										
429.00 > 81.00	2.636	2.649	-0.013		3525414	39.8		83.8	14542	
* 62 13C2-PFOA										
415.00 > 370.00	2.658	2.671	-0.013		9523075	50.0			28456	
15 Perfluorooctanoic acid										
413.00 > 369.00	2.665	2.671	-0.006	1.000	4166264	19.3		96.7	543	
413.00 > 169.00	2.665	2.671	-0.006	1.000	2255923		1.85(0.90-1.10)		7423	
D 14 13C4 PFOA										
417.00 > 372.00	2.665	2.671	-0.006		9964446	44.4		88.7	32494	
16 Perfluoroheptanesulfonic Acid										
449.00 > 80.00	2.672	2.678	-0.006	1.000	5499289	19.9		104	11911	
17 Perfluorooctane sulfonic acid										
499.00 > 80.00	3.026	3.035	-0.009	1.000	4283634	17.9		96.3	2565	
499.00 > 99.00	3.026	3.035	-0.009	1.000	932049		4.60(0.90-1.10)		2260	
20 Perfluorononanoic acid										
463.00 > 419.00	3.026	3.035	-0.009	1.000	2909283	20.1		101	2653	
D 18 13C4 PFOS										
503.00 > 80.00	3.026	3.035	-0.009		10901678	43.2		90.4	17982	
D 19 13C5 PFNA										
468.00 > 423.00	3.026	3.035	-0.009		7522959	43.9		87.7	14482	
25 Sodium 1H,1H,2H,2H-perfluorodecane										
527.00 > 507.00	3.378	3.385	-0.007	1.000	1246613	19.0		99.0	8271	
D 26 M2-8:2FTS										
529.00 > 81.00	3.378	3.385	-0.007		2837164	41.2		85.9	11008	
D 21 13C8 FOSA										
506.00 > 78.00	3.386	3.385	0.001		15975968	44.4		88.8	246906	
22 Perfluorooctane Sulfonamide										
498.00 > 78.00	3.386	3.393	-0.007	1.000	6414578	19.4		97.2	19941	
24 Perfluorodecanoic acid										
513.00 > 469.00	3.386	3.393	-0.007	1.000	2262010	20.1		101	3833	
D 23 13C2 PFDA										
515.00 > 470.00	3.386	3.393	-0.007		6141965	41.5		83.1	16223	
28 N-methyl perfluorooctane sulfonami										
570.00 > 419.00	3.548	3.552	-0.004	1.003	725194	18.9		94.3	3215	
D 27 d3-NMeFOSAA										
573.00 > 419.00	3.538	3.552	-0.014		2058207	43.4		86.7	9245	
29 Perfluorodecane Sulfonic acid										
599.00 > 80.00	3.696	3.710	-0.014	1.000	2566453	18.7		96.9	8361	
D 32 d5-NEtFOSAA										
589.00 > 419.00	3.705	3.710	-0.005		1901942	41.1		82.2	1702	
33 N-ethyl perfluorooctane sulfonamid										
584.00 > 419.00	3.715	3.720	-0.005	1.003	643542	19.9		99.6	4483	
31 Perfluoroundecanoic acid										
563.00 > 519.00	3.715	3.720	-0.005	1.000	1788002	19.5		97.7	2515	
D 30 13C2 PFUnA										
565.00 > 520.00	3.715	3.720	-0.005		4242331	43.6		87.1	13648	
35 MeFOSA										
512.00 > 169.00	3.900	3.897	0.003	1.000	1330160	19.3		96.7	4338	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 34 d-N-MeFOSA-M										
515.00 > 169.00	3.891	3.897	-0.006		3883208	44.5		89.1	1745	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.002	4.014	-0.012	1.000	1414345	20.0		99.8	787	
D 36 13C2 PFDaA										
615.00 > 570.00	4.002	4.014	-0.012		3874420	42.4		84.8	8620	
D 38 d-N-EtFOSA-M										
531.00 > 169.00	4.078	4.084	-0.006		3643431	46.2		92.4	5476	
39 N-ethylperfluoro-1-octanesulfonami										
526.00 > 169.00	4.087	4.092	-0.005	1.000	1361717	19.9		99.3	4329	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.265	4.279	-0.014	1.000	1407229	20.4		102	130	
42 Perfluorotetradecanoic acid										
713.00 > 169.00	4.497	4.505	-0.008	1.000	305323	18.0		89.9	4302	
713.00 > 219.00	4.497	4.505	-0.008	1.000	232855		1.31(0.00-0.00)		2237	
D 43 13C2-PFTeDA										
715.00 > 670.00	4.497	4.514	-0.017		3614000	45.1		90.3	13499	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	4.908	4.920	-0.012	1.000	1657926	18.2		91.1	82.6	
D 44 13C2-PFHxDA										
815.00 > 770.00	4.908	4.920	-0.012		4795656	44.5		89.1	7304	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	5.249	5.260	-0.011	1.000	1757700	20.2		101	139	

Reagents:

LCPFC_FULL-L4_00008

Amount Added: 1.00

Units: mL

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\2017.10.20B_028.d

Injection Date: 21-Oct-2017 00:50:48

Instrument ID: A8_N

Lims ID: CCV L4

Client ID:

Operator ID: SACINSTLCMS01

ALS Bottle#: 31

Worklist Smp#: 5

Injection Vol: 2.0 ul

Dil. Factor: 1.0000

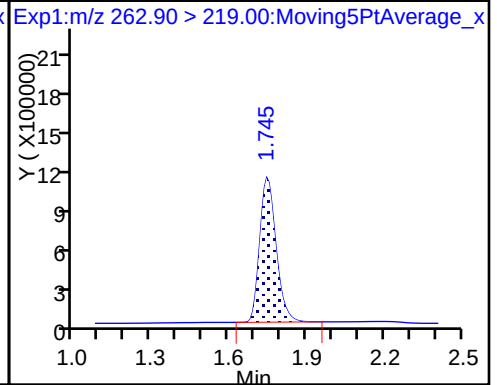
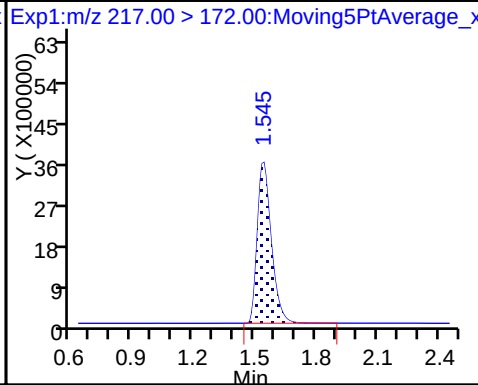
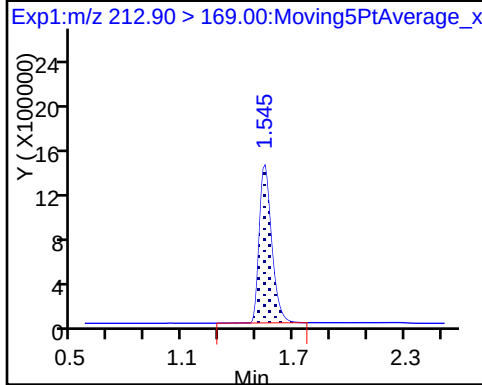
Method: A8_N

Limit Group: LC PFC ICAL

2 Perfluorobutyric acid

D 1 13C4 PFBA

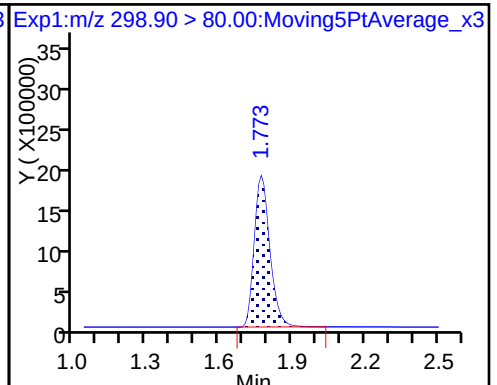
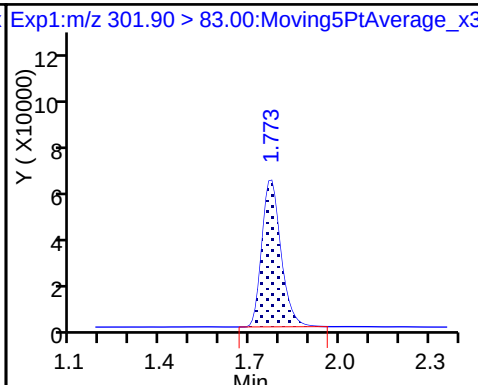
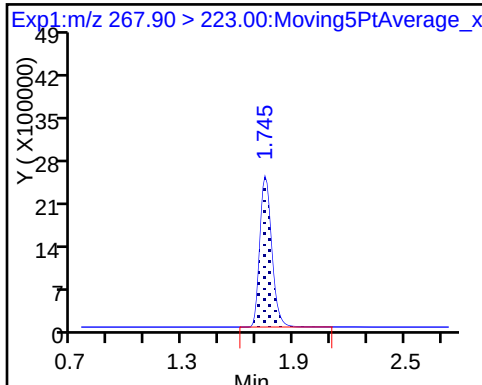
4 Perfluoropentanoic acid



D 3 13C5-PFPeA

D 47 13C3-PFBS

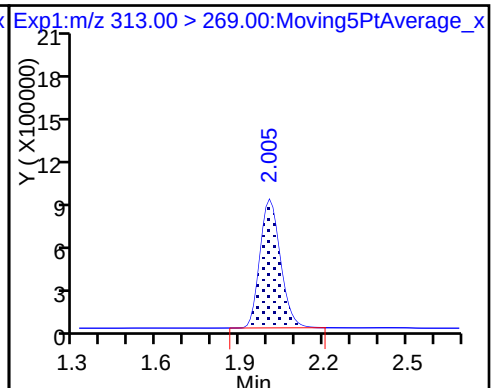
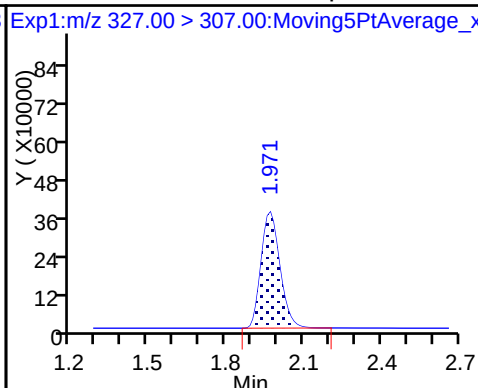
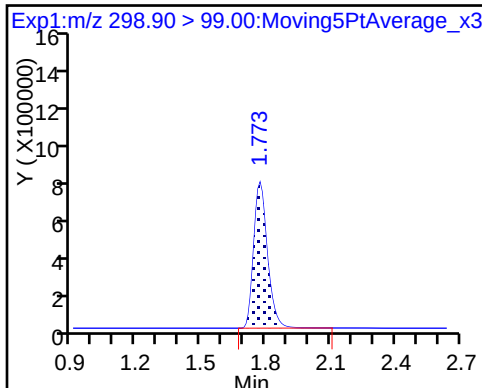
5 Perfluorobutanesulfonic acid



5 Perfluorobutanesulfonic acid

61 Sodium 1H,1H,2H,2H-perfluorohexanoic acid

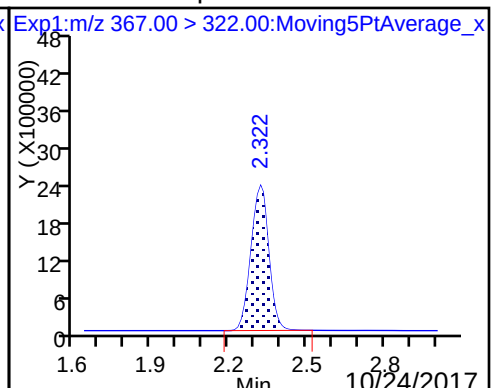
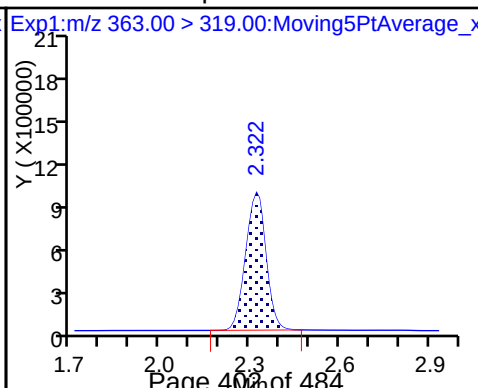
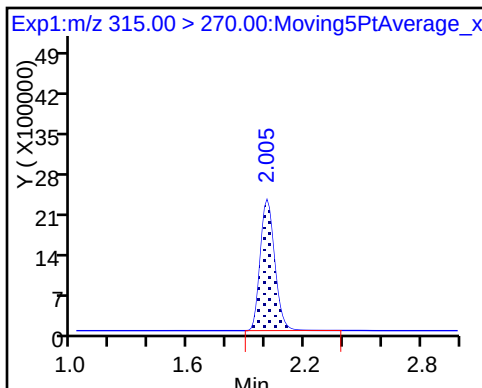
6 Perfluorohexanoic acid

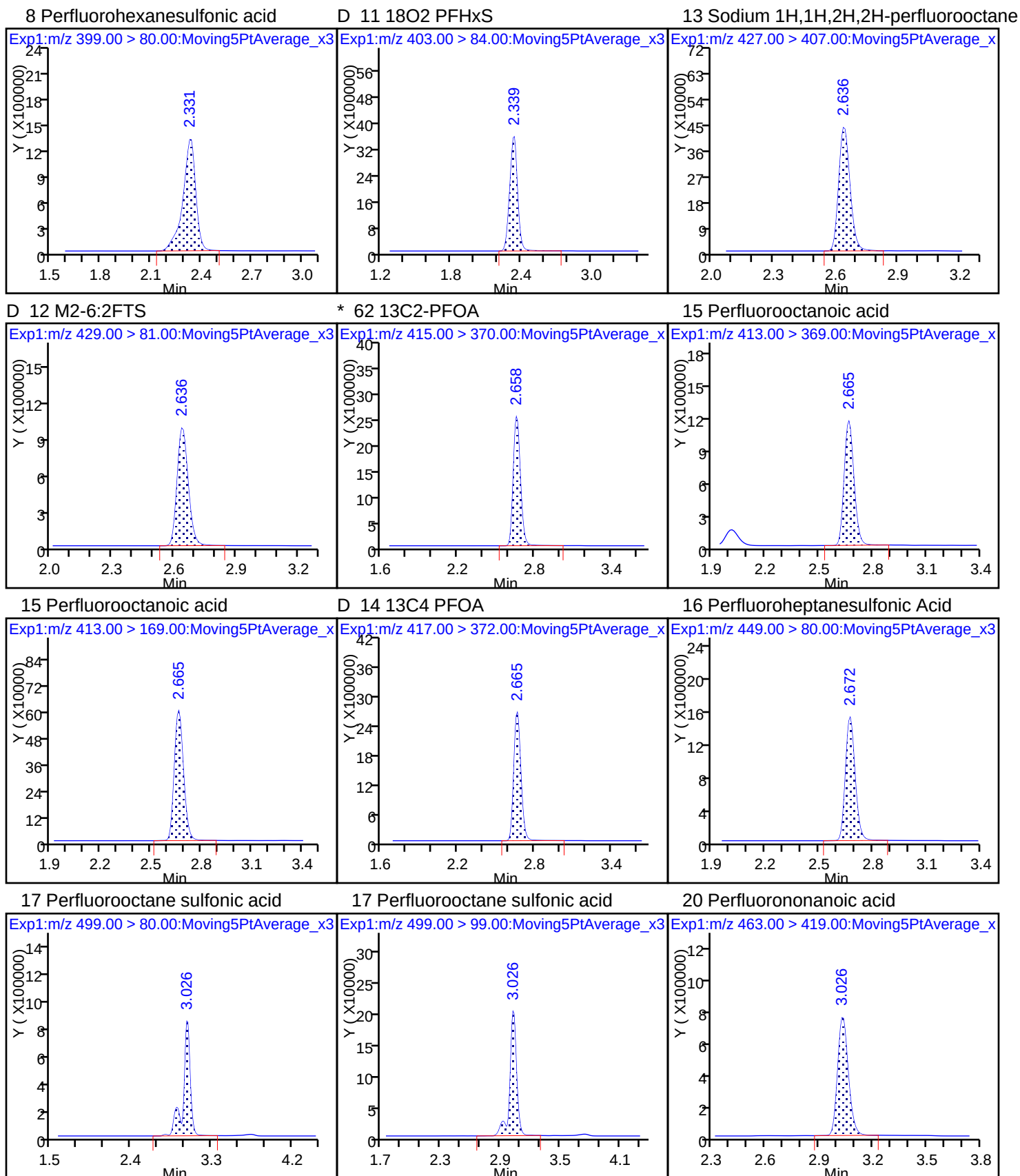


D 7 13C2 PFHxA

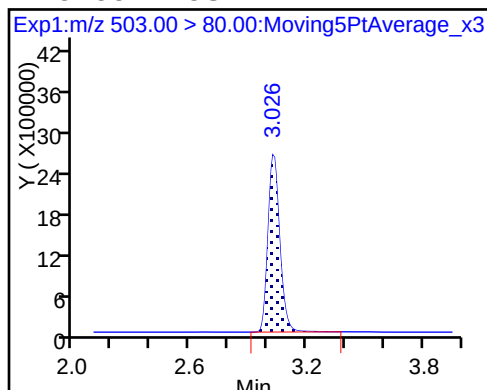
10 Perfluoroheptanoic acid

D 9 13C4-PFHpA

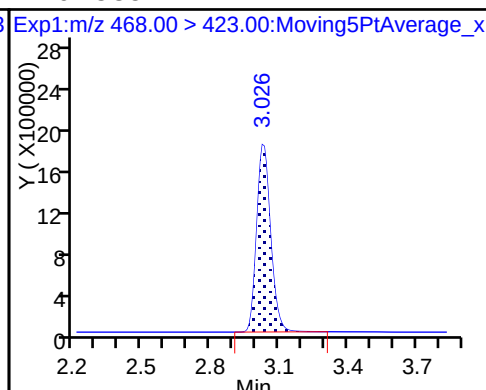




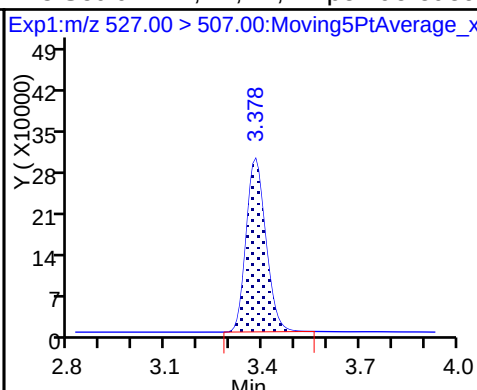
D 18 13C4 PFOS



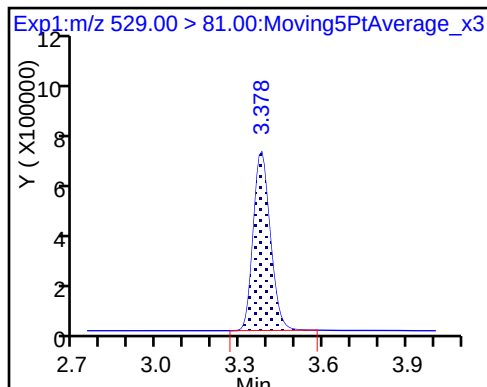
D 19 13C5 PFNA



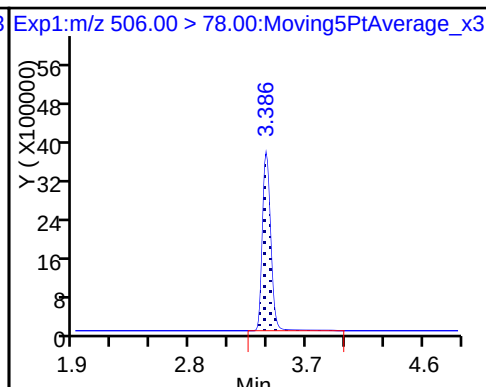
25 Sodium 1H,1H,2H,2H-perfluorodecane



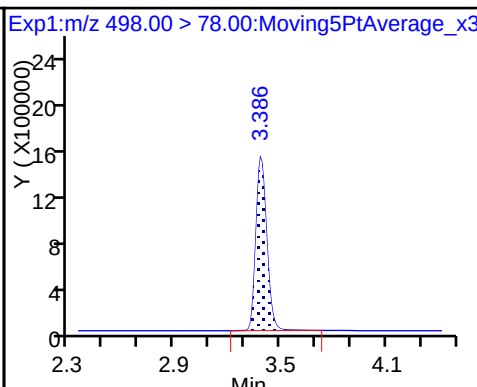
D 26 M2-8:2FTS



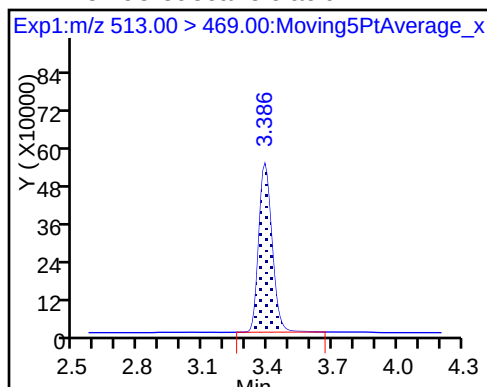
D 21 13C8 FOSA



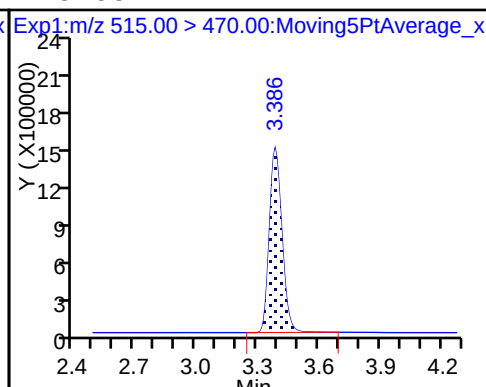
22 Perfluorooctane Sulfonamide



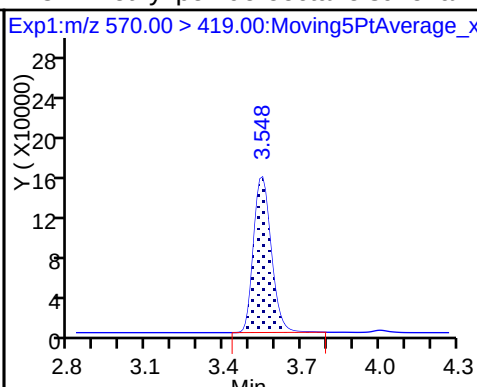
24 Perfluorodecanoic acid



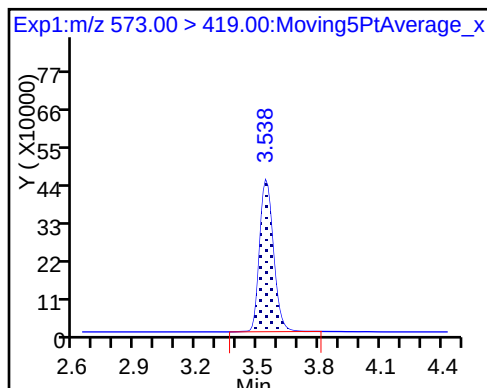
D 23 13C2 PFDA



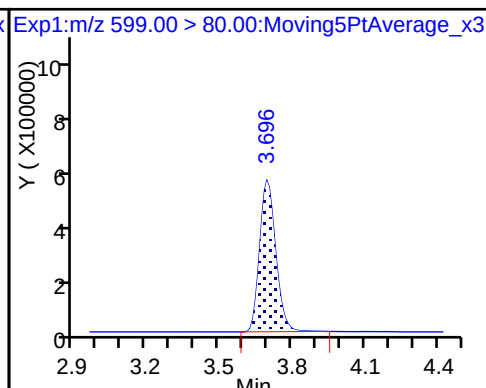
28 N-methyl perfluorooctane sulfonami



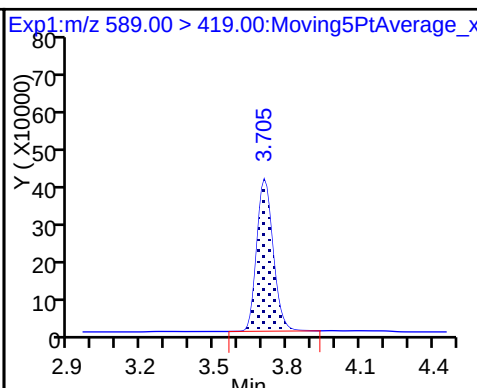
D 27 d3-NMeFOSAA



29 Perfluorodecane Sulfonic acid



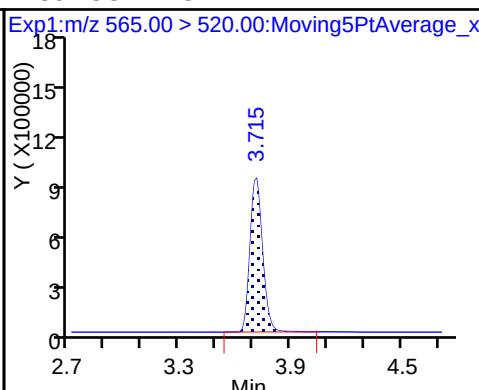
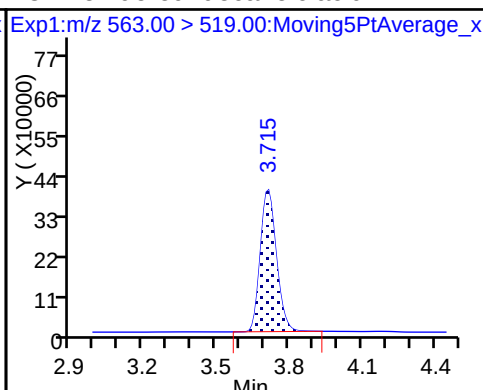
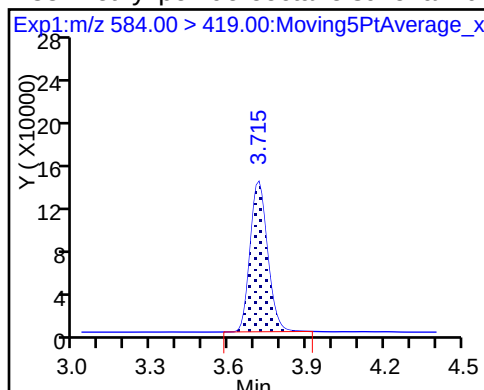
D 32 d5-NEtFOSAA



33 N-ethyl perfluorooctane sulfonamid

31 Perfluoroundecanoic acid

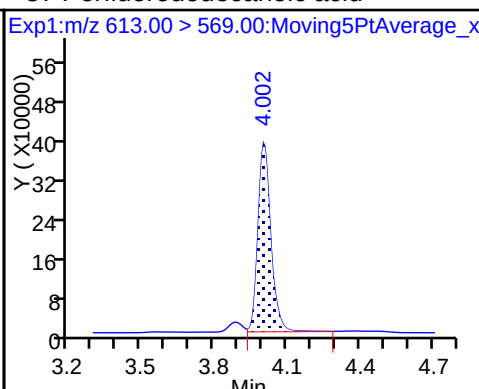
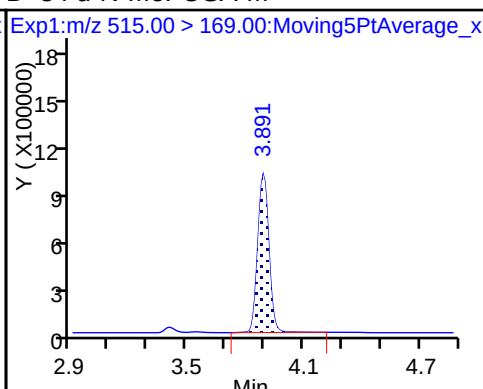
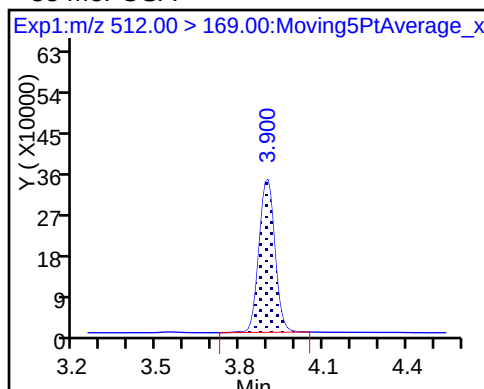
D 30 13C2 PFUnA



35 MeFOSA

D 34 d-N-MeFOSA-M

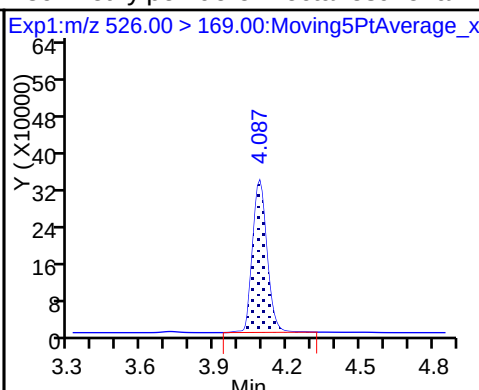
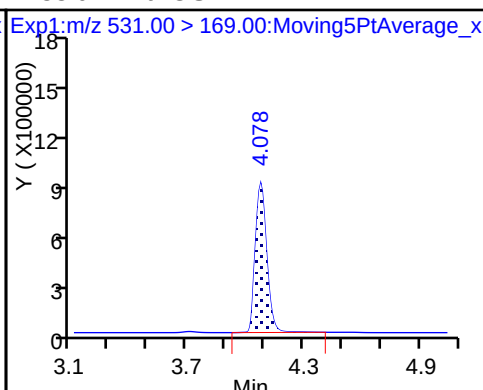
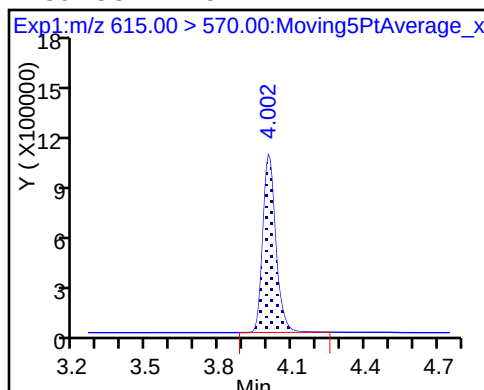
37 Perfluorododecanoic acid



D 36 13C2 PFDaA

D 38 d-N-EtFOSA-M

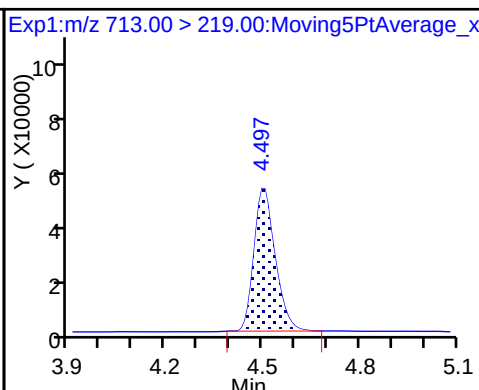
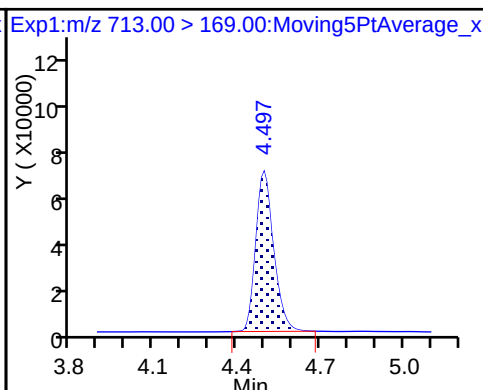
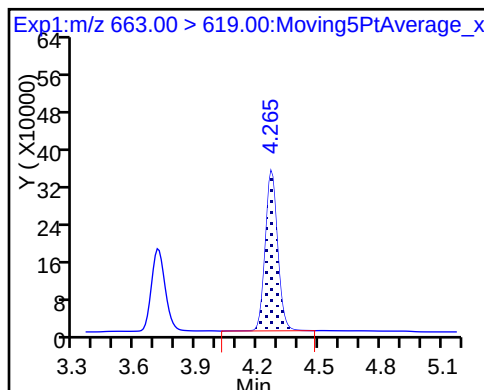
39 N-ethylperfluoro-1-octanesulfonami



41 Perfluorotridecanoic acid

42 Perfluorotetradecanoic acid

42 Perfluorotetradecanoic acid

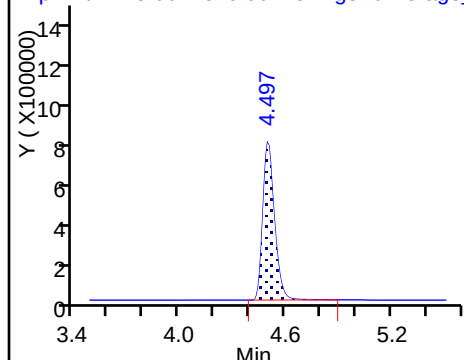


D 43 13C2-PFTeDA

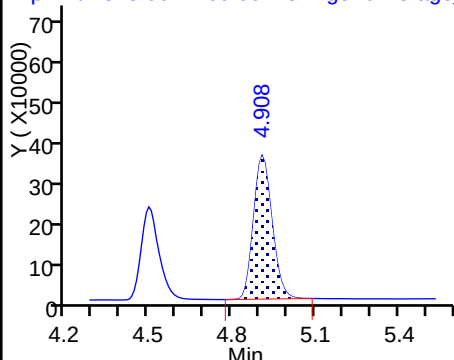
45 Perfluorohexadecanoic acid

D 44 13C2-PFHxDA

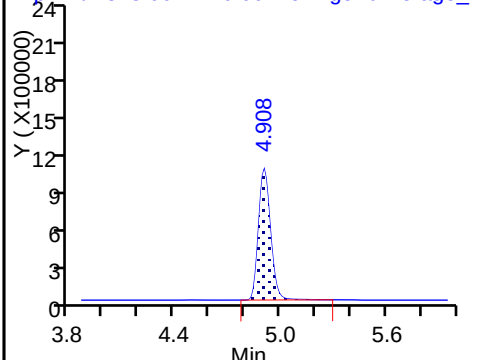
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Exp1:m/z 813.00 > 769.00:Moving5PtAverage_x

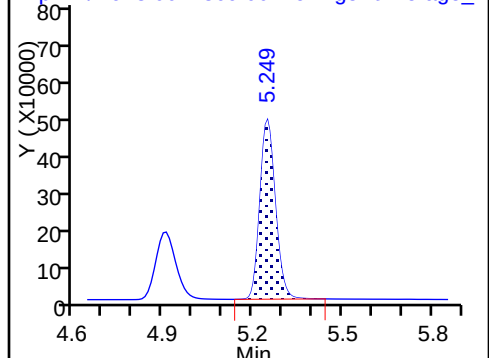


Exp1:m/z 815.00 > 770.00:Moving5PtAverage_x



46 Perfluorooctadecanoic acid

Exp1:m/z 913.00 > 869.00:Moving5PtAverage_x



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 480-125692-1

SDG No.: _____

Lab Sample ID: CCV 320-190434/17 Calibration Date: 10/21/2017 02:13

Instrument ID: A8_N Calib Start Date: 10/12/2017 10:23

GC Column: GeminiC18 3x100 ID: 3.00 (mm) Calib End Date: 10/12/2017 11:11

Lab File ID: 2017.10.20B_040.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanoic acid (PFBA)	AveID	0.9306	0.9000		48.4	50.0	-3.3	40.0
Perfluoropentanoic acid (PFPeA)	AveID	1.094	1.051		48.1	50.0	-3.9	40.0
Perfluorobutanesulfonic acid (PFBS)	AveID	71.72	65.73		40.5	44.2	-8.4	50.0
4:2 FTS	AveID	1.184	1.139		44.9	46.7	-3.8	50.0
Perfluorohexanoic acid (PFHxA)	AveID	0.9796	0.9577		48.9	50.0	-2.2	40.0
Perfluoroheptanoic acid (PFHpA)	AveID	0.997	0.9595		48.1	50.0	-3.8	40.0
Perfluorohexanesulfonic acid (PFHxS)	AveID	1.079	1.060		44.7	45.5	-1.8	40.0
6:2FTS	AveID	1.225	1.216		47.0	47.4	-0.8	40.0
Perfluorooctanoic acid (PFOA)	AveID	1.081	1.058		49.0	50.0	-2.1	40.0
Perfluoroheptanesulfonic Acid (PFHpS)	AveID	1.212	1.231		48.4	47.6	1.6	50.0
Perfluorononanoic acid (PFNA)	AveID	0.9612	1.004		52.2	50.0	4.4	40.0
Perfluorooctanesulfonic acid (PFOS)	AveID	1.051	1.045		46.1	46.4	-0.6	40.0
8:2FTS	AveID	1.109	1.100		47.5	47.9	-0.8	40.0
Perfluorodecanoic acid (PFDA)	AveID	0.9157	0.9473		51.7	50.0	3.4	40.0
Perfluorooctane Sulfonamide (FOSA)	AveID	1.032	0.9499		46.0	50.0	-8.0	40.0
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)	AveID	0.9339	0.9034		48.4	50.0	-3.3	40.0
Perfluorodecanesulfonic acid (PFDS)	AveID	0.6020	0.6265		50.2	48.2	4.1	50.0
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)	AveID	0.8491	0.8260		48.6	50.0	-2.7	40.0
Perfluoroundecanoic acid (PFUnA)	AveID	1.078	1.079		50.0	50.0	0.0	40.0
MeFOSA	AveID	0.8856	0.8707		49.2	50.0	-1.7	50.0
Perfluorododecanoic acid (PFDoA)	AveID	0.9142	0.9562		52.3	50.0	4.6	40.0
N-EtFOSA-M	AveID	0.9414	0.9584		50.9	50.0	1.8	40.0
Perfluorotridecanoic Acid (PFTriA)	AveID	0.8895	0.8452		47.5	50.0	-5.0	50.0
Perfluorotetradecanoic acid (PFTeA)	AveID	0.2350	0.2166		46.1	50.0	-7.8	50.0
Perfluoro-n-hexadecanoic acid (PFHxDA)	AveID	0.9485	0.8881		46.8	50.0	-6.4	50.0
Perfluoro-n-octadecanoic acid (PFODA)	AveID	0.9089	0.9188		50.5	50.0	1.1	50.0
13C4 PFBA	Ave	375511	357490		47.6	50.0	-4.8	50.0
13C5 PFPeA	Ave	235689	216882		46.0	50.0	-8.0	50.0
13C3-PFBS	Ave	6861	6136		41.6	46.5	-10.6	50.0
13C2 PFHxA	Ave	256447	231191		45.1	50.0	-9.8	50.0
13C4-PFHpA	Ave	238819	211136		44.2	50.0	-11.6	50.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 480-125692-1
 SDG No.: _____
 Lab Sample ID: CCV 320-190434/17 Calibration Date: 10/21/2017 02:13
 Instrument ID: A8_N Calib Start Date: 10/12/2017 10:23
 GC Column: GeminiC18 3x100 ID: 3.00 (mm) Calib End Date: 10/12/2017 11:11
 Lab File ID: 2017.10.20B_040.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
18O2 PFHxS	Ave	358500	327331		43.2	47.3	-8.7	50.0
M2-6:2FTS	Ave	88574	80977		43.4	47.5	-8.6	40.0
13C4 PFOA	Ave	224575	196415		43.7	50.0	-12.5	50.0
13C4 PFOS	Ave	252198	229672		43.5	47.8	-8.9	50.0
13C5 PFNA	Ave	171501	152729		44.5	50.0	-10.9	50.0
13C8 FOSA	Ave	359961	316703		44.0	50.0	-12.0	50.0
M2-8:2FTS	Ave	68925	62093		43.2	47.9	-9.9	40.0
13C2 PFDA	Ave	147860	127042		43.0	50.0	-14.1	50.0
d3-NMeFOSAA	Ave	47457	41582		43.8	50.0	-12.4	50.0
d5-NEtFOSAA	Ave	46292	41993		45.4	50.0	-9.3	50.0
13C2 PFUnA	Ave	97372	82721		42.5	50.0	-15.0	50.0
d-N-MeFOSA-M	Ave	87193	78675		45.1	50.0	-9.8	50.0
13C2 PFDoA	Ave	91340	82871		45.4	50.0	-9.3	50.0
d-N-EtFOSA-M	Ave	78898	74188		47.0	50.0	-6.0	50.0
13C2-PFTeDA	Ave	80085	77709		48.5	50.0	-3.0	50.0
13C2-PFHxDA	Ave	107686	105281		48.9	50.0	-2.2	50.0

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\2017.10.20B_040.d
 Lims ID: CCV L5
 Client ID:
 Sample Type: CCV
 Inject. Date: 21-Oct-2017 02:13:36 ALS Bottle#: 32 Worklist Smp#: 17
 Injection Vol: 2.0 ul Dil. Factor: 1.0000
 Sample Info: CCV L5
 Misc. Info.: Plate: 1 Rack: 1
 Operator ID: SACINSTLCMS01 Instrument ID: A8_N
 Sublist: chrom-A8_N*sub18
 Method: \\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\A8_N.m
 Limit Group: LC PFC ICAL
 Last Update: 23-Oct-2017 14:17:58 Calib Date: 12-Oct-2017 11:11:26
 Integrator: Picker
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last Ical File: \\ChromNa\Sacramento\ChromData\A8_N\20171012-49071.b\2017.10.12ICAL_010.d

Column 1 : Det: EXP1

Process Host: XAWRK012

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
2 Perfluorobutyric acid										
212.90 > 169.00	1.545	1.545	0.0	1.000	16086618	48.4		96.7	779	
D 1 13C4 PFBA										
217.00 > 172.00	1.545	1.545	0.0		17874523	47.6		95.2	16857	
4 Perfluoropentanoic acid										
262.90 > 219.00	1.754	1.754	0.0	1.000	11400777	48.1		96.1	2702	
D 3 13C5-PFPeA										
267.90 > 223.00	1.754	1.754	0.0		10844112	46.0		92.0	43377	
D 47 13C3-PFBS										
301.90 > 83.00	1.773	1.773	0.0		285317	41.6		89.4	5441	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	1.782	1.782	0.0	1.000	17826095	40.5		91.6	23885	
298.90 > 99.00	1.773	1.782	-0.009	0.995	8621630		2.07(0.00-0.00)		33743	
61 Sodium 1H,1H,2H,2H-perfluorohexane										
327.00 > 307.00	1.971	1.971	0.0	1.000	4305846	44.9		96.2	23474	
6 Perfluorohexanoic acid										
313.00 > 269.00	2.017	2.017	0.0	1.000	11070004	48.9		97.8	6032	
D 7 13C2 PFHxA										
315.00 > 270.00	2.017	2.017	0.0		11559570	45.1		90.2	20791	
10 Perfluoroheptanoic acid										
363.00 > 319.00	2.324	2.324	0.0	1.000	10129224	48.1		96.2	4046	
D 9 13C4-PFHpA										
367.00 > 322.00	2.324	2.324	0.0		10556776	44.2		88.4	15513	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	2.348	2.348	0.0	1.000	15780468	44.7		98.2	4955	
D 11 18O2 PFHxS										
403.00 > 84.00	2.348	2.348	0.0		15482769	43.2		91.3	27069	
13 Sodium 1H,1H,2H,2H-perfluorooctane										
427.00 > 407.00	2.649	2.649	0.0	1.000	4666129	47.0		99.2	18982	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 12 M2-6:2FTS										
429.00 > 81.00	2.649	2.649	0.0		3846414	43.4		91.4	10593	
* 62 13C2-PFOA										
415.00 > 370.00	2.671	2.671	0.0		9618205	50.0			19634	
15 Perfluorooctanoic acid										
413.00 > 369.00	2.671	2.671	0.0	1.000	10391513	49.0		97.9	1433	
413.00 > 169.00	2.671	2.671	0.0	1.000	5682537		1.83(0.90-1.10)		7579	
D 14 13C4 PFOA										
417.00 > 372.00	2.671	2.671	0.0		9820743	43.7		87.5	13598	
16 Perfluoroheptanesulfonic Acid										
449.00 > 80.00	2.678	2.678	0.0	1.000	13461926	48.4		102	25990	
17 Perfluorooctane sulfonic acid										
499.00 > 80.00	3.035	3.035	0.0	1.000	11139309	46.1		99.4	4089	
499.00 > 99.00	3.035	3.035	0.0	1.000	2467836		4.51(0.90-1.10)		4831	
20 Perfluorononanoic acid										
463.00 > 419.00	3.035	3.035	0.0	1.000	7666645	52.2		104	7611	
D 18 13C4 PFOS										
503.00 > 80.00	3.035	3.035	0.0		10978345	43.5		91.1	12285	
D 19 13C5 PFNA										
468.00 > 423.00	3.035	3.035	0.0		7636427	44.5		89.1	20543	
25 Sodium 1H,1H,2H,2H-perfluorodecane										
527.00 > 507.00	3.385	3.385	0.0	1.000	3271776	47.5		99.2	11938	
D 26 M2-8:2FTS										
529.00 > 81.00	3.385	3.385	0.0		2974268	43.2		90.1	11692	
D 21 13C8 FOSA										
506.00 > 78.00	3.385	3.385	0.0		15835144	44.0		88.0	89698	
22 Perfluorooctane Sulfonamide										
498.00 > 78.00	3.393	3.393	0.0	1.000	15041737	46.0		92.0	22487	
24 Perfluorodecanoic acid										
513.00 > 469.00	3.393	3.393	0.0	1.000	6017336	51.7		103	7100	
D 23 13C2 PFDA										
515.00 > 470.00	3.393	3.393	0.0		6352101	43.0		85.9	16882	
28 N-methyl perfluorooctane sulfonami										
570.00 > 419.00	3.552	3.552	0.0	1.000	1878205	48.4		96.7	4971	
D 27 d3-NMeFOSAA										
573.00 > 419.00	3.552	3.552	0.0		2079090	43.8		87.6	7356	
29 Perfluorodecane Sulfonic acid										
599.00 > 80.00	3.710	3.710	0.0	1.000	6935385	50.2		104	8690	
D 32 d5-NEtFOSAA										
589.00 > 419.00	3.710	3.710	0.0		2099661	45.4		90.7	2340	
33 N-ethyl perfluorooctane sulfonamid										
584.00 > 419.00	3.720	3.720	0.0	1.003	1734250	48.6		97.3	6120	
31 Perfluoroundecanoic acid										
563.00 > 519.00	3.720	3.720	0.0	1.000	4461913	50.0		100	5268	
D 30 13C2 PFUnA										
565.00 > 520.00	3.720	3.720	0.0		4136026	42.5		85.0	9711	
35 MeFOSA										
512.00 > 169.00	3.897	3.897	0.0	1.000	3425289	49.2		98.3	5355	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 34 d-N-MeFOSA-M	515.00 > 169.00	3.897	3.897	0.0	3933765	45.1		90.2	1166	
37 Perfluorododecanoic acid	613.00 > 569.00	4.014	4.014	0.0	1.000	3961873	52.3	105	1890	
D 36 13C2 PFDaA	615.00 > 570.00	4.014	4.014	0.0	4143566	45.4		90.7	8710	
D 38 d-N-EtFOSA-M	531.00 > 169.00	4.084	4.084	0.0	3709381	47.0		94.0	3049	
39 N-ethylperfluoro-1-octanesulfonami	526.00 > 169.00	4.092	4.092	0.0	1.000	3554911	50.9	102	3791	
41 Perfluorotridecanoic acid	663.00 > 619.00	4.279	4.279	0.0	1.000	3502001	47.5	95.0	336	
42 Perfluorotetradecanoic acid	713.00 > 169.00	4.505	4.505	0.0	1.000	841573	46.1	92.2	4605	
713.00 > 219.00	4.514	4.505	0.009	1.002	654407		1.29(0.00-0.00)		4200	
D 43 13C2-PFTeDA	715.00 > 670.00	4.514	4.514	0.0	3885452	48.5		97.0	8700	
45 Perfluorohexadecanoic acid	813.00 > 769.00	4.920	4.920	0.0	1.000	4674792	46.8	93.6	221	
D 44 13C2-PFHxDA	815.00 > 770.00	4.920	4.920	0.0	5264059	48.9		97.8	3545	
46 Perfluorooctadecanoic acid	913.00 > 869.00	5.260	5.260	0.0	1.000	4836461	50.5	101	337	

Reagents:

LCPFC_FULL-L5_00008

Amount Added: 1.00

Units: mL

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\2017.10.20B_040.d

Injection Date: 21-Oct-2017 02:13:36

Instrument ID: A8_N

Lims ID: CCV L5

Client ID:

Operator ID: SACINSTLCMS01

ALS Bottle#: 32

Worklist Smp#: 17

Injection Vol: 2.0 ul

Dil. Factor: 1.0000

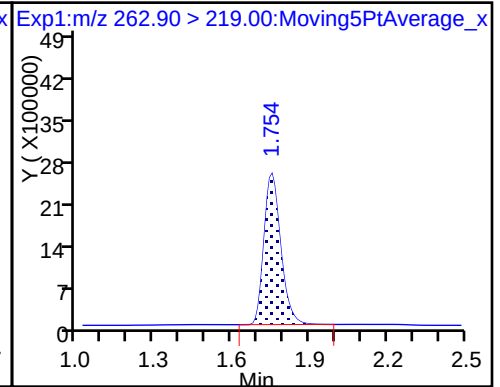
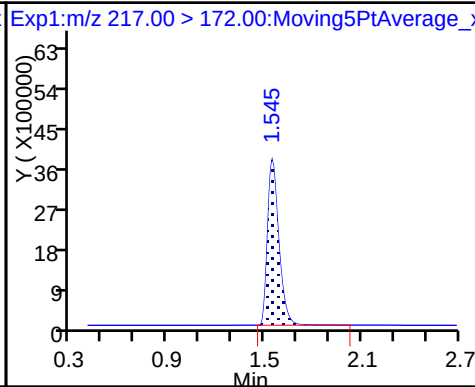
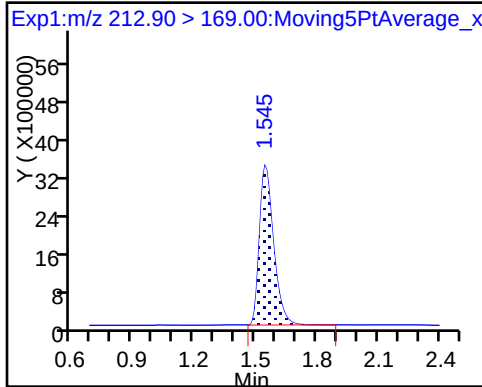
Method: A8_N

Limit Group: LC PFC ICAL

2 Perfluorobutyric acid

D 1 13C4 PFBA

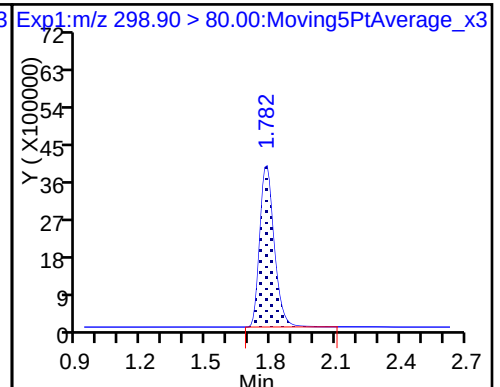
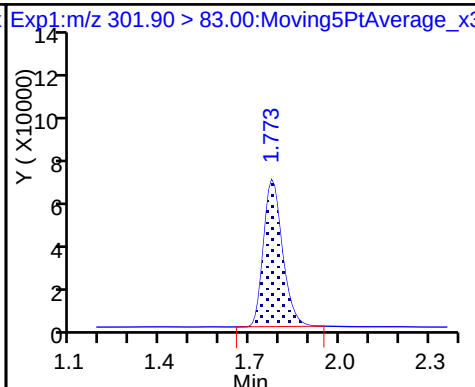
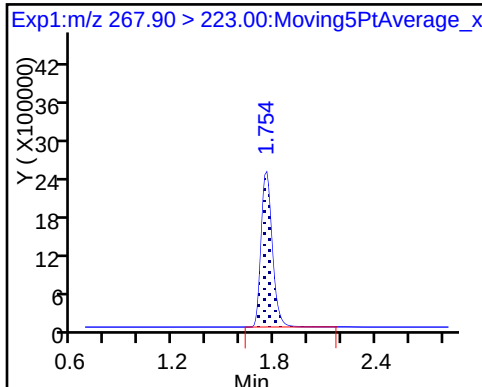
4 Perfluoropentanoic acid



D 3 13C5-PFPeA

D 47 13C3-PFBS

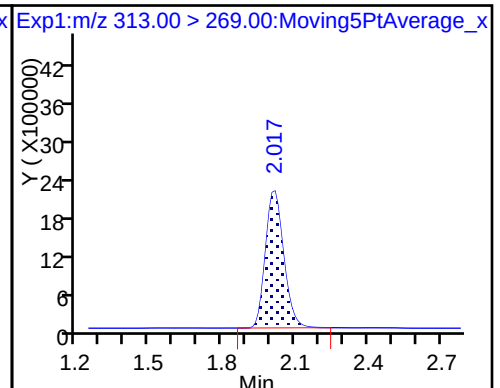
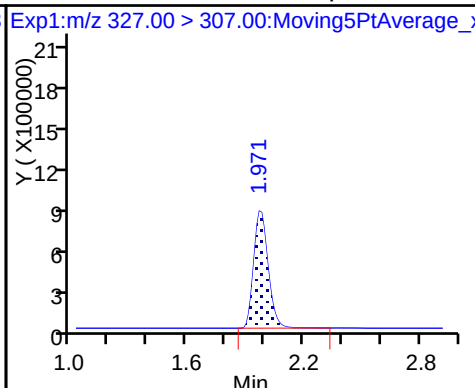
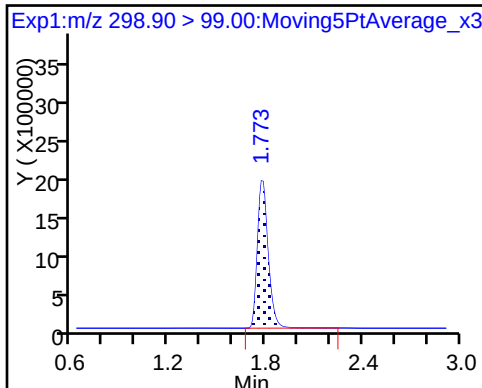
5 Perfluorobutanesulfonic acid



5 Perfluorobutanesulfonic acid

61 Sodium 1H,1H,2H,2H-perfluorohexanoic acid

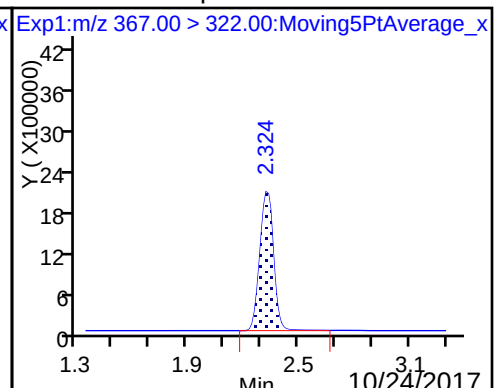
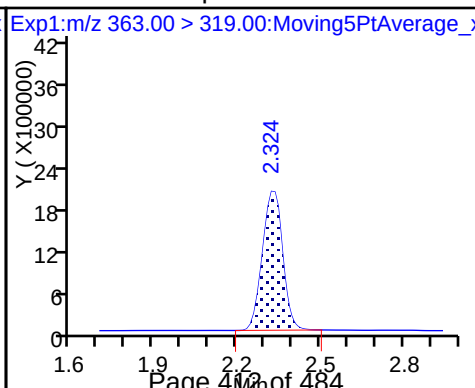
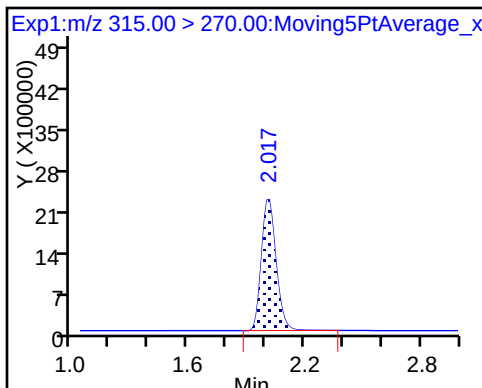
6 Perfluorohexanoic acid



D 7 13C2 PFHxA

10 Perfluoroheptanoic acid

D 9 13C4-PFHpA

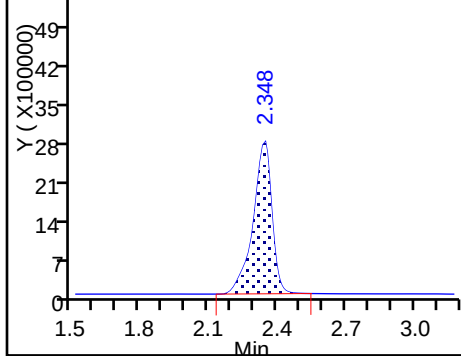


8 Perfluorohexanesulfonic acid

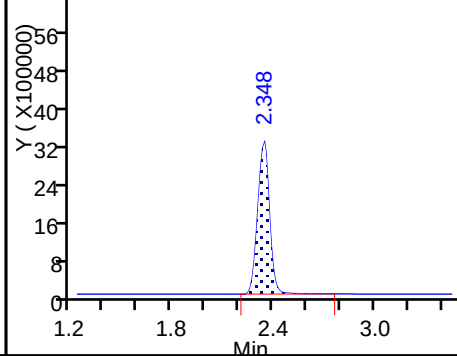
D 11 18O2 PFHxS

13 Sodium 1H,1H,2H,2H-perfluorooctane

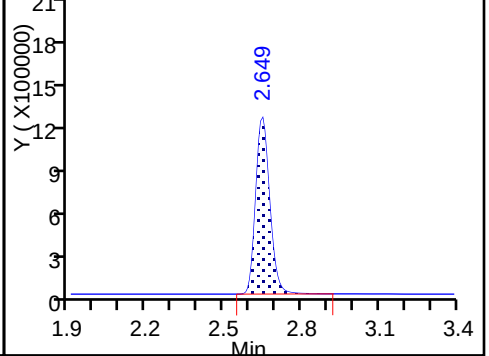
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Exp1:m/z 403.00 > 84.00:Moving5PtAverage_x3



Exp1:m/z 427.00 > 407.00:Moving5PtAverage_x3

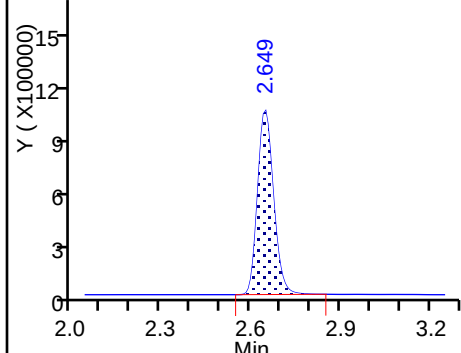


D 12 M2-6:2FTS

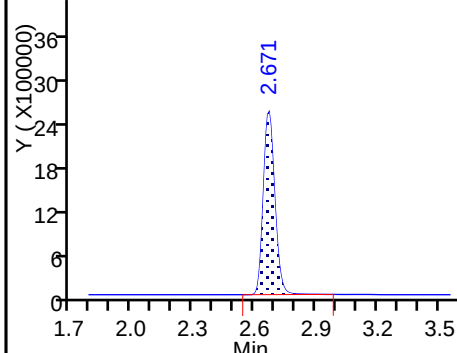
* 62 13C2-PFOA

15 Perfluorooctanoic acid

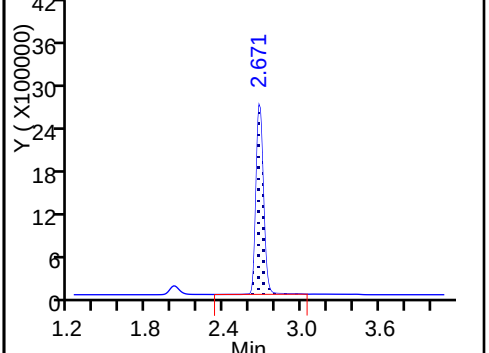
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Exp1:m/z 415.00 > 370.00:Moving5PtAverage_x3



Exp1:m/z 413.00 > 369.00:Moving5PtAverage_x3

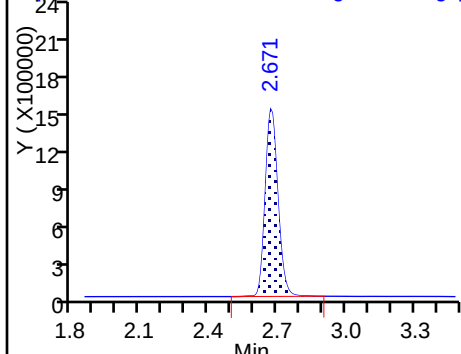


15 Perfluorooctanoic acid

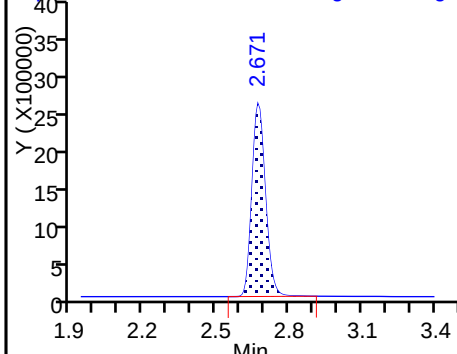
D 14 13C4 PFOA

16 Perfluoroheptanesulfonic Acid

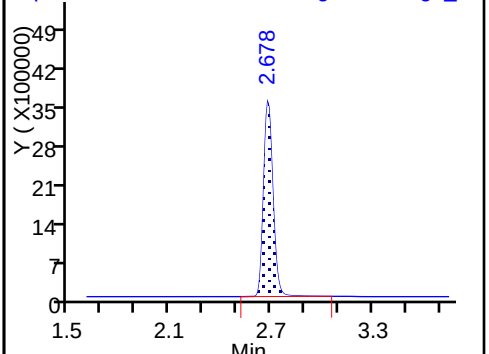
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Exp1:m/z 417.00 > 372.00:Moving5PtAverage_x3



Exp1:m/z 449.00 > 80.00:Moving5PtAverage_x3

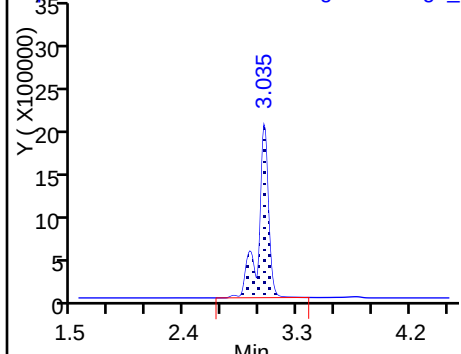


17 Perfluorooctane sulfonic acid

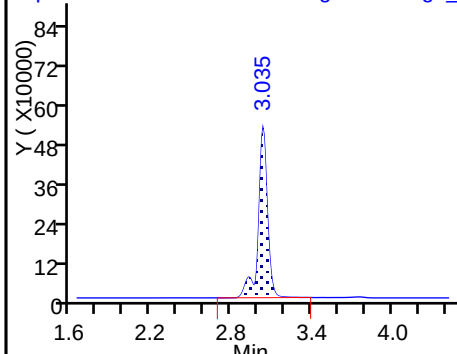
17 Perfluorooctane sulfonic acid

20 Perfluorononanoic acid

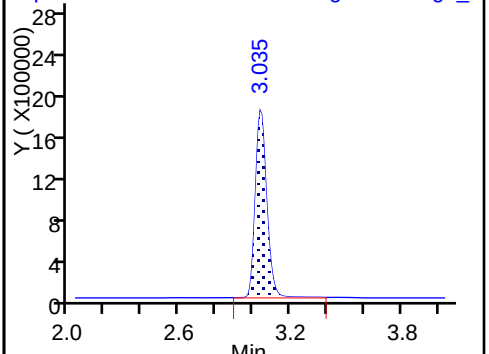
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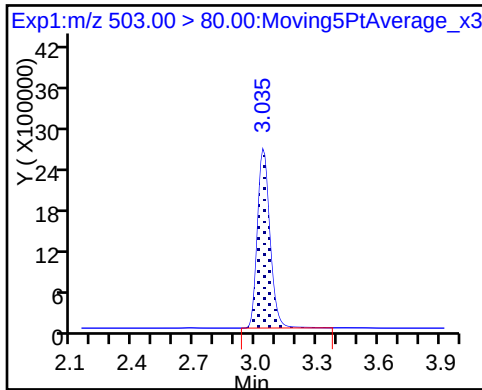
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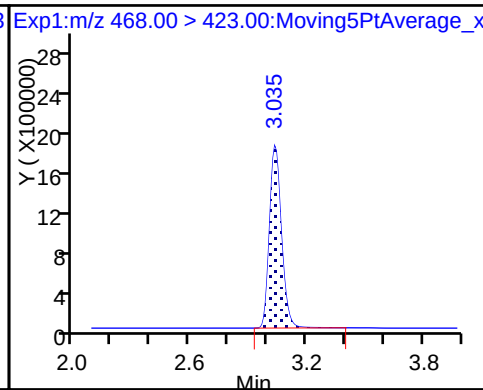
Exp1:m/z 463.00 > 419.00:Moving5PtAverage_x3



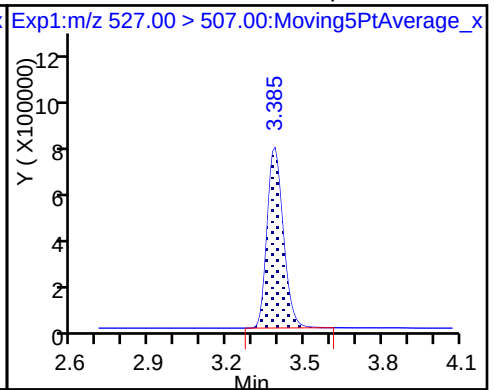
D 18 13C4 PFOS



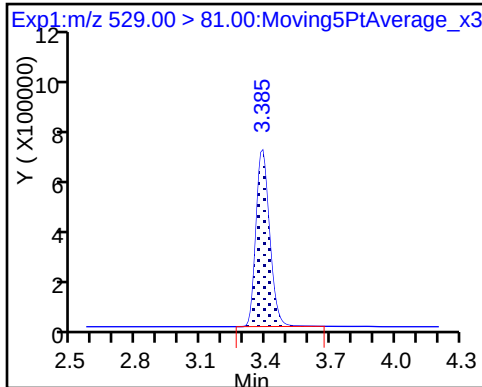
D 19 13C5 PFNA



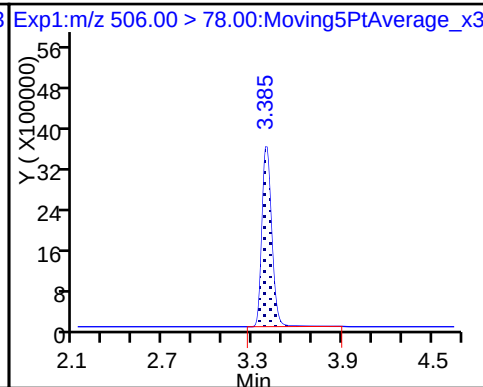
25 Sodium 1H,1H,2H,2H-perfluorodecane



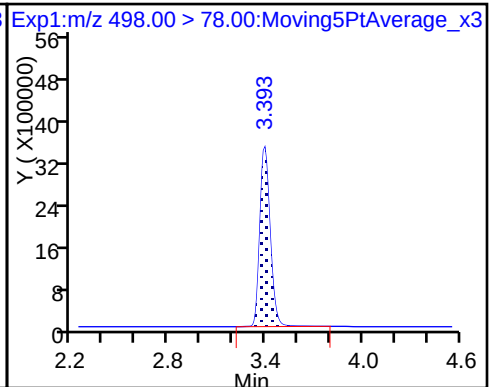
D 26 M2-8:2FTS



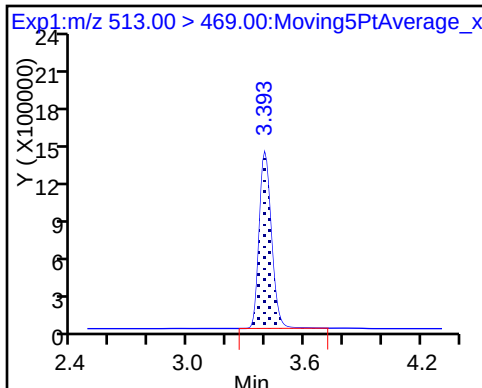
D 21 13C8 FOSA



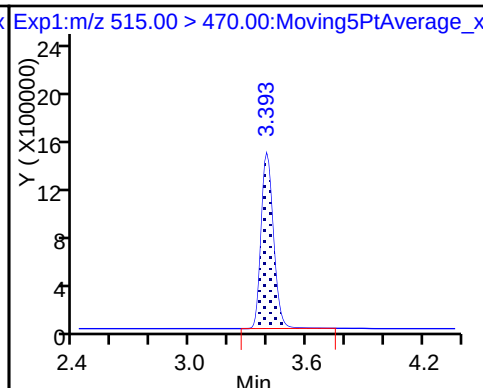
22 Perfluorooctane Sulfonamide



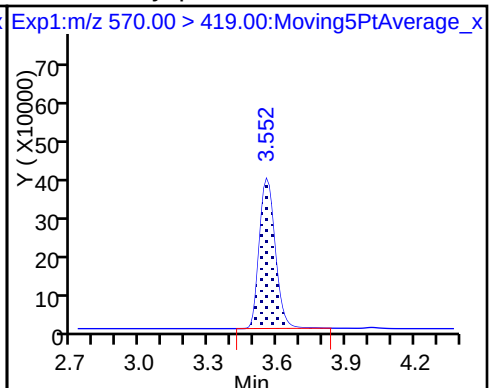
24 Perfluorodecanoic acid



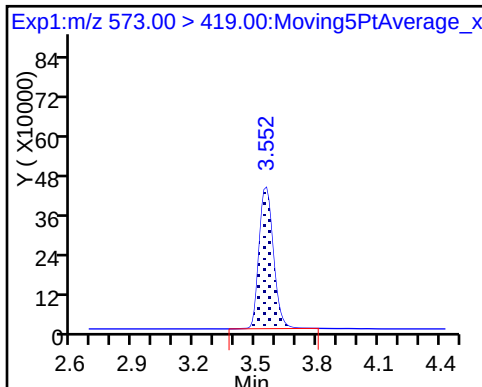
D 23 13C2 PFDA



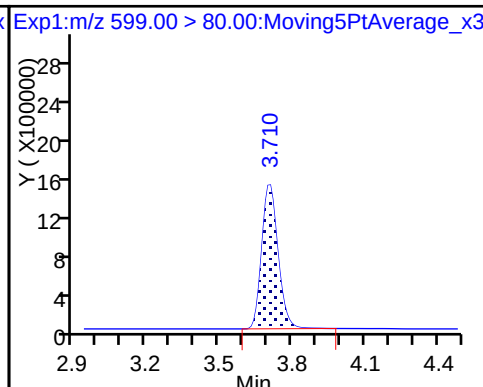
28 N-methyl perfluorooctane sulfonami



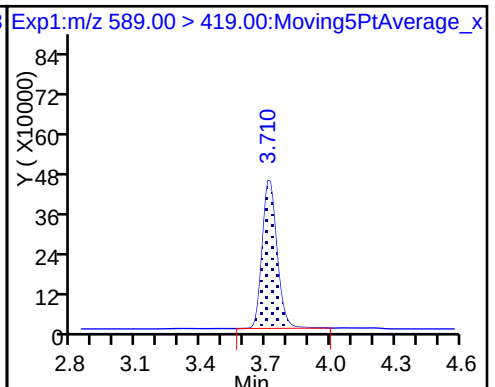
D 27 d3-NMeFOSAA



29 Perfluorodecane Sulfonic acid



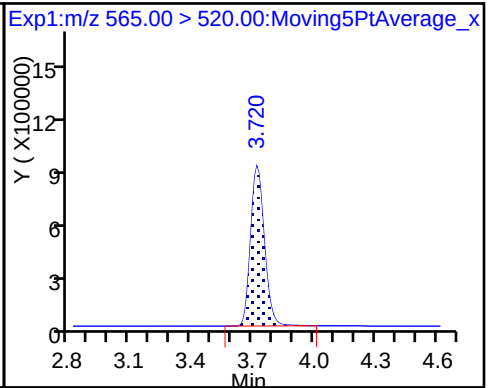
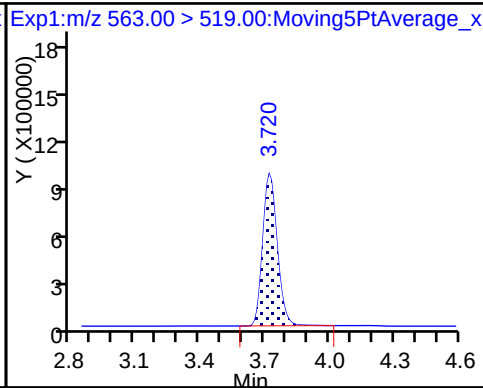
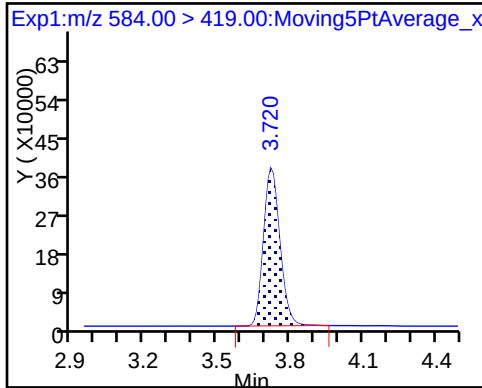
D 32 d5-NEtFOSAA



33 N-ethyl perfluorooctane sulfonamid

31 Perfluoroundecanoic acid

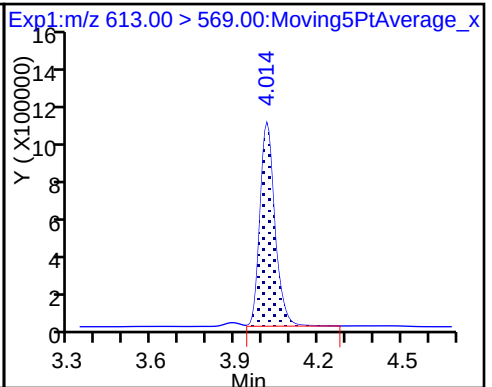
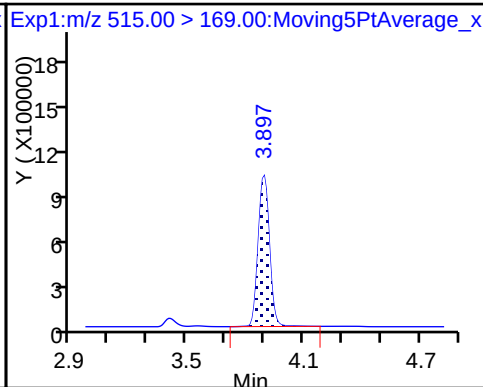
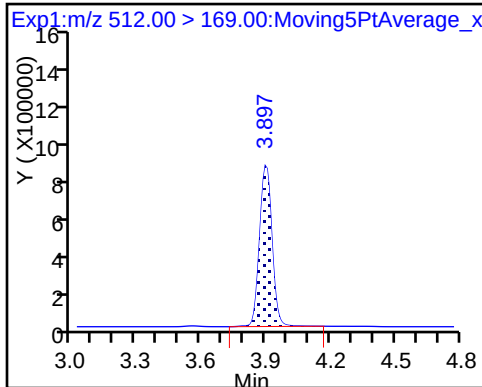
D 30 13C2 PFUnA



35 MeFOSA

D 34 d-N-MeFOSA-M

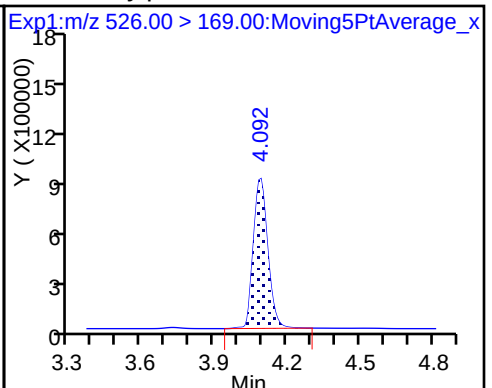
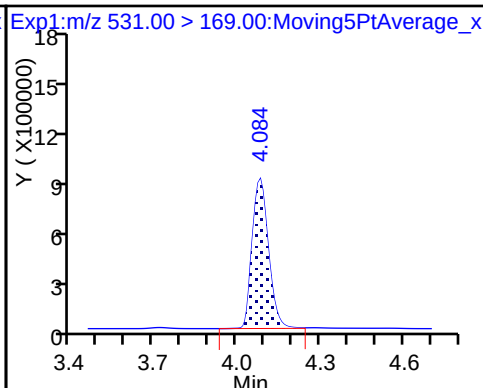
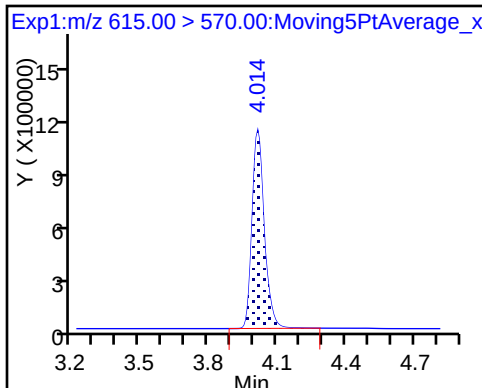
37 Perfluorododecanoic acid



D 36 13C2 PFDaA

D 38 d-N-EtFOSA-M

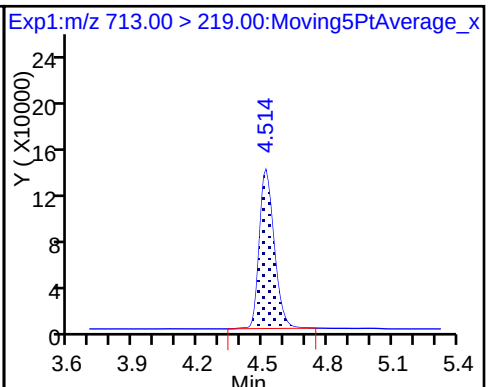
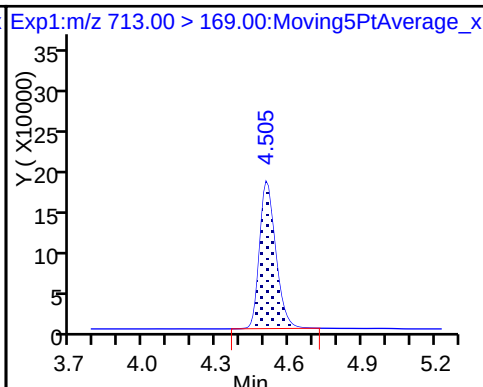
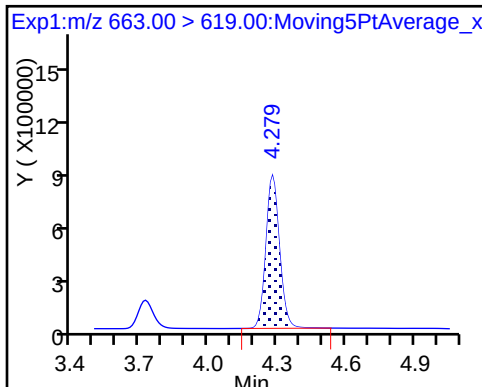
39 N-ethylperfluoro-1-octanesulfonami



41 Perfluorotridecanoic acid

42 Perfluorotetradecanoic acid

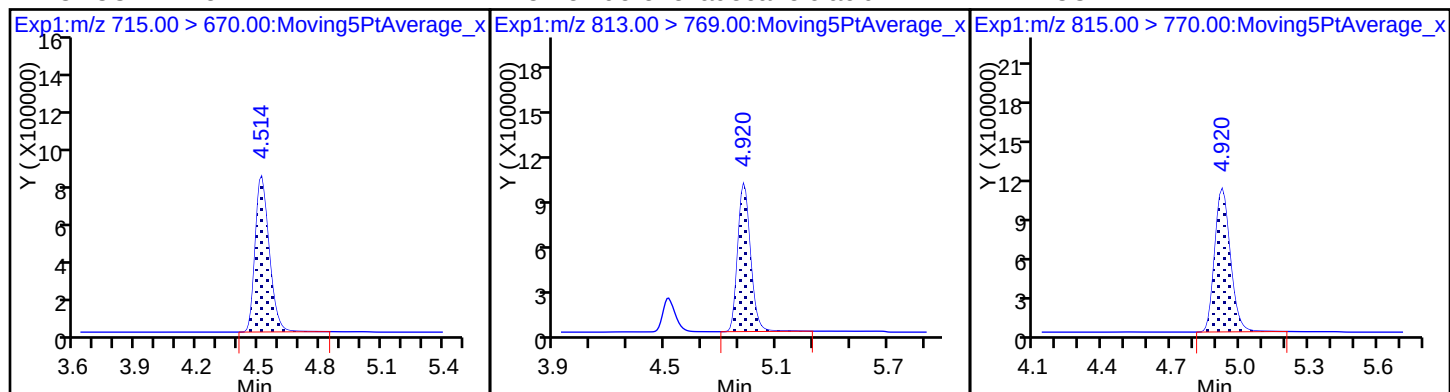
42 Perfluorotetradecanoic acid



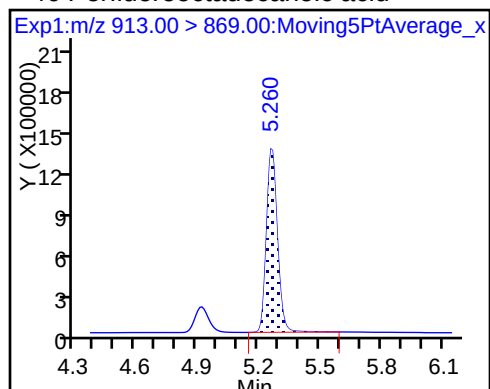
D 43 13C2-PFTeDA

45 Perfluorohexadecanoic acid

D 44 13C2-PFHxDA



46 Perfluorooctadecanoic acid



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 480-125692-1

SDG No.: _____

Lab Sample ID: CCV 320-190434/25 Calibration Date: 10/21/2017 03:08

Instrument ID: A8_N Calib Start Date: 10/12/2017 10:23

GC Column: GeminiC18 3x100 ID: 3.00 (mm) Calib End Date: 10/12/2017 11:11

Lab File ID: 2017.10.20B_048.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanoic acid (PFBA)	AveID	0.9306	0.9738		20.9	20.0	4.7	40.0
Perfluoropentanoic acid (PFPeA)	AveID	1.094	1.172		21.4	20.0	7.2	40.0
Perfluorobutanesulfonic acid (PFBS)	AveID	71.72	75.50		18.6	17.7	5.3	50.0
4:2 FTS	AveID	1.184	1.166		18.4	18.7	-1.5	50.0
Perfluorohexanoic acid (PFHxA)	AveID	0.9796	0.9839		20.1	20.0	0.4	40.0
Perfluoroheptanoic acid (PFHpA)	AveID	0.997	0.998		20.0	20.0	0.0	40.0
Perfluorohexanesulfonic acid (PFHxS)	AveID	1.079	1.092		18.4	18.2	1.2	40.0
6:2FTS	AveID	1.225	1.169		18.1	19.0	-4.6	40.0
Perfluorooctanoic acid (PFOA)	AveID	1.081	1.066		19.7	20.0	-1.4	40.0
Perfluorooctanesulfonic Acid (PFHpS)	AveID	1.212	1.290		20.3	19.0	6.4	50.0
Perfluorooctanesulfonic acid (PFOS)	AveID	1.051	1.069		18.9	18.6	1.7	40.0
Perfluorononanoic acid (PFNA)	AveID	0.9612	0.9669		20.1	20.0	0.6	40.0
8:2FTS	AveID	1.109	1.027		17.7	19.2	-7.4	40.0
Perfluorooctane Sulfonamide (FOSA)	AveID	1.032	1.026		19.9	20.0	-0.6	40.0
Perfluorodecanoic acid (PFDA)	AveID	0.9157	0.9079		19.8	20.0	-0.9	40.0
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)	AveID	0.9339	0.9498		20.3	20.0	1.7	40.0
Perfluorodecanesulfonic acid (PFDS)	AveID	0.6020	0.5970		19.1	19.3	-0.8	50.0
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)	AveID	0.8491	0.8510		20.0	20.0	0.2	40.0
Perfluoroundecanoic acid (PFUnA)	AveID	1.078	1.062		19.7	20.0	-1.5	40.0
MeFOSA	AveID	0.8856	0.8802		19.9	20.0	-0.6	50.0
Perfluorododecanoic acid (PFDoA)	AveID	0.9142	0.9176		20.1	20.0	0.4	40.0
N-EtFOSA-M	AveID	0.9414	0.9482		20.1	20.0	0.7	40.0
Perfluorotridecanoic Acid (PFTriA)	AveID	0.8895	0.8500		19.1	20.0	-4.4	50.0
Perfluorotetradecanoic acid (PFTeA)	AveID	0.2350	0.2147		18.3	20.0	-8.7	50.0
Perfluoro-n-hexadecanoic acid (PFHxDA)	AveID	0.9485	0.8399		17.7	20.0	-11.5	50.0
Perfluoro-n-octadecanoic acid (PFODA)	AveID	0.9089	0.8469		18.6	20.0	-6.8	50.0
13C4 PFBA	Ave	375511	362638		48.3	50.0	-3.4	50.0
13C5 PFPeA	Ave	235689	221451		47.0	50.0	-6.0	50.0
13C3-PFBS	Ave	6861	6179		41.9	46.5	-9.9	50.0
13C2 PFHxA	Ave	256447	236248		46.1	50.0	-7.9	50.0
13C4-PFHpA	Ave	238819	231863		48.5	50.0	-2.9	50.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 480-125692-1
 SDG No.: _____
 Lab Sample ID: CCV 320-190434/25 Calibration Date: 10/21/2017 03:08
 Instrument ID: A8_N Calib Start Date: 10/12/2017 10:23
 GC Column: GeminiC18 3x100 ID: 3.00 (mm) Calib End Date: 10/12/2017 11:11
 Lab File ID: 2017.10.20B_048.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
18O2 PFHxS	Ave	358500	350141		46.2	47.3	-2.3	50.0
M2-6:2FTS	Ave	88574	83867		45.0	47.5	-5.3	40.0
13C4 PFOA	Ave	224575	207324		46.2	50.0	-7.7	50.0
13C4 PFOS	Ave	252198	232588		44.1	47.8	-7.8	50.0
13C5 PFNA	Ave	171501	159296		46.4	50.0	-7.1	50.0
M2-8:2FTS	Ave	68925	67410		46.8	47.9	-2.2	40.0
13C8 FOSA	Ave	359961	323494		44.9	50.0	-10.1	50.0
13C2 PFDA	Ave	147860	132683		44.9	50.0	-10.3	50.0
d3-NMeFOSAA	Ave	47457	41380		43.6	50.0	-12.8	50.0
d5-NEtFOSAA	Ave	46292	41296		44.6	50.0	-10.8	50.0
13C2 PFUnA	Ave	97372	89745		46.1	50.0	-7.8	50.0
d-N-MeFOSA-M	Ave	87193	77851		44.6	50.0	-10.7	50.0
13C2 PFDoA	Ave	91340	86448		47.3	50.0	-5.4	50.0
d-N-EtFOSA-M	Ave	78898	72882		46.2	50.0	-7.6	50.0
13C2-PFTeDA	Ave	80085	78067		48.7	50.0	-2.5	50.0
13C2-PFHxDA	Ave	107686	107872		50.1	50.0	0.2	50.0

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\2017.10.20B_048.d
 Lims ID: CCV L4
 Client ID:
 Sample Type: CCV
 Inject. Date: 21-Oct-2017 03:08:48 ALS Bottle#: 31 Worklist Smp#: 25
 Injection Vol: 2.0 ul Dil. Factor: 1.0000
 Sample Info: CCV L4
 Misc. Info.: Plate: 1 Rack: 1
 Operator ID: SACINSTLCMS01 Instrument ID: A8_N
 Sublist: chrom-A8_N*sub18
 Method: \\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\A8_N.m
 Limit Group: LC PFC ICAL
 Last Update: 23-Oct-2017 14:18:52 Calib Date: 12-Oct-2017 11:11:26
 Integrator: Picker
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20171012-49071.b\2017.10.12ICAL_010.d

Column 1 : Det: EXP1

Process Host: XAWRK012

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
2 Perfluorobutyric acid										
212.90 > 169.00	1.545	1.545	0.0	1.000	7062981	20.9		105	788	
D 1 13C4 PFBA										
217.00 > 172.00	1.545	1.545	0.0		18131892	48.3		96.6	16004	
4 Perfluoropentanoic acid										
262.90 > 219.00	1.754	1.754	0.0	1.000	5190970	21.4		107	1496	
D 3 13C5-PFPeA										
267.90 > 223.00	1.754	1.754	0.0		11072541	47.0		94.0	30370	
D 47 13C3-PFBS										
301.90 > 83.00	1.773	1.773	0.0		287337	41.9		90.1	6548	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	1.773	1.782	-0.009	1.000	8248110	18.6		105	21647	
298.90 > 99.00	1.773	1.782	-0.009	1.000	3564413		2.31(0.00-0.00)		17502	
61 Sodium 1H,1H,2H,2H-perfluorohexane										
327.00 > 307.00	1.971	1.971	0.0	1.000	1826443	18.4		98.5	20108	
6 Perfluorohexanoic acid										
313.00 > 269.00	2.006	2.017	-0.011	1.000	4648905	20.1		100	3326	
D 7 13C2 PFHxA										
315.00 > 270.00	2.006	2.017	-0.011		11812392	46.1		92.1	20759	
10 Perfluoroheptanoic acid										
363.00 > 319.00	2.323	2.324	-0.001	1.000	4628241	20.0		100	2804	
D 9 13C4-PFHpA										
367.00 > 322.00	2.323	2.324	-0.001		11593167	48.5		97.1	21824	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	2.343	2.348	-0.005	1.000	6959309	18.4		101	5398	
D 11 18O2 PFHxS										
403.00 > 84.00	2.343	2.348	-0.005		16561649	46.2		97.7	29741	
13 Sodium 1H,1H,2H,2H-perfluorooctane										
427.00 > 407.00	2.649	2.649	0.0	1.000	1858428	18.1		95.4	14081	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 12 M2-6:2FTS										
429.00 > 81.00	2.641	2.649	-0.008		3983690	45.0		94.7	13091	
* 62 13C2-PFOA										
415.00 > 370.00	2.663	2.671	-0.008		10338772	50.0			27983	
15 Perfluorooctanoic acid										
413.00 > 369.00	2.670	2.671	-0.001	1.000	4419944	19.7		98.6	545	
413.00 > 169.00	2.670	2.671	-0.001	1.000	2366223		1.87(0.90-1.10)		6398	
D 14 13C4 PFOA										
417.00 > 372.00	2.670	2.671	-0.001		10366187	46.2		92.3	39891	
16 Perfluoroheptanesulfonic Acid										
449.00 > 80.00	2.678	2.678	0.0	1.000	5711103	20.3		106	16865	
17 Perfluorooctane sulfonic acid										
499.00 > 80.00	3.033	3.035	-0.002	1.000	4613108	18.9		102	2874	
499.00 > 99.00	3.033	3.035	-0.002	1.000	981331		4.70(0.90-1.10)		2382	
20 Perfluorononanoic acid										
463.00 > 419.00	3.041	3.035	0.006	1.000	3080347	20.1		101	2538	
D 18 13C4 PFOS										
503.00 > 80.00	3.033	3.035	-0.002		11117689	44.1		92.2	19225	
D 19 13C5 PFNA										
468.00 > 423.00	3.041	3.035	0.006		7964781	46.4		92.9	17979	
25 Sodium 1H,1H,2H,2H-perfluorodecane										
527.00 > 507.00	3.389	3.385	0.004	1.002	1326436	17.7		92.6	11069	
D 26 M2-8:2FTS										
529.00 > 81.00	3.380	3.385	-0.005		3228952	46.8		97.8	16440	
D 21 13C8 FOSA										
506.00 > 78.00	3.389	3.385	0.004		16174677	44.9		89.9	17276	
22 Perfluorooctane Sulfonamide										
498.00 > 78.00	3.389	3.393	-0.004	1.000	6638135	19.9		99.4	22884	
24 Perfluorodecanoic acid										
513.00 > 469.00	3.397	3.393	0.004	1.000	2409219	19.8		99.1	3109	
D 23 13C2 PFDA										
515.00 > 470.00	3.397	3.393	0.004		6634136	44.9		89.7	12546	
28 N-methyl perfluorooctane sulfonami										
570.00 > 419.00	3.554	3.552	0.002	1.000	786076	20.3		102	2772	
D 27 d3-NMeFOSAA										
573.00 > 419.00	3.554	3.552	0.002		2068983	43.6		87.2	8316	
29 Perfluorodecane Sulfonic acid										
599.00 > 80.00	3.712	3.710	0.002	1.000	2676876	19.1		99.2	7560	
D 32 d5-NEtFOSAA										
589.00 > 419.00	3.712	3.710	0.002		2064811	44.6		89.2	1935	
33 N-ethyl perfluorooctane sulfonamid										
584.00 > 419.00	3.721	3.720	0.001	1.003	702868	20.0		100	3737	
31 Perfluoroundecanoic acid										
563.00 > 519.00	3.721	3.720	0.001	1.000	1905834	19.7		98.5	2324	
D 30 13C2 PFUnA										
565.00 > 520.00	3.721	3.720	0.001		4487271	46.1		92.2	10550	
35 MeFOSA										
512.00 > 169.00	3.897	3.897	0.0	1.000	1370434	19.9		99.4	4696	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 34 d-N-MeFOSA-M	515.00 > 169.00	3.897	3.897	0.0	3892529	44.6		89.3	1269	
37 Perfluorododecanoic acid	613.00 > 569.00	4.015	4.014	0.001	1.000	1586477	20.1	100	826	
D 36 13C2 PFDaA	615.00 > 570.00	4.015	4.014	0.001	4322403	47.3		94.6	12102	
D 38 d-N-EtFOSA-M	531.00 > 169.00	4.078	4.084	-0.006	3644109	46.2		92.4	4775	
39 N-ethylperfluoro-1-octanesulfonami	526.00 > 169.00	4.087	4.092	-0.005	1.000	1382160	20.1	101	3997	
41 Perfluorotridecanoic acid	663.00 > 619.00	4.281	4.279	0.002	1.000	1469657	19.1	95.6	131	
42 Perfluorotetradecanoic acid	713.00 > 169.00	4.506	4.505	0.001	1.000	335174	18.3	91.3	3871	
713.00 > 219.00	4.515	4.505	0.010	1.002	243966		1.37(0.00-0.00)		2221	
D 43 13C2-PFTeDA	715.00 > 670.00	4.515	4.514	0.001	3903364	48.7		97.5	13523	
45 Perfluorohexadecanoic acid	813.00 > 769.00	4.919	4.920	-0.001	1.000	1811965	17.7	88.5	87.0	
D 44 13C2-PFHxDA	815.00 > 770.00	4.919	4.920	-0.001	5393609	50.1		100	5820	
46 Perfluorooctadecanoic acid	913.00 > 869.00	5.263	5.260	0.003	1.000	1827194	18.6	93.2	139	

Reagents:

LCPFC_FULL-L4_00008

Amount Added: 1.00

Units: mL

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\2017.10.20B_048.d

Injection Date: 21-Oct-2017 03:08:48

Instrument ID: A8_N

Lims ID: CCV L4

Client ID:

Operator ID: SACINSTLCMS01

ALS Bottle#: 31

Worklist Smp#: 25

Injection Vol: 2.0 ul

Dil. Factor: 1.0000

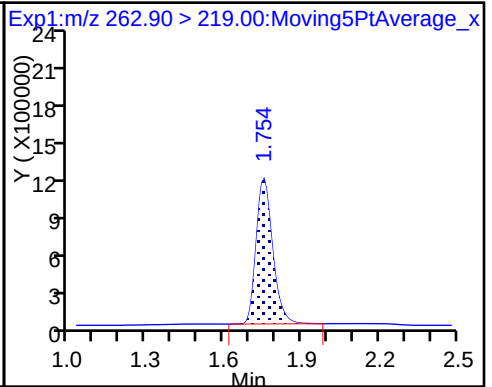
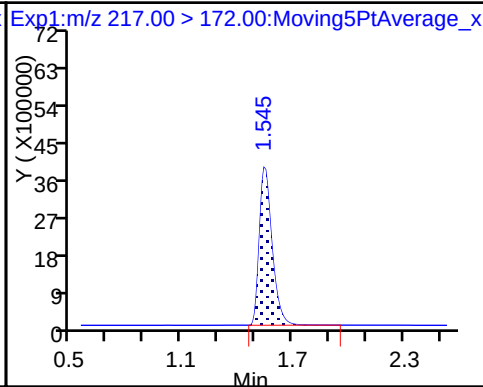
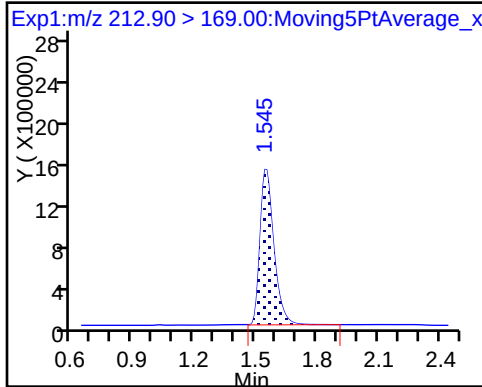
Method: A8_N

Limit Group: LC PFC ICAL

2 Perfluorobutyric acid

D 1 13C4 PFBA

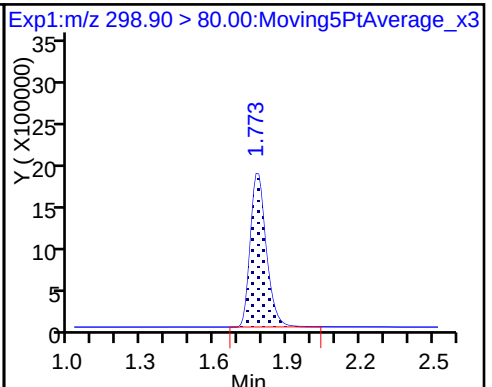
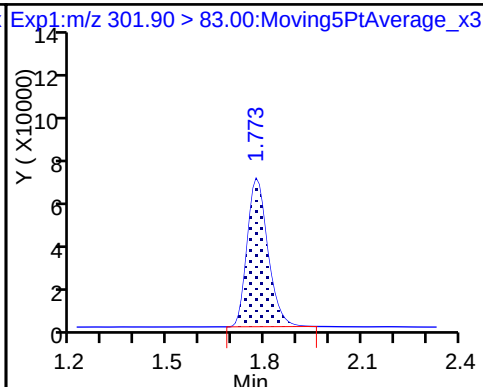
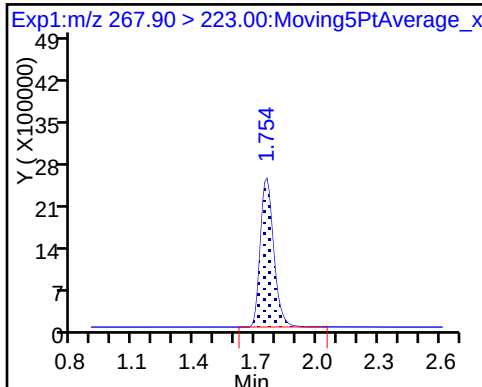
4 Perfluoropentanoic acid



D 3 13C5-PFPeA

D 47 13C3-PFBS

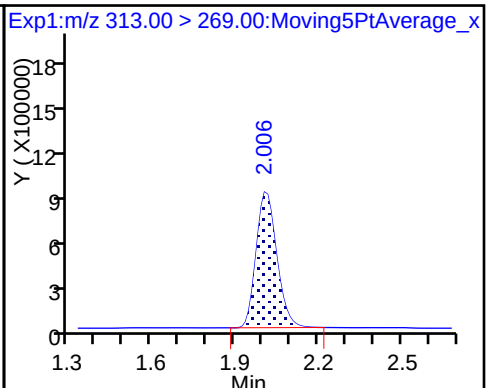
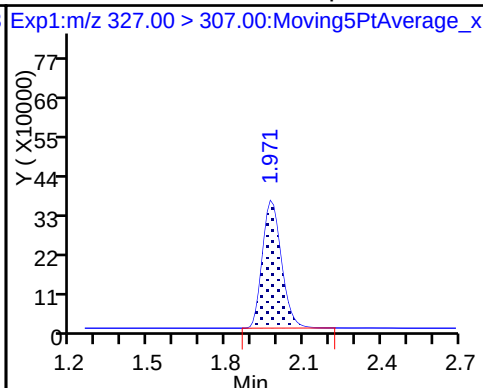
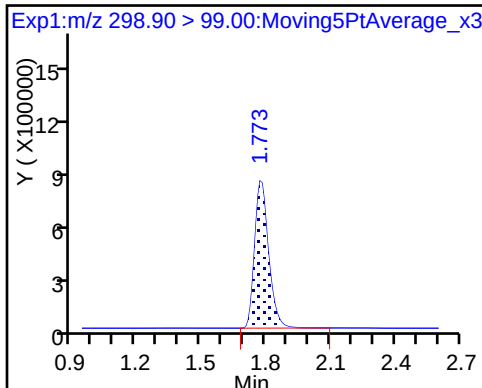
5 Perfluorobutanesulfonic acid



5 Perfluorobutanesulfonic acid

61 Sodium 1H,1H,2H,2H-perfluorohexanoic acid

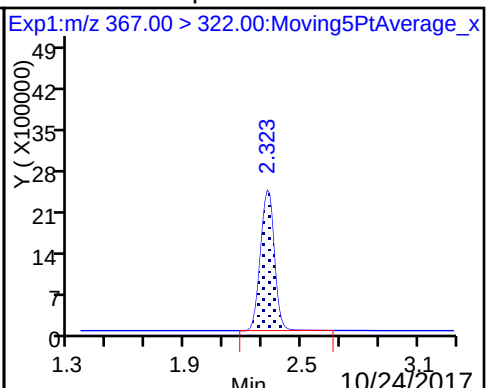
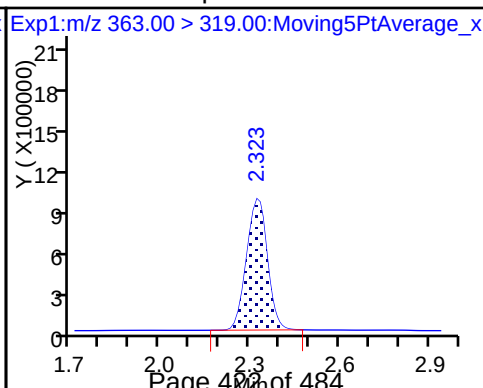
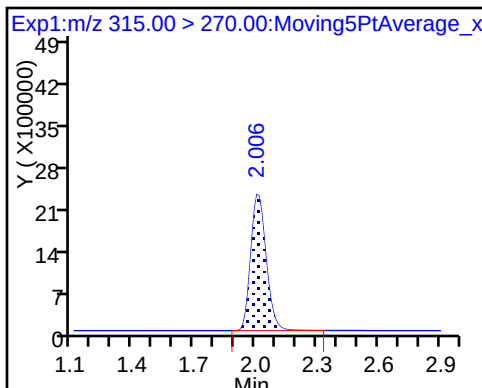
6 Perfluorohexanoic acid



D 7 13C2 PFHxA

10 Perfluoroheptanoic acid

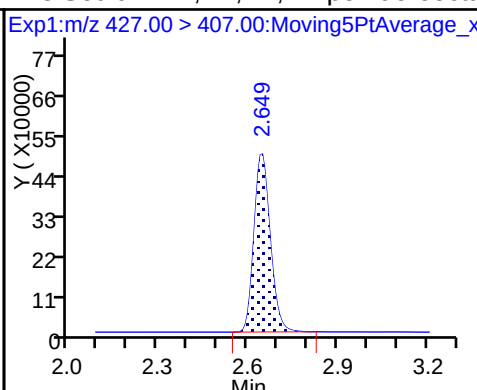
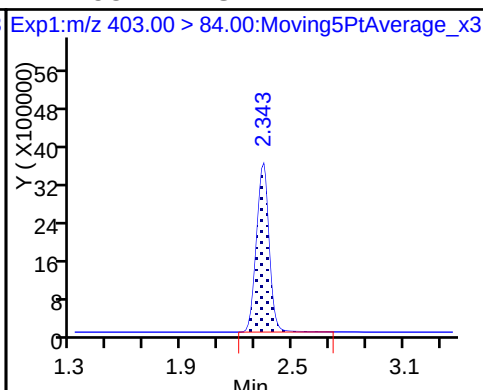
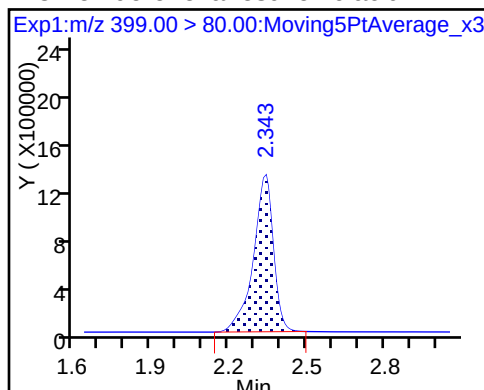
D 9 13C4-PFHpA



8 Perfluorohexanesulfonic acid

D 11 18O2 PFHxS

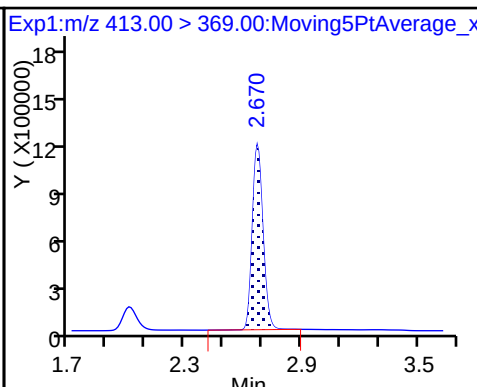
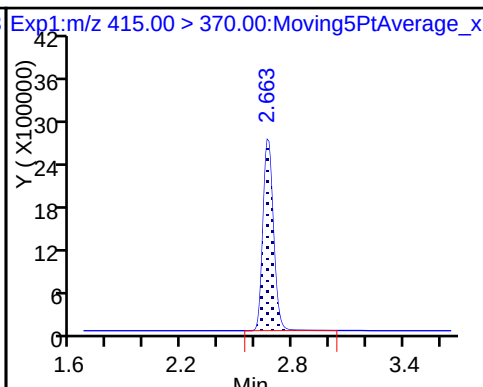
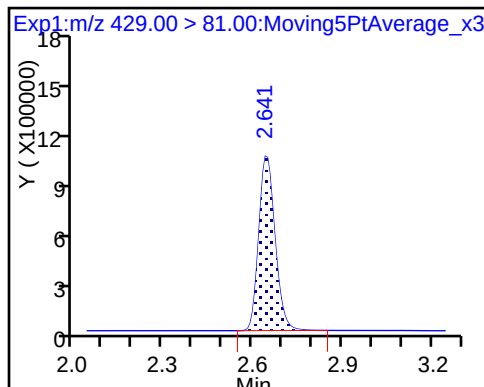
13 Sodium 1H,1H,2H,2H-perfluorooctane



D 12 M2-6:2FTS

* 62 13C2-PFOA

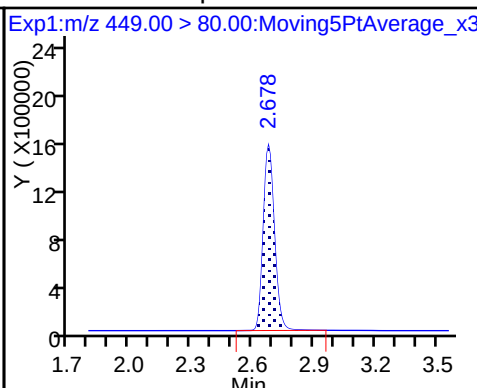
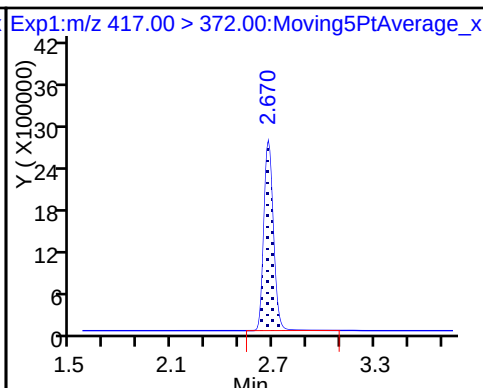
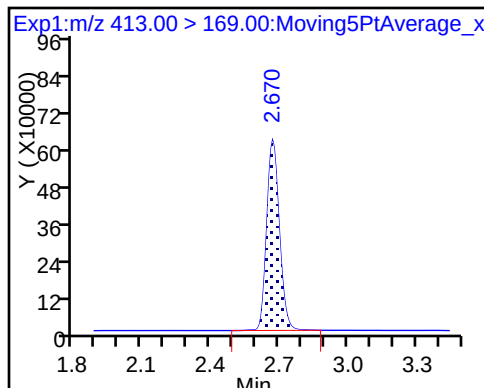
15 Perfluorooctanoic acid



15 Perfluorooctanoic acid

D 14 13C4 PFOA

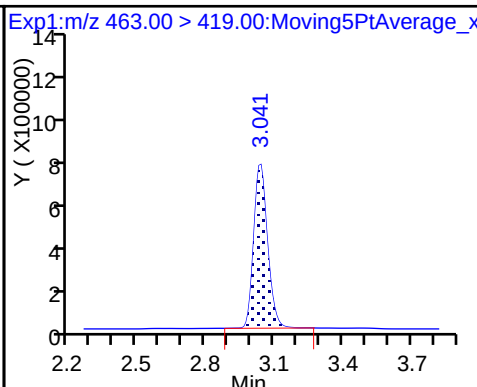
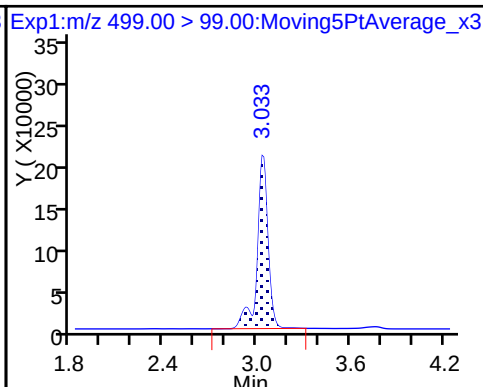
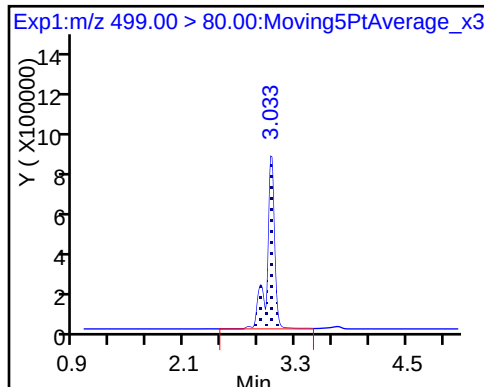
16 Perfluoroheptanesulfonic Acid



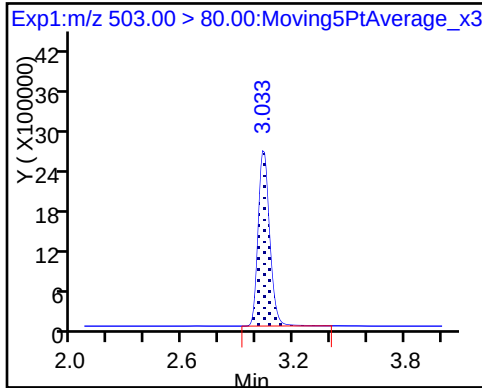
17 Perfluorooctane sulfonic acid

17 Perfluorooctane sulfonic acid

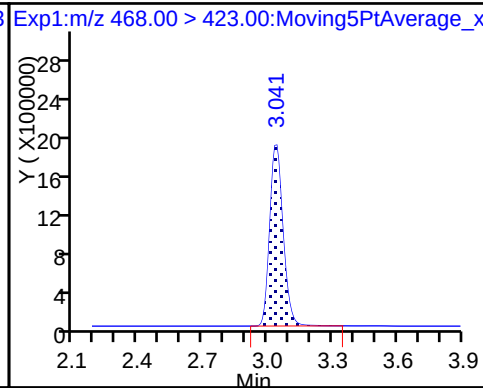
20 Perfluorononanoic acid



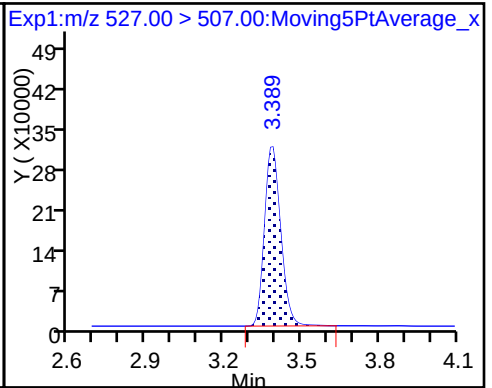
D 18 13C4 PFOS



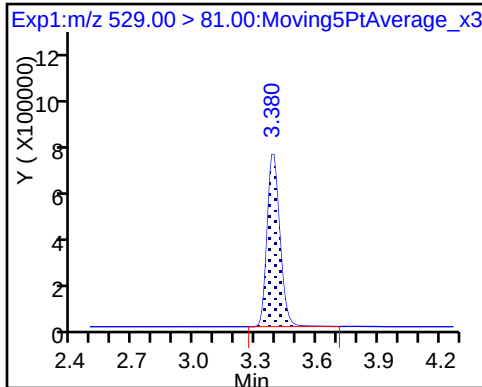
D 19 13C5 PFNA



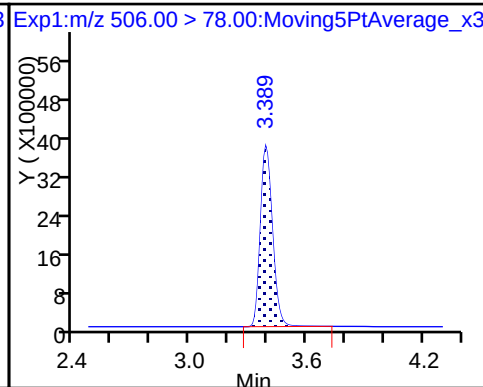
25 Sodium 1H,1H,2H,2H-perfluorodecane



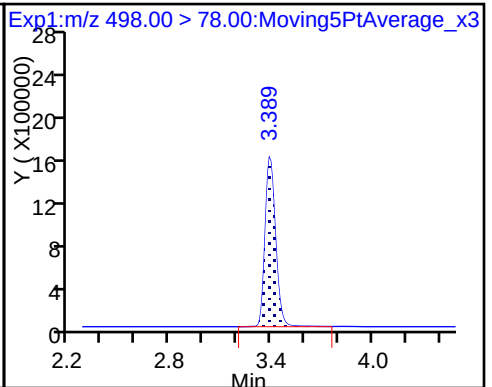
D 26 M2-8:2FTS



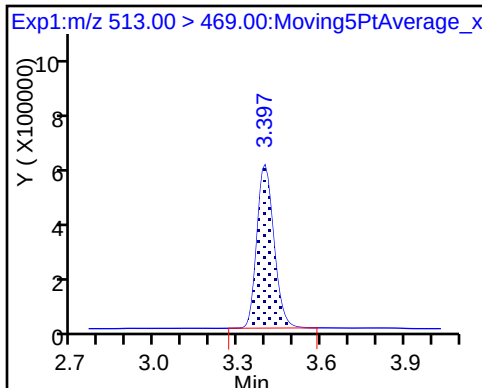
D 21 13C8 FOSA



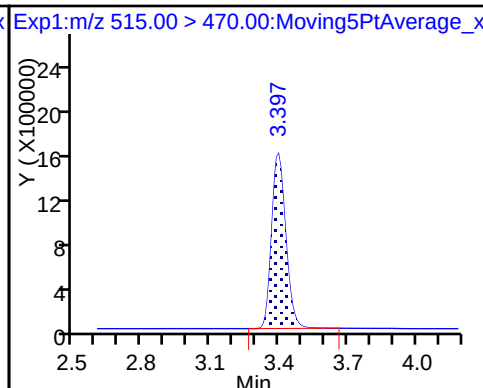
22 Perfluorooctane Sulfonamide



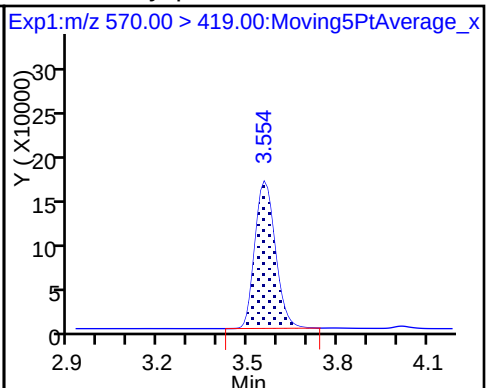
24 Perfluorodecanoic acid



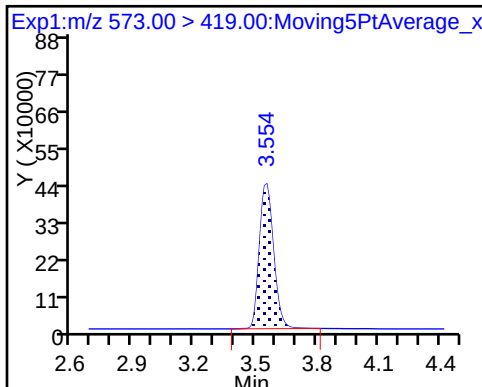
D 23 13C2 PFDA



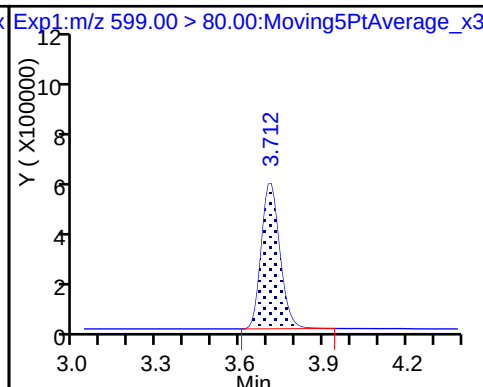
28 N-methyl perfluorooctane sulfonami



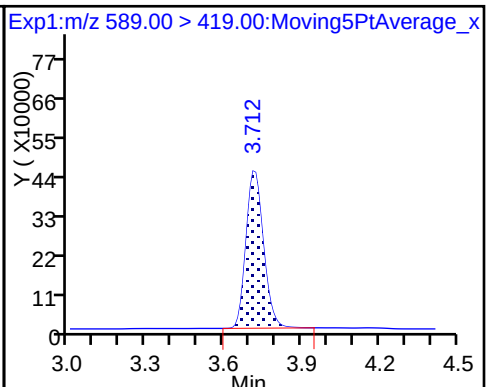
D 27 d3-NMeFOSAA



29 Perfluorodecane Sulfonic acid



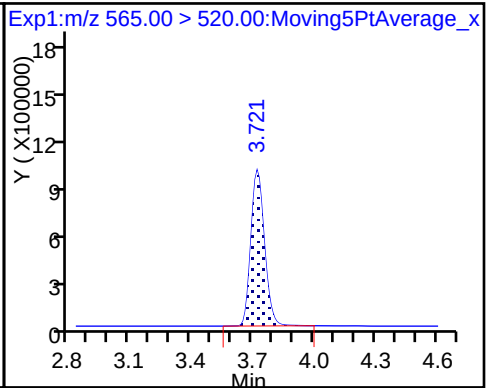
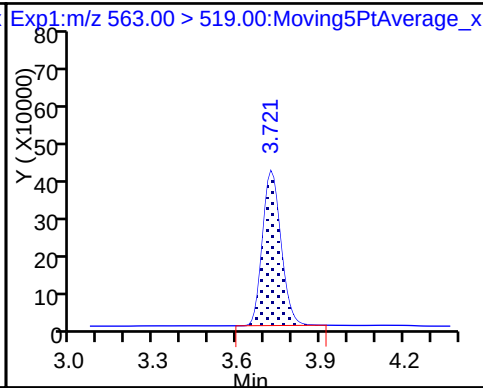
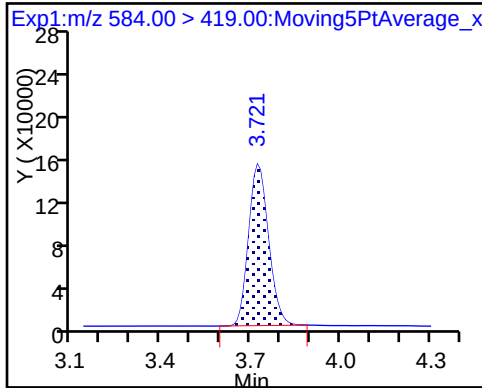
D 32 d5-NEtFOSAA



33 N-ethyl perfluorooctane sulfonamid

31 Perfluoroundecanoic acid

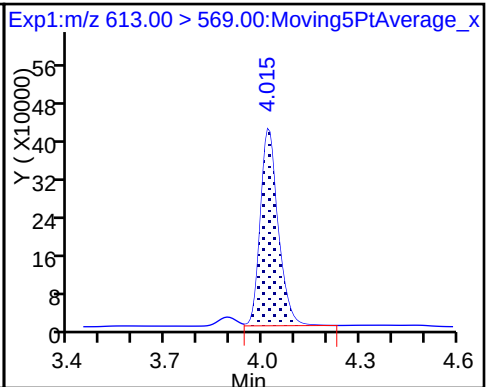
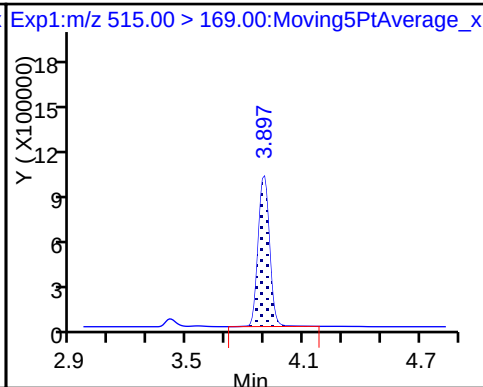
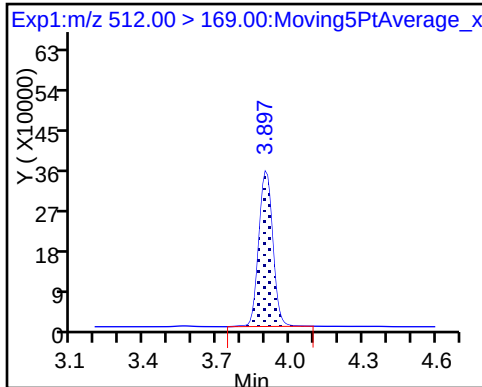
D 30 13C2 PFUnA



35 MeFOSA

D 34 d-N-MeFOSA-M

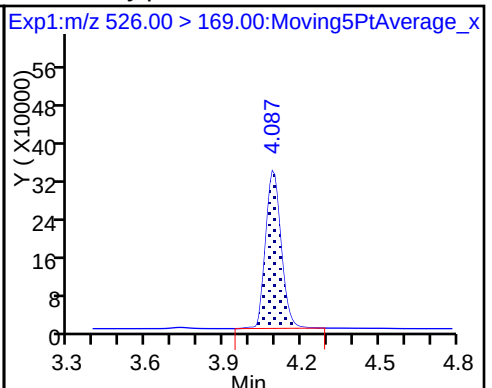
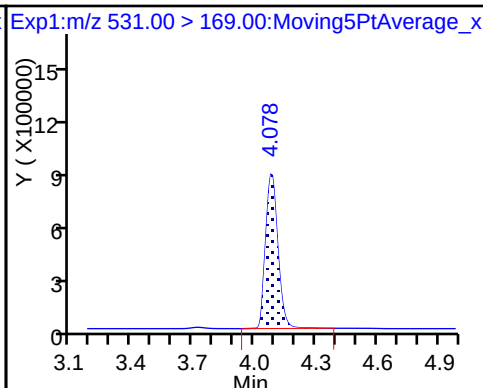
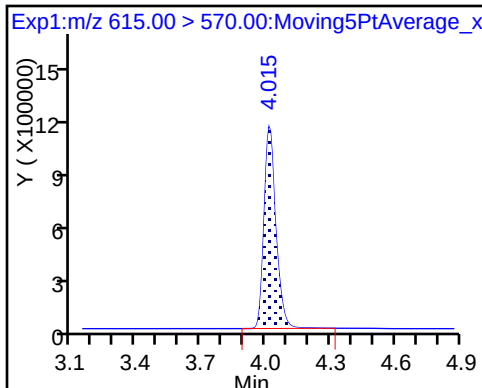
37 Perfluorododecanoic acid



D 36 13C2 PFDaA

D 38 d-N-EtFOSA-M

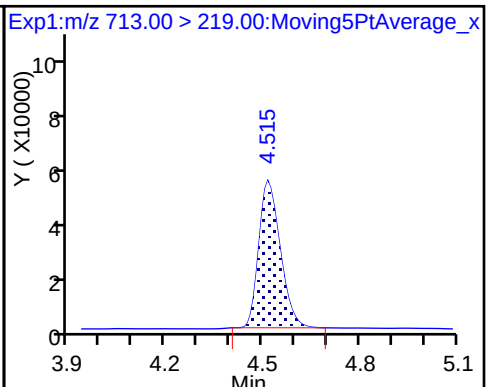
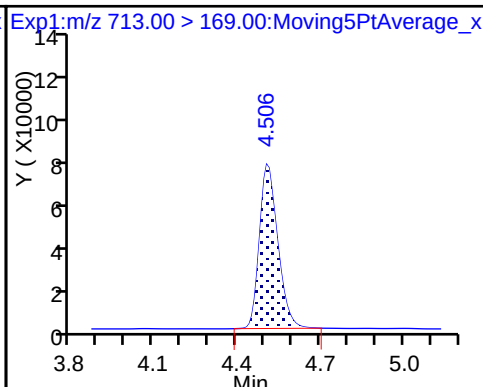
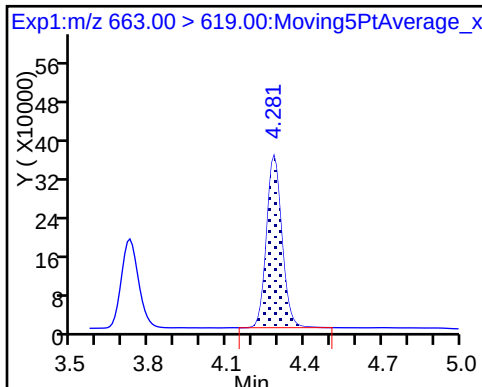
39 N-ethylperfluoro-1-octanesulfonami



41 Perfluorotridecanoic acid

42 Perfluorotetradecanoic acid

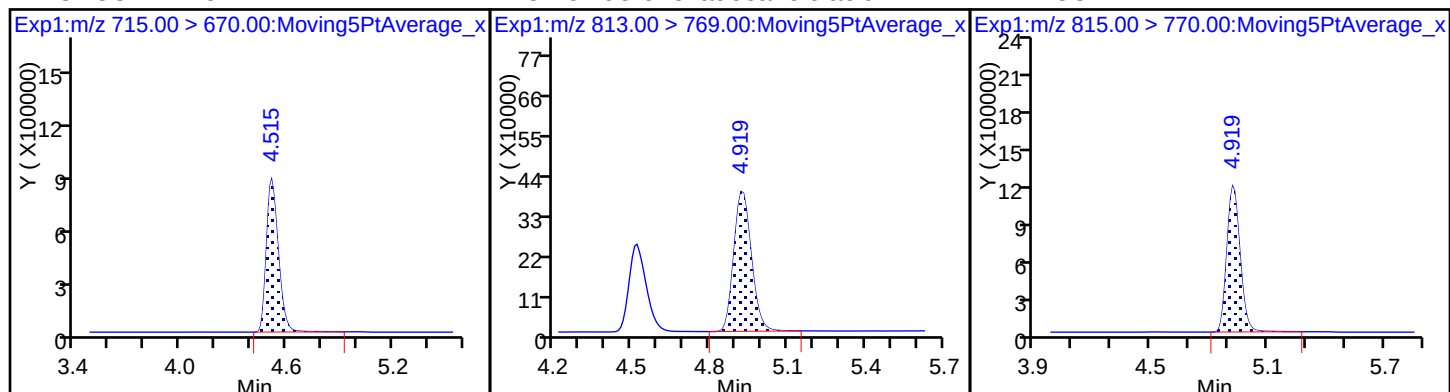
42 Perfluorotetradecanoic acid



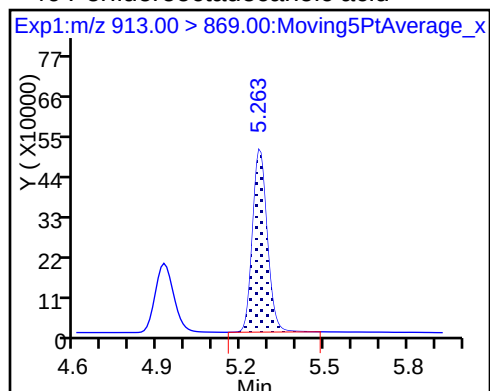
D 43 13C2-PFTeDA

45 Perfluorohexadecanoic acid

D 44 13C2-PFHxDA



46 Perfluorooctadecanoic acid



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Sacramento</u>	Job No.: <u>480-125692-1</u>
SDG No.: _____	
Client Sample ID: _____	Lab Sample ID: <u>MB 320-189663/1-A</u>
Matrix: <u>Water</u>	Lab File ID: <u>2017.10.20B_031.d</u>
Analysis Method: <u>537 (modified)</u>	Date Collected: _____
Extraction Method: <u>3535</u>	Date Extracted: <u>10/17/2017 08:45</u>
Sample wt/vol: <u>250 (mL)</u>	Date Analyzed: <u>10/21/2017 01:11</u>
Con. Extract Vol.: <u>0.50 (mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>2 (uL)</u>	GC Column: <u>GeminiC18 3x100 ID: 3 (mm)</u>
% Moisture: _____	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>190434</u>	Units: <u>ng/L</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	0.515	J	2.0	0.46
2706-90-3	Perfluoropentanoic acid (PFPeA)	ND		2.0	0.99
307-24-4	Perfluorohexanoic acid (PFHxA)	ND		2.0	0.79
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND		2.0	0.80
335-67-1	Perfluorooctanoic acid (PFOA)	ND		2.0	0.75
375-95-1	Perfluorononanoic acid (PFNA)	0.737	J	2.0	0.65
335-76-2	Perfluorodecanoic acid (PFDA)	0.603	J	2.0	0.44
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.841	J	2.0	0.75
307-55-1	Perfluorododecanoic acid (PFDoA)	0.658	J	2.0	0.58
72629-94-8	Perfluorotridecanoic Acid (PFTriA)	0.716	J	2.0	0.55
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.709	J	2.0	0.20
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.92
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	0.87
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND		2.0	0.71
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	ND		2.0	1.3
335-77-3	Perfluorodecanesulfonic acid (PFDS)	ND		2.0	1.2

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00992	13C4 PFBA	82		25-150
STL01893	13C5 PFPeA	79		25-150
STL00993	13C2 PFHxA	78		25-150
STL01892	13C4-PFHpA	86		25-150
STL00990	13C4 PFOA	79		25-150
STL00995	13C5 PFNA	78		25-150
STL00996	13C2 PFDA	74		25-150
STL00997	13C2 PFUnA	75		25-150
STL00998	13C2 PFDoA	65		25-150
STL00994	18O2 PFHxS	75		25-150
STL00991	13C4 PFOS	69		25-150

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\2017.10.20B_031.d
 Lims ID: MB 320-189663/1-A
 Client ID:
 Sample Type: MB
 Inject. Date: 21-Oct-2017 01:11:31 ALS Bottle#: 21 Worklist Smp#: 8
 Injection Vol: 2.0 ul Dil. Factor: 1.0000
 Sample Info: mb 320-189663/1-a
 Misc. Info.: Plate: 1 Rack: 4
 Operator ID: SACINSTLCMS01 Instrument ID: A8_N
 Method: \\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\A8_N.m
 Limit Group: LC PFC ICAL
 Last Update: 23-Oct-2017 14:16:11 Calib Date: 12-Oct-2017 11:11:26
 Integrator: Picker
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20171012-49071.b\2017.10.12ICAL_010.d
 Column 1 : Det: EXP1
 Process Host: XAWRK012

First Level Reviewer: phomsophat

Date: 21-Oct-2017 13:37:31

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
2 Perfluorobutyric acid										M
212.90 > 169.00	1.545	1.545	0.0	1.000	73575	0.2573			5.6	M
D 1 13C4 PFBA										
217.00 > 172.00	1.545	1.545	0.0		15361563	40.9		81.8	20917	
4 Perfluoropentanoic acid										
262.90 > 219.00	1.736	1.754	-0.018	1.000	47877	0.2346			14.0	
D 3 13C5-PFPeA										
267.90 > 223.00	1.745	1.754	-0.009		9329810	39.6		79.2	36826	
D 47 13C3-PFBS										
301.90 > 83.00	1.773	1.773	0.0		235271	34.3		73.7	5385	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	1.763	1.782	-0.019	1.000	65705	0.1811			559	
298.90 > 99.00	1.763	1.782	-0.019	1.000	25420		2.58(0.00-0.00)		140	
61 Sodium 1H,1H,2H,2H-perfluorohexane										
327.00 > 307.00	1.960	1.971	-0.011	1.000	11287	0.1339			367	
6 Perfluorohexanoic acid										
313.00 > 269.00	2.005	2.017	-0.012	1.000	42055	0.2147			52.8	
D 7 13C2 PFHxA										
315.00 > 270.00	2.005	2.017	-0.012		9996705	39.0		78.0	26089	
10 Perfluoroheptanoic acid										
363.00 > 319.00	2.318	2.324	-0.006	1.000	45528	0.2218			48.8	
D 9 13C4-PFHpA										
367.00 > 322.00	2.318	2.324	-0.006		10291624	43.1		86.2	21757	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	2.337	2.348	-0.011	1.000	101293	0.3489			628	
D 11 18O2 PFHxS										
403.00 > 84.00	2.337	2.348	-0.011		12723117	35.5		75.0	27012	
13 Sodium 1H,1H,2H,2H-perfluorooctane										
427.00 > 407.00	2.640	2.649	-0.009	1.000	90121	1.03			1200	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 12 M2-6:2FTS										
429.00 > 81.00	2.640	2.649	-0.009		3380708	38.2		80.4	17960	
* 62 13C2-PFOA										
415.00 > 370.00	2.662	2.671	-0.009		10355663	50.0			19509	
15 Perfluorooctanoic acid										M
413.00 > 369.00	2.662	2.671	-0.009	1.000	58365	0.3054			8.6	
413.00 > 169.00	2.662	2.671	-0.009	1.000	31291		1.87(0.90-1.10)		231	M
D 14 13C4 PFOA										
417.00 > 372.00	2.662	2.671	-0.009		8842743	39.4		78.8	22735	
16 Perfluoroheptanesulfonic Acid										
449.00 > 80.00	2.676	2.678	-0.002	1.000	40626	0.1914			458	
17 Perfluorooctane sulfonic acid										M
499.00 > 80.00	3.035	3.035	0.0	1.000	61288	0.3329			61.8	
499.00 > 99.00	3.035	3.035	0.0	1.000	14203		4.32(0.90-1.10)		47.6	M
20 Perfluorononanoic acid										
463.00 > 419.00	3.035	3.035	0.0	1.000	47459	0.3684			40.9	
D 18 13C4 PFOS										
503.00 > 80.00	3.035	3.035	0.0		8370993	33.2		69.4	21980	
D 19 13C5 PFNA										
468.00 > 423.00	3.035	3.035	0.0		6701191	39.1		78.1	13262	
25 Sodium 1H,1H,2H,2H-perfluorodecane										
527.00 > 507.00	3.377	3.385	-0.008	1.000	14282	0.2291			371	
D 26 M2-8:2FTS										
529.00 > 81.00	3.377	3.385	-0.008		2692299	39.1		81.5	12241	
D 21 13C8 FOSA										
506.00 > 78.00	3.386	3.385	0.001		9466399	26.3		52.6	13889	
22 Perfluorooctane Sulfonamide										
498.00 > 78.00	3.386	3.393	-0.007	1.000	98905	0.5061			826	
24 Perfluorodecanoic acid										
513.00 > 469.00	3.386	3.393	-0.007	1.000	30386	0.3013			45.0	
D 23 13C2 PFDA										
515.00 > 470.00	3.386	3.393	-0.007		5505535	37.2		74.5	15781	
28 N-methyl perfluorooctane sulfonami										
570.00 > 419.00	3.548	3.552	-0.004	1.003	10131	0.4018			68.7	
D 27 d3-NMeFOSAA										
573.00 > 419.00	3.538	3.552	-0.014		1350000	28.4		56.9	7505	
29 Perfluorodecane Sulfonic acid										
599.00 > 80.00	3.695	3.710	-0.015	1.000	27870	0.2643			276	
D 32 d5-NEtFOSAA										
589.00 > 419.00	3.705	3.710	-0.005		1416802	30.6		61.2	1571	
33 N-ethyl perfluorooctane sulfonamid										
584.00 > 419.00	3.715	3.720	-0.005	1.003	9099	0.3782			110	
31 Perfluoroundecanoic acid										
563.00 > 519.00	3.715	3.720	-0.005	1.000	32940	0.4206			41.1	
D 30 13C2 PFUnA										
565.00 > 520.00	3.715	3.720	-0.005		3631452	37.3		74.6	9182	
35 MeFOSA										
512.00 > 169.00	3.891	3.897	-0.006	1.000	10966	46.1			220	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 34 d-N-MeFOSA-M										
515.00 > 169.00	3.891	3.897	-0.006		13443	0.1542		0.3	7.4	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.001	4.014	-0.013	1.000	17731	0.3290			19.8	
D 36 13C2 PFDaA										
615.00 > 570.00	4.008	4.014	-0.006		2947753	32.3		64.5	6187	
D 38 d-N-EtFOSA-M										
531.00 > 169.00	4.078	4.084	-0.006		12032	0.1525		0.3	36.4	
39 N-ethylperfluoro-1-octanesulfonami										
526.00 > 169.00	4.087	4.092	-0.005	1.000	10873	48.0			166	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.265	4.279	-0.014	1.000	18777	0.3581			2.1	
42 Perfluorotetradecanoic acid										
713.00 > 169.00	4.506	4.505	0.001	1.000	6131	0.3545			140	
713.00 > 219.00	4.506	4.505	0.001	1.000	4189		1.46(0.00-0.00)		54.1	
D 43 13C2-PFTeDA										
715.00 > 670.00	4.506	4.514	-0.008		3679175	45.9		91.9	6562	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	4.916	4.920	-0.004	1.000	57932	0.9085			3.9	
D 44 13C2-PFHxDA										
815.00 > 770.00	4.906	4.920	-0.014		3361461	31.2		62.4	2076	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	5.253	5.260	-0.007	1.000	46152	0.7553			4.9	

QC Flag Legend

Review Flags

M - Manually Integrated

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\2017.10.20B_031.d

Injection Date: 21-Oct-2017 01:11:31

Instrument ID: A8_N

Lims ID: MB 320-189663/1-A

Client ID:

Operator ID: SACINSTLCMS01

ALS Bottle#: 21

Worklist Smp#: 8

Injection Vol: 2.0 ul

Dil. Factor: 1.0000

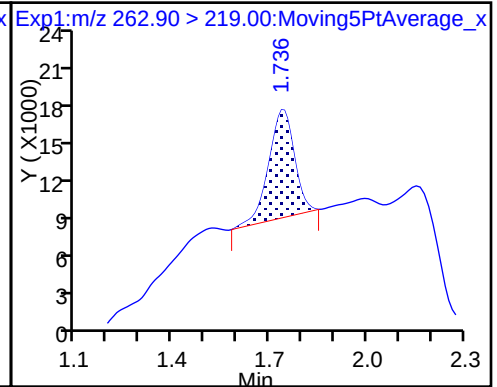
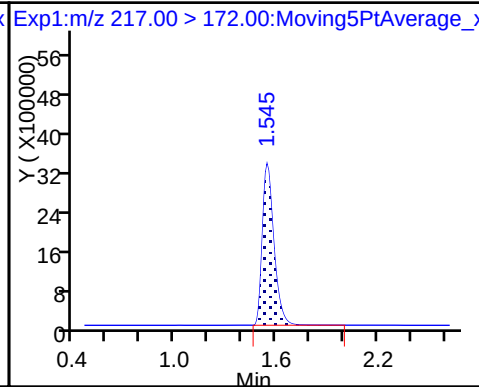
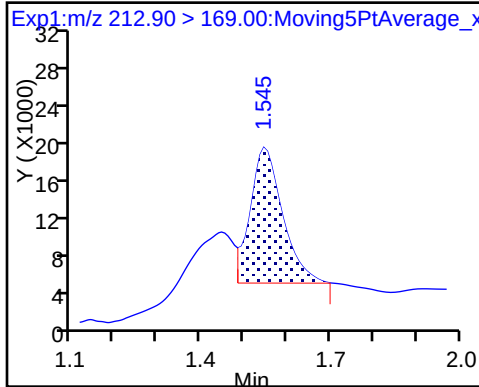
Method: A8_N

Limit Group: LC PFC ICAL

2 Perfluorobutyric acid (M)

D 1 13C4 PFBA

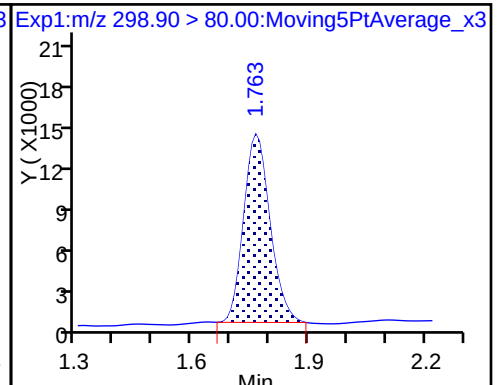
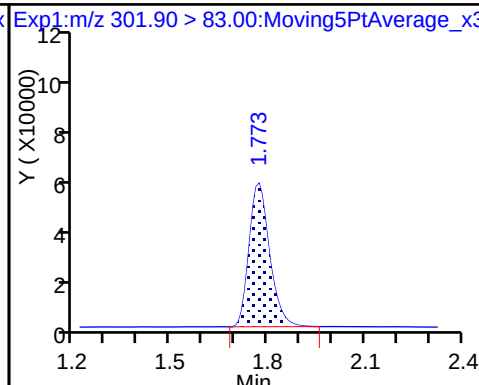
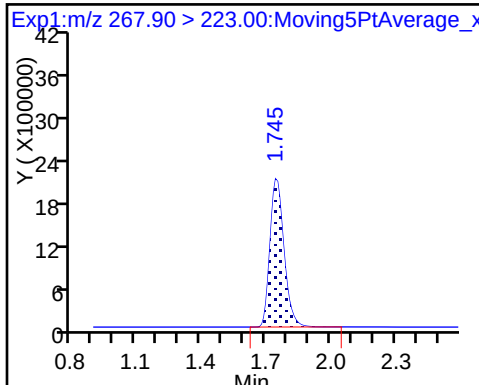
4 Perfluoropentanoic acid



D 3 13C5-PFPeA

D 47 13C3-PFBS

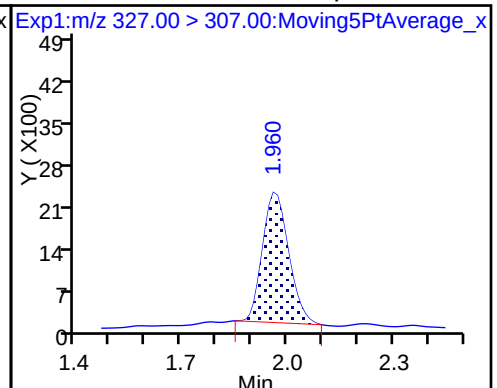
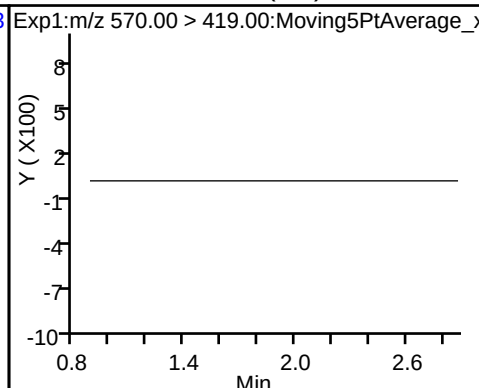
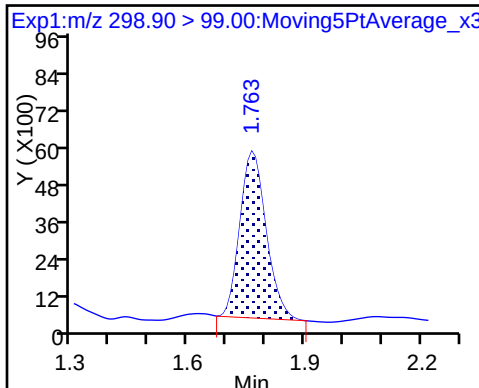
5 Perfluorobutanesulfonic acid



5 Perfluorobutanesulfonic acid

D 40 d-N-EtFOSE-M (ND)

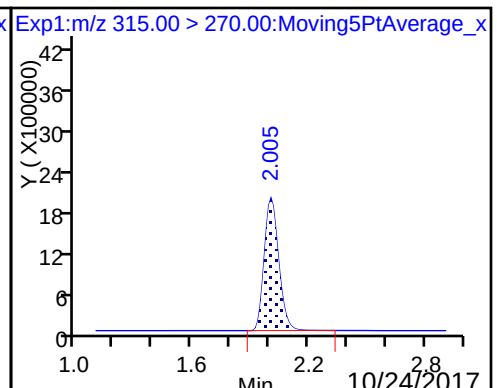
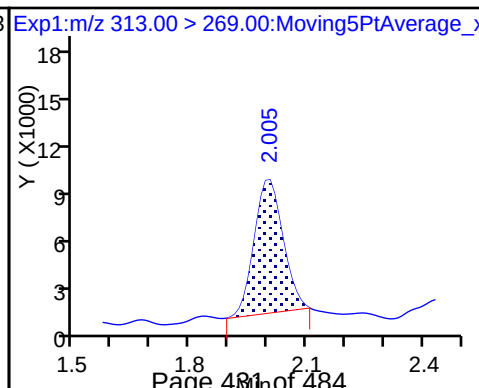
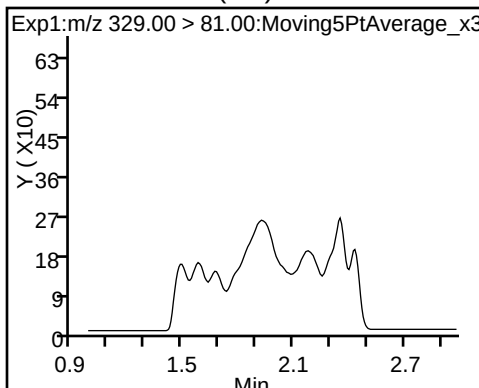
61 Sodium 1H,1H,2H,2H-perfluorohexane



D 60 M2-4:2FTS (ND)

6 Perfluorohexanoic acid

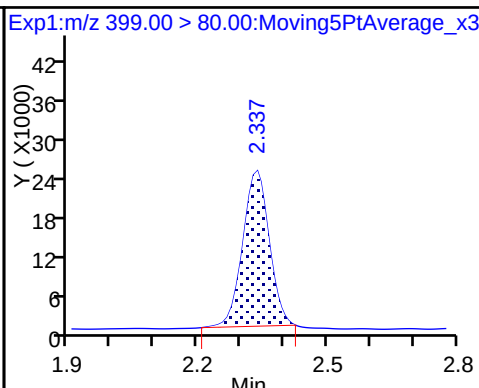
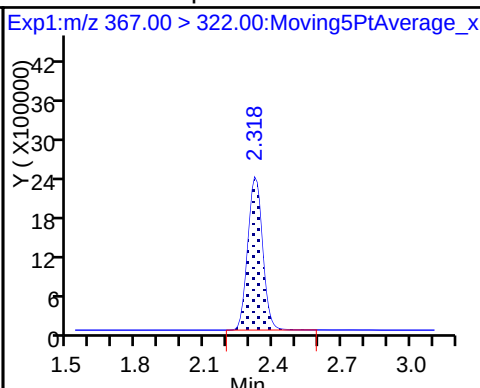
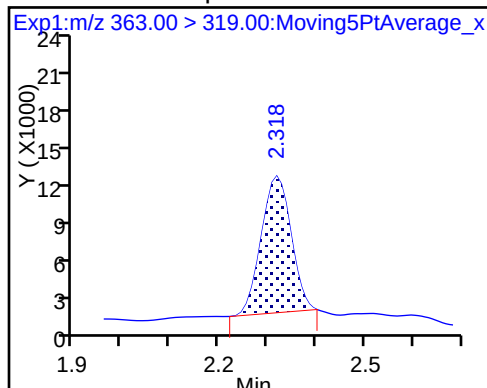
D 7 13C2 PFHxA



10 Perfluoroheptanoic acid

D 9 13C4-PFHpA

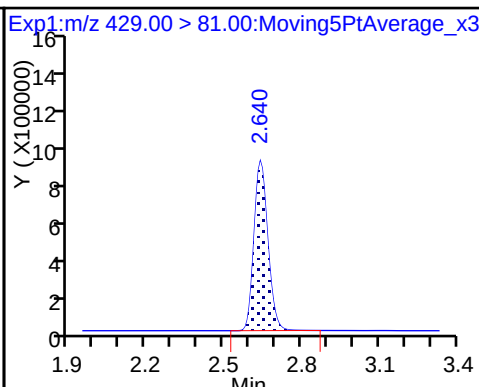
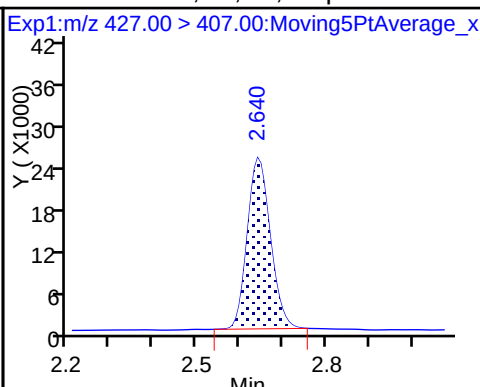
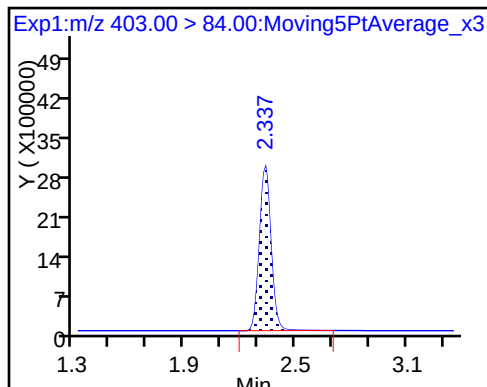
8 Perfluorohexanesulfonic acid



D 11 18O2 PFHxS

13 Sodium 1H,1H,2H,2H-perfluorooctadec

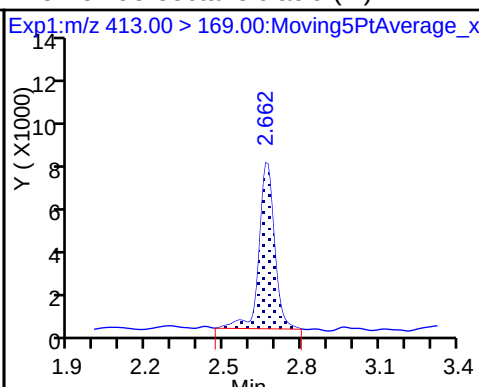
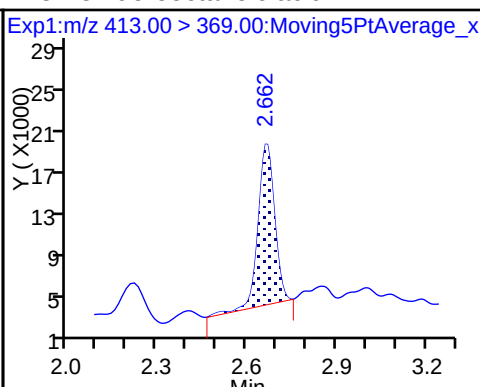
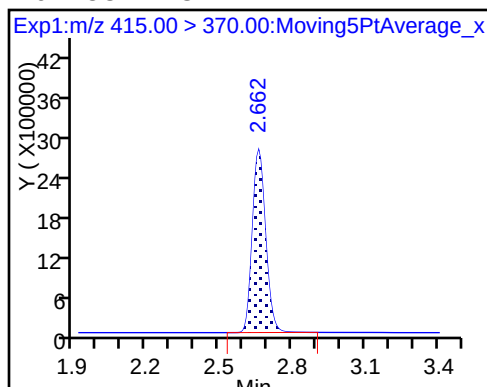
De 12 M2-6:2FTS



* 62 13C2-PFOA

15 Perfluorooctanoic acid

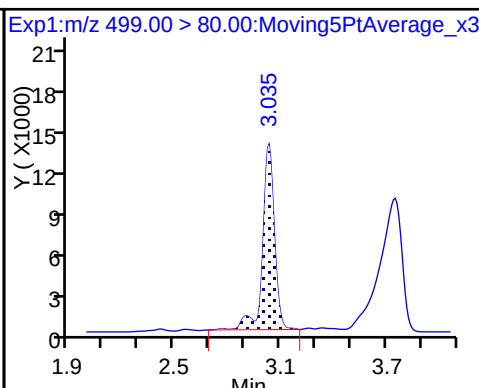
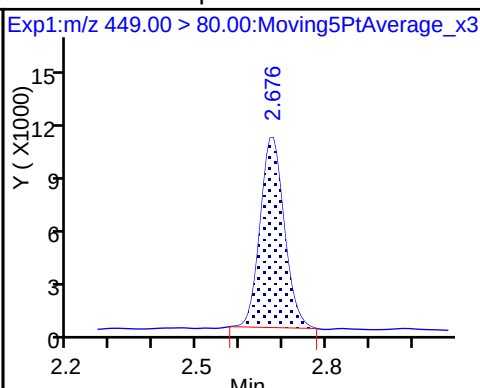
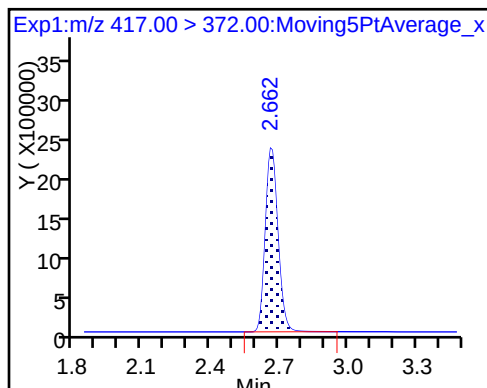
15 Perfluorooctanoic acid (M)



D 14 13C4 PFOA

16 Perfluoroheptanesulfonic Acid

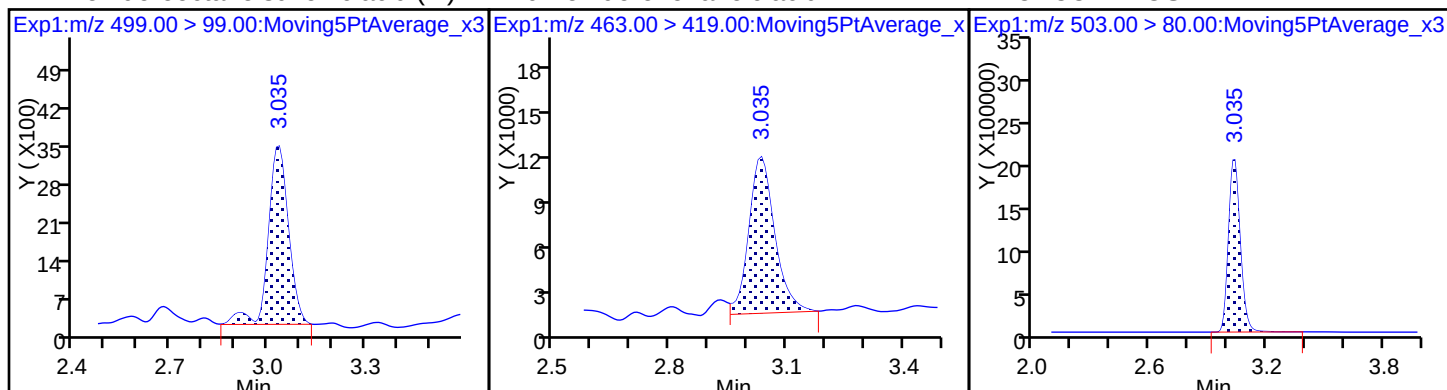
17 Perfluorooctane sulfonic acid



17 Perfluorooctane sulfonic acid (M)

20 Perfluorononanoic acid

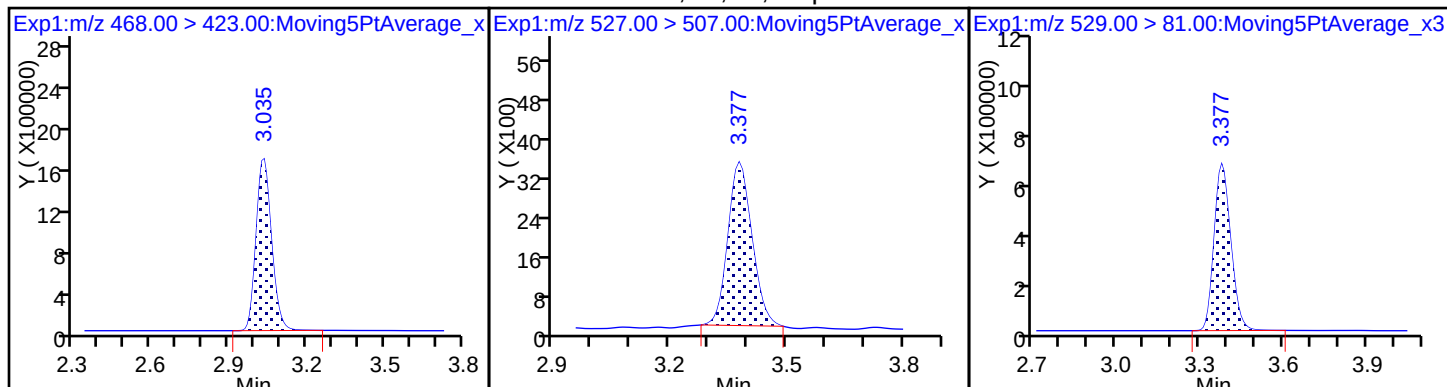
D 18 13C4 PFOS



D 19 13C5 PFNA

25 Sodium 1H,1H,2H,2H-perfluorodeca

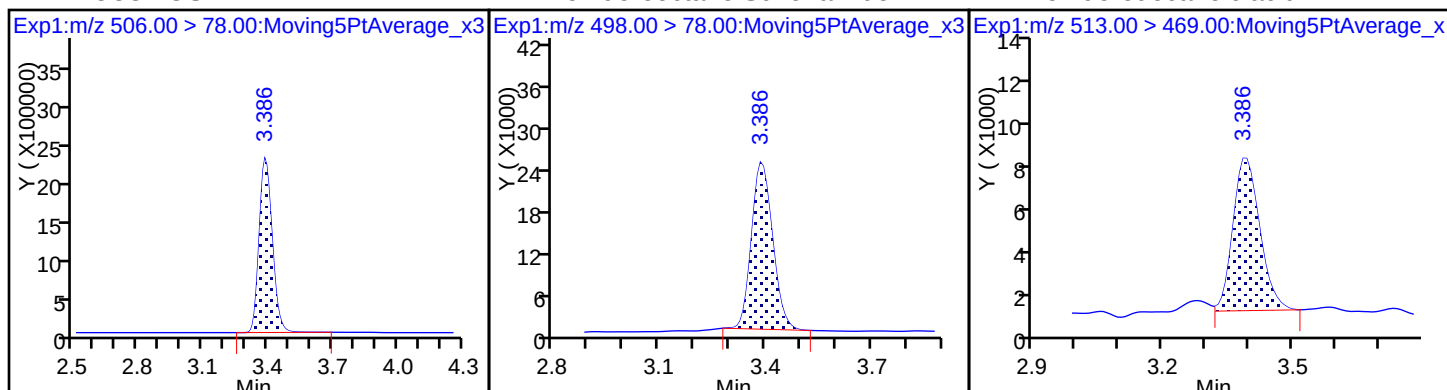
De26 M2-8:2FTS



D 21 13C8 FOSA

22 Perfluorooctane Sulfonamide

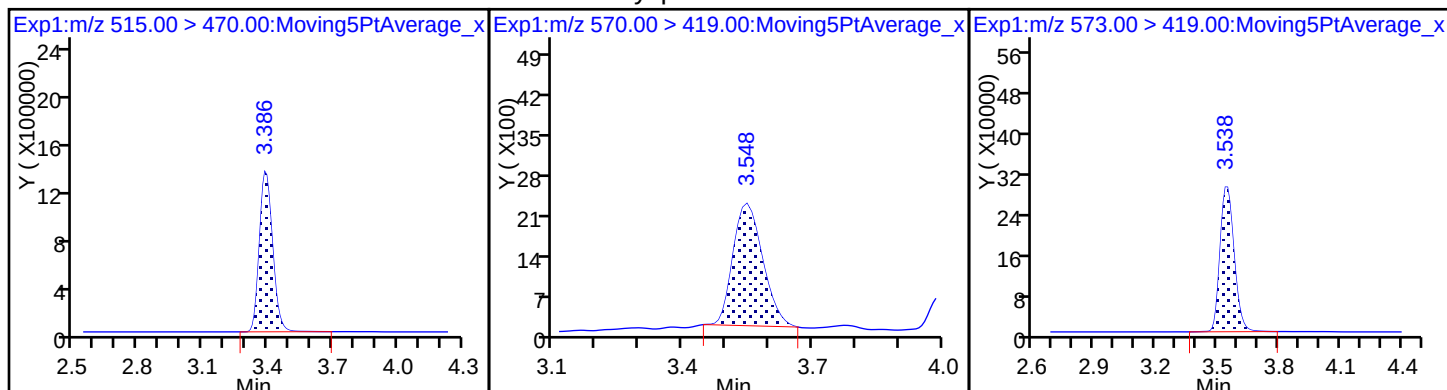
24 Perfluorodecanoic acid



D 23 13C2 PFDA

28 N-methyl perfluorooctane sulfonamiD

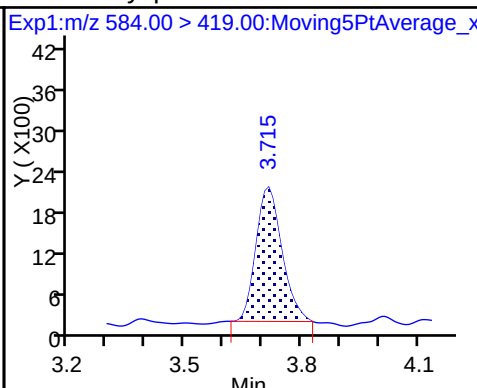
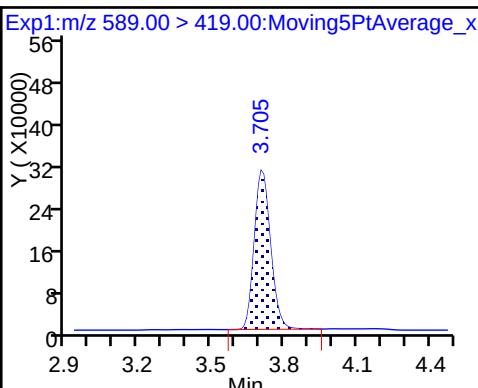
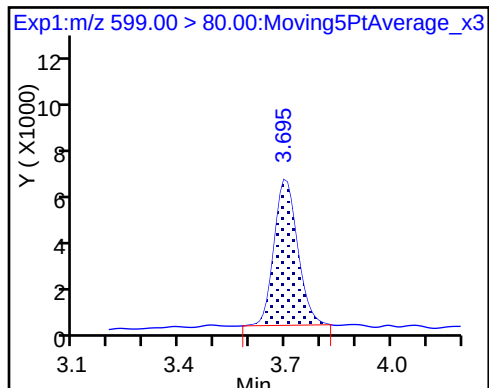
27 d3-NMeFOSAA



29 Perfluorodecane Sulfonic acid

D 32 d5-NEtFOSAA

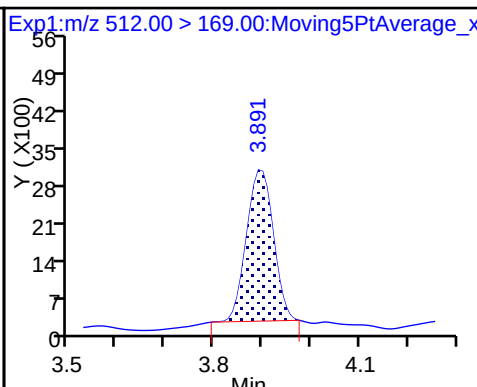
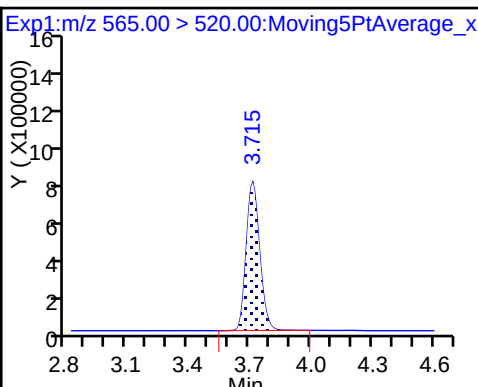
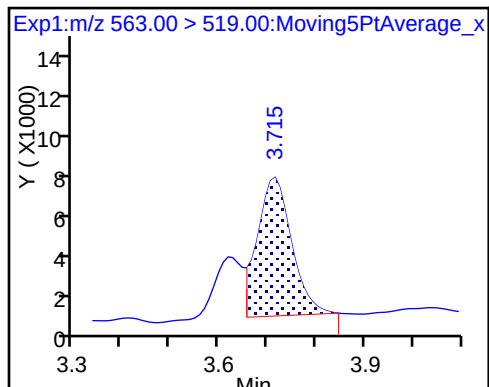
33 N-ethyl perfluorooctane sulfonamid



31 Perfluoroundecanoic acid

D 30 13C2 PFUnA

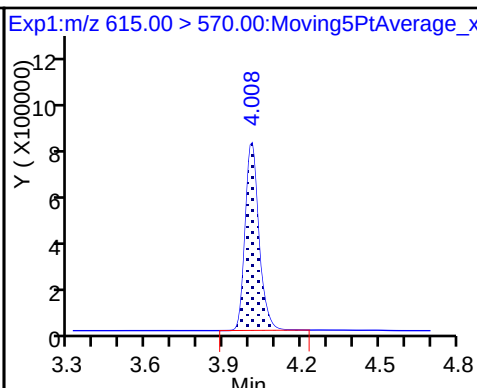
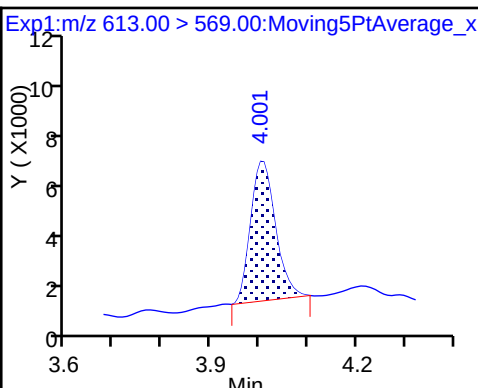
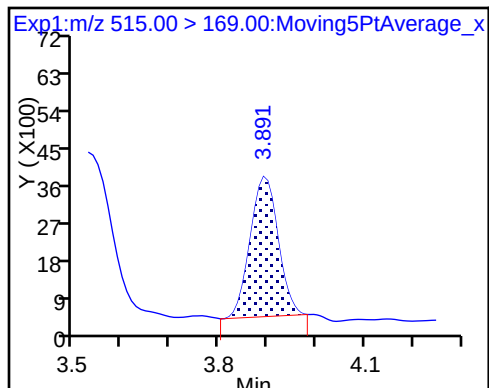
35 MeFOSA



D 34 d-N-MeFOSA-M

37 Perfluorododecanoic acid

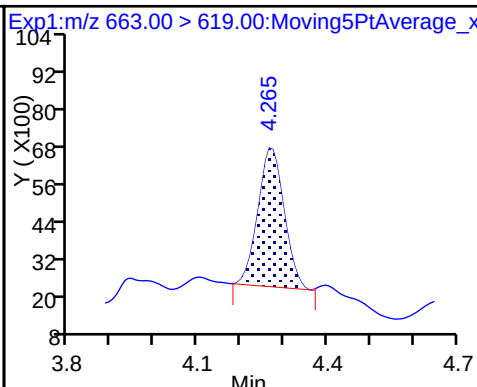
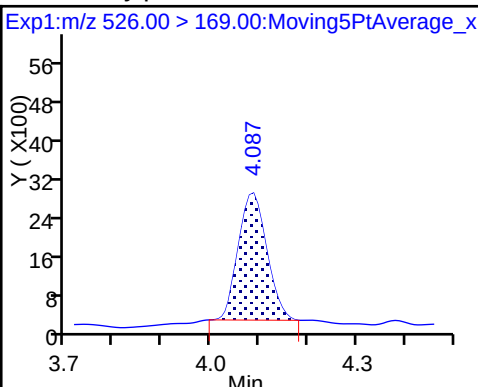
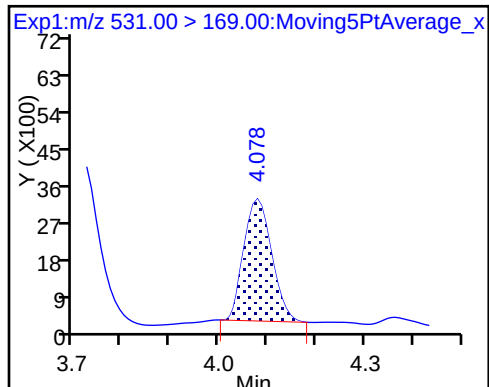
D 36 13C2 PFDaA



D 38 d-N-EtFOSA-M

39 N-ethylperfluoro-1-octanesulfonami

41 Perfluorotridecanoic acid

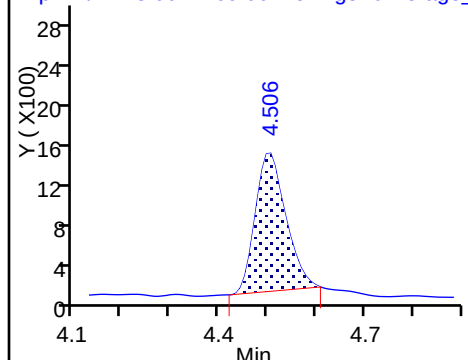


42 Perfluorotetradecanoic acid

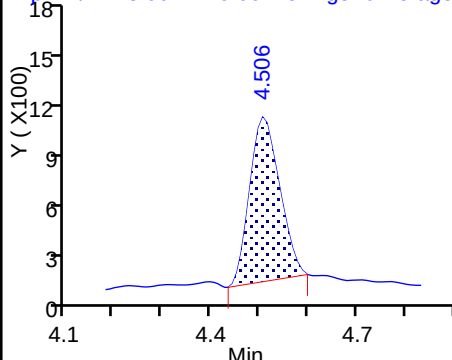
42 Perfluorotetradecanoic acid

D 43 13C2-PFTeDA

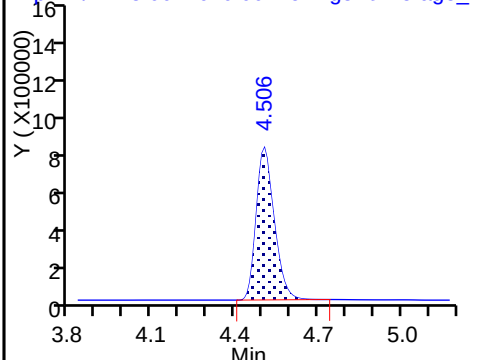
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Exp1:m/z 713.00 > 219.00:Moving5PtAverage_x



Exp1:m/z 715.00 > 670.00:Moving5PtAverage_x

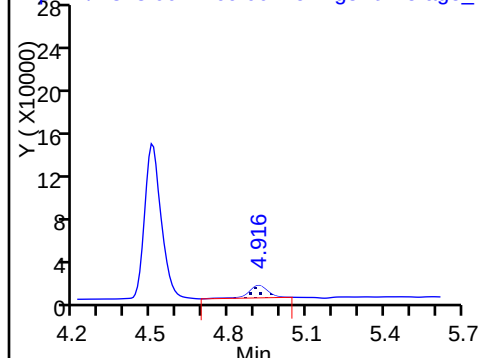


45 Perfluorohexadecanoic acid

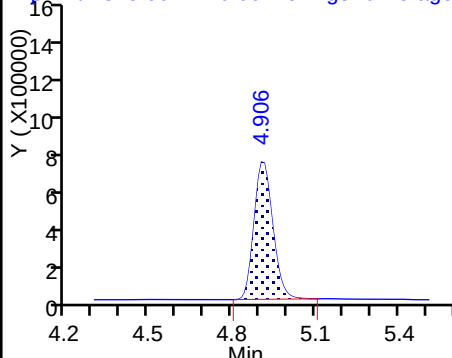
D 44 13C2-PFHxDA

46 Perfluorooctadecanoic acid

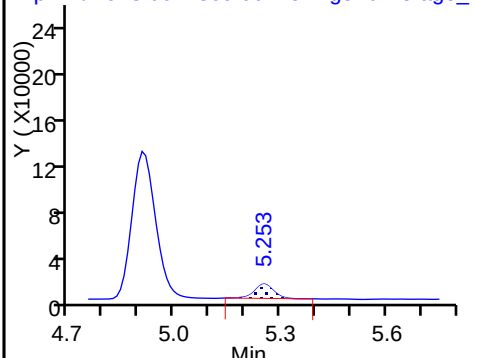
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Exp1:m/z 815.00 > 770.00:Moving5PtAverage_x



Exp1:m/z 913.00 > 869.00:Moving5PtAverage_x



TestAmerica Sacramento

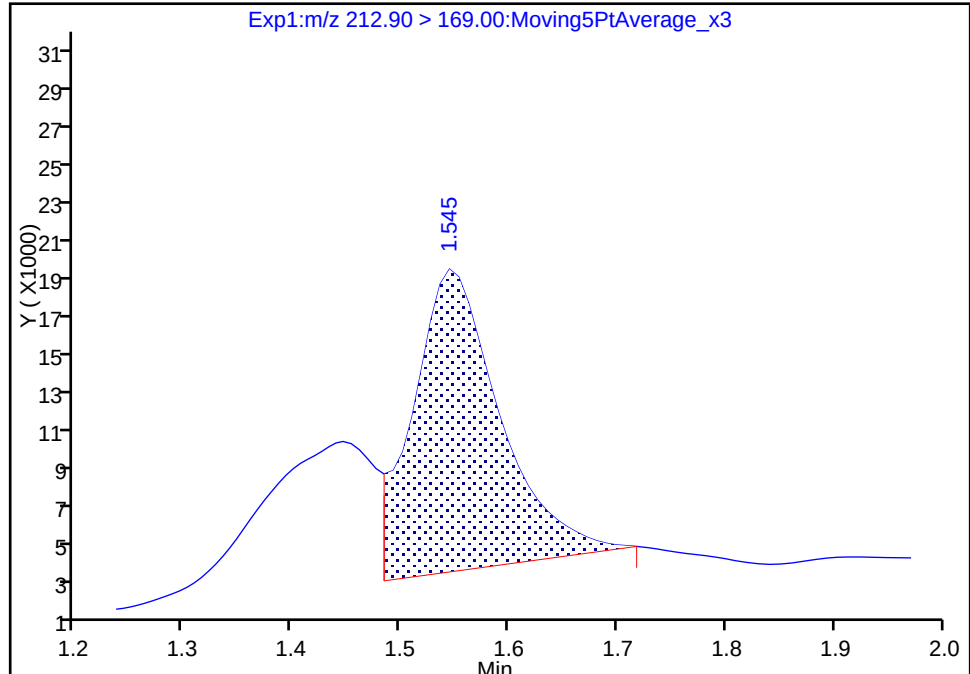
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Injection Date: 21-Oct-2017 01:11:31 Instrument ID: A8_N
Lims ID: MB 320-189663/1-A
Client ID:
Operator ID: SACINSTLCMS01 ALS Bottle#: 21 Worklist Smp#: 8
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: A8_N Limit Group: LC PFC ICAL
Column: Detector EXP1

2 Perfluorobutyric acid, CAS: 375-22-4

Signal: 1

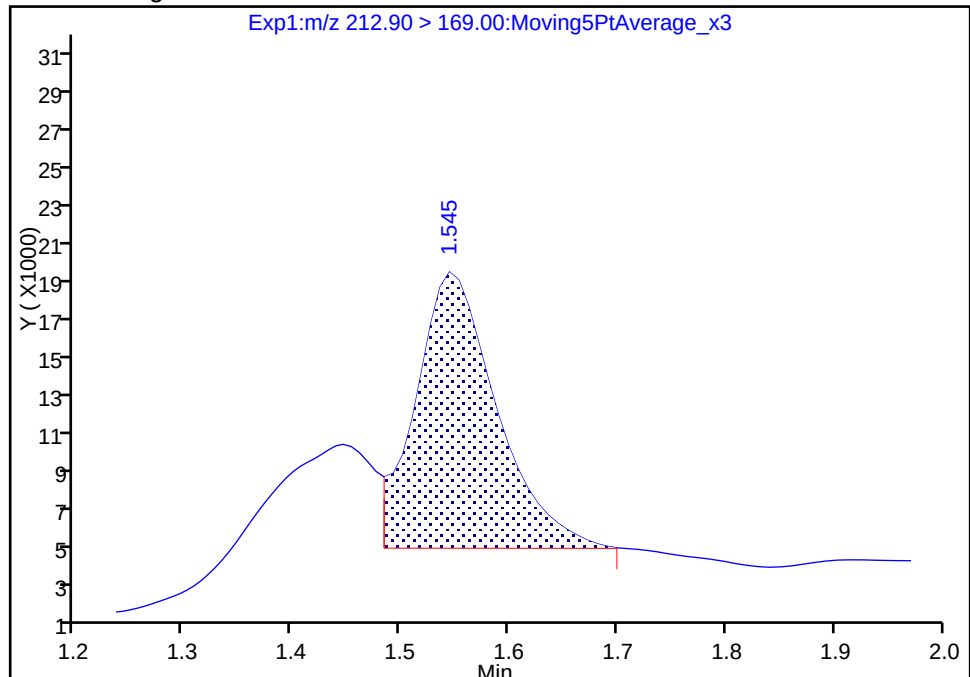
RT: 1.54
Area: 86713
Amount: 0.303303
Amount Units: ng/ml

Processing Integration Results



RT: 1.54
Area: 73575
Amount: 0.257349
Amount Units: ng/ml

Manual Integration Results



Reviewer: barnettj, 23-Oct-2017 13:43:29
Audit Action: Manually Integrated

Audit Reason: Baseline
Page 436 of 484

10/24/2017

TestAmerica Sacramento

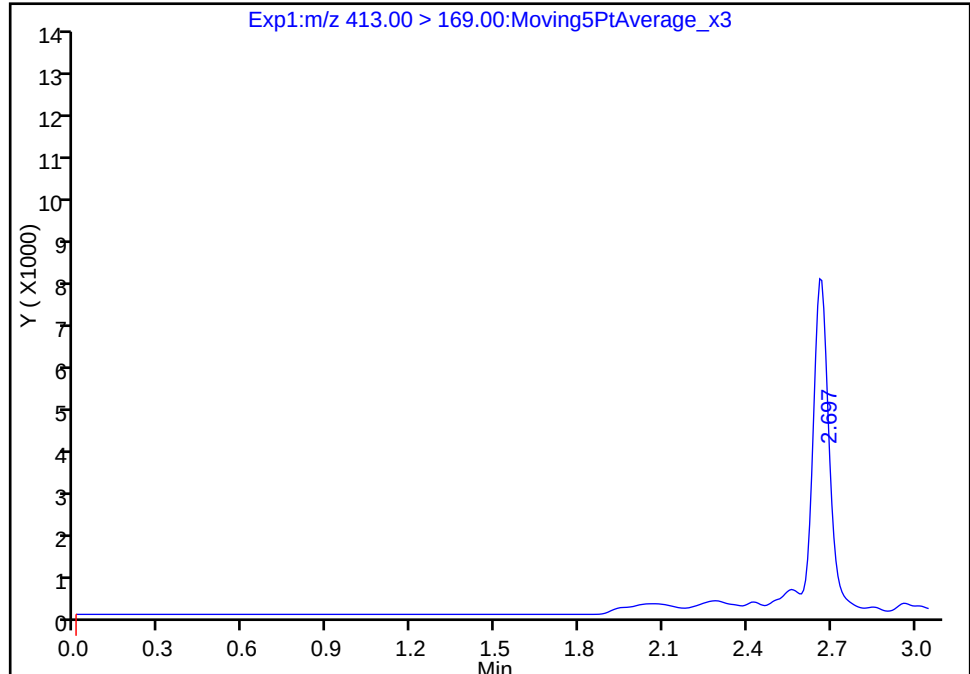
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Injection Date: 21-Oct-2017 01:11:31 Instrument ID: A8_N
Lims ID: MB 320-189663/1-A
Client ID:
Operator ID: SACINSTLCMS01 ALS Bottle#: 21 Worklist Smp#: 8
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: A8_N Limit Group: LC PFC ICAL
Column: Detector EXP1

15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

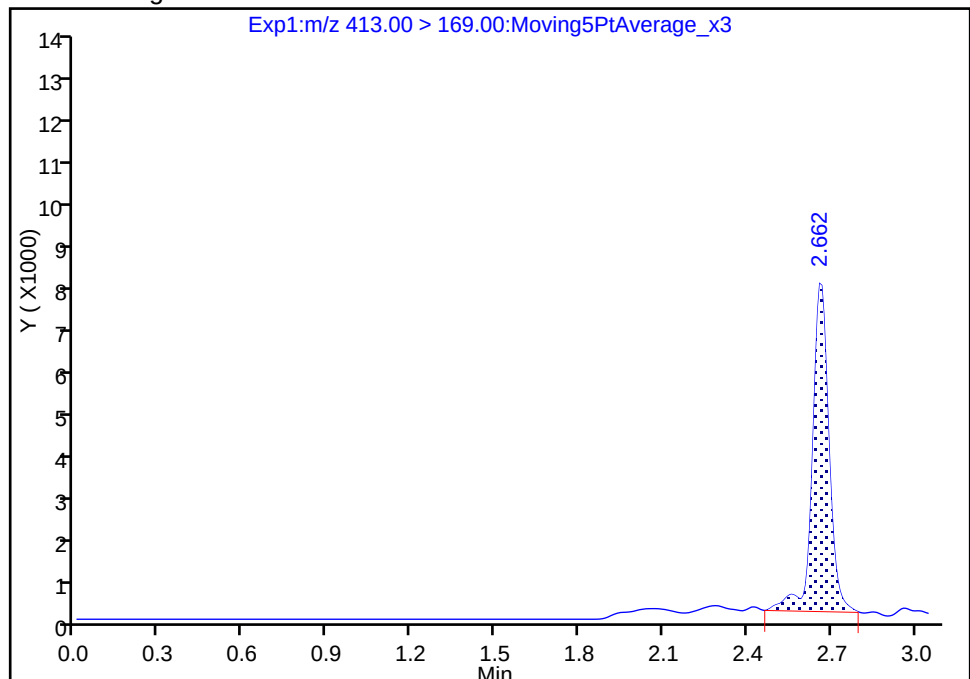
RT: 2.70
Area: 0
Amount: 0.305366
Amount Units: ng/ml

Processing Integration Results



RT: 2.66
Area: 31291
Amount: 0.305366
Amount Units: ng/ml

Manual Integration Results



Reviewer: barnettj, 23-Oct-2017 13:43:59

Audit Action: Manually Integrated

Audit Reason: Missed Peak

TestAmerica Sacramento

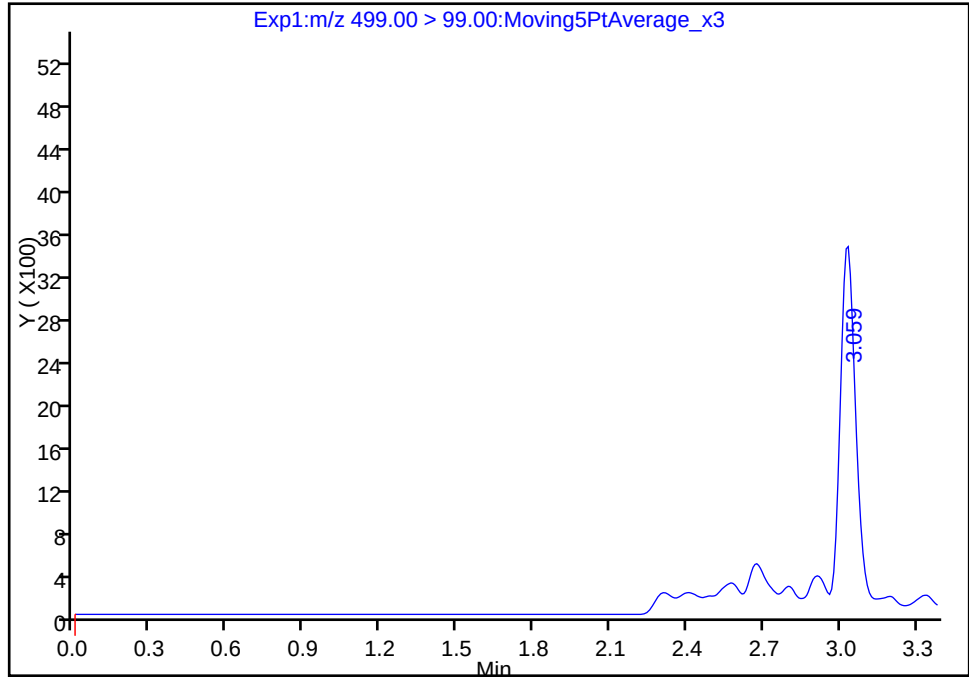
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Injection Date: 21-Oct-2017 01:11:31 Instrument ID: A8_N
Lims ID: MB 320-189663/1-A
Client ID:
Operator ID: SACINSTLCMS01 ALS Bottle#: 21 Worklist Smp#: 8
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: A8_N Limit Group: LC PFC ICAL
Column: Detector EXP1

17 Perfluorooctane sulfonic acid, CAS: 1763-23-1

Signal: 2

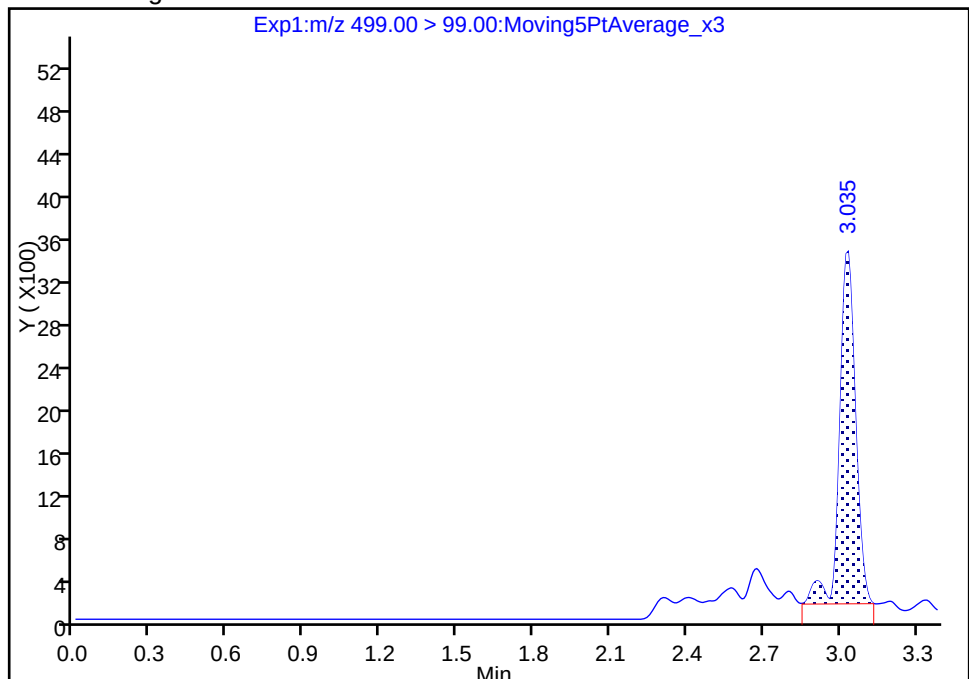
RT: 3.06
Area: 0
Amount: 0.332910
Amount Units: ng/ml

Processing Integration Results



RT: 3.04
Area: 14203
Amount: 0.332910
Amount Units: ng/ml

Manual Integration Results



Reviewer: barnettj, 23-Oct-2017 13:44:13

Audit Action: Manually Integrated

Audit Reason: Missed Peak

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Sacramento</u>	Job No.: <u>480-125692-1</u>
SDG No.: _____	
Client Sample ID: _____	Lab Sample ID: <u>LCS 320-189663/2-A</u>
Matrix: <u>Water</u>	Lab File ID: <u>2017.10.20B_032.d</u>
Analysis Method: <u>537 (modified)</u>	Date Collected: _____
Extraction Method: <u>3535</u>	Date Extracted: <u>10/17/2017 08:45</u>
Sample wt/vol: <u>250 (mL)</u>	Date Analyzed: <u>10/21/2017 01:18</u>
Con. Extract Vol.: <u>0.50 (mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>2 (uL)</u>	GC Column: <u>GeminiC18 3x100 ID: 3 (mm)</u>
% Moisture: _____	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>190434</u>	Units: <u>ng/L</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	46.1		2.0	0.46
2706-90-3	Perfluoropentanoic acid (PFPeA)	41.5		2.0	0.99
307-24-4	Perfluorohexanoic acid (PFHxA)	43.2		2.0	0.79
375-85-9	Perfluoroheptanoic acid (PFHpA)	45.6		2.0	0.80
335-67-1	Perfluorooctanoic acid (PFOA)	42.1		2.0	0.75
375-95-1	Perfluorononanoic acid (PFNA)	41.1		2.0	0.65
335-76-2	Perfluorodecanoic acid (PFDA)	44.3		2.0	0.44
2058-94-8	Perfluoroundecanoic acid (PFUnA)	41.3		2.0	0.75
307-55-1	Perfluorododecanoic acid (PFDoA)	43.7		2.0	0.58
72629-94-8	Perfluorotridecanoic Acid (PFTriA)	48.6		2.0	0.55
376-06-7	Perfluorotetradecanoic acid (PFTeA)	41.2		2.0	0.20
375-73-5	Perfluorobutanesulfonic acid (PFBS)	40.5		2.0	0.92
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	39.5		2.0	0.87
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	45.0		2.0	0.71
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	39.5		2.0	1.3
335-77-3	Perfluorodecanesulfonic acid (PFDS)	40.1		2.0	1.2

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00992	13C4 PFBA	91		25-150
STL01893	13C5 PFPeA	92		25-150
STL00993	13C2 PFHxA	89		25-150
STL01892	13C4-PFHpA	96		25-150
STL00990	13C4 PFOA	88		25-150
STL00995	13C5 PFNA	88		25-150
STL00996	13C2 PFDA	87		25-150
STL00997	13C2 PFUnA	84		25-150
STL00998	13C2 PFDoA	80		25-150
STL00994	18O2 PFHxS	88		25-150
STL00991	13C4 PFOS	88		25-150

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\2017.10.20B_032.d
 Lims ID: LCS 320-189663/2-A
 Client ID:
 Sample Type: LCS
 Inject. Date: 21-Oct-2017 01:18:25 ALS Bottle#: 22 Worklist Smp#: 9
 Injection Vol: 2.0 ul Dil. Factor: 1.0000
 Sample Info: lcs 320-189663/2-a
 Misc. Info.: Plate: 1 Rack: 4
 Operator ID: SACINSTLCMS01 Instrument ID: A8_N
 Method: \\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\A8_N.m
 Limit Group: LC PFC ICAL
 Last Update: 23-Oct-2017 14:16:11 Calib Date: 12-Oct-2017 11:11:26
 Integrator: Picker
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20171012-49071.b\2017.10.12ICAL_010.d
 Column 1 : Det: EXP1
 Process Host: XAWRK012

First Level Reviewer: phomsophat

Date: 21-Oct-2017 13:37:41

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
2 Perfluorobutyric acid										
212.90 > 169.00	1.554	1.545	0.009	1.000	7359734	23.1		115	873	
D 1 13C4 PFBA										
217.00 > 172.00	1.554	1.545	0.009		17140536	45.6		91.3	18914	
4 Perfluoropentanoic acid										
262.90 > 219.00	1.755	1.754	0.001	1.000	4913960	20.7		104	1750	
D 3 13C5-PFPeA										
267.90 > 223.00	1.755	1.754	0.001		10839439	46.0		92.0	50282	
D 47 13C3-PFBS										
301.90 > 83.00	1.782	1.773	0.009		266979	38.9		83.7	6091	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	1.782	1.782	0.0	1.000	8335277	20.2		114	28596	
298.90 > 99.00	1.782	1.782	0.0	1.000	3624519		2.30(0.00-0.00)		15559	
61 Sodium 1H,1H,2H,2H-perfluorohexane										
327.00 > 307.00	1.983	1.971	0.012	1.000	2153161	22.1		118	25080	
6 Perfluorohexanoic acid										
313.00 > 269.00	2.017	2.017	0.0	1.000	4851595	21.6		108	5244	
D 7 13C2 PFHxA										
315.00 > 270.00	2.017	2.017	0.0		11464254	44.7		89.4	26574	
10 Perfluoroheptanoic acid										
363.00 > 319.00	2.334	2.324	0.010	1.000	5198903	22.8		114	3958	
D 9 13C4-PFHpA										
367.00 > 322.00	2.334	2.324	0.010		11422191	47.8		95.7	22533	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	2.343	2.348	-0.005	1.000	6703204	19.8		109	6191	
D 11 18O2 PFHxS										
403.00 > 84.00	2.343	2.348	-0.005		14872393	41.5		87.7	28347	
13 Sodium 1H,1H,2H,2H-perfluorooctane										
427.00 > 407.00	2.652	2.649	0.003	1.000	2321462	23.0		121	14782	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 12 M2-6:2FTS										
429.00 > 81.00	2.652	2.649	0.003		3912914	44.2		93.0	16649	
* 62 13C2-PFOA										
415.00 > 370.00	2.666	2.671	-0.005		11366446	50.0			23735	
15 Perfluorooctanoic acid										
413.00 > 369.00	2.674	2.671	0.003	1.000	4494405	21.0		105	678	
413.00 > 169.00	2.674	2.671	0.003	1.000	2416965		1.86(0.90-1.10)		8476	
D 14 13C4 PFOA										
417.00 > 372.00	2.674	2.671	0.003		9884552	44.0		88.0	34849	
16 Perfluoroheptanesulfonic Acid										
449.00 > 80.00	2.681	2.678	0.003	1.000	6028892	22.5		118	17763	
17 Perfluorooctane sulfonic acid										
499.00 > 80.00	3.038	3.035	0.003	1.000	4594754	19.8		106	2613	
499.00 > 99.00	3.038	3.035	0.003	1.000	970655		4.73(0.90-1.10)		2075	
20 Perfluorononanoic acid										
463.00 > 419.00	3.038	3.035	0.003	1.000	2972839	20.6		103	3116	
D 18 13C4 PFOS										
503.00 > 80.00	3.038	3.035	0.003		10576267	41.9		87.7	17547	
D 19 13C5 PFNA										
468.00 > 423.00	3.038	3.035	0.003		7519499	43.8		87.7	19742	
25 Sodium 1H,1H,2H,2H-perfluorodecane										
527.00 > 507.00	3.386	3.385	0.001	1.000	1573520	21.3		111	11246	
D 26 M2-8:2FTS										
529.00 > 81.00	3.386	3.385	0.001		3185256	46.2		96.5	15632	
D 21 13C8 FOSA										
506.00 > 78.00	3.394	3.385	0.009		10141546	28.2		56.3	16901	
22 Perfluorooctane Sulfonamide										
498.00 > 78.00	3.394	3.393	0.001	1.000	4209948	20.1		101	17262	
24 Perfluorodecanoic acid										
513.00 > 469.00	3.394	3.393	0.001	1.000	2612941	22.2		111	4584	
D 23 13C2 PFDA										
515.00 > 470.00	3.394	3.393	0.001		6438816	43.5		87.1	13801	
28 N-methyl perfluorooctane sulfonami										
570.00 > 419.00	3.560	3.552	0.008	1.003	723821	23.4		117	2813	
D 27 d3-NMeFOSAA										
573.00 > 419.00	3.549	3.552	-0.003		1658049	34.9		69.9	7050	
29 Perfluorodecane Sulfonic acid										
599.00 > 80.00	3.708	3.710	-0.002	1.000	2674001	20.1		104	8238	
D 32 d5-NEtFOSAA										
589.00 > 419.00	3.717	3.710	0.007		1726100	37.3		74.6	2023	
33 N-ethyl perfluorooctane sulfonamid										
584.00 > 419.00	3.727	3.720	0.007	1.003	651890	22.2		111	4712	
31 Perfluoroundecanoic acid										
563.00 > 519.00	3.727	3.720	0.007	1.000	1818394	20.6		103	2548	
D 30 13C2 PFUnA										
565.00 > 520.00	3.727	3.720	0.007		4086832	42.0		83.9	9691	
D 34 d-N-MeFOSA-M										
515.00 > 169.00	3.903	3.897	0.006		4591	0.0527		0.1	14	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
37 Perfluorododecanoic acid										
613.00 > 569.00	4.012	4.014	-0.002	1.000	1459975	21.8		109	1520	
D 36 13C2 PFDaA										
615.00 > 570.00	4.012	4.014	-0.002		3657440	40.0		80.1	9246	
D 38 d-N-EtFOSA-M										
531.00 > 169.00	4.090	4.084	0.006		3843	0.0487		0.1	10.1	
39 N-ethylperfluoro-1-octanesulfonami										
526.00 > 169.00	4.090	4.092	-0.002	1.000	1748	24.2		121	13.8	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.277	4.279	-0.002	1.000	1579636	24.3		121	162	
42 Perfluorotetradecanoic acid										
713.00 > 169.00	4.508	4.505	0.003	1.000	406111	20.6		103	4531	
713.00 > 219.00	4.508	4.505	0.003	1.000	319284		1.27(0.00-0.00)		2879	
D 43 13C2-PFTeDA										
715.00 > 670.00	4.508	4.514	-0.006		4192281	52.3		105	17126	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	4.919	4.920	-0.001	1.000	1611582	19.5		97.5	98.4	
D 44 13C2-PFHxDA										
815.00 > 770.00	4.919	4.920	-0.001		4355583	40.4		80.9	3345	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	5.263	5.260	0.003	1.000	1729733	21.8		109	159	

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\2017.10.20B_032.d

Injection Date: 21-Oct-2017 01:18:25

Instrument ID: A8_N

Lims ID: LCS 320-189663/2-A

Client ID:

Operator ID: SACINSTLCMS01

ALS Bottle#: 22

Worklist Smp#: 9

Injection Vol: 2.0 ul

Dil. Factor: 1.0000

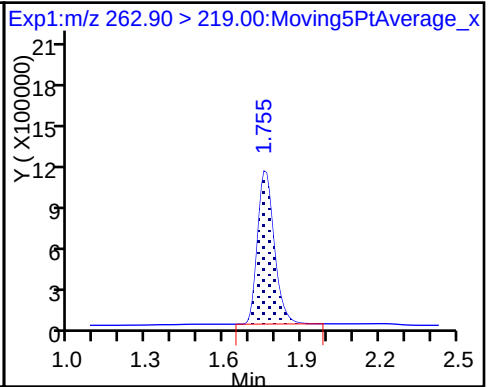
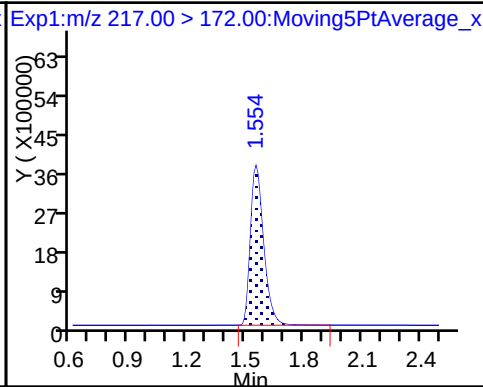
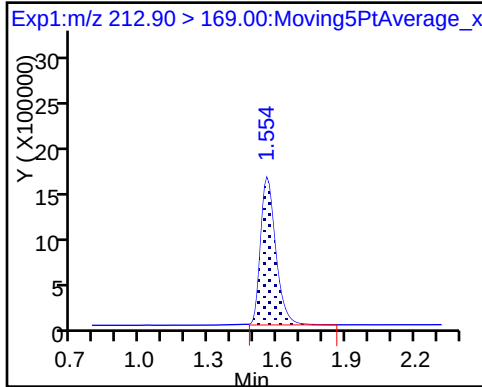
Method: A8_N

Limit Group: LC PFC ICAL

2 Perfluorobutyric acid

D 1 13C4 PFBA

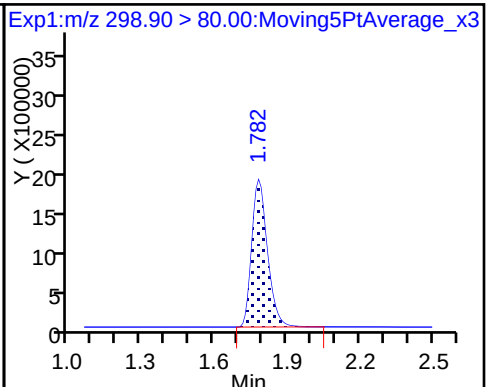
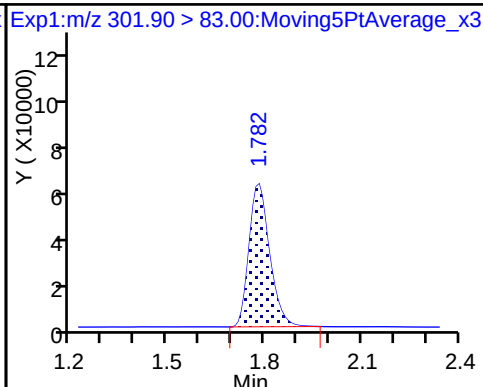
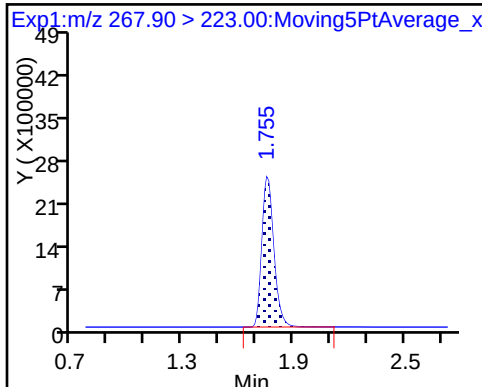
4 Perfluoropentanoic acid



D 3 13C5-PFPeA

D 47 13C3-PFBS

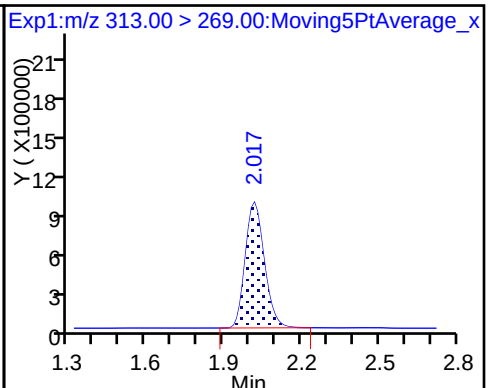
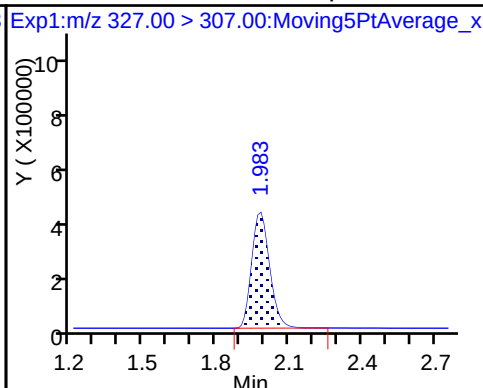
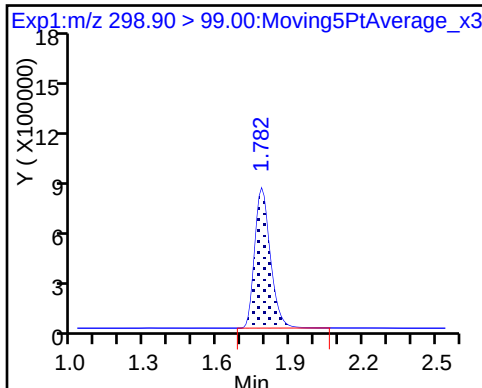
5 Perfluorobutanesulfonic acid



5 Perfluorobutanesulfonic acid

61 Sodium 1H,1H,2H,2H-perfluorohexanoate

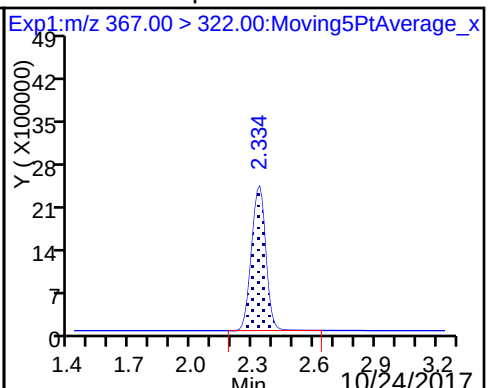
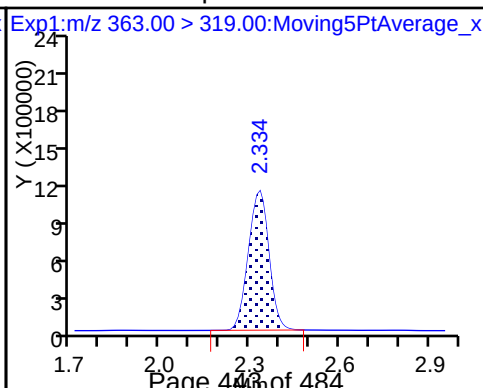
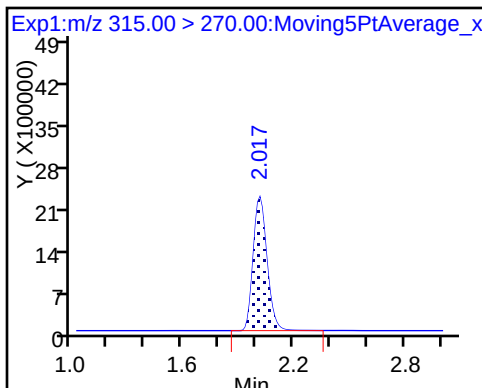
6 Perfluorohexanoic acid

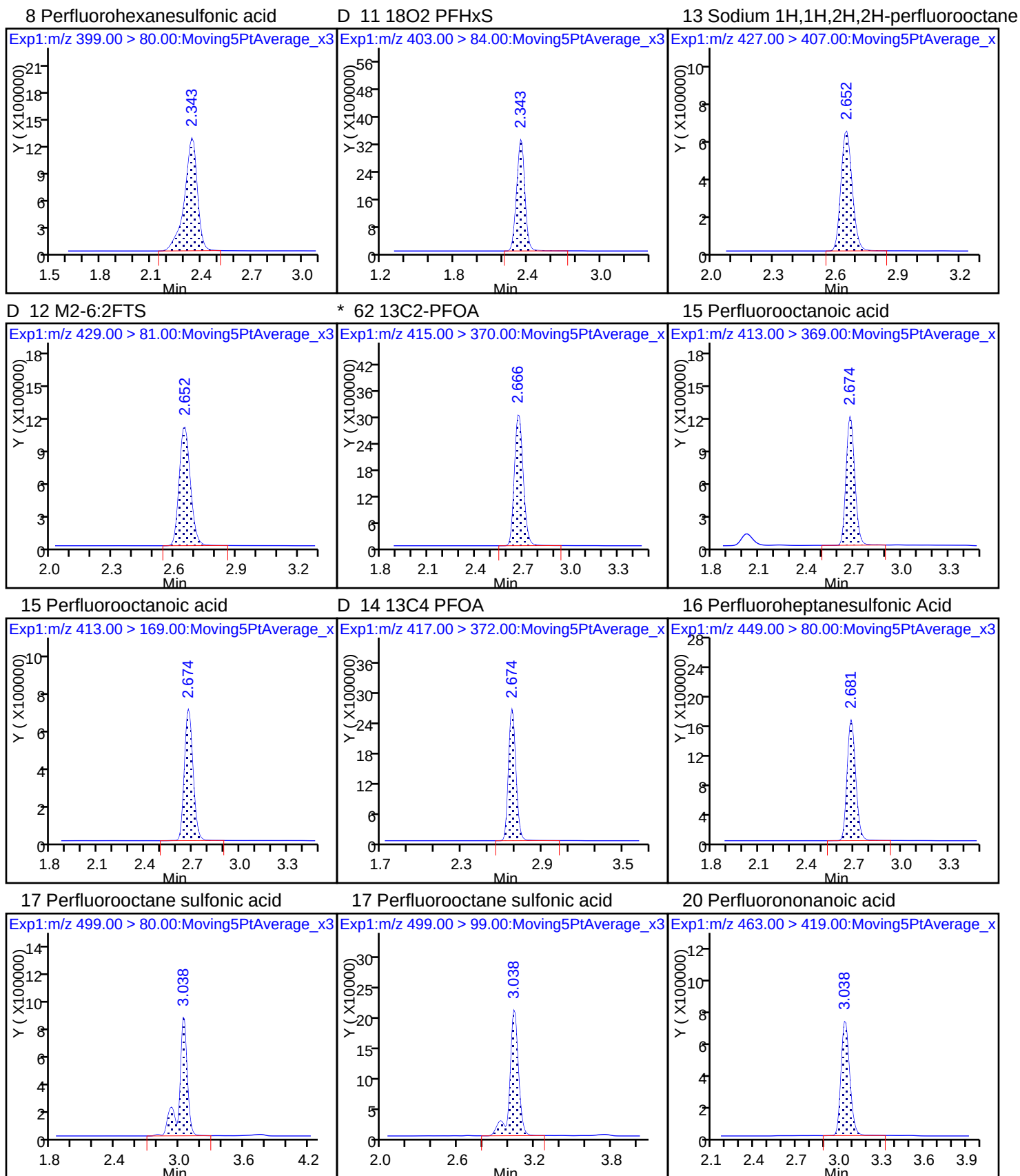


D 7 13C2 PFHxA

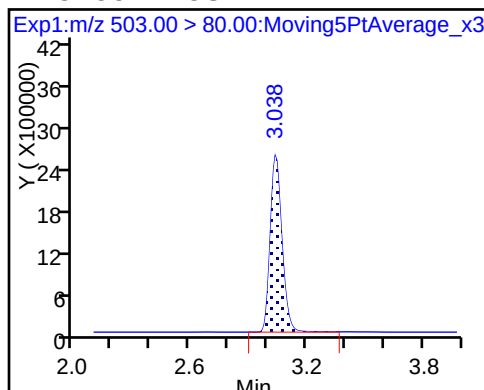
10 Perfluoroheptanoic acid

D 9 13C4-PFHpA

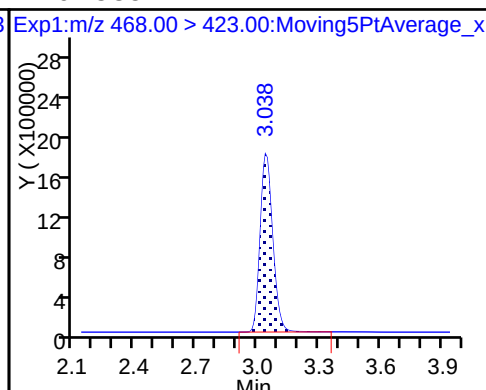




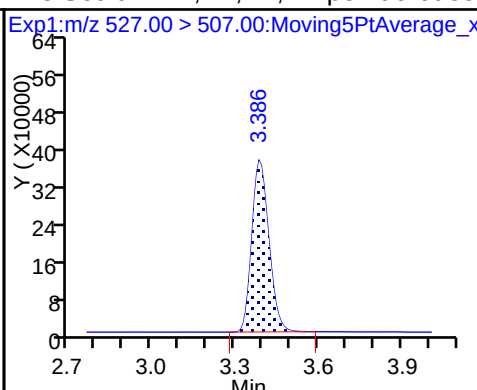
D 18 13C4 PFOS



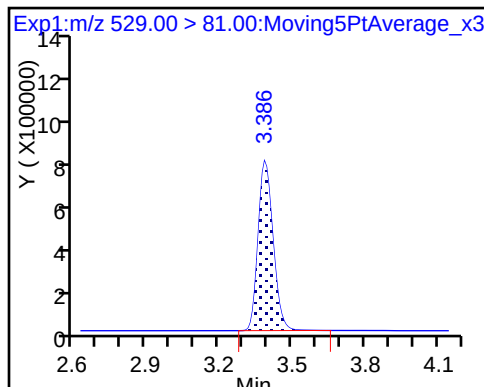
D 19 13C5 PFNA



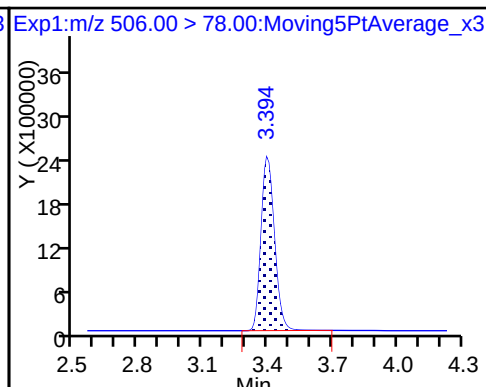
25 Sodium 1H,1H,2H,2H-perfluorodecane



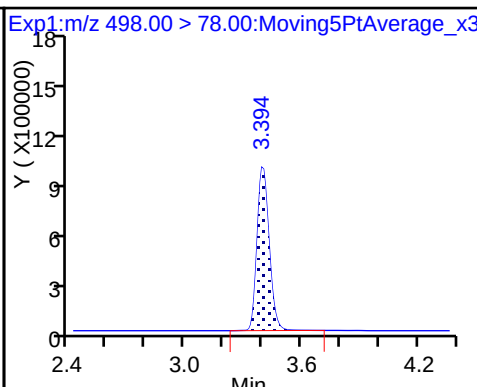
D 26 M2-8:2FTS



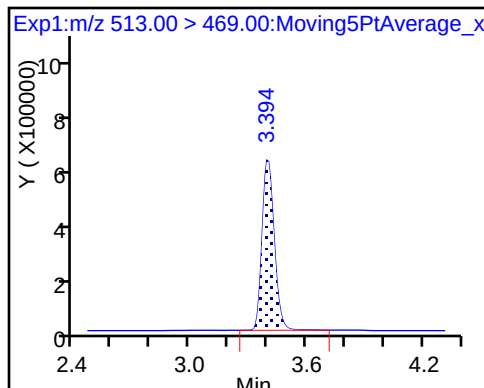
D 21 13C8 FOSA



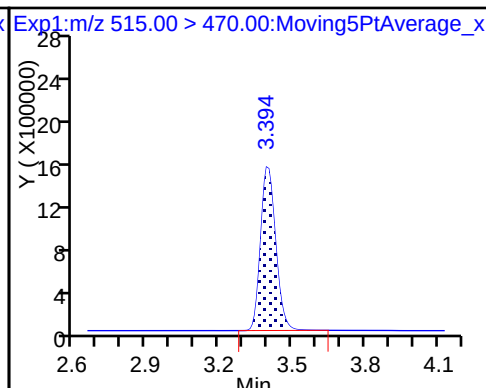
22 Perfluorooctane Sulfonamide



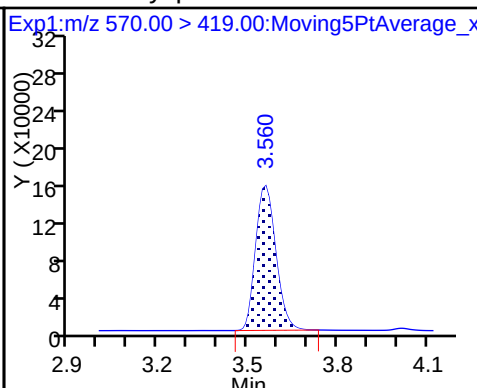
24 Perfluorodecanoic acid



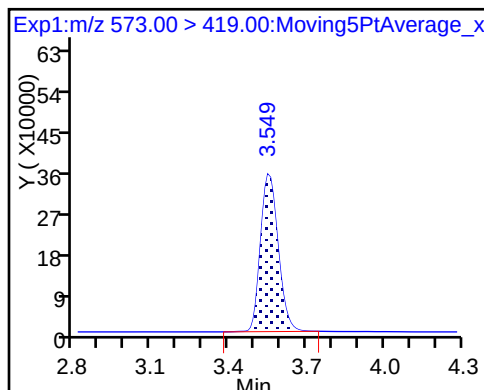
D 23 13C2 PFDA



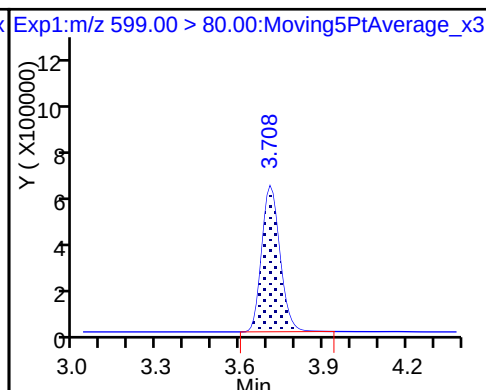
28 N-methyl perfluorooctane sulfonami



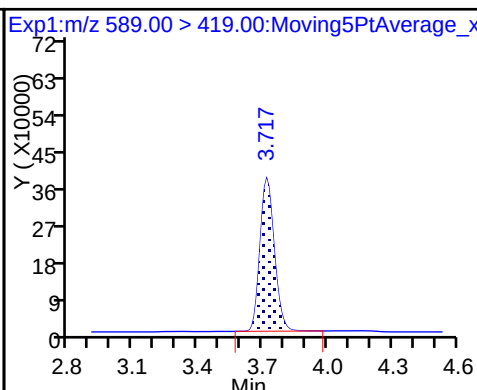
D 27 d3-NMeFOSAA



29 Perfluorodecane Sulfonic acid



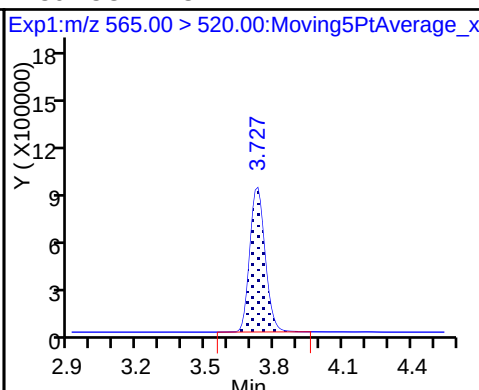
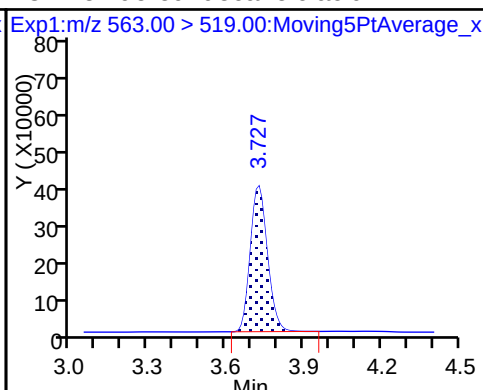
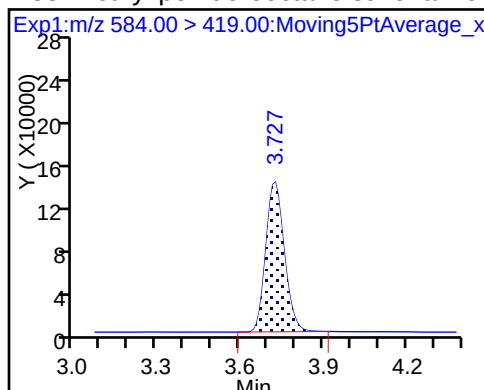
D 32 d5-NEtFOSAA



33 N-ethyl perfluorooctane sulfonamid

31 Perfluoroundecanoic acid

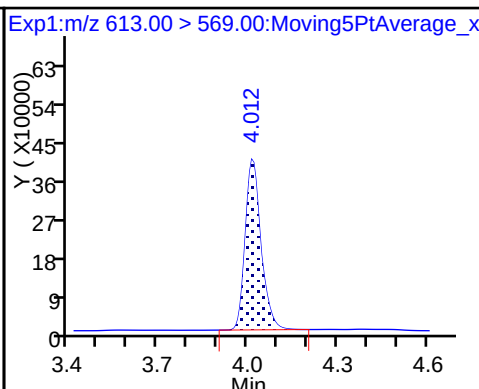
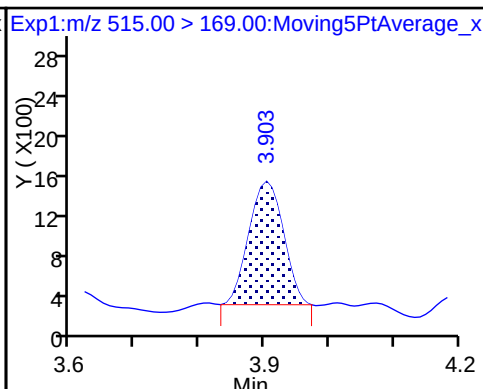
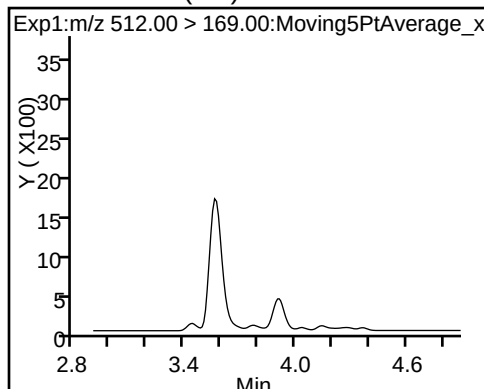
D 30 13C2 PFUnA



35 MeFOSA (ND)

D 34 d-N-MeFOSA-M

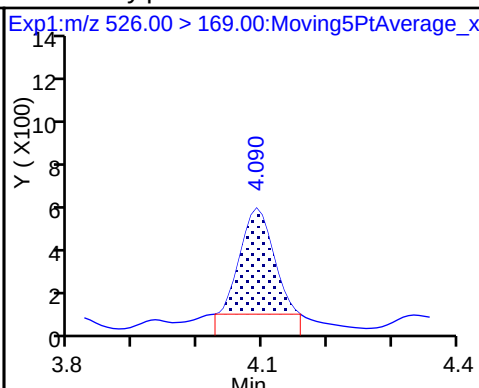
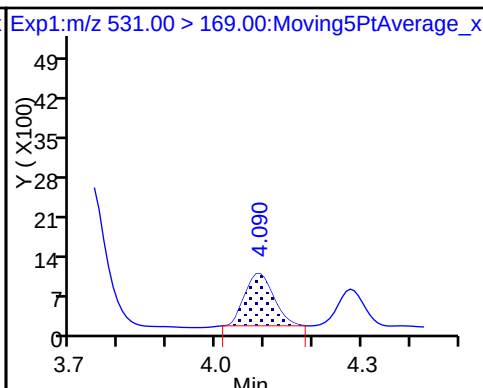
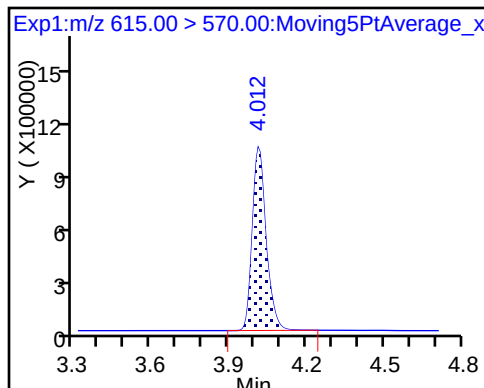
37 Perfluorododecanoic acid



D 36 13C2 PFDaA

D 38 d-N-EtFOSA-M

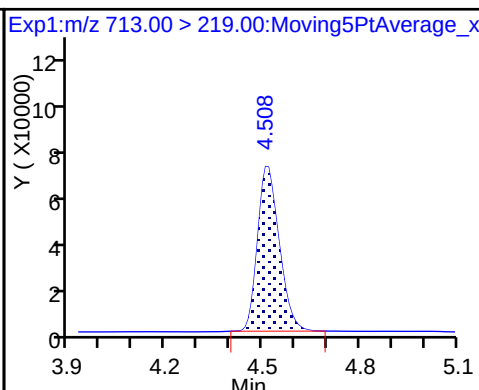
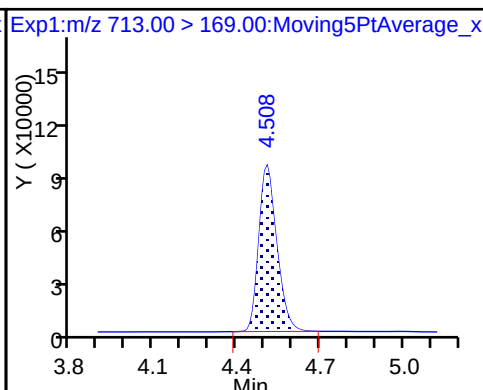
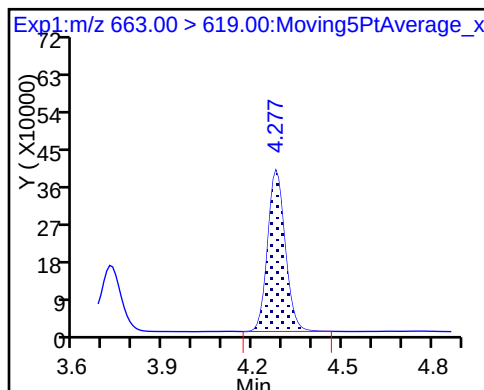
39 N-ethylperfluoro-1-octanesulfonami



41 Perfluorotridecanoic acid

42 Perfluorotetradecanoic acid

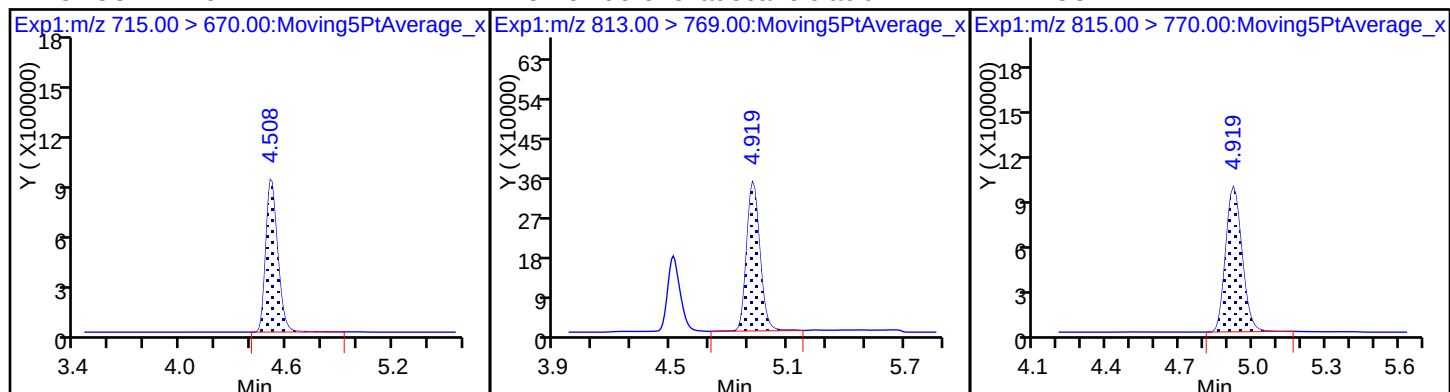
42 Perfluorotetradecanoic acid



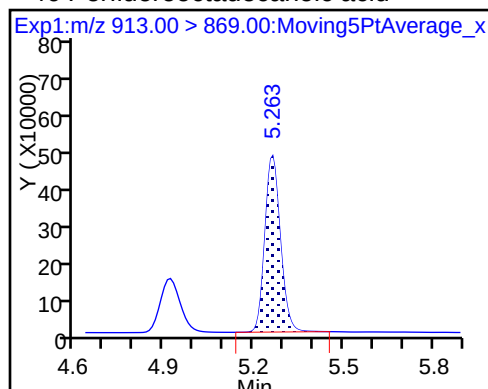
D 43 13C2-PFTeDA

45 Perfluorohexadecanoic acid

D 44 13C2-PFHxDA



46 Perfluorooctadecanoic acid



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Sacramento</u>	Job No.: <u>480-125692-1</u>
SDG No.: _____	
Client Sample ID: _____	Lab Sample ID: <u>LCSD 320-189663/3-A</u>
Matrix: <u>Water</u>	Lab File ID: <u>2017.10.20B_033.d</u>
Analysis Method: <u>537 (modified)</u>	Date Collected: _____
Extraction Method: <u>3535</u>	Date Extracted: <u>10/17/2017 08:45</u>
Sample wt/vol: <u>250 (mL)</u>	Date Analyzed: <u>10/21/2017 01:25</u>
Con. Extract Vol.: <u>0.50 (mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>2 (uL)</u>	GC Column: <u>GeminiC18 3x100 ID: 3 (mm)</u>
% Moisture: _____	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>190434</u>	Units: <u>ng/L</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	44.4		2.0	0.46
2706-90-3	Perfluoropentanoic acid (PFPeA)	42.1		2.0	0.99
307-24-4	Perfluorohexanoic acid (PFHxA)	42.4		2.0	0.79
375-85-9	Perfluoroheptanoic acid (PFHpA)	41.8		2.0	0.80
335-67-1	Perfluorooctanoic acid (PFOA)	41.5		2.0	0.75
375-95-1	Perfluorononanoic acid (PFNA)	41.6		2.0	0.65
335-76-2	Perfluorodecanoic acid (PFDA)	42.6		2.0	0.44
2058-94-8	Perfluoroundecanoic acid (PFUnA)	39.6		2.0	0.75
307-55-1	Perfluorododecanoic acid (PFDoA)	41.8		2.0	0.58
72629-94-8	Perfluorotridecanoic Acid (PFTriA)	49.9		2.0	0.55
376-06-7	Perfluorotetradecanoic acid (PFTeA)	42.0		2.0	0.20
375-73-5	Perfluorobutanesulfonic acid (PFBS)	37.8		2.0	0.92
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	39.2		2.0	0.87
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	43.2		2.0	0.71
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	39.6		2.0	1.3
335-77-3	Perfluorodecanesulfonic acid (PFDS)	39.2		2.0	1.2

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00992	13C4 PFBA	93		25-150
STL01893	13C5 PFPeA	90		25-150
STL00993	13C2 PFHxA	89		25-150
STL01892	13C4-PFHpA	97		25-150
STL00990	13C4 PFOA	92		25-150
STL00995	13C5 PFNA	90		25-150
STL00996	13C2 PFDA	95		25-150
STL00997	13C2 PFUnA	89		25-150
STL00998	13C2 PFDoA	85		25-150
STL00994	18O2 PFHxS	91		25-150
STL00991	13C4 PFOS	89		25-150

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\2017.10.20B_033.d
 Lims ID: LCSD 320-189663/3-A
 Client ID:
 Sample Type: LCSD
 Inject. Date: 21-Oct-2017 01:25:18 ALS Bottle#: 23 Worklist Smp#: 10
 Injection Vol: 2.0 ul Dil. Factor: 1.0000
 Sample Info: lcsd 320-189663/3-a
 Misc. Info.: Plate: 1 Rack: 4
 Operator ID: SACINSTLCMS01 Instrument ID: A8_N
 Method: \\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\A8_N.m
 Limit Group: LC PFC ICAL
 Last Update: 23-Oct-2017 14:16:11 Calib Date: 12-Oct-2017 11:11:26
 Integrator: Picker
 Quant Method: Isotopic Dilution Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20171012-49071.b\2017.10.12ICAL_010.d
 Column 1 : Det: EXP1
 Process Host: XAWRK012

First Level Reviewer: phomsophat

Date: 21-Oct-2017 13:37:49

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
2 Perfluorobutyric acid										
212.90 > 169.00	1.545	1.545	0.0	1.000	7240718	22.2		111	654	
D 1 13C4 PFBA										
217.00 > 172.00	1.545	1.545	0.0		17542730	46.7		93.4	12744	
4 Perfluoropentanoic acid										
262.90 > 219.00	1.754	1.754	0.0	1.000	4882964	21.1		105	1929	
D 3 13C5-PFPeA										
267.90 > 223.00	1.754	1.754	0.0		10593554	44.9		89.9	56944	
D 47 13C3-PFBS										
301.90 > 83.00	1.773	1.773	0.0		282923	41.2		88.7	6508	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	1.773	1.782	-0.009	1.000	8252938	18.9		107	24715	
298.90 > 99.00	1.773	1.782	-0.009	1.000	3620998		2.28(0.00-0.00)		17509	
61 Sodium 1H,1H,2H,2H-perfluorohexane										
327.00 > 307.00	1.971	1.971	0.0	1.000	2110393	21.7		116	24741	
6 Perfluorohexanoic acid										
313.00 > 269.00	2.005	2.017	-0.012	1.000	4764726	21.2		106	4709	
D 7 13C2 PFHxA										
315.00 > 270.00	2.005	2.017	-0.012		11464078	44.7		89.4	28964	
10 Perfluoroheptanoic acid										
363.00 > 319.00	2.323	2.324	-0.001	1.000	4838386	20.9		105	3949	
D 9 13C4-PFHpA										
367.00 > 322.00	2.323	2.324	-0.001		11606895	48.6		97.2	15411	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	2.343	2.348	-0.005	1.000	6905033	19.6		108	6178	
D 11 18O2 PFHxS										
403.00 > 84.00	2.343	2.348	-0.005		15427844	43.0		91.0	23802	
13 Sodium 1H,1H,2H,2H-perfluorooctane										
427.00 > 407.00	2.643	2.649	-0.006	1.000	2187425	21.8		115	17269	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 12 M2-6:2FTS										
429.00 > 81.00	2.643	2.649	-0.006		3896769	44.0		92.6	13690	
* 62 13C2-PFOA										
415.00 > 370.00	2.665	2.671	-0.006		12192897	50.0			17443	
15 Perfluorooctanoic acid										
413.00 > 369.00	2.665	2.671	-0.006	1.000	4619797	20.8		104	673	
413.00 > 169.00	2.665	2.671	-0.006	1.000	2454247		1.88(0.90-1.10)		7472	
D 14 13C4 PFOA										
417.00 > 372.00	2.665	2.671	-0.006		10290590	45.8		91.6	25135	
16 Perfluoroheptanesulfonic Acid										
449.00 > 80.00	2.672	2.678	-0.006	1.000	5886838	21.6		114	15680	
17 Perfluorooctane sulfonic acid										
499.00 > 80.00	3.034	3.035	-0.001	1.000	4670984	19.8		107	2950	
499.00 > 99.00	3.034	3.035	-0.001	1.000	998065		4.68(0.90-1.10)		2017	
20 Perfluorononanoic acid										
463.00 > 419.00	3.034	3.035	-0.001	1.000	3096951	20.8		104	2933	
D 18 13C4 PFOS										
503.00 > 80.00	3.034	3.035	-0.001		10738302	42.6		89.1	22950	
D 19 13C5 PFNA										
468.00 > 423.00	3.034	3.035	-0.001		7748658	45.2		90.4	14042	
25 Sodium 1H,1H,2H,2H-perfluorodecane										
527.00 > 507.00	3.381	3.385	-0.004	1.000	1664223	21.2		111	13602	
D 26 M2-8:2FTS										
529.00 > 81.00	3.381	3.385	-0.004		3382573	49.1		102	12965	
D 21 13C8 FOSA										
506.00 > 78.00	3.389	3.385	0.004		9301097	25.8		51.7	15254	
22 Perfluorooctane Sulfonamide										
498.00 > 78.00	3.389	3.393	-0.004	1.000	3874761	20.2		101	16632	
24 Perfluorodecanoic acid										
513.00 > 469.00	3.389	3.393	-0.004	1.000	2749439	21.3		107	3839	
D 23 13C2 PFDA										
515.00 > 470.00	3.389	3.393	-0.004		7045154	47.6		95.3	15973	
28 N-methyl perfluorooctane sulfonami										
570.00 > 419.00	3.554	3.552	0.002	1.003	723291	22.4		112	3203	
D 27 d3-NMeFOSAA										
573.00 > 419.00	3.544	3.552	-0.008		1731540	36.5		73.0	7713	
29 Perfluorodecane Sulfonic acid										
599.00 > 80.00	3.702	3.710	-0.008	1.000	2649019	19.6		102	10032	
D 32 d5-NEtFOSAA										
589.00 > 419.00	3.711	3.710	0.001		1753850	37.9		75.8	1847	
33 N-ethyl perfluorooctane sulfonamid										
584.00 > 419.00	3.721	3.720	0.001	1.003	642728	21.6		108	4482	
31 Perfluoroundecanoic acid										
563.00 > 519.00	3.721	3.720	0.001	1.000	1853734	19.8		99.1	2583	
D 30 13C2 PFUnA										
565.00 > 520.00	3.721	3.720	0.001		4339242	44.6		89.1	9772	
35 MeFOSA										
512.00 > 169.00	3.898	3.897	0.001	1.000	2231	26.1		130	214	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 34 d-N-MeFOSA-M	515.00 > 169.00	3.889	3.897	-0.008	4832	0.0554		0.1	2.1	
37 Perfluorododecanoic acid	613.00 > 569.00	4.007	4.014	-0.007	1.000	1482245	20.9	105	1423	
D 36 13C2 PFDaA	615.00 > 570.00	4.007	4.014	-0.007	3874426	42.4		84.8	7205	
D 38 d-N-EtFOSA-M	531.00 > 169.00	4.084	4.084	0.0	3436	0.0435		0.1	9.5	
39 N-ethylperfluoro-1-octanesulfonami	526.00 > 169.00	4.092	4.092	0.0	1.000	1514	23.4	117	10.1	
41 Perfluorotridecanoic acid	663.00 > 619.00	4.270	4.279	-0.009	1.000	1719323	24.9	125	177	
42 Perfluorotetradecanoic acid	713.00 > 169.00	4.503	4.505	-0.002	1.000	448576	21.0	105	4673	
713.00 > 219.00	4.511	4.505	0.006	1.002	338586		1.32(0.00-0.00)		2689	
D 43 13C2-PFTeDA	715.00 > 670.00	4.511	4.514	-0.003	4547157	56.8		114	14270	
45 Perfluorohexadecanoic acid	813.00 > 769.00	4.910	4.920	-0.010	1.000	1704303	19.4	96.9	105	
D 44 13C2-PFHxDA	815.00 > 770.00	4.910	4.920	-0.010	4635953	43.1		86.1	2581	
46 Perfluorooctadecanoic acid	913.00 > 869.00	5.257	5.260	-0.003	1.000	1779795	21.1	106	158	

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b\2017.10.20B_033.d

Injection Date: 21-Oct-2017 01:25:18

Instrument ID: A8_N

Lims ID: LCSD 320-189663/3-A

Client ID:

Operator ID: SACINSTLCMS01

ALS Bottle#: 23

Worklist Smp#: 10

Injection Vol: 2.0 ul

Dil. Factor: 1.0000

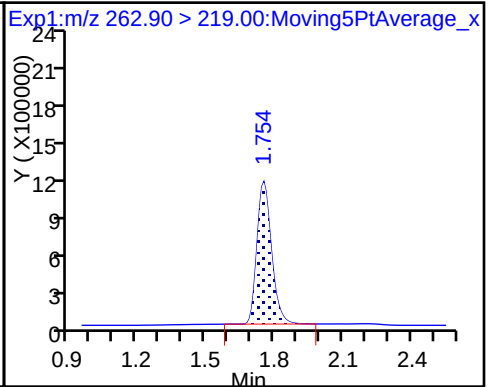
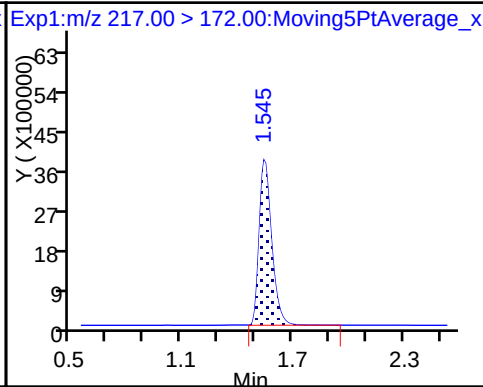
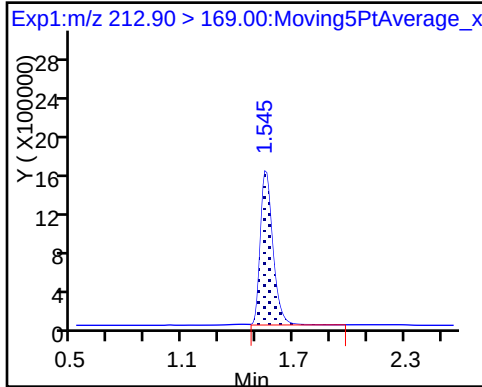
Method: A8_N

Limit Group: LC PFC ICAL

2 Perfluorobutyric acid

D 1 13C4 PFBA

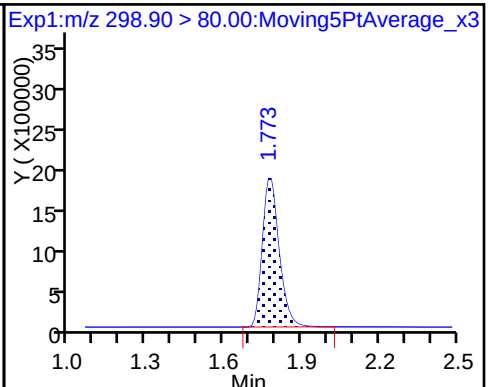
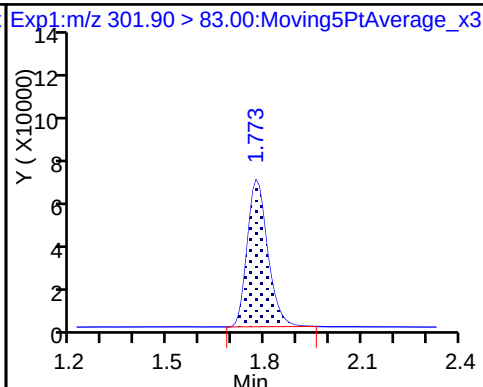
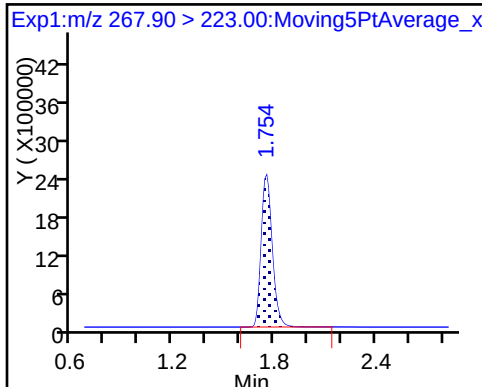
4 Perfluoropentanoic acid



D 3 13C5-PFPeA

D 47 13C3-PFBS

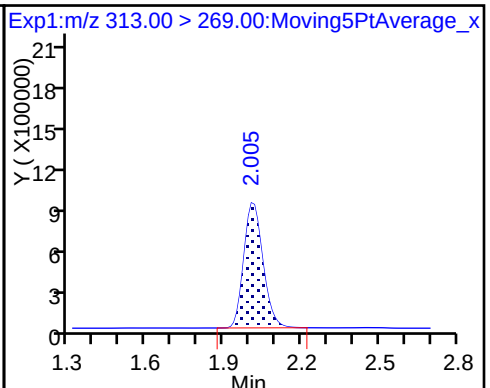
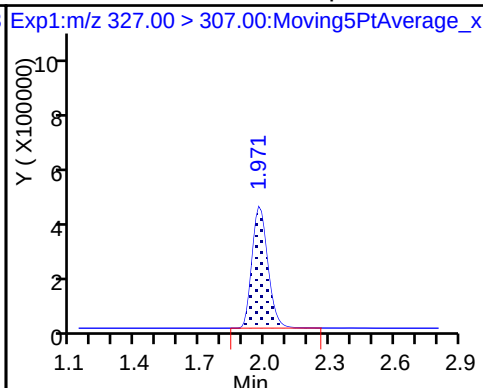
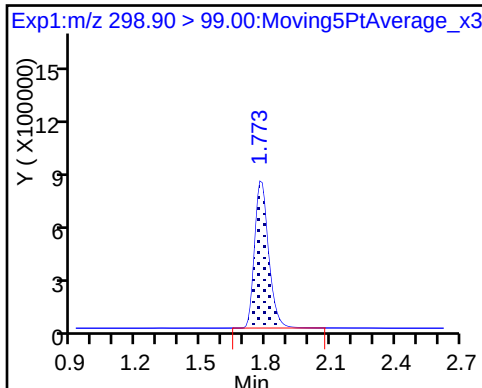
5 Perfluorobutanesulfonic acid



5 Perfluorobutanesulfonic acid

61 Sodium 1H,1H,2H,2H-perfluorohexanoate

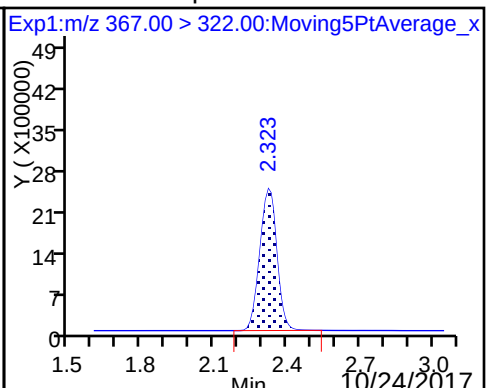
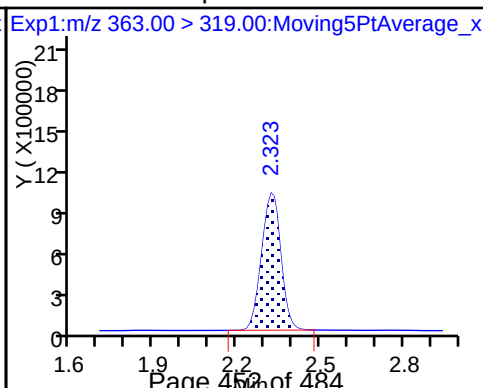
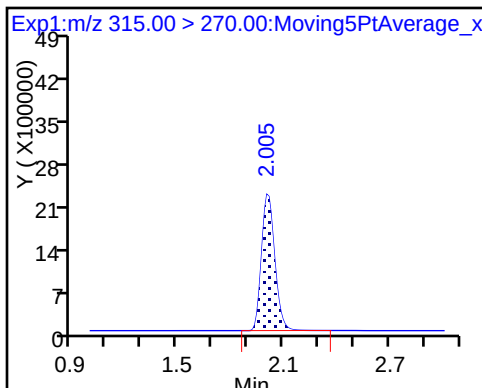
6 Perfluorohexanoic acid

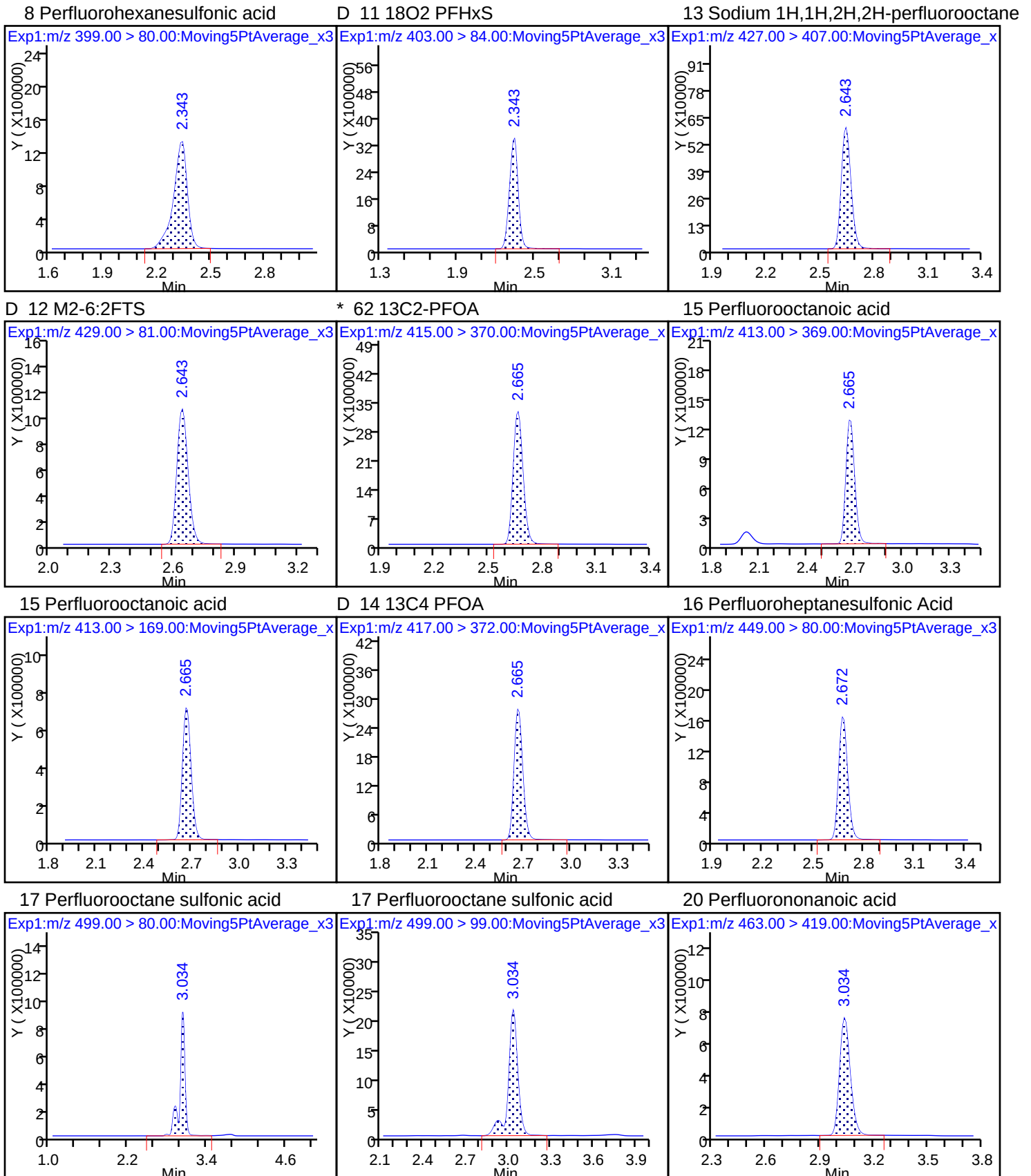


D 7 13C2 PFHxA

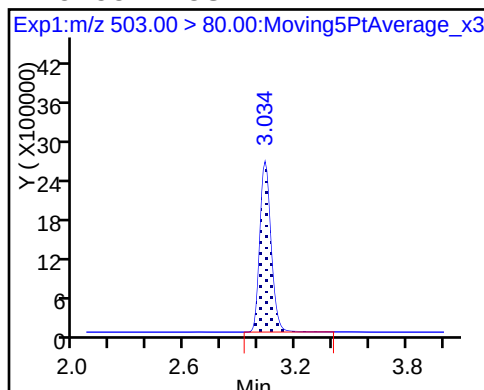
10 Perfluoroheptanoic acid

D 9 13C4-PFHpA

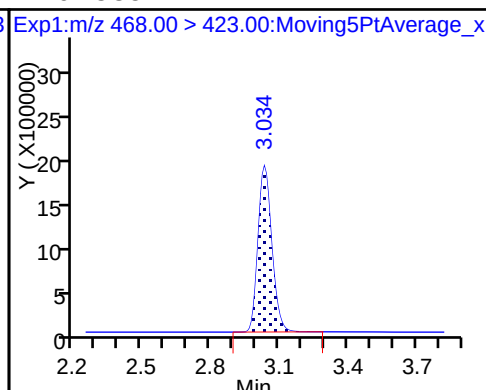




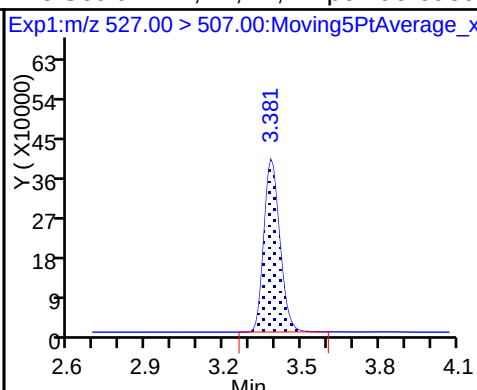
D 18 13C4 PFOS



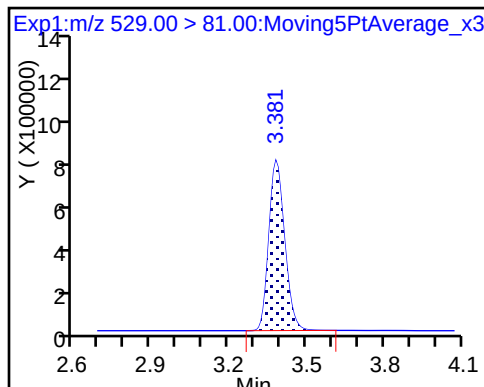
D 19 13C5 PFNA



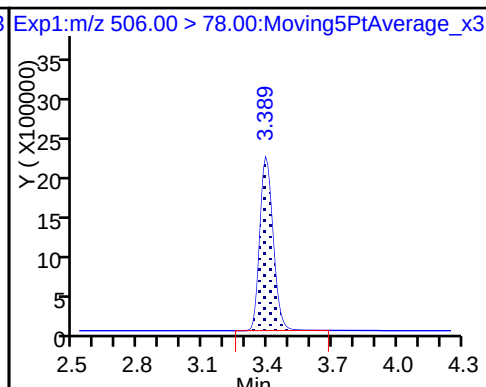
25 Sodium 1H,1H,2H,2H-perfluorodecane



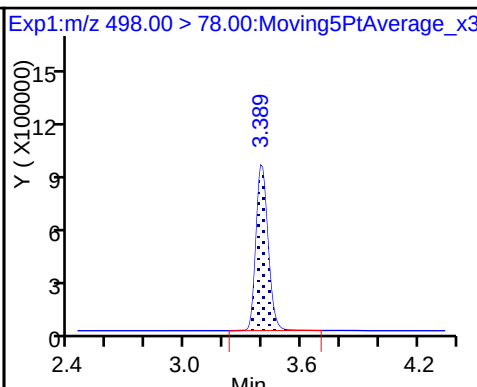
D 26 M2-8:2FTS



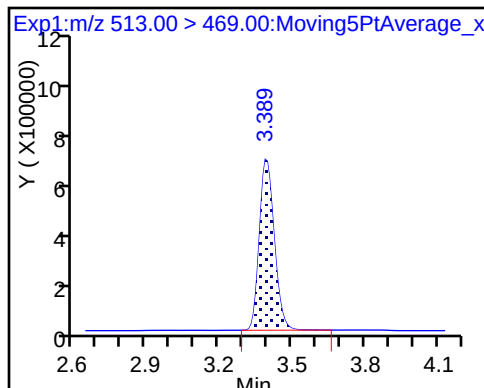
D 21 13C8 FOSA



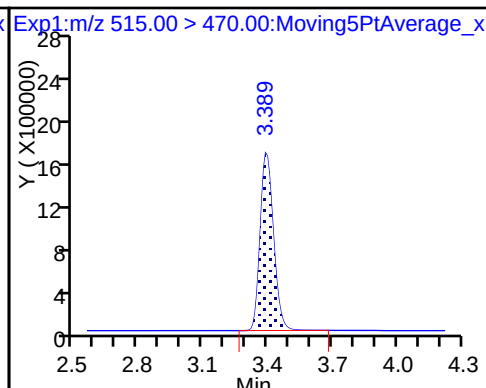
22 Perfluorooctane Sulfonamide



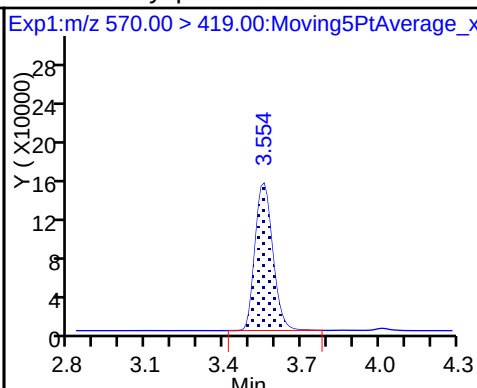
24 Perfluorodecanoic acid



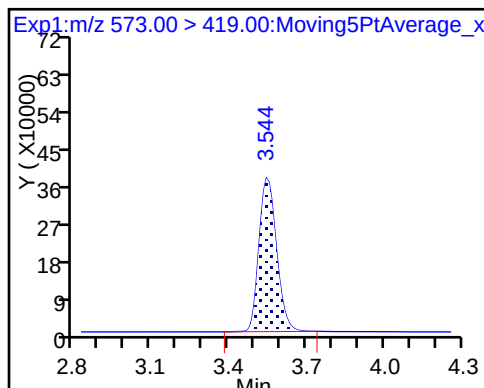
D 23 13C2 PFDA



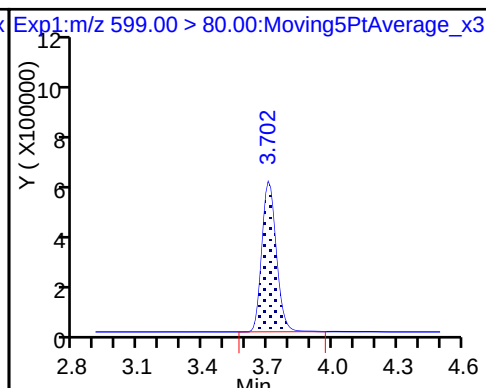
28 N-methyl perfluorooctane sulfonami



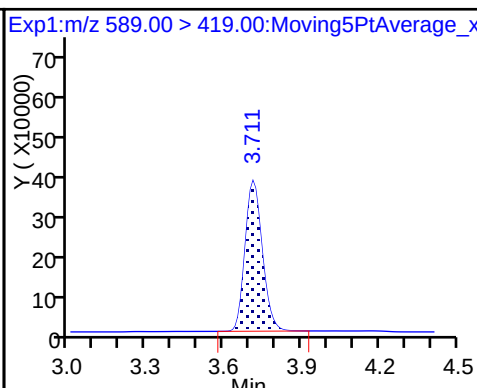
D 27 d3-NMeFOSAA



29 Perfluorodecane Sulfonic acid



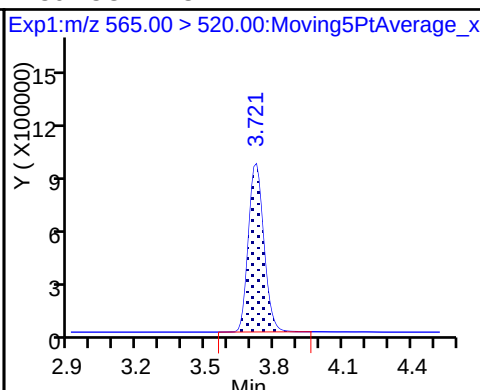
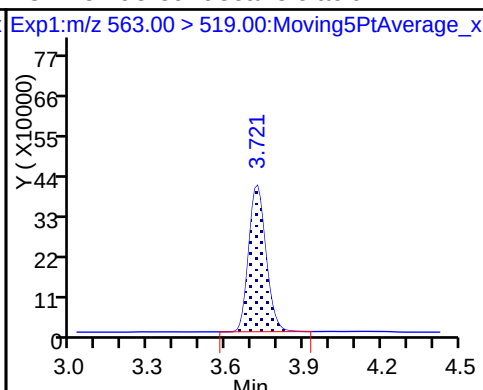
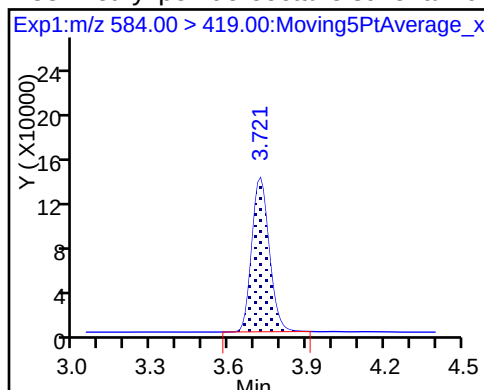
D 32 d5-NEtFOSAA



33 N-ethyl perfluorooctane sulfonamid

31 Perfluoroundecanoic acid

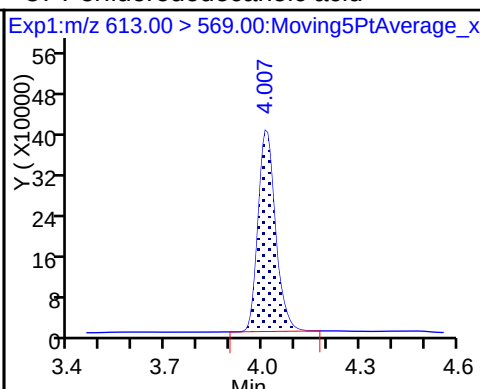
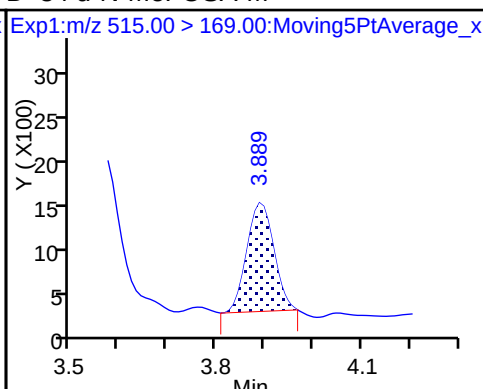
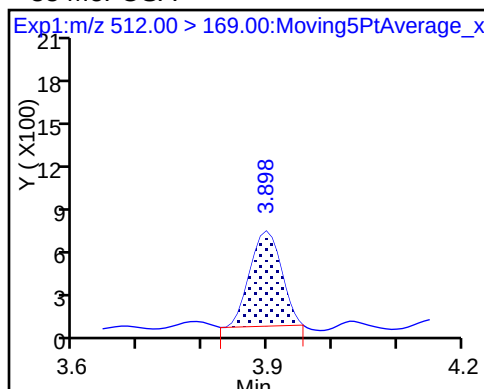
D 30 13C2 PFUnA



35 MeFOSA

D 34 d-N-MeFOSA-M

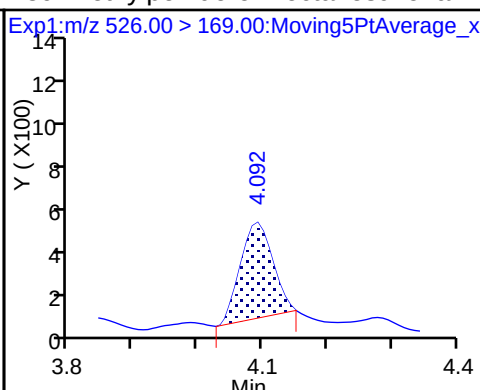
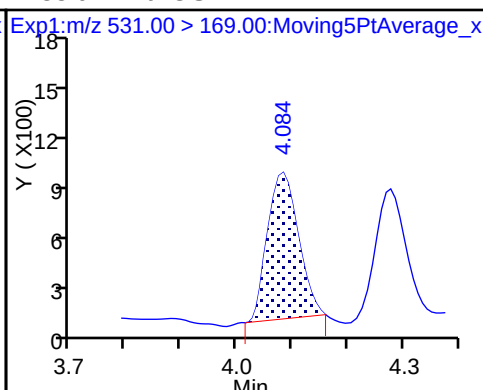
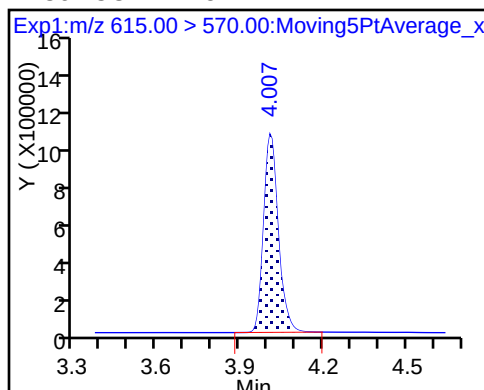
37 Perfluorododecanoic acid



D 36 13C2 PFDaA

D 38 d-N-EtFOSA-M

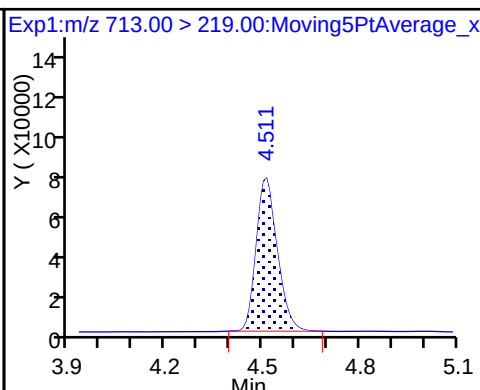
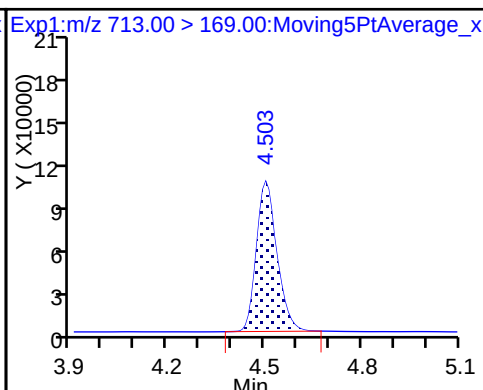
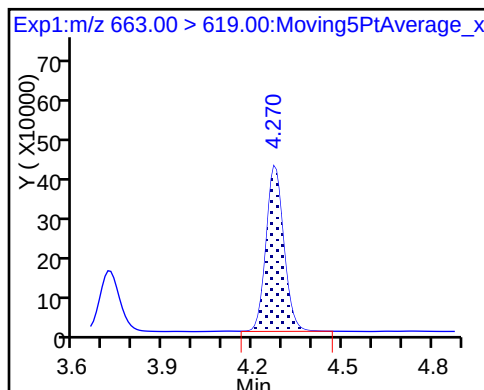
39 N-ethylperfluoro-1-octanesulfonami



41 Perfluorotridecanoic acid

42 Perfluorotetradecanoic acid

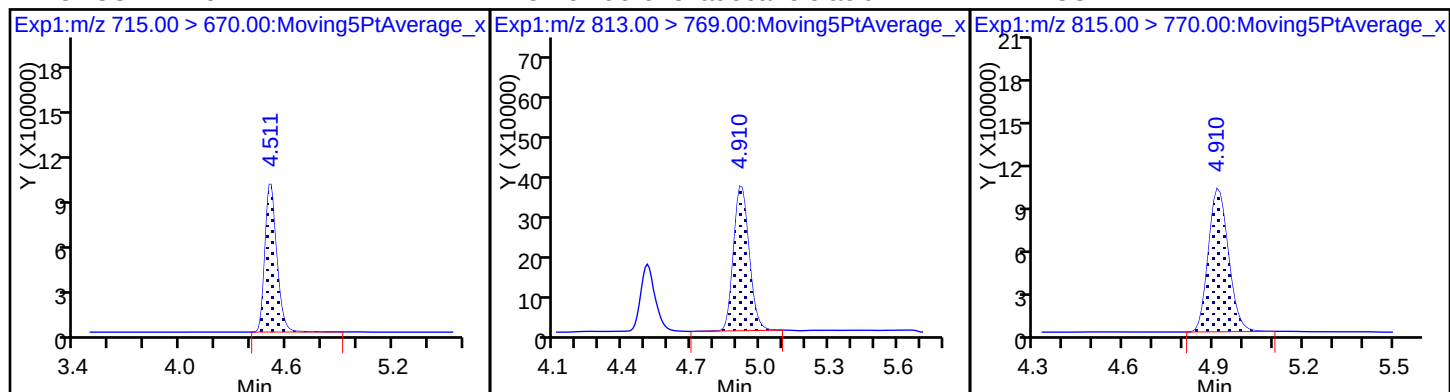
42 Perfluorotetradecanoic acid



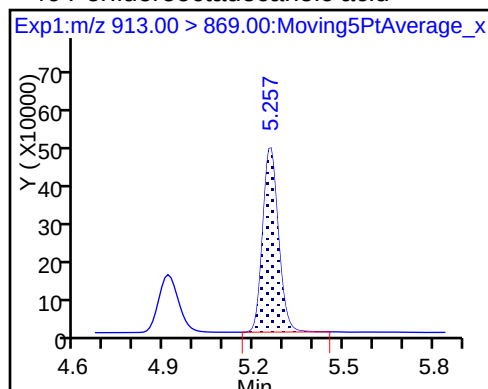
D 43 13C2-PFTeDA

45 Perfluorohexadecanoic acid

D 44 13C2-PFHxDA



46 Perfluorooctadecanoic acid



LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica SacramentoJob No.: 480-125692-1

SDG No.: _____

Instrument ID: A8_NStart Date: 10/12/2017 10:09Analysis Batch Number: 189059End Date: 10/12/2017 11:32

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		10/12/2017 10:09	1		GeminiC18 3x100 3(mm)
ZZZZZ		10/12/2017 10:16	1		GeminiC18 3x100 3(mm)
IC 320-189059/3		10/12/2017 10:23	1	2017.10.12ICAL_003.d	GeminiC18 3x100 3(mm)
IC 320-189059/4		10/12/2017 10:30	1	2017.10.12ICAL_004.d	GeminiC18 3x100 3(mm)
IC 320-189059/5		10/12/2017 10:36	1	2017.10.12ICAL_005.d	GeminiC18 3x100 3(mm)
IC 320-189059/6		10/12/2017 10:43	1	2017.10.12ICAL_006.d	GeminiC18 3x100 3(mm)
IC 320-189059/7		10/12/2017 10:50	1	2017.10.12ICAL_007.d	GeminiC18 3x100 3(mm)
IC 320-189059/8		10/12/2017 10:57	1	2017.10.12ICAL_008.d	GeminiC18 3x100 3(mm)
IC 320-189059/9		10/12/2017 11:04	1	2017.10.12ICAL_009.d	GeminiC18 3x100 3(mm)
IC 320-189059/10		10/12/2017 11:11	1	2017.10.12ICAL_010.d	GeminiC18 3x100 3(mm)
ICB 320-189059/11		10/12/2017 11:18	1	2017.10.12ICAL_011.d	GeminiC18 3x100 3(mm)
ICV 320-189059/12		10/12/2017 11:25	1	2017.10.12ICAL_012.d	GeminiC18 3x100 3(mm)
ZZZZZ		10/12/2017 11:32	1		GeminiC18 3x100 3(mm)

LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica SacramentoJob No.: 480-125692-1

SDG No.: _____

Instrument ID: A8_NStart Date: 10/21/2017 00:43Analysis Batch Number: 190434End Date: 10/21/2017 03:08

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVL 320-190434/4		10/21/2017 00:43	1	2017.10.20B_027 .d	GeminiC18 3x100 3(mm)
CCV 320-190434/5		10/21/2017 00:50	1	2017.10.20B_028 .d	GeminiC18 3x100 3(mm)
ZZZZZ		10/21/2017 00:57	1		GeminiC18 3x100 3(mm)
ZZZZZ		10/21/2017 01:04	1		GeminiC18 3x100 3(mm)
MB 320-189663/1-A		10/21/2017 01:11	1	2017.10.20B_031 .d	GeminiC18 3x100 3(mm)
LCS 320-189663/2-A		10/21/2017 01:18	1	2017.10.20B_032 .d	GeminiC18 3x100 3(mm)
LCSD 320-189663/3-A		10/21/2017 01:25	1	2017.10.20B_033 .d	GeminiC18 3x100 3(mm)
ZZZZZ		10/21/2017 01:32	1		GeminiC18 3x100 3(mm)
ZZZZZ		10/21/2017 01:39	1		GeminiC18 3x100 3(mm)
ZZZZZ		10/21/2017 01:46	1		GeminiC18 3x100 3(mm)
ZZZZZ		10/21/2017 01:52	1		GeminiC18 3x100 3(mm)
ZZZZZ		10/21/2017 01:59	1		GeminiC18 3x100 3(mm)
480-125692-14		10/21/2017 02:06	1	2017.10.20B_039 .d	GeminiC18 3x100 3(mm)
CCV 320-190434/17		10/21/2017 02:13	1	2017.10.20B_040 .d	GeminiC18 3x100 3(mm)
480-125692-15		10/21/2017 02:20	1	2017.10.20B_041 .d	GeminiC18 3x100 3(mm)
480-125692-16		10/21/2017 02:27	1	2017.10.20B_042 .d	GeminiC18 3x100 3(mm)
480-125692-17		10/21/2017 02:34	1	2017.10.20B_043 .d	GeminiC18 3x100 3(mm)
480-125692-18		10/21/2017 02:41	1	2017.10.20B_044 .d	GeminiC18 3x100 3(mm)
480-125692-19		10/21/2017 02:48	1	2017.10.20B_045 .d	GeminiC18 3x100 3(mm)
480-125692-20		10/21/2017 02:55	1	2017.10.20B_046 .d	GeminiC18 3x100 3(mm)
480-125692-21		10/21/2017 03:01	1	2017.10.20B_047 .d	GeminiC18 3x100 3(mm)
CCV 320-190434/25		10/21/2017 03:08	1	2017.10.20B_048 .d	GeminiC18 3x100 3(mm)

LCMS BATCH WORKSHEET

Lab Name: TestAmerica Sacramento Job No.: 480-125692-1

SDG No.: _____

Batch Number: 189663 Batch Start Date: 10/17/17 08:44 Batch Analyst: Branscum, CassieBatch Method: 3535 Batch End Date: 10/20/17 16:33

Lab Sample ID	Client Sample ID	Method Chain	Basis	GrossWeight	TareWeight	InitialAmount	FinalAmount	LCMPFC ALL_SU 00015	LCPFC-IS 00007
MB 320-189663/1		3535, 537 (modified)				250 mL	0.50 mL	500 uL	100 uL
LCS 320-189663/2		3535, 537 (modified)				250 mL	0.50 mL	500 uL	100 uL
LCSD 320-189663/3		3535, 537 (modified)				250 mL	0.50 mL	500 uL	100 uL
480-125692-A-14	MW-6	3535, 537 (modified)	T	272.25 g	27.36 g	244.9 mL	0.50 mL	500 uL	100 uL
480-125692-A-15	MW-7	3535, 537 (modified)	T	275.96 g	26.79 g	249.2 mL	0.50 mL	500 uL	100 uL
480-125692-A-16	MW-9	3535, 537 (modified)	T	274.48 g	26.66 g	247.8 mL	0.50 mL	500 uL	100 uL
480-125692-A-17	DGC-6S	3535, 537 (modified)	T	285.88 g	27.34 g	258.5 mL	0.50 mL	500 uL	100 uL
480-125692-A-18	DGC-7S	3535, 537 (modified)	T	277.70 g	26.79 g	250.9 mL	0.50 mL	500 uL	100 uL
480-125692-A-19	DGC-8S	3535, 537 (modified)	T	271.78 g	26.82 g	245 mL	0.50 mL	500 uL	100 uL
480-125692-A-20	PUMP CULVERT (TRENCH)	3535, 537 (modified)	T	284.82 g	28.06 g	256.8 mL	0.50 mL	500 uL	100 uL
480-125692-A-21	RECIRCULATION TANK (DISCHARGE)	3535, 537 (modified)	T	283.17 g	28.38 g	254.8 mL	0.50 mL	500 uL	100 uL

Lab Sample ID	Client Sample ID	Method Chain	Basis	LCPFCSP 00120	AnalysisComment				
MB 320-189663/1		3535, 537 (modified)							
LCS 320-189663/2		3535, 537 (modified)		500 uL					
LCSD 320-189663/3		3535, 537 (modified)		500 uL					
480-125692-A-14	MW-6	3535, 537 (modified)	T		Yellow				
480-125692-A-15	MW-7	3535, 537 (modified)	T		Yellow				
480-125692-A-16	MW-9	3535, 537 (modified)	T		Cloudy white				
480-125692-A-17	DGC-6S	3535, 537 (modified)	T		Cloudy white				
480-125692-A-18	DGC-7S	3535, 537 (modified)	T		Cloudy white				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

537 (modified)

Page 1 of 2

LCMS BATCH WORKSHEET

Lab Name: TestAmerica Sacramento Job No.: 480-125692-1

SDG No.: _____

Batch Number: 189663 Batch Start Date: 10/17/17 08:44 Batch Analyst: Branscum, CassieBatch Method: 3535 Batch End Date: 10/20/17 16:33

Lab Sample ID	Client Sample ID	Method Chain	Basis	LCPFCSP 00120	AnalysisComment				
480-125692-A-19	DGC-8S	3535, 537 (modified)	T						
480-125692-A-20	PUMP CULVERT (TRENCH)	3535, 537 (modified)	T		Yellow				
480-125692-A-21	RECIRCULATION TANK (DISCHARGE)	3535, 537 (modified)	T		Yellow				

Batch Notes	
Analyst ID - Aliquot Step	TQN
Balance ID	QA-078
Analyst ID - Concentration	CCB
Analyst ID - Final Volume Step	CCB
H2O ID	10/12/17
Hexane ID	981623
Internal Standard ID#	1047307
Manifold ID	14,8
Methanol ID	1052418
Sodium Hydroxide ID	1062691
Pipette ID	N32761F
Analyst ID - Reagent Drop	CCB
Analyst ID - IS Reagent Drop	CCB
Analyst ID - IS Reagent Drop Witness	HJA
Analyst ID - SU Reagent Drop	CCB
Analyst ID - SU Reagent Drop Witness	JNS
Solvent Lot #	1056733
Solvent Name	0.3% NH4OH/MeOH
SOP Number	WS-LC-0025
SPE Cartridge Type	WAX 500mg
Solid Phase Extraction Disk ID	003137011A

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

537 (modified)

Page 2 of 2

HPLC/LCMS Data Review Checklist

Job Number(s): 32347, 460-142547, 480-125692 Work List ID(s): 49417
 Extraction Batch: 189663 Analysis Batch(es): 190434
 Delivery Rank: 2, 4 Due Date: 10-24-17

A. Calibration/Instrument Run QC	1 st Level	2 nd Level	N/A
1. ICAL locked in Chrom and TALS? ICAL Batch# <u>189058 189059</u>	✓	✓	
2. ICAL, CCV Frequency & Criteria met. <u>JRB 10-23-17</u>	✓	✓	
• RF _{average} criteria appropriate for the method.	✓	✓	
• Linear Regression criteria appropriate if required ($r \geq 0.995$).	✓	✓	
• Quadratic fit criteria appropriate if required ($r^2 \geq 0.990$).	✓	✓	
• For Linear Regression and Quadratic fit – Does the y-intercept support ½ the reporting limit as described in CA-Q-S-005?	✓	✓	
• All curve points show calculated concentrations.	✓	✓	
3. Peaks correctly ID'd by data system.	✓	✓	
5. Tune check frequency & criteria met and Tune check report attached.			✓
B. QA/QC			
1. Are all QC samples properly linked in TALS?	✓	✓	
2. Method blank, LCS/LCSD and MS/SD frequencies met.	✓	✓	
3. LCS/LCSD and MB data are within control limits. If not, NCM is present.	✓	✓	
4. Are MS/MSD recoveries and RPD within control limits?			✓
5. Holding Times were met for prep and analytical.	✓	✓	
6. IS/Surrogate recoveries meet criteria or properly noted. <u>NCM</u>	✓	✓	
C. Sample Analysis			
1. Was correct analysis performed and were project instructions followed?	✓	✓	
2. If required, are compounds within RT windows?			✓
3. If required, are positive hits confirmed and >40% RPD flagged?			✓
4. Manual Integrations reviewed and appropriate.	✓	✓	
5. All analytes correctly reported. (Primary, secondary, acceptable status)	✓	✓	
6. Correct reporting limits used. (based on client request, prep factors, and dilutions)	✓	✓	
D. Documentation <u>104897</u>			
1. Are all non-conformances documented/attached? NCM# <u>104896</u>	✓	✓	
2. Do results make sense (e.g. dilutions, etc.)?	✓	✓	
3. Have all flags been reviewed for appropriateness?	✓	✓	
4. For level 3 and 4 reports, have forms and raw data been reviewed?		✓	
5. Was QC Checker run for this job?	✓	✓	

*Upon completion of this checklist, the reviewer must scan and attach the checklist to the TALS job.

1st Level (Analyst): JRB Date: 10-23-17
 2nd Level Reviewer: MW Date: 10/24/2017

TestAmerica Laboratories
Worklist QC Batch Report

Worklist Name: 20OCT2017D_PFC

Worklist Number: 49417

Instrument Name: A8_N

Chrom Method: A8_N

Data Directory: \\ChromNa\Sacramento\ChromData\A8_N\20171021-49417.b

QC Batching: Disabled

Limit Group Batching: Enabled

QC Batch: 1	LC PFC ICAL Raw Batch: 190434	LC PFC_DOD ICAL Raw Batch: 190435
# 1 RINSE	# 1 RINSE	# 1 RINSE
# 2 RINSE	# 2 RINSE	# 2 RINSE
# 3 RINSE	# 3 RINSE	# 3 RINSE
# 4 CCVL	# 4 CCVL	# 4 CCVL
# 5 CCV L4	# 5 CCV L4	# 5 CCV L4
# 6 RB	# 6 RB	# 6 RB
# 7 QC SPK	# 7 QC SPK	# 7 QC SPK
# 8 MB 320-189663/1-A	# 8 MB 320-189663/1-A	
# 9 LCS 320-189663/2-A	# 9 LCS 320-189663/2-A	
#10 LCSD 320-189663/3-A	#10 LCSD 320-189663/3-A	
#11 320-32347-A-1-A	#11 320-32347-A-1-A	
#12 320-32347-A-2-A	#12 320-32347-A-2-A	
#13 320-32347-A-3-A	#13 320-32347-A-3-A	
#14 320-32347-A-4-A	#14 320-32347-A-4-A	
#15 460-142547-E-1-A	#15 460-142547-E-1-A	
#16 480-125692-A-14-A	#16 480-125692-A-14-A	
#17 CCV L5	#17 CCV L5	#17 CCV L5
#18 480-125692-A-15-A	#18 480-125692-A-15-A	
#19 480-125692-A-16-A	#19 480-125692-A-16-A	
#20 480-125692-A-17-A	#20 480-125692-A-17-A	
#21 480-125692-A-18-A	#21 480-125692-A-18-A	
#22 480-125692-A-19-A	#22 480-125692-A-19-A	
#23 480-125692-A-20-A	#23 480-125692-A-20-A	
#24 480-125692-A-21-A	#24 480-125692-A-21-A	
#25 CCV L4	#25 CCV L4	#25 CCV L4

Aqueous Extraction Analysis Sheet

(To Accompany Samples to Instruments)

Analyst: Branscum, Cassie

Batch Number: 320-189663

Method Code: 320-3535_PFC-320

Batch Open: 10/17/2017 8:44:00AM

Batch End: 10/20/2017 4:33:00PM

Solid-Phase Extraction (SPE)

Input Sample Lab ID (Analytical Method)	SDG (Job #)	GrossWt TareWt	InitAmt FinAmt	PHs Rcvd Adj1 Adj2	Due Date	Analytical TAT	Div Rank	Comments	Output Sample Lab ID
MB-320-189663/1 N/A	N/A		250 mL 0.50 mL		N/A	N/A	N/A		MB 320-189663/1-A
LCS-320-189663/2 N/A	N/A		250 mL 0.50 mL		N/A	N/A	N/A		LCS 320-189663/2-A
LCS-320-189663/3 N/A	N/A		250 mL 0.50 mL		N/A	N/A	N/A		LCS 320-189663/3-A
320-32347-A-1 (PFC_IDA)	N/A (320-32347-1)	283.12 g 28.43 g	254.7 mL 0.50 mL		10/24/17	8_Days	2	Amber	320-32347-A-1-A
320-32347-A-2 (PFC_IDA)	N/A (320-32347-1)	279.16 g 28.17 g	251 mL 0.50 mL		10/24/17	8_Days	2	Amber	320-32347-A-2-A
320-32347-A-3 (PFC_IDA)	N/A (320-32347-1)	278.65 g 29.02 g	249.6 mL 0.50 mL		10/24/17	8_Days	2	Amber	320-32347-A-3-A
320-32347-A-4 (PFC_IDA)	N/A (320-32347-1)	282.13 g 27.94 g	254.2 mL 0.50 mL		10/24/17	8_Days	2	Amber	320-32347-A-4-A
460-142547-E-1 (PFC_IDA)	N/A (460-142547-1)	330.74 g 27.33 g	303.4 mL 0.50 mL		10/23/17	12_Days	2	Cloudy white	460-142547-E-1-A
480-125692-A-14 (PFC_IDA)	N/A (480-125692-1)	272.25 g 27.36 g	244.9 mL 0.50 mL		10/24/17	8_Day_Rush	4	Yellow	480-125692-A-14-A
480-125692-A-15 (PFC_IDA)	N/A (480-125692-1)	275.96 g 26.79 g	249.2 mL 0.50 mL		10/24/17	8_Day_Rush	4	Yellow	480-125692-A-15-A

51
AB 10/20/17
10/20/17

Aqueous Extraction Analysis Sheet

(To Accompany Samples to Instruments)

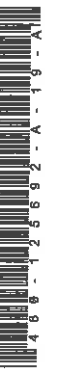
Batch Number: 320-189663

Method Code: 320-3535_PFC-320

Analyst: Branscum, Cassie

Batch Open: 10/17/2017 8:44:00AM

Batch End: 10/20/2017 4:33:00PM

11	480-125692-A-16 (PFC_IDA)	N/A (480-125692-1)	274.48 g 26.66 g	247.8 mL 0.50 mL				10/24/17	8_Day_Rush	4	Cloudy white	
12	480-125692-A-17 (PFC_IDA)	N/A (480-125692-1)	285.88 g 27.34 g	258.5 mL 0.50 mL				10/24/17	8_Day_Rush	4	Cloudy white	
13	480-125692-A-18 (PFC_IDA)	N/A (480-125692-1)	277.70 g 26.79 g	250.9 mL 0.50 mL				10/24/17	8_Day_Rush	4	Cloudy white <i>SX</i>	
14	480-125692-A-19 (PFC_IDA)	N/A (480-125692-1)	271.78 g 26.82 g	245 mL 0.50 mL				10/24/17	8_Day_Rush	4		
15	480-125692-A-20 (PFC_IDA)	N/A (480-125692-1)	284.82 g 28.06 g	256.8 mL 0.50 mL				10/24/17	8_Day_Rush	4	Yellow	
16	480-125692-A-21 (PFC_IDA)	N/A (480-125692-1)	283.17 g 28.38 g	254.8 mL 0.50 mL				10/24/17	8_Day_Rush	4	Yellow	

Aqueous Extraction Analysis Sheet

(To Accompany Samples to Instruments)

Analyst: Branscum, Cassie

Batch Number: 320-189663

Method Code: 320-3535_PFC-320

Batch Open: 10/17/2017 8:44:00AM

Batch End: 10/20/2017 4:33:00PM

Batch Notes

Manifold ID 14,8

Methanol ID 1052418

Hexane ID 981623

Sodium Hydroxide ID 1062691

First Start time NA

First End time NA

SPE Cartridge Type WAX 500mg

Solid Phase Extraction Disk ID 003137011A

Balance ID QA-078

H2O ID 10/12/17

Pipette ID N32761F

Solvent Name 0.3% NH4OH/MeOH

Solvent Lot # 1056733

Analyst ID - Reagent Drop CCB

Analyst ID - SU Reagent Drop CCB

Analyst ID - SU Reagent Drop JNS
Witness

Acid Name NA

Acid ID NA

Reagent ID NA

Reagent Lot Number NA

Analyst ID - IS Reagent Drop CCB

Aqueous Extraction Analysis Sheet

(To Accompany Samples to Instruments)

Analyst: Branscum, Cassie

Batch Number: 320-189663

Method Code: 320-3535_PFC-320

Batch Open: 10/17/2017 8:44:00AM

Batch End: 10/20/2017 4:33:00PM

Analyst ID - IS Reagent Drop	HJA
Witness	
Internal Standard ID#	1047307
Analyst ID - Concentration	CCB
Analyst ID - Aliquot Step	TQN
Analyst ID - Final Volume Step	CCB
SOP Number	WS-LC-0025
Batch Comment	N/A

Comments

Login Comments for Job 125692: Cat B requested with bottle order in email from Aaron Yecies on 9/29/17 - jls
L4Reviewed(Bflo);624(mtm)*ALL*10/18/2017.
~Sub methods:8270D_SIM,PFC_IDA.~

Aqueous Extraction Analysis Sheet

(To Accompany Samples to Instruments)

Analyst: Branscum, Cassie

Batch Open: 10/17/2017 8:44:00AM

Batch End:

Batch Number: 320-189663

Method Code: 320-3535_PFC-320

Reagent Additions Worksheet

Lab ID	Reagent Code	Amount Added	Final Amount	By	Witness
MB 320-189663/1	LCMPFC_ALL_SU_00015	500 uL	0.50 mL	CS 10-17-17	JNS 10/13/17
LCS 320-189663/2	LCMPFC_ALL_SU_00015	500 uL	0.50 mL		
LCS 320-189663/2	LCPFCS_P_00120	500 uL	0.50 mL		
LCS 320-189663/3	LCMPFC_ALL_SU_00015	500 uL	0.50 mL		
LCS 320-189663/3	LCPFCS_P_00120	500 uL	0.50 mL		
320-32347-A-1	LCMPFC_ALL_SU_00015	500 uL	0.50 mL		
320-32347-A-2	LCMPFC_ALL_SU_00015	500 uL	0.50 mL		
320-32347-A-3	LCMPFC_ALL_SU_00015	500 uL	0.50 mL		
320-32347-A-4	LCMPFC_ALL_SU_00015	500 uL	0.50 mL		
460-142547-E-1	LCMPFC_ALL_SU_00015	500 uL	0.50 mL		
480-125692-A-14	LCMPFC_ALL_SU_00015	500 uL	0.50 mL		
480-125692-A-15	LCMPFC_ALL_SU_00015	500 uL	0.50 mL		
480-125692-A-16	LCMPFC_ALL_SU_00015	500 uL	0.50 mL		
480-125692-A-17	LCMPFC_ALL_SU_00015	500 uL	0.50 mL		
480-125692-A-18	LCMPFC_ALL_SU_00015	500 uL	0.50 mL		
480-125692-A-19	LCMPFC_ALL_SU_00015	500 uL	0.50 mL		
480-125692-A-20	LCMPFC_ALL_SU_00015	500 uL	0.50 mL		
480-125692-A-21	LCMPFC_ALL_SU_00015	500 uL	0.50 mL		

Aqueous Extraction Analysis Sheet

(To Accompany Samples to Instruments)

Analyst: Branscum, Cassie

Batch Number: 320-189663

Method Code: 320-3535_PFC-320

Batch Open: 10/17/2017 8:44:00AM

Batch End:

Reagent	Other Reagents:		Lot#:
	Amount/Units		

Sacramento Preparation Data Review Checklist

Preparation Batch Number(s) 189663

Test PFC (1)

Earliest Holding Time 10/19/17

Batch Information	1 st Level Reviewer	2 nd Level Reviewer
Date and time accurate and entered into TALS correctly	✓	✓
All necessary batch information complete and entered into TALS correctly	✓	✓
BD, FV, and AL initials are transcribed into the batch comment	✓	✓
Sample List Tab	1 st Level Reviewer	2 nd Level Reviewer
Samples identified to the correct method	✓	✓
Holding time violation NCM filed	N/A	NA
MS/MSD or MS/DU NCM filed	✓	✓
NCM for any anomalies filed	✓	✓
All NCMs include method code, matrix, and prep batch	✓	✓
Method/sample/login/QAS checked and correct	✓	✓
Batch contains no more than 20 live samples	✓	✓
Worksheet Tab	1 st Level Reviewer	2 nd Level Reviewer
All samples properly preserved	N/A	NA
Weights in anticipated range and not targeted	✓	✓
All additional test requirements performed, documented, and uploaded to TALS correctly (e.g. final amount, initial amount, turbidity, and CI Check)	✓	✓
The pH is transcribed properly in TALS	N/A	NA
All additional information is transcribed into TALS and is correct and raw data is attached	✓	✓
Comments/Observations are transcribed correctly in TALS	✓	✓
Reagents Tab	1 st Level Reviewer	2 nd Level Reviewer
All necessary reagents not expired and checked into TALS	✓	✓
All spike amounts correct and added to necessary samples and QC	✓	✓
Internal Standard is added to the reagents	✓	✓
All units are correctly transcribed into TALS	✓	✓

1st Level Reviewer: TQN

Date: 10/20/17

2nd Level Reviewer: vpm

Date: 10/20/17

Comments: _____

Sample Dilution Record

Method ID 8FC-1DA

Job # See below

Analyst (Print Name) Theresa Phomsophy

Analyst Initials TP

Date 10/21/17

[illegible]

Comments:

Shipping and Receiving Documents

480501-1-1-1-1

Client Information

Client Contact: Mr. Aaron Yecies
Company: Aztech Technologies Inc
Address: 5 McCrea Hill Road
City: Ballston Spa
State, Zip: NY, 12020
Phone: 518-597-1241 (Tel)
Email: ayecies@aztechenv.com
Project Name: Philmar Electronics #510008
Site:

Sampler: Michael Dwyer
Lab PM: Stone, Judy L
E-Mail: judy.stone@testamericainc.com

Analysis Request

Due Date Requested:
TAT Requested (days):
PO #:
Call Out 120975
WO #:
Project #:
48005876
SSOW#:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=oil, BT=tissue, A=air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	624_5ml UP - Priority Pollutant List - VOA - 624	PFC IDA - (MOD) PFA's, Standard List	8270D_SIM_14DX - Local Method	Total Number of Containers	Special Instructions/Note:
MW-3	10/10/17	12:10	G	Water	✓	✓	✓	✓	✓	3	
MW-6	10/10/17	12:15	G	Water	✓	✓	✓	✓	✓	5	
MW-7	10/10/17	12:25	G	Water	✓	✓	✓	✓	✓	5	
MW-8 MD	NOT Sampled			Water MD	✓	✓	✓	✓	✓	40	
MW-9	10/10/17	12:35	G	Water	✓	✓	✓	✓	✓	5	
MW-10	10/10/17	12:40	G	Water	✓	✓	✓	✓	✓	3	
MW-11 MD	NOT Sampled			Water MD	✓	✓	✓	✓	✓	40	
DGC-6S	10/10/17	12:55	G	Water	✓	✓	✓	✓	✓	5	
DGC-7S	10/10/17	13:10	G	Water	✓	✓	✓	✓	✓	5	
DGC-8S	10/10/17	13:15	G	Water	✓	✓	✓	✓	✓	5	
DGC-11S	10/10/17	13:20	G	Water	✓	✓	✓	✓	✓	3	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological
 Deliverable Requested: I, II, III, IV, Other (specify)

Empty Kit Relinquished by:
 Relinquished by: [Signature]
 Relinquished by: [Signature]
 Relinquished by: [Signature]

Date:
 Date/Time: 10/10/17 17:00
 Date/Time: 10/11/17 18:00
 Date/Time:

Method of Shipment:
 Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Custody Seal No.:
 Custody Seal No.: 02 #1



480-125692 COC

COC No: 480-103058-24454.1
 Page: Page 1 of 3
 Job #:

Preservation Codes:
 A - HCL
 B - NaOH
 C - Zn Acetate
 D - Nitric Acid
 E - NaHSO4
 F - MeOH
 G - Amchlor
 H - Ascorbic Acid
 I - Ice
 J - DI Water
 K - EDTA
 L - EDA
 Other:

Special Instructions/Note:

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Relinquished by:
 Relinquished by: [Signature]
 Relinquished by: [Signature]
 Relinquished by: [Signature]

Date:
 Date/Time: 10/11/17 0700
 Date/Time: 10/12/17 0145
 Date/Time:

Company:
 Company: TA
 Company: TA
 Company:

Cooler Temperature(s) °C and Other Remarks:
 Cooler Temperature(s) °C and Other Remarks:

Client Information		Sampler: <i>Michael Dwyer</i>		Lab PM: Stone, Judy L	Carrier Tracking No(s):		COC No: 480-103058-24454.2
Client Contact: Mr. Aaron Yecies		Phone:		E-Mail: judy.stone@testamericainc.com	Page: Page 2 of 3		Job #:
Company: Aztech Technologies Inc		Address: 5 McCrea Hill Road		City: Ballston Spa		State, Zip: NY, 12020	
Phone: 518-597-1241(Tel)		PO #: Call Out 120975		WO #:		Project #: 48005876	
Email: ayeecies@aztechenv.com		Project Name: Philmar Electronics #510008		Site:		SSOW#:	
Due Date Requested:		TAT Requested (days):		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)	
Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=wastewater, BT=Tissue, A=Air)	
Sample Identification		Preservation Code:		624 5ml UP - Priority Pollutant List - VOA - 624		8270D SIM 14DX - Local Method	
DGC-12		10/10/17 13:30		G		Water	
DGC-21		10/10/17 13:40		G		Water	
Pump Culvert (Trench)		10/10/17 13:45		G		Water	
Recirculation Tank (Discharge)		10/10/17 13:50		G		Water	
MW-6		10/10/17 12:17		G		Water	
MW-7		10/10/17 12:27		G		Water	
MW-9		10/10/17 12:37		G		Water	
Possible Hazard Identification		Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological ☐		Deliverable Requested: I, II, III, IV, Other (specify)		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	
Empty Kit Relinquished by:		Date:		Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months		Special Instructions/Note:	
Relinquished by: <i>Michael Dwyer</i>		Date/Time: 10/10/17 17:00		Company: <i>Aztech</i>		Relinquished by: <i>Michael Dwyer</i>	
Relinquished by: <i>Michael Dwyer</i>		Date/Time: 10/11/17 18:00		Company: <i>TA</i>		Relinquished by: <i>Michael Dwyer</i>	
Relinquished by:		Date/Time:		Company:		Relinquished by:	
Custody Seals Intact: ☐ Yes ☐ No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		0.2 #1	

Client Information Client Contact: Mr. Aaron Yecies Company: Aztech Technologies Inc Address: 5 McCrea Hill Road City: Ballston Spa State: NY, 12020 Phone: 518-597-1241 (Tel) Email: ayecies@aztechenv.com Project Name: Philmar Electronics #510008 Site:		Lab PM: Stone, Judy L E-Mail: judy.stone@testamericainc.com Carrier Tracking No(s): 480-103058-24454.3 Page: Page 3 of 3 Job #:	
Due Date Requested: TAT Requested (days): PO #: Call Out 120975 WO #: Project #: 48005876 SSOW#:		Analysis Requested Perform MS/MSD (Yes or No) ☒ Yes ☐ No 624_5ml UP - Priority Pollutant List - VOA - 624 PFC IDA - (MOD) PFAS, Standard List 8270D_SIM_14DX - Local Method	
Sample Identification Sample Date Sample Time Sample Type (C=Comp, G=grab) Matrix (W=water, S=solid, O=oil, BT=Tissue, A=Air) Preservation Code:		Total Number of containers Special Instructions/Note:	
DGC-6S DGC-7S DGC-8S Pump Culvert (Trench) Recirculation Tank (Discharge)		10/10/17 12:57 Water 10/10/17 13:13 Water 10/10/17 13:17 Water 10/10/17 13:47 Water 10/10/17 13:53 Water 10/11/17 11:17 Water 10/11/17 11:17 Water 10/11/17 11:17 Water 10/11/17 11:17 Water	
Possible Hazard Identification ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological Deliverable Requested: I, II, III, IV, Other (specify)			
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months Special Instructions/QC Requirements:			
Empty Kit Relinquished by: Relinquished by: <i>Michael Deyelle</i> Relinquished by: <i>Rafael</i> Relinquished by: <i>Rafael</i>			
Date: Date/Time: 10/11/17 17:00 Date/Time: 10/11/17 18:00 Date/Time:			
Custody Seal No.: Custody Seal No.: 0.2 Custody Seal Intact: ☒ Yes ☐ No			

Chain of Custody Record

10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Client Information		Lab POC: <u>Stone, Judy L.</u>	Carrier Tracking No(s): <u>480-103058-24454-1</u>
Client Contact: <u>Mr. Aaron Yecies</u>		E-Mail: <u>judy.stone@testamericainc.com</u>	Page: <u>Page 1 of 3</u>
Company: <u>Aztech Technologies Inc</u>		Job #:	
Address: <u>5 McCrea Hill Road</u>		Analysis Requested	
City: <u>Ballston Spa</u>			
State, Zip: <u>NY, 12020</u>		480-125692 Chain of Custody	
Phone: <u>518-597-1241 (Tel)</u>		ion Codes:	
Email: <u>ayecies@aztechenv.com</u>		M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO4 S - H2SO4 T - TSP Dosectary U - Acetic V - MCAA W - pH 4.5 Z - other (specify)	
Project Name: <u>Philmar Electronics #510008</u>		Other:	
Site:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Solid, Chilled, etc.)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	624 SmI, UP - Priority Pollutant List - VOA - 624	PFC, IDA - (MOD) PFA's, Standard List	8270D SIM, 14DX - Local Method	Total Number of Containers	Special Instructions/Notes
MW-3	10/10/17	12:10	G	Water	U	U	X	N	N	3	
MW-6	10/10/17	12:15	G	Water	U	U	X	N	N	5	
MW-7	10/10/17	12:25	G	Water	U	U	X	N	N	5	
MW-8	NOT Sampled			Water	U	U				5	
MW-9	10/10/17	12:35	G	Water	U	U	X	N	N	5	
MW-10	10/10/17	12:40	G	Water	U	U	X	N	N	3	
MW-11	NOT Sampled			Water	U	U				5	
DGC-6S	10/10/17	12:55	G	Water	U	U	X	N	N	5	
DGC-7S	10/10/17	13:10	G	Water	U	U	X	N	N	5	
DGC-8S	10/10/17	13:15	G	Water	U	U	X	N	N	5	
DGC-11S	10/10/17	13:20	G	Water	U	U	X	N	N	3	

Possible Hazard Identification		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	
☐ Non-Hazard	☐ Flammable	☐ Return To Client	☐ Disposal By Lab
Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/QC Requirements:	
Empty Kit Relinquished by: <u>Philmar Electronics</u>		Method of Shipment:	
Relinquished by: <u>Philmar Electronics</u>		Date: <u>10/10/17</u> Time: <u>17:00</u>	
Relinquished by: <u>Philmar Electronics</u>		Date: <u>10/10/17</u> Time: <u>18:00</u>	
Relinquished by: <u>Philmar Electronics</u>		Date: <u>10/10/17</u> Time: <u>10:10</u>	
Custody Seal No.: <u>480-125692</u>		Custody Seal No.: <u>480-125692</u>	
Custody Seals Intact: <u>Yes</u>		Custody Seals Intact: <u>Yes</u>	
Custody Temperature(s) °C and Other Remarks: <u>1-2 °C</u>		Custody Temperature(s) °C and Other Remarks: <u>1-2 °C</u>	

Chain of Custody Record

Client Information Client Contact: Mr. Aaron Yecies Company: Aztech Technologies Inc Address: 5 McCrea Hill Road City: Ballston Spa State, Zip: NY, 12020 Phone: 518-597-1241(Tel) Email: ayecies@aztechenv.com Project Name: Philmar Electronics #510008 Site:		Lab Piv: Stone, Judy L E-Mail: judy.stone@testamericainc.com Phone:		Carrier Tracking No(s): COC No: 480-103058-24454.2 Page: Page 2 of 3 Job #:	
Due Date Requested: TAT Requested (days): PO #: Call Out 120975 WO #:		Analysis Requested Perform MS/MSD (Yes or No) ☒ Field Filtered Sample (Yes or No) ☒ 624 5ml LP - Priority Pollutant List - VOA - 624 ☒ PFC, IDA - (MOD) PFA's, Standard List ☒ 8270D, SIM, 14DX - Local Method ☒			
Sample Identification Sample Date: 10/10/17 Sample Time: 13:30 Sample Type (C=Comp, G=grab): G Matrix (W=Water, S=solid, O=waste oil, BT=tissue, A=Air): Water		Preservation Codes: A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Acetic Acid T - TSP Doderach I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Z - other (specify) Other:			
DGC-12 DGC-21 Pump Culvert (Trench) Recirculation Tank (Discharge)		Total Number of Containers: 3 Special Instructions/Notes:			
MW-6 MW-7 MW-9		2 2			
Possible Hazard Identification ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Polson B ☐ Unknown ☐ Radiological Deliverable Requested: I, II, III, IV, Other (specify)					
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months					
Special Instructions/QC Requirements:					
Empty Kit Relinquished by: Relinquished by: [Signature] Relinquished by: [Signature] Relinquished by: [Signature]		Method of Shipment: Date/Time: 10/10/17 17:00 Date/Time: 10/11/17 18:00 Date/Time:			
Custody Seals Intact: Δ Yes Δ No		Cooler Temperature(s) °C and Other Remarks: 1-2°C			

Chain of Custody Record

Client Information		Lab PM:		Carrier Tracking No(s):		COC No:	
Client Contact: Mr. Aaron Yecies Phone: 516-597-1241 (Tel) Email: ayeecies@aztechenv.com Project Name: Philmar Electronics #510008 Site:		Stone, Judy L E-Mail: judy.stone@testamericainc.com		480-103058-24454.3 Page 3 of 3		480-103058-24454.3	
Analysis Requested Due Date Requested: TAT Requested (days): PO #: Call Out 120975 Project #: 48005876 SSOW#:				Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Archor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:			
Sample Identification DGC-6S DGC-7S DGC-8S Pump Culvert (Trench) Recirculation Tank (Discharge)		Sample Date 10/10/17 10/10/17 10/10/17 10/10/17 10/10/17		Sample Time 12:57 13:13 13:17 13:47 13:53		Matrix (W=Water, S=Soil, C=Cement, G=Gravel, B=Brick, O=Other) Water Water Water Water Water	
Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		624 5ml LP - Priority Pollutant List - VOA - 624 PFC IDA - (MOD) PFAS, Standard List 8270D SIM 14DX - Local Method		Total Number of containers	
Special Instructions/Note		Special Instructions/Note					

Possible Hazard Identification		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	Deliverable Requested: I, II, III, IV, Other (specify)	☐ Return To Client ☐ Disposal By Lab	Archive For Months
Empty Kit Relinquished by:		Special Instructions/QC Requirements:	
Relinquished by: <i>[Signature]</i> Relinquished by: <i>[Signature]</i> Relinquished by: <i>[Signature]</i>		Date: 10/10/17 17:00 Date: 10/11/17 18:00 Date: 10/11/17 18:00	
Relinquished by: <i>[Signature]</i> Relinquished by: <i>[Signature]</i> Relinquished by: <i>[Signature]</i>		Date: 10/11/17 09:00 Date: 10/12/17 10:10 Date: 10/12/17 10:10	
Relinquished by: <i>[Signature]</i> Relinquished by: <i>[Signature]</i> Relinquished by: <i>[Signature]</i>		Date: 10/11/17 09:00 Date: 10/12/17 10:10 Date: 10/12/17 10:10	

Chain of Custody Record

Testame

Client Information				Analysis Requested			
Company: Aztech Technologies Inc Address: 5 MacCrea Hill Road City: Ballston Spa State, Zip: NY, 12020 Phone: 518-597-1241 (Tel) Email: ayecies@aztechenv.com Project Name: Philmar Electronics #510008 Site:				Due Date Requested: TAT Requested (days): PO #: Call Out 120975 W/O #: Project #: 48005876 SSOV#:			
Requisitioned by: [Signature] Date/Time: 10/11/17 17:00 Company: AZTECH				Received by: [Signature] Date/Time: 10/11/17 0700 Company: TH			
Requisitioned by: [Signature] Date/Time: 10/11/17 1800 Company: TH				Received by: [Signature] Date/Time: 10/11/17 0400 Company: TH			
Requisitioned by: [Signature] Date/Time: 10/11/17 1800 Company: TH				Received by: [Signature] Date/Time: 10/11/17 0400 Company: TH			
Sample Identification Sample Date Sample Time Sample Type (G=Comp, G=grab) Preservation Code: Matrix (W=Water, S=Soil, O=Other, A=Air)				Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No)			
MW-3 10/10/17 12:10 G Water				624_5mL_UP - Priority Pollutant List - VOA - 624			
MW-6 10/10/17 12:15 G Water				PFC_IDA - (MOD) PFAS, Standard List			
MW-7 10/10/17 12:25 G Water				8270D_SIM_14DX - Local Method			
MW-9 10/10/17 12:35 G Water				Total Number of container			
MW-10 10/10/17 12:40 G Water				Special Instruction			
MW-11 10/10/17 12:45 G Water				Page 478 of 48			
MW-12 10/10/17 12:50 G Water				Page 479 of 48			
MW-13 10/10/17 12:55 G Water				Page 480 of 48			
MW-14 10/10/17 13:00 G Water				Page 481 of 48			
MW-15 10/10/17 13:05 G Water				Page 482 of 48			
MW-16 10/10/17 13:10 G Water				Page 483 of 48			
MW-17 10/10/17 13:15 G Water				Page 484 of 48			
MW-18 10/10/17 13:20 G Water				Page 485 of 48			
MW-19 10/10/17 13:25 G Water				Page 486 of 48			
MW-20 10/10/17 13:30 G Water				Page 487 of 48			
MW-21 10/10/17 13:35 G Water				Page 488 of 48			
MW-22 10/10/17 13:40 G Water				Page 489 of 48			
MW-23 10/10/17 13:45 G Water				Page 490 of 48			
MW-24 10/10/17 13:50 G Water				Page 491 of 48			
MW-25 10/10/17 13:55 G Water				Page 492 of 48			
MW-26 10/10/17 14:00 G Water				Page 493 of 48			
MW-27 10/10/17 14:05 G Water				Page 494 of 48			
MW-28 10/10/17 14:10 G Water				Page 495 of 48			
MW-29 10/10/17 14:15 G Water				Page 496 of 48			
MW-30 10/10/17 14:20 G Water				Page 497 of 48			
MW-31 10/10/17 14:25 G Water				Page 498 of 48			
MW-32 10/10/17 14:30 G Water				Page 499 of 48			
MW-33 10/10/17 14:35 G Water				Page 500 of 48			
MW-34 10/10/17 14:40 G Water				Page 501 of 48			
MW-35 10/10/17 14:45 G Water				Page 502 of 48			
MW-36 10/10/17 14:50 G Water				Page 503 of 48			
MW-37 10/10/17 14:55 G Water				Page 504 of 48			
MW-38 10/10/17 15:00 G Water				Page 505 of 48			
MW-39 10/10/17 15:05 G Water				Page 506 of 48			
MW-40 10/10/17 15:10 G Water				Page 507 of 48			
MW-41 10/10/17 15:15 G Water				Page 508 of 48			
MW-42 10/10/17 15:20 G Water				Page 509 of 48			
MW-43 10/10/17 15:25 G Water				Page 510 of 48			
MW-44 10/10/17 15:30 G Water				Page 511 of 48			
MW-45 10/10/17 15:35 G Water				Page 512 of 48			
MW-46 10/10/17 15:40 G Water				Page 513 of 48			
MW-47 10/10/17 15:45 G Water				Page 514 of 48			
MW-48 10/10/17 15:50 G Water				Page 515 of 48			
MW-49 10/10/17 15:55 G Water				Page 516 of 48			
MW-50 10/10/17 16:00 G Water				Page 517 of 48			
MW-51 10/10/17 16:05 G Water				Page 518 of 48			
MW-52 10/10/17 16:10 G Water				Page 519 of 48			
MW-53 10/10/17 16:15 G Water				Page 520 of 48			
MW-54 10/10/17 16:20 G Water				Page 521 of 48			
MW-55 10/10/17 16:25 G Water				Page 522 of 48			
MW-56 10/10/17 16:30 G Water				Page 523 of 48			
MW-57 10/10/17 16:35 G Water				Page 524 of 48			

Phone (716) 691-2600 Fax (716) 691-7991

Testament
THE LEADERS' VOICINGS
201

Page 479 of 480

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TESTAMERIC
10/24/2011

Client Information			Sample:	Lab P/N:	Carrier Tracking No(s):		COC No:						
Client Contact:			Phone:	Stone, Judy L			480-103056-24454.3						
Company:			E-Mail:	Judy.stone@testamericainc.com			Page: 3 of 3						
Address:			Due Date Requested:	Analysis Requested									
5 McCrea Hill Road			TAT Requested (days):										
City:													
State Zip:													
NY, 12020													
Phone:			PO #:										
518-597-1241 (Te)			Call Out 120975										
Email:			WO #:										
aveles@aztechenv.com													
Project Name:			Project #:										
Plimer Electronics #510008			48005876										
Site:			SSON#:										
Sample Identification			Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=Water, S=Soil, O=Other, B=Brine, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	624_5ml_UP - Priority Pollutant List - VOA - 624	PFC_DA - (MOD) PFAS, Standard List	8270D_SIM_14DX - Local Method	Total Number of containers	Special Instructions/Notes
DGC-6S			10/10/17	12:57	G	Water		X				2	
DGC-7S			10/10/17	13:13	G	Water		X				2	
DGC-8S			10/10/17	13:17	G	Water		X				2	
Pump Culvert (Trench)			10/10/17	13:47	G	Water		X				2	
Recirculation Tank (Discharge)			10/10/17	13:53	G	Water		X				2	
Possible Hazard Identification													
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological													
Deliverable Requested: I, II, III, IV, Other (specify)													
Empty Kit Relinquished by:													
Relinquished by:													
Relinquished by:													
Relinquished by:													
Custody Seals Intact: Yes ☒ No ☐													
Custody Seal No.: 740558													
Cooler Temperature(s) °C and Other Remarks: 1.4°C 234													

480-125692

IR Gun #

5

RAW		CORRECTED		RAW		CORRECTED		RAW		CORRECTED	
Cooler #1:	1.4 °C	1.4 °C		Cooler #4:		°C		Cooler #7:		°C	
Cooler #2:	°C		°C	Cooler #5:		°C		Cooler #8:		°C	
Cooler #3:	°C		°C	Cooler #6:		°C		Cooler #9:		°C	

RAW		CORRECTED		RAW		CORRECTED		RAW		CORRECTED	
Cooler #1:	1.4 °C	1.4 °C		Cooler #4:		°C		Cooler #7:		°C	
Cooler #2:	°C		°C	Cooler #5:		°C		Cooler #8:		°C	
Cooler #3:	°C		°C	Cooler #6:		°C		Cooler #9:		°C	

[illegible]

Sample No(s). adjusted:

Preservative Name/Conc.:

Volume of Preservative used (ml):

Lot # of Preservative(s):

Expiration Date:

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

* Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.

Initials:

Date:

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-125692-1

Login Number: 125692

List Source: TestAmerica Buffalo

List Number: 1

Creator: Williams, Christopher S

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	aztech
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	False	LAB TO CHECK RC

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-125692-1

Login Number: 125692
List Number: 3
Creator: Rivera, Kenneth

List Source: TestAmerica Edison
List Creation: 10/13/17 10:40 PM

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-125692-1

Login Number: 125692
List Number: 2
Creator: Aguayo, Alonso

List Source: TestAmerica Sacramento
List Creation: 10/12/17 04:31 PM

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	740541
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	