LONGHORN ARMY AMMUNITION PLANT KARNACK, TEXAS

ADMINISTRATIVE RECORD

Volume 26

2023

Bate Stamp Numbers
01181519 – 01183518

Prepared for

Department of the Army
Longhorn Army Ammunition Plant

1976–2023

LONGHORN ARMY AMMUNITION PLANT
KARNACK, TEXAS
ADMINISTRATIVE RECORD – CHRONOLOGICAL INDEX

VOLUME 26

2023

A. Title: Report (Cont'd) – Appendix C LHAAP-18-24 Lab Reports to Quarterly Evaluation Report, 1st Quarter (January–March) 2023 Groundwater Treatment Plant, Longhorn Army Ammunition Plant, Karnack, Texas
Author(s): Department of the Army
Recipient: Environmental Protection Agency and Texas Commission on Environmental Quality
Date: December 15, 2023
Bate Stamp: 01181519–01182258

The above Quarterly Evaluation Report was originally published on July 25, 2023, within the July thru September 2023 Admin Record (AR) window, but was revised on December 15, 2023. The Army opted to place this revised report in the July thru September 2023 AR since the previous edition had not yet been printed.

B. Title: (Cont'd) Report – Appendix F Lab Reports to the Quarterly Evaluation Report, 1st Quarter (January–March) 2023 Groundwater Treatment Plant, Longhorn Army Ammunition Plant, Karnack, Texas
Author(s): Department of the Army
Recipient: Environmental Protection Agency and Texas Commission on Environmental Quality
Date: December 15, 2023
Bate Stamp: 01182259–01183518

The above Quarterly Evaluation Report was originally published on July 25, 2023, within the July thru September 2023 Admin Record (AR) window, but was revised on December 15, 2023. The Army opted to place this revised report in the July thru September 2023 AR since the previous edition had not yet been printed.

166 1,2,3-Trimethylbenzene	105	9.733	9.733 (1.007)	9626	0.50000	0.57(M)
131 Methyl Acrylate	55	3.743	3.743 (0.896)	1765	0.50000	0.56(M)

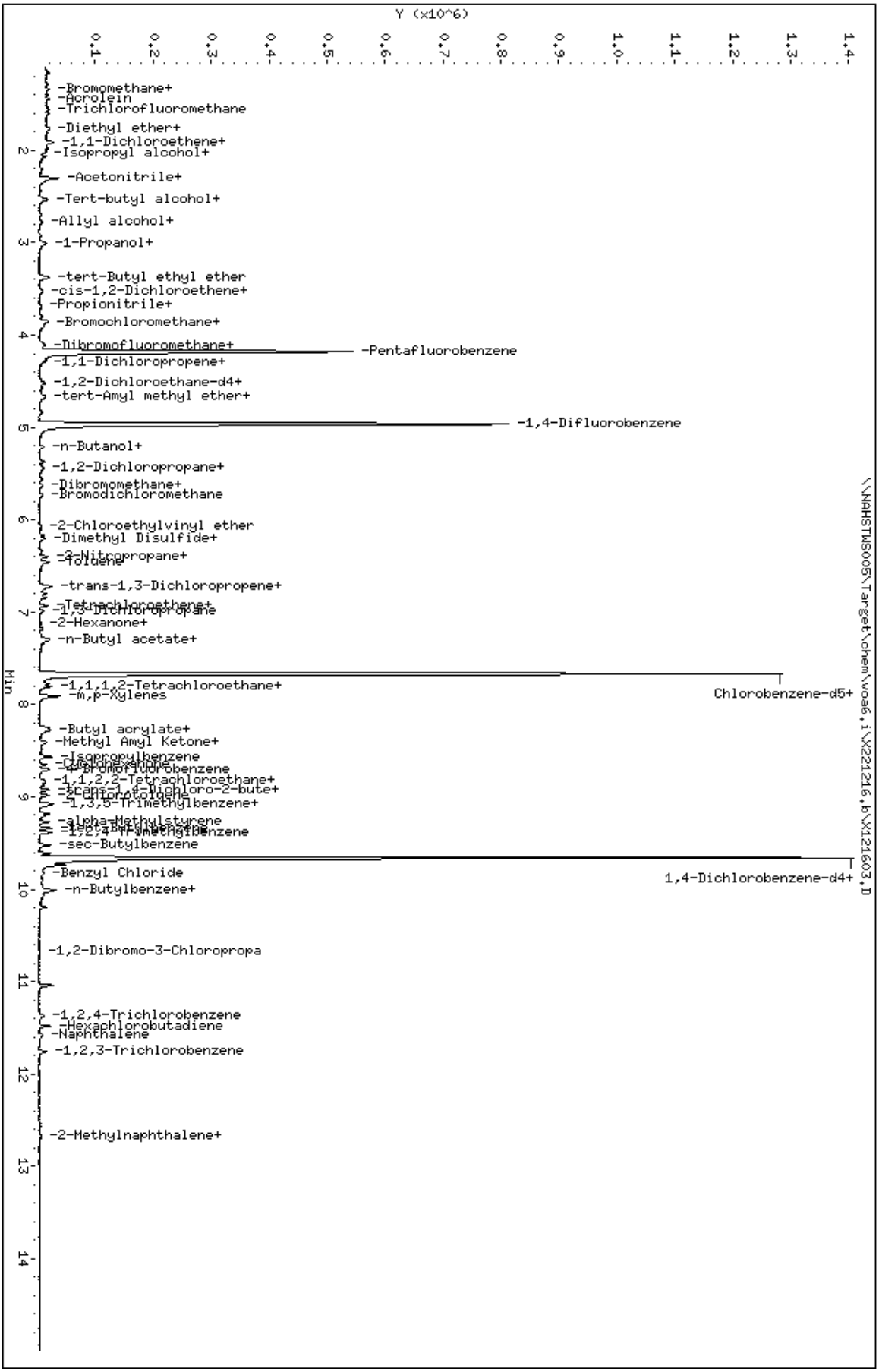
			QUANT SIG					AMOUNTS	
								CAL-AMT	ON-COL
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/l)	(ug/l)
	162	Butyl acrylate	55	8.271	8.271	(1.079)	4718	0.50000	0.55(M)
	2	Dichlorodifluoromethane	85	0.972	0.972	(0.233)	1990	0.50000	1.00(M)
	3	Chloromethane	50	1.077	1.077	(0.258)	2466	0.50000	2.77(M)
	5	Vinyl Chloride	62	1.141	1.141	(0.273)	2412	0.50000	0.59(M)
	6	Bromomethane	94	1.336	1.336	(0.320)	1893	0.50000	2.36(M)
	7	Chloroethane	64	1.407	1.407	(0.337)	1653	0.50000	0.58(M)
	8	Trichlorofluoromethane	101	1.561	1.561	(0.374)	3286	0.50000	0.58(M)
	9	Acrolein	56	1.441	1.441	(0.345)	440	1.00000	4.17(M)
	10	Acetone	43	1.977	1.977	(0.473)	2669	1.00000	2.02(M)
	11	1,1-Dichloroethene	96	1.913	1.913	(0.458)	2037	0.50000	0.58(M)
	15	Iodomethane	142	2.026	2.026	(0.485)	2397	1.00000	3.84(TM)
	16	Acrylonitrile	53	2.566	2.566	(0.614)	1118	1.00000	0.94(M)
	17	Methylene Chloride	84	2.296	2.296	(0.550)	2938	0.50000	0.61(M)
	18	Methyl tert-butyl ether	73	2.536	2.536	(0.607)	5841	0.50000	0.50(M)
	19	Carbon Disulfide	76	2.067	2.067	(0.495)	9921	1.00000	1.08(M)
	20	trans-1,2-Dichloroethene	96	2.543	2.543	(0.609)	2218	0.50000	0.56(M)
	21	Vinyl Acetate	43	3.023	3.023	(0.724)	10138	1.00000	1.00(M)
	22	1,1-Dichloroethane	63	2.926	2.926	(0.700)	3874	0.50000	0.56(M)
	24	2-Butanone	43	3.649	3.649	(0.873)	1292	1.00000	3.93(M)
	26	2,2-Dichloropropane	77	3.514	3.514	(0.841)	3238	0.50000	0.55(M)
	27	cis-1,2-Dichloroethene	96	3.544	3.544	(0.848)	2852	0.50000	0.59
	28	Chloroform	83	3.908	3.908	(0.935)	4040	0.50000	0.52(M)
	29	Bromochloromethane	128	3.799	3.799	(0.909)	1481	0.50000	0.56
$	30	Dibromofluoromethane	113	4.110	4.110	(0.984)	2321	0.50000	0.35
	31	1,1,1-Trichloroethane	97	4.084	4.084	(0.978)	3512	0.50000	0.57(M)
	32	1,1-Dichloropropene	75	4.290	4.290	(0.864)	2468	0.50000	0.50(M)
	33	1,2-Dichloroethane	62	4.567	4.567	(0.920)	3129	0.50000	0.55(M)
	34	Carbon Tetrachloride	117	4.264	4.264	(0.859)	2763	0.50000	0.52(MH)
$	35	1,2-Dichloroethane-d4	65	4.481	4.481	(1.073)	2849	0.50000	0.87(T)
*	36	1,4-Difluorobenzene	114	4.965	4.965	(1.000)	687671	50.0000	
	37	Benzene	78	4.519	4.519	(0.910)	9243	0.50000	0.56
	38	Trichloroethene	130	5.216	5.216	(1.051)	2583	0.50000	0.55(M)
	39	Bromodichloromethane	83	5.730	5.730	(1.154)	3650	0.50000	0.59(M)
	41	2-Chloroethylvinyl ether	63	6.071	6.071	(1.223)	1861	1.00000	1.06(M)
	42	1,2-Dichloropropane	63	5.441	5.441	(1.096)	2449	0.50000	0.56(M)
	44	Dibromomethane	93	5.557	5.557	(1.119)	1725	0.50000	0.58
	45	4-Methyl-2-Pentanone	43	6.337	6.337	(0.826)	3741	1.00000	1.08(M)
	46	cis-1,3-Dichloropropene	75	6.168	6.168	(1.242)	3695	0.50000	0.51(M)
*	47	Chlorobenzene-d5	117	7.668	7.668	(1.000)	645291	50.0000	
$	48	Toluene-d8	98	6.401	6.401	(0.835)	9525	0.50000	0.59
	50	Toluene	91	6.460	6.460	(0.843)	10374	0.50000	0.58(M)
	51	trans-1,3-Dichloropropene	75	6.697	6.697	(1.349)	3042	0.50000	0.50
	52	2-Hexanone	43	7.117	7.117	(0.928)	2580	1.00000	1.09
	53	1,1,2-Trichloroethane	83	6.839	6.839	(0.892)	2092	0.50000	0.58(M)
	54	1,3-Dichloropropane	76	6.993	6.993	(0.912)	4005	0.50000	0.56(M)
	55	Dibromochloromethane	129	7.180	7.180	(0.936)	2827	0.50000	0.54
	56	Tetrachloroethene	164	6.933	6.933	(0.904)	2131	0.50000	0.57(M)
	57	1,2-Dibromoethane	107	7.270	7.270	(0.948)	2340	0.50000	0.52(M)
	58	1-Chlorohexane	55	7.705	7.705	(1.552)	1829	0.50000	0.55(MH)
	59	Chlorobenzene	112	7.694	7.694	(1.003)	7747	0.50000	0.61
	60	1,1,1,2-Tetrachloroethane	131	7.784	7.784	(1.015)	2741	0.50000	0.58(M)
	61	Ethylbenzene	106	7.806	7.806	(1.018)	3064	0.50000	0.51(M)

62 m,p-Xylenes	106	7.911	7.911 (1.032)	9016	1.00000	1.17(M)
63 o-Xylene	106	8.252	8.252 (1.076)	4412	0.50000	0.58(M)

			QUANT SIG					AMOUNTS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
	64	Styrene	104	8.286	8.286	(1.081)	6634	0.50000	0.52(M)
	66	Bromoform	173	8.421	8.421	(1.098)	2013	0.50000	0.56(TM)
	67	Isopropylbenzene	105	8.567	8.567	(1.117)	8757	0.50000	0.50(M)
	68	1,1,2,2-Tetrachloroethane	83	8.845	8.845	(0.915)	3194	0.50000	0.57(M)
$	69	4-Bromofluorobenzene	95	8.706	8.706	(1.135)	3870	0.50000	0.71(M)
*	70	1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	347824	50.0000	
	71	1,2,3-Trichloropropane	75	8.871	8.871	(0.918)	2019	0.50000	0.52(M)
	73	n-Propylbenzene	91	8.923	8.923	(0.924)	11163	0.50000	0.57(M)
	74	Bromobenzene	156	8.818	8.818	(0.913)	3147	0.50000	0.55(M)
	75	1,3,5-Trimethylbenzene	105	9.073	9.073	(0.939)	7182	0.50000	0.50(M)
	76	2-Chlorotoluene	91	8.983	8.983	(0.930)	6718	0.50000	0.53(M)
	77	4-Chlorotoluene	91	9.088	9.088	(0.941)	7644	0.50000	0.53(M)
	78	tert-Butylbenzene	119	9.339	9.339	(0.967)	6389	0.50000	0.54(M)
	79	1,2,4-Trimethylbenzene	105	9.384	9.384	(0.971)	8496	0.50000	0.56(M)
	81	sec-Butylbenzene	105	9.523	9.523	(0.986)	7938	0.50000	0.51(M)
	82	p-Isopropyltoluene	119	9.651	9.651	(0.999)	7343	0.50000	0.52(M)
	83	1,3-Dichlorobenzene	146	9.613	9.613	(0.995)	4677	0.50000	0.49(M)
	84	1,4-Dichlorobenzene	146	9.681	9.681	(1.002)	5674	0.50000	0.54(M)
	86	Benzyl Chloride	91	9.831	9.831	(1.282)	3642	0.50000	3.03
	87	n-Butylbenzene	91	10.014	10.014	(1.036)	5149	0.50000	2.14(M)
	88	1,2-Dichlorobenzene	146	10.010	10.010	(1.036)	5504	0.50000	0.56(M)
	89	1,2-Dibromo-3-Chloropropane	155	10.678	10.678	(1.105)	441	0.50000	0.58(M)
	90	1,2,4-Trichlorobenzene	180	11.364	11.364	(1.176)	3187	0.50000	0.51(M)
	91	Hexachlorobutadiene	225	11.480	11.480	(1.188)	1477	0.50000	0.49(M)
	92	Naphthalene	128	11.581	11.581	(1.199)	7025	0.50000	0.50
	93	1,2,3-Trichlorobenzene	180	11.765	11.765	(1.218)	3572	0.50000	0.60(M)
M	94	1,2-Dichloroethylene (total)	96				5070	1.00000	
M	95	Xylenes (total)	106				13428	1.50000	
	141	Cyclohexane	56	4.114	4.114	(0.985)	2803	0.50000	1.84(M)
	138	Freon TF	101	1.917	1.917	(0.459)	1851	0.50000	0.54(M)
	147	Methylcyclohexane	55	5.415	5.415	(1.091)	4781	0.50000	0.56(M)
	146	Methyl Acetate	43	2.240	2.240	(0.536)	1269	0.50000	0.61(M)

QC Flag Legend

T - Target compound detected outside RT window.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.



Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Date : 16-DEC-2022 12:20
Client ID: VSTD000.5
Sample Info: VSTD000.5;VSTD000.5;1;2;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

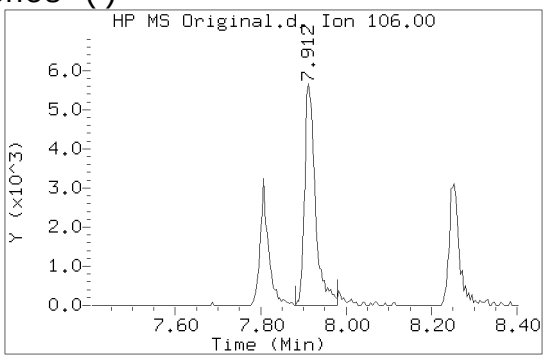
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

m,p-Xylenes ()

Reason Code:

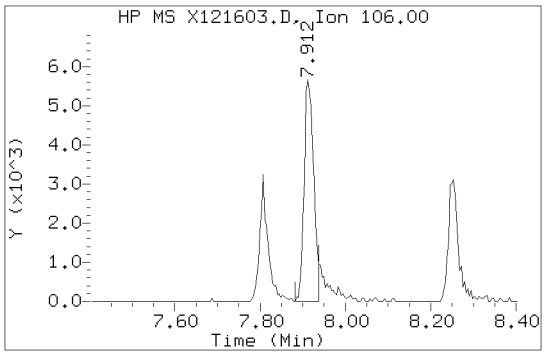
BEFORE

MASS
106
AREA
10070
HEIGHT
5666
27-Dec-2022
16:03
linh
pham



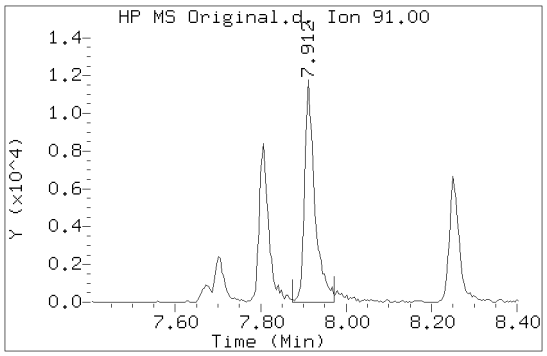
AFTER

MASS
106
AREA
9016
HEIGHT
5666
27-Dec-2022
16:07
linh
pham



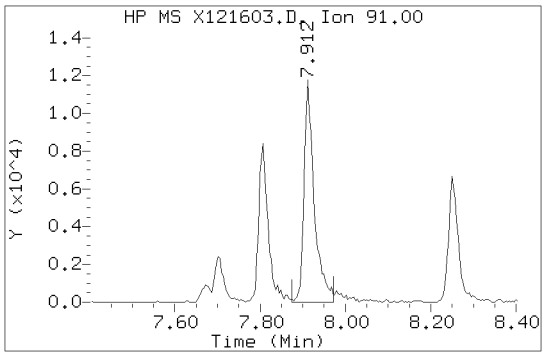
BEFORE

MASS
91
AREA
19887
HEIGHT
11768
27-Dec-2022
16:03
linh
pham



AFTER

MASS
91
AREA
19887
HEIGHT
11768
27-Dec-2022
16:07
linh
pham

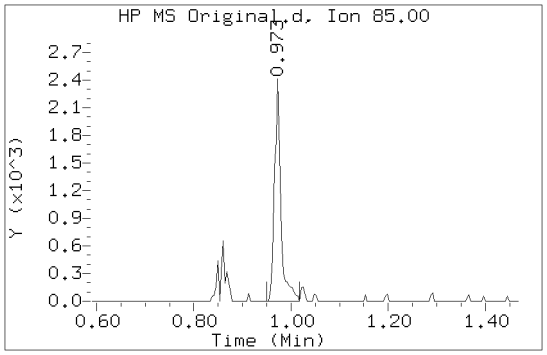


Dichlorodifluoromethane (75-71-8)

Reason Code:

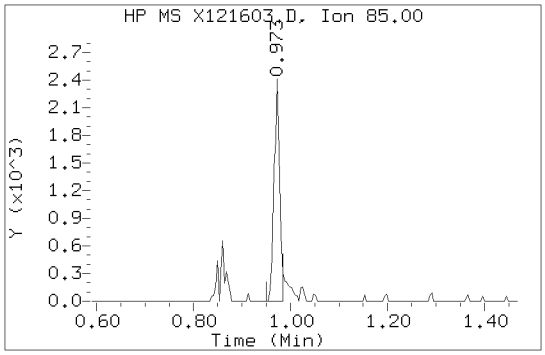
BEFORE

MASS
85
AREA
2242
HEIGHT
2413
27-Dec-2022
16:03
linh
pham



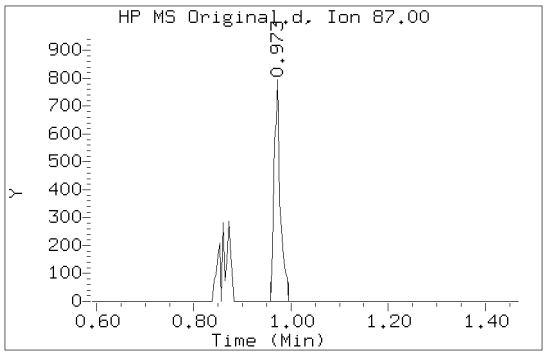
AFTER

MASS
85
AREA
1990
HEIGHT
2413
27-Dec-2022
16:07
linh
pham



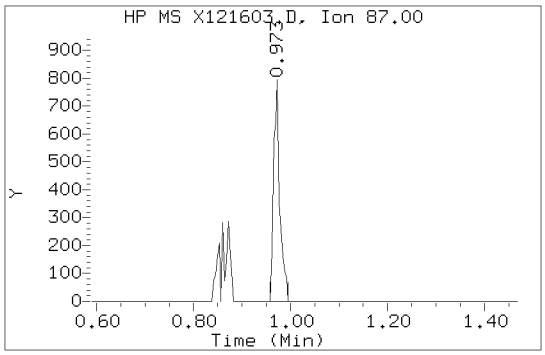
BEFORE

MASS
87
AREA
713
HEIGHT
795
27-Dec-2022
16:03
linh
pham



AFTER

MASS
87
AREA
713
HEIGHT
795
27-Dec-2022
16:07
linh
pham

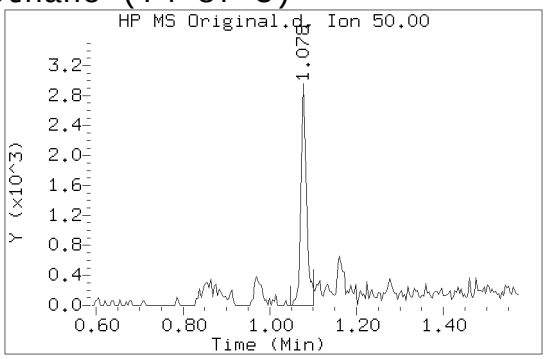


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

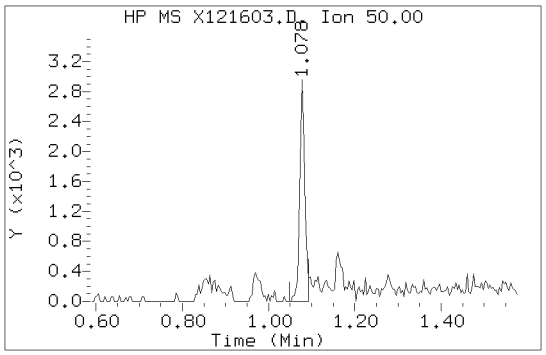
Chloromethane (74-87-3)

Reason Code:

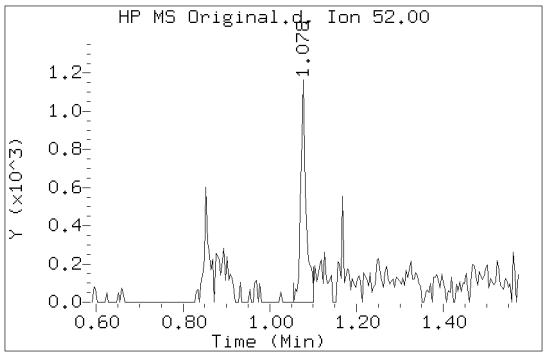
BEFORE
MASS
50
AREA
2589
HEIGHT
2959
27-Dec-2022
16:03
linh
pham



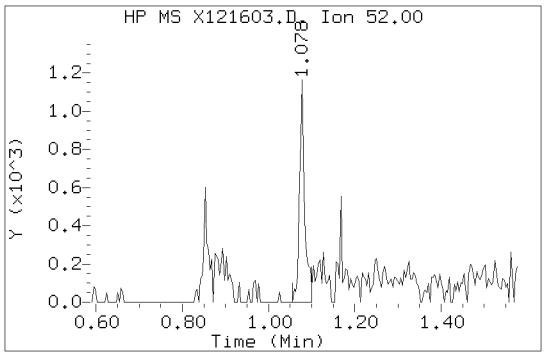
AFTER
MASS
50
AREA
2466
HEIGHT
2959
27-Dec-2022
16:07
linh
pham



BEFORE
MASS
52
AREA
985
HEIGHT
1164
27-Dec-2022
16:03
linh
pham



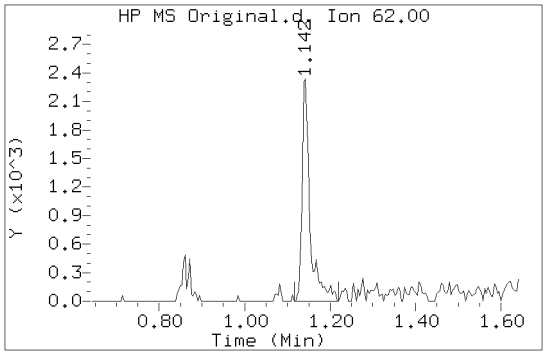
AFTER
MASS
52
AREA
985
HEIGHT
1164
27-Dec-2022
16:07
linh
pham



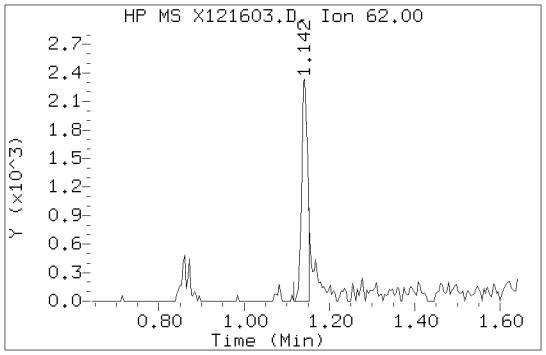
Vinyl Chloride (75-01-4)

Reason Code:

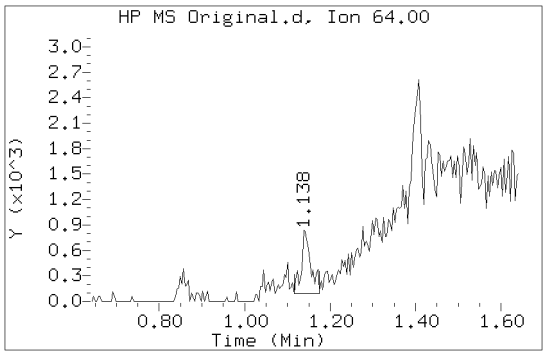
BEFORE
MASS
62
AREA
3132
HEIGHT
2337
27-Dec-2022
16:03
linh
pham



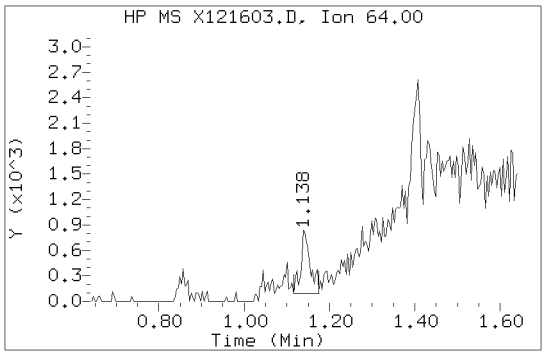
AFTER
MASS
62
AREA
2412
HEIGHT
2337
27-Dec-2022
16:07
linh
pham



BEFORE
MASS
64
AREA
1174
HEIGHT
750
27-Dec-2022
16:03
linh
pham



AFTER
MASS
64
AREA
1174
HEIGHT
750
27-Dec-2022
16:07
linh
pham

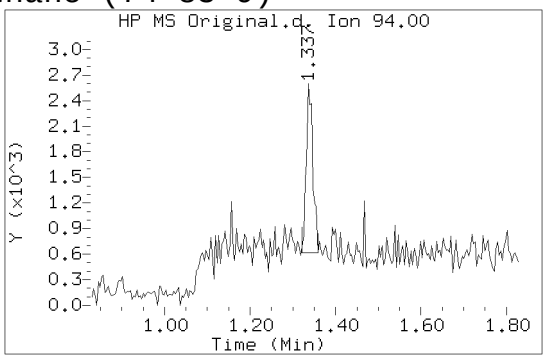


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

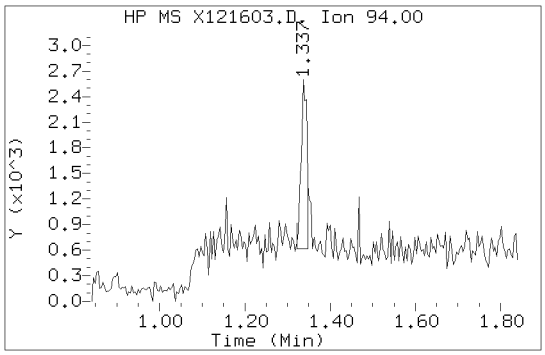
Bromomethane (74-83-9)

Reason Code:

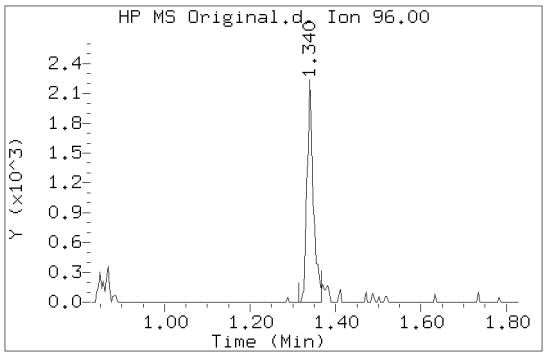
BEFORE
MASS
94
AREA
2146
HEIGHT
1983
27-Dec-2022
16:03
linh
pham



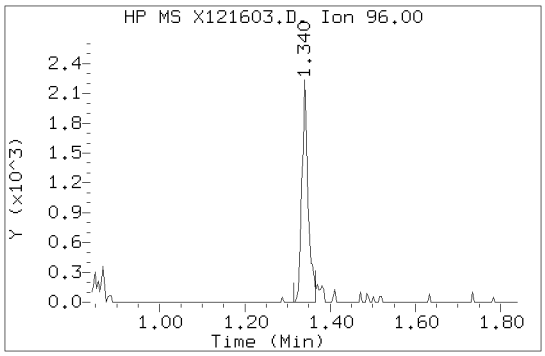
AFTER
MASS
94
AREA
1893
HEIGHT
1983
27-Dec-2022
16:07
linh
pham



BEFORE
MASS
96
AREA
2304
HEIGHT
2236
27-Dec-2022
16:03
linh
pham



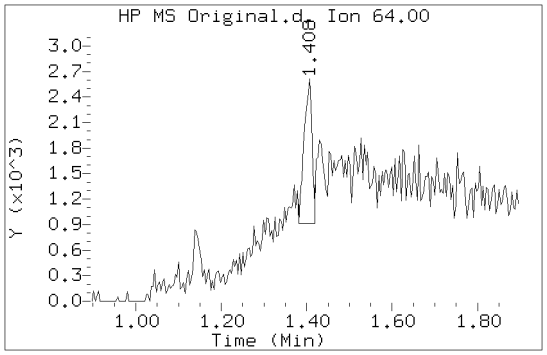
AFTER
MASS
96
AREA
2304
HEIGHT
2236
27-Dec-2022
16:07
linh
pham



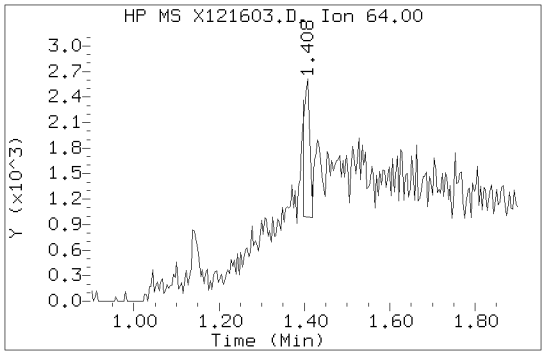
Chloroethane (75-00-3)

Reason Code:

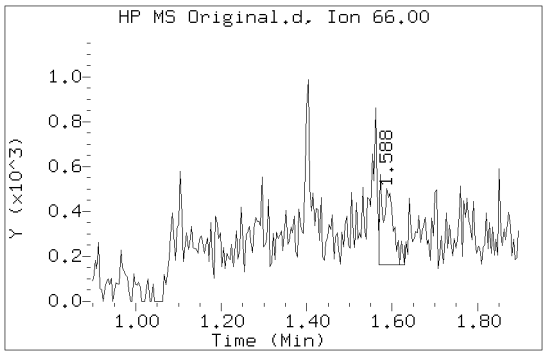
BEFORE
MASS
64
AREA
2196
HEIGHT
1702
27-Dec-2022
16:03
linh
pham



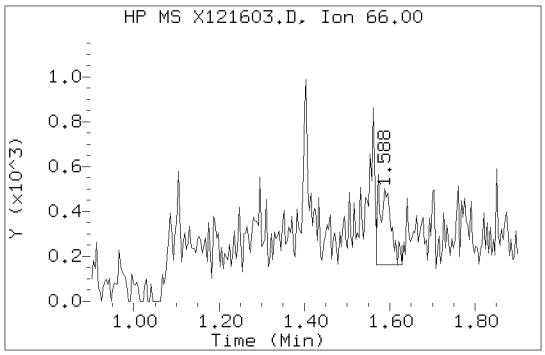
AFTER
MASS
64
AREA
1653
HEIGHT
1624
27-Dec-2022
16:07
linh
pham



BEFORE
MASS
66
AREA
677
HEIGHT
340
27-Dec-2022
16:03
linh
pham



AFTER
MASS
66
AREA
677
HEIGHT
340
27-Dec-2022
16:07
linh
pham



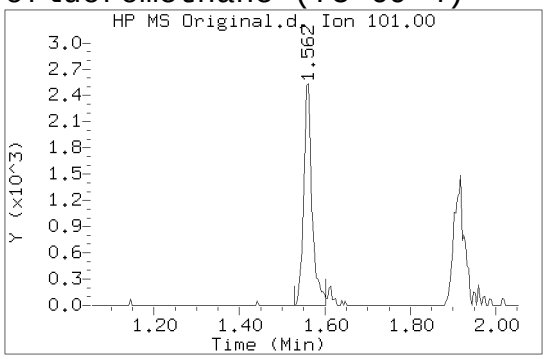
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

Trichlorofluoromethane (75-69-4)

Reason Code:

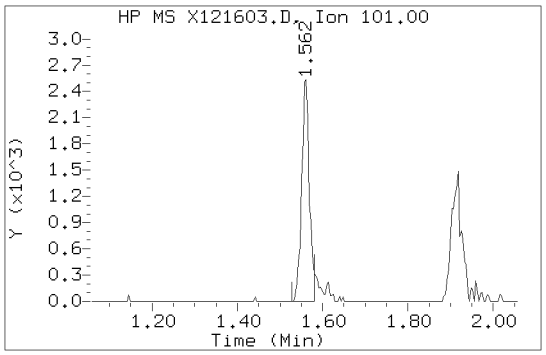
BEFORE

MASS
101
AREA
3530
HEIGHT
2534
27-Dec-2022
16:03
linh
pham



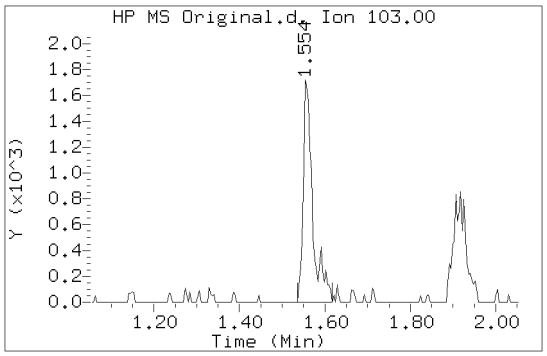
AFTER

MASS
101
AREA
3286
HEIGHT
2534
27-Dec-2022
16:07
linh
pham



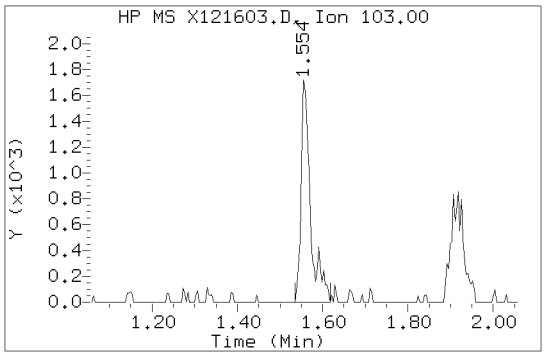
BEFORE

MASS
103
AREA
2708
HEIGHT
1720
27-Dec-2022
16:03
linh
pham



AFTER

MASS
103
AREA
2708
HEIGHT
1720
27-Dec-2022
16:07
linh
pham

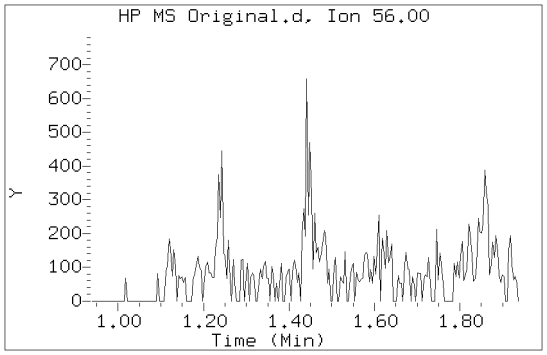


Acrolein (107-02-8)

Reason Code:

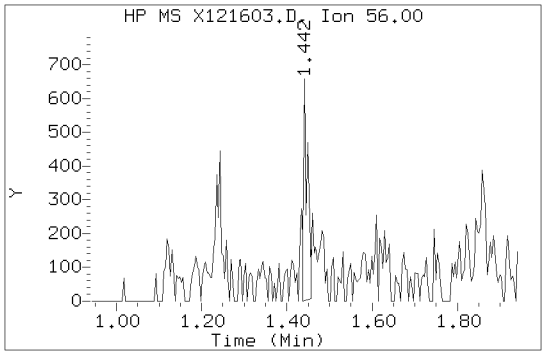
BEFORE

MASS
56
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



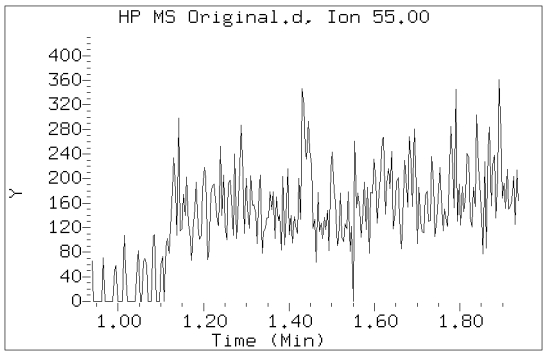
AFTER

MASS
56
AREA
440
HEIGHT
656
27-Dec-2022
16:07
linh
pham



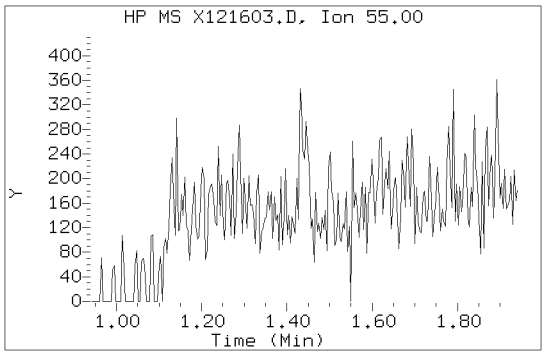
BEFORE

MASS
55
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
55
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

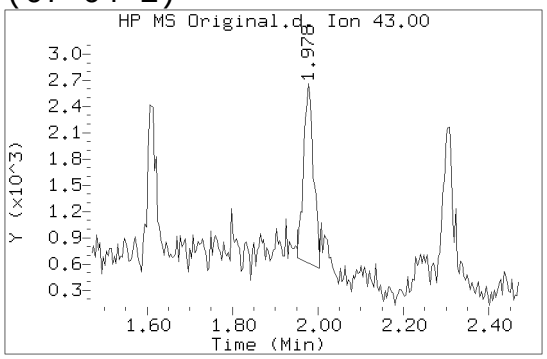


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

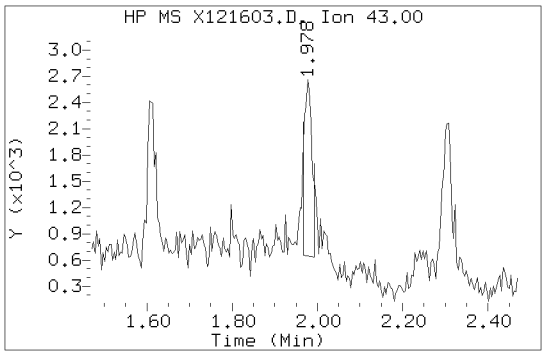
Acetone (67-64-1)

Reason Code:

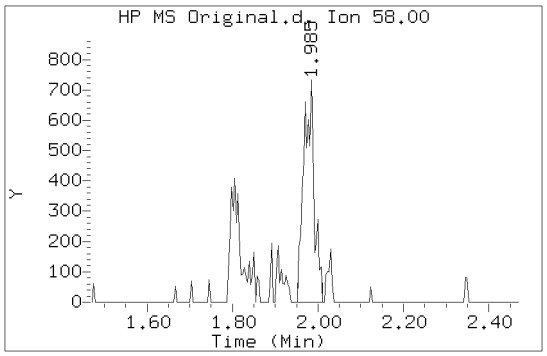
BEFORE
MASS
43
AREA
3388
HEIGHT
2046
27-Dec-2022
16:03
linh
pham



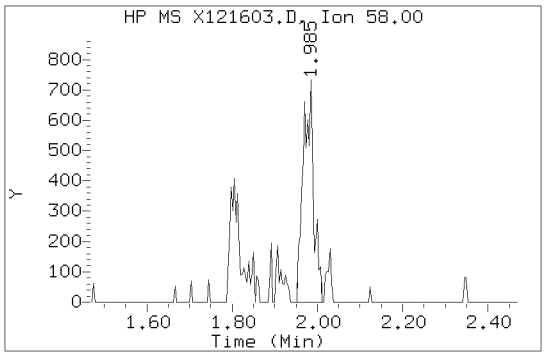
AFTER
MASS
43
AREA
2669
HEIGHT
2015
27-Dec-2022
16:07
linh
pham



BEFORE
MASS
58
AREA
1264
HEIGHT
733
27-Dec-2022
16:03
linh
pham



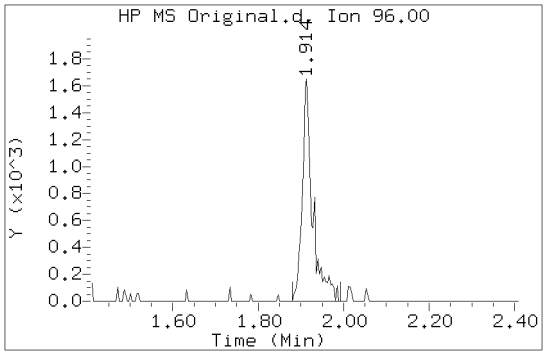
AFTER
MASS
58
AREA
1264
HEIGHT
733
27-Dec-2022
16:07
linh
pham



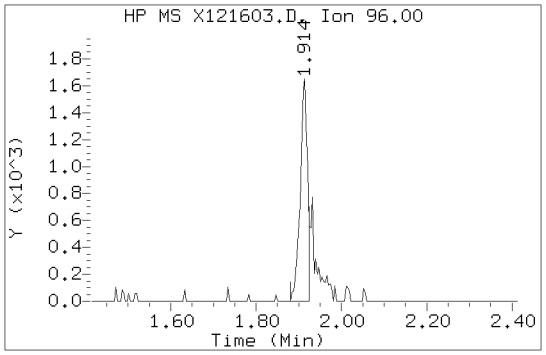
1,1-Dichloroethene (75-35-4)

Reason Code:

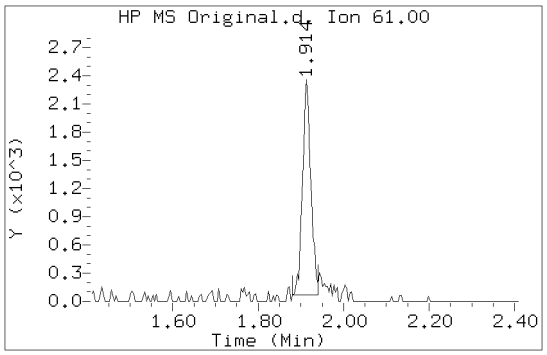
BEFORE
MASS
96
AREA
2836
HEIGHT
1651
27-Dec-2022
16:03
linh
pham



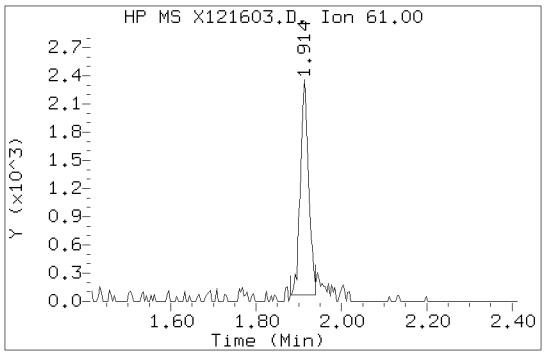
AFTER
MASS
96
AREA
2037
HEIGHT
1651
27-Dec-2022
16:07
linh
pham



BEFORE
MASS
61
AREA
3197
HEIGHT
2293
27-Dec-2022
16:03
linh
pham



AFTER
MASS
61
AREA
3197
HEIGHT
2293
27-Dec-2022
16:07
linh
pham



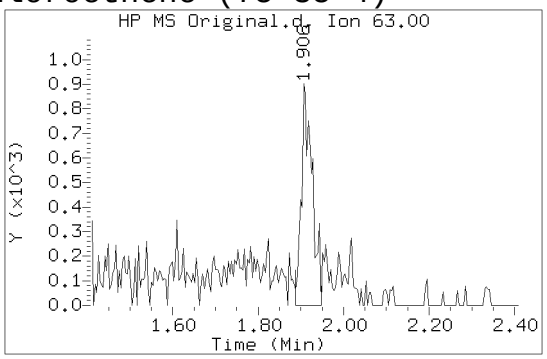
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

1,1-Dichloroethene (75-35-4)

Reason Code:

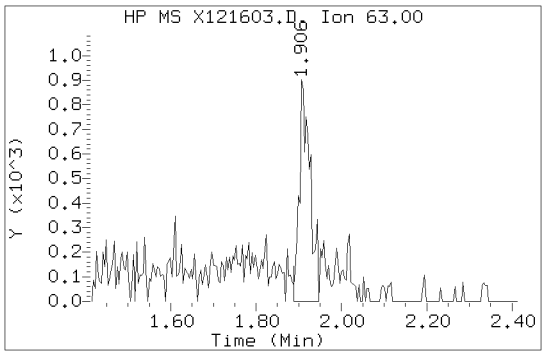
BEFORE

MASS
63
AREA
1607
HEIGHT
902
27-Dec-2022
16:03
linh
pham



AFTER

MASS
63
AREA
1607
HEIGHT
902
27-Dec-2022
16:07
linh
pham

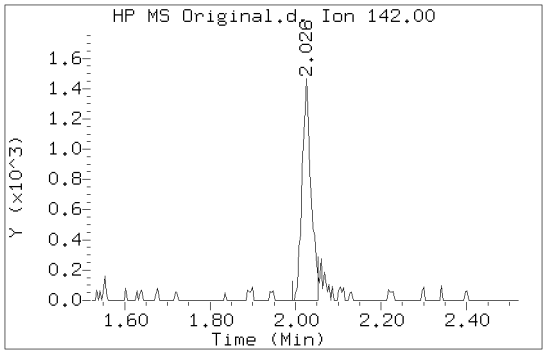


Iodomethane (74-88-4)

Reason Code:

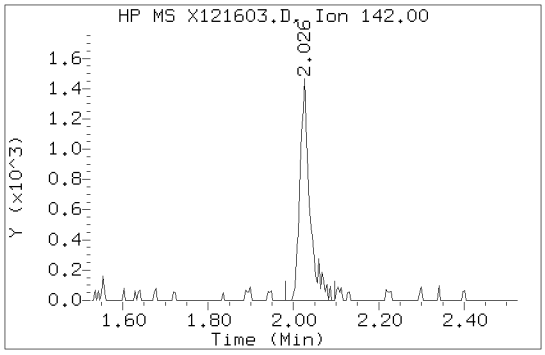
BEFORE

MASS
142
AREA
2166
HEIGHT
1466
27-Dec-2022
16:03
linh
pham



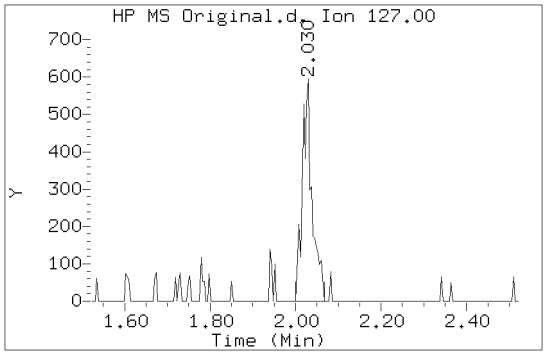
AFTER

MASS
142
AREA
2397
HEIGHT
1466
27-Dec-2022
16:07
linh
pham



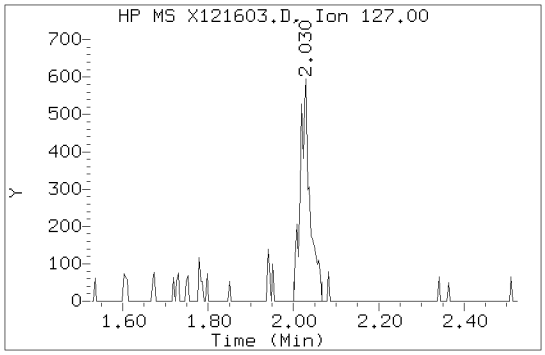
BEFORE

MASS
127
AREA
958
HEIGHT
595
27-Dec-2022
16:03
linh
pham



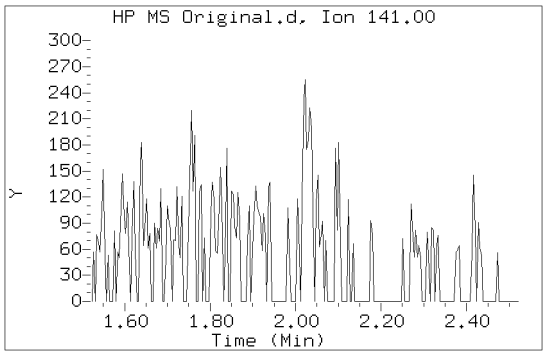
AFTER

MASS
127
AREA
958
HEIGHT
595
27-Dec-2022
16:07
linh
pham



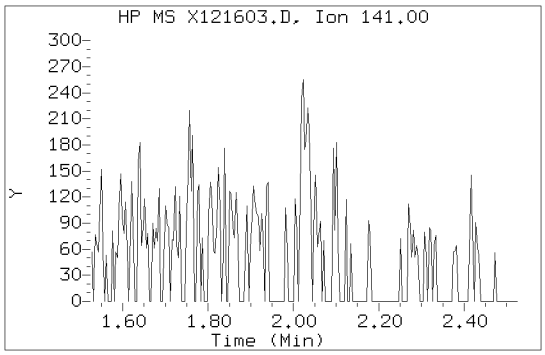
BEFORE

MASS
141
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
141
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



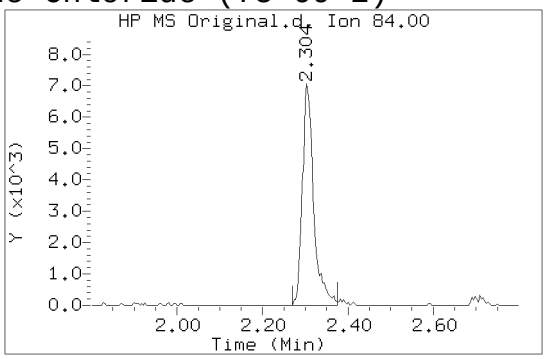
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

Methylene Chloride (75-09-2)

Reason Code:

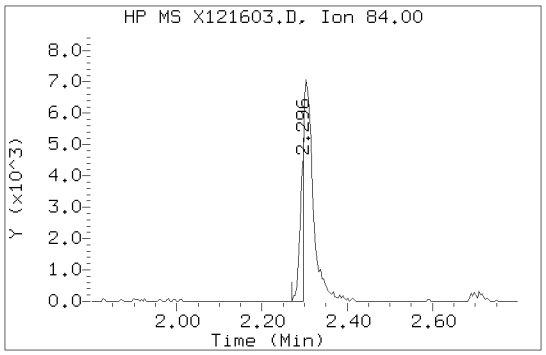
BEFORE

MASS
84
AREA
13307
HEIGHT
7067
27-Dec-2022
16:03
linh
pham



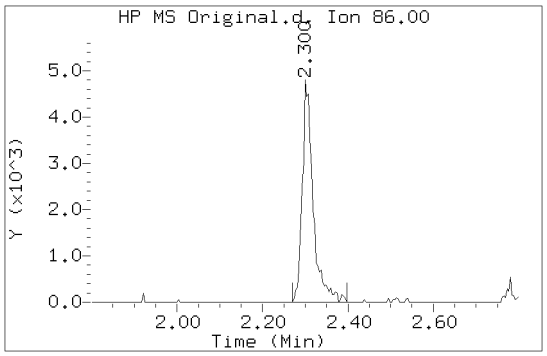
AFTER

MASS
84
AREA
2938
HEIGHT
4595
27-Dec-2022
16:07
linh
pham



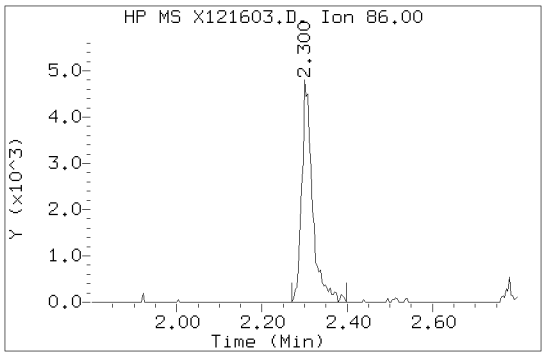
BEFORE

MASS
86
AREA
8692
HEIGHT
4802
27-Dec-2022
16:03
linh
pham



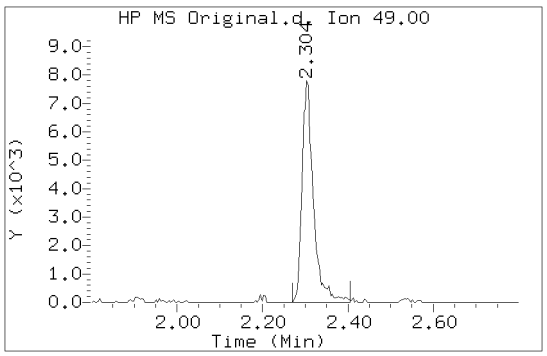
AFTER

MASS
86
AREA
8692
HEIGHT
4802
27-Dec-2022
16:07
linh
pham



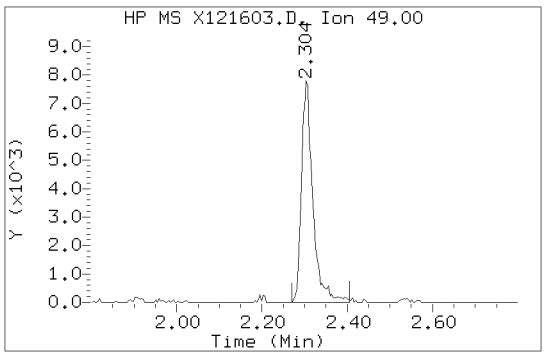
BEFORE

MASS
49
AREA
14733
HEIGHT
7803
27-Dec-2022
16:03
linh
pham



AFTER

MASS
49
AREA
14733
HEIGHT
7803
27-Dec-2022
16:07
linh
pham

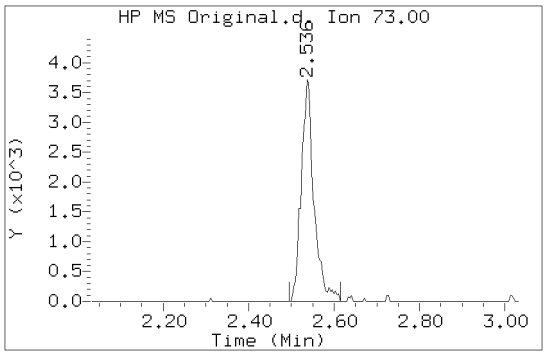


Methyl tert-butyl ether (1634-04-4)

Reason Code:

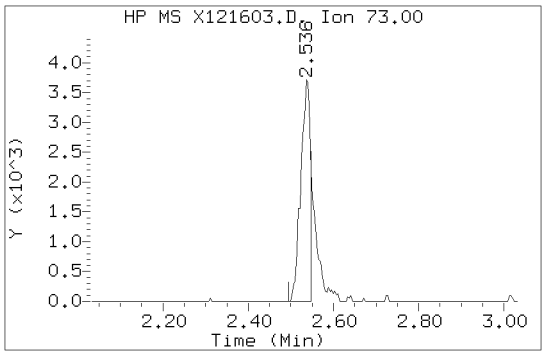
BEFORE

MASS
73
AREA
7826
HEIGHT
3716
27-Dec-2022
16:03
linh
pham



AFTER

MASS
73
AREA
5841
HEIGHT
3716
27-Dec-2022
16:07
linh
pham

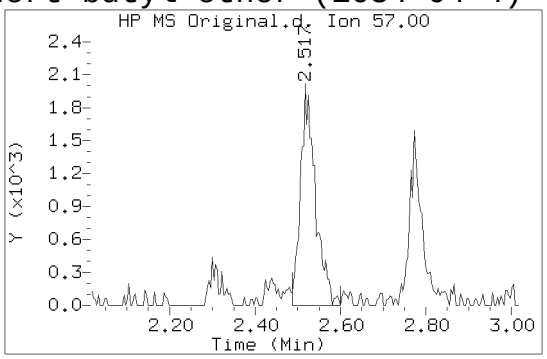


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

Methyl tert-butyl ether (1634-04-4)

BEFORE

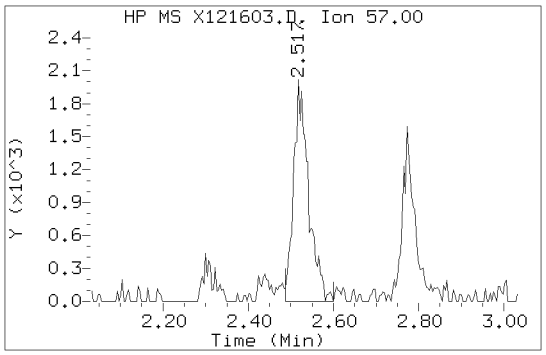
MASS
57
AREA
4915
HEIGHT
2019
27-Dec-2022
16:03
linh
pham



AFTER

MASS
57
AREA
4915
HEIGHT
2019
27-Dec-2022
16:07
linh
pham

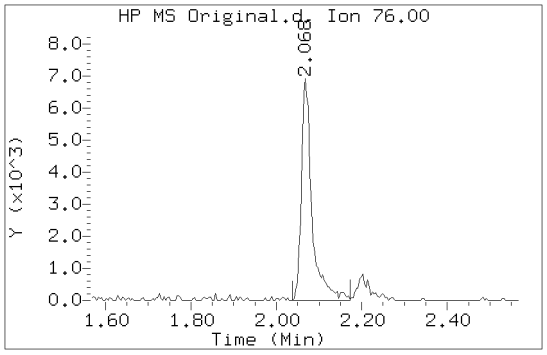
Reason Code:



Carbon Disulfide (75-15-0)

BEFORE

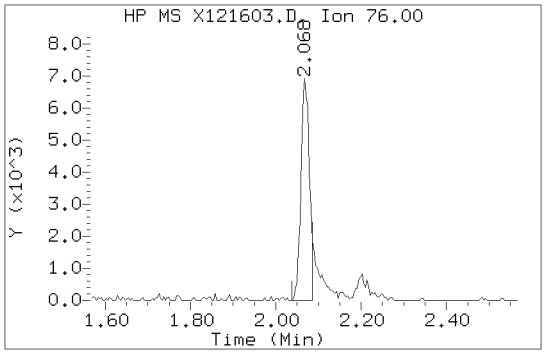
MASS
76
AREA
12313
HEIGHT
6923
27-Dec-2022
16:03
linh
pham



AFTER

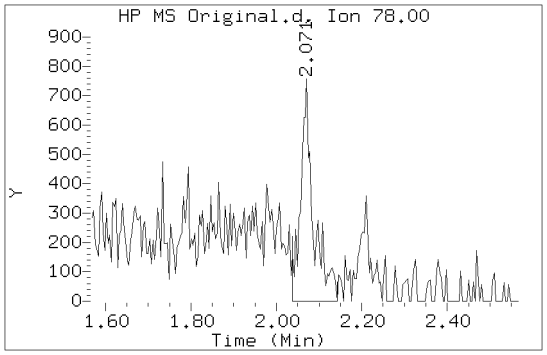
MASS
76
AREA
9921
HEIGHT
6923
27-Dec-2022
16:07
linh
pham

Reason Code:



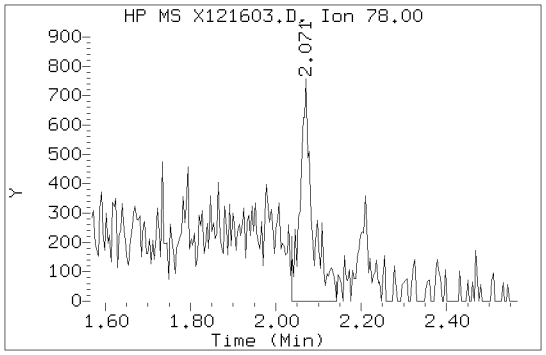
BEFORE

MASS
78
AREA
1586
HEIGHT
757
27-Dec-2022
16:03
linh
pham



AFTER

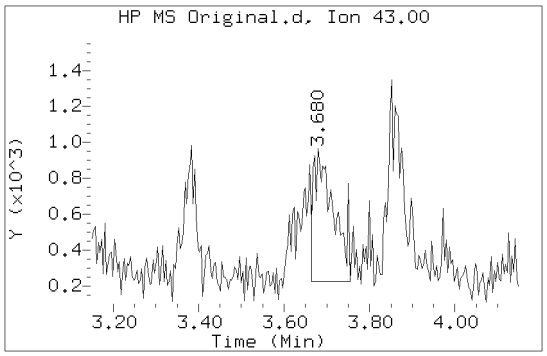
MASS
78
AREA
1586
HEIGHT
757
27-Dec-2022
16:07
linh
pham



2-Butanone (78-93-3)

BEFORE

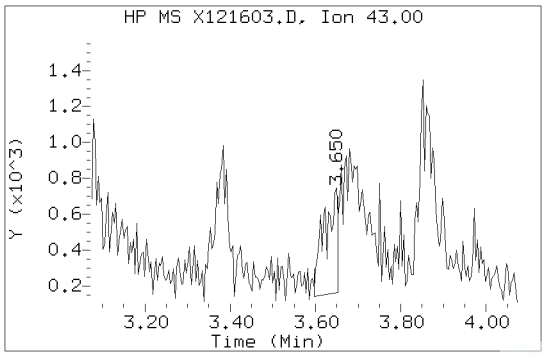
MASS
43
AREA
2415
HEIGHT
742
27-Dec-2022
16:03
linh
pham



AFTER

MASS
43
AREA
1292
HEIGHT
587
27-Dec-2022
16:07
linh
pham

Reason Code:



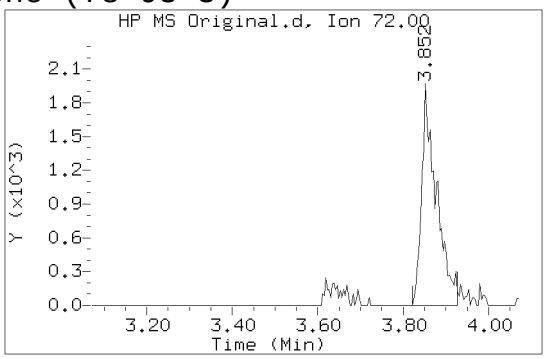
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

2-Butanone (78-93-3)

Reason Code:

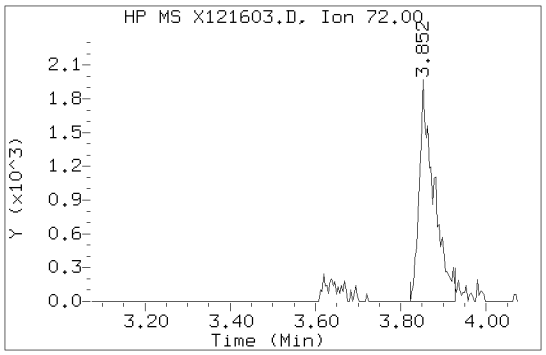
BEFORE

MASS
72
AREA
4698
HEIGHT
1970
27-Dec-2022
16:03
linh
pham



AFTER

MASS
72
AREA
4698
HEIGHT
1970
27-Dec-2022
16:07
linh
pham

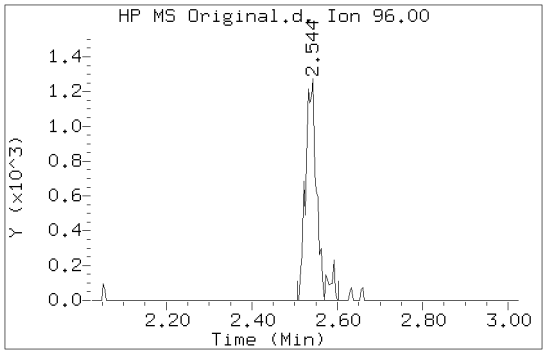


trans-1,2-Dichloroethene (156-60-5)

Reason Code:

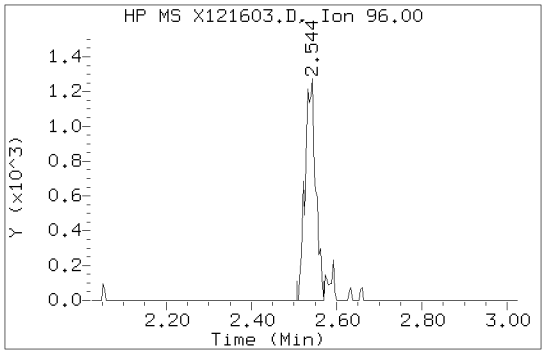
BEFORE

MASS
96
AREA
2404
HEIGHT
1274
27-Dec-2022
16:03
linh
pham



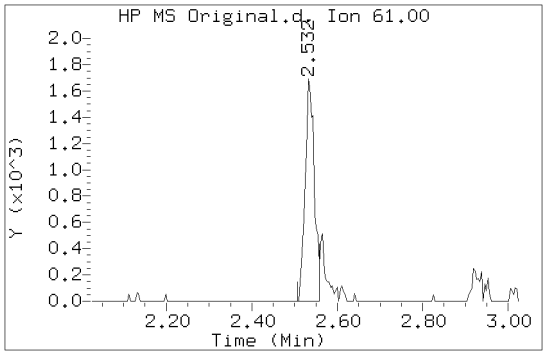
AFTER

MASS
96
AREA
2218
HEIGHT
1274
27-Dec-2022
16:07
linh
pham



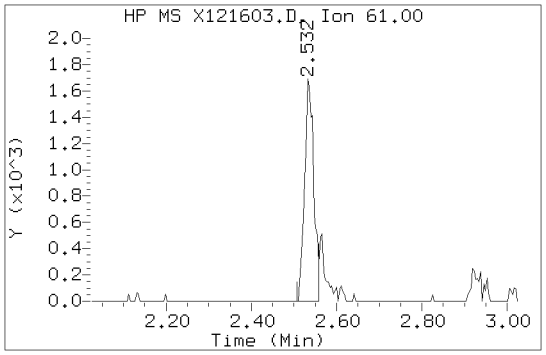
BEFORE

MASS
61
AREA
2571
HEIGHT
1692
27-Dec-2022
16:03
linh
pham



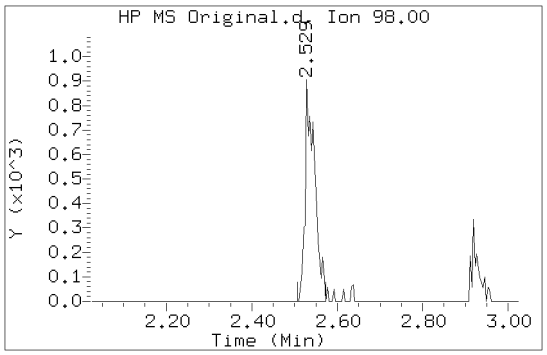
AFTER

MASS
61
AREA
2571
HEIGHT
1692
27-Dec-2022
16:07
linh
pham



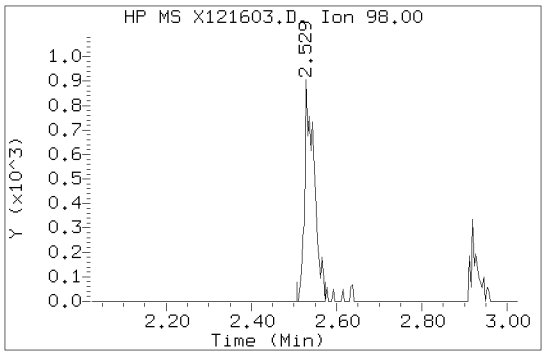
BEFORE

MASS
98
AREA
1412
HEIGHT
906
27-Dec-2022
16:03
linh
pham



AFTER

MASS
98
AREA
1412
HEIGHT
906
27-Dec-2022
16:07
linh
pham



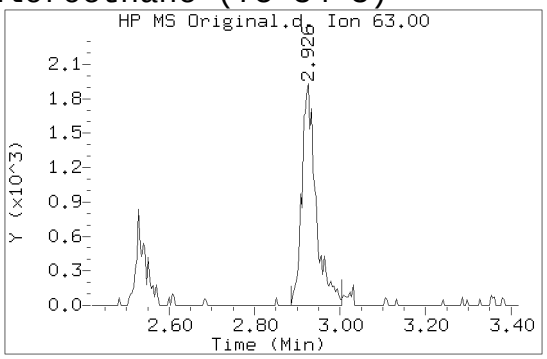
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

1,1-Dichloroethane (75-34-3)

Reason Code:

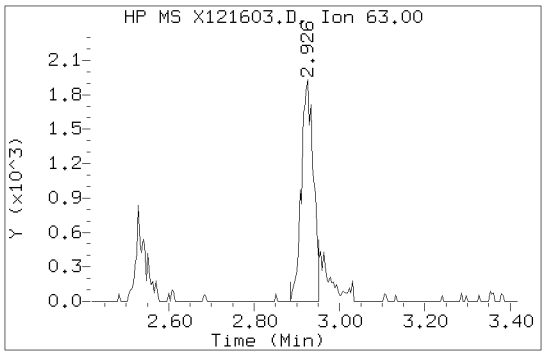
BEFORE

MASS
63
AREA
4504
HEIGHT
1931
27-Dec-2022
16:03
linh
pham



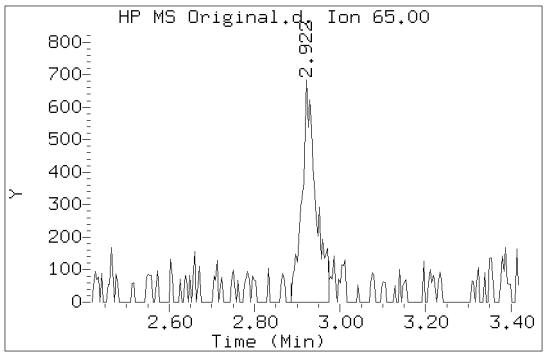
AFTER

MASS
63
AREA
3874
HEIGHT
1931
27-Dec-2022
16:07
linh
pham



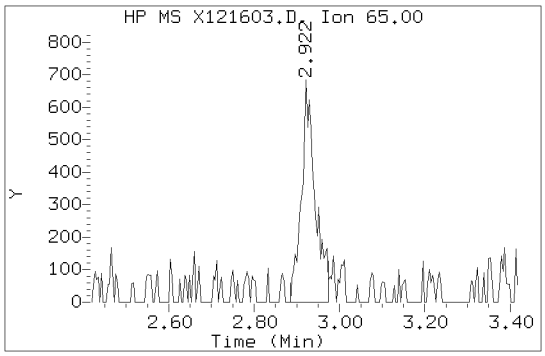
BEFORE

MASS
65
AREA
1548
HEIGHT
684
27-Dec-2022
16:03
linh
pham



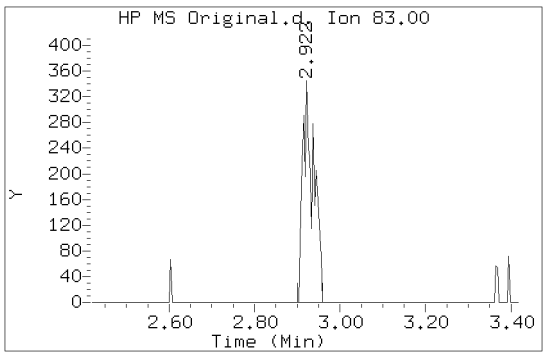
AFTER

MASS
65
AREA
1548
HEIGHT
684
27-Dec-2022
16:07
linh
pham



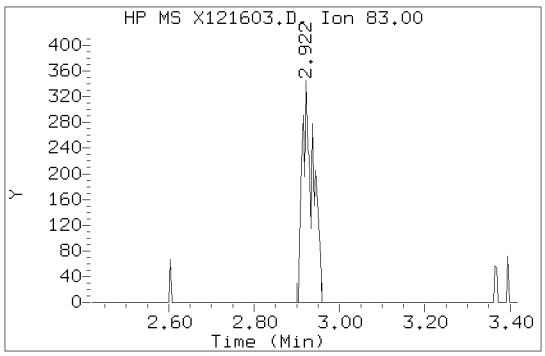
BEFORE

MASS
83
AREA
618
HEIGHT
345
27-Dec-2022
16:03
linh
pham



AFTER

MASS
83
AREA
618
HEIGHT
345
27-Dec-2022
16:07
linh
pham

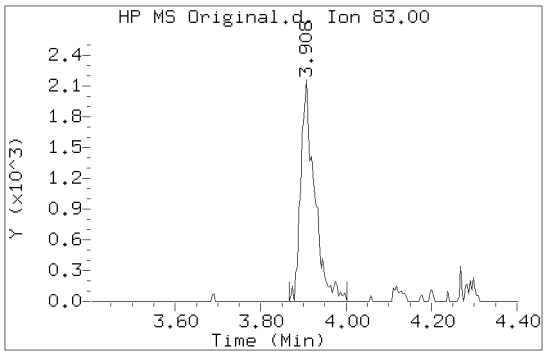


Chloroform (67-66-3)

Reason Code:

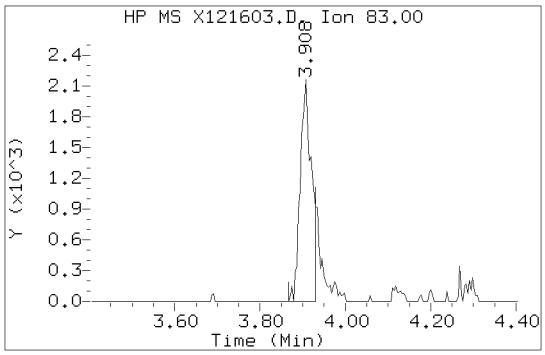
BEFORE

MASS
83
AREA
4949
HEIGHT
2160
27-Dec-2022
16:03
linh
pham



AFTER

MASS
83
AREA
4040
HEIGHT
2160
27-Dec-2022
16:07
linh
pham



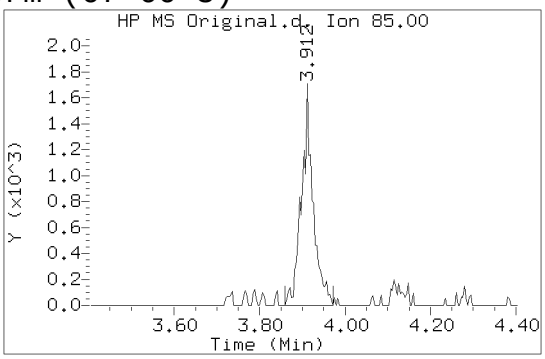
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

Chloroform (67-66-3)

Reason Code:

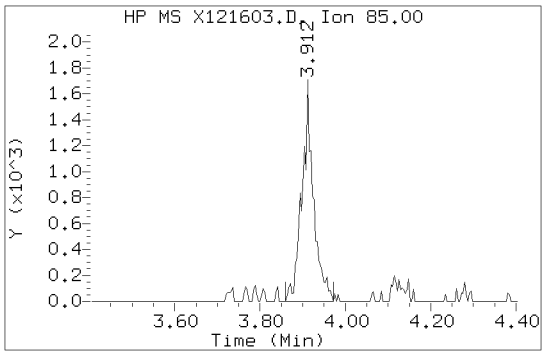
BEFORE

MASS
85
AREA
3222
HEIGHT
1709
27-Dec-2022
16:03
linh
pham



AFTER

MASS
85
AREA
3222
HEIGHT
1709
27-Dec-2022
16:07
linh
pham

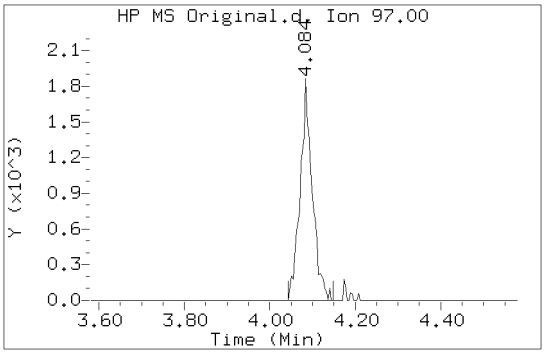


1,1,1-Trichloroethane (71-55-6)

Reason Code:

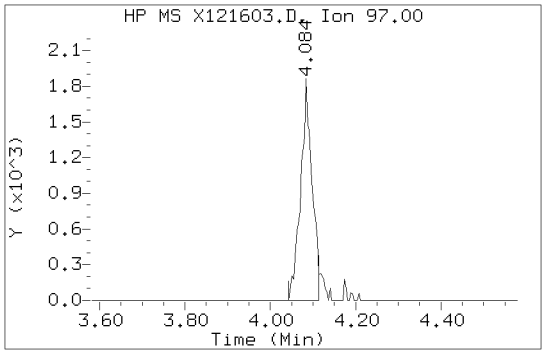
BEFORE

MASS
97
AREA
3710
HEIGHT
1863
27-Dec-2022
16:03
linh
pham



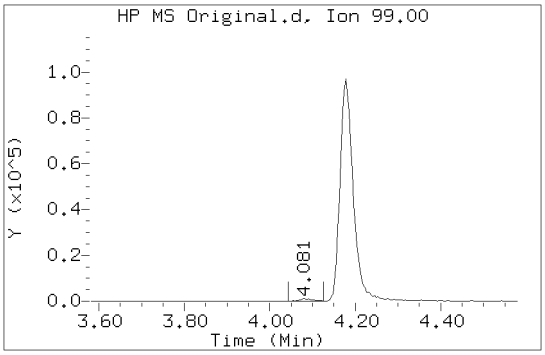
AFTER

MASS
97
AREA
3512
HEIGHT
1863
27-Dec-2022
16:07
linh
pham



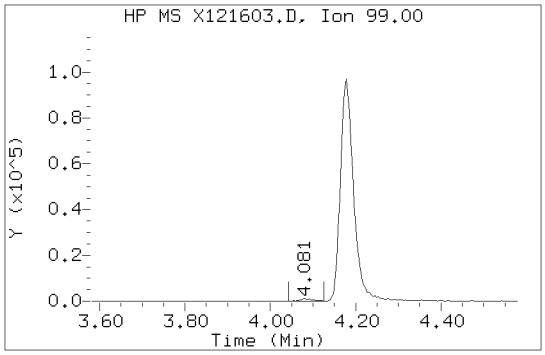
BEFORE

MASS
99
AREA
2299
HEIGHT
1029
27-Dec-2022
16:03
linh
pham



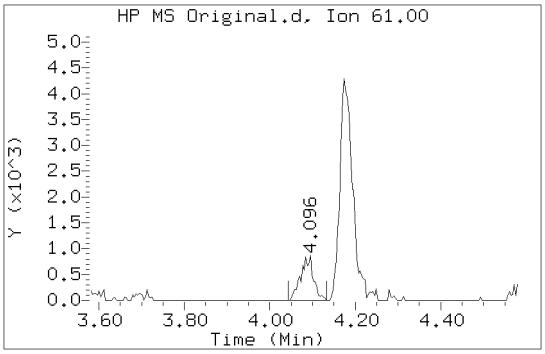
AFTER

MASS
99
AREA
2299
HEIGHT
1029
27-Dec-2022
16:07
linh
pham



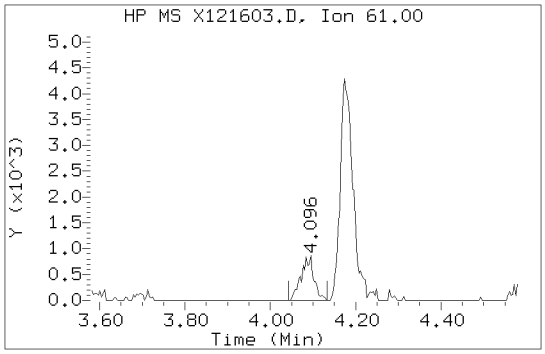
BEFORE

MASS
61
AREA
1801
HEIGHT
872
27-Dec-2022
16:03
linh
pham



AFTER

MASS
61
AREA
1801
HEIGHT
872
27-Dec-2022
16:07
linh
pham



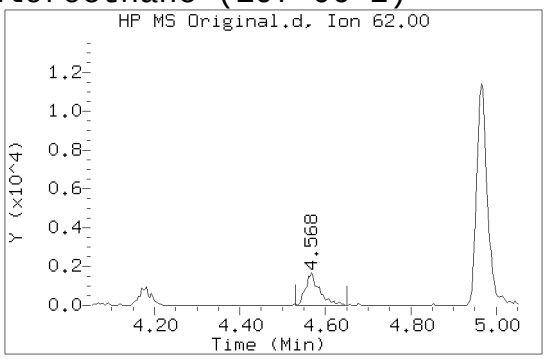
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

1,2-Dichloroethane (107-06-2)

Reason Code:

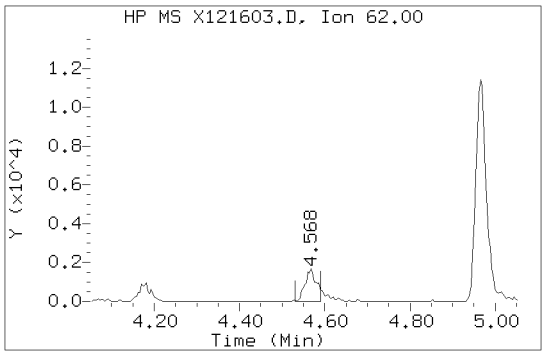
BEFORE

MASS
62
AREA
3822
HEIGHT
1678
27-Dec-2022
16:03
linh
pham



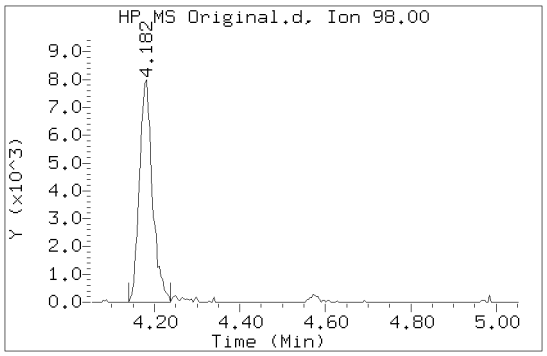
AFTER

MASS
62
AREA
3129
HEIGHT
1678
27-Dec-2022
16:07
linh
pham



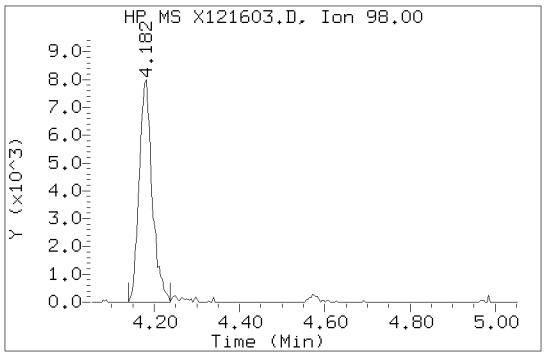
BEFORE

MASS
98
AREA
16918
HEIGHT
7987
27-Dec-2022
16:03
linh
pham



AFTER

MASS
98
AREA
16918
HEIGHT
7987
27-Dec-2022
16:07
linh
pham

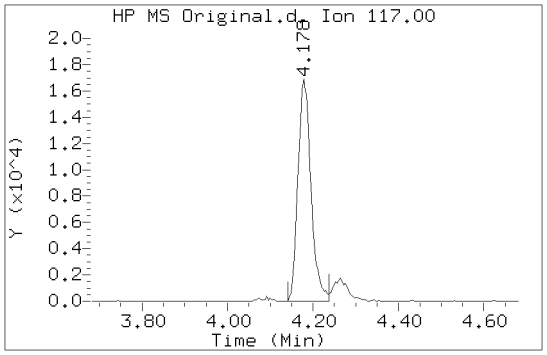


Carbon Tetrachloride (56-23-5)

Reason Code:

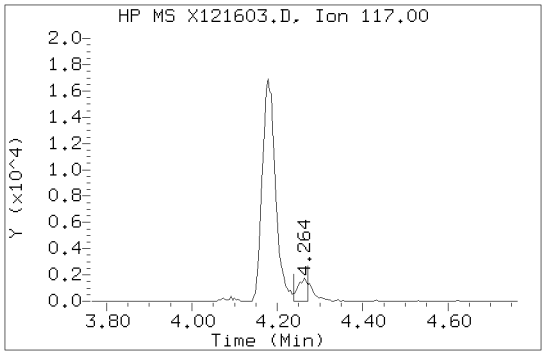
BEFORE

MASS
117
AREA
36559
HEIGHT
16920
27-Dec-2022
16:03
linh
pham



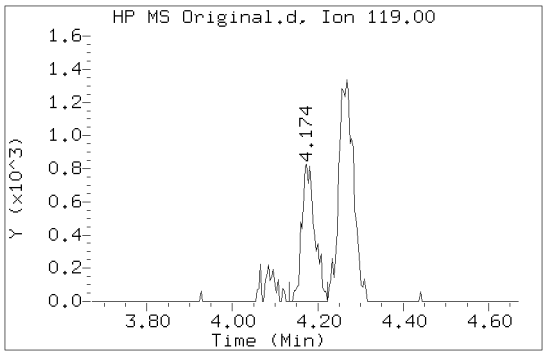
AFTER

MASS
117
AREA
2763
HEIGHT
1744
27-Dec-2022
16:07
linh
pham



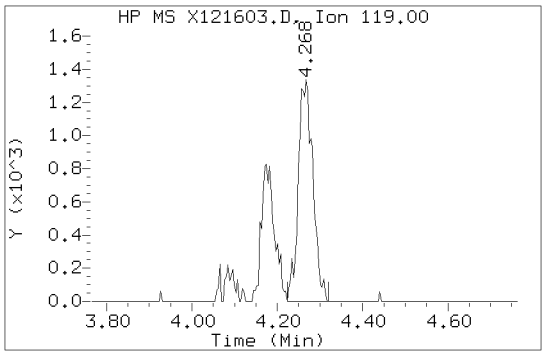
BEFORE

MASS
119
AREA
1780
HEIGHT
826
27-Dec-2022
16:03
linh
pham



AFTER

MASS
119
AREA
3227
HEIGHT
1337
27-Dec-2022
16:07
linh
pham



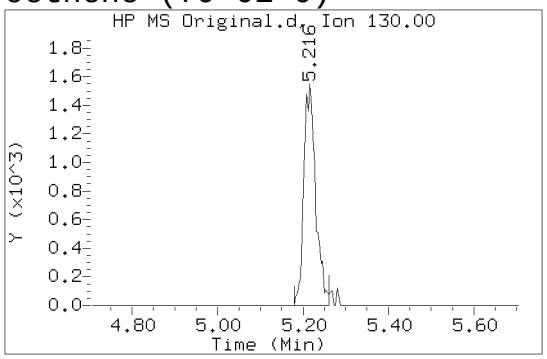
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

Trichloroethene (79-01-6)

Reason Code:

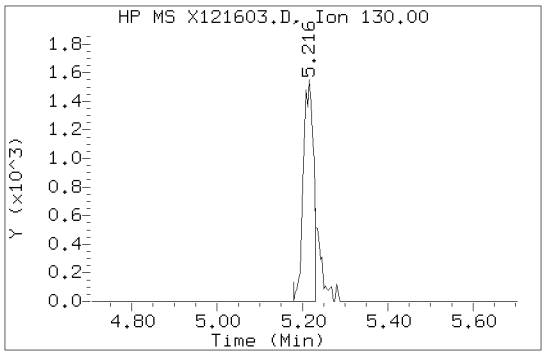
BEFORE

MASS
130
AREA
3011
HEIGHT
1551
27-Dec-2022
16:03
linh
pham



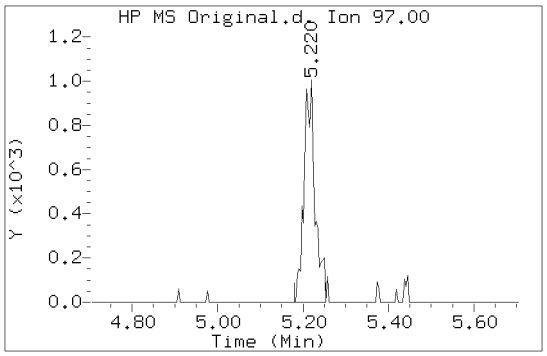
AFTER

MASS
130
AREA
2583
HEIGHT
1551
27-Dec-2022
16:07
linh
pham



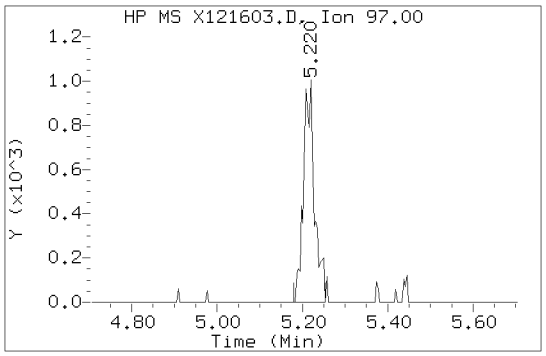
BEFORE

MASS
97
AREA
1808
HEIGHT
1006
27-Dec-2022
16:03
linh
pham



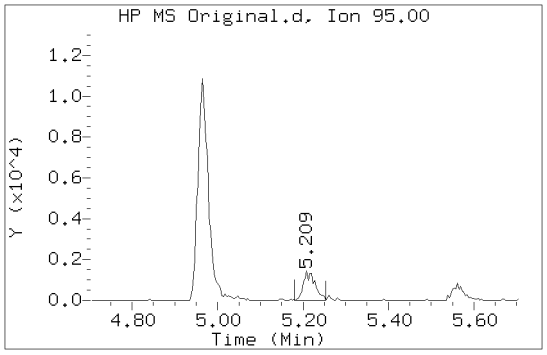
AFTER

MASS
97
AREA
1808
HEIGHT
1006
27-Dec-2022
16:07
linh
pham



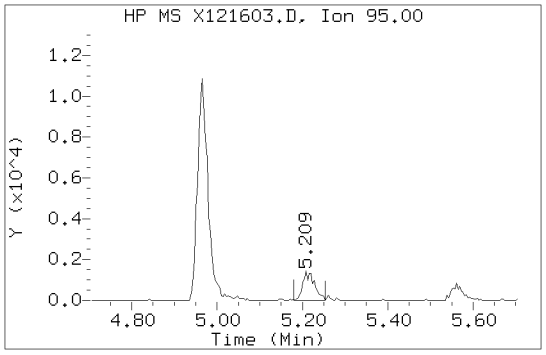
BEFORE

MASS
95
AREA
2693
HEIGHT
1431
27-Dec-2022
16:03
linh
pham



AFTER

MASS
95
AREA
2693
HEIGHT
1431
27-Dec-2022
16:07
linh
pham

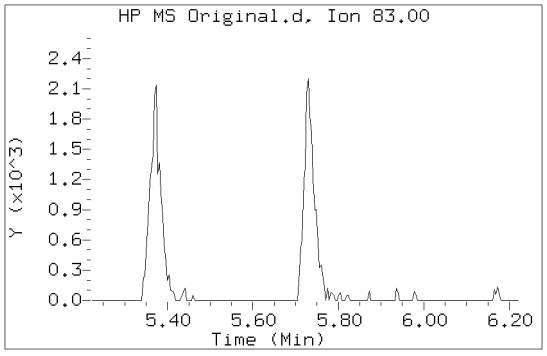


Bromodichloromethane (75-27-4)

Reason Code:

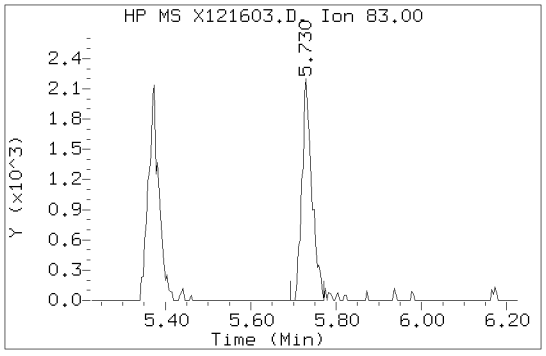
BEFORE

MASS
83
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
83
AREA
3650
HEIGHT
2201
27-Dec-2022
16:07
linh
pham

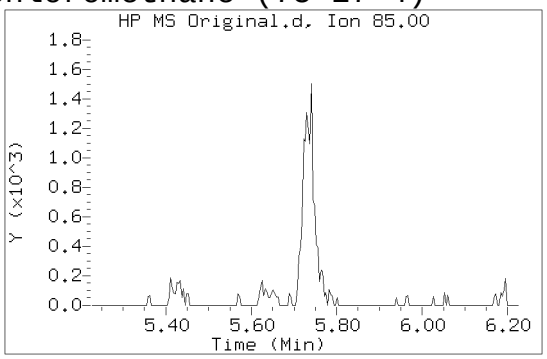


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

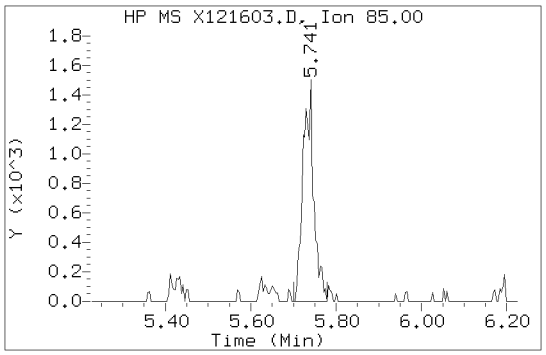
Bromodichloromethane (75-27-4)

Reason Code:

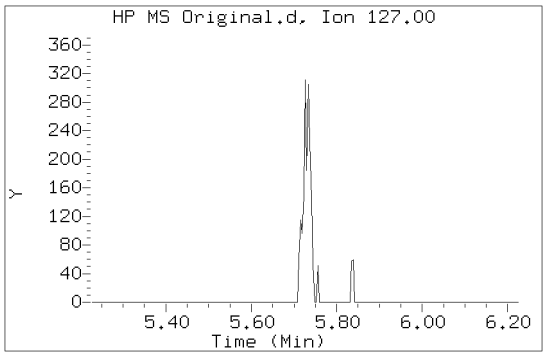
BEFORE
MASS
85
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



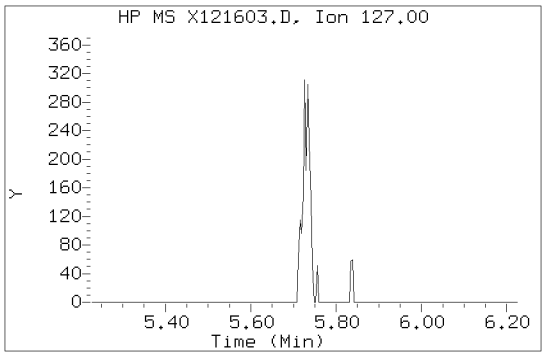
AFTER
MASS
85
AREA
2639
HEIGHT
1503
27-Dec-2022
16:07
linh
pham



BEFORE
MASS
127
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



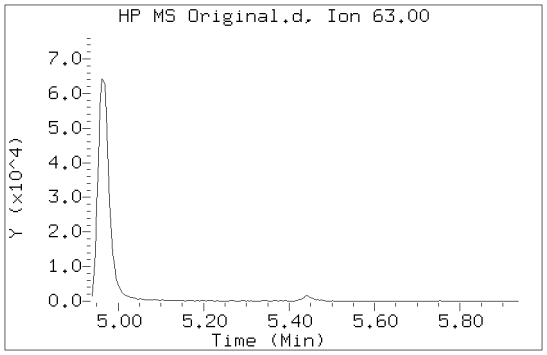
AFTER
MASS
127
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



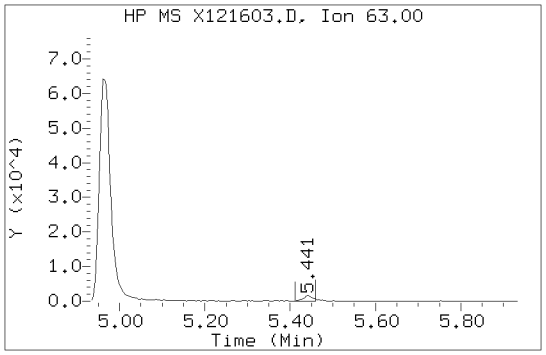
1,2-Dichloropropane (78-87-5)

Reason Code:

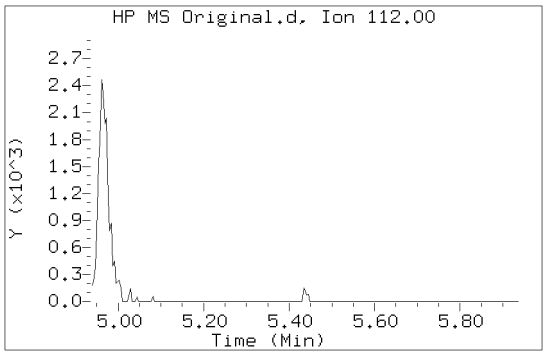
BEFORE
MASS
63
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



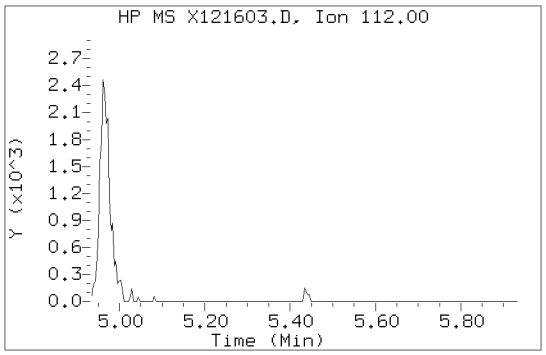
AFTER
MASS
63
AREA
2449
HEIGHT
1587
27-Dec-2022
16:07
linh
pham



BEFORE
MASS
112
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER
MASS
112
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



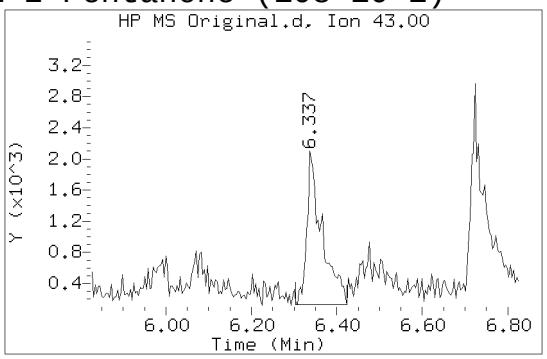
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

4-Methyl-2-Pentanone (108-10-1)

Reason Code:

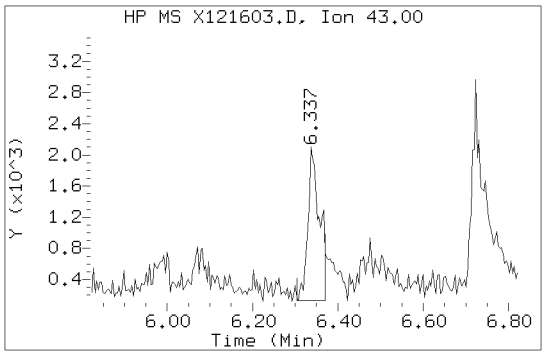
BEFORE

MASS
43
AREA
4873
HEIGHT
1970
27-Dec-2022
16:03
linh
pham



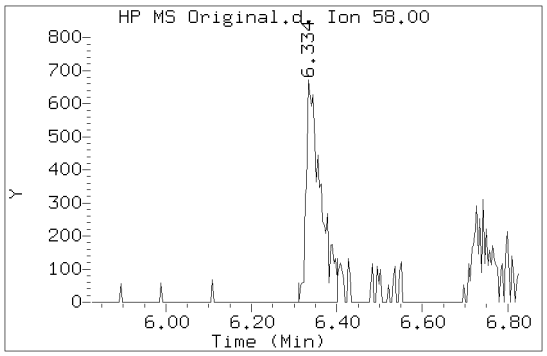
AFTER

MASS
43
AREA
3741
HEIGHT
1970
27-Dec-2022
16:07
linh
pham



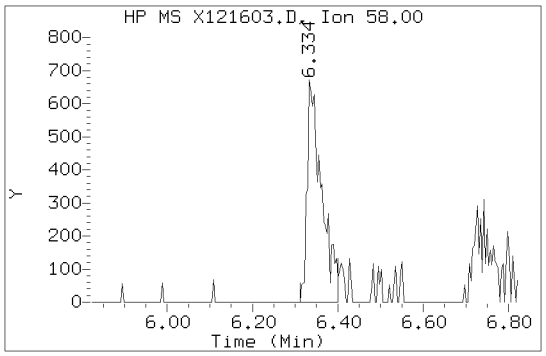
BEFORE

MASS
58
AREA
1585
HEIGHT
672
27-Dec-2022
16:03
linh
pham



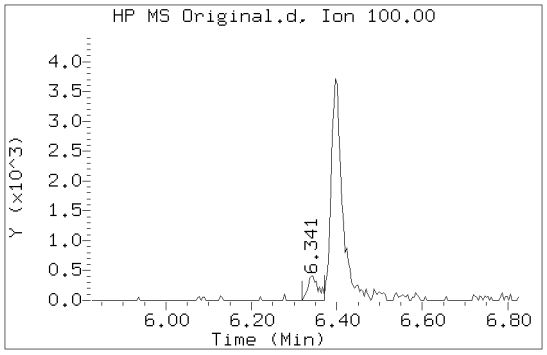
AFTER

MASS
58
AREA
1585
HEIGHT
672
27-Dec-2022
16:07
linh
pham



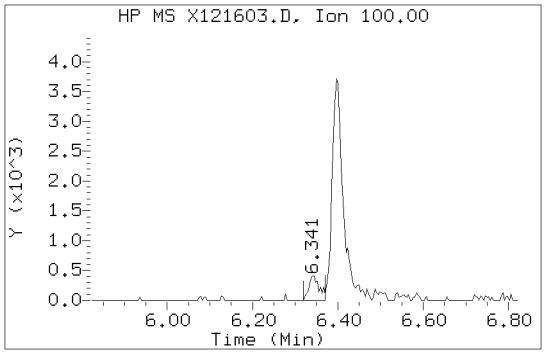
BEFORE

MASS
100
AREA
714
HEIGHT
412
27-Dec-2022
16:03
linh
pham



AFTER

MASS
100
AREA
714
HEIGHT
412
27-Dec-2022
16:07
linh
pham

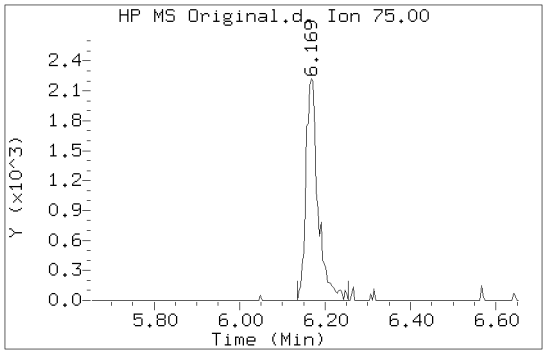


cis-1,3-Dichloropropene (10061-01-5)

Reason Code:

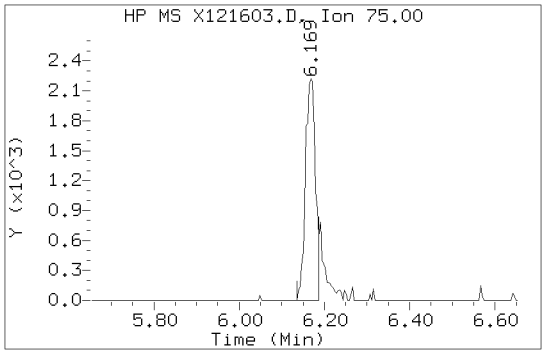
BEFORE

MASS
75
AREA
4432
HEIGHT
2222
27-Dec-2022
16:03
linh
pham



AFTER

MASS
75
AREA
3695
HEIGHT
2222
27-Dec-2022
16:07
linh
pham



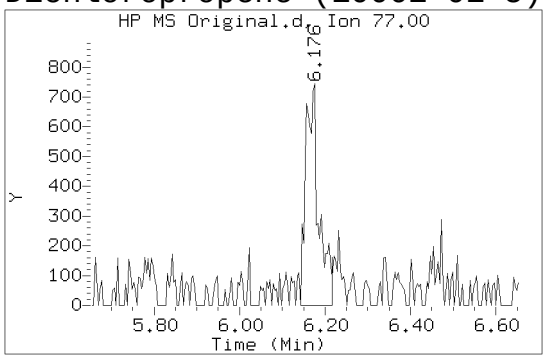
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

cis-1,3-Dichloropropene (10061-01-5)

Reason Code:

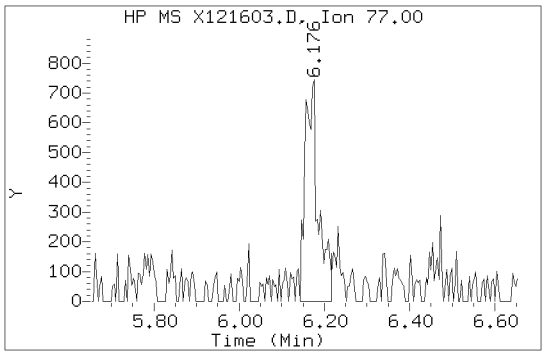
BEFORE

MASS
77
AREA
1607
HEIGHT
745
27-Dec-2022
16:03
linh
pham



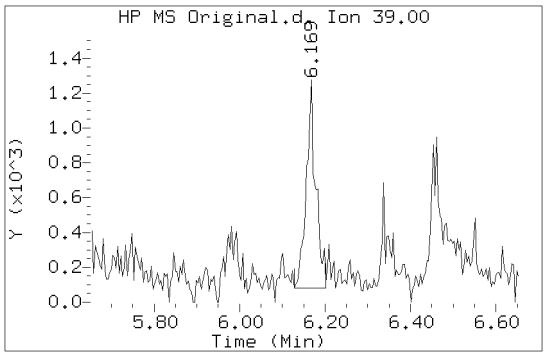
AFTER

MASS
77
AREA
1607
HEIGHT
745
27-Dec-2022
16:07
linh
pham



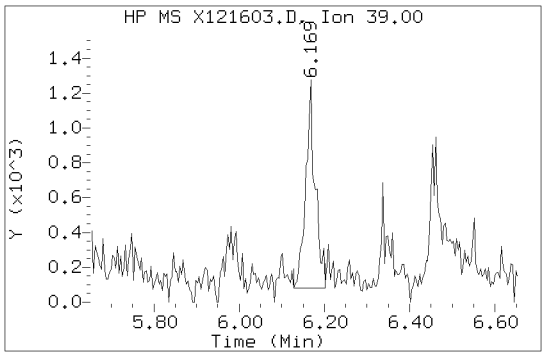
BEFORE

MASS
39
AREA
1836
HEIGHT
1193
27-Dec-2022
16:03
linh
pham



AFTER

MASS
39
AREA
1836
HEIGHT
1193
27-Dec-2022
16:07
linh
pham

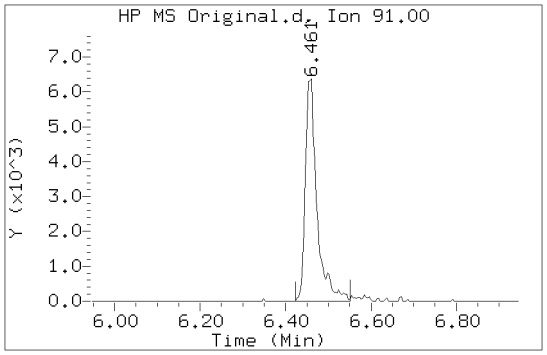


Toluene (108-88-3)

Reason Code:

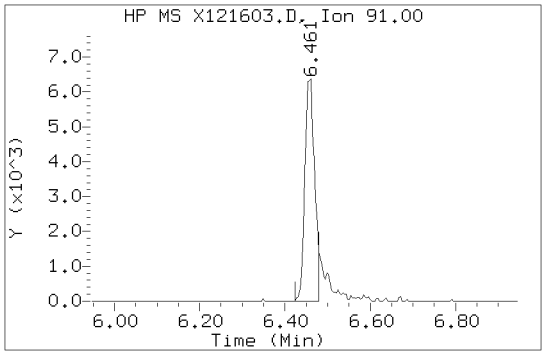
BEFORE

MASS
91
AREA
12225
HEIGHT
6374
27-Dec-2022
16:03
linh
pham



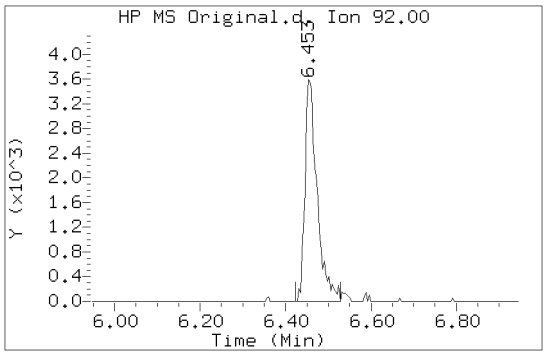
AFTER

MASS
91
AREA
10374
HEIGHT
6374
27-Dec-2022
16:07
linh
pham



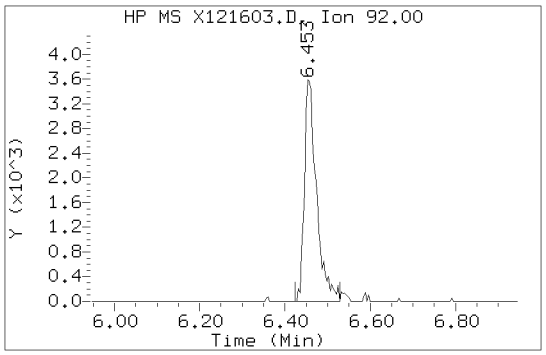
BEFORE

MASS
92
AREA
7180
HEIGHT
3591
27-Dec-2022
16:03
linh
pham



AFTER

MASS
92
AREA
7180
HEIGHT
3591
27-Dec-2022
16:07
linh
pham

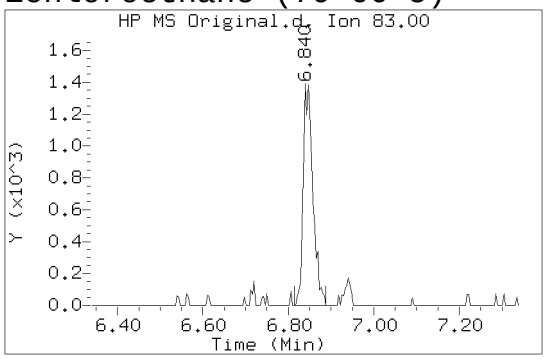


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

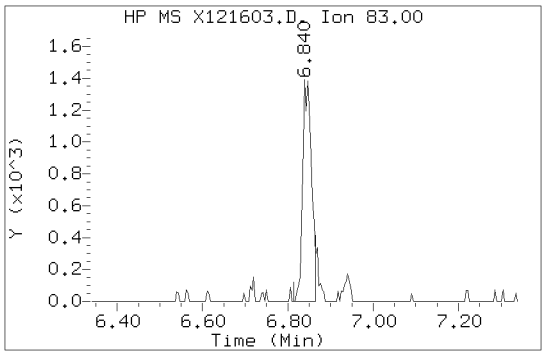
1,1,2-Trichloroethane (79-00-5)

Reason Code:

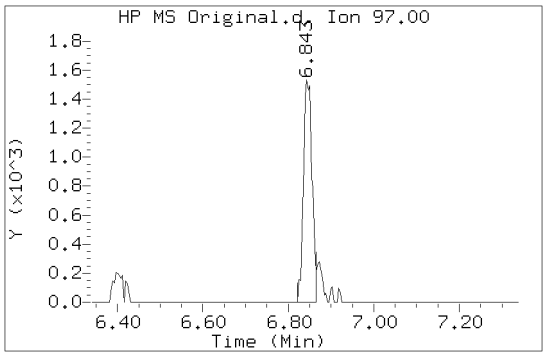
BEFORE
MASS
83
AREA
2247
HEIGHT
1391
27-Dec-2022
16:03
linh
pham



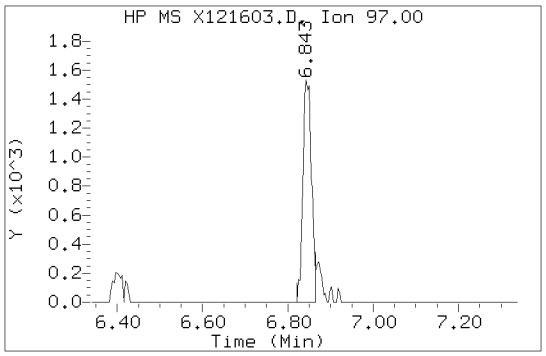
AFTER
MASS
83
AREA
2092
HEIGHT
1391
27-Dec-2022
16:07
linh
pham



BEFORE
MASS
97
AREA
2224
HEIGHT
1532
27-Dec-2022
16:03
linh
pham



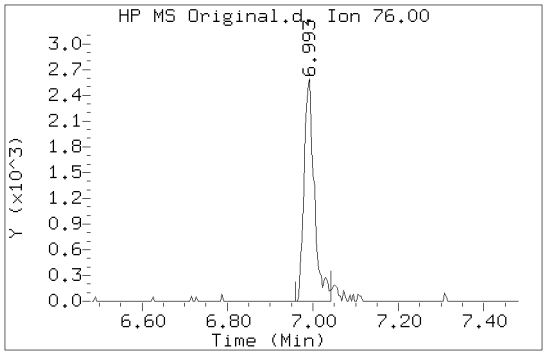
AFTER
MASS
97
AREA
2224
HEIGHT
1532
27-Dec-2022
16:07
linh
pham



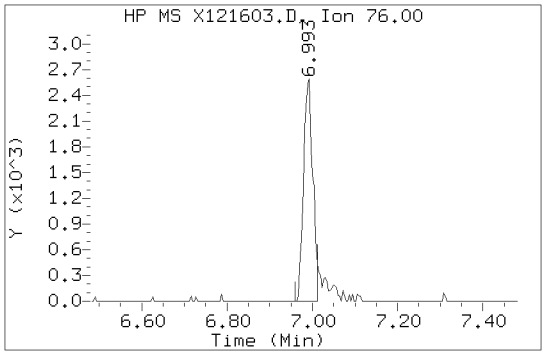
1,3-Dichloropropane (142-28-9)

Reason Code:

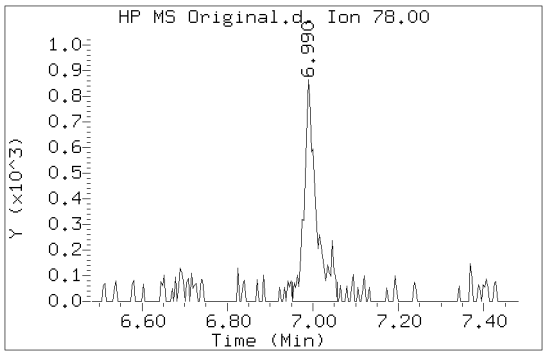
BEFORE
MASS
76
AREA
4415
HEIGHT
2592
27-Dec-2022
16:03
linh
pham



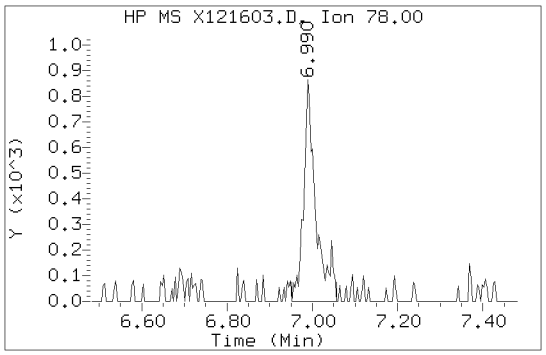
AFTER
MASS
76
AREA
4005
HEIGHT
2592
27-Dec-2022
16:07
linh
pham



BEFORE
MASS
78
AREA
1727
HEIGHT
864
27-Dec-2022
16:03
linh
pham



AFTER
MASS
78
AREA
1727
HEIGHT
864
27-Dec-2022
16:07
linh
pham

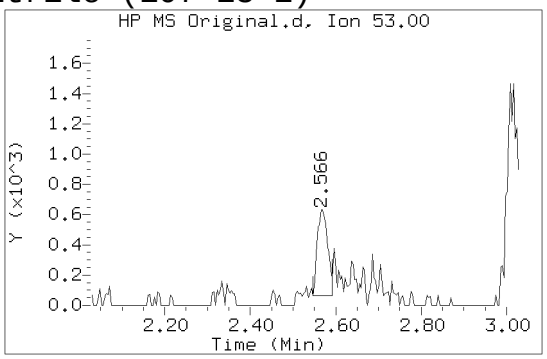


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

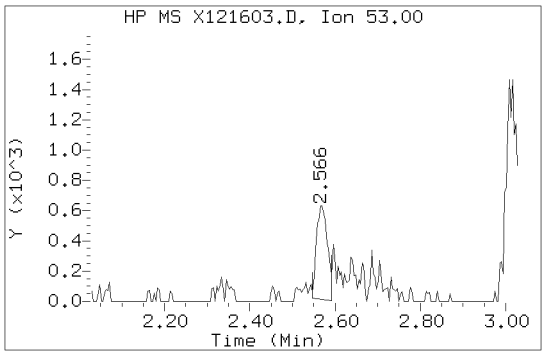
Acrylonitrile (107-13-1)

Reason Code:

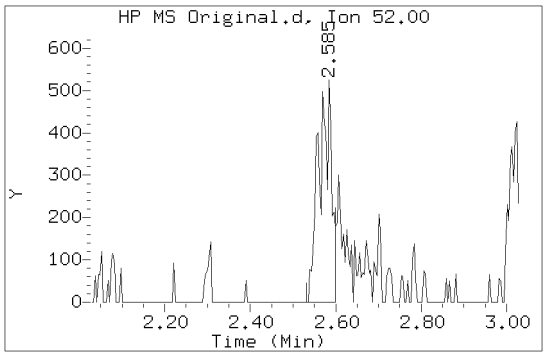
BEFORE
MASS
53
AREA
975
HEIGHT
571
27-Dec-2022
16:03
linh
pham



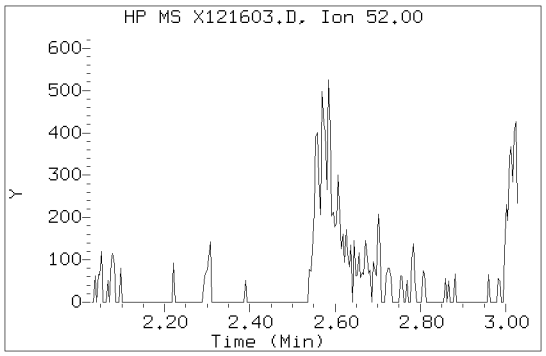
AFTER
MASS
53
AREA
1118
HEIGHT
618
27-Dec-2022
16:07
linh
pham



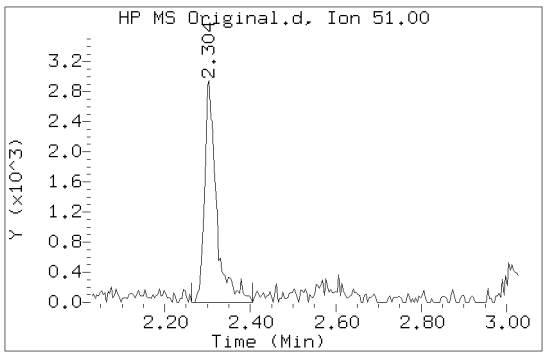
BEFORE
MASS
52
AREA
1100
HEIGHT
525
27-Dec-2022
16:03
linh
pham



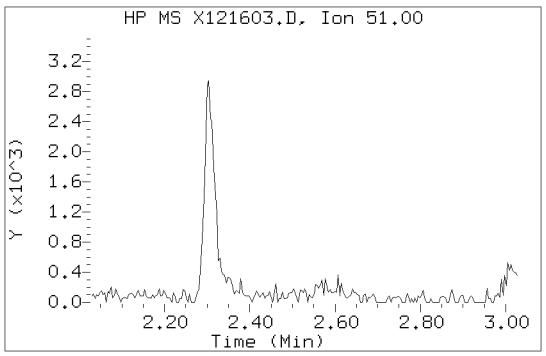
AFTER
MASS
52
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



BEFORE
MASS
51
AREA
5708
HEIGHT
2946
27-Dec-2022
16:03
linh
pham



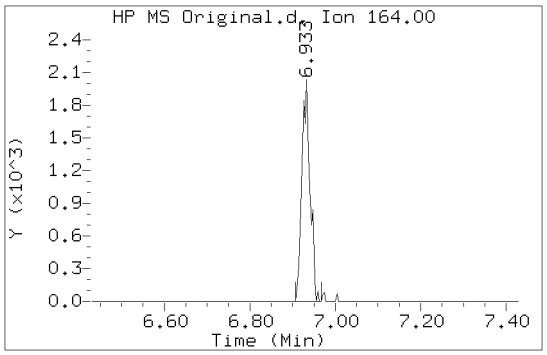
AFTER
MASS
51
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



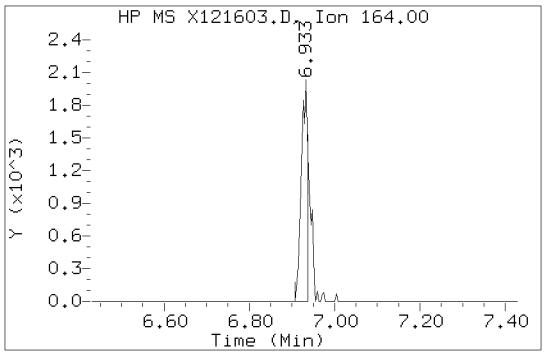
Tetrachloroethene (127-18-4)

Reason Code:

BEFORE
MASS
164
AREA
2777
HEIGHT
2036
27-Dec-2022
16:03
linh
pham



AFTER
MASS
164
AREA
2131
HEIGHT
2036
27-Dec-2022
16:07
linh
pham



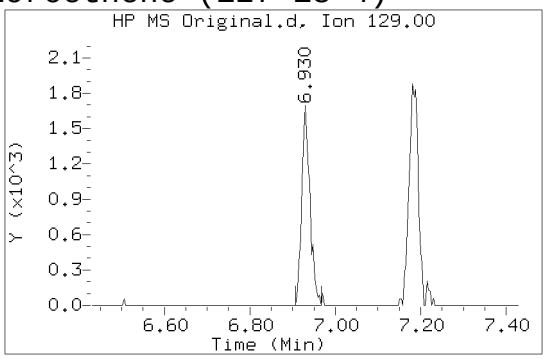
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

Tetrachloroethene (127-18-4)

Reason Code:

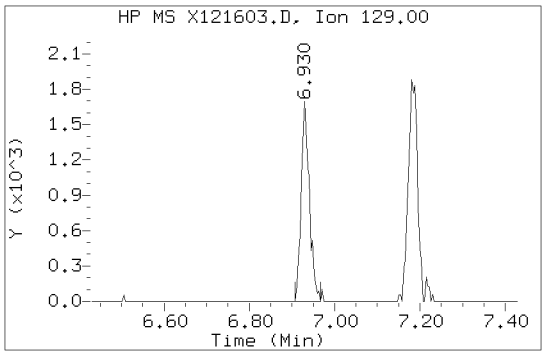
BEFORE

MASS
129
AREA
2342
HEIGHT
1697
27-Dec-2022
16:03
linh
pham



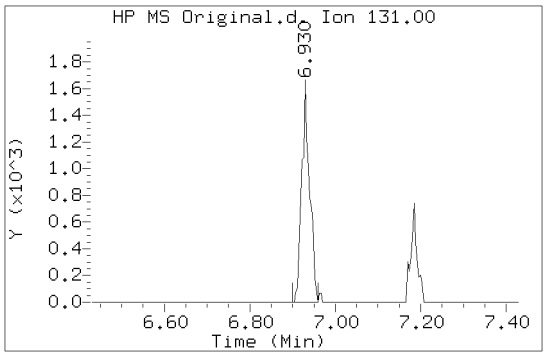
AFTER

MASS
129
AREA
2342
HEIGHT
1697
27-Dec-2022
16:07
linh
pham



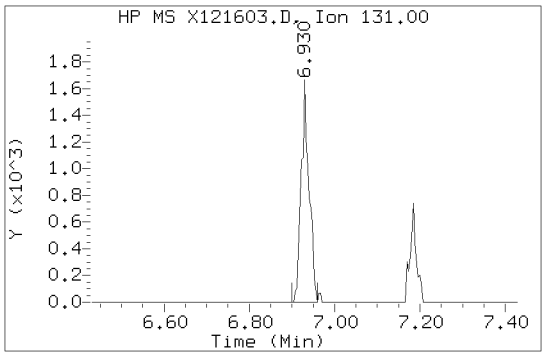
BEFORE

MASS
131
AREA
2193
HEIGHT
1665
27-Dec-2022
16:03
linh
pham



AFTER

MASS
131
AREA
2193
HEIGHT
1665
27-Dec-2022
16:07
linh
pham

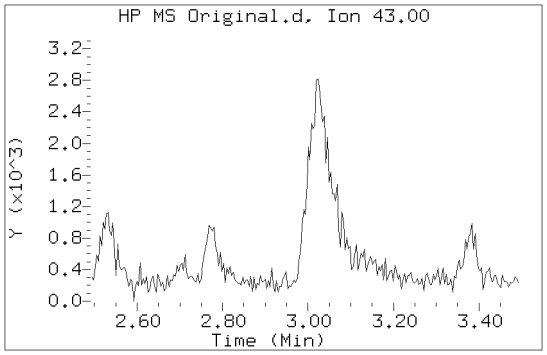


Vinyl Acetate (108-05-4)

Reason Code:

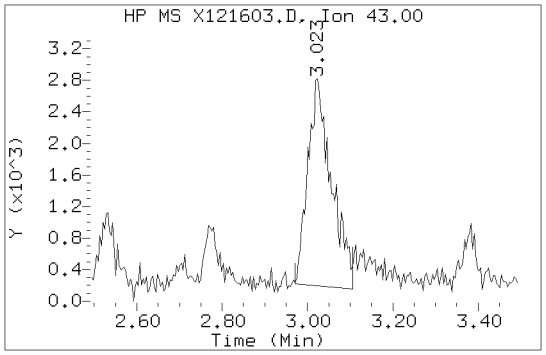
BEFORE

MASS
43
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



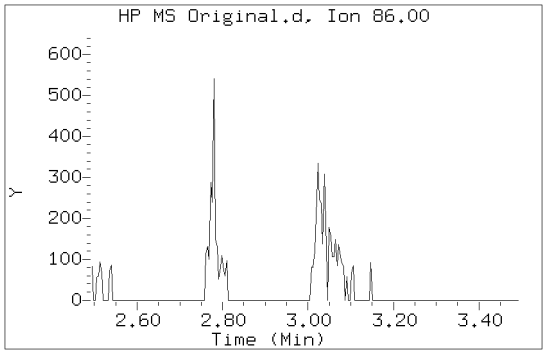
AFTER

MASS
43
AREA
10138
HEIGHT
2622
27-Dec-2022
16:07
linh
pham



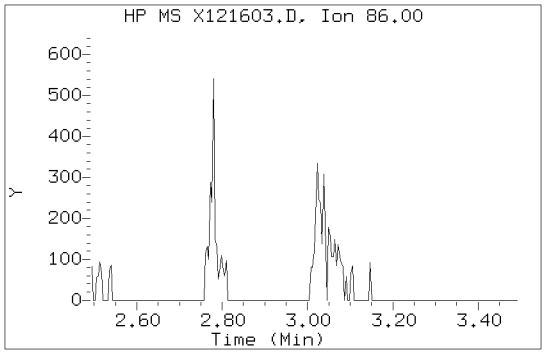
BEFORE

MASS
86
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
86
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



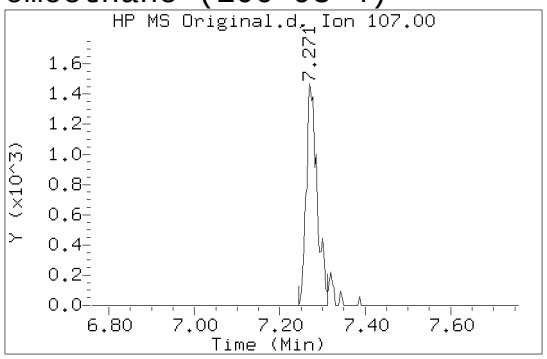
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

1,2-Dibromoethane (106-93-4)

Reason Code:

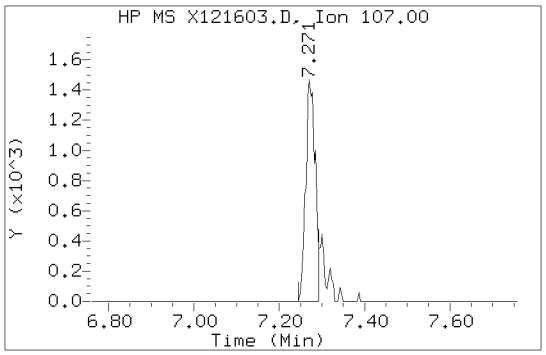
BEFORE

MASS
107
AREA
2627
HEIGHT
1469
27-Dec-2022
16:03
linh
pham



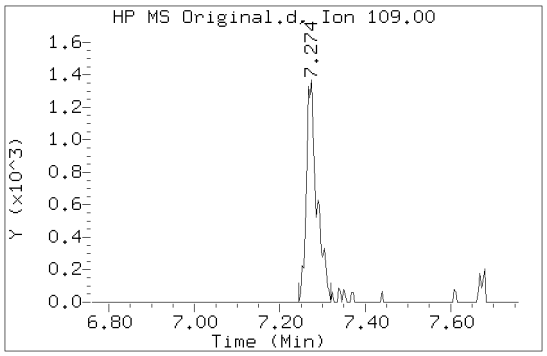
AFTER

MASS
107
AREA
2340
HEIGHT
1469
27-Dec-2022
16:07
linh
pham



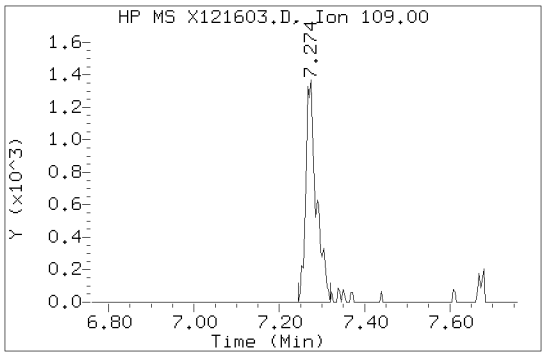
BEFORE

MASS
109
AREA
2396
HEIGHT
1369
27-Dec-2022
16:03
linh
pham



AFTER

MASS
109
AREA
2396
HEIGHT
1369
27-Dec-2022
16:07
linh
pham

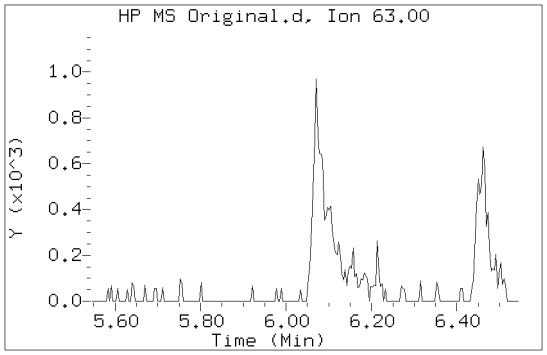


2-Chloroethylvinyl ether (110-75-8)

Reason Code:

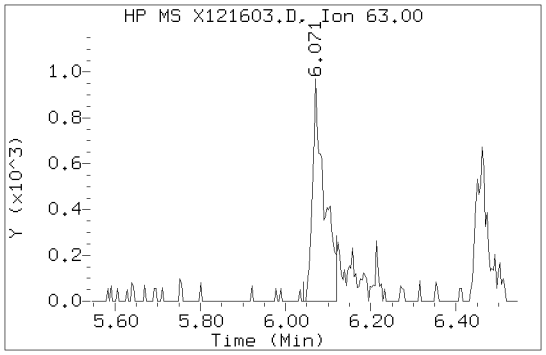
BEFORE

MASS
63
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



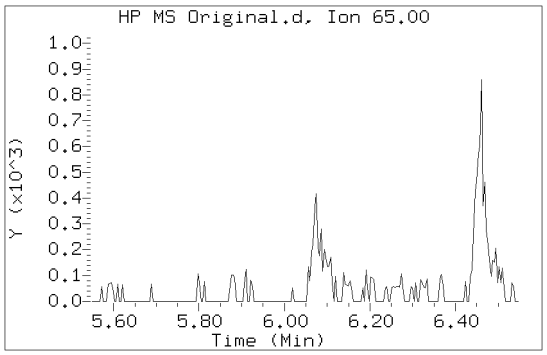
AFTER

MASS
63
AREA
1861
HEIGHT
970
27-Dec-2022
16:07
linh
pham



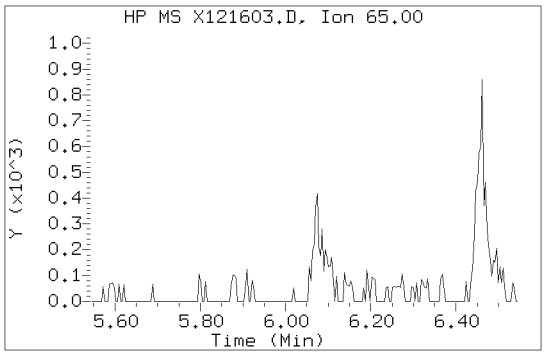
BEFORE

MASS
65
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
65
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



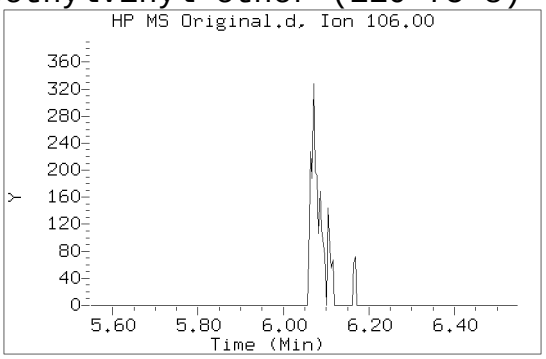
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

2-Chloroethylvinyl ether (110-75-8)

Reason Code:

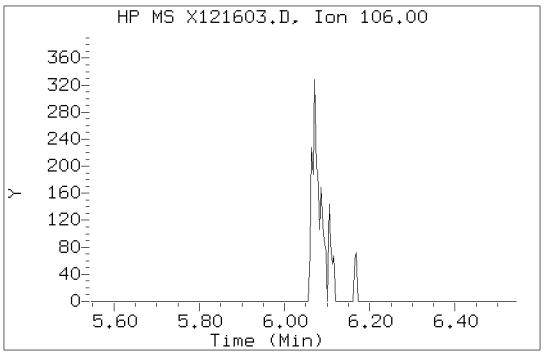
BEFORE

MASS
106
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
106
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

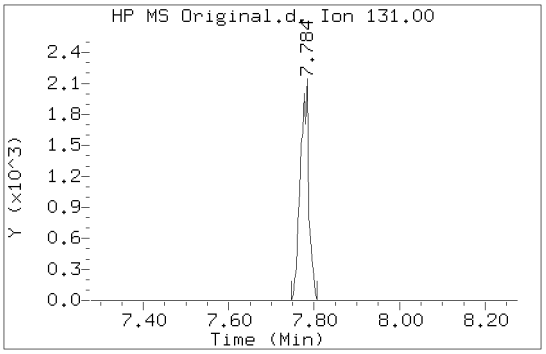


1,1,1,2-Tetrachloroethane (630-20-6)

Reason Code:

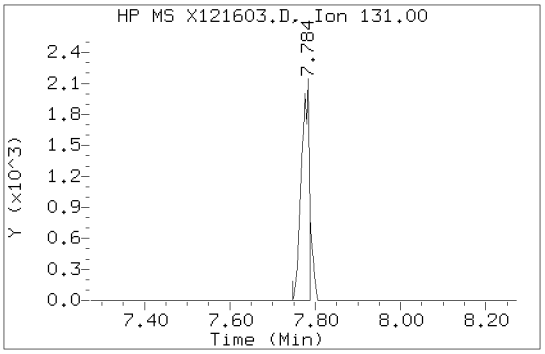
BEFORE

MASS
131
AREA
3036
HEIGHT
2146
27-Dec-2022
16:03
linh
pham



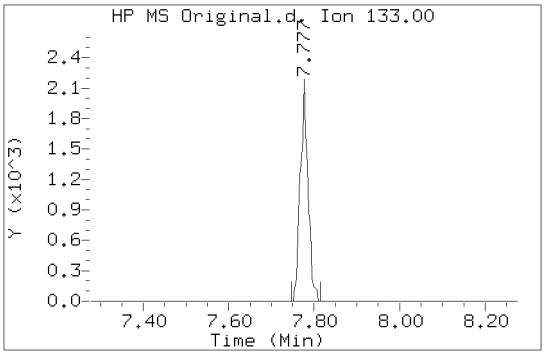
AFTER

MASS
131
AREA
2741
HEIGHT
2146
27-Dec-2022
16:07
linh
pham



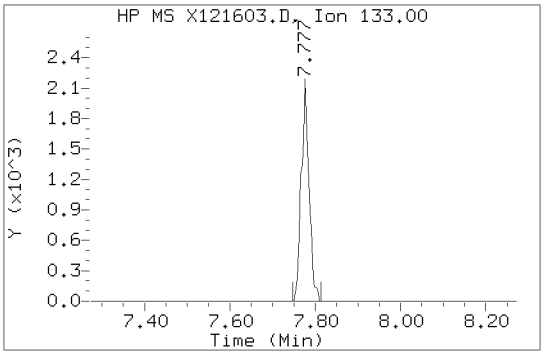
BEFORE

MASS
133
AREA
2829
HEIGHT
2191
27-Dec-2022
16:03
linh
pham



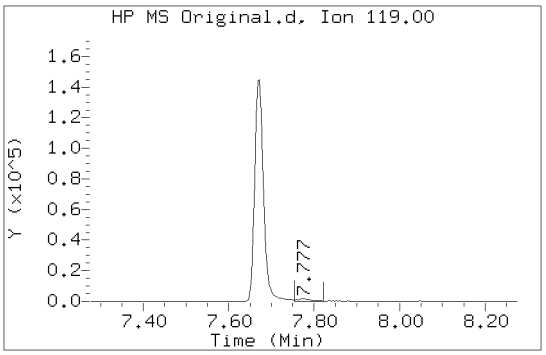
AFTER

MASS
133
AREA
2829
HEIGHT
2191
27-Dec-2022
16:07
linh
pham



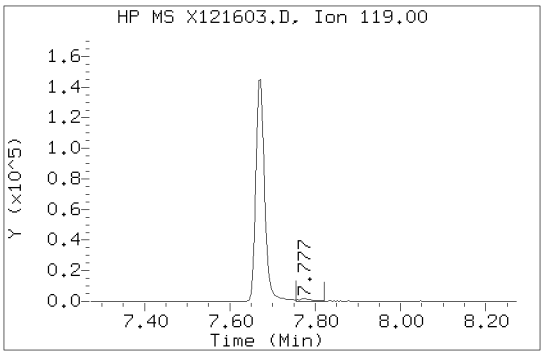
BEFORE

MASS
119
AREA
2971
HEIGHT
1971
27-Dec-2022
16:03
linh
pham



AFTER

MASS
119
AREA
2971
HEIGHT
1971
27-Dec-2022
16:07
linh
pham



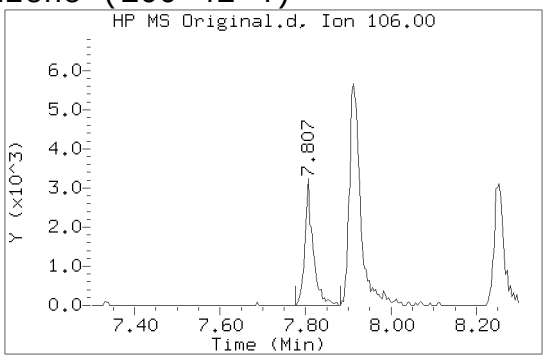
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

Ethylbenzene (100-41-4)

Reason Code:

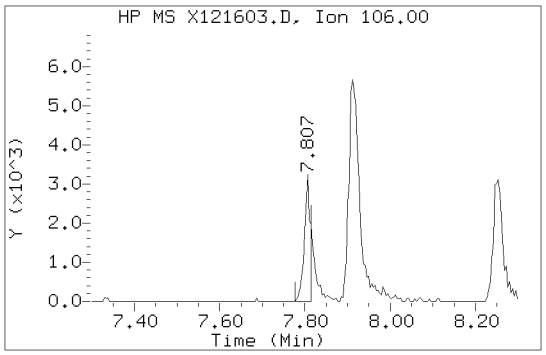
BEFORE

MASS
106
AREA
4331
HEIGHT
3242
27-Dec-2022
16:03
linh
pham



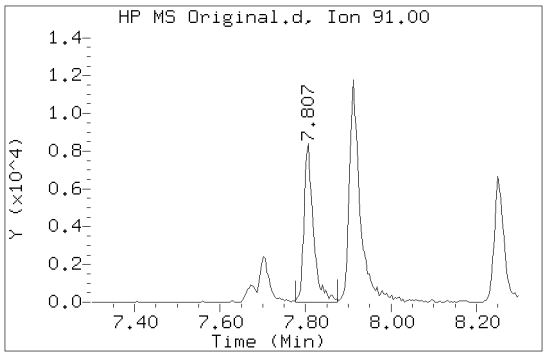
AFTER

MASS
106
AREA
3064
HEIGHT
3242
27-Dec-2022
16:07
linh
pham



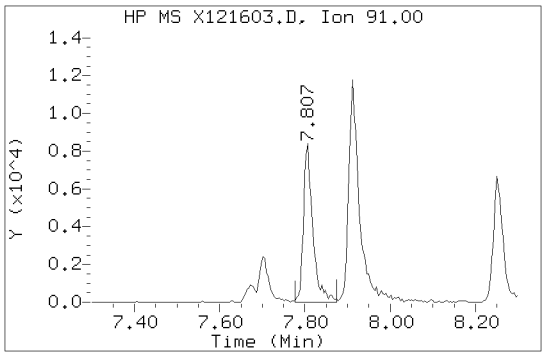
BEFORE

MASS
91
AREA
13136
HEIGHT
8410
27-Dec-2022
16:03
linh
pham



AFTER

MASS
91
AREA
13136
HEIGHT
8410
27-Dec-2022
16:07
linh
pham

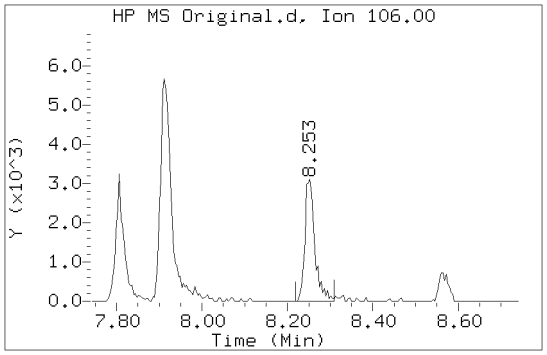


o-Xylene (95-47-6)

Reason Code:

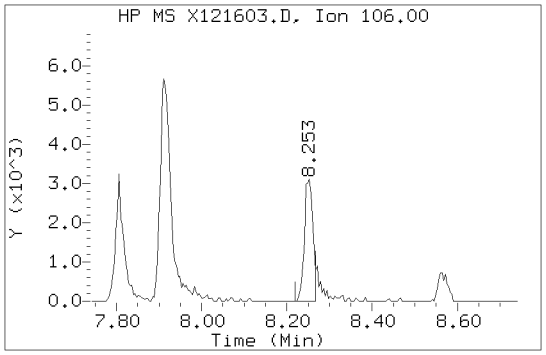
BEFORE

MASS
106
AREA
5100
HEIGHT
3111
27-Dec-2022
16:03
linh
pham



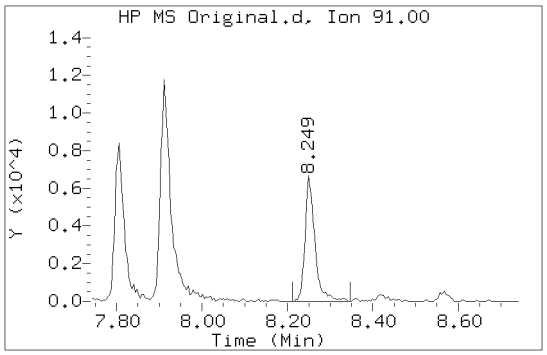
AFTER

MASS
106
AREA
4412
HEIGHT
3111
27-Dec-2022
16:07
linh
pham



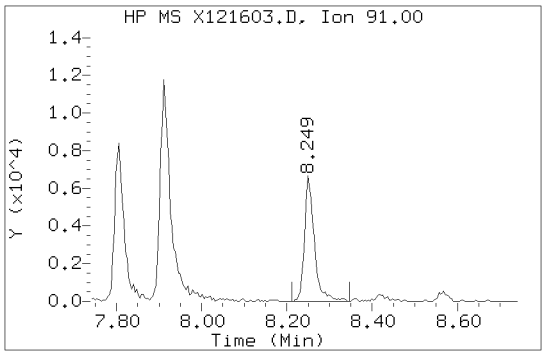
BEFORE

MASS
91
AREA
10808
HEIGHT
6665
27-Dec-2022
16:03
linh
pham



AFTER

MASS
91
AREA
10808
HEIGHT
6665
27-Dec-2022
16:07
linh
pham

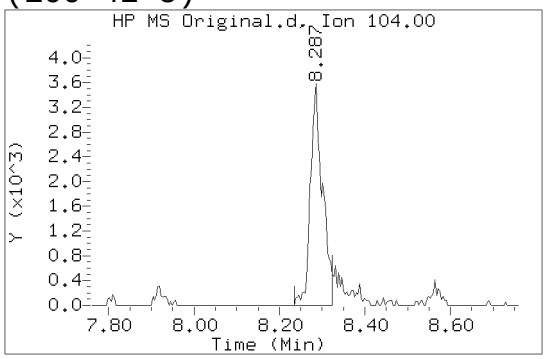


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

Styrene (100-42-5)

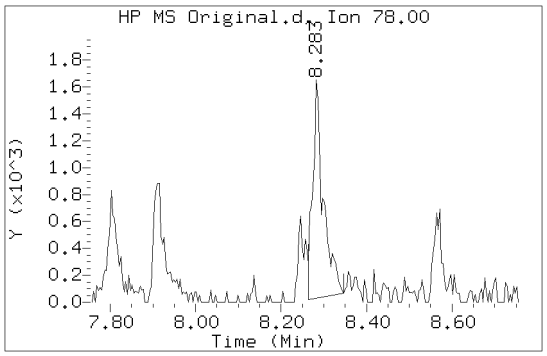
BEFORE

MASS
104
AREA
7074
HEIGHT
3581
27-Dec-2022
16:03
linh
pham



BEFORE

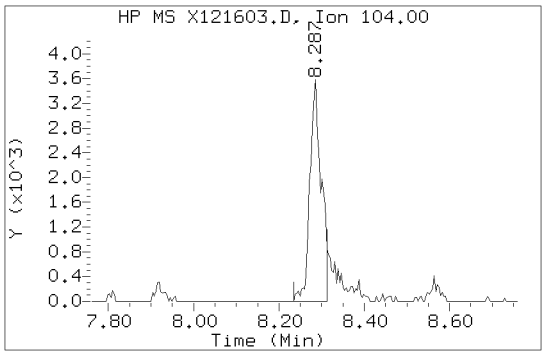
MASS
78
AREA
2827
HEIGHT
1622
27-Dec-2022
16:03
linh
pham



Reason Code:

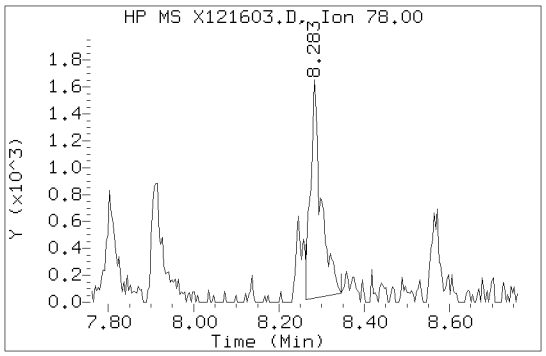
AFTER

MASS
104
AREA
6634
HEIGHT
3581
27-Dec-2022
16:07
linh
pham



AFTER

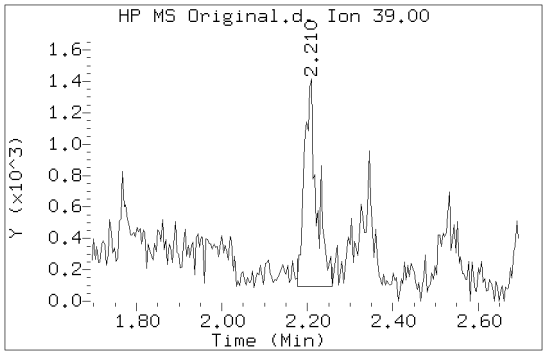
MASS
78
AREA
2827
HEIGHT
1622
27-Dec-2022
16:07
linh
pham



Acetonitrile (75-05-8)

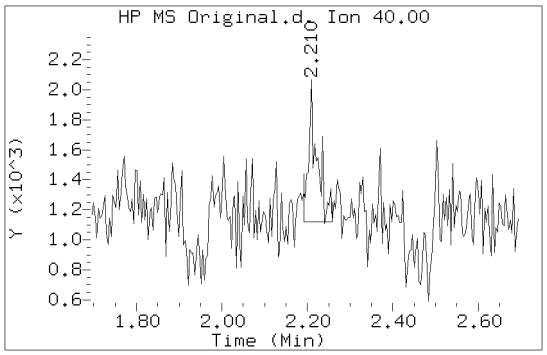
BEFORE

MASS
39
AREA
2674
HEIGHT
1321
27-Dec-2022
16:03
linh
pham



BEFORE

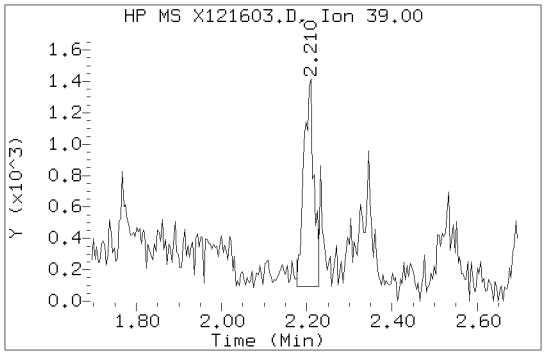
MASS
40
AREA
1296
HEIGHT
946
27-Dec-2022
16:03
linh
pham



Reason Code:

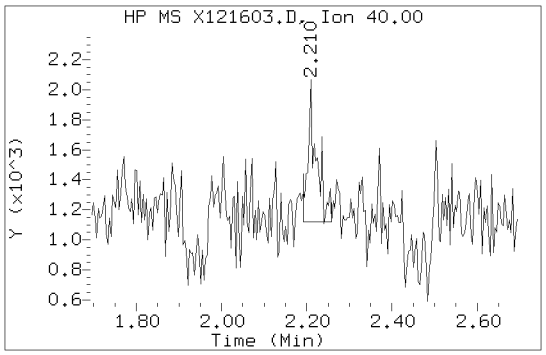
AFTER

MASS
39
AREA
2204
HEIGHT
1321
27-Dec-2022
16:07
linh
pham



AFTER

MASS
40
AREA
1296
HEIGHT
946
27-Dec-2022
16:07
linh
pham



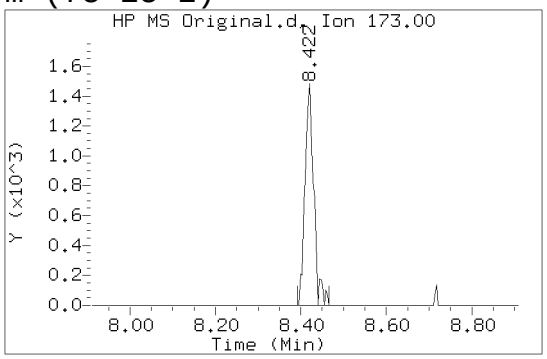
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

Bromoform (75-25-2)

Reason Code:

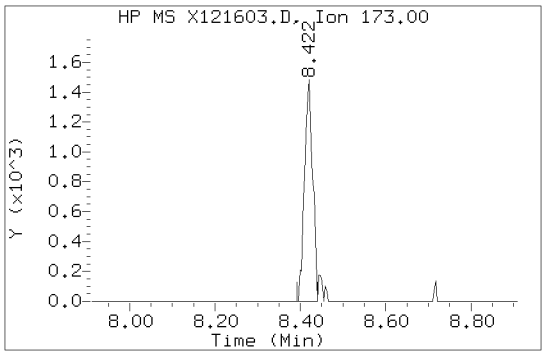
BEFORE

MASS
173
AREA
2158
HEIGHT
1483
27-Dec-2022
16:03
linh
pham



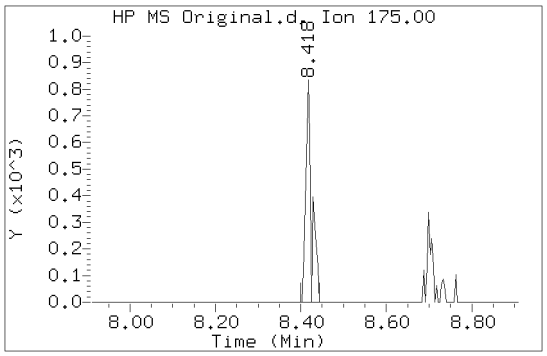
AFTER

MASS
173
AREA
2013
HEIGHT
1483
27-Dec-2022
16:07
linh
pham



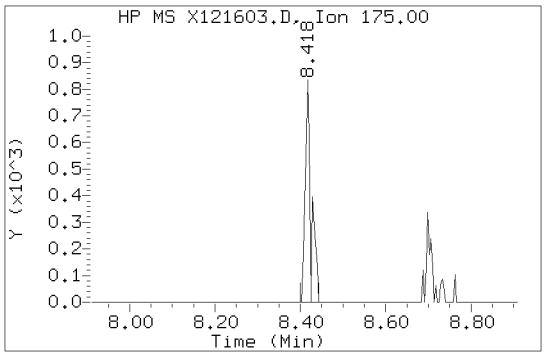
BEFORE

MASS
175
AREA
807
HEIGHT
835
27-Dec-2022
16:03
linh
pham



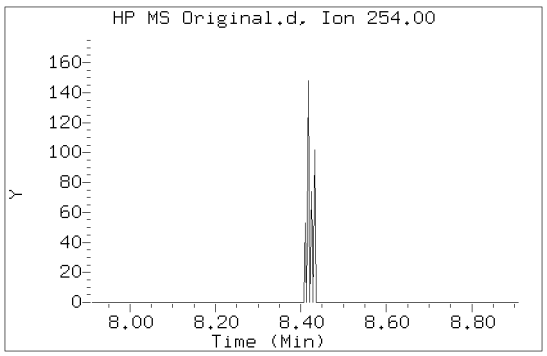
AFTER

MASS
175
AREA
807
HEIGHT
835
27-Dec-2022
16:07
linh
pham



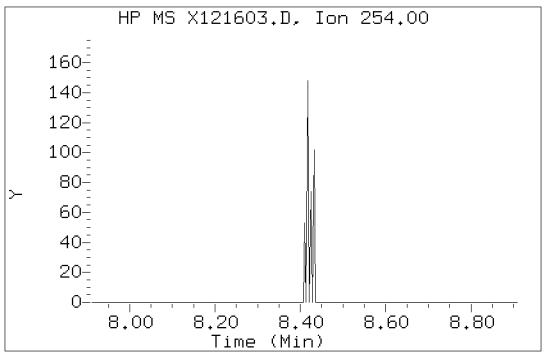
BEFORE

MASS
254
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
254
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

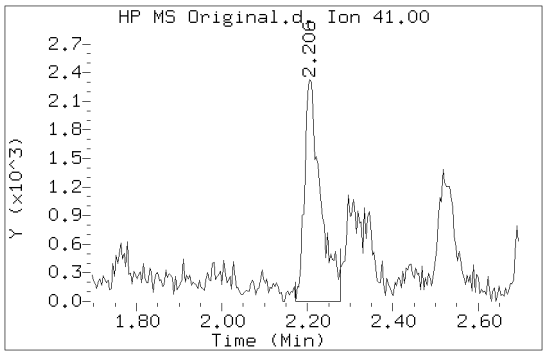


Allyl Chloride (107-05-1)

Reason Code:

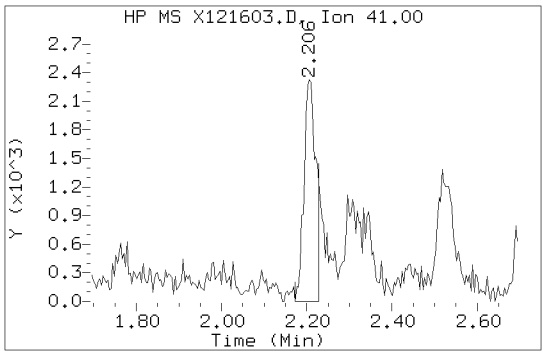
BEFORE

MASS
41
AREA
6169
HEIGHT
2326
27-Dec-2022
16:03
linh
pham



AFTER

MASS
41
AREA
4574
HEIGHT
2326
27-Dec-2022
16:07
linh
pham



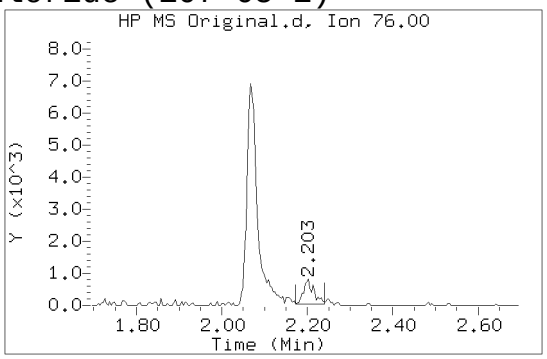
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

Allyl Chloride (107-05-1)

Reason Code:

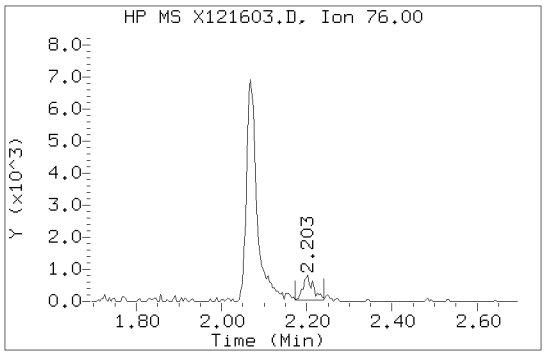
BEFORE

MASS
76
AREA
1254
HEIGHT
763
27-Dec-2022
16:03
linh
pham



AFTER

MASS
76
AREA
1254
HEIGHT
763
27-Dec-2022
16:07
linh
pham

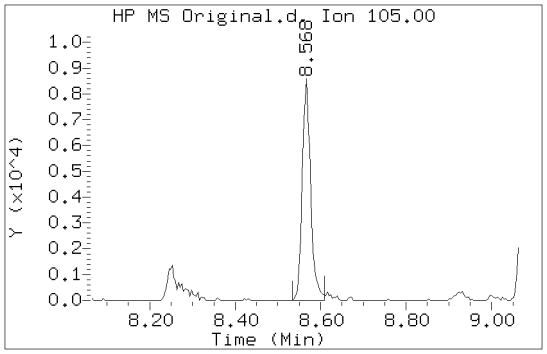


Isopropylbenzene (98-82-8)

Reason Code:

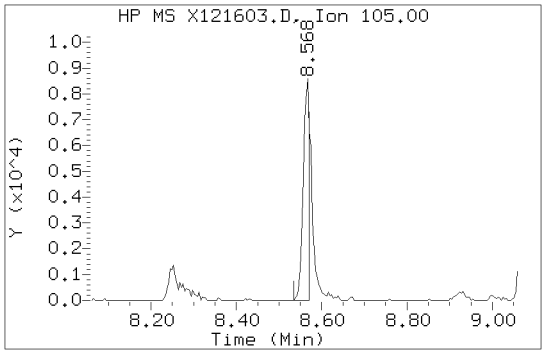
BEFORE

MASS
105
AREA
12091
HEIGHT
8588
27-Dec-2022
16:03
linh
pham



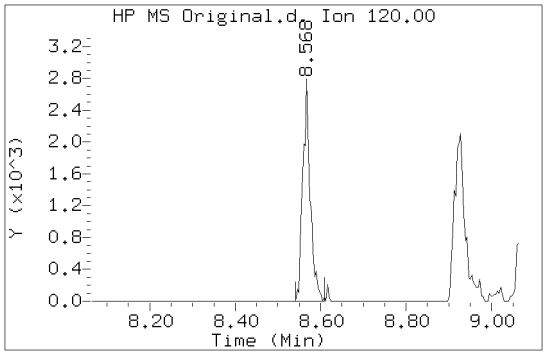
AFTER

MASS
105
AREA
8757
HEIGHT
8588
27-Dec-2022
16:07
linh
pham



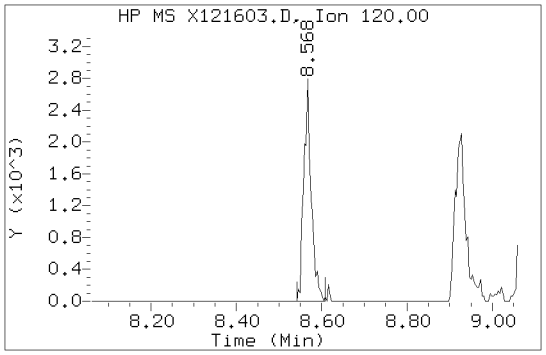
BEFORE

MASS
120
AREA
3462
HEIGHT
2793
27-Dec-2022
16:03
linh
pham



AFTER

MASS
120
AREA
3462
HEIGHT
2793
27-Dec-2022
16:07
linh
pham

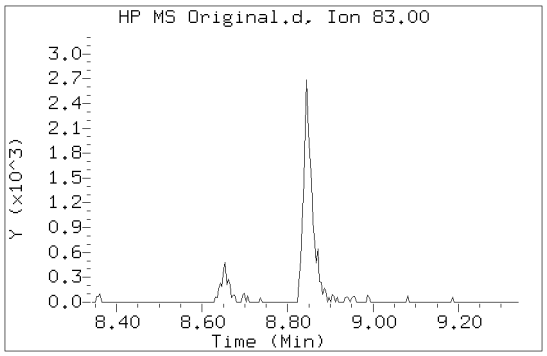


1,1,2,2-Tetrachloroethane (79-34-5)

Reason Code:

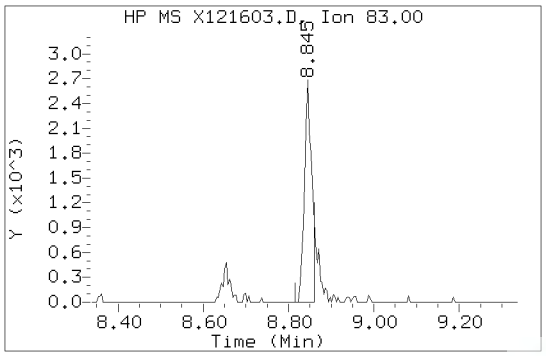
BEFORE

MASS
83
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
83
AREA
3194
HEIGHT
2685
27-Dec-2022
16:07
linh
pham



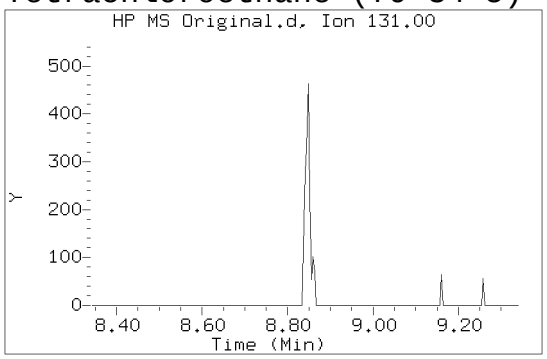
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

1,1,2,2-Tetrachloroethane (79-34-5)

Reason Code:

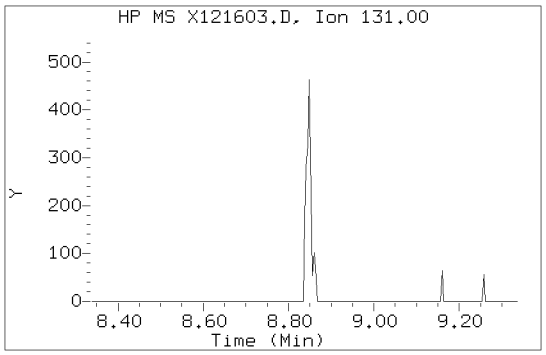
BEFORE

MASS
131
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



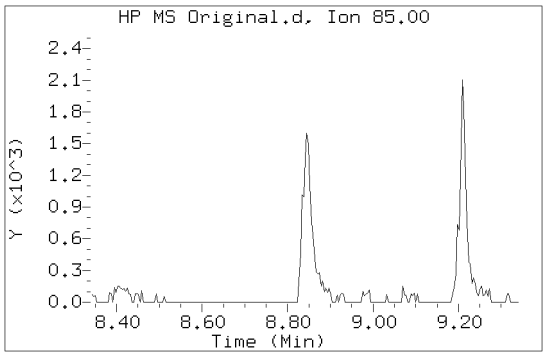
AFTER

MASS
131
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



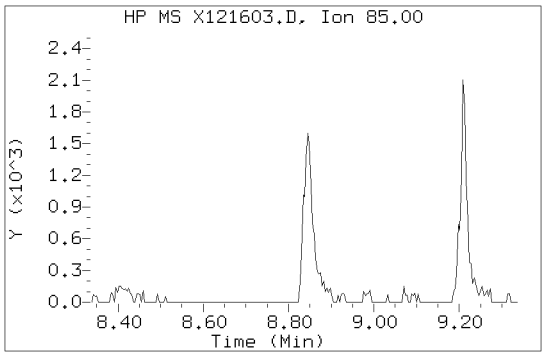
BEFORE

MASS
85
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
85
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

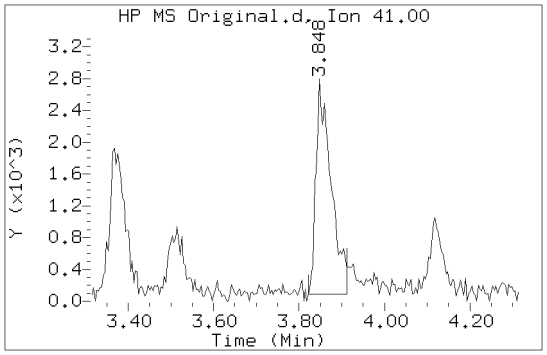


Methacrylonitrile (126-98-7)

Reason Code:

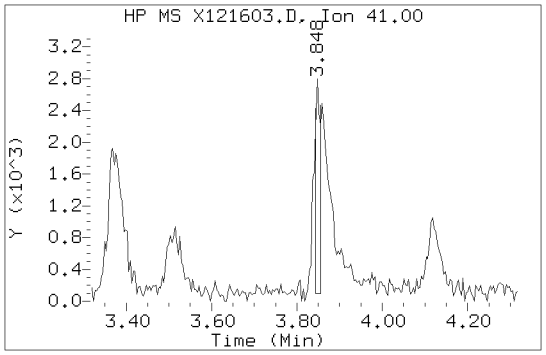
BEFORE

MASS
41
AREA
6587
HEIGHT
2708
27-Dec-2022
16:03
linh
pham



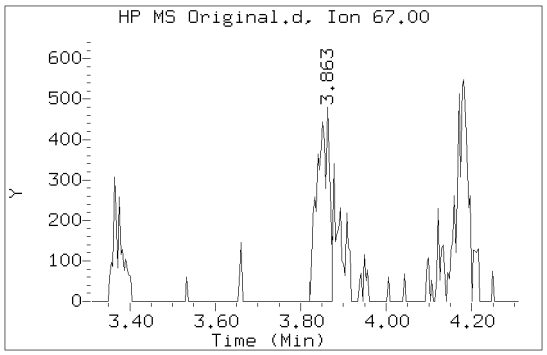
AFTER

MASS
41
AREA
2066
HEIGHT
2701
27-Dec-2022
16:07
linh
pham



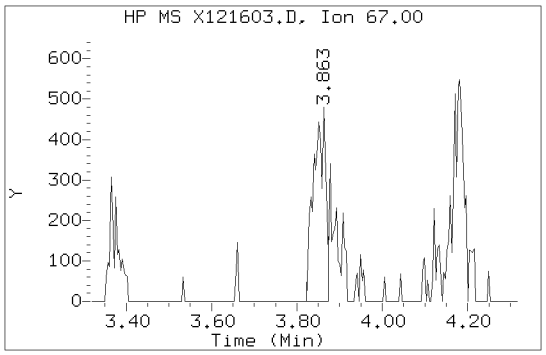
BEFORE

MASS
67
AREA
937
HEIGHT
480
27-Dec-2022
16:03
linh
pham



AFTER

MASS
67
AREA
937
HEIGHT
480
27-Dec-2022
16:07
linh
pham



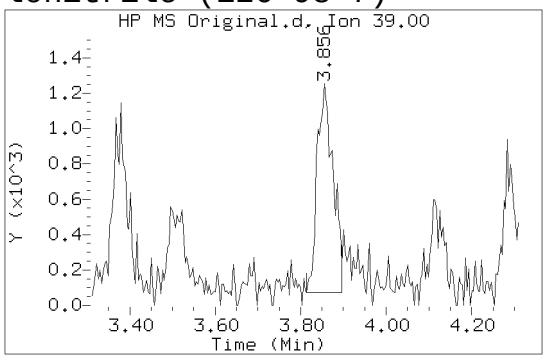
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

Methacrylonitrile (126-98-7)

Reason Code:

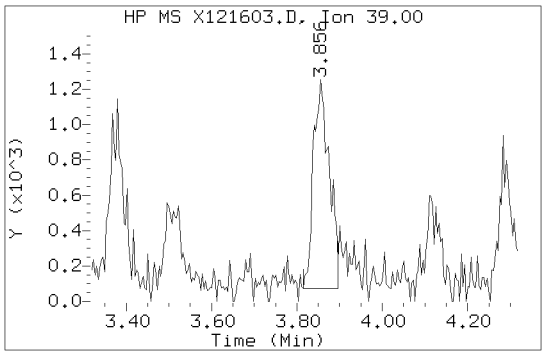
BEFORE

MASS
39
AREA
3048
HEIGHT
1181
27-Dec-2022
16:03
linh
pham



AFTER

MASS
39
AREA
3048
HEIGHT
1181
27-Dec-2022
16:07
linh
pham

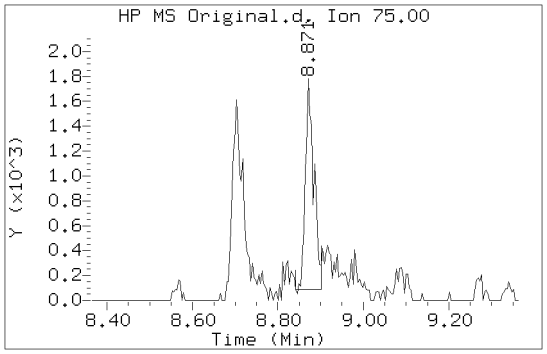


1,2,3-Trichloropropane (96-18-4)

Reason Code:

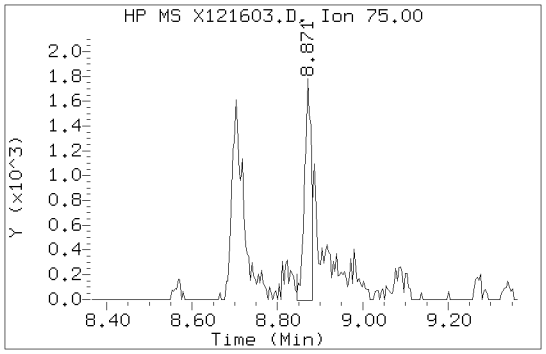
BEFORE

MASS
75
AREA
2351
HEIGHT
1693
27-Dec-2022
16:03
linh
pham



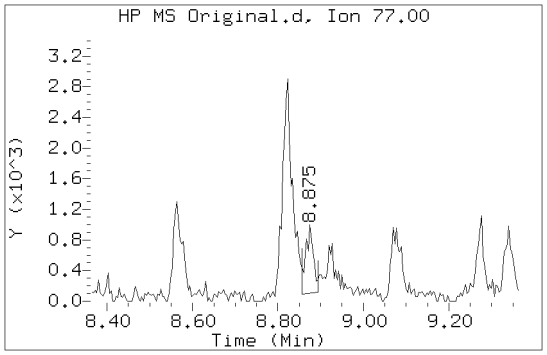
AFTER

MASS
75
AREA
2019
HEIGHT
1788
27-Dec-2022
16:07
linh
pham



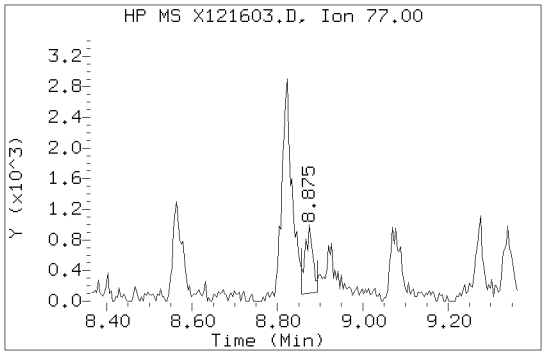
BEFORE

MASS
77
AREA
1161
HEIGHT
895
27-Dec-2022
16:03
linh
pham



AFTER

MASS
77
AREA
1161
HEIGHT
895
27-Dec-2022
16:07
linh
pham

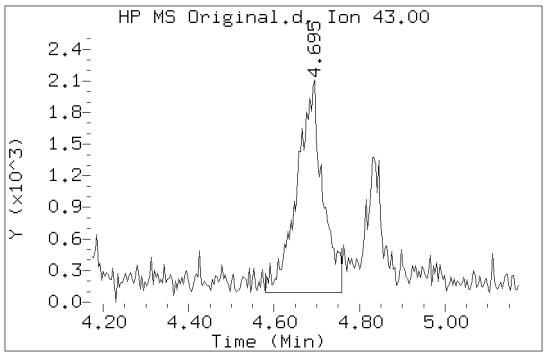


Isobutyl Alcohol (78-83-1)

Reason Code:

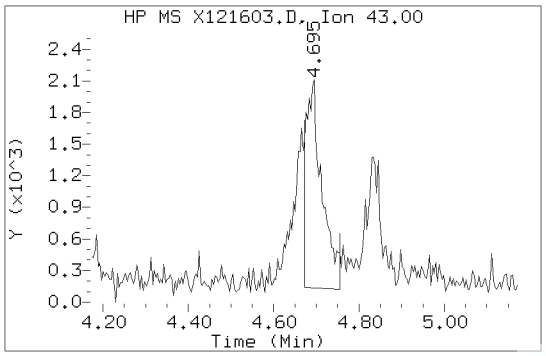
BEFORE

MASS
43
AREA
8478
HEIGHT
2018
27-Dec-2022
16:03
linh
pham



AFTER

MASS
43
AREA
5178
HEIGHT
1973
27-Dec-2022
16:07
linh
pham

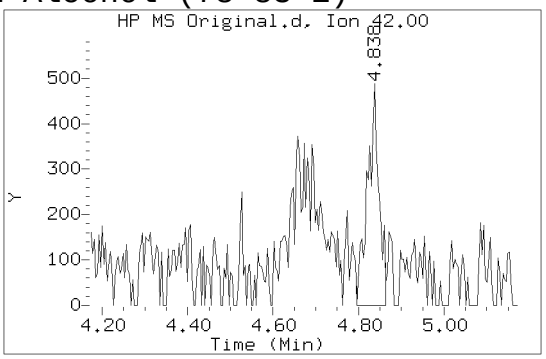


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

Isobutyl Alcohol (78-83-1)

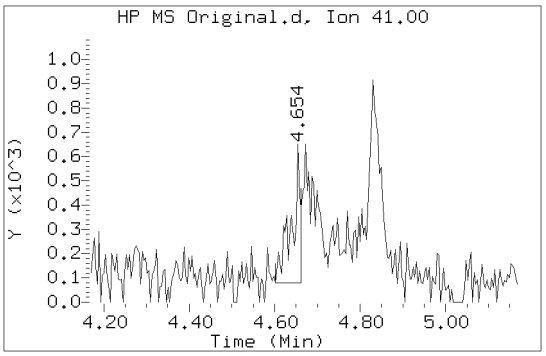
BEFORE

MASS
42
AREA
904
HEIGHT
488
27-Dec-2022
16:03
linh
pham



BEFORE

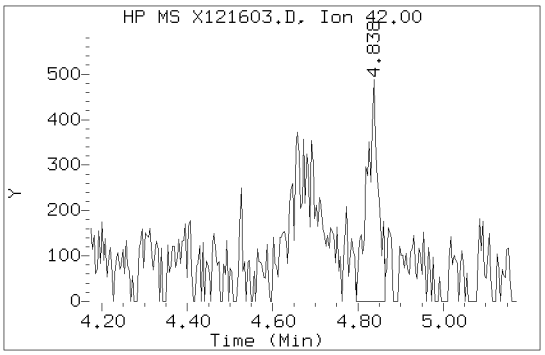
MASS
41
AREA
776
HEIGHT
572
27-Dec-2022
16:03
linh
pham



Reason Code:

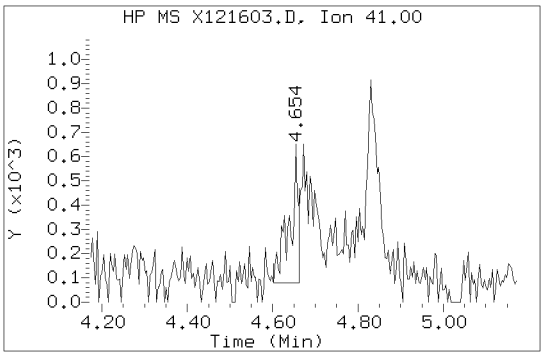
AFTER

MASS
42
AREA
904
HEIGHT
488
27-Dec-2022
16:07
linh
pham



AFTER

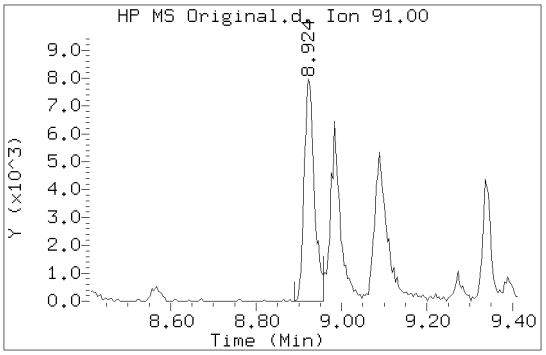
MASS
41
AREA
776
HEIGHT
572
27-Dec-2022
16:07
linh
pham



n-Propylbenzene (106-65-1)

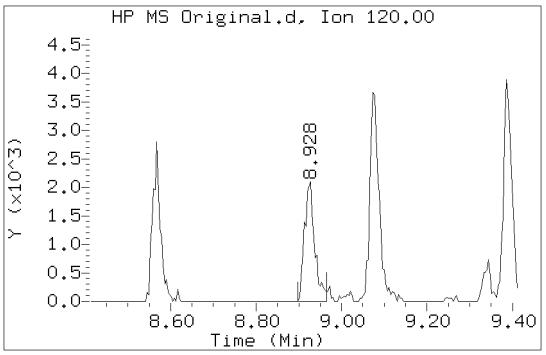
BEFORE

MASS
91
AREA
13496
HEIGHT
7972
27-Dec-2022
16:03
linh
pham



BEFORE

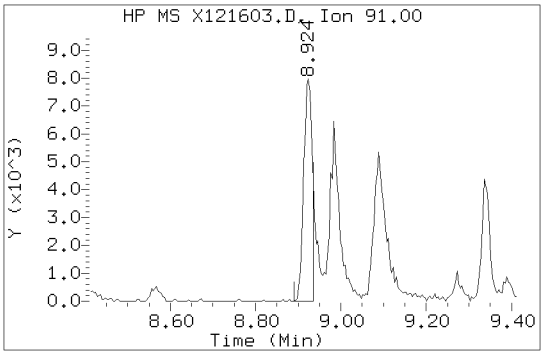
MASS
120
AREA
3559
HEIGHT
2104
27-Dec-2022
16:03
linh
pham



Reason Code:

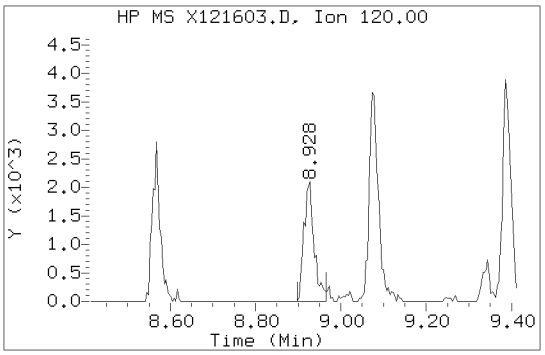
AFTER

MASS
91
AREA
11163
HEIGHT
7972
27-Dec-2022
16:07
linh
pham



AFTER

MASS
120
AREA
3559
HEIGHT
2104
27-Dec-2022
16:07
linh
pham

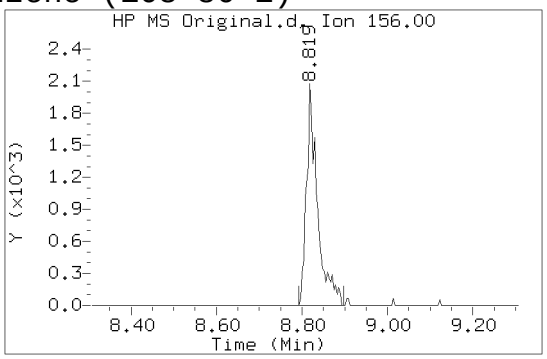


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

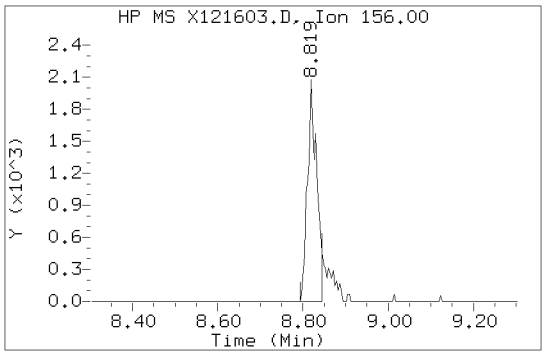
Bromobenzene (108-86-1)

Reason Code:

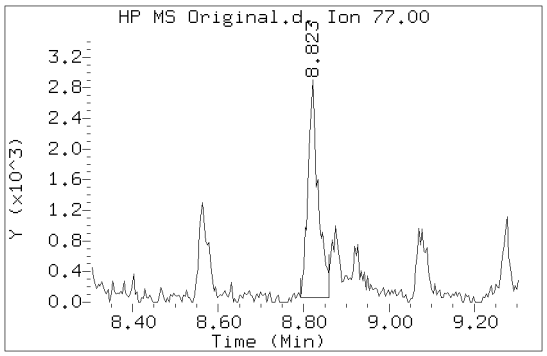
BEFORE
MASS
156
AREA
3747
HEIGHT
2077
27-Dec-2022
16:03
linh
pham



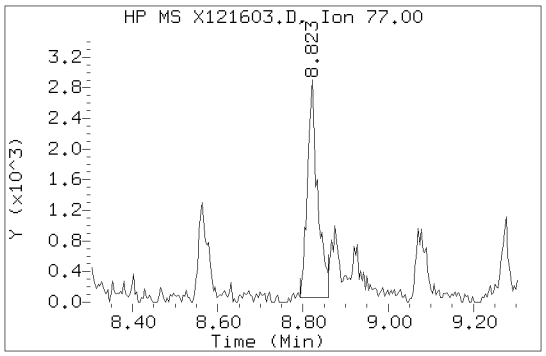
AFTER
MASS
156
AREA
3147
HEIGHT
2077
27-Dec-2022
16:07
linh
pham



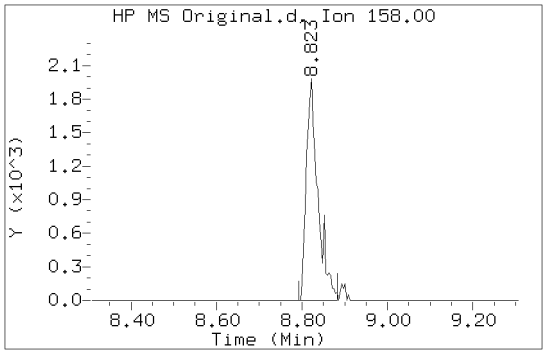
BEFORE
MASS
77
AREA
4719
HEIGHT
2841
27-Dec-2022
16:03
linh
pham



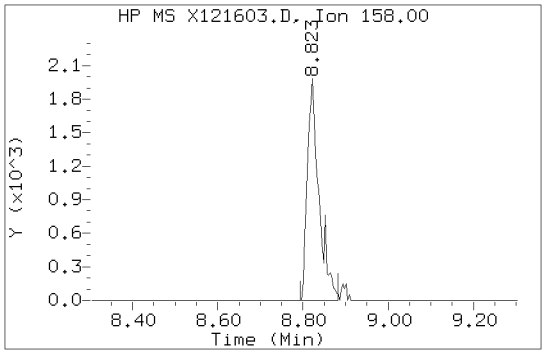
AFTER
MASS
77
AREA
4719
HEIGHT
2841
27-Dec-2022
16:07
linh
pham



BEFORE
MASS
158
AREA
3772
HEIGHT
1983
27-Dec-2022
16:03
linh
pham



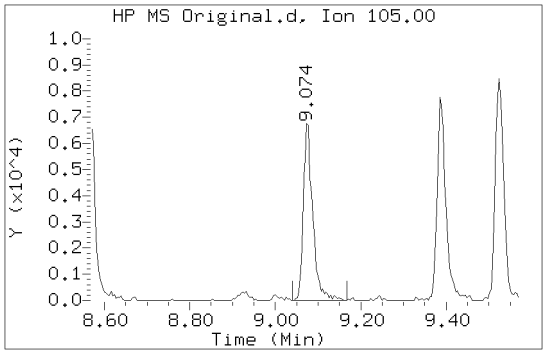
AFTER
MASS
158
AREA
3772
HEIGHT
1983
27-Dec-2022
16:07
linh
pham



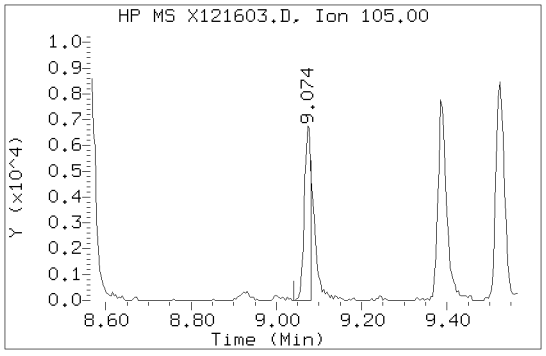
1,3,5-Trimethylbenzene (108-67-8)

Reason Code:

BEFORE
MASS
105
AREA
10555
HEIGHT
6758
27-Dec-2022
16:03
linh
pham



AFTER
MASS
105
AREA
7182
HEIGHT
6758
27-Dec-2022
16:07
linh
pham



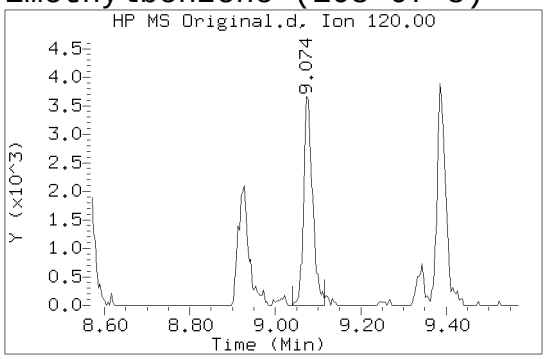
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

1,3,5-Trimethylbenzene (108-67-8)

Reason Code:

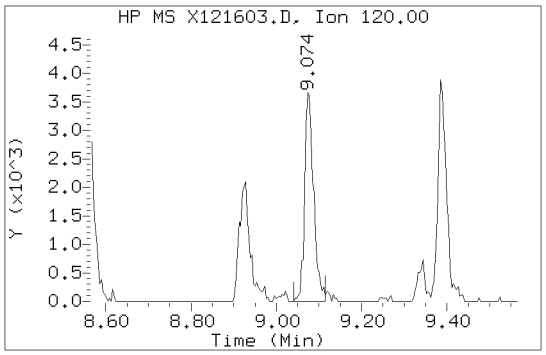
BEFORE

MASS
120
AREA
5450
HEIGHT
3663
27-Dec-2022
16:03
linh
pham



AFTER

MASS
120
AREA
5450
HEIGHT
3663
27-Dec-2022
16:07
linh
pham

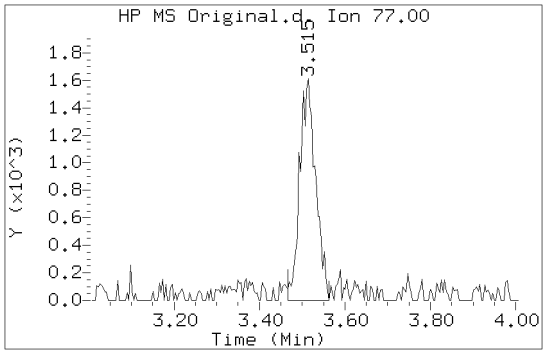


2,2-Dichloropropane (594-20-7)

Reason Code:

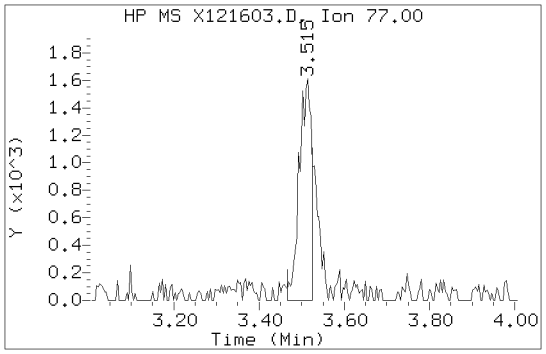
BEFORE

MASS
77
AREA
4217
HEIGHT
1612
27-Dec-2022
16:03
linh
pham



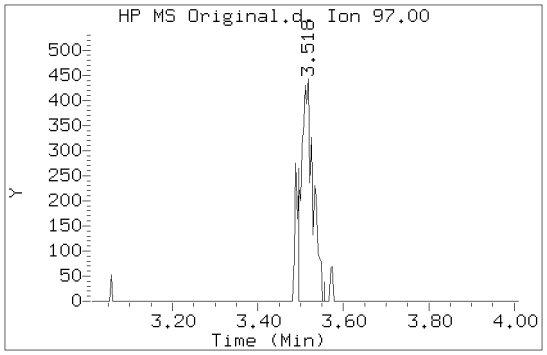
AFTER

MASS
77
AREA
3238
HEIGHT
1612
27-Dec-2022
16:07
linh
pham



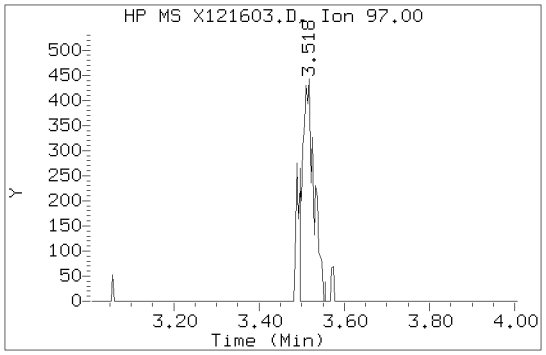
BEFORE

MASS
97
AREA
843
HEIGHT
443
27-Dec-2022
16:03
linh
pham



AFTER

MASS
97
AREA
843
HEIGHT
443
27-Dec-2022
16:07
linh
pham

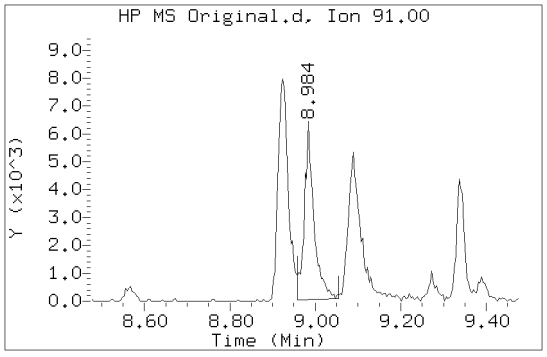


2-Chlorotoluene (95-49-8)

Reason Code:

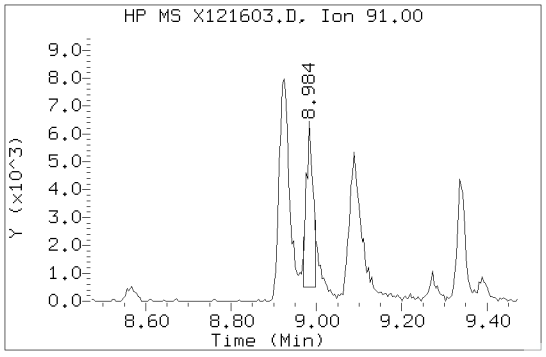
BEFORE

MASS
91
AREA
10128
HEIGHT
6401
27-Dec-2022
16:03
linh
pham



AFTER

MASS
91
AREA
6718
HEIGHT
5942
27-Dec-2022
16:07
linh
pham



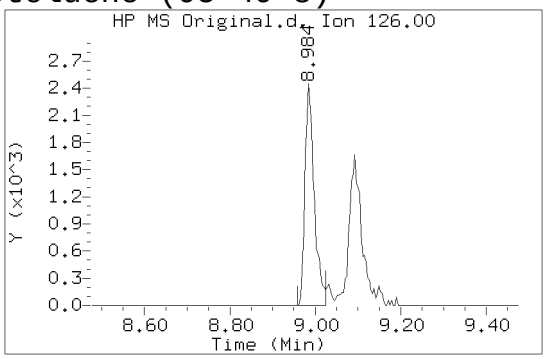
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

2-Chlorotoluene (95-49-8)

Reason Code:

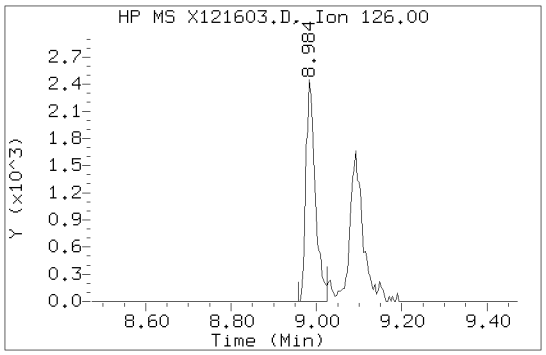
BEFORE

MASS
126
AREA
3761
HEIGHT
2450
27-Dec-2022
16:03
linh
pham



AFTER

MASS
126
AREA
3761
HEIGHT
2450
27-Dec-2022
16:07
linh
pham

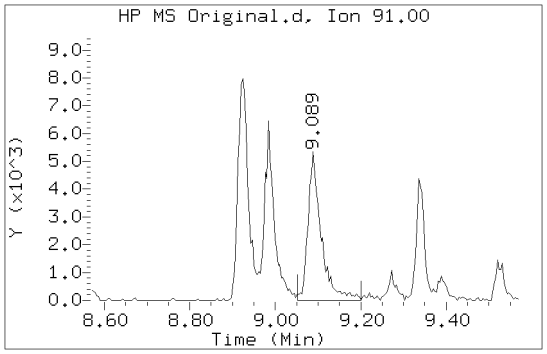


4-Chlorotoluene (106-43-4)

Reason Code:

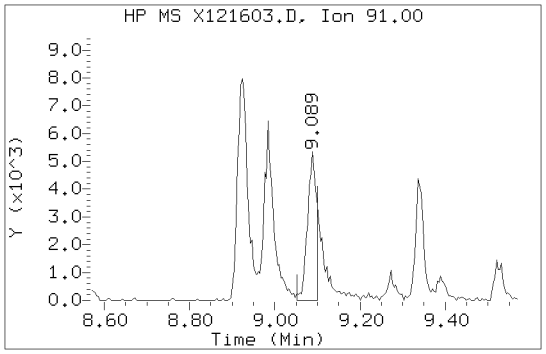
BEFORE

MASS
91
AREA
11481
HEIGHT
5337
27-Dec-2022
16:03
linh
pham



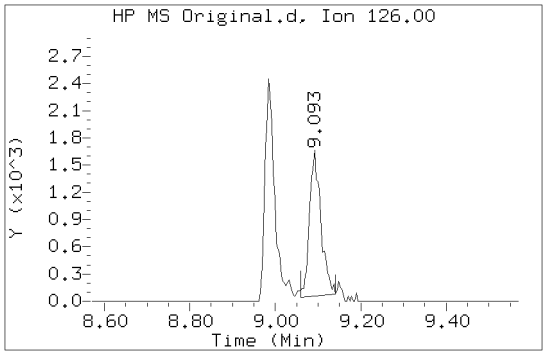
AFTER

MASS
91
AREA
7644
HEIGHT
5337
27-Dec-2022
16:07
linh
pham



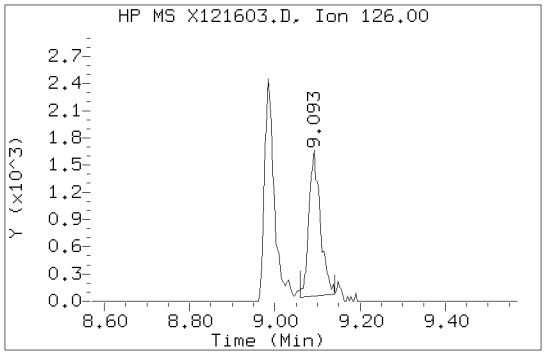
BEFORE

MASS
126
AREA
3008
HEIGHT
1612
27-Dec-2022
16:03
linh
pham



AFTER

MASS
126
AREA
3008
HEIGHT
1612
27-Dec-2022
16:07
linh
pham

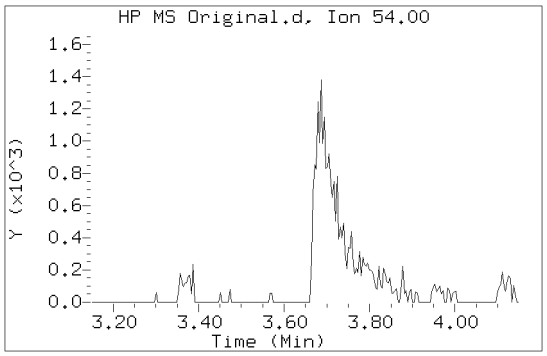


Propionitrile (107-12-0)

Reason Code:

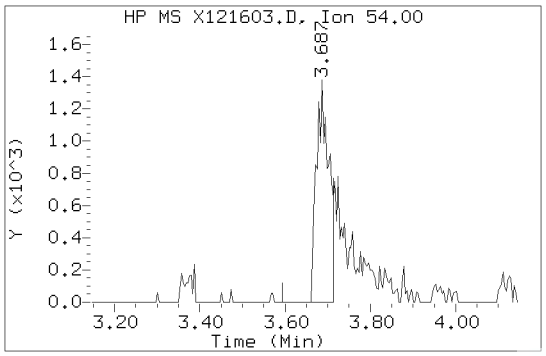
BEFORE

MASS
54
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
54
AREA
2777
HEIGHT
1380
27-Dec-2022
16:07
linh
pham



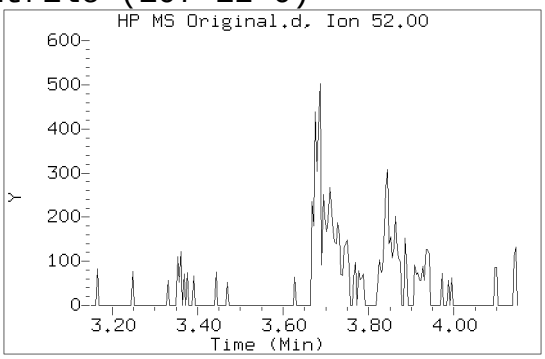
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

Propionitrile (107-12-0)

Reason Code:

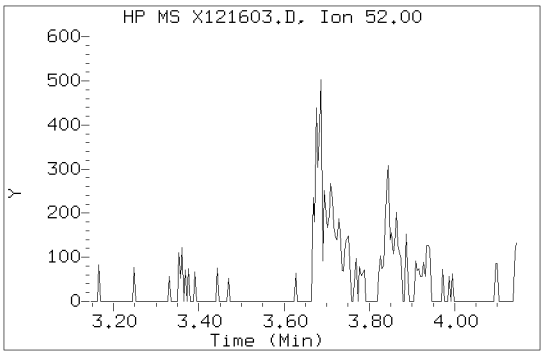
BEFORE

MASS
52
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



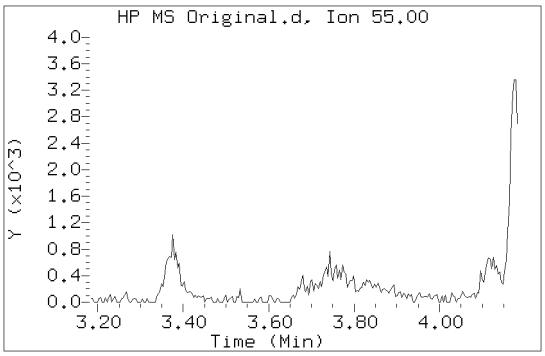
AFTER

MASS
52
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



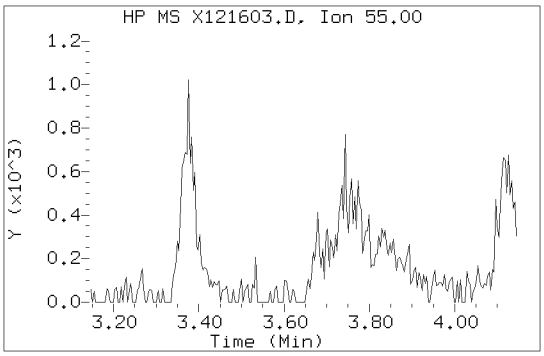
BEFORE

MASS
55
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
55
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

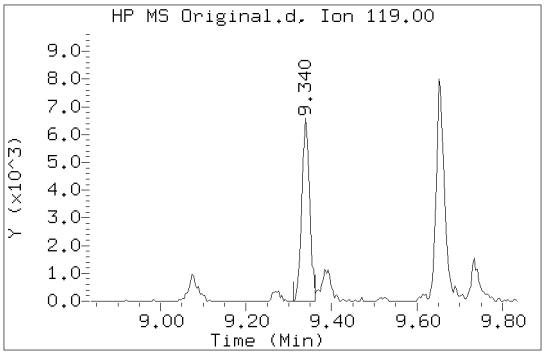


tert-Butylbenzene (98-06-6)

Reason Code:

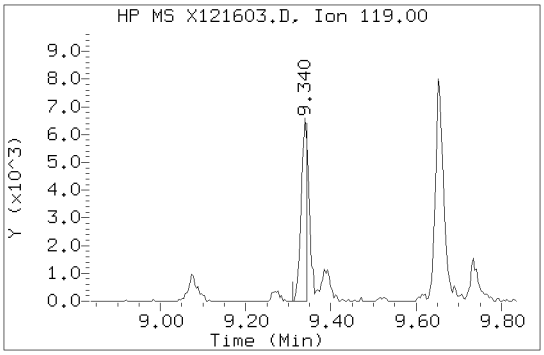
BEFORE

MASS
119
AREA
8660
HEIGHT
6598
27-Dec-2022
16:03
linh
pham



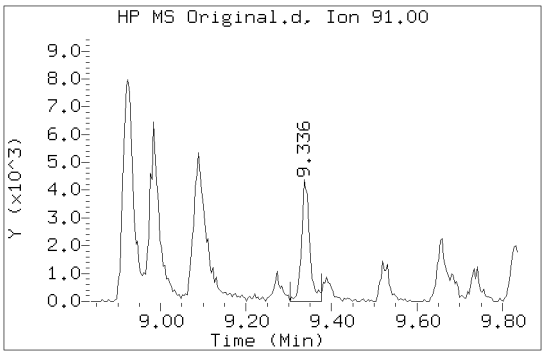
AFTER

MASS
119
AREA
6389
HEIGHT
6598
27-Dec-2022
16:07
linh
pham



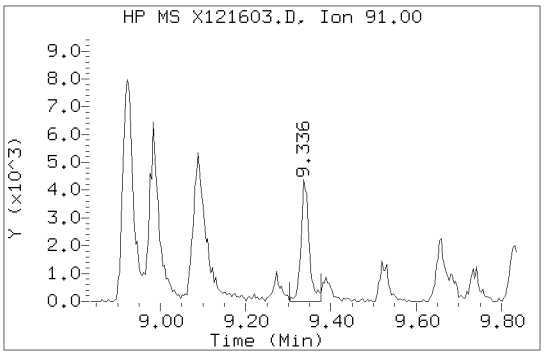
BEFORE

MASS
91
AREA
6013
HEIGHT
4378
27-Dec-2022
16:03
linh
pham



AFTER

MASS
91
AREA
6013
HEIGHT
4378
27-Dec-2022
16:07
linh
pham



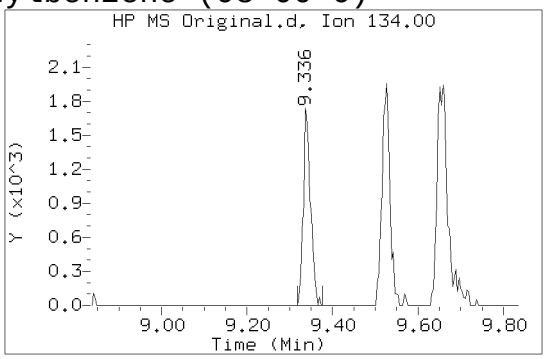
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

tert-Butylbenzene (98-06-6)

Reason Code:

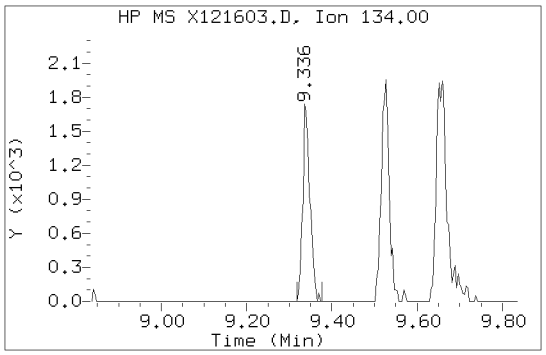
BEFORE

MASS
134
AREA
2112
HEIGHT
1740
27-Dec-2022
16:03
linh
pham



AFTER

MASS
134
AREA
2112
HEIGHT
1740
27-Dec-2022
16:07
linh
pham

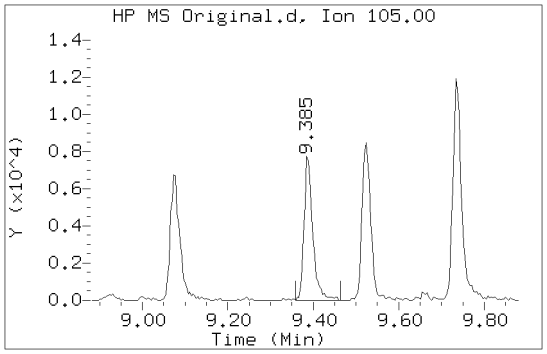


1,2,4-Trimethylbenzene (95-63-6)

Reason Code:

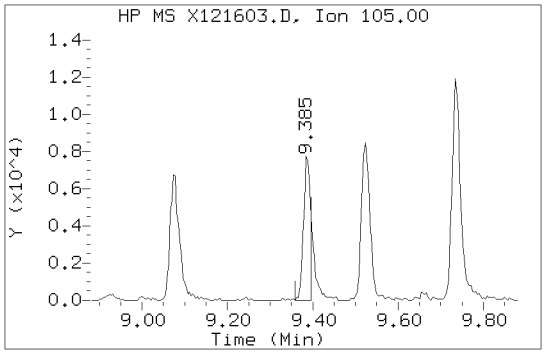
BEFORE

MASS
105
AREA
11065
HEIGHT
7775
27-Dec-2022
16:03
linh
pham



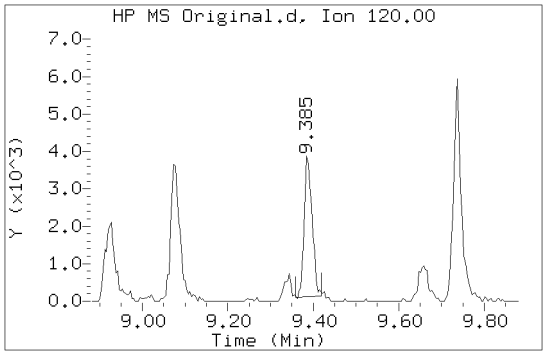
AFTER

MASS
105
AREA
8496
HEIGHT
7775
27-Dec-2022
16:07
linh
pham



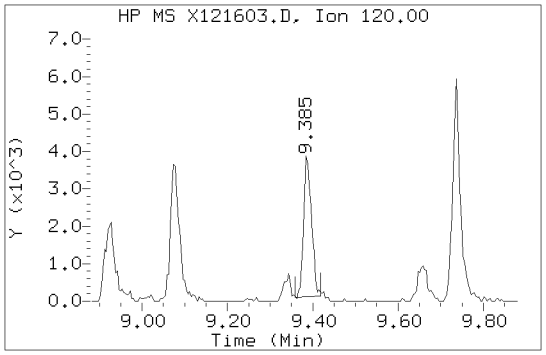
BEFORE

MASS
120
AREA
4898
HEIGHT
3773
27-Dec-2022
16:03
linh
pham



AFTER

MASS
120
AREA
4898
HEIGHT
3773
27-Dec-2022
16:07
linh
pham

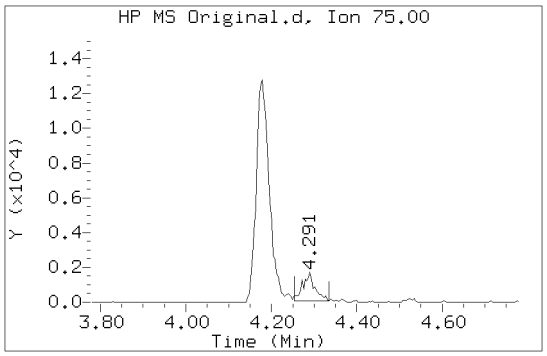


1,1-Dichloropropene (563-58-6)

Reason Code:

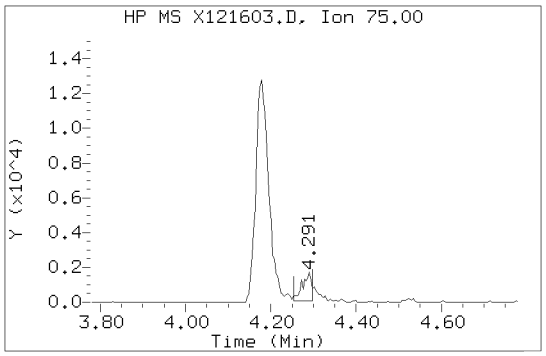
BEFORE

MASS
75
AREA
3235
HEIGHT
1674
27-Dec-2022
16:03
linh
pham



AFTER

MASS
75
AREA
2468
HEIGHT
1674
27-Dec-2022
16:07
linh
pham



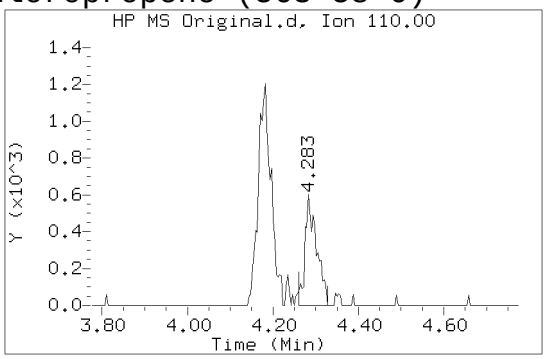
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

1,1-Dichloropropene (563-58-6)

Reason Code:

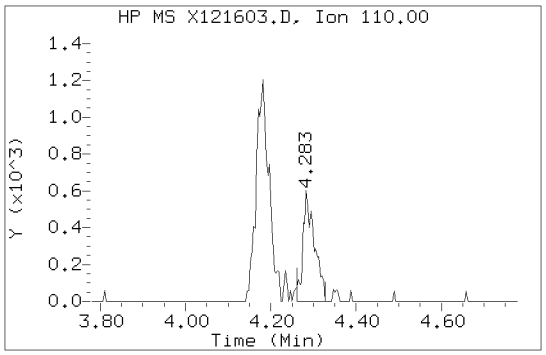
BEFORE

MASS
110
AREA
1143
HEIGHT
603
27-Dec-2022
16:03
linh
pham



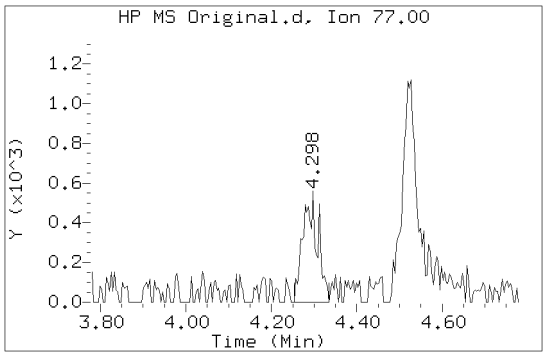
AFTER

MASS
110
AREA
1143
HEIGHT
603
27-Dec-2022
16:07
linh
pham



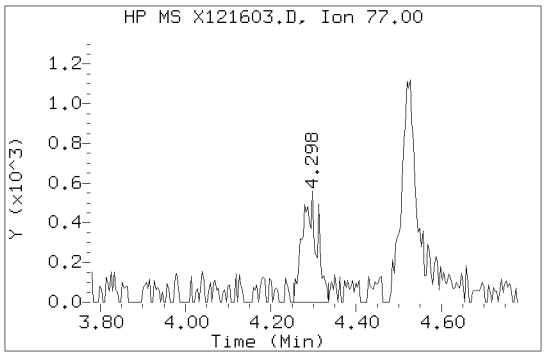
BEFORE

MASS
77
AREA
1342
HEIGHT
559
27-Dec-2022
16:03
linh
pham



AFTER

MASS
77
AREA
1342
HEIGHT
559
27-Dec-2022
16:07
linh
pham

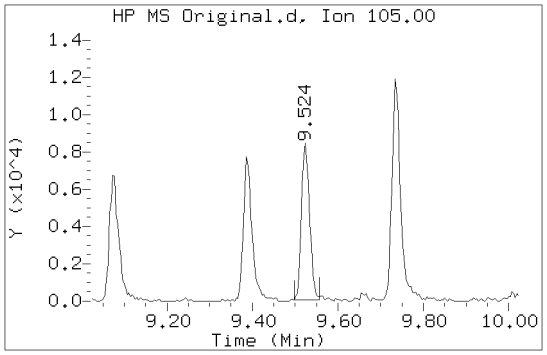


sec-Butylbenzene (135-98-8)

Reason Code:

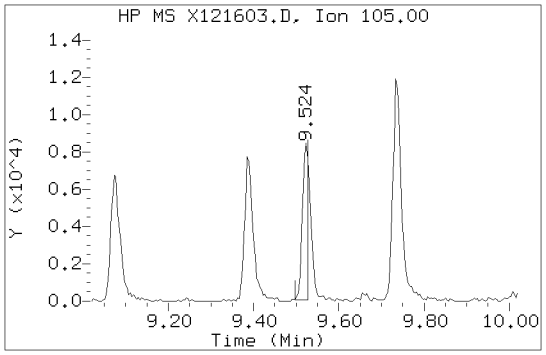
BEFORE

MASS
105
AREA
11512
HEIGHT
8394
27-Dec-2022
16:03
linh
pham



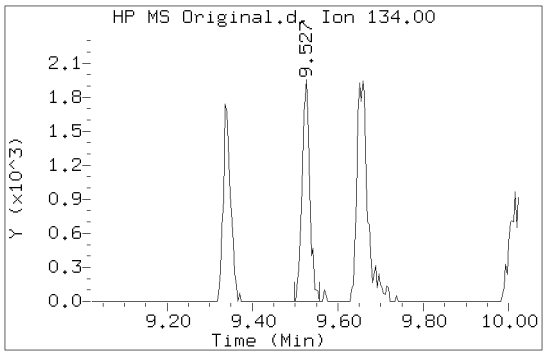
AFTER

MASS
105
AREA
7938
HEIGHT
8394
27-Dec-2022
16:07
linh
pham



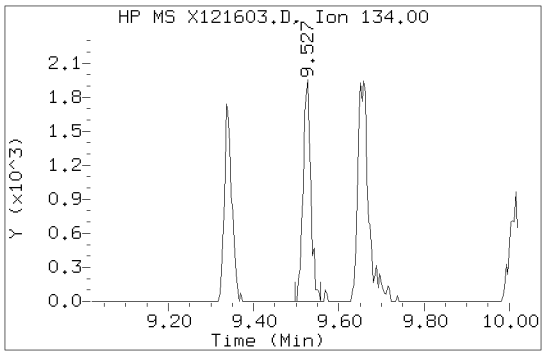
BEFORE

MASS
134
AREA
2519
HEIGHT
1955
27-Dec-2022
16:03
linh
pham



AFTER

MASS
134
AREA
2519
HEIGHT
1955
27-Dec-2022
16:07
linh
pham



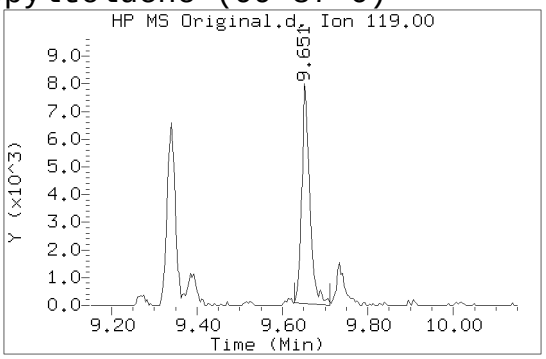
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

p-Isopropyltoluene (99-87-6)

Reason Code:

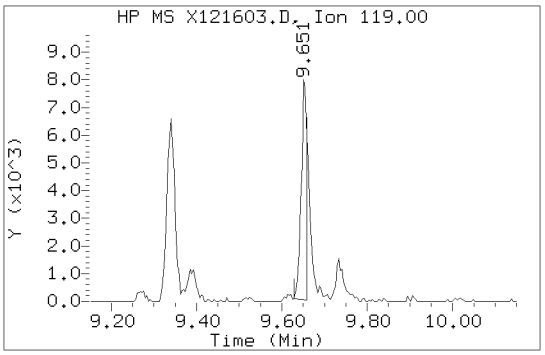
BEFORE

MASS
119
AREA
10660
HEIGHT
7944
27-Dec-2022
16:03
linh
pham



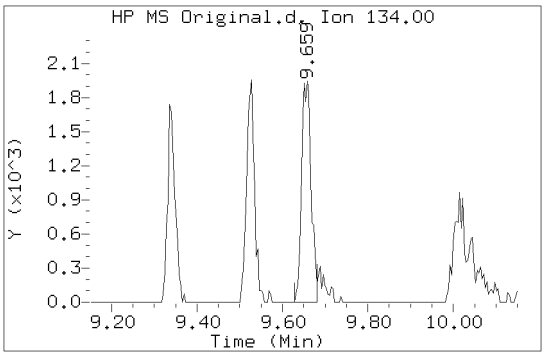
AFTER

MASS
119
AREA
7343
HEIGHT
7944
27-Dec-2022
16:07
linh
pham



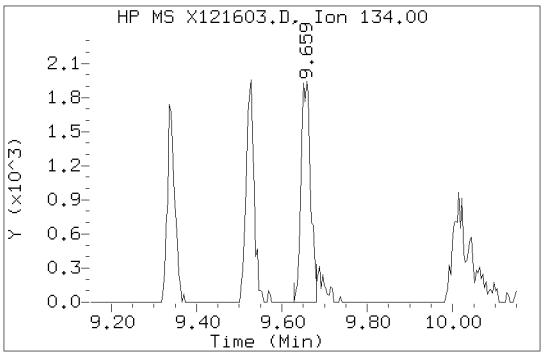
BEFORE

MASS
134
AREA
3102
HEIGHT
1946
27-Dec-2022
16:03
linh
pham



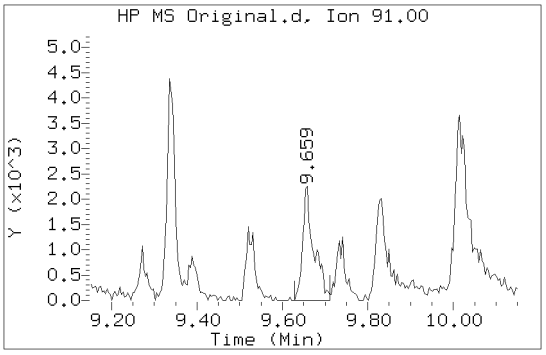
AFTER

MASS
134
AREA
3102
HEIGHT
1946
27-Dec-2022
16:07
linh
pham



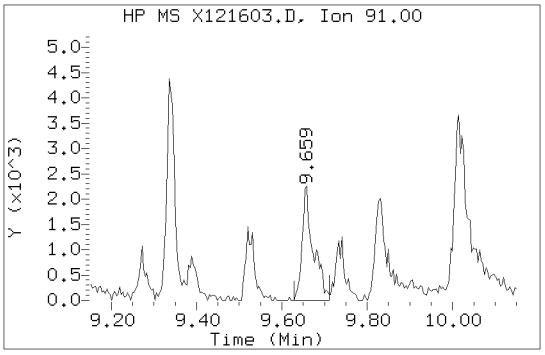
BEFORE

MASS
91
AREA
4191
HEIGHT
2256
27-Dec-2022
16:03
linh
pham



AFTER

MASS
91
AREA
4191
HEIGHT
2256
27-Dec-2022
16:07
linh
pham

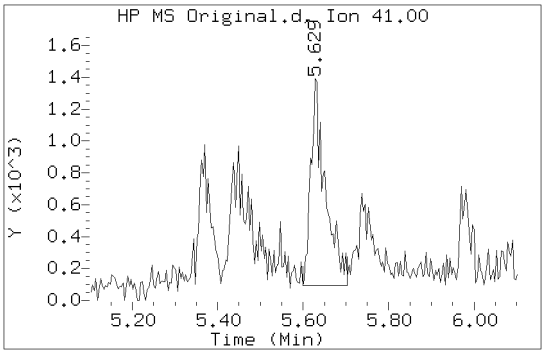


Methyl Methacrylate (80-62-6)

Reason Code:

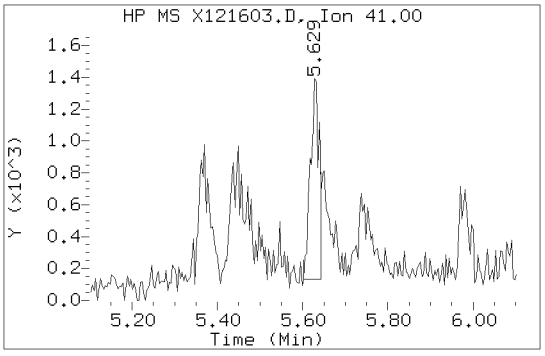
BEFORE

MASS
41
AREA
3067
HEIGHT
1299
27-Dec-2022
16:03
linh
pham



AFTER

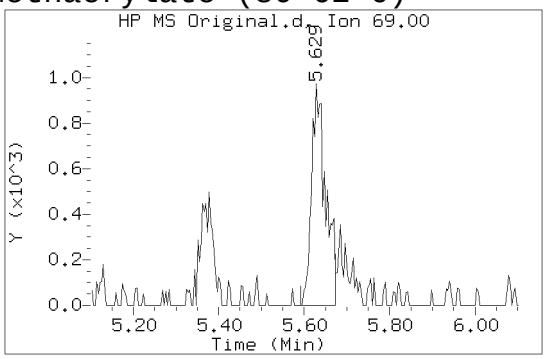
MASS
41
AREA
1788
HEIGHT
1257
27-Dec-2022
16:07
linh
pham



Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

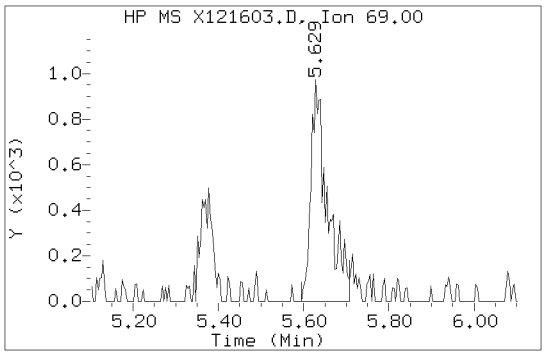
Methyl Methacrylate (80-62-6)

BEFORE
MASS
69
AREA
2216
HEIGHT
973
27-Dec-2022
16:03
linh
pham

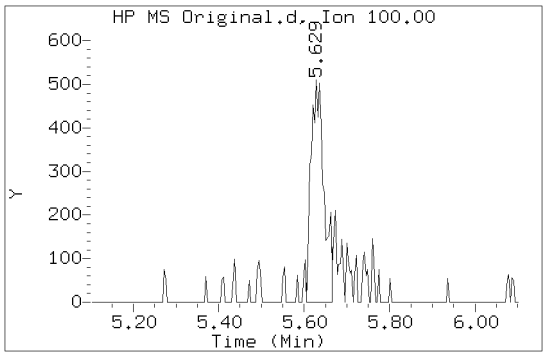


AFTER
MASS
69
AREA
2595
HEIGHT
973
27-Dec-2022
16:07
linh
pham

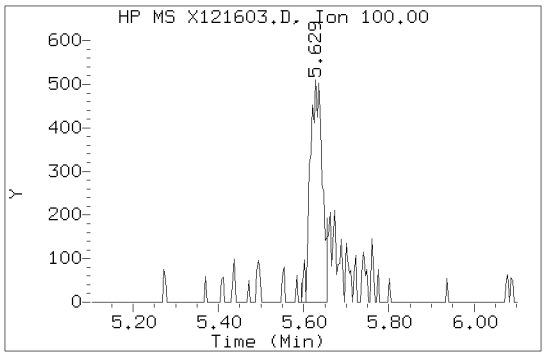
Reason Code:



BEFORE
MASS
100
AREA
1074
HEIGHT
510
27-Dec-2022
16:03
linh
pham

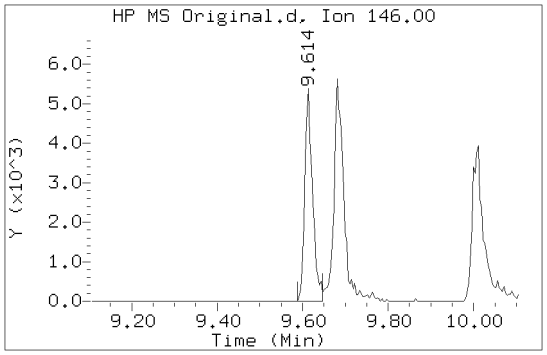


AFTER
MASS
100
AREA
1011
HEIGHT
510
27-Dec-2022
16:07
linh
pham



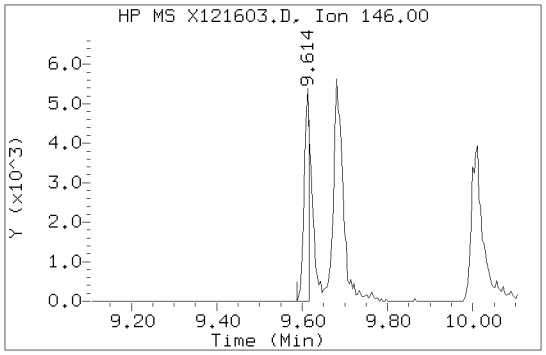
1,3-Dichlorobenzene (541-73-1)

BEFORE
MASS
146
AREA
6964
HEIGHT
5387
27-Dec-2022
16:03
linh
pham

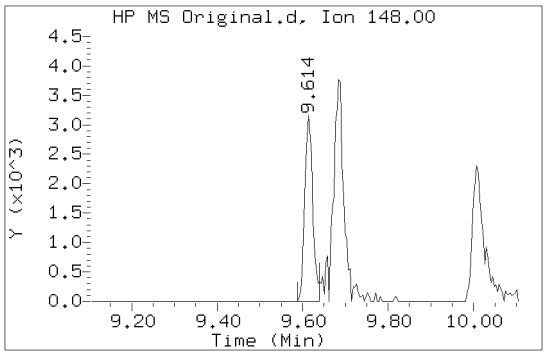


AFTER
MASS
146
AREA
4677
HEIGHT
5387
27-Dec-2022
16:07
linh
pham

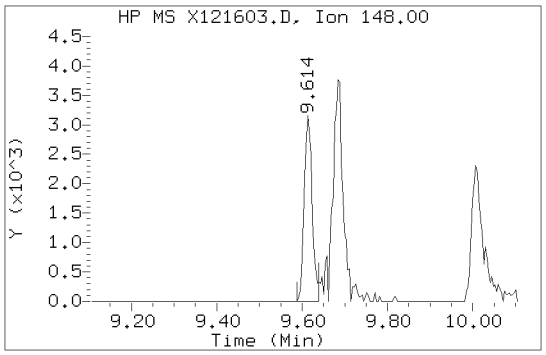
Reason Code:



BEFORE
MASS
148
AREA
4216
HEIGHT
3157
27-Dec-2022
16:03
linh
pham



AFTER
MASS
148
AREA
4216
HEIGHT
3157
27-Dec-2022
16:07
linh
pham



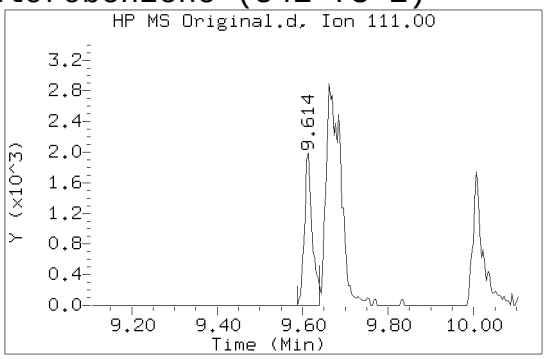
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

1,3-Dichlorobenzene (541-73-1)

Reason Code:

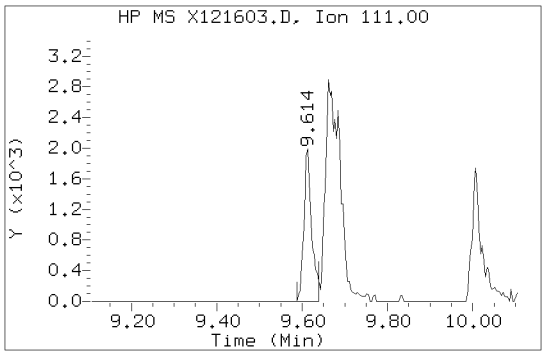
BEFORE

MASS
111
AREA
2596
HEIGHT
1995
27-Dec-2022
16:03
linh
pham



AFTER

MASS
111
AREA
2596
HEIGHT
1995
27-Dec-2022
16:07
linh
pham

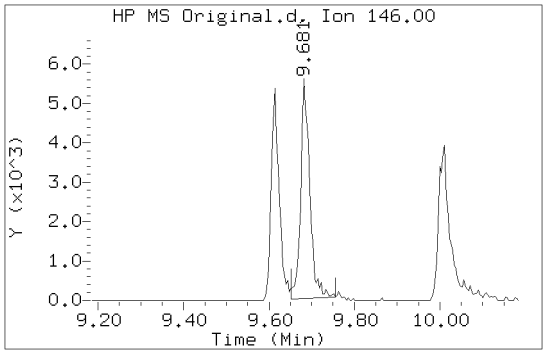


1,4-Dichlorobenzene (106-46-7)

Reason Code:

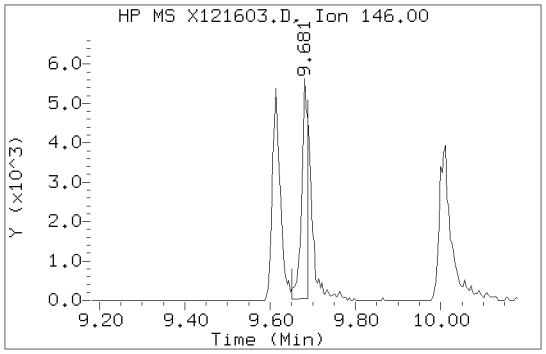
BEFORE

MASS
146
AREA
8510
HEIGHT
5586
27-Dec-2022
16:03
linh
pham



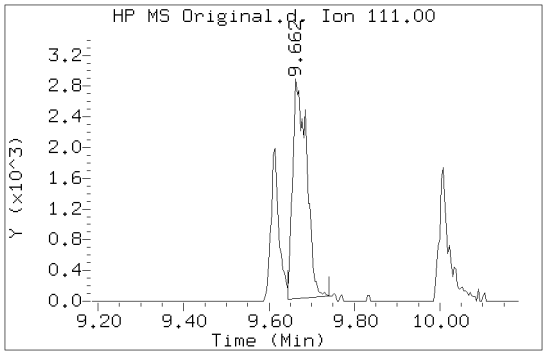
AFTER

MASS
146
AREA
5674
HEIGHT
5587
27-Dec-2022
16:07
linh
pham



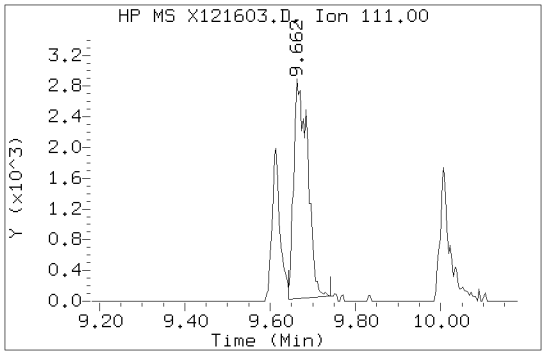
BEFORE

MASS
111
AREA
6571
HEIGHT
2862
27-Dec-2022
16:03
linh
pham



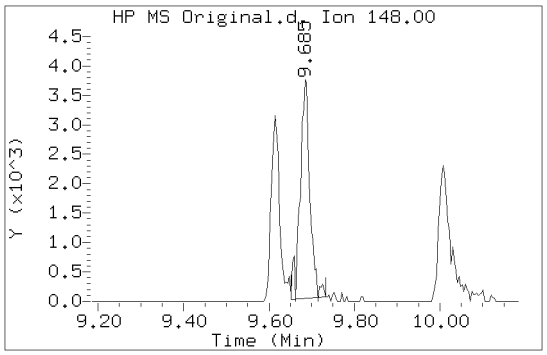
AFTER

MASS
111
AREA
6571
HEIGHT
2862
27-Dec-2022
16:07
linh
pham



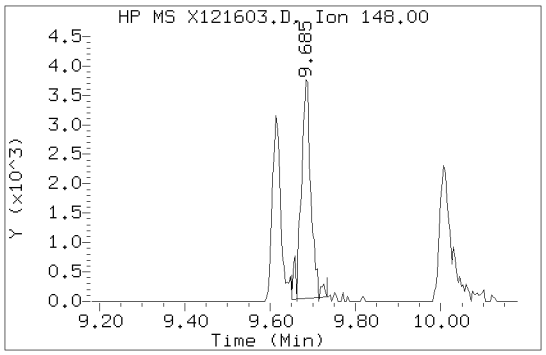
BEFORE

MASS
148
AREA
6083
HEIGHT
3714
27-Dec-2022
16:03
linh
pham



AFTER

MASS
148
AREA
6083
HEIGHT
3714
27-Dec-2022
16:07
linh
pham



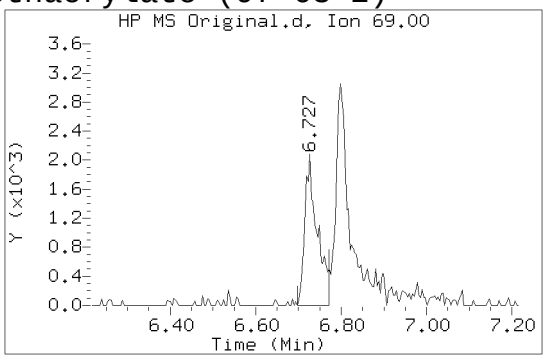
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

Ethyl Methacrylate (97-63-2)

Reason Code:

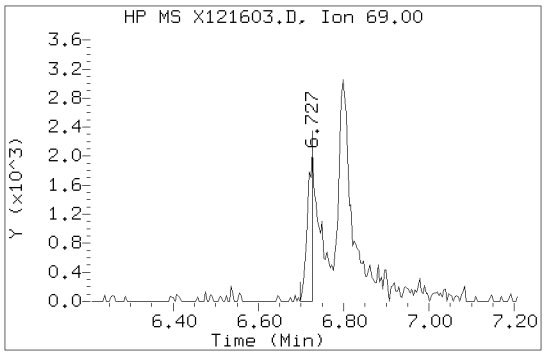
BEFORE

MASS
69
AREA
4283
HEIGHT
2083
27-Dec-2022
16:03
linh
pham



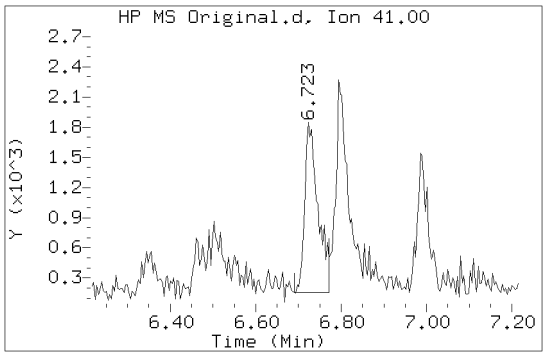
AFTER

MASS
69
AREA
1935
HEIGHT
2083
27-Dec-2022
16:07
linh
pham



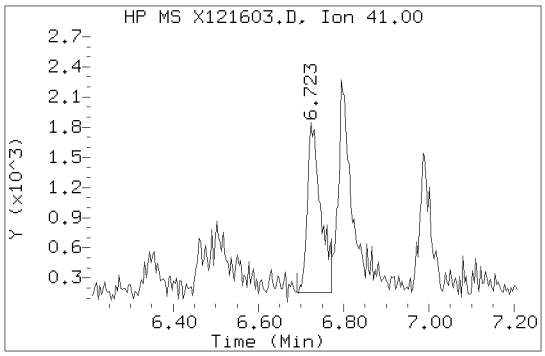
BEFORE

MASS
41
AREA
3701
HEIGHT
1688
27-Dec-2022
16:03
linh
pham



AFTER

MASS
41
AREA
3701
HEIGHT
1688
27-Dec-2022
16:07
linh
pham

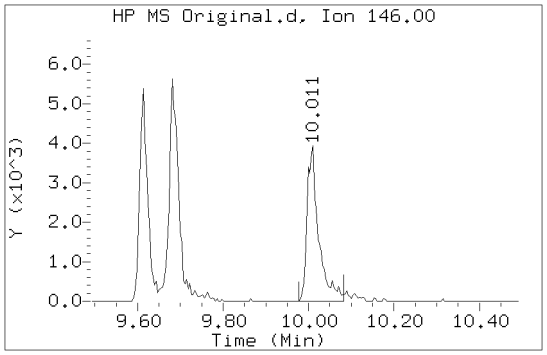


1,2-Dichlorobenzene (95-50-1)

Reason Code:

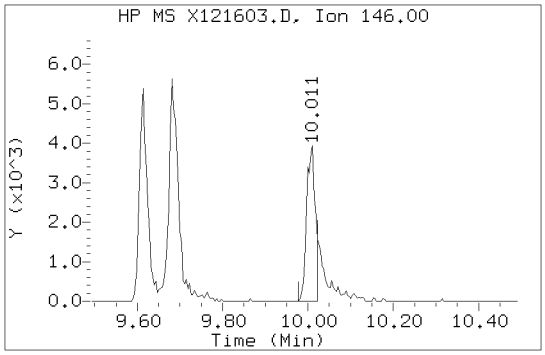
BEFORE

MASS
146
AREA
7400
HEIGHT
3934
27-Dec-2022
16:03
linh
pham



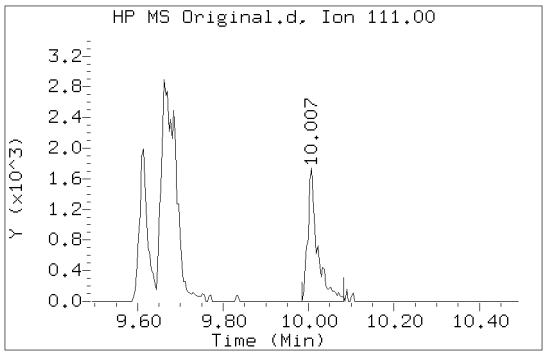
AFTER

MASS
146
AREA
5504
HEIGHT
3934
27-Dec-2022
16:07
linh
pham



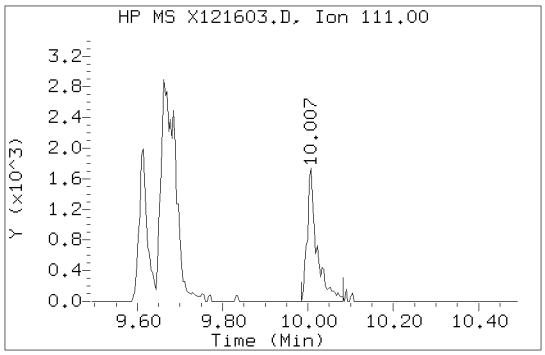
BEFORE

MASS
111
AREA
2768
HEIGHT
1741
27-Dec-2022
16:03
linh
pham



AFTER

MASS
111
AREA
2768
HEIGHT
1741
27-Dec-2022
16:07
linh
pham



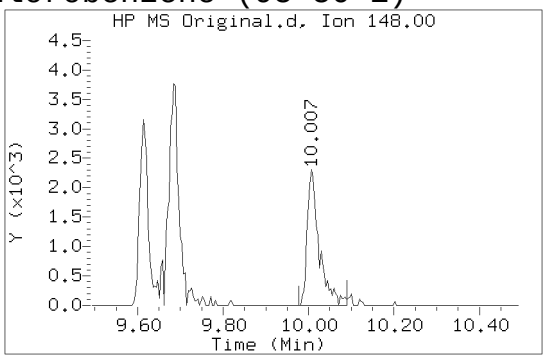
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

1,2-Dichlorobenzene (95-50-1)

Reason Code:

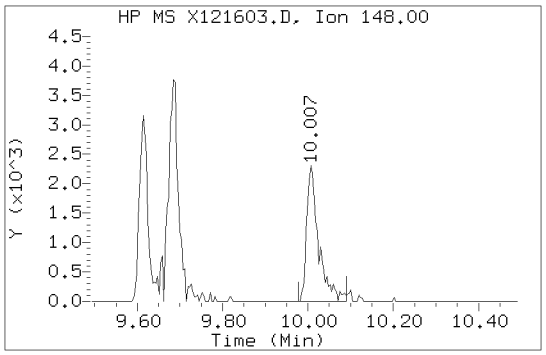
BEFORE

MASS
148
AREA
4515
HEIGHT
2306
27-Dec-2022
16:03
linh
pham



AFTER

MASS
148
AREA
4515
HEIGHT
2306
27-Dec-2022
16:07
linh
pham

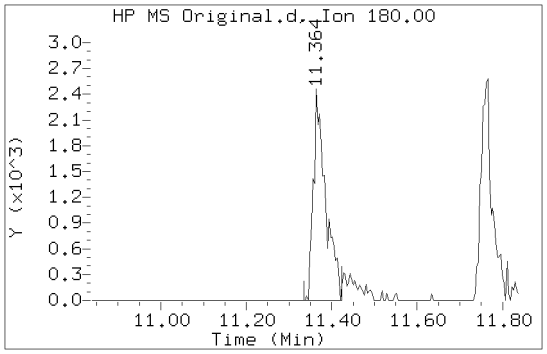


1,2,4-Trichlorobenzene (120-82-1)

Reason Code:

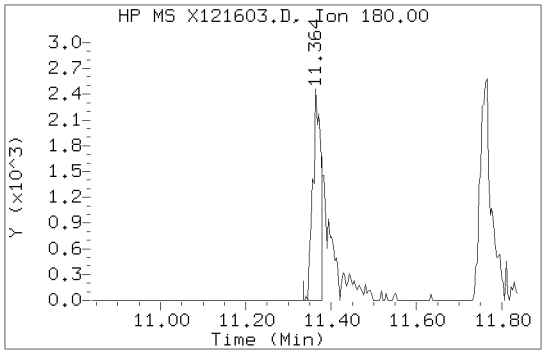
BEFORE

MASS
180
AREA
4912
HEIGHT
2459
27-Dec-2022
16:03
linh
pham



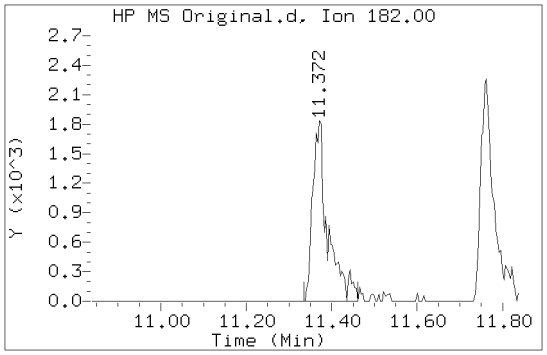
AFTER

MASS
180
AREA
3187
HEIGHT
2459
27-Dec-2022
16:07
linh
pham



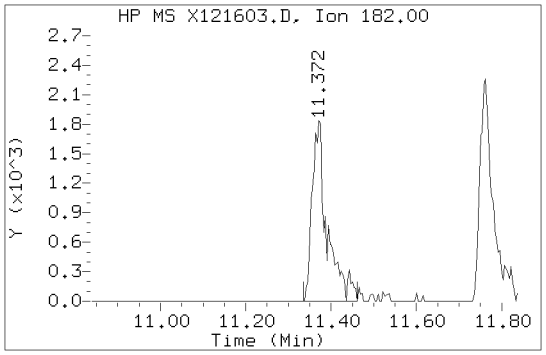
BEFORE

MASS
182
AREA
4514
HEIGHT
1835
27-Dec-2022
16:03
linh
pham



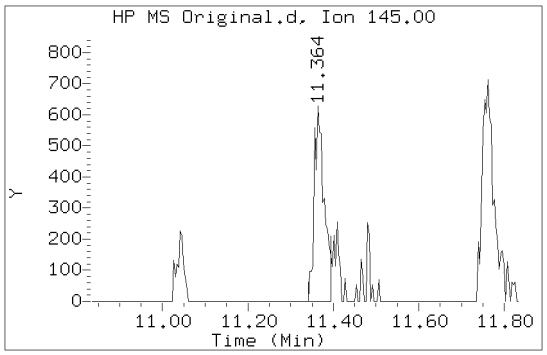
AFTER

MASS
182
AREA
4514
HEIGHT
1835
27-Dec-2022
16:07
linh
pham



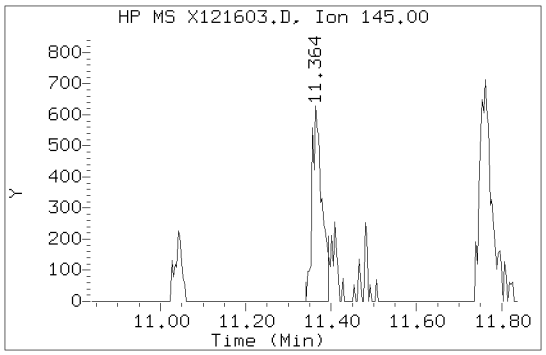
BEFORE

MASS
145
AREA
1003
HEIGHT
629
27-Dec-2022
16:03
linh
pham



AFTER

MASS
145
AREA
1003
HEIGHT
629
27-Dec-2022
16:07
linh
pham

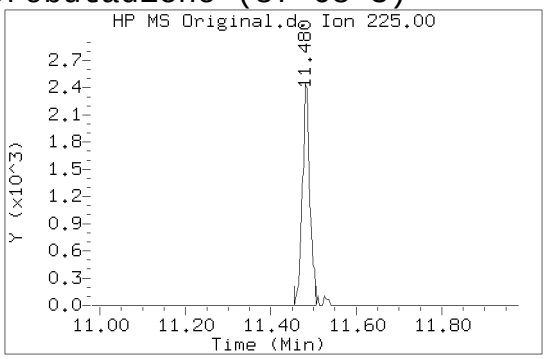


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

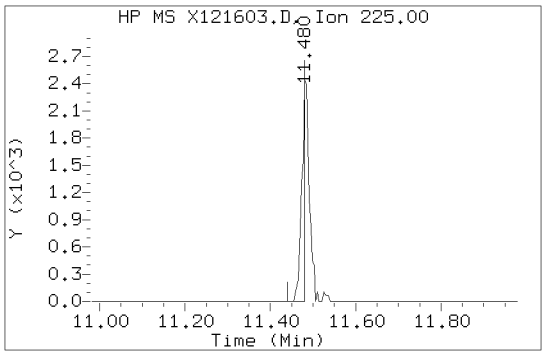
Hexachlorobutadiene (87-68-3)

Reason Code:

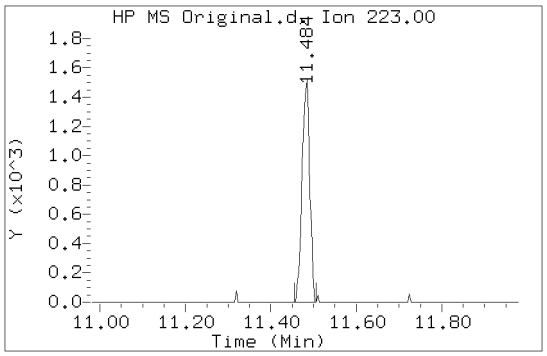
BEFORE
MASS
225
AREA
3038
HEIGHT
2444
27-Dec-2022
16:03
linh
pham



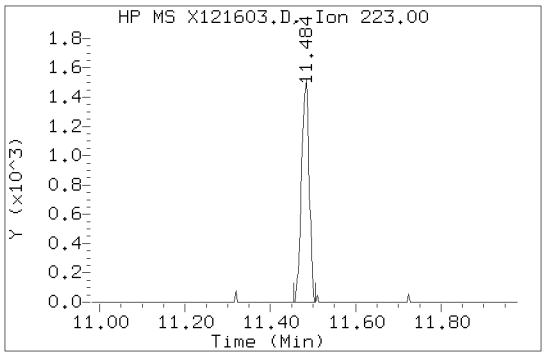
AFTER
MASS
225
AREA
1477
HEIGHT
2444
27-Dec-2022
16:07
linh
pham



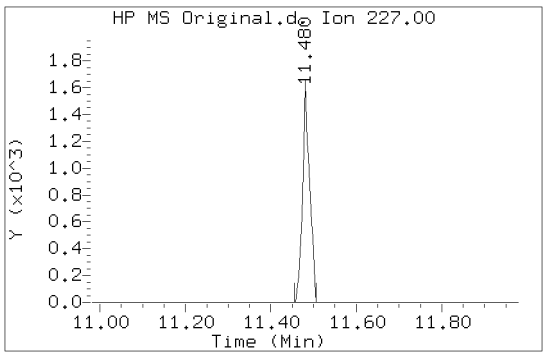
BEFORE
MASS
223
AREA
1952
HEIGHT
1518
27-Dec-2022
16:03
linh
pham



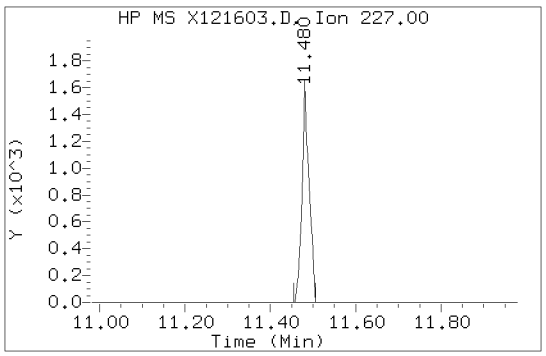
AFTER
MASS
223
AREA
1952
HEIGHT
1518
27-Dec-2022
16:07
linh
pham



BEFORE
MASS
227
AREA
1938
HEIGHT
1652
27-Dec-2022
16:03
linh
pham



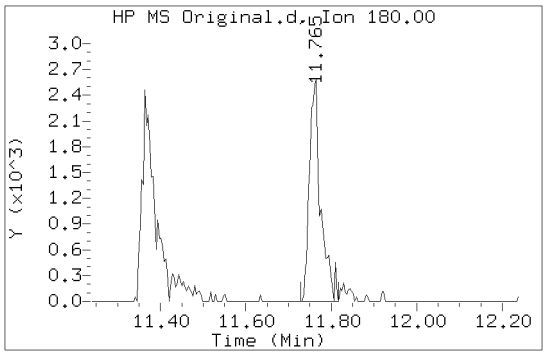
AFTER
MASS
227
AREA
1938
HEIGHT
1652
27-Dec-2022
16:07
linh
pham



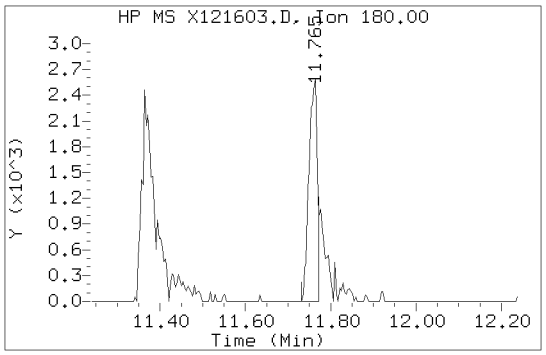
1,2,3-Trichlorobenzene (87-61-6)

Reason Code:

BEFORE
MASS
180
AREA
4741
HEIGHT
2580
27-Dec-2022
16:03
linh
pham



AFTER
MASS
180
AREA
3572
HEIGHT
2580
27-Dec-2022
16:07
linh
pham



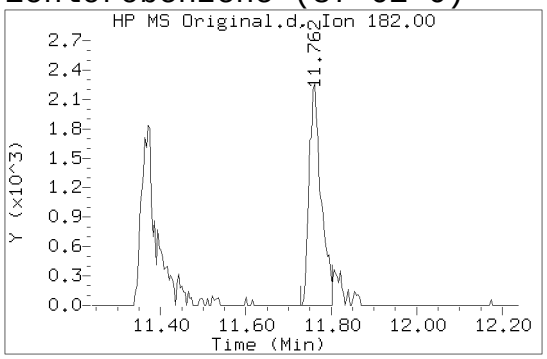
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

1,2,3-Trichlorobenzene (87-61-6)

Reason Code:

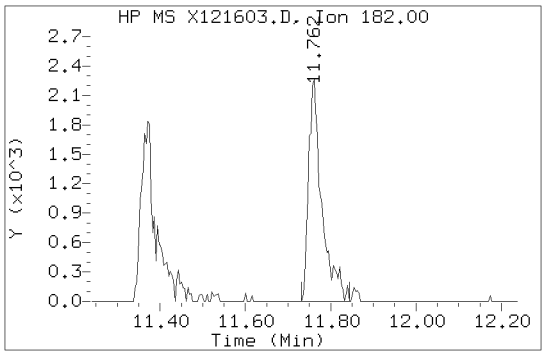
BEFORE

MASS
182
AREA
4404
HEIGHT
2261
27-Dec-2022
16:03
linh
pham



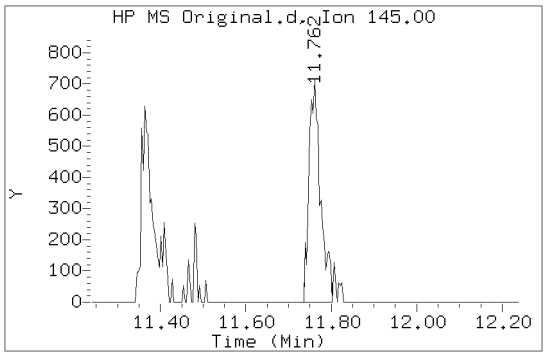
AFTER

MASS
182
AREA
4881
HEIGHT
2261
27-Dec-2022
16:07
linh
pham



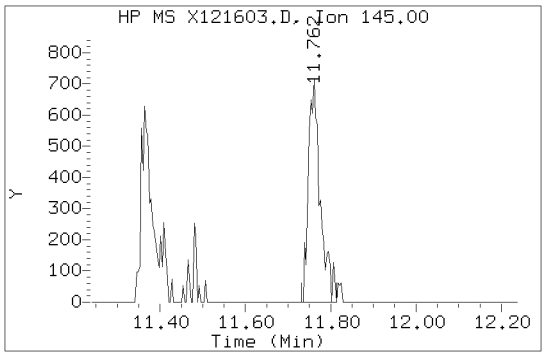
BEFORE

MASS
145
AREA
1338
HEIGHT
713
27-Dec-2022
16:03
linh
pham



AFTER

MASS
145
AREA
1384
HEIGHT
713
27-Dec-2022
16:07
linh
pham

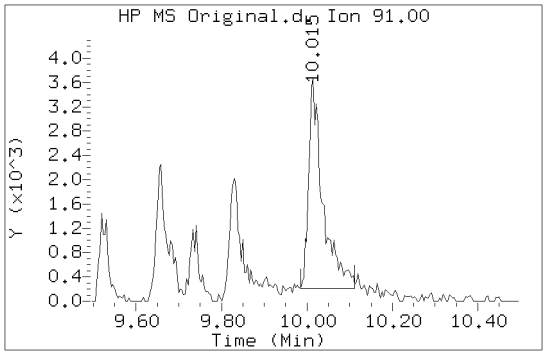


n-Butylbenzene (104-51-8)

Reason Code:

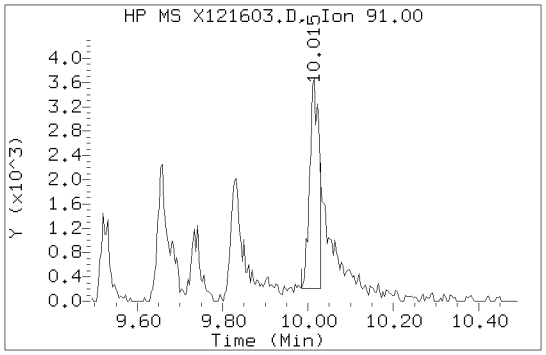
BEFORE

MASS
91
AREA
8005
HEIGHT
3451
27-Dec-2022
16:03
linh
pham



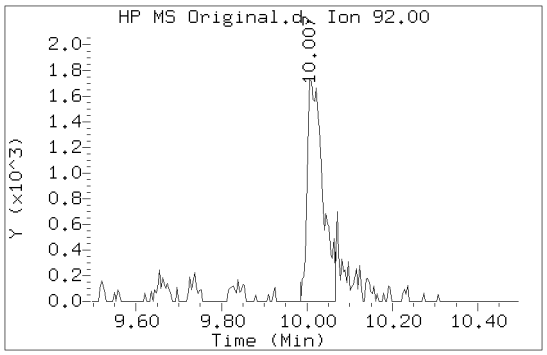
AFTER

MASS
91
AREA
5149
HEIGHT
3451
27-Dec-2022
16:07
linh
pham



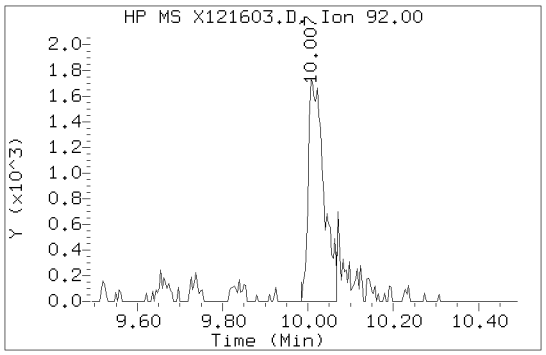
BEFORE

MASS
92
AREA
4404
HEIGHT
1727
27-Dec-2022
16:03
linh
pham



AFTER

MASS
92
AREA
4404
HEIGHT
1727
27-Dec-2022
16:07
linh
pham



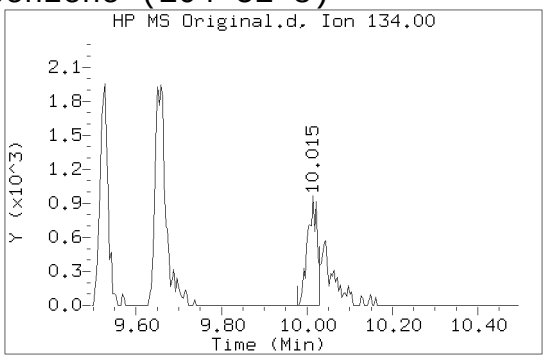
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

n-Butylbenzene (104-51-8)

Reason Code:

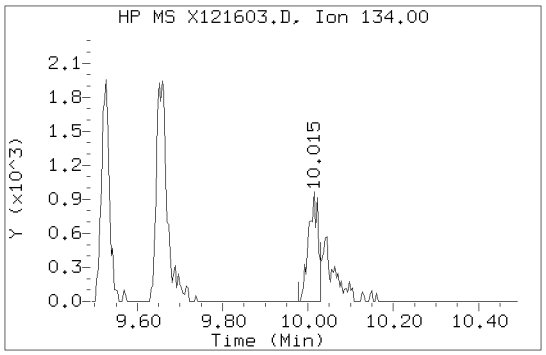
BEFORE

MASS
134
AREA
1502
HEIGHT
969
27-Dec-2022
16:03
linh
pham



AFTER

MASS
134
AREA
1502
HEIGHT
969
27-Dec-2022
16:07
linh
pham

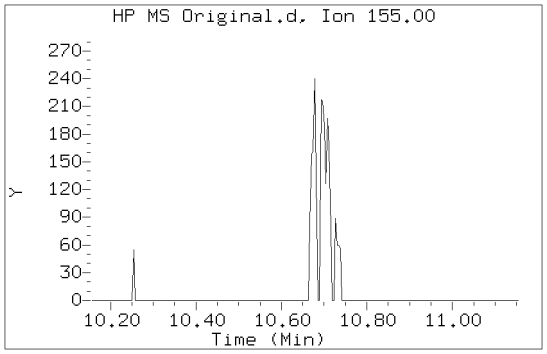


1,2-Dibromo-3-Chloropropane (96-12-8)

Reason Code:

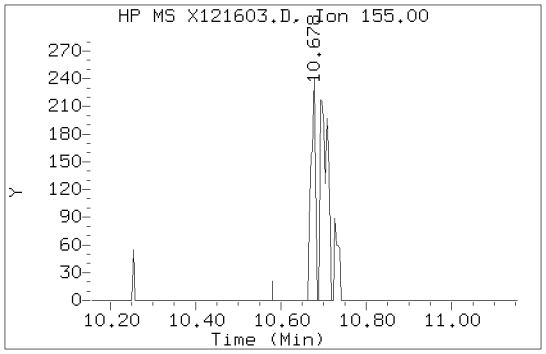
BEFORE

MASS
155
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



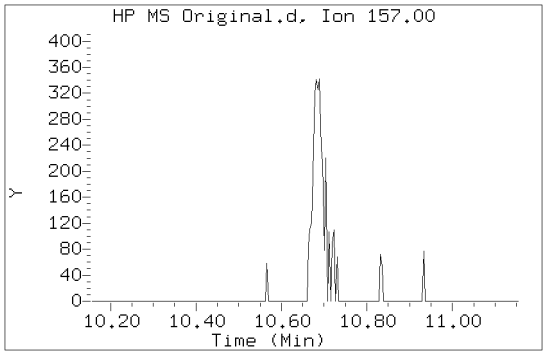
AFTER

MASS
155
AREA
441
HEIGHT
240
27-Dec-2022
16:07
linh
pham



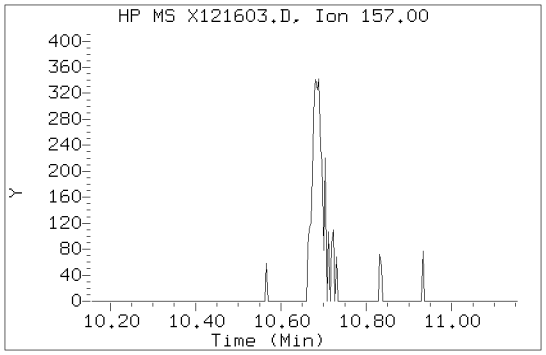
BEFORE

MASS
157
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



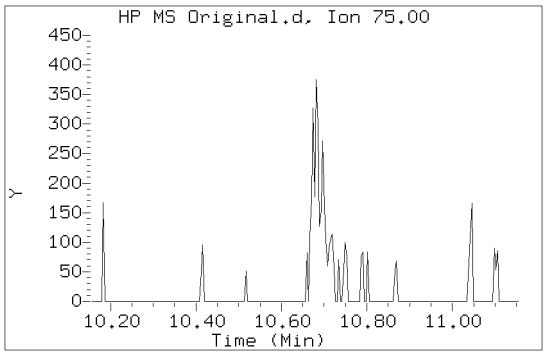
AFTER

MASS
157
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



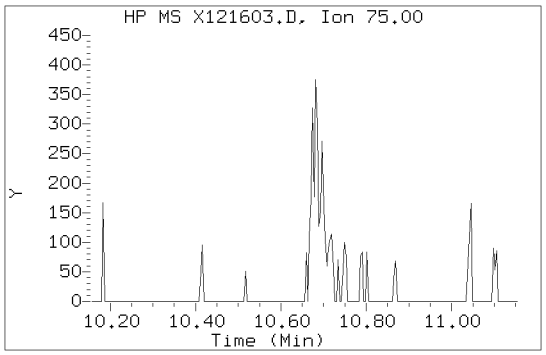
BEFORE

MASS
75
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
75
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



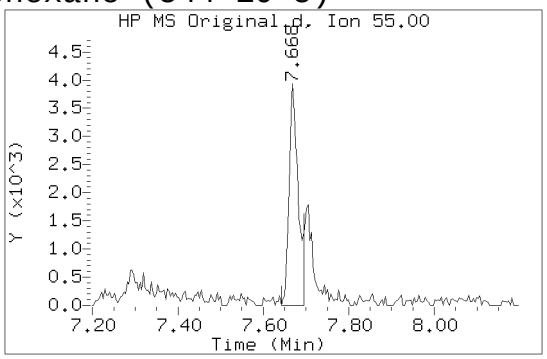
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

1-Chlorohexane (544-10-5)

Reason Code:

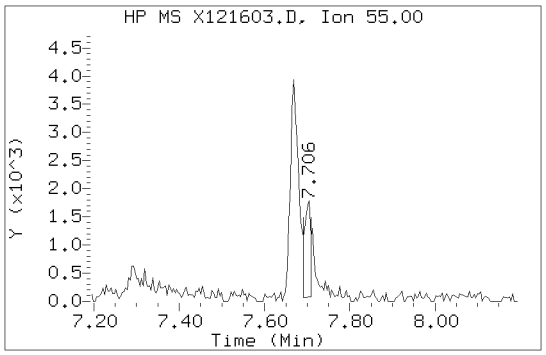
BEFORE

MASS
55
AREA
5785
HEIGHT
3936
27-Dec-2022
16:03
linh
pham



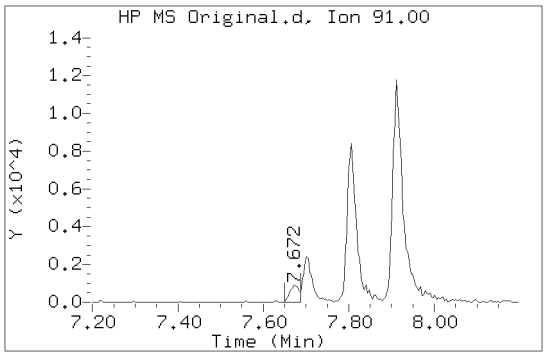
AFTER

MASS
55
AREA
1829
HEIGHT
1707
27-Dec-2022
16:07
linh
pham



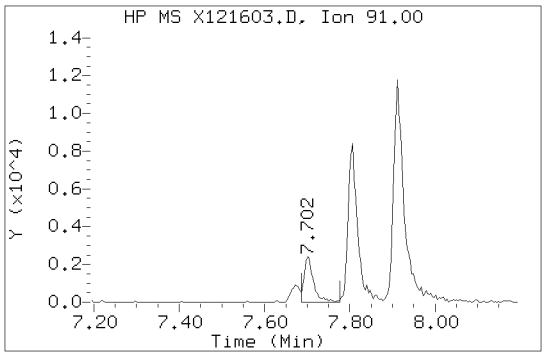
BEFORE

MASS
91
AREA
1355
HEIGHT
933
27-Dec-2022
16:03
linh
pham



AFTER

MASS
91
AREA
3802
HEIGHT
2430
27-Dec-2022
16:07
linh
pham

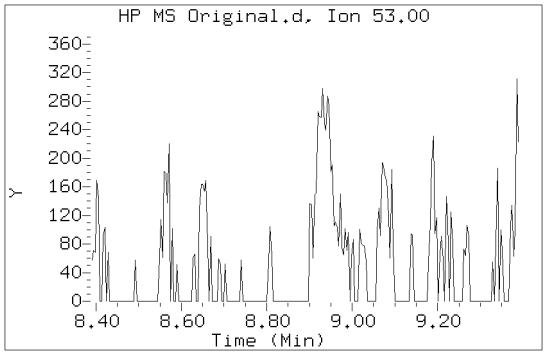


trans-1,4-Dichloro-2-butene (110-57-6)

Reason Code:

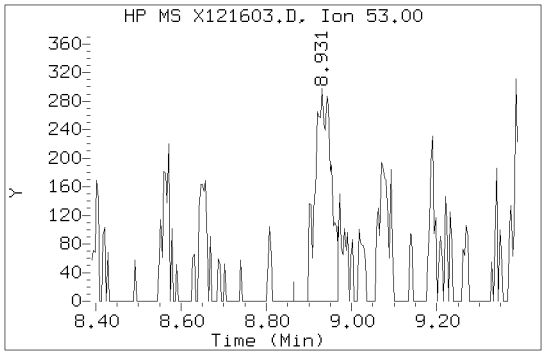
BEFORE

MASS
53
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



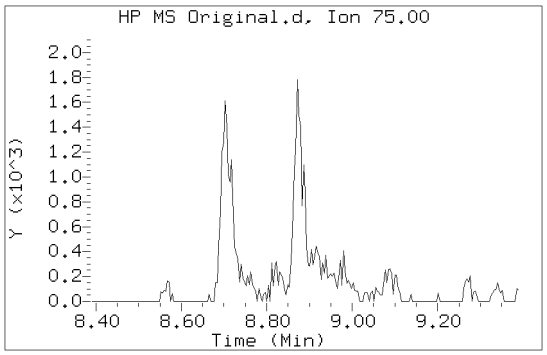
AFTER

MASS
53
AREA
792
HEIGHT
298
27-Dec-2022
16:07
linh
pham



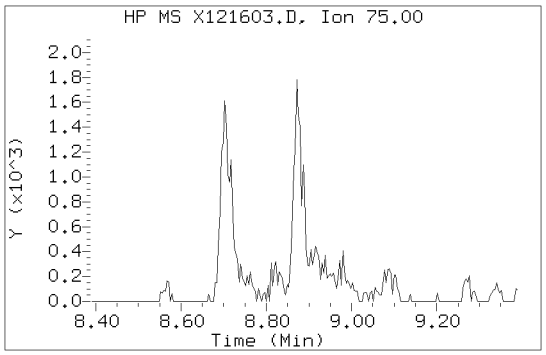
BEFORE

MASS
75
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
75
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



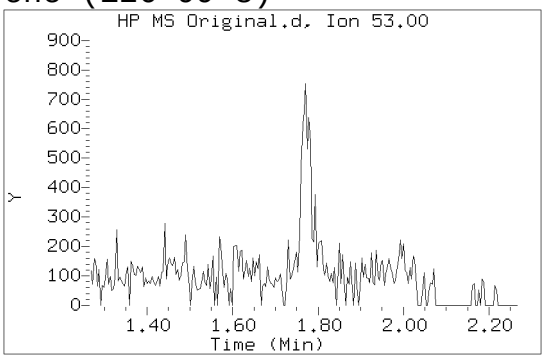
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

Chloroprene (126-99-8)

Reason Code:

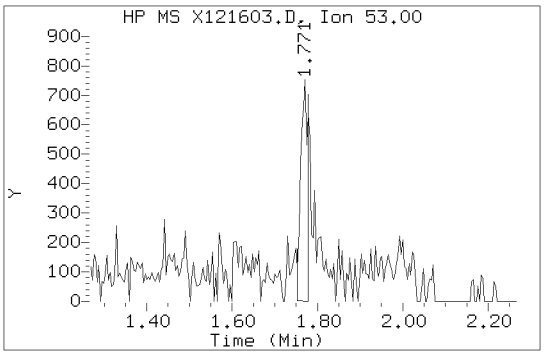
BEFORE

MASS
53
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



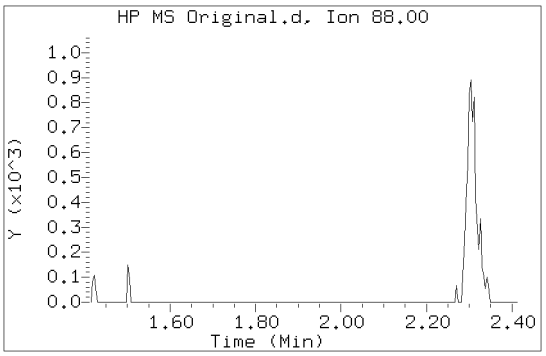
AFTER

MASS
53
AREA
900
HEIGHT
751
27-Dec-2022
16:07
linh
pham



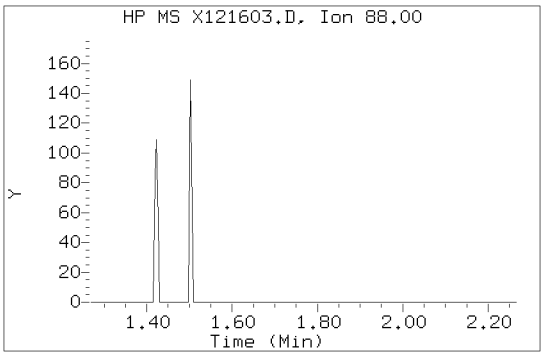
BEFORE

MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

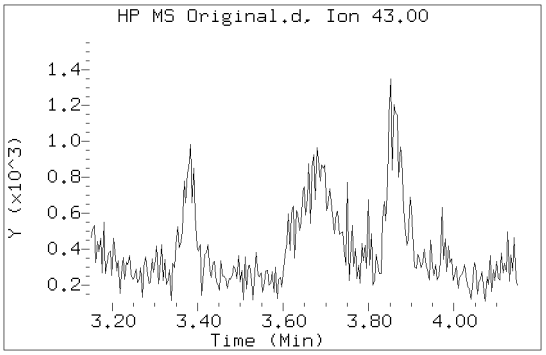


Ethyl Acetate (141-78-6)

Reason Code:

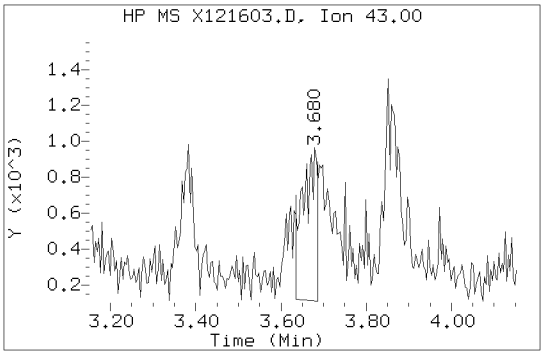
BEFORE

MASS
43
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



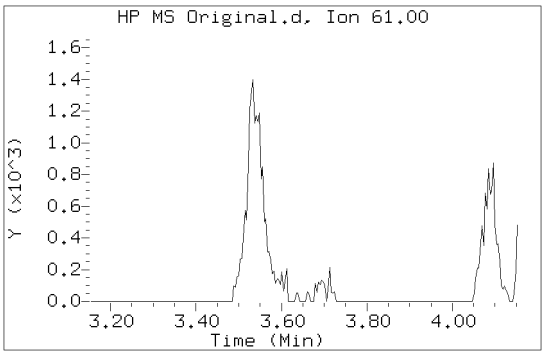
AFTER

MASS
43
AREA
2065
HEIGHT
853
27-Dec-2022
16:07
linh
pham



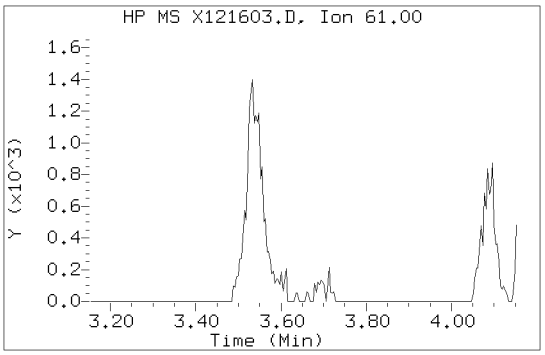
BEFORE

MASS
61
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
61
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

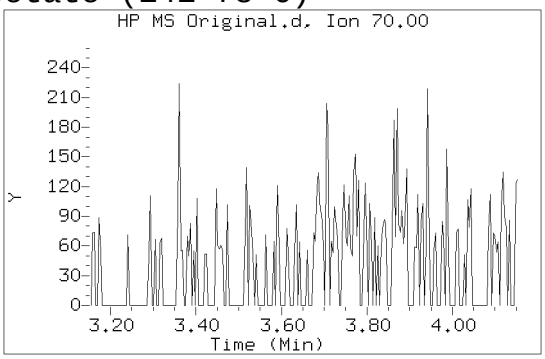


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

Ethyl Acetate (141-78-6)

BEFORE

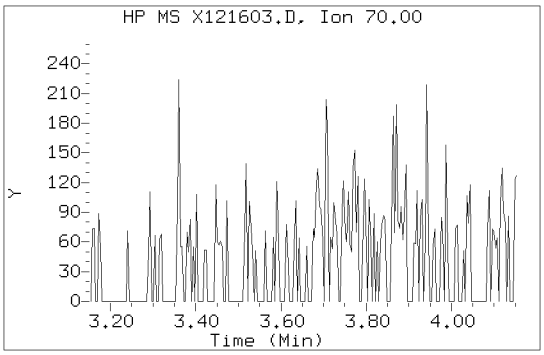
MASS
70
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



Reason Code:

AFTER

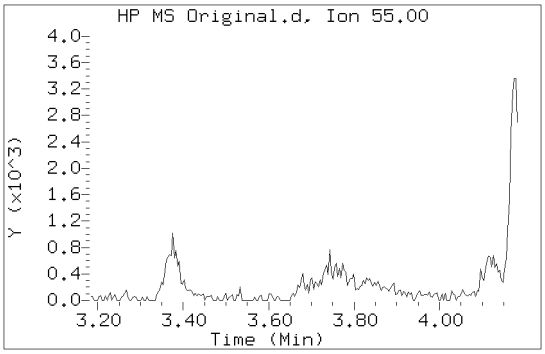
MASS
70
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



Methyl Acrylate (96-33-3)

BEFORE

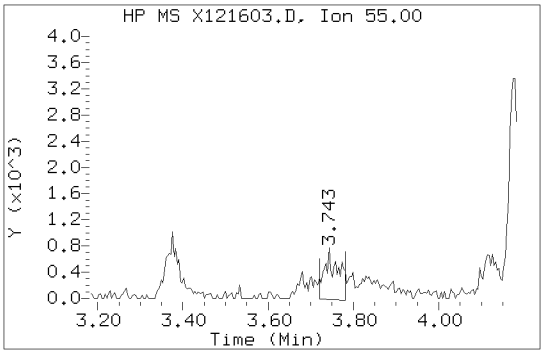
MASS
55
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



Reason Code:

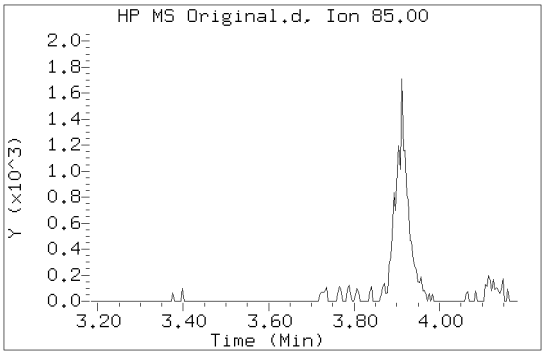
AFTER

MASS
55
AREA
1765
HEIGHT
787
27-Dec-2022
16:07
linh
pham



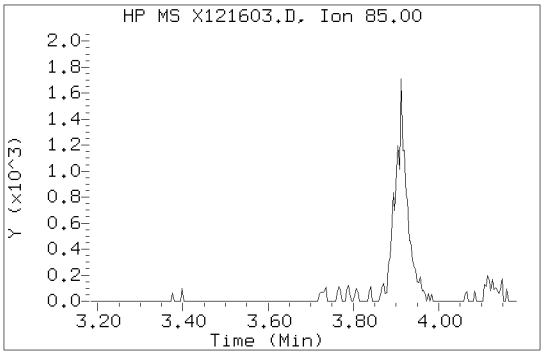
BEFORE

MASS
85
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

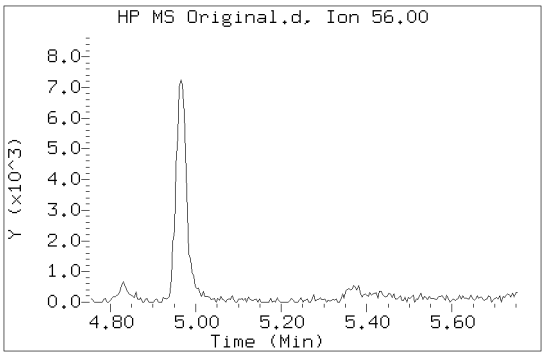
MASS
85
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



n-Butanol (71-36-3)

BEFORE

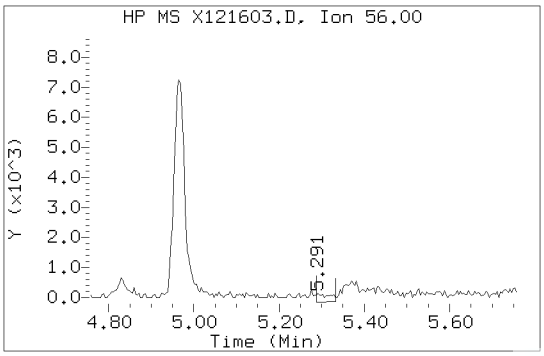
MASS
56
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



Reason Code:

AFTER

MASS
56
AREA
622
HEIGHT
300
27-Dec-2022
16:07
linh
pham



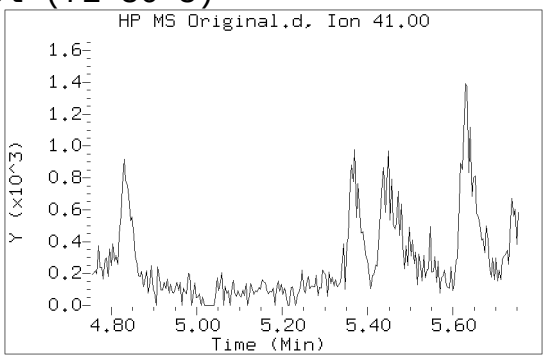
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

n-Butanol (71-36-3)

Reason Code:

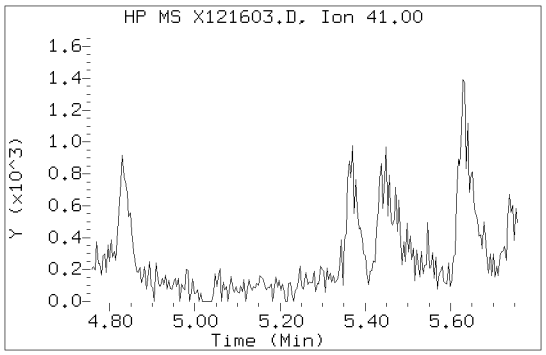
BEFORE

MASS
41
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
41
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

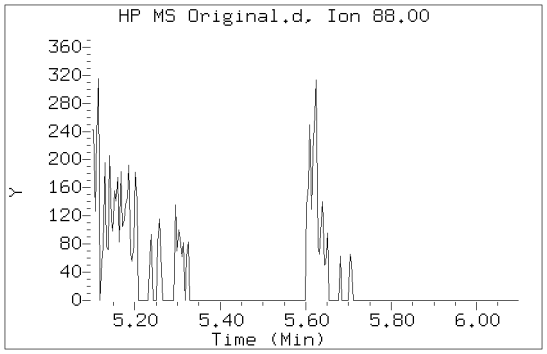


1,4-Dioxane ()

Reason Code:

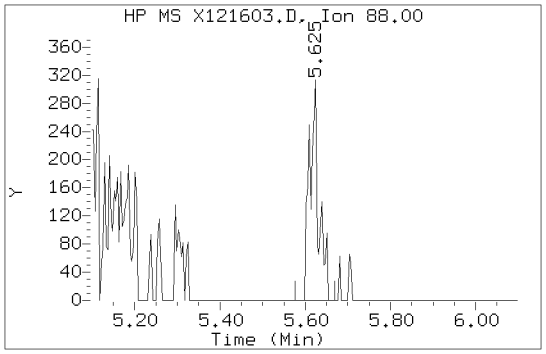
BEFORE

MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



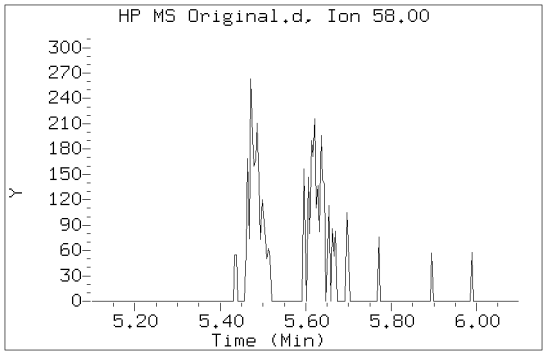
AFTER

MASS
88
AREA
462
HEIGHT
313
27-Dec-2022
16:07
linh
pham



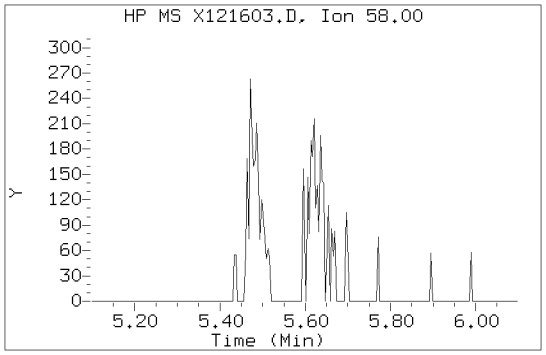
BEFORE

MASS
58
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
58
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

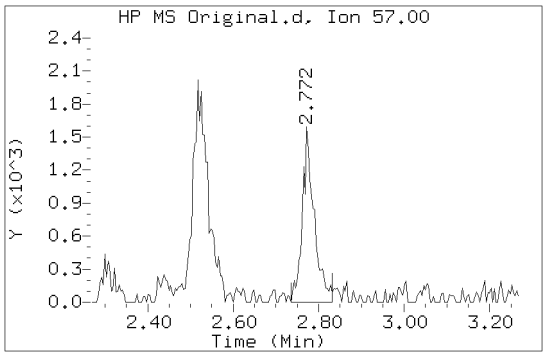


n-Hexane (110-54-3)

Reason Code:

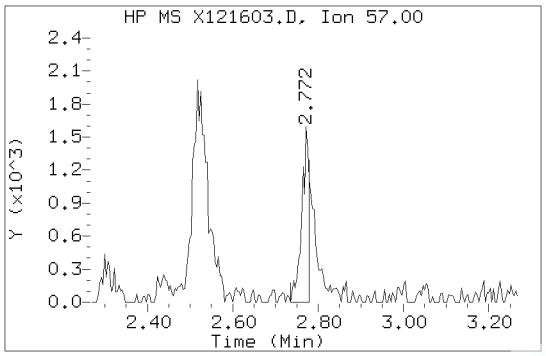
BEFORE

MASS
57
AREA
3089
HEIGHT
1591
27-Dec-2022
16:03
linh
pham



AFTER

MASS
57
AREA
1909
HEIGHT
1591
27-Dec-2022
16:07
linh
pham

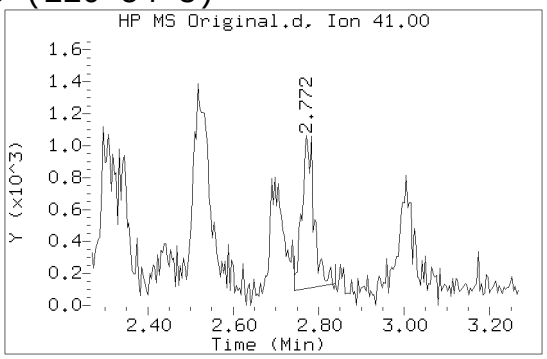


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

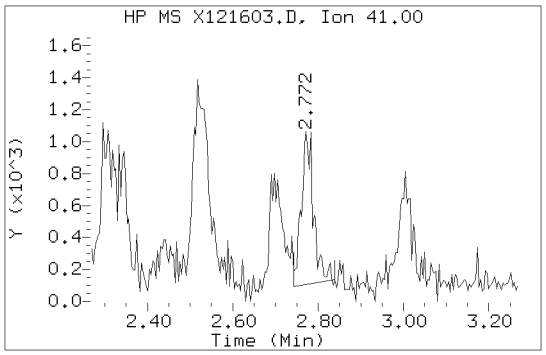
n-Hexane (110-54-3)

Reason Code:

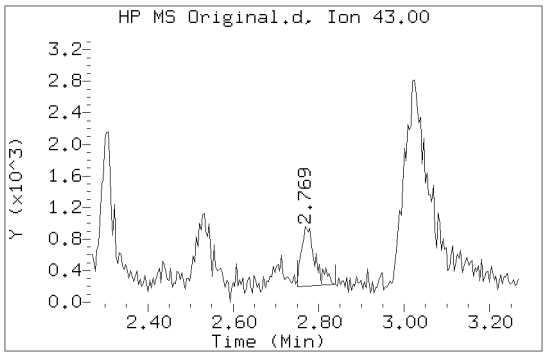
BEFORE
MASS
41
AREA
1918
HEIGHT
958
27-Dec-2022
16:03
linh
pham



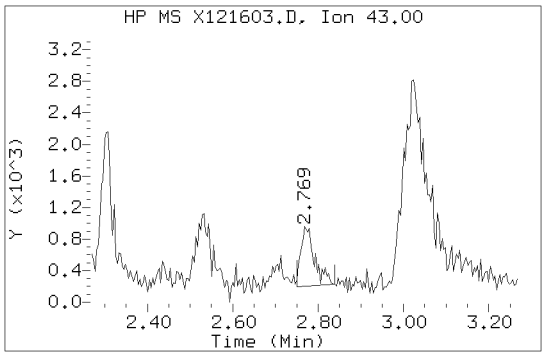
AFTER
MASS
41
AREA
1918
HEIGHT
958
27-Dec-2022
16:07
linh
pham



BEFORE
MASS
43
AREA
1726
HEIGHT
759
27-Dec-2022
16:03
linh
pham



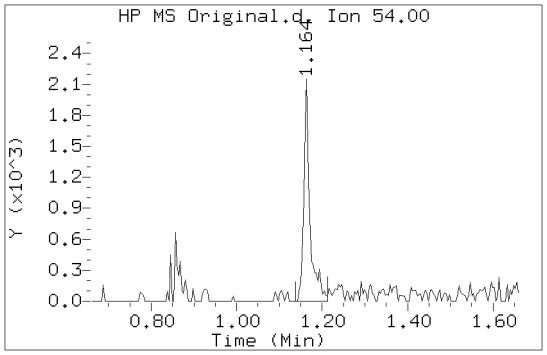
AFTER
MASS
43
AREA
1726
HEIGHT
759
27-Dec-2022
16:07
linh
pham



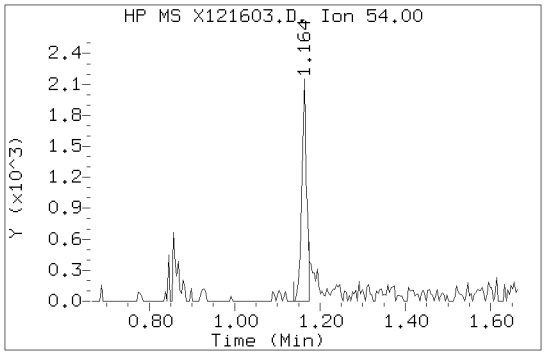
1,3-Butadiene (106-99-0)

Reason Code:

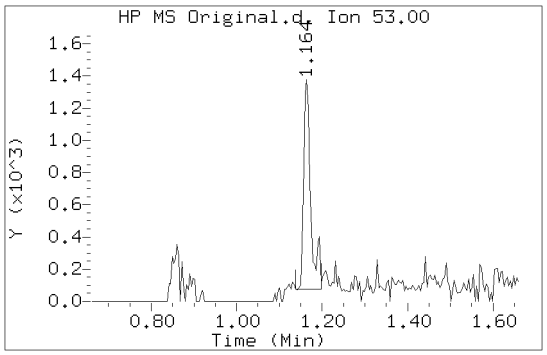
BEFORE
MASS
54
AREA
2206
HEIGHT
2153
27-Dec-2022
16:03
linh
pham



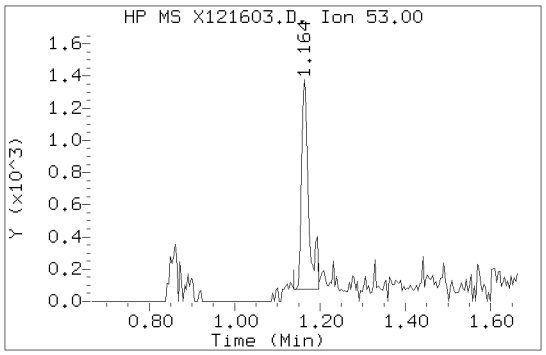
AFTER
MASS
54
AREA
1793
HEIGHT
2153
27-Dec-2022
16:07
linh
pham



BEFORE
MASS
53
AREA
1535
HEIGHT
1301
27-Dec-2022
16:03
linh
pham



AFTER
MASS
53
AREA
1535
HEIGHT
1301
27-Dec-2022
16:07
linh
pham

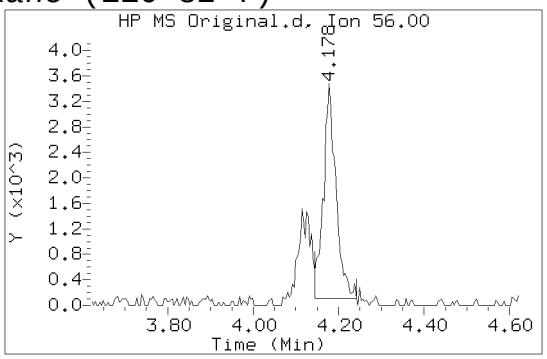


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

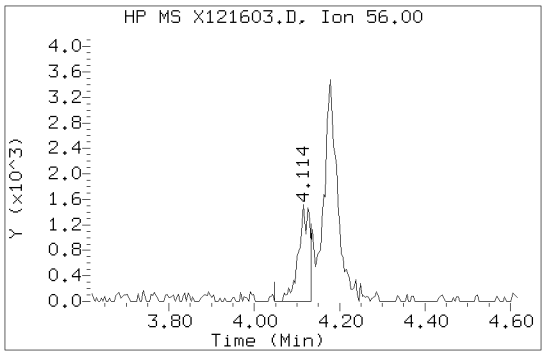
Cyclohexane (110-82-7)

Reason Code:

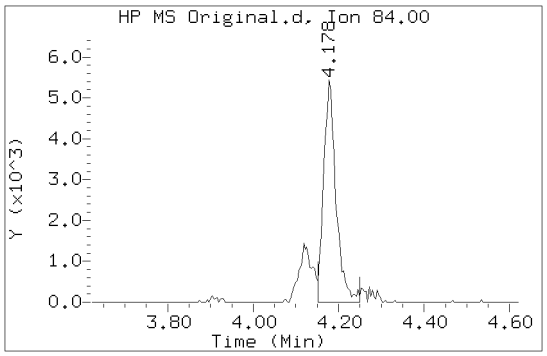
BEFORE
MASS
56
AREA
6884
HEIGHT
3363
27-Dec-2022
16:03
linh
pham



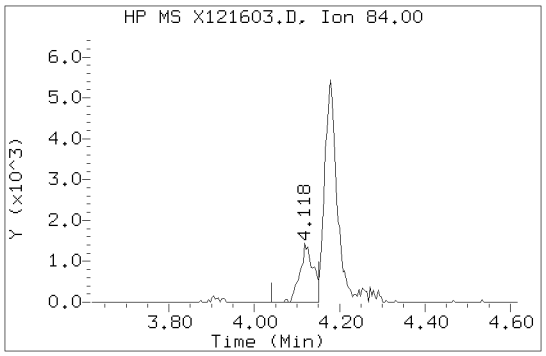
AFTER
MASS
56
AREA
2803
HEIGHT
1514
27-Dec-2022
16:07
linh
pham



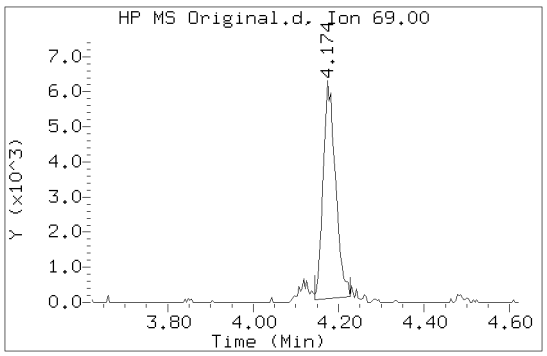
BEFORE
MASS
84
AREA
10951
HEIGHT
5440
27-Dec-2022
16:03
linh
pham



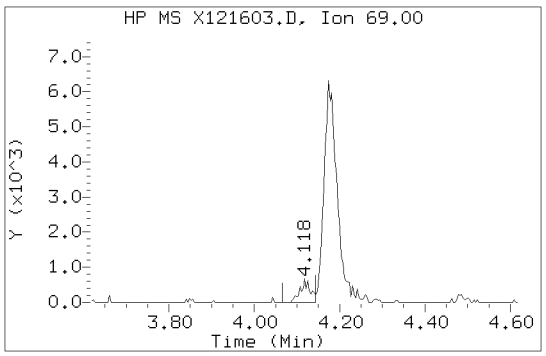
AFTER
MASS
84
AREA
3197
HEIGHT
1443
27-Dec-2022
16:07
linh
pham



BEFORE
MASS
69
AREA
12449
HEIGHT
6206
27-Dec-2022
16:03
linh
pham



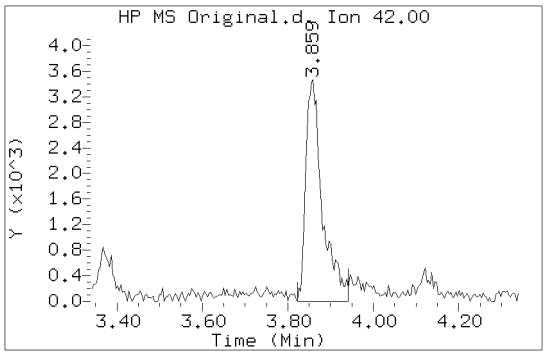
AFTER
MASS
69
AREA
1108
HEIGHT
681
27-Dec-2022
16:07
linh
pham



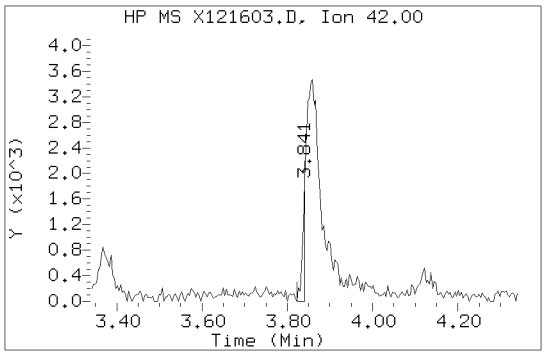
Tetrahydrofuran (109-99-9)

Reason Code:

BEFORE
MASS
42
AREA
9468
HEIGHT
3467
27-Dec-2022
16:03
linh
pham



AFTER
MASS
42
AREA
900
HEIGHT
1891
27-Dec-2022
16:07
linh
pham

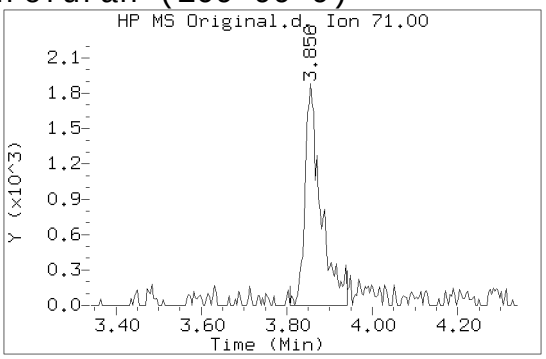


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

Tetrahydrofuran (109-99-9)

BEFORE

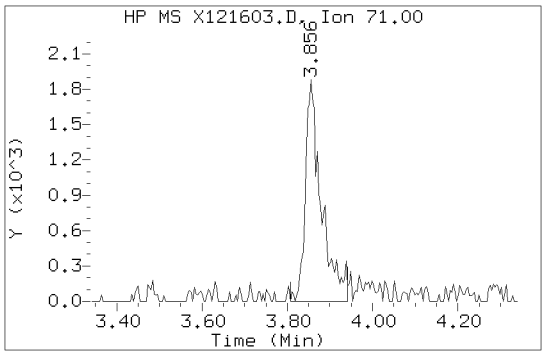
MASS
71
AREA
4885
HEIGHT
1881
27-Dec-2022
16:03
linh
pham



Reason Code:

AFTER

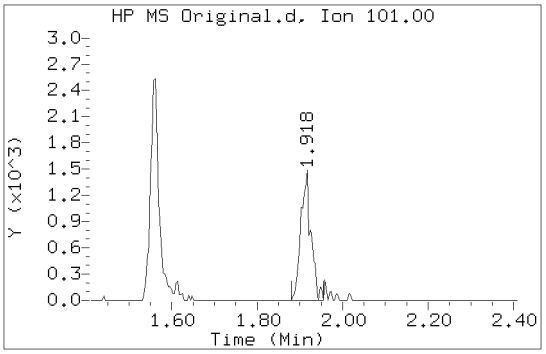
MASS
71
AREA
4885
HEIGHT
1881
27-Dec-2022
16:07
linh
pham



Freon TF (76-13-1)

BEFORE

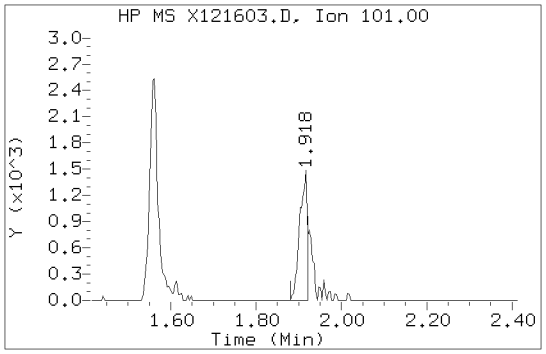
MASS
101
AREA
2478
HEIGHT
1484
27-Dec-2022
16:03
linh
pham



Reason Code:

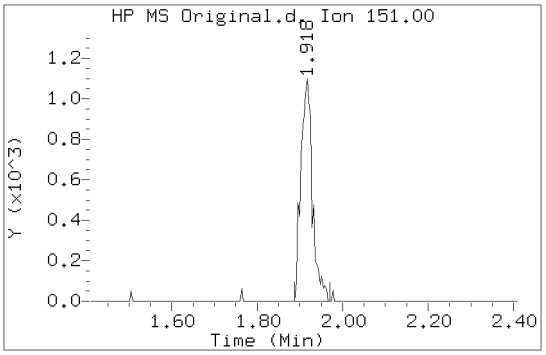
AFTER

MASS
101
AREA
1851
HEIGHT
1484
27-Dec-2022
16:07
linh
pham



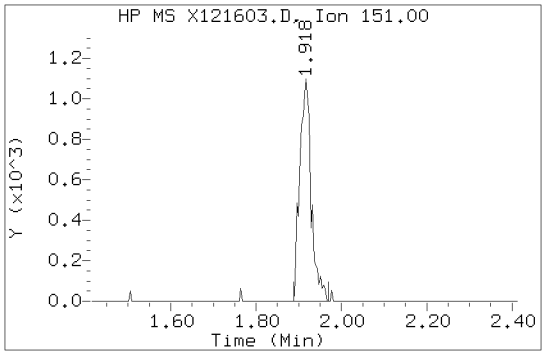
BEFORE

MASS
151
AREA
2095
HEIGHT
1098
27-Dec-2022
16:03
linh
pham



AFTER

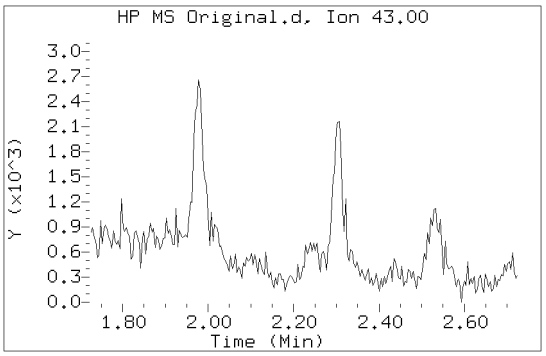
MASS
151
AREA
2095
HEIGHT
1098
27-Dec-2022
16:07
linh
pham



Methyl Acetate (79-20-9)

BEFORE

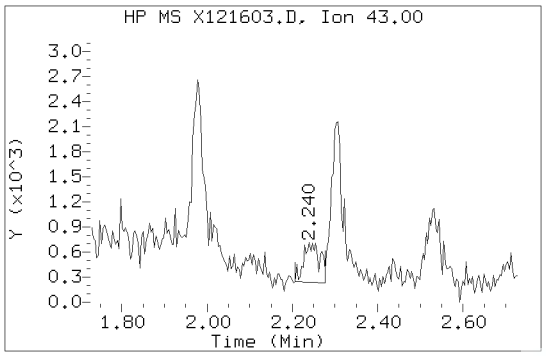
MASS
43
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



Reason Code:

AFTER

MASS
43
AREA
1269
HEIGHT
477
27-Dec-2022
16:07
linh
pham



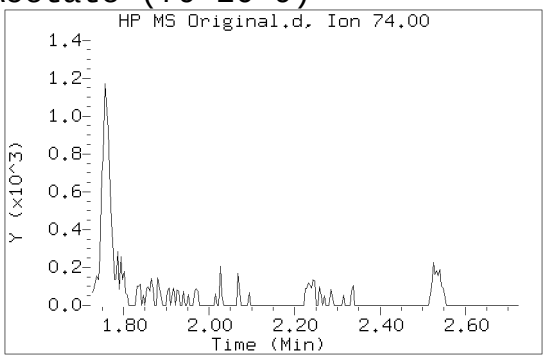
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

Methyl Acetate (79-20-9)

Reason Code:

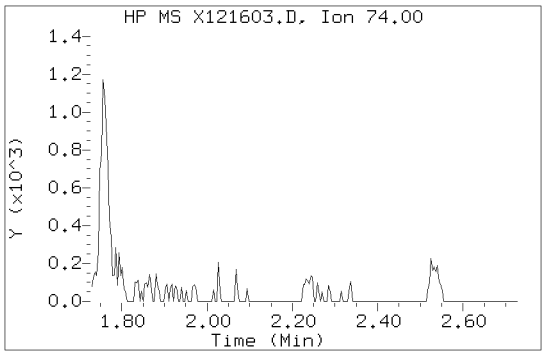
BEFORE

MASS
74
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
74
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

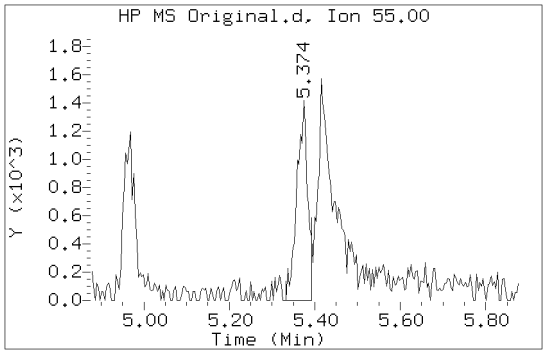


Methylcyclohexane (108-87-2)

Reason Code:

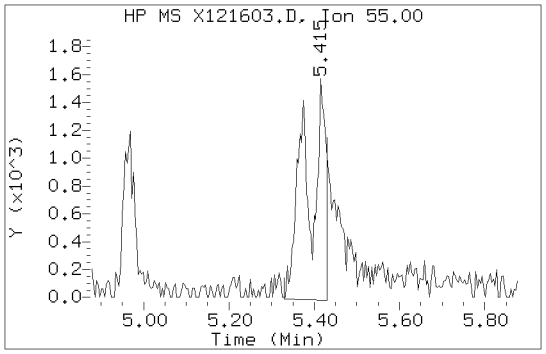
BEFORE

MASS
55
AREA
2505
HEIGHT
1416
27-Dec-2022
16:03
linh
pham



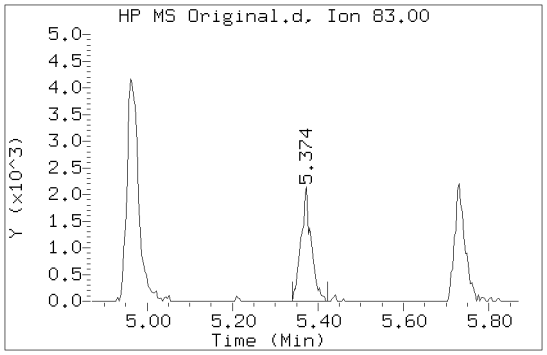
AFTER

MASS
55
AREA
4781
HEIGHT
1590
27-Dec-2022
16:07
linh
pham



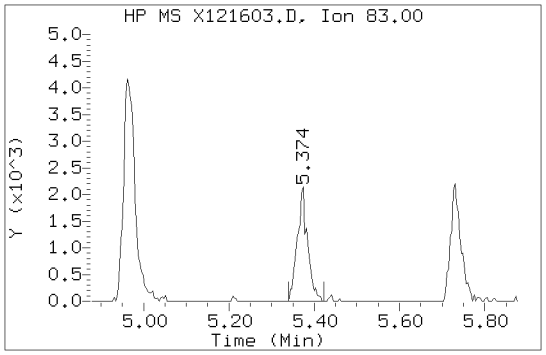
BEFORE

MASS
83
AREA
3627
HEIGHT
2141
27-Dec-2022
16:03
linh
pham



AFTER

MASS
83
AREA
3627
HEIGHT
2141
27-Dec-2022
16:07
linh
pham

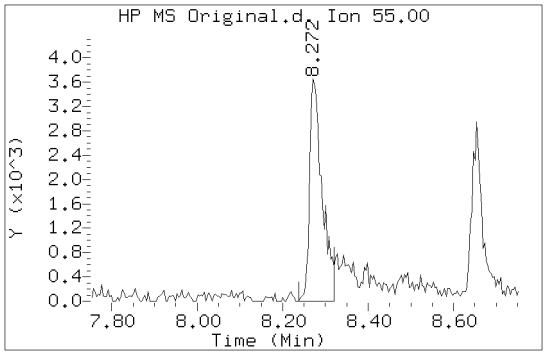


Butyl acrylate (141-32-2)

Reason Code:

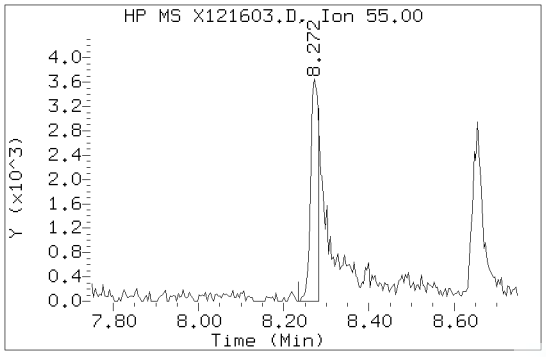
BEFORE

MASS
55
AREA
7480
HEIGHT
3653
27-Dec-2022
16:03
linh
pham



AFTER

MASS
55
AREA
4718
HEIGHT
3653
27-Dec-2022
16:07
linh
pham



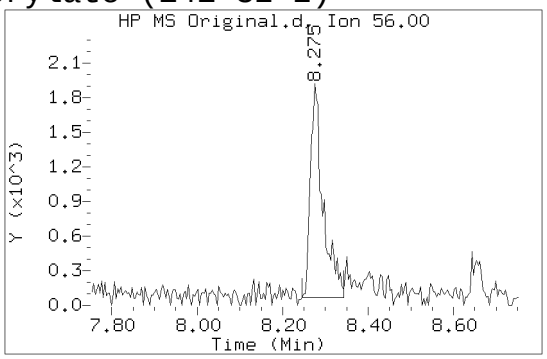
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

Butyl acrylate (141-32-2)

Reason Code:

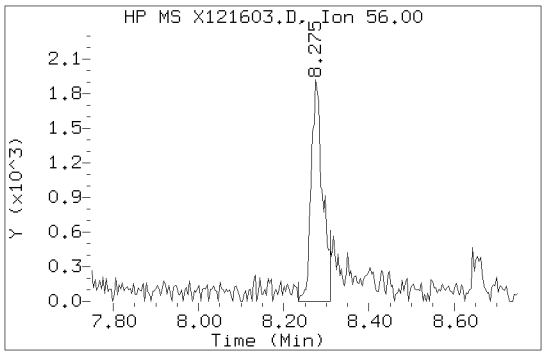
BEFORE

MASS
56
AREA
3795
HEIGHT
1858
27-Dec-2022
16:03
linh
pham



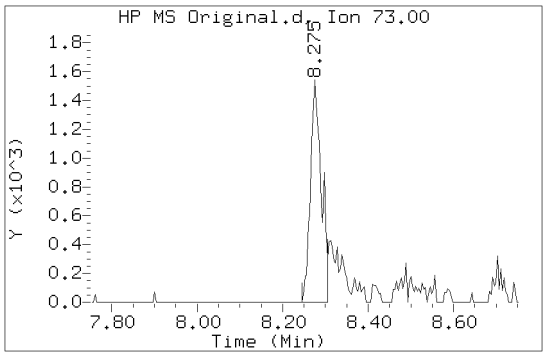
AFTER

MASS
56
AREA
3566
HEIGHT
1923
27-Dec-2022
16:07
linh
pham



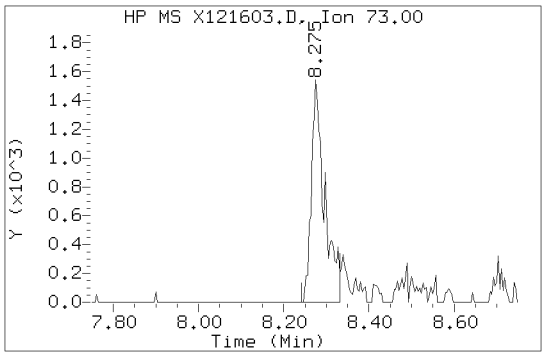
BEFORE

MASS
73
AREA
2742
HEIGHT
1542
27-Dec-2022
16:03
linh
pham



AFTER

MASS
73
AREA
3276
HEIGHT
1542
27-Dec-2022
16:07
linh
pham

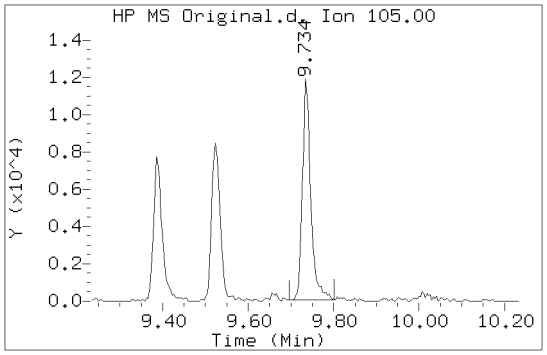


1,2,3-Trimethylbenzene (526-73-8)

Reason Code:

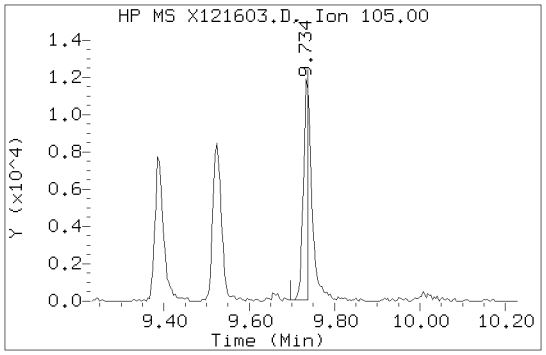
BEFORE

MASS
105
AREA
16642
HEIGHT
11860
27-Dec-2022
16:03
linh
pham



AFTER

MASS
105
AREA
9626
HEIGHT
11860
27-Dec-2022
16:07
linh
pham

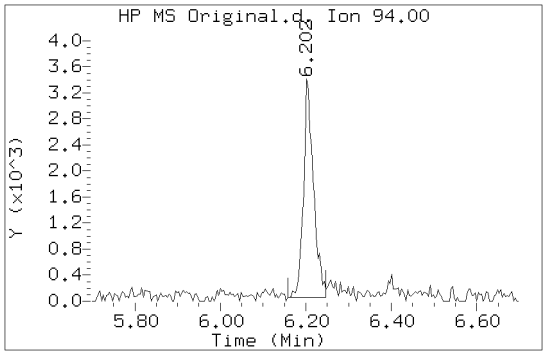


Dimethyl Disulfide (624-92-0)

Reason Code:

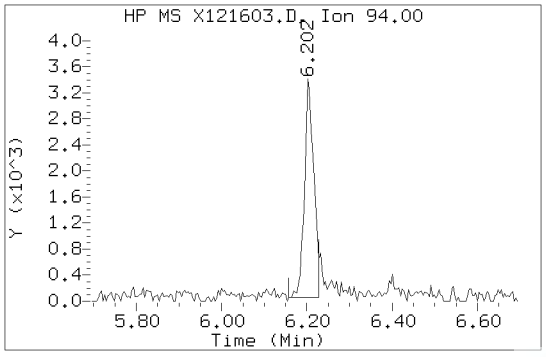
BEFORE

MASS
94
AREA
5523
HEIGHT
3352
27-Dec-2022
16:03
linh
pham



AFTER

MASS
94
AREA
5153
HEIGHT
3352
27-Dec-2022
16:07
linh
pham



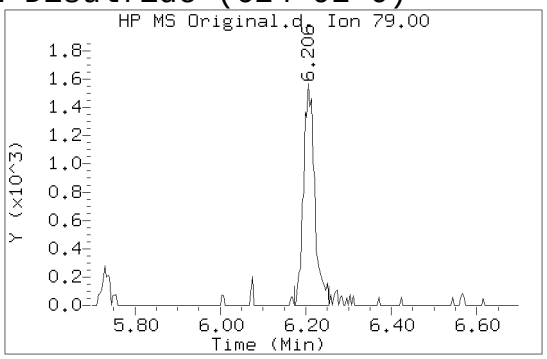
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

Dimethyl Disulfide (624-92-0)

Reason Code:

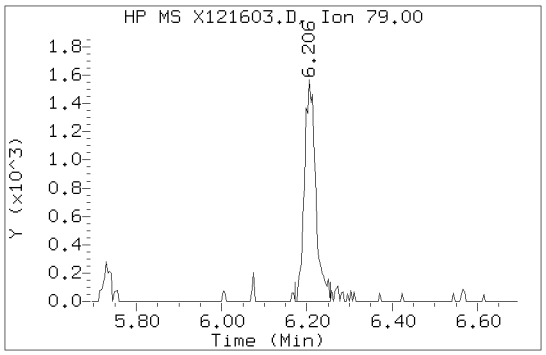
BEFORE

MASS
79
AREA
2905
HEIGHT
1568
27-Dec-2022
16:03
linh
pham



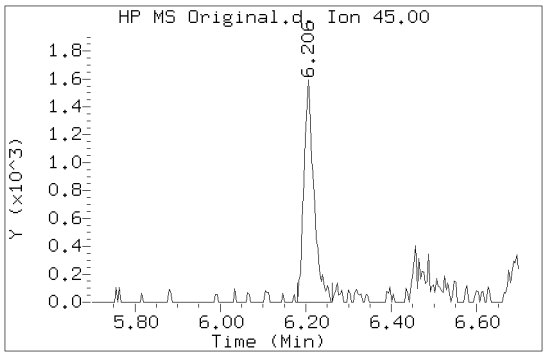
AFTER

MASS
79
AREA
2905
HEIGHT
1568
27-Dec-2022
16:07
linh
pham



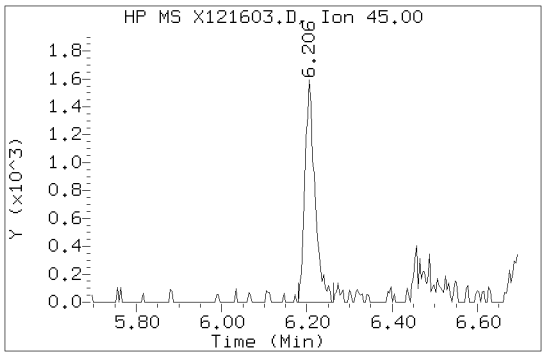
BEFORE

MASS
45
AREA
2647
HEIGHT
1593
27-Dec-2022
16:03
linh
pham



AFTER

MASS
45
AREA
2647
HEIGHT
1593
27-Dec-2022
16:07
linh
pham

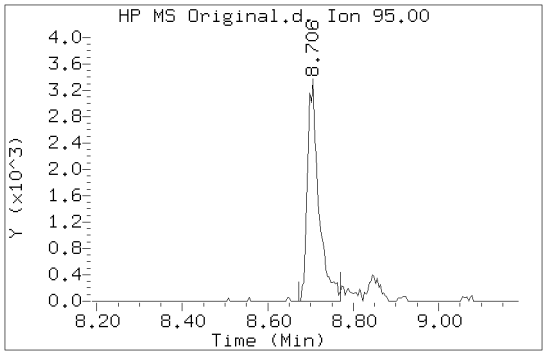


4-Bromofluorobenzene (460-00-4)

Reason Code:

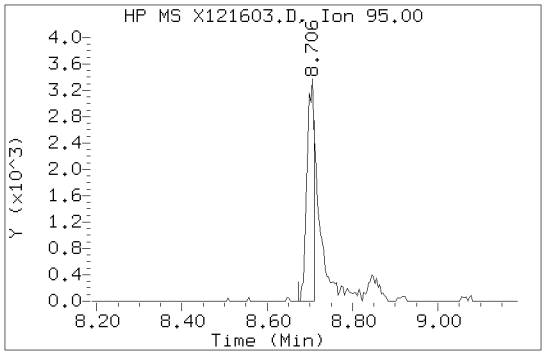
BEFORE

MASS
95
AREA
6240
HEIGHT
3372
27-Dec-2022
16:03
linh
pham



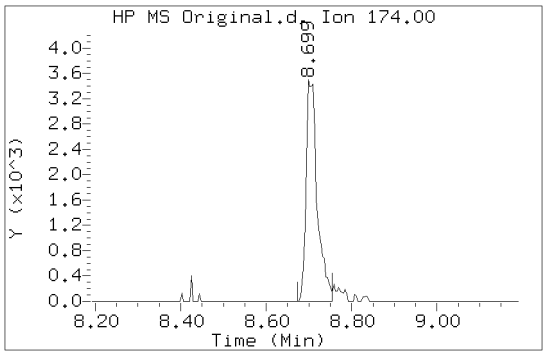
AFTER

MASS
95
AREA
3870
HEIGHT
3372
27-Dec-2022
16:07
linh
pham



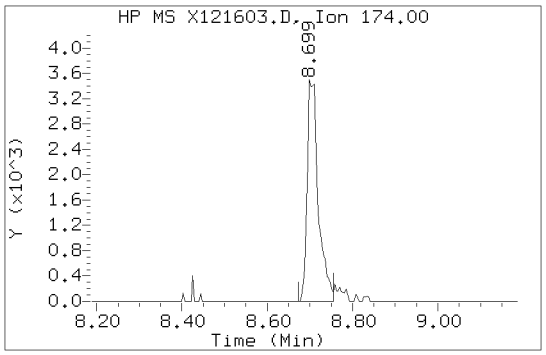
BEFORE

MASS
174
AREA
6370
HEIGHT
3502
27-Dec-2022
16:03
linh
pham



AFTER

MASS
174
AREA
6370
HEIGHT
3502
27-Dec-2022
16:07
linh
pham



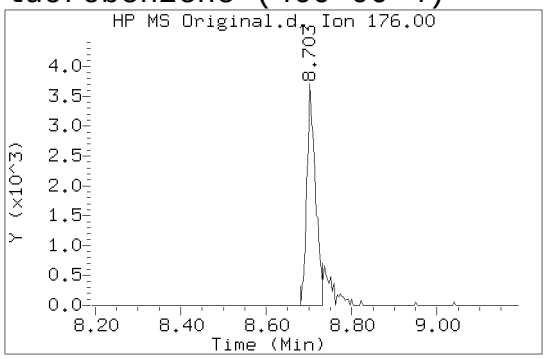
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

4-Bromofluorobenzene (460-00-4)

Reason Code:

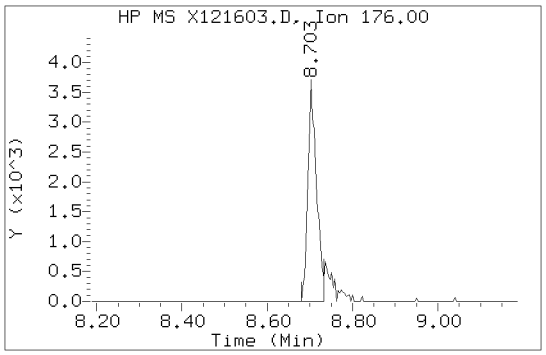
BEFORE

MASS
176
AREA
5204
HEIGHT
3711
27-Dec-2022
16:03
linh
pham



AFTER

MASS
176
AREA
5204
HEIGHT
3711
27-Dec-2022
16:07
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D Page 1
Report Date: 27-Dec-2022 16:07

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Lab Smp Id: VSTD001 Client Smp ID: VSTD001
Inj Date : 16-DEC-2022 12:41
Operator : PC Inst ID: voa6.i
Smp Info : VSTD001;VSTD001;1;3;
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\8260W.m
Meth Date : 27-Dec-2022 16:07 voa6.i Quant Type: ISTD
Cal Date : 16-DEC-2022 12:20 Cal File: X121603.D
Als bottle: 5 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260V6.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.178	4.178	(1.000)	450308	50.0000	
135 1,4-Dioxane	88	5.610	5.610	(1.343)	820	20.0000	19.92(M)
140 1,3-Butadiene	54	1.160	1.160	(0.278)	3432	1.00000	1.11
25 Methacrylonitrile	41	3.852	3.852	(0.922)	3285	1.00000	1.03(M)
12 Isobutyl Alcohol	43	4.695	4.695	(1.124)	9436	20.0000	18.62(M)
13 Acetonitrile	39	2.198	2.198	(0.526)	4183	10.0000	10.20
14 Allyl Chloride	41	2.202	2.202	(0.527)	8574	1.00000	1.09
4 Propionitrile	54	3.687	3.687	(0.882)	4742	10.0000	10.32(M)
136 n-Hexane	57	2.776	2.776	(0.664)	2343	1.00000	0.72
72 trans-1,4-Dichloro-2-butene	53	8.920	8.920	(1.163)	1196	1.00000	0.85(M)
194 Acetaldehyde	44	1.212	1.212	(0.290)	3384	4.00000	(M)
23 Chloroprene	53	1.767	1.767	(0.423)	1686	1.00000	1.10(M)
145 alpha-Methylstyrene	118	9.272	9.272	(0.960)	6032	1.00000	0.77
200 Dimethyl Disulfide	94	6.206	6.206	(0.809)	8295	1.00000	0.94
139 Diethyl ether	59	1.760	1.760	(0.421)	2983	1.00000	0.99
130 Ethyl Acetate	43	3.675	3.675	(0.880)	3144	1.00000	0.89(M)
40 Methyl Methacrylate	41	5.628	5.628	(1.347)	3145	1.00000	1.02
49 Ethyl Methacrylate	69	6.727	6.727	(1.355)	3303	1.00000	1.02(M)
132 n-Butanol	56	5.239	5.239	(1.254)	1171	20.0000	60.69(M)
142 Tetrahydrofuran	42	3.844	3.844	(0.920)	1361	2.00000	(M)

150	Allyl alcohol	57	2.776	2.776 (0.664)	2343	20.0000	13.39
166	1,2,3-Trimethylbenzene	105	9.733	9.733 (1.007)	18347	1.00000	1.08

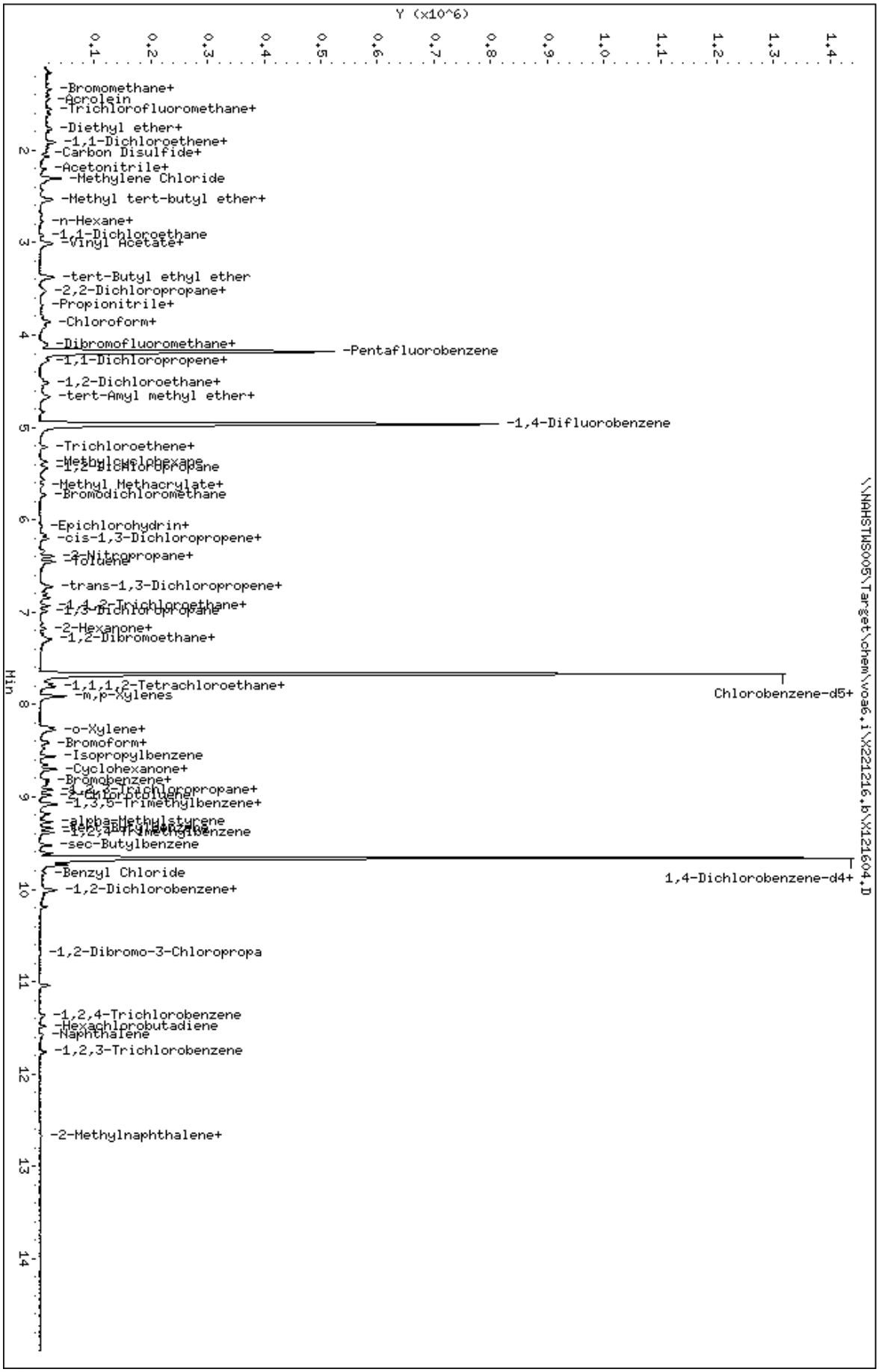
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	131 Methyl Acrylate	55	3.743	3.743	(0.896)	3084	1.00000	1.00(M)
	162 Butyl acrylate	55	8.271	8.271	(1.078)	7647	1.00000	0.90
	2 Dichlorodifluoromethane	85	0.969	0.969	(0.232)	2911	1.00000	1.30
	3 Chloromethane	50	1.078	1.078	(0.258)	3670	1.00000	3.07
	5 Vinyl Chloride	62	1.141	1.141	(0.273)	3645	1.00000	0.92
	6 Bromomethane	94	1.340	1.340	(0.321)	3293	1.00000	2.83
	7 Chloroethane	64	1.400	1.400	(0.335)	2516	1.00000	0.91(M)
	8 Trichlorofluoromethane	101	1.554	1.554	(0.372)	4906	1.00000	0.89
	9 Acrolein	56	1.452	1.452	(0.348)	761	2.00000	5.22(M)
	10 Acetone	43	1.977	1.977	(0.473)	4787	2.00000	3.75(M)
	11 1,1-Dichloroethene	96	1.913	1.913	(0.458)	3238	1.00000	0.94
	15 Iodomethane	142	2.026	2.026	(0.485)	3865	2.00000	4.18(TM)
	16 Acrylonitrile	53	2.554	2.554	(0.612)	2258	2.00000	1.94(M)
	17 Methylene Chloride	84	2.300	2.300	(0.550)	5355	1.00000	1.14(M)
	18 Methyl tert-butyl ether	73	2.536	2.536	(0.607)	12521	1.00000	1.11
	19 Carbon Disulfide	76	2.067	2.067	(0.495)	18122	2.00000	2.02
	20 trans-1,2-Dichloroethene	96	2.532	2.532	(0.606)	3821	1.00000	0.99
	21 Vinyl Acetate	43	3.012	3.012	(0.721)	17842	2.00000	1.81
	22 1,1-Dichloroethane	63	2.922	2.922	(0.699)	7218	1.00000	1.07
	24 2-Butanone	43	3.619	3.619	(0.866)	2498	2.00000	4.83(M)
	26 2,2-Dichloropropane	77	3.514	3.514	(0.841)	5896	1.00000	1.03
	27 cis-1,2-Dichloroethene	96	3.540	3.540	(0.847)	4469	1.00000	0.96
	28 Chloroform	83	3.908	3.908	(0.935)	7768	1.00000	1.03
	29 Bromochloromethane	128	3.803	3.803	(0.910)	2689	1.00000	1.05
$	30 Dibromofluoromethane	113	4.103	4.103	(0.982)	4769	1.00000	0.94
	31 1,1,1-Trichloroethane	97	4.088	4.088	(0.978)	5914	1.00000	0.99
	32 1,1-Dichloropropene	75	4.286	4.286	(0.863)	4698	1.00000	0.96
	33 1,2-Dichloroethane	62	4.564	4.564	(0.919)	5568	1.00000	0.99
	34 Carbon Tetrachloride	117	4.271	4.271	(0.860)	6221	1.00000	1.19
$	35 1,2-Dichloroethane-d4	65	4.485	4.485	(1.074)	5559	1.00000	1.48
*	36 1,4-Difluorobenzene	114	4.965	4.965	(1.000)	685937	50.0000	
	37 Benzene	78	4.515	4.515	(0.909)	16367	1.00000	0.99
	38 Trichloroethene	130	5.216	5.216	(1.051)	4352	1.00000	0.93
	39 Bromodichloromethane	83	5.730	5.730	(1.154)	6296	1.00000	1.02(M)
	41 2-Chloroethylvinyl ether	63	6.071	6.071	(1.223)	3202	2.00000	1.83(M)
	42 1,2-Dichloropropane	63	5.445	5.445	(1.097)	4604	1.00000	1.05(M)
	44 Dibromomethane	93	5.557	5.557	(1.119)	2906	1.00000	0.98
	45 4-Methyl-2-Pentanone	43	6.341	6.341	(0.827)	6859	2.00000	1.97
	46 cis-1,3-Dichloropropene	75	6.168	6.168	(1.242)	6537	1.00000	0.90
*	47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	649074	50.0000	
$	48 Toluene-d8	98	6.401	6.401	(0.834)	17067	1.00000	1.06
	50 Toluene	91	6.457	6.457	(0.842)	17914	1.00000	0.99
	51 trans-1,3-Dichloropropene	75	6.693	6.693	(1.348)	5418	1.00000	0.90
	52 2-Hexanone	43	7.109	7.109	(0.927)	4520	2.00000	1.91
	53 1,1,2-Trichloroethane	83	6.843	6.843	(0.892)	3499	1.00000	0.97
	54 1,3-Dichloropropane	76	6.989	6.989	(0.911)	7216	1.00000	1.01
	55 Dibromochloromethane	129	7.177	7.177	(0.936)	5024	1.00000	0.96
	56 Tetrachloroethene	164	6.933	6.933	(0.904)	3331	1.00000	0.89
	57 1,2-Dibromoethane	107	7.270	7.270	(0.948)	4350	1.00000	0.96
	58 1-Chlorohexane	55	7.705	7.705	(1.552)	3155	1.00000	0.95(MH)
	59 Chlorobenzene	112	7.698	7.698	(1.003)	12555	1.00000	0.98
	60 1,1,1,2-Tetrachloroethane	131	7.776	7.776	(1.014)	4485	1.00000	0.94

61 Ethylbenzene	106	7.806	7.806 (1.018)	5698	1.00000	0.95
62 m,p-Xylenes	106	7.911	7.911 (1.031)	14464	2.00000	1.87

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	63 o-Xylene	106	8.249	8.249	(1.075)	6670	1.00000	0.87
	64 Styrene	104	8.282	8.282	(1.080)	10384	1.00000	0.81
	66 Bromoform	173	8.417	8.417	(1.097)	3274	1.00000	0.90(T)
	67 Isopropylbenzene	105	8.564	8.564	(1.116)	15163	1.00000	0.87
	68 1,1,2,2-Tetrachloroethane	83	8.845	8.845	(0.915)	5934	1.00000	1.05(M)
$	69 4-Bromofluorobenzene	95	8.702	8.702	(1.134)	7790	1.00000	1.36(M)
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	351251	50.0000	
	71 1,2,3-Trichloropropane	75	8.871	8.871	(0.918)	3978	1.00000	1.01
	73 n-Propylbenzene	91	8.923	8.923	(0.924)	15006	1.00000	0.77
	74 Bromobenzene	156	8.818	8.818	(0.913)	5554	1.00000	0.96
	75 1,3,5-Trimethylbenzene	105	9.073	9.073	(0.939)	11820	1.00000	0.82
	76 2-Chlorotoluene	91	8.980	8.980	(0.929)	12470	1.00000	0.97
	77 4-Chlorotoluene	91	9.085	9.085	(0.940)	12140	1.00000	0.83
	78 tert-Butylbenzene	119	9.340	9.340	(0.967)	9357	1.00000	0.79
	79 1,2,4-Trimethylbenzene	105	9.385	9.385	(0.971)	12988	1.00000	0.85
	81 sec-Butylbenzene	105	9.523	9.523	(0.986)	12395	1.00000	0.79
	82 p-Isopropyltoluene	119	9.651	9.651	(0.999)	10009	1.00000	0.71
	83 1,3-Dichlorobenzene	146	9.609	9.609	(0.995)	8523	1.00000	0.89
	84 1,4-Dichlorobenzene	146	9.681	9.681	(1.002)	9866	1.00000	0.94
	86 Benzyl Chloride	91	9.823	9.823	(1.280)	4632	1.00000	3.12
	87 n-Butylbenzene	91	10.014	10.014	(1.036)	8459	1.00000	2.37(M)
	88 1,2-Dichlorobenzene	146	10.007	10.007	(1.036)	8626	1.00000	0.87
	89 1,2-Dibromo-3-Chloropropane	155	10.689	10.689	(1.106)	778	1.00000	0.95(M)
	90 1,2,4-Trichlorobenzene	180	11.371	11.371	(1.177)	4609	1.00000	0.74
	91 Hexachlorobutadiene	225	11.480	11.480	(1.188)	1928	1.00000	0.65
	92 Naphthalene	128	11.574	11.574	(1.198)	11288	1.00000	0.79(M)
	93 1,2,3-Trichlorobenzene	180	11.754	11.754	(1.216)	4801	1.00000	0.80
M	94 1,2-Dichloroethylene (total)	96				8290	2.00000	
M	95 Xylenes (total)	106				21134	3.00000	
	141 Cyclohexane	56	4.125	4.125	(0.987)	4003	1.00000	2.12(H)
	138 Freon TF	101	1.906	1.906	(0.456)	3356	1.00000	1.01
	147 Methylcyclohexane	55	5.377	5.377	(1.083)	6848	1.00000	0.81(M)
	146 Methyl Acetate	43	2.236	2.236	(0.535)	2127	1.00000	1.04(M)
	148 Tert-Butyl alcohol	59	2.438	2.438	(0.584)	6051	20.0000	19.40(a)

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.



Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Date : 16-DEC-2022 12:41
Client ID: VSTD001
Sample Info: VSTD001;VSTD001;1;3;
Purge Volume: 5.0
Column phase: DB624

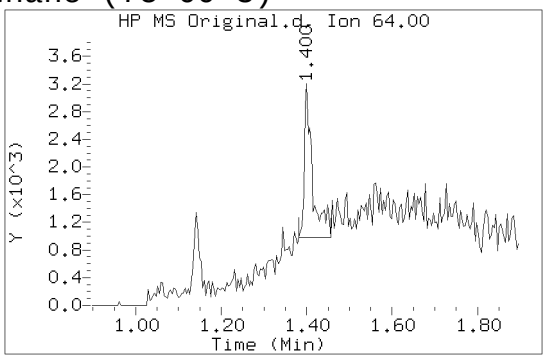
Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

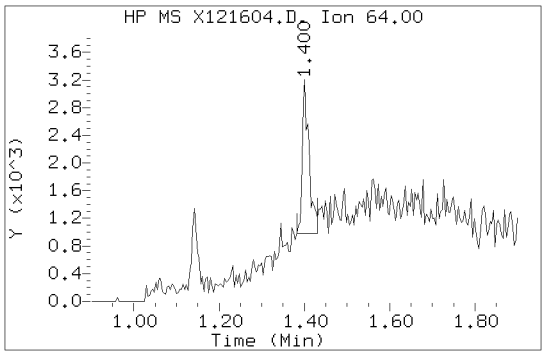
Chloroethane (75-00-3)

Reason Code:

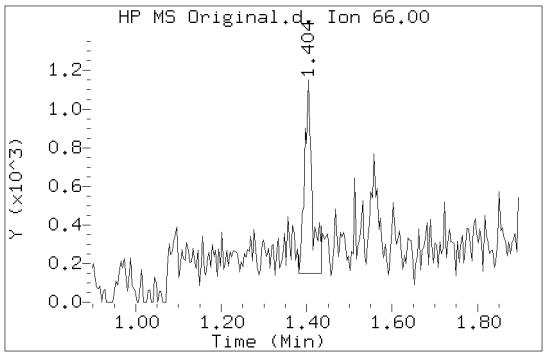
BEFORE
MASS
64
AREA
2984
HEIGHT
2221
27-Dec-2022
16:03
linh
pham



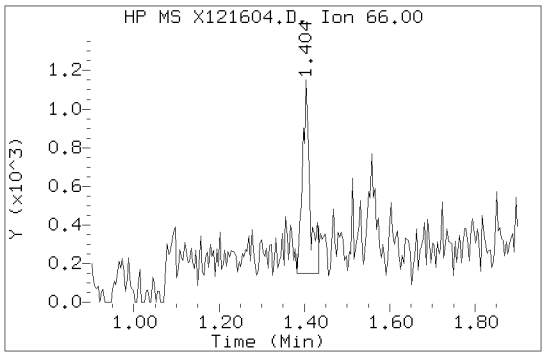
AFTER
MASS
64
AREA
2516
HEIGHT
2221
27-Dec-2022
16:07
linh
pham



BEFORE
MASS
66
AREA
1262
HEIGHT
1002
27-Dec-2022
16:03
linh
pham



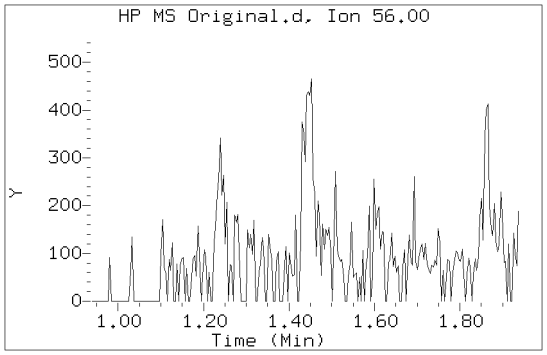
AFTER
MASS
66
AREA
1262
HEIGHT
1002
27-Dec-2022
16:07
linh
pham



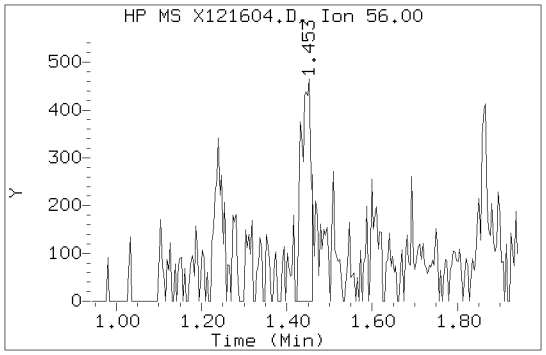
Acrolein (107-02-8)

Reason Code:

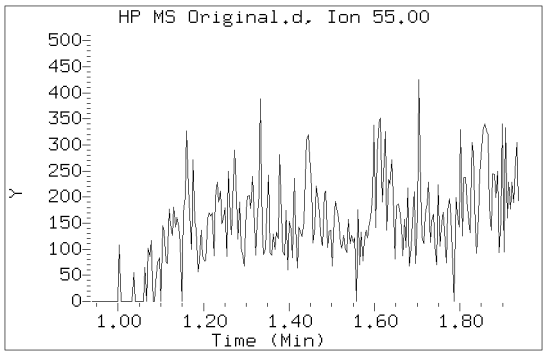
BEFORE
MASS
56
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



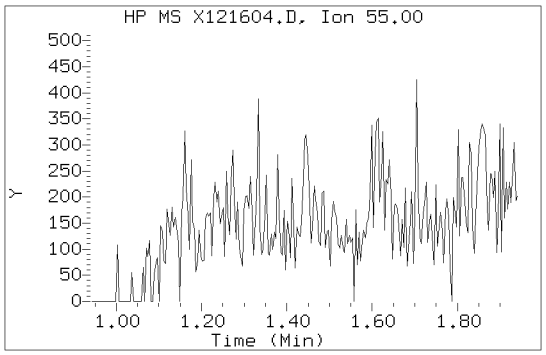
AFTER
MASS
56
AREA
761
HEIGHT
465
27-Dec-2022
16:07
linh
pham



BEFORE
MASS
55
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER
MASS
55
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

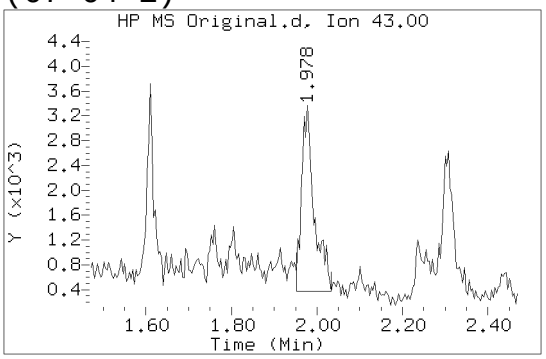


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

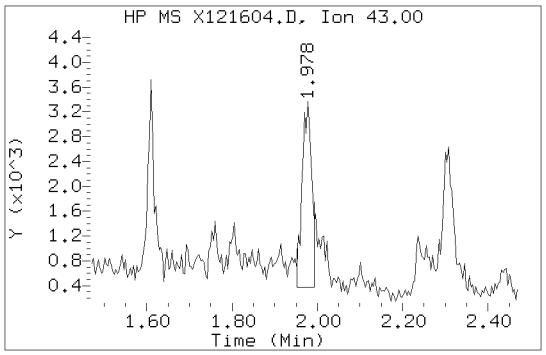
Acetone (67-64-1)

Reason Code:

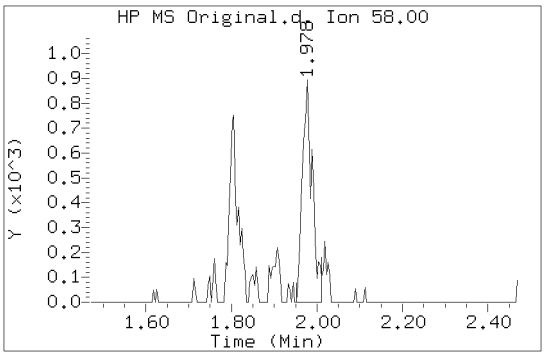
BEFORE
MASS
43
AREA
6265
HEIGHT
2993
27-Dec-2022
16:03
linh
pham



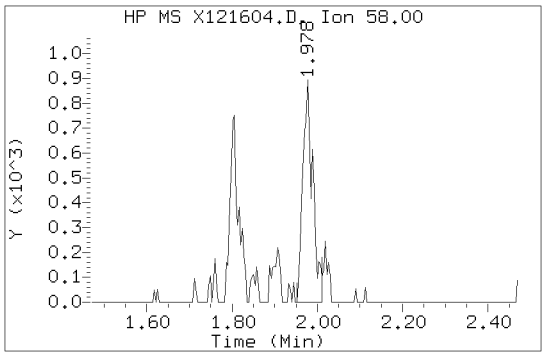
AFTER
MASS
43
AREA
4787
HEIGHT
2993
27-Dec-2022
16:07
linh
pham



BEFORE
MASS
58
AREA
1474
HEIGHT
894
27-Dec-2022
16:03
linh
pham



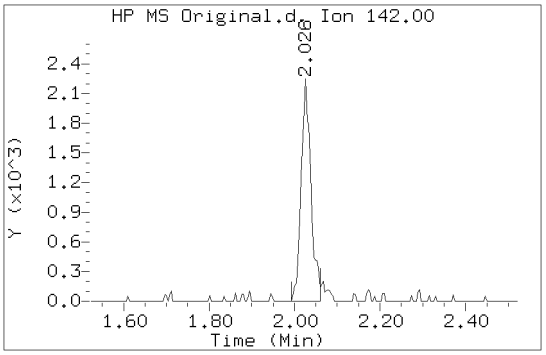
AFTER
MASS
58
AREA
1474
HEIGHT
894
27-Dec-2022
16:07
linh
pham



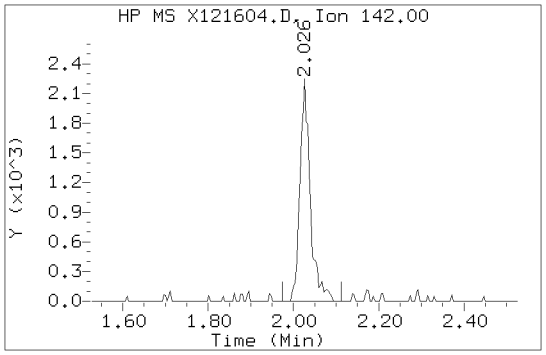
Iodomethane (74-88-4)

Reason Code:

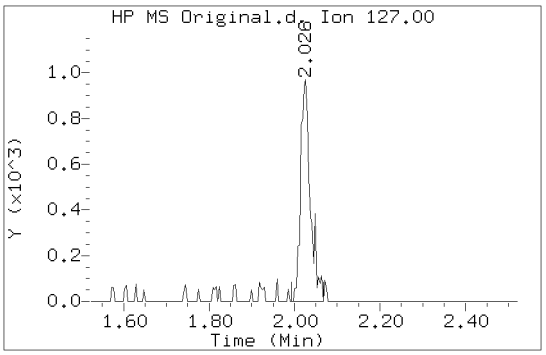
BEFORE
MASS
142
AREA
3661
HEIGHT
2248
27-Dec-2022
16:03
linh
pham



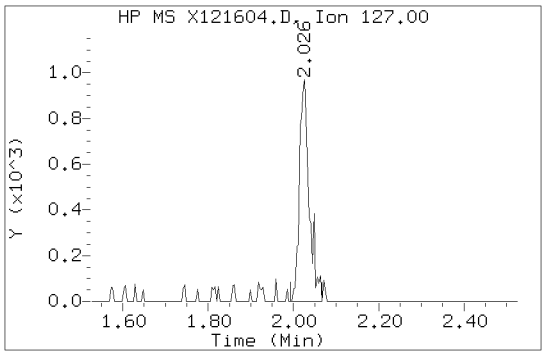
AFTER
MASS
142
AREA
3865
HEIGHT
2248
27-Dec-2022
16:07
linh
pham



BEFORE
MASS
127
AREA
1585
HEIGHT
970
27-Dec-2022
16:03
linh
pham



AFTER
MASS
127
AREA
1585
HEIGHT
970
27-Dec-2022
16:07
linh
pham



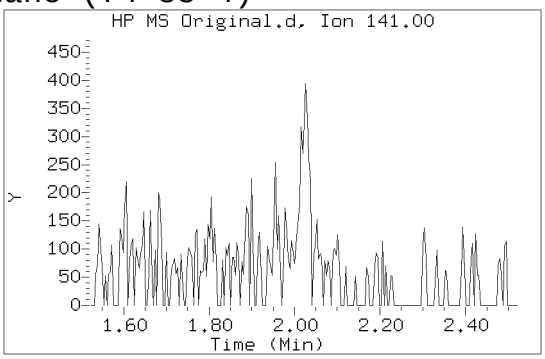
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

Iodomethane (74-88-4)

Reason Code:

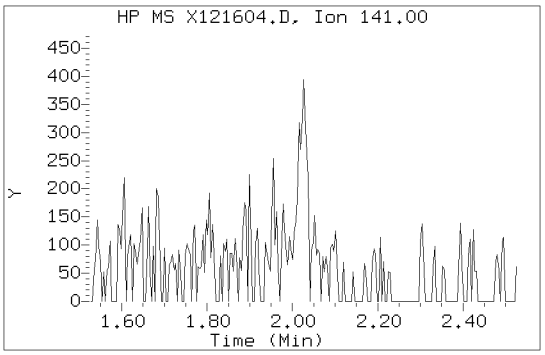
BEFORE

MASS
141
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
141
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

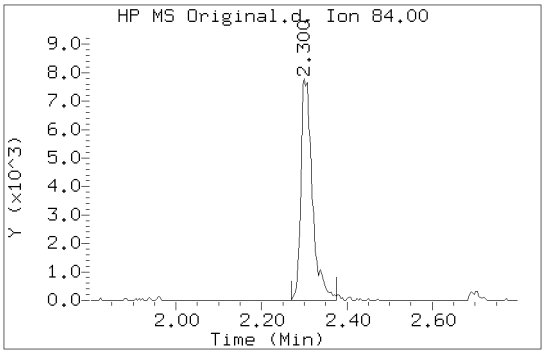


Methylene Chloride (75-09-2)

Reason Code:

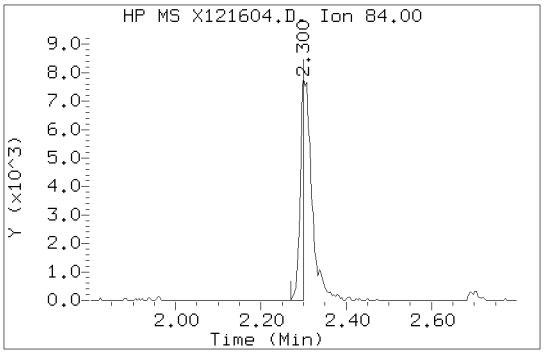
BEFORE

MASS
84
AREA
14864
HEIGHT
7788
27-Dec-2022
16:03
linh
pham



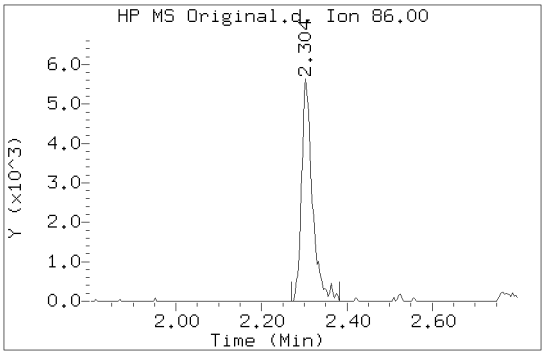
AFTER

MASS
84
AREA
5355
HEIGHT
7788
27-Dec-2022
16:07
linh
pham



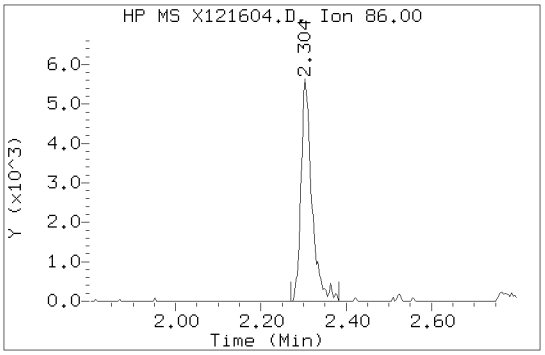
BEFORE

MASS
86
AREA
10161
HEIGHT
5637
27-Dec-2022
16:03
linh
pham



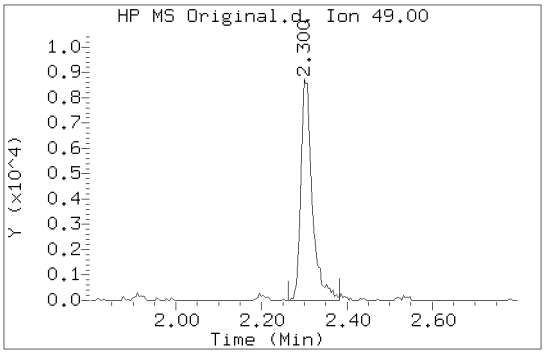
AFTER

MASS
86
AREA
10161
HEIGHT
5637
27-Dec-2022
16:07
linh
pham



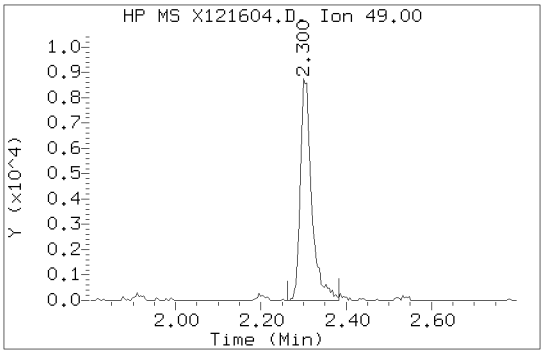
BEFORE

MASS
49
AREA
16641
HEIGHT
8752
27-Dec-2022
16:03
linh
pham



AFTER

MASS
49
AREA
16641
HEIGHT
8752
27-Dec-2022
16:07
linh
pham



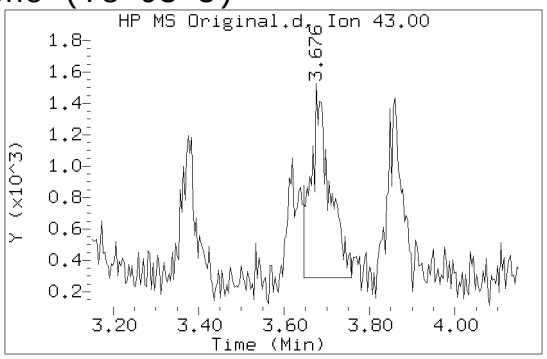
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

2-Butanone (78-93-3)

Reason Code:

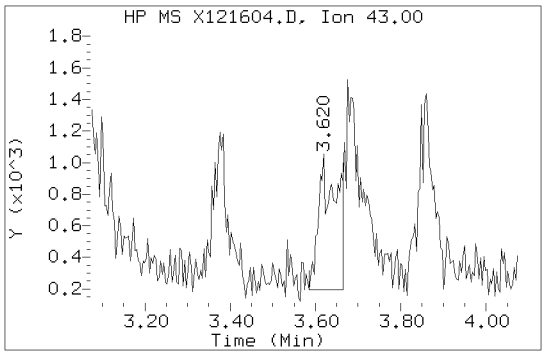
BEFORE

MASS
43
AREA
3758
HEIGHT
1236
27-Dec-2022
16:03
linh
pham



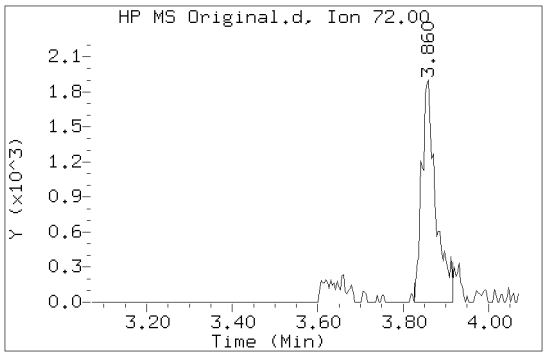
AFTER

MASS
43
AREA
2498
HEIGHT
859
27-Dec-2022
16:07
linh
pham



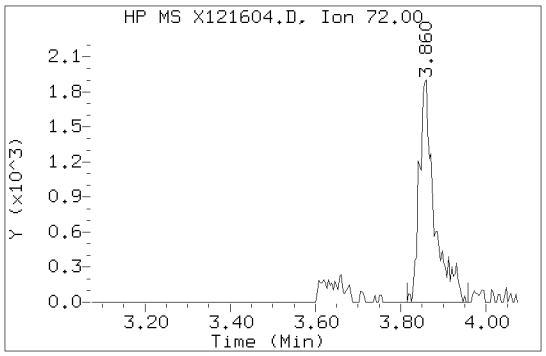
BEFORE

MASS
72
AREA
4320
HEIGHT
1902
27-Dec-2022
16:03
linh
pham



AFTER

MASS
72
AREA
4690
HEIGHT
1902
27-Dec-2022
16:07
linh
pham

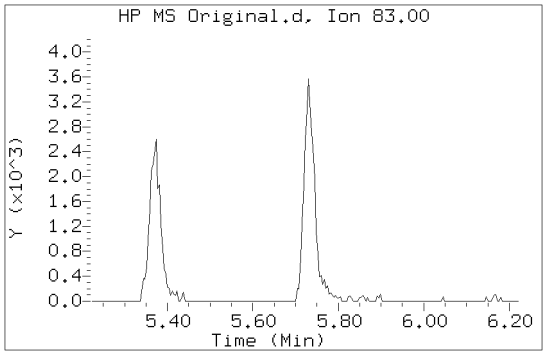


Bromodichloromethane (75-27-4)

Reason Code:

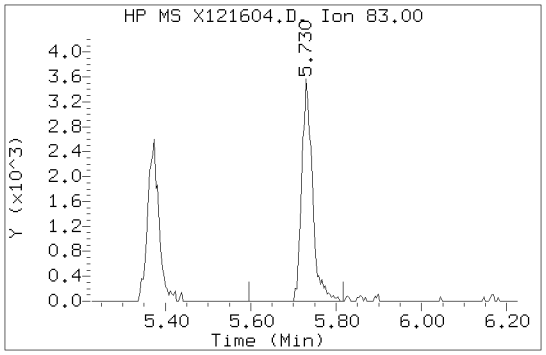
BEFORE

MASS
83
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



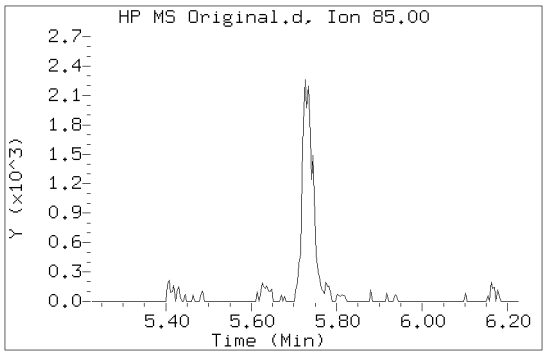
AFTER

MASS
83
AREA
6296
HEIGHT
3568
27-Dec-2022
16:07
linh
pham



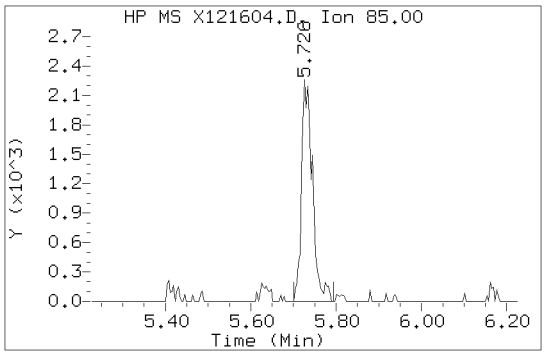
BEFORE

MASS
85
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
85
AREA
4084
HEIGHT
2261
27-Dec-2022
16:07
linh
pham



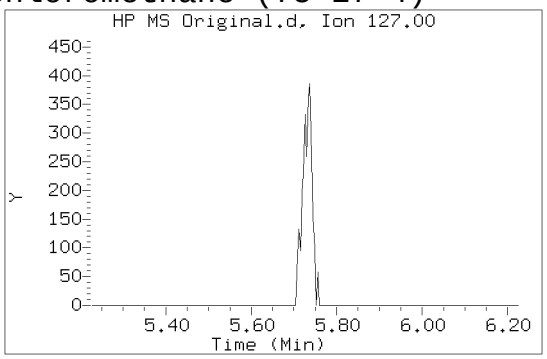
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

Bromodichloromethane (75-27-4)

Reason Code:

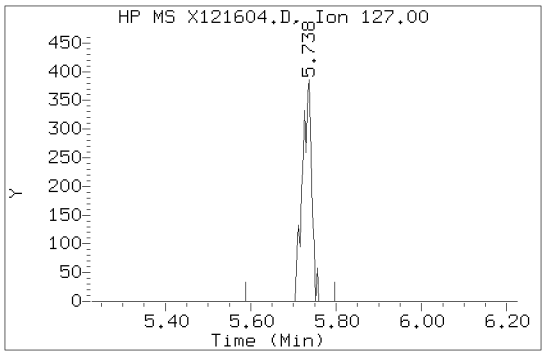
BEFORE

MASS
127
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
127
AREA
595
HEIGHT
386
27-Dec-2022
16:07
linh
pham

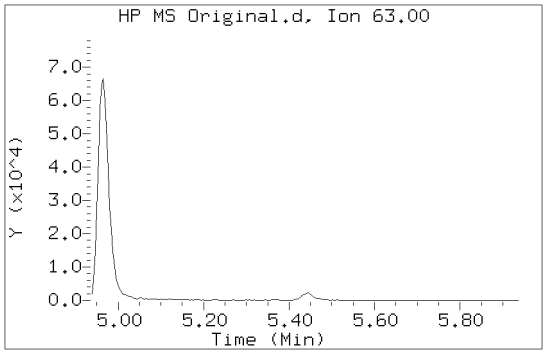


1,2-Dichloropropane (78-87-5)

Reason Code:

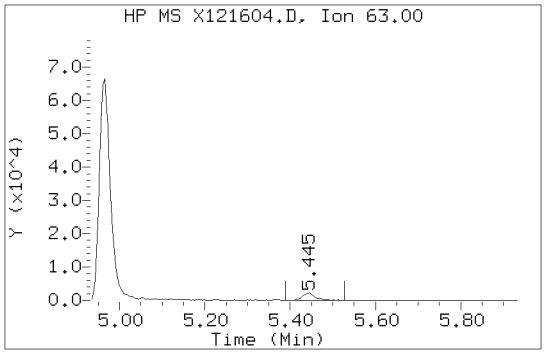
BEFORE

MASS
63
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



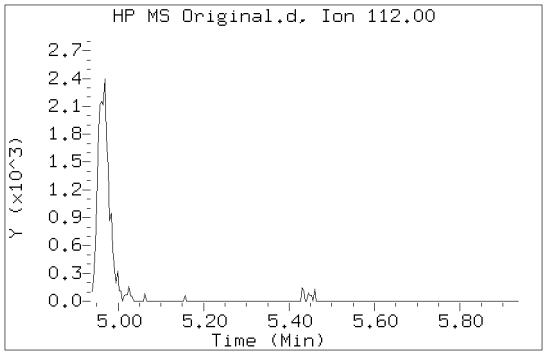
AFTER

MASS
63
AREA
4604
HEIGHT
2381
27-Dec-2022
16:07
linh
pham



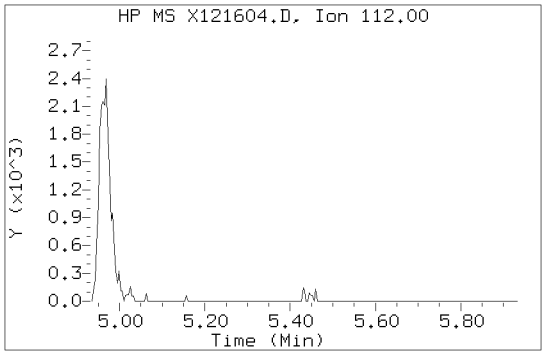
BEFORE

MASS
112
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
112
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

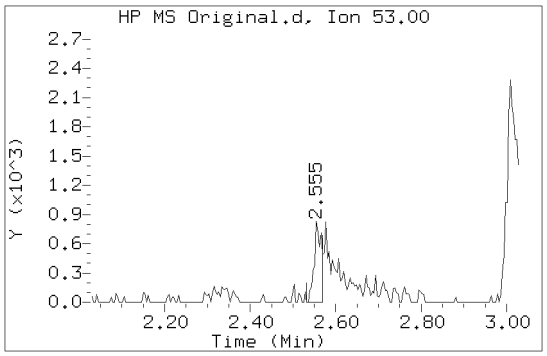


Acrylonitrile (107-13-1)

Reason Code:

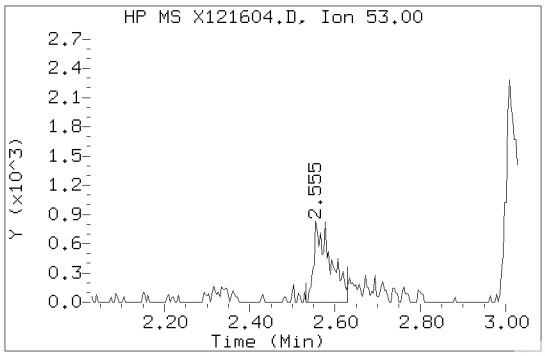
BEFORE

MASS
53
AREA
967
HEIGHT
834
27-Dec-2022
16:03
linh
pham



AFTER

MASS
53
AREA
2258
HEIGHT
834
27-Dec-2022
16:07
linh
pham



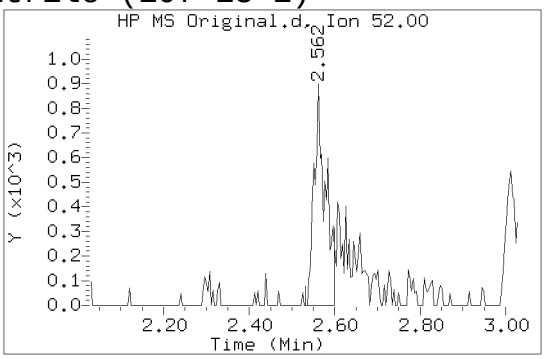
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

Acrylonitrile (107-13-1)

Reason Code:

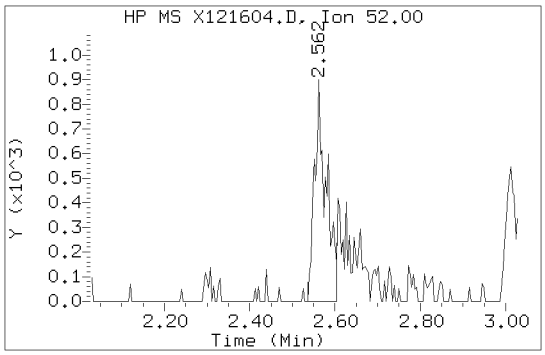
BEFORE

MASS
52
AREA
1657
HEIGHT
900
27-Dec-2022
16:03
linh
pham



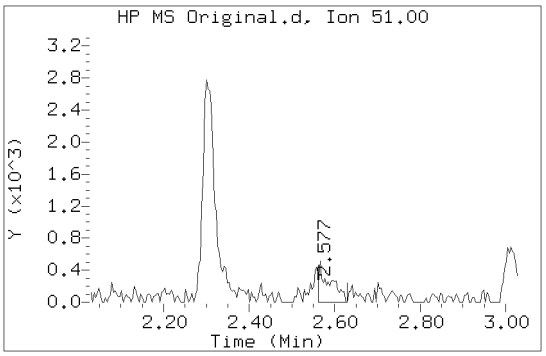
AFTER

MASS
52
AREA
1692
HEIGHT
900
27-Dec-2022
16:07
linh
pham



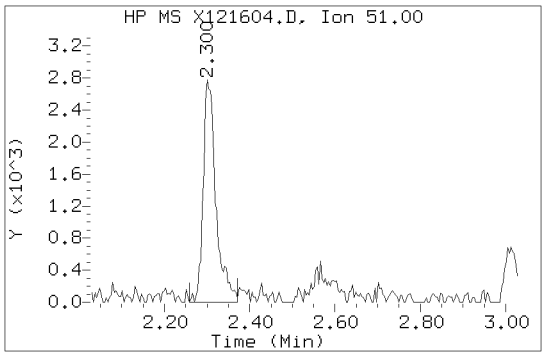
BEFORE

MASS
51
AREA
901
HEIGHT
301
27-Dec-2022
16:03
linh
pham



AFTER

MASS
51
AREA
5757
HEIGHT
2777
27-Dec-2022
16:07
linh
pham

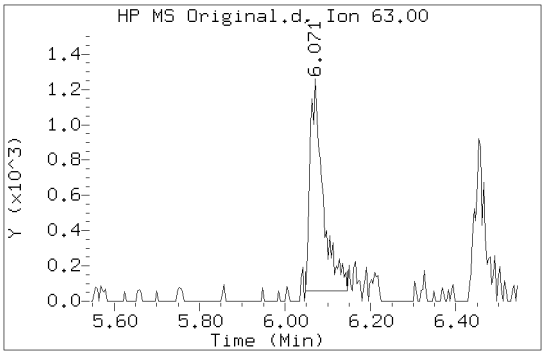


2-Chloroethylvinyl ether (110-75-8)

Reason Code:

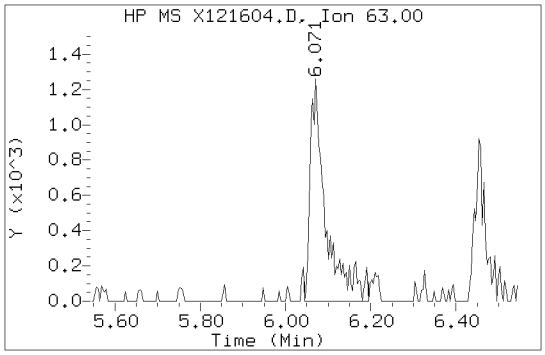
BEFORE

MASS
63
AREA
2513
HEIGHT
1202
27-Dec-2022
16:03
linh
pham



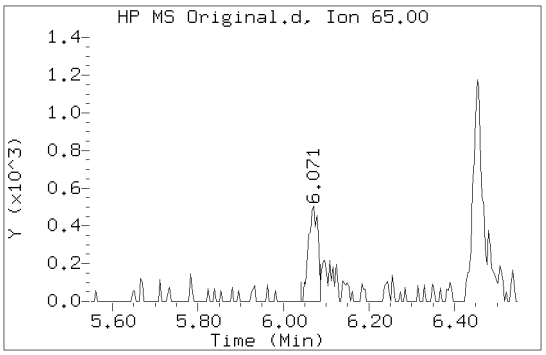
AFTER

MASS
63
AREA
3202
HEIGHT
1260
27-Dec-2022
16:07
linh
pham



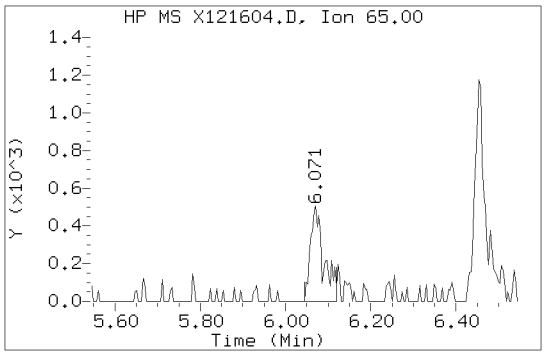
BEFORE

MASS
65
AREA
775
HEIGHT
507
27-Dec-2022
16:03
linh
pham



AFTER

MASS
65
AREA
1093
HEIGHT
507
27-Dec-2022
16:07
linh
pham



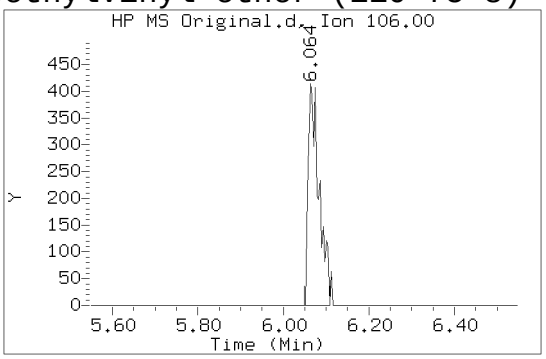
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

2-Chloroethylvinyl ether (110-75-8)

Reason Code:

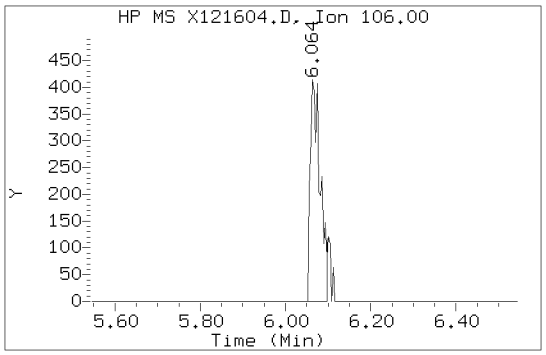
BEFORE

MASS
106
AREA
725
HEIGHT
414
27-Dec-2022
16:03
linh
pham



AFTER

MASS
106
AREA
673
HEIGHT
414
27-Dec-2022
16:07
linh
pham

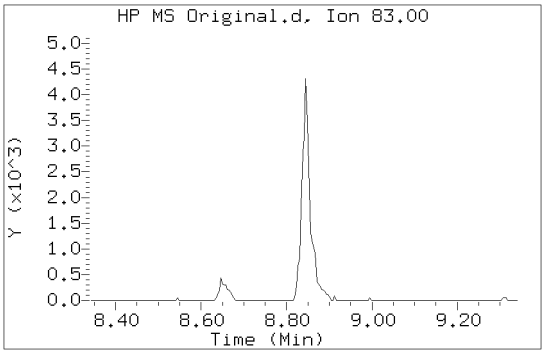


1,1,2,2-Tetrachloroethane (79-34-5)

Reason Code:

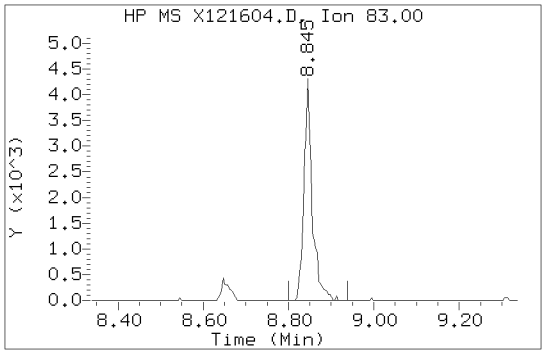
BEFORE

MASS
83
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



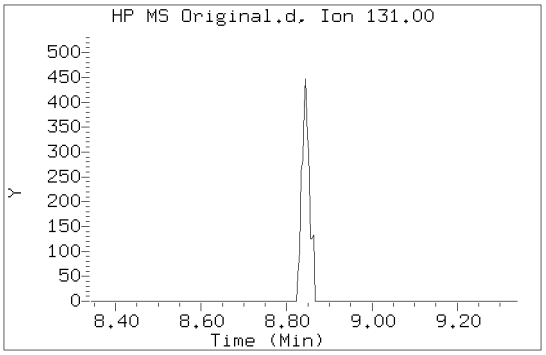
AFTER

MASS
83
AREA
5934
HEIGHT
4312
27-Dec-2022
16:07
linh
pham



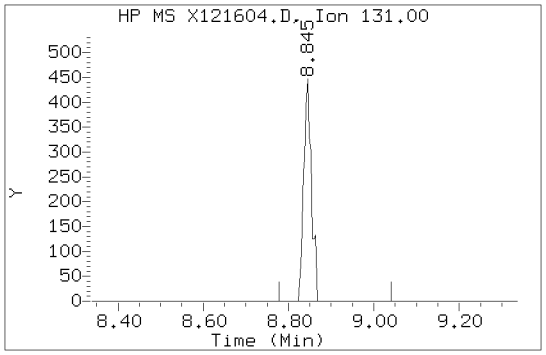
BEFORE

MASS
131
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



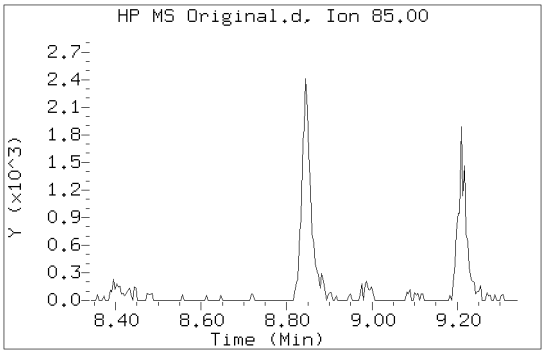
AFTER

MASS
131
AREA
574
HEIGHT
447
27-Dec-2022
16:07
linh
pham



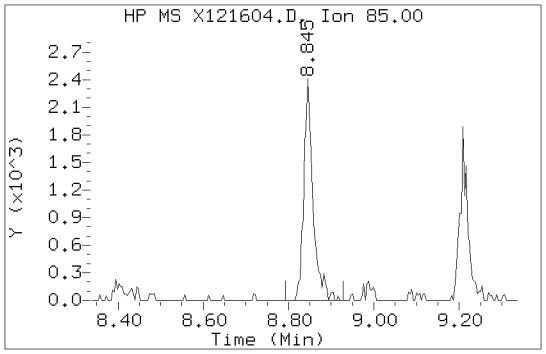
BEFORE

MASS
85
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
85
AREA
3682
HEIGHT
2411
27-Dec-2022
16:07
linh
pham



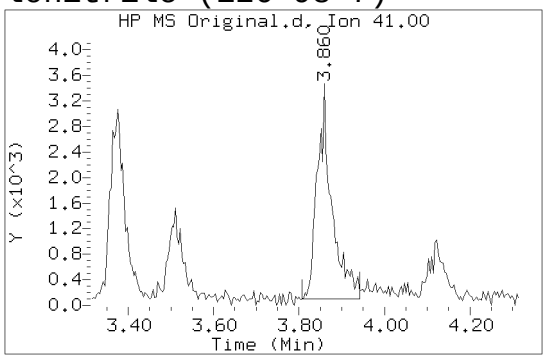
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

Methacrylonitrile (126-98-7)

Reason Code:

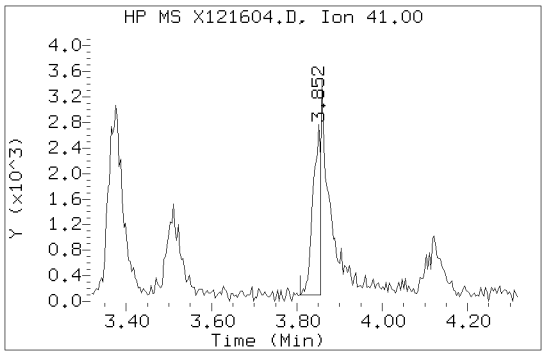
BEFORE

MASS
41
AREA
7966
HEIGHT
3370
27-Dec-2022
16:03
linh
pham



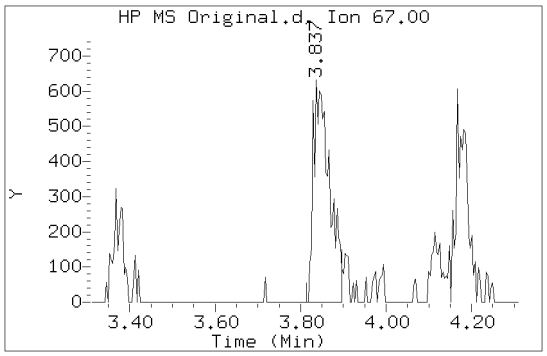
AFTER

MASS
41
AREA
3285
HEIGHT
2668
27-Dec-2022
16:07
linh
pham



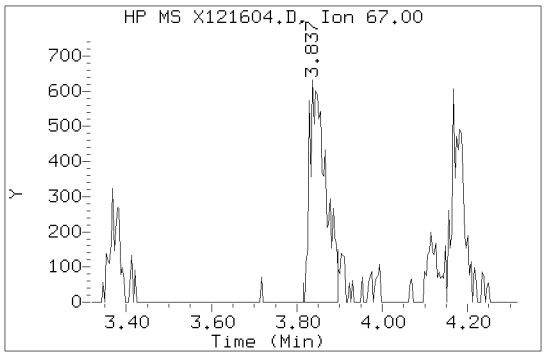
BEFORE

MASS
67
AREA
1649
HEIGHT
632
27-Dec-2022
16:03
linh
pham



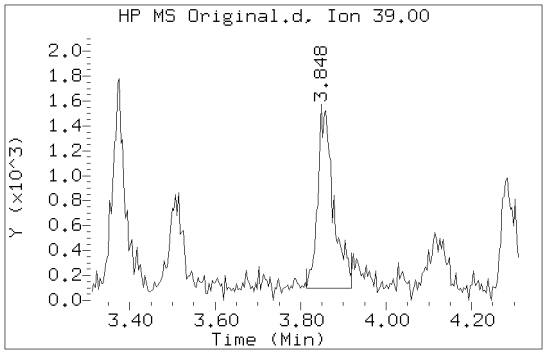
AFTER

MASS
67
AREA
1649
HEIGHT
632
27-Dec-2022
16:07
linh
pham



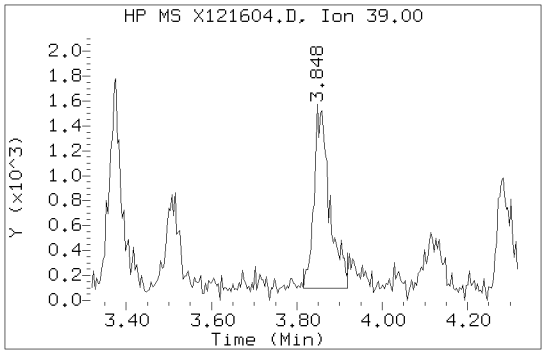
BEFORE

MASS
39
AREA
3700
HEIGHT
1473
27-Dec-2022
16:03
linh
pham



AFTER

MASS
39
AREA
3700
HEIGHT
1473
27-Dec-2022
16:07
linh
pham

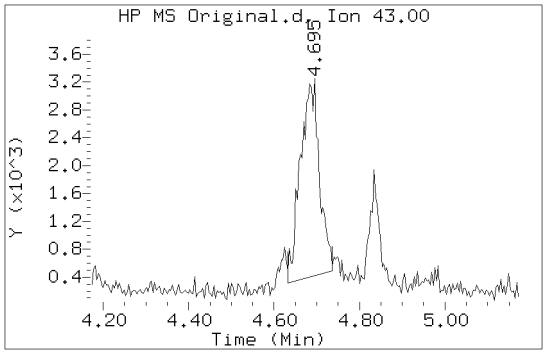


Isobutyl Alcohol (78-83-1)

Reason Code:

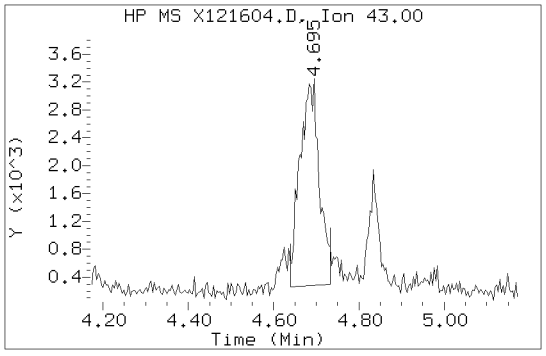
BEFORE

MASS
43
AREA
8847
HEIGHT
2826
27-Dec-2022
16:03
linh
pham



AFTER

MASS
43
AREA
9436
HEIGHT
2966
27-Dec-2022
16:07
linh
pham



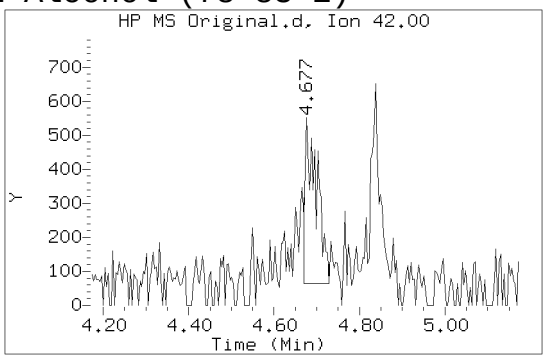
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

Isobutyl Alcohol (78-83-1)

Reason Code:

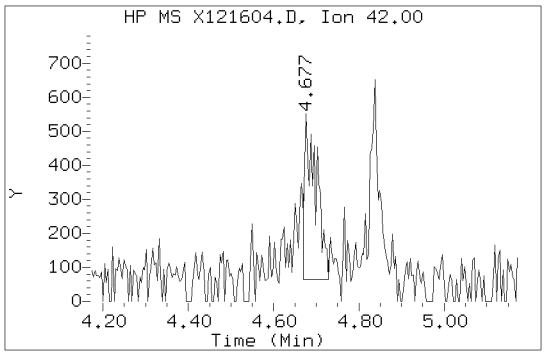
BEFORE

MASS
42
AREA
953
HEIGHT
488
27-Dec-2022
16:03
linh
pham



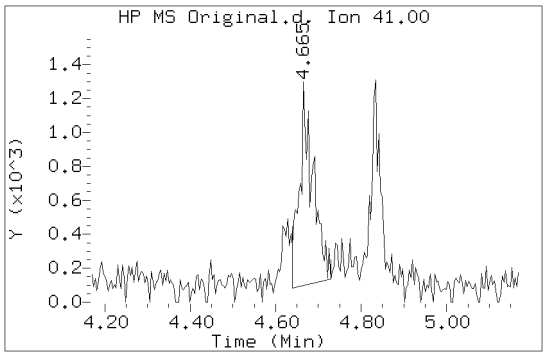
AFTER

MASS
42
AREA
953
HEIGHT
488
27-Dec-2022
16:07
linh
pham



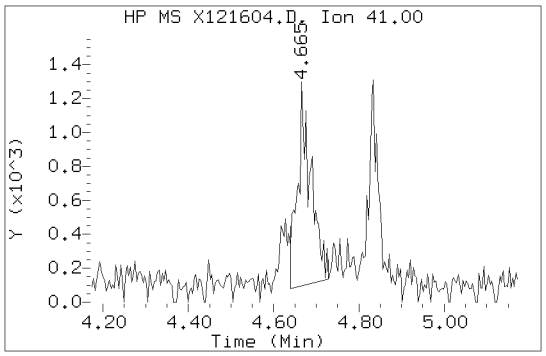
BEFORE

MASS
41
AREA
2650
HEIGHT
1200
27-Dec-2022
16:03
linh
pham



AFTER

MASS
41
AREA
2656
HEIGHT
1201
27-Dec-2022
16:07
linh
pham

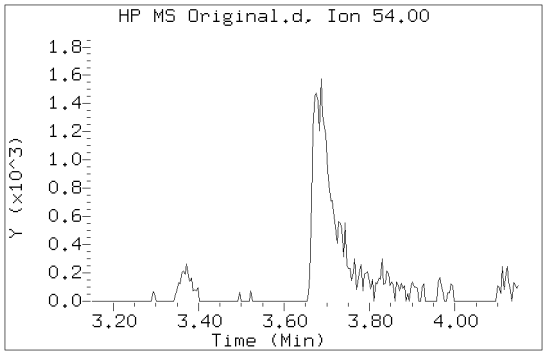


Propionitrile (107-12-0)

Reason Code:

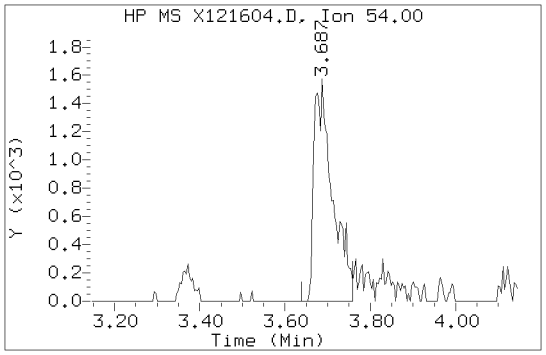
BEFORE

MASS
54
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



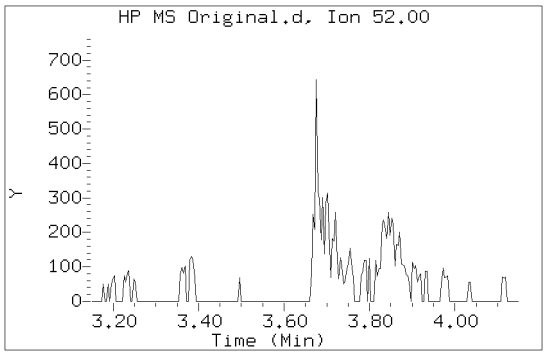
AFTER

MASS
54
AREA
4742
HEIGHT
1574
27-Dec-2022
16:07
linh
pham



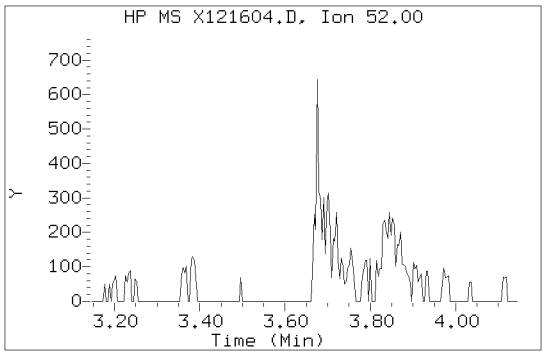
BEFORE

MASS
52
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
52
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

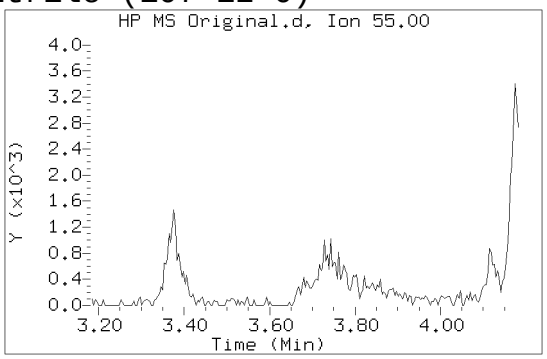


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

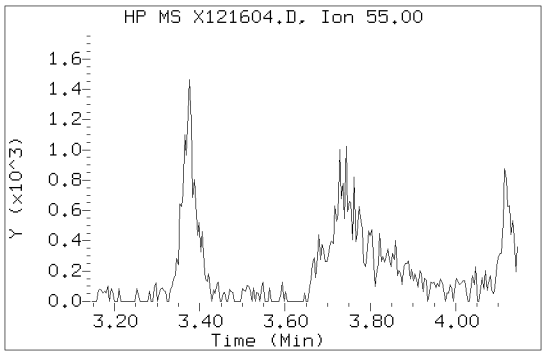
Propionitrile (107-12-0)

Reason Code:

BEFORE
MASS
55
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



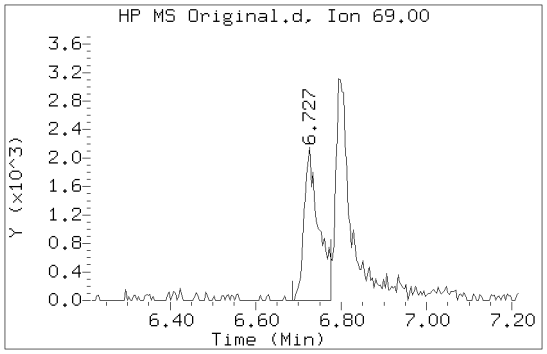
AFTER
MASS
55
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



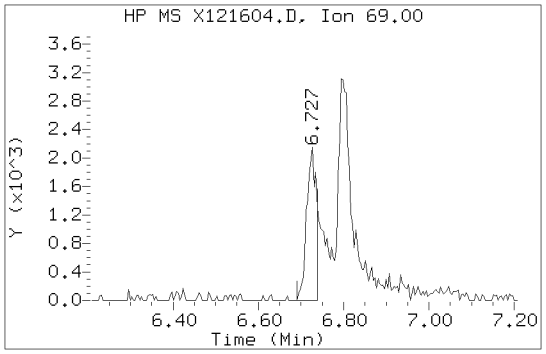
Ethyl Methacrylate (97-63-2)

Reason Code:

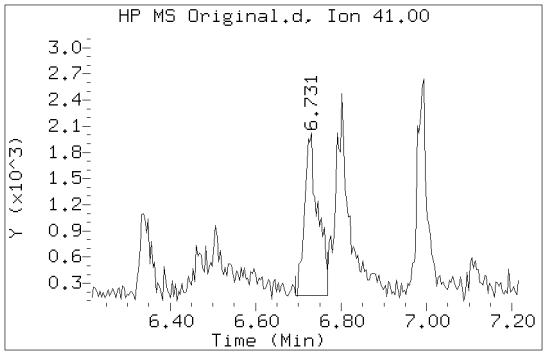
BEFORE
MASS
69
AREA
5177
HEIGHT
2156
27-Dec-2022
16:03
linh
pham



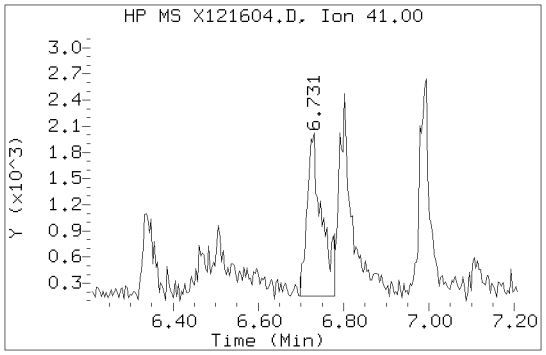
AFTER
MASS
69
AREA
3303
HEIGHT
2156
27-Dec-2022
16:07
linh
pham



BEFORE
MASS
41
AREA
4059
HEIGHT
1867
27-Dec-2022
16:03
linh
pham



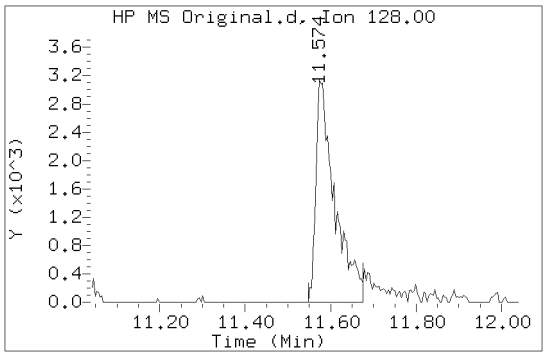
AFTER
MASS
41
AREA
4485
HEIGHT
1872
27-Dec-2022
16:07
linh
pham



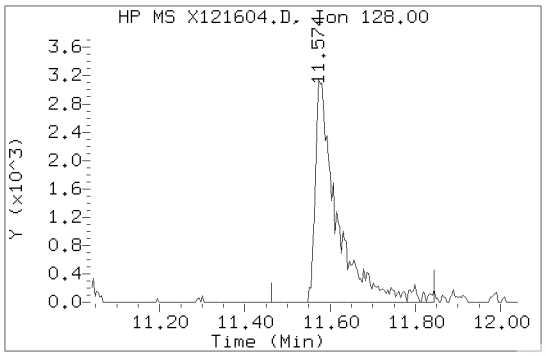
Naphthalene (91-20-3)

Reason Code:

BEFORE
MASS
128
AREA
9627
HEIGHT
3139
27-Dec-2022
16:03
linh
pham



AFTER
MASS
128
AREA
11288
HEIGHT
3139
27-Dec-2022
16:07
linh
pham



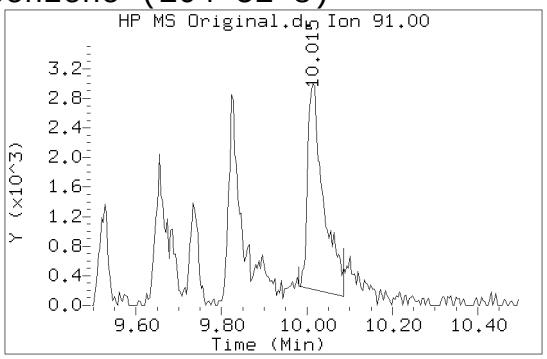
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

n-Butylbenzene (104-51-8)

Reason Code:

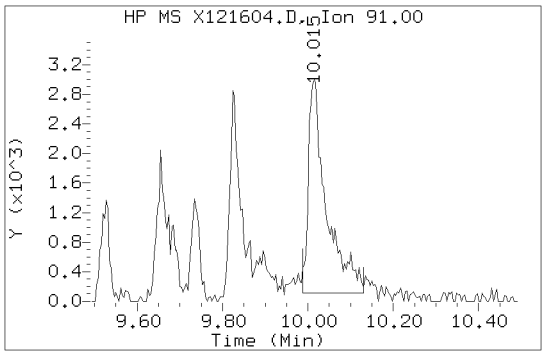
BEFORE

MASS
91
AREA
7194
HEIGHT
2783
27-Dec-2022
16:03
linh
pham



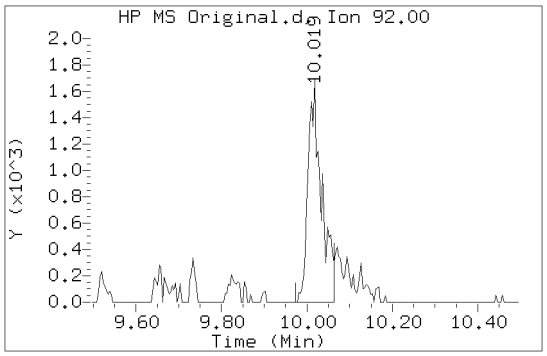
AFTER

MASS
91
AREA
8459
HEIGHT
2887
27-Dec-2022
16:07
linh
pham



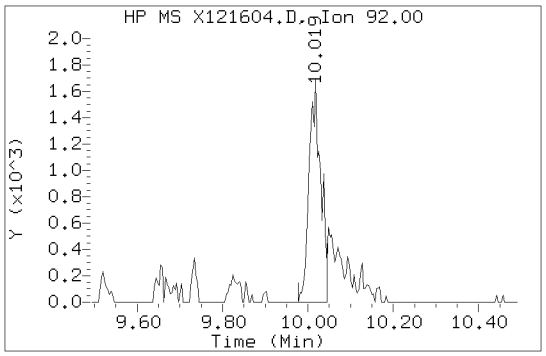
BEFORE

MASS
92
AREA
3696
HEIGHT
1686
27-Dec-2022
16:03
linh
pham



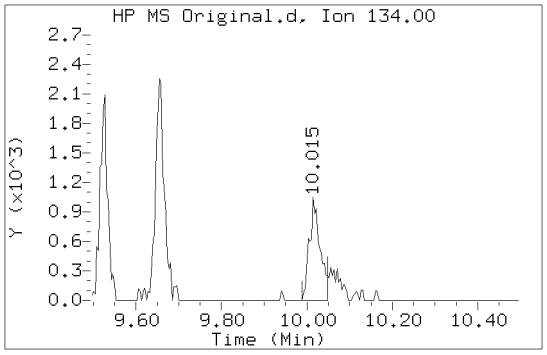
AFTER

MASS
92
AREA
3188
HEIGHT
1686
27-Dec-2022
16:07
linh
pham



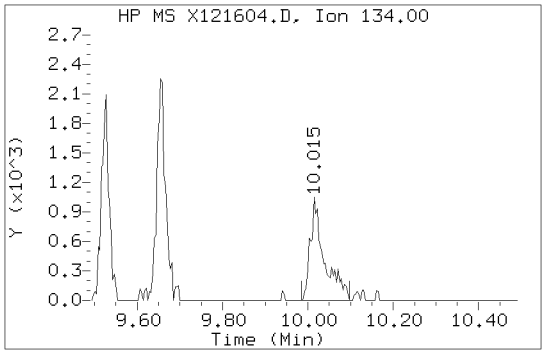
BEFORE

MASS
134
AREA
1829
HEIGHT
1051
27-Dec-2022
16:03
linh
pham



AFTER

MASS
134
AREA
2397
HEIGHT
1051
27-Dec-2022
16:07
linh
pham

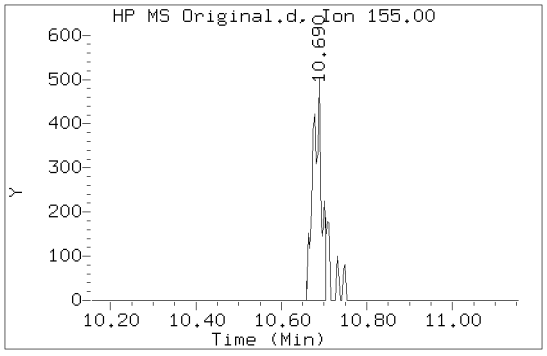


1,2-Dibromo-3-Chloropropane (96-12-8)

Reason Code:

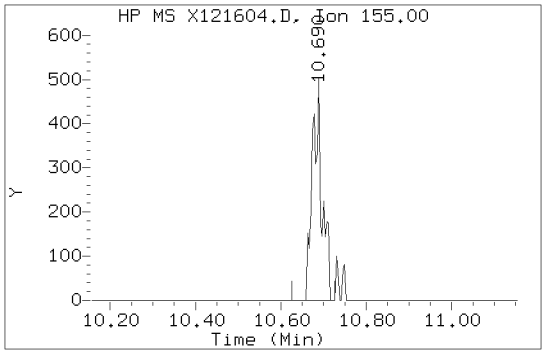
BEFORE

MASS
155
AREA
699
HEIGHT
502
27-Dec-2022
16:03
linh
pham



AFTER

MASS
155
AREA
778
HEIGHT
502
27-Dec-2022
16:07
linh
pham



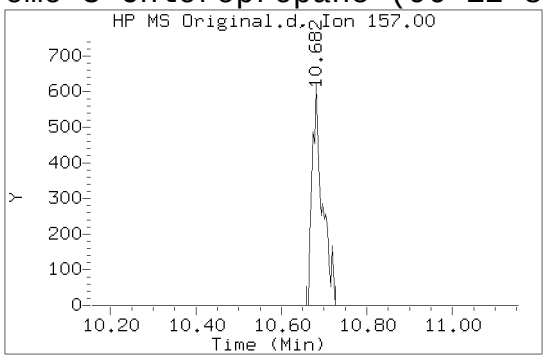
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

1,2-Dibromo-3-Chloropropane (96-12-8)

Reason Code:

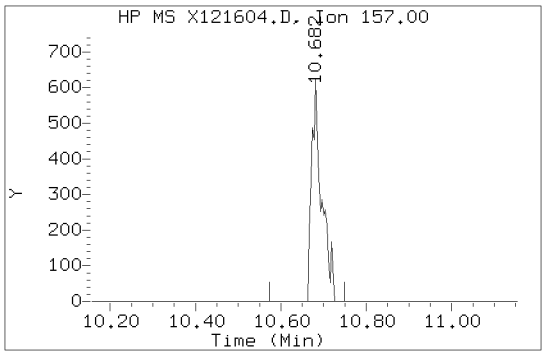
BEFORE

MASS
157
AREA
1023
HEIGHT
622
27-Dec-2022
16:03
linh
pham



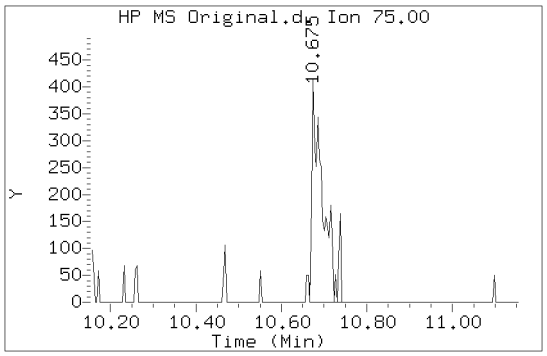
AFTER

MASS
157
AREA
1023
HEIGHT
622
27-Dec-2022
16:07
linh
pham



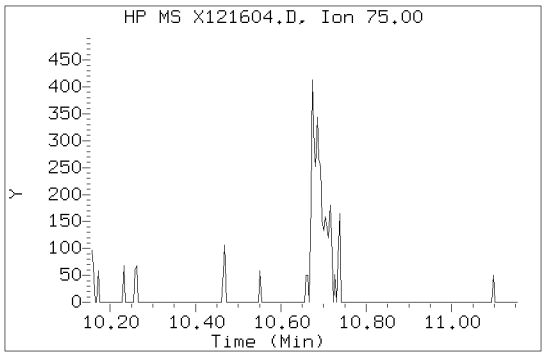
BEFORE

MASS
75
AREA
742
HEIGHT
413
27-Dec-2022
16:03
linh
pham



AFTER

MASS
75
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

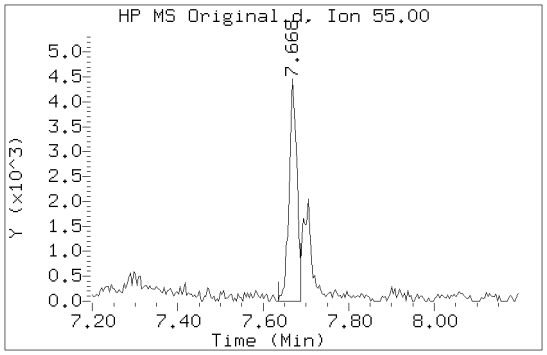


1-Chlorohexane (544-10-5)

Reason Code:

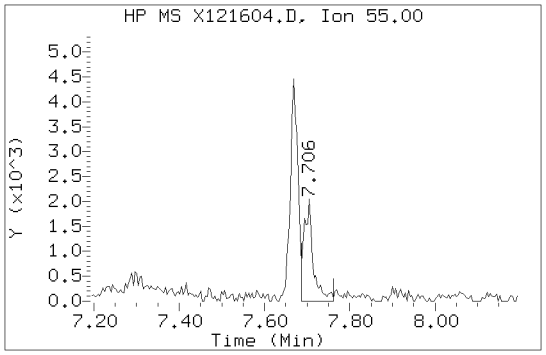
BEFORE

MASS
55
AREA
5660
HEIGHT
4460
27-Dec-2022
16:03
linh
pham



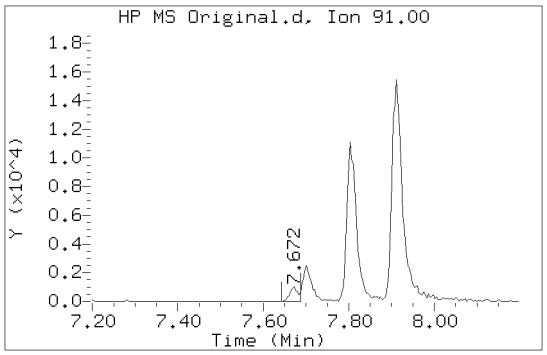
AFTER

MASS
55
AREA
3155
HEIGHT
2048
27-Dec-2022
16:07
linh
pham



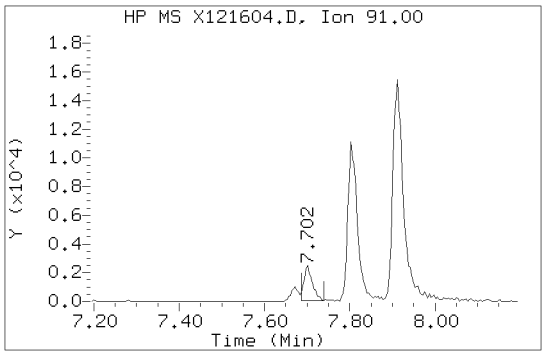
BEFORE

MASS
91
AREA
1392
HEIGHT
1029
27-Dec-2022
16:03
linh
pham



AFTER

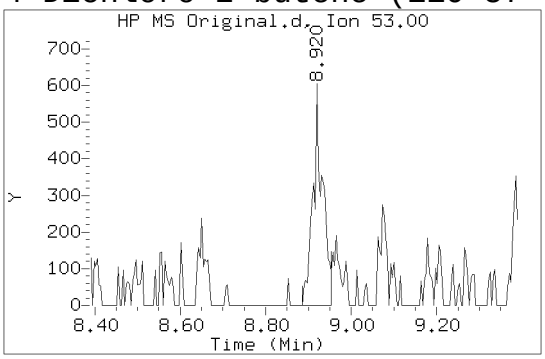
MASS
91
AREA
3448
HEIGHT
2478
27-Dec-2022
16:07
linh
pham



Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

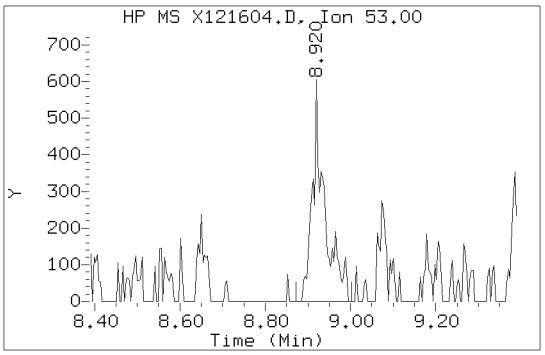
trans-1,4-Dichloro-2-butene (110-57-6)

BEFORE
MASS
53
AREA
956
HEIGHT
605
27-Dec-2022
16:03
linh
pham

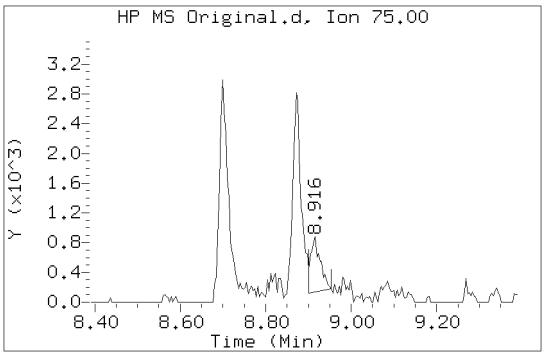


Reason Code:

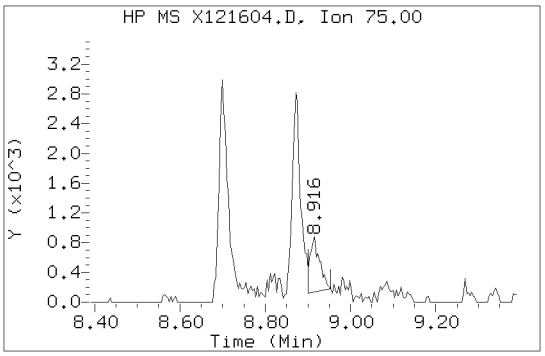
AFTER
MASS
53
AREA
1196
HEIGHT
605
27-Dec-2022
16:07
linh
pham



BEFORE
MASS
75
AREA
1166
HEIGHT
745
27-Dec-2022
16:03
linh
pham

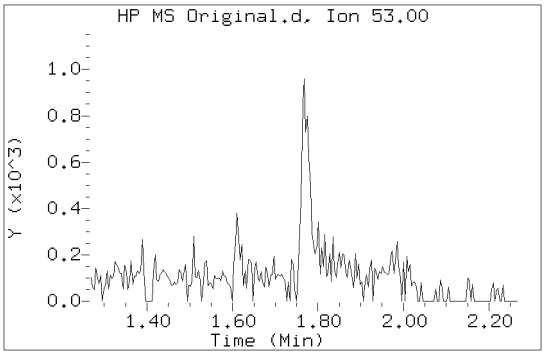


AFTER
MASS
75
AREA
1166
HEIGHT
745
27-Dec-2022
16:07
linh
pham



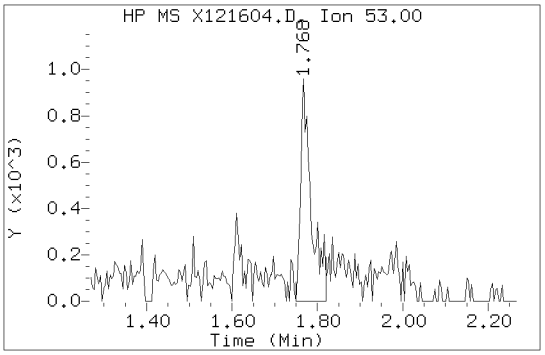
Chloroprene (126-99-8)

BEFORE
MASS
53
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham

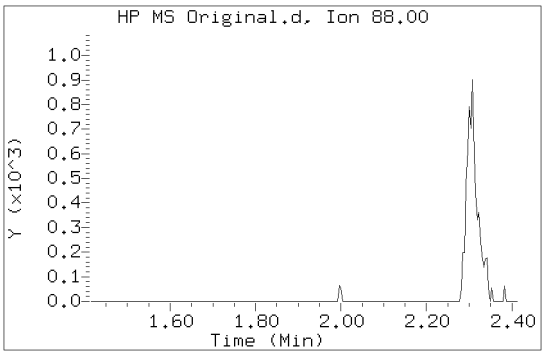


Reason Code:

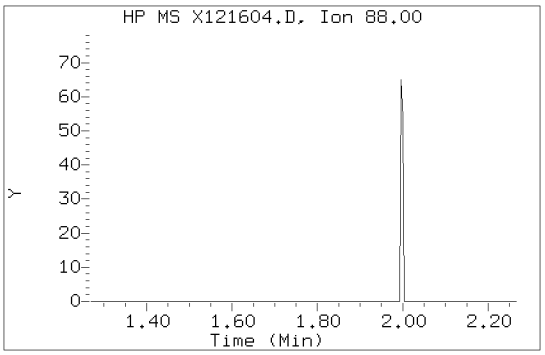
AFTER
MASS
53
AREA
1686
HEIGHT
959
27-Dec-2022
16:07
linh
pham



BEFORE
MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER
MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

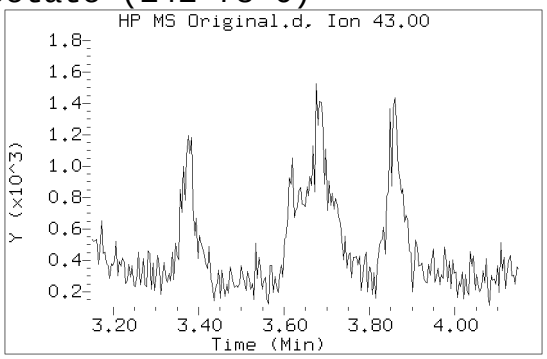


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

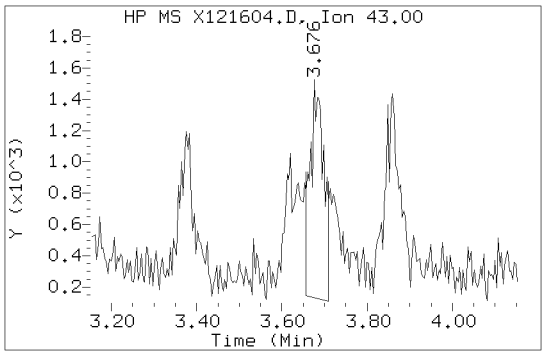
Ethyl Acetate (141-78-6)

Reason Code:

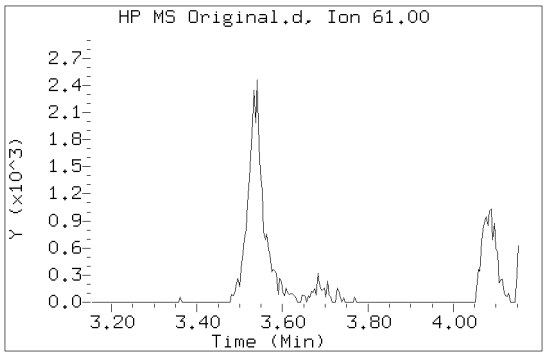
BEFORE
MASS
43
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



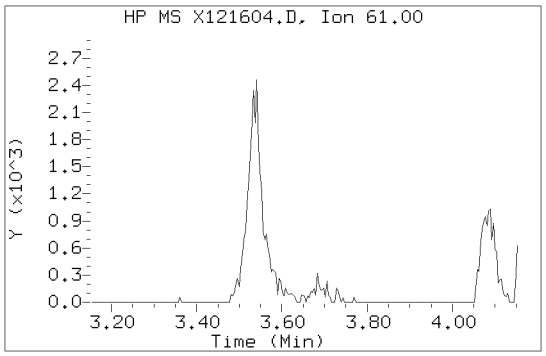
AFTER
MASS
43
AREA
3144
HEIGHT
1392
27-Dec-2022
16:07
linh
pham



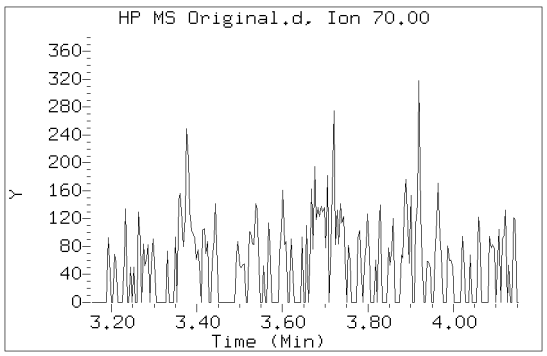
BEFORE
MASS
61
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



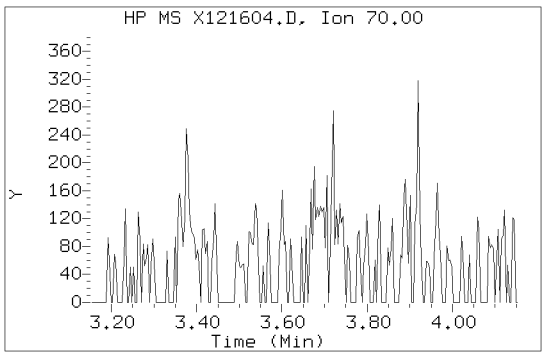
AFTER
MASS
61
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



BEFORE
MASS
70
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



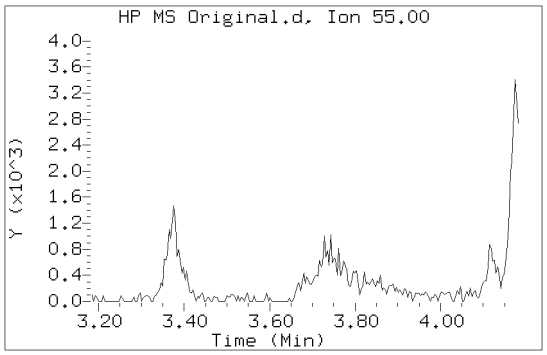
AFTER
MASS
70
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



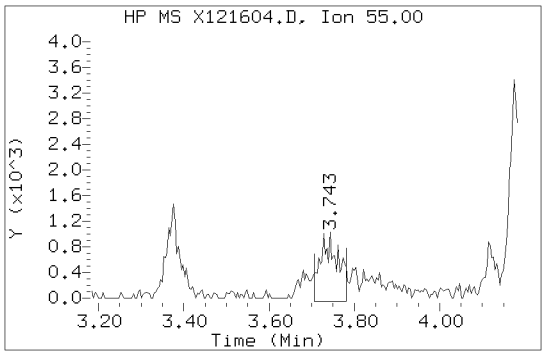
Methyl Acrylate (96-33-3)

Reason Code:

BEFORE
MASS
55
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER
MASS
55
AREA
3084
HEIGHT
1078
27-Dec-2022
16:07
linh
pham



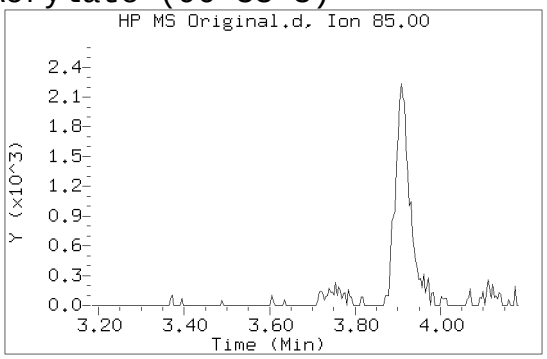
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

Methyl Acrylate (96-33-3)

Reason Code:

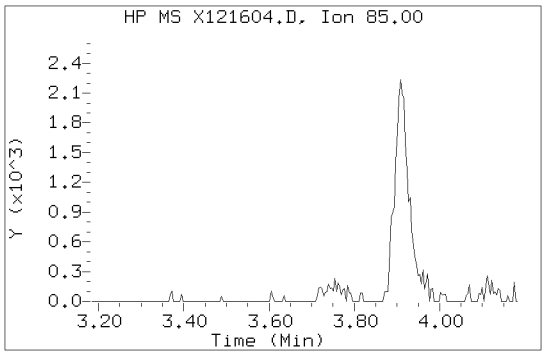
BEFORE

MASS
85
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
85
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

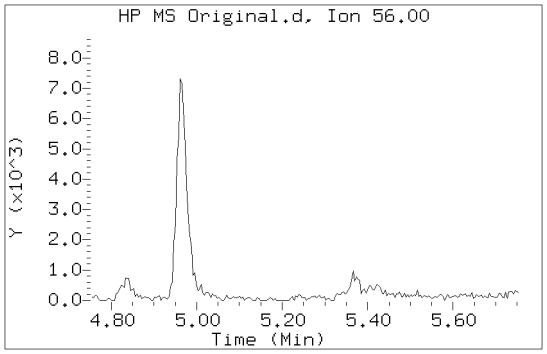


n-Butanol (71-36-3)

Reason Code:

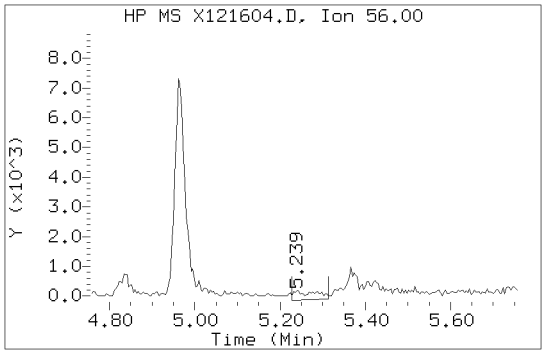
BEFORE

MASS
56
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



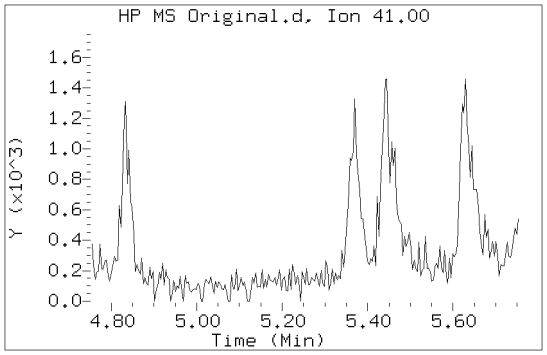
AFTER

MASS
56
AREA
1171
HEIGHT
317
27-Dec-2022
16:07
linh
pham



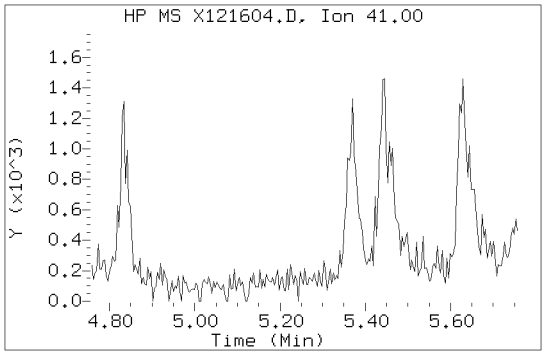
BEFORE

MASS
41
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
41
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

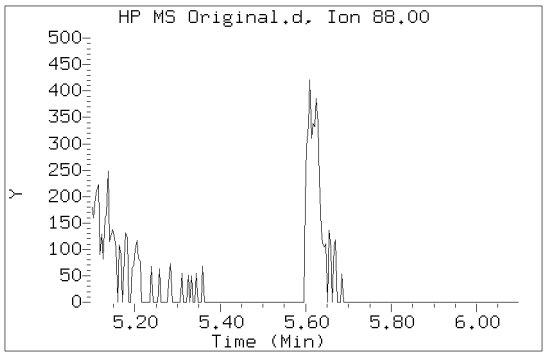


1,4-Dioxane ()

Reason Code:

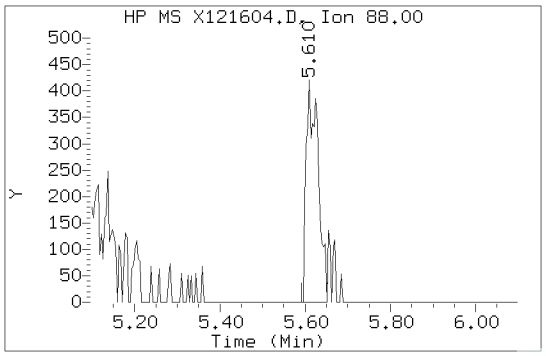
BEFORE

MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
88
AREA
820
HEIGHT
421
27-Dec-2022
16:07
linh
pham



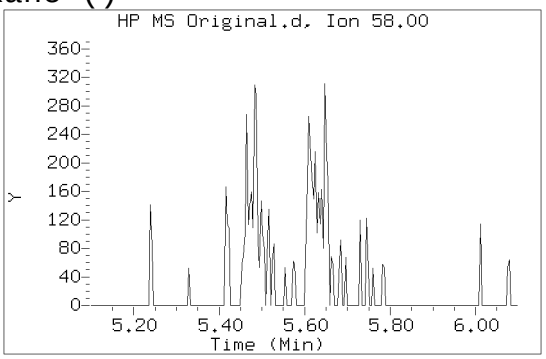
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

1,4-Dioxane ()

Reason Code:

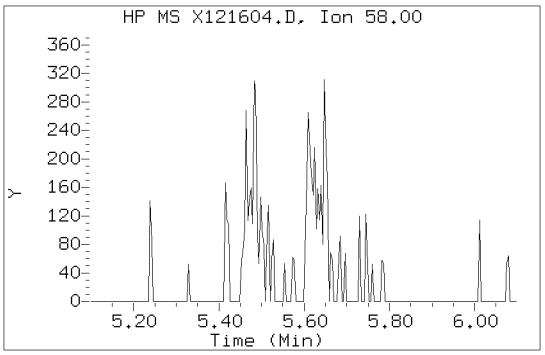
BEFORE

MASS
58
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
58
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

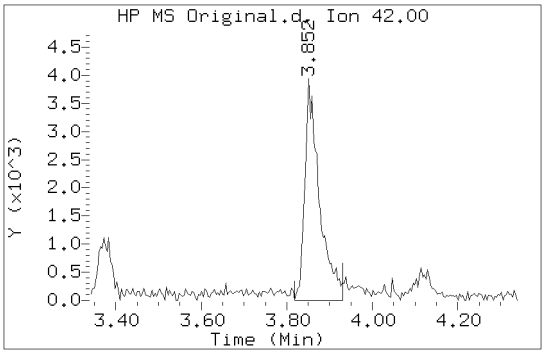


Tetrahydrofuran (109-99-9)

Reason Code:

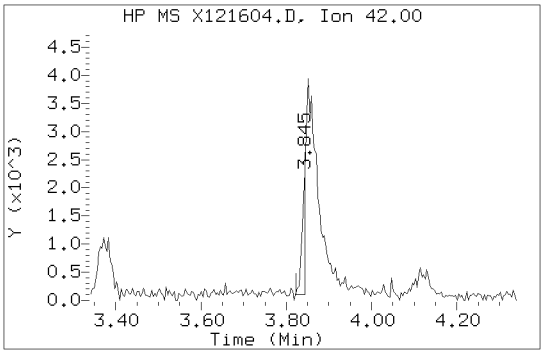
BEFORE

MASS
42
AREA
9396
HEIGHT
3939
27-Dec-2022
16:03
linh
pham



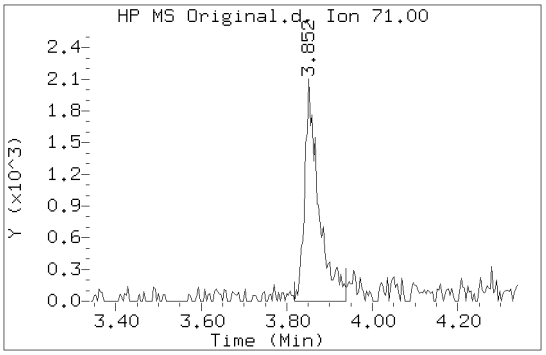
AFTER

MASS
42
AREA
1361
HEIGHT
2190
27-Dec-2022
16:07
linh
pham



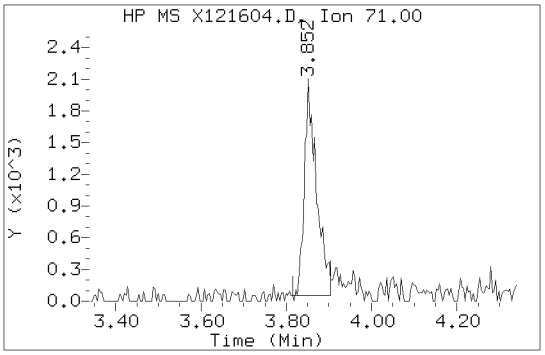
BEFORE

MASS
71
AREA
4781
HEIGHT
2103
27-Dec-2022
16:03
linh
pham



AFTER

MASS
71
AREA
4046
HEIGHT
2046
27-Dec-2022
16:07
linh
pham

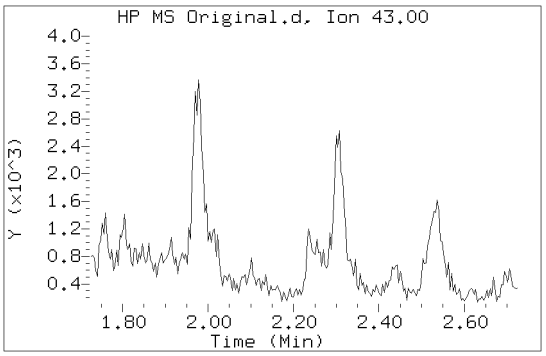


Methyl Acetate (79-20-9)

Reason Code:

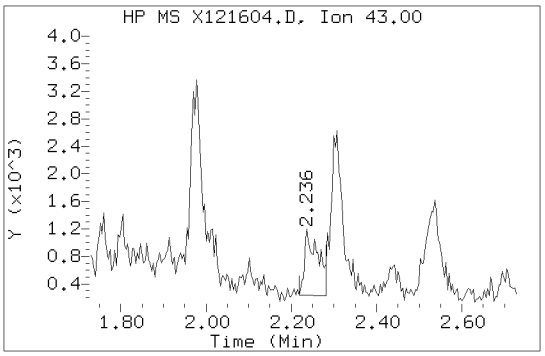
BEFORE

MASS
43
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
43
AREA
2127
HEIGHT
968
27-Dec-2022
16:07
linh
pham



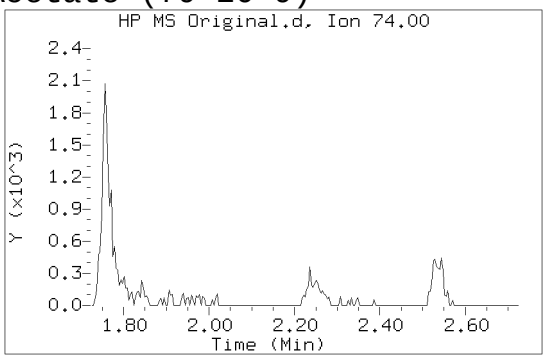
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

Methyl Acetate (79-20-9)

Reason Code:

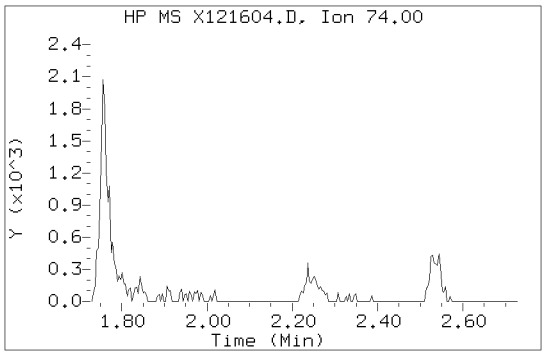
BEFORE

MASS
74
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
74
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

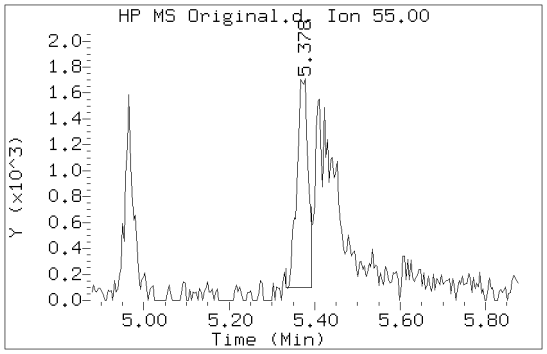


Methylcyclohexane (108-87-2)

Reason Code:

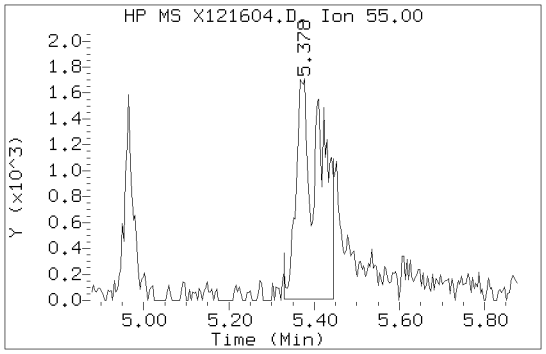
BEFORE

MASS
55
AREA
2998
HEIGHT
1612
27-Dec-2022
16:03
linh
pham



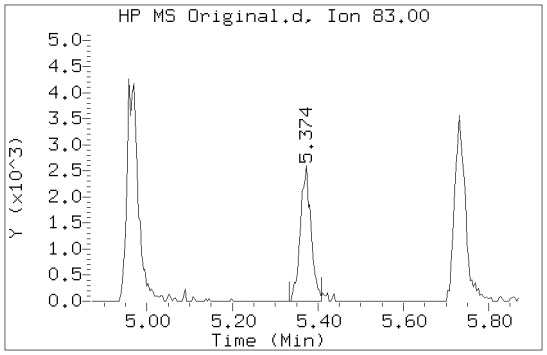
AFTER

MASS
55
AREA
6848
HEIGHT
1699
27-Dec-2022
16:07
linh
pham



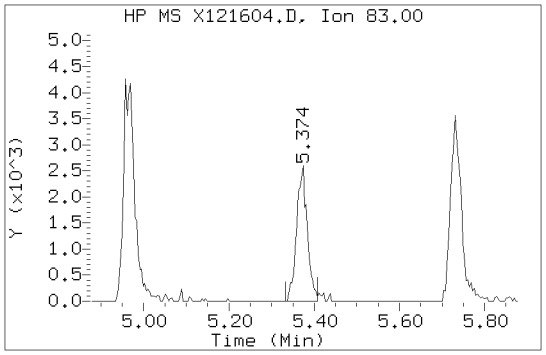
BEFORE

MASS
83
AREA
4577
HEIGHT
2601
27-Dec-2022
16:03
linh
pham



AFTER

MASS
83
AREA
4577
HEIGHT
2601
27-Dec-2022
16:07
linh
pham

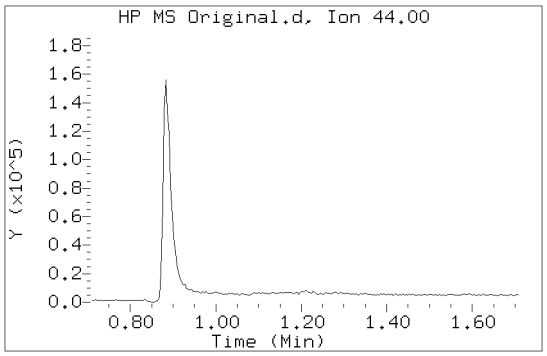


Acetaldehyde (75-07-0)

Reason Code:

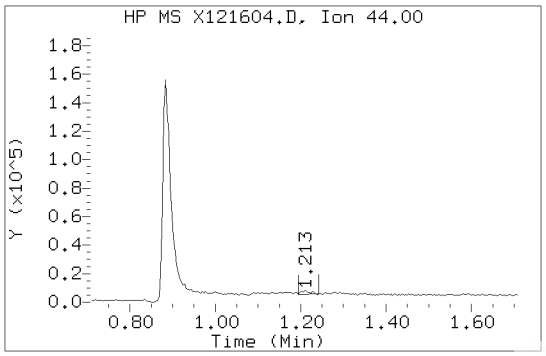
BEFORE

MASS
44
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
44
AREA
3384
HEIGHT
2655
27-Dec-2022
16:07
linh
pham

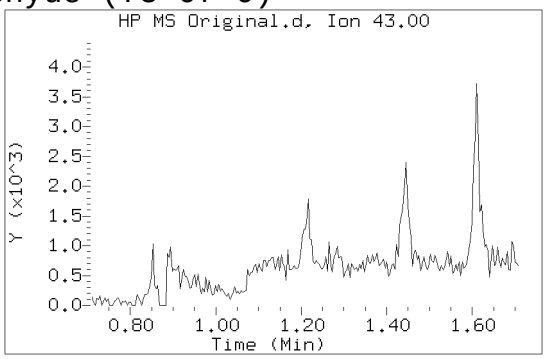


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

Acetaldehyde (75-07-0)

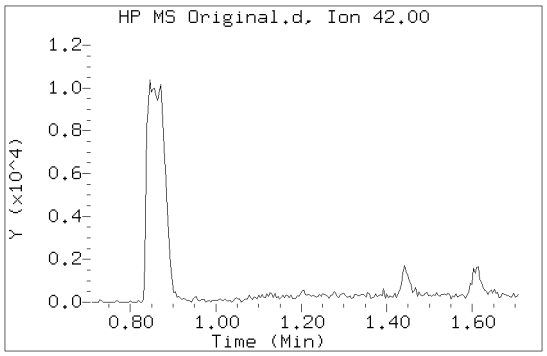
BEFORE

MASS
43
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



BEFORE

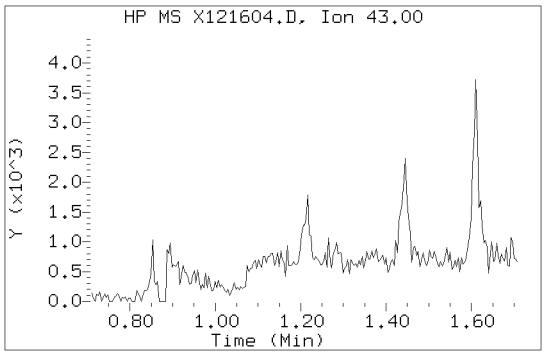
MASS
42
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



Reason Code:

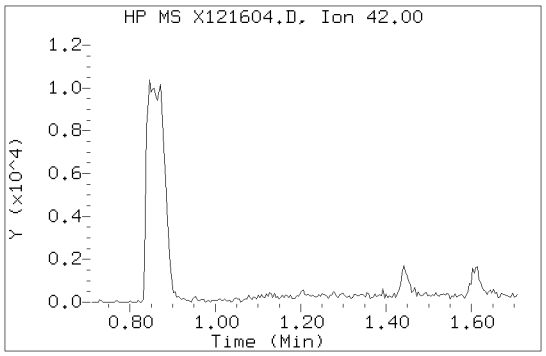
AFTER

MASS
43
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



AFTER

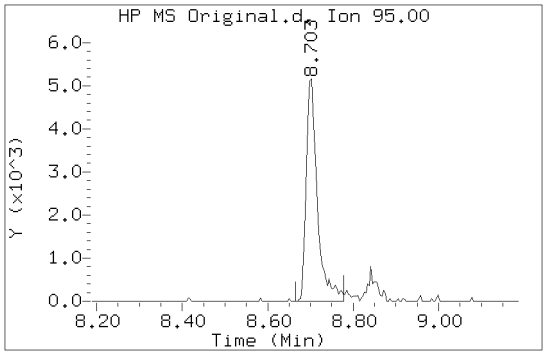
MASS
42
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



4-Bromofluorobenzene (460-00-4)

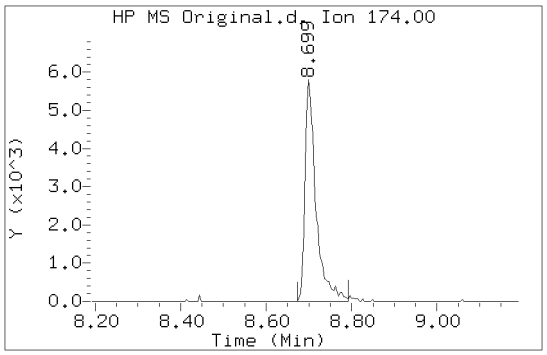
BEFORE

MASS
95
AREA
9514
HEIGHT
5159
27-Dec-2022
16:03
linh
pham



BEFORE

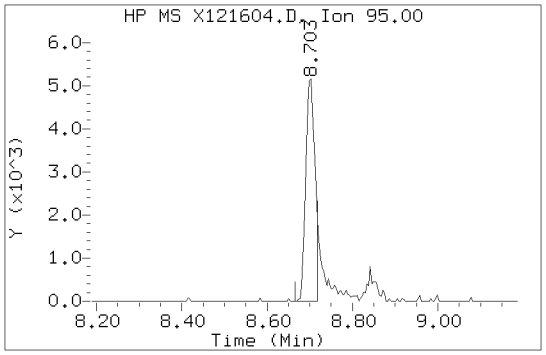
MASS
174
AREA
10505
HEIGHT
5802
27-Dec-2022
16:03
linh
pham



Reason Code:

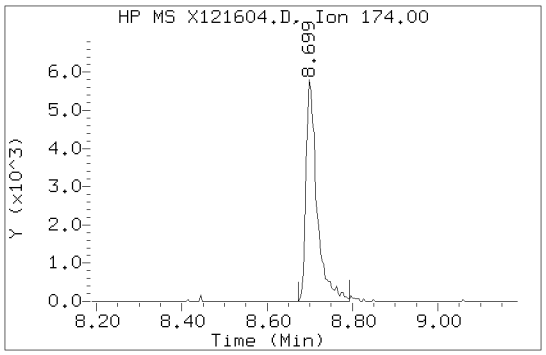
AFTER

MASS
95
AREA
7790
HEIGHT
5159
27-Dec-2022
16:07
linh
pham



AFTER

MASS
174
AREA
10505
HEIGHT
5802
27-Dec-2022
16:07
linh
pham



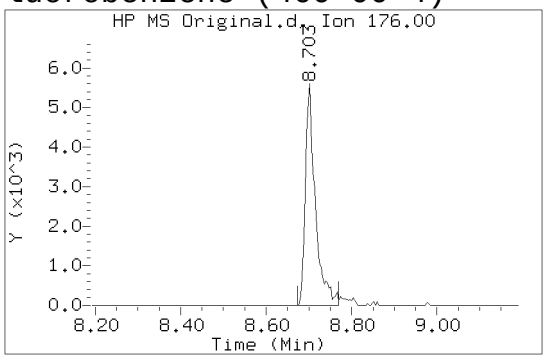
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

4-Bromofluorobenzene (460-00-4)

Reason Code:

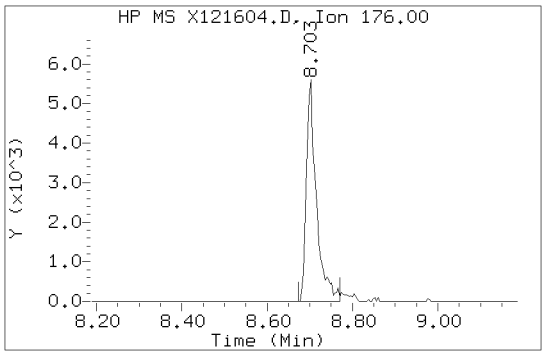
BEFORE

MASS
176
AREA
9226
HEIGHT
5603
27-Dec-2022
16:03
linh
pham



AFTER

MASS
176
AREA
9226
HEIGHT
5603
27-Dec-2022
16:07
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D Page 1
Report Date: 27-Dec-2022 16:07

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D
Lab Smp Id: VSTD002 Client Smp ID: VSTD002
Inj Date : 16-DEC-2022 13:02
Operator : PC Inst ID: voa6.i
Smp Info : VSTD002;VSTD002;1;4;
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\8260W.m
Meth Date : 27-Dec-2022 16:07 voa6.i Quant Type: ISTD
Cal Date : 16-DEC-2022 12:41 Cal File: X121604.D
Als bottle: 6 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260V6.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.178	4.178	(1.000)	456374	50.0000	
135 1,4-Dioxane	88	5.610	5.610	(1.343)	1409	40.0000	33.77(M)
140 1,3-Butadiene	54	1.160	1.160	(0.278)	5733	2.00000	1.83
25 Methacrylonitrile	41	3.859	3.859	(0.924)	6388	2.00000	1.97(M)
12 Isobutyl Alcohol	43	4.684	4.684	(1.121)	20629	40.0000	40.18(M)
13 Acetonitrile	39	2.198	2.198	(0.526)	7764	20.0000	18.69
14 Allyl Chloride	41	2.206	2.206	(0.528)	14911	2.00000	1.88
4 Propionitrile	54	3.675	3.675	(0.880)	8651	20.0000	18.57
136 n-Hexane	57	2.768	2.768	(0.663)	5898	2.00000	1.79
72 trans-1,4-Dichloro-2-butene	53	8.920	8.920	(1.163)	2690	2.00000	1.92(M)
194 Acetaldehyde	44	1.212	1.212	(0.290)	5661	8.00000	(M)
23 Chloroprene	53	1.771	1.771	(0.424)	3126	2.00000	2.01(M)
145 alpha-Methylstyrene	118	9.268	9.268	(0.959)	14447	2.00000	1.84
200 Dimethyl Disulfide	94	6.202	6.202	(0.808)	15964	2.00000	1.82
139 Diethyl ether	59	1.756	1.756	(0.420)	6354	2.00000	2.08
130 Ethyl Acetate	43	3.675	3.675	(0.880)	7422	2.00000	2.08(M)
40 Methyl Methacrylate	41	5.617	5.617	(1.345)	6185	2.00000	1.98
49 Ethyl Methacrylate	69	6.715	6.715	(1.353)	6546	2.00000	2.03
132 n-Butanol	56	5.343	5.343	(1.279)	2004	40.0000	74.77(TM)
142 Tetrahydrofuran	42	3.848	3.848	(0.921)	2867	4.00000	2.04(M)

150	Allyl alcohol	57	2.768	2.768 (0.663)	5898	40.0000	33.27
166	1,2,3-Trimethylbenzene	105	9.733	9.733 (1.007)	35687	2.00000	2.10

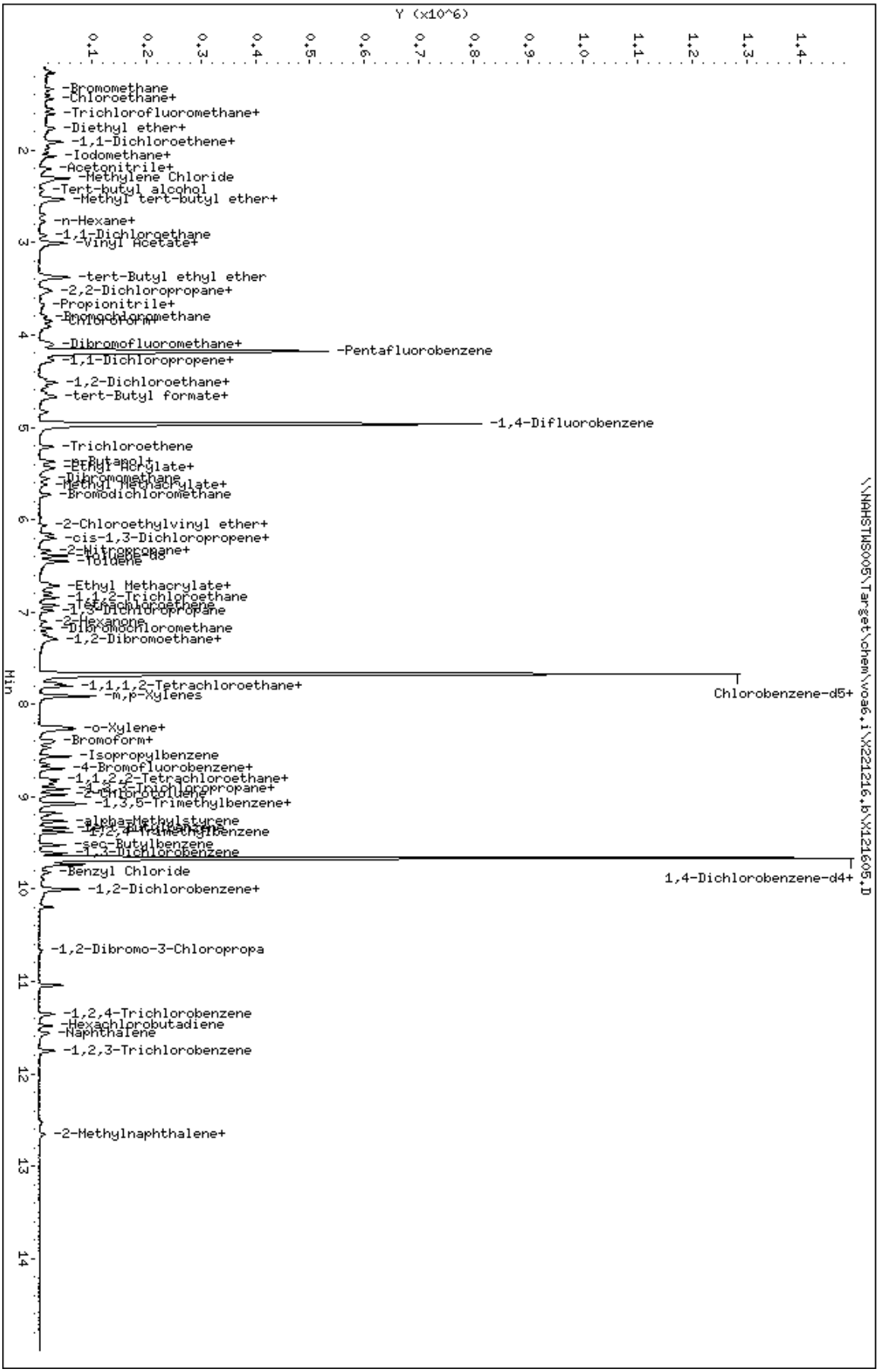
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	131 Methyl Acrylate	55	3.720	3.720	(0.891)	5443	2.00000	1.75(M)
	162 Butyl acrylate	55	8.267	8.267	(1.078)	15015	2.00000	1.77
	2 Dichlorodifluoromethane	85	0.969	0.969	(0.232)	6239	2.00000	2.33
	3 Chloromethane	50	1.077	1.077	(0.258)	8057	2.00000	4.07
	5 Vinyl Chloride	62	1.141	1.141	(0.273)	7263	2.00000	1.82
	6 Bromomethane	94	1.340	1.340	(0.321)	5996	2.00000	3.68(M)
	7 Chloroethane	64	1.400	1.400	(0.335)	5667	2.00000	2.04(M)
	8 Trichlorofluoromethane	101	1.561	1.561	(0.374)	10463	2.00000	1.87
	9 Acrolein	56	1.441	1.441	(0.345)	1317	4.00000	6.92(M)
	10 Acetone	43	1.973	1.973	(0.472)	7041	4.00000	5.46(M)
	11 1,1-Dichloroethene	96	1.910	1.910	(0.457)	6862	2.00000	1.98
	15 Iodomethane	142	2.022	2.022	(0.484)	8702	4.00000	5.23
	16 Acrylonitrile	53	2.554	2.554	(0.611)	4557	4.00000	3.87(M)
	17 Methylene Chloride	84	2.303	2.303	(0.551)	9194	2.00000	1.93(M)
	18 Methyl tert-butyl ether	73	2.536	2.536	(0.607)	23231	2.00000	2.04
	19 Carbon Disulfide	76	2.067	2.067	(0.495)	34948	4.00000	3.85
	20 trans-1,2-Dichloroethene	96	2.532	2.532	(0.606)	7113	2.00000	1.83
	21 Vinyl Acetate	43	3.008	3.008	(0.720)	38835	4.00000	3.90
	22 1,1-Dichloroethane	63	2.922	2.922	(0.699)	12778	2.00000	1.87
	24 2-Butanone	43	3.604	3.604	(0.863)	5418	4.00000	6.89(M)
	26 2,2-Dichloropropane	77	3.507	3.507	(0.839)	11048	2.00000	1.91
	27 cis-1,2-Dichloroethene	96	3.529	3.529	(0.845)	9675	2.00000	2.05
	28 Chloroform	83	3.908	3.908	(0.935)	15581	2.00000	2.04
	29 Bromochloromethane	128	3.803	3.803	(0.910)	5134	2.00000	1.98
$	30 Dibromofluoromethane	113	4.106	4.106	(0.983)	9050	2.00000	1.90
	31 1,1,1-Trichloroethane	97	4.080	4.080	(0.977)	10962	2.00000	1.81
	32 1,1-Dichloropropene	75	4.286	4.286	(0.863)	9042	2.00000	1.86
	33 1,2-Dichloroethane	62	4.560	4.560	(0.918)	10812	2.00000	1.92
	34 Carbon Tetrachloride	117	4.264	4.264	(0.859)	11092	2.00000	2.13(M)
$	35 1,2-Dichloroethane-d4	65	4.477	4.477	(1.072)	9783	2.00000	2.37
*	36 1,4-Difluorobenzene	114	4.965	4.965	(1.000)	684444	50.0000	
	37 Benzene	78	4.515	4.515	(0.909)	32394	2.00000	1.98
	38 Trichloroethene	130	5.216	5.216	(1.051)	9277	2.00000	2.00
	39 Bromodichloromethane	83	5.733	5.733	(1.155)	11961	2.00000	1.94
	41 2-Chloroethylvinyl ether	63	6.059	6.059	(1.220)	6648	4.00000	3.80
	42 1,2-Dichloropropane	63	5.441	5.441	(1.096)	8129	2.00000	1.86(M)
	44 Dibromomethane	93	5.553	5.553	(1.119)	6110	2.00000	2.06
	45 4-Methyl-2-Pentanone	43	6.337	6.337	(0.826)	14771	4.00000	4.26
	46 cis-1,3-Dichloropropene	75	6.161	6.161	(1.241)	13738	2.00000	1.90
*	47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	647809	50.0000	
$	48 Toluene-d8	98	6.393	6.393	(0.833)	31289	2.00000	1.95
	50 Toluene	91	6.453	6.453	(0.841)	35620	2.00000	1.98
	51 trans-1,3-Dichloropropene	75	6.693	6.693	(1.348)	10969	2.00000	1.83
	52 2-Hexanone	43	7.105	7.105	(0.926)	9314	4.00000	3.95
	53 1,1,2-Trichloroethane	83	6.843	6.843	(0.892)	7537	2.00000	2.09
	54 1,3-Dichloropropane	76	6.989	6.989	(0.911)	14049	2.00000	1.98
	55 Dibromochloromethane	129	7.180	7.180	(0.936)	10210	2.00000	1.96
	56 Tetrachloroethene	164	6.929	6.929	(0.903)	7331	2.00000	1.97
	57 1,2-Dibromoethane	107	7.263	7.263	(0.947)	8477	2.00000	1.88
	58 1-Chlorohexane	55	7.697	7.697	(1.550)	5855	2.00000	1.77(MH)
	59 Chlorobenzene	112	7.694	7.694	(1.003)	24558	2.00000	1.93
	60 1,1,1,2-Tetrachloroethane	131	7.772	7.772	(1.013)	9378	2.00000	1.98

61 Ethylbenzene	106	7.802	7.802 (1.017)	11791	2.00000	1.97
62 m,p-Xylenes	106	7.911	7.911 (1.031)	29170	4.00000	3.78

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	63 o-Xylene	106	8.249	8.249	(1.075)	14764	2.00000	1.93
	64 Styrene	104	8.271	8.271	(1.078)	22967	2.00000	1.80
	66 Bromoform	173	8.417	8.417	(1.097)	6949	2.00000	1.93(T)
	67 Isopropylbenzene	105	8.563	8.563	(1.116)	32641	2.00000	1.87
	68 1,1,2,2-Tetrachloroethane	83	8.841	8.841	(0.915)	11741	2.00000	2.08
$	69 4-Bromofluorobenzene	95	8.698	8.698	(1.134)	13631	2.00000	2.33
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	352851	50.0000	
	71 1,2,3-Trichloropropane	75	8.867	8.867	(0.918)	7514	2.00000	1.91
	73 n-Propylbenzene	91	8.916	8.916	(0.923)	34981	2.00000	1.78
	74 Bromobenzene	156	8.815	8.815	(0.912)	11721	2.00000	2.02
	75 1,3,5-Trimethylbenzene	105	9.073	9.073	(0.939)	27917	2.00000	1.93
	76 2-Chlorotoluene	91	8.980	8.980	(0.929)	26853	2.00000	2.09
	77 4-Chlorotoluene	91	9.077	9.077	(0.939)	28173	2.00000	1.92
	78 tert-Butylbenzene	119	9.336	9.336	(0.966)	22104	2.00000	1.87
	79 1,2,4-Trimethylbenzene	105	9.384	9.384	(0.971)	28377	2.00000	1.86
	81 sec-Butylbenzene	105	9.519	9.519	(0.985)	27643	2.00000	1.75
	82 p-Isopropyltoluene	119	9.651	9.651	(0.999)	24966	2.00000	1.77
	83 1,3-Dichlorobenzene	146	9.613	9.613	(0.995)	18708	2.00000	1.94
	84 1,4-Dichlorobenzene	146	9.684	9.684	(1.002)	20552	2.00000	1.96
	86 Benzyl Chloride	91	9.819	9.819	(1.280)	12783	2.00000	3.88
	87 n-Butylbenzene	91	10.003	10.003	(1.035)	19853	2.00000	3.18(M)
	88 1,2-Dichlorobenzene	146	9.999	9.999	(1.035)	18921	2.00000	1.91
	89 1,2-Dibromo-3-Chloropropane	155	10.678	10.678	(1.105)	1619	2.00000	1.88(M)
	90 1,2,4-Trichlorobenzene	180	11.352	11.352	(1.175)	11764	2.00000	1.88(M)
	91 Hexachlorobutadiene	225	11.480	11.480	(1.188)	3970	2.00000	1.39
	92 Naphthalene	128	11.559	11.559	(1.196)	26250	2.00000	1.84(M)
	93 1,2,3-Trichlorobenzene	180	11.750	11.750	(1.216)	11288	2.00000	1.88
M	94 1,2-Dichloroethylene (total)	96				16788	4.00000	
M	95 Xylenes (total)	106				43934	6.00000	
	141 Cyclohexane	56	4.125	4.125	(0.987)	7375	2.00000	2.82(H)
	138 Freon TF	101	1.917	1.917	(0.459)	6025	2.00000	1.79
	147 Methylcyclohexane	55	5.373	5.373	(1.082)	16016	2.00000	1.91(M)
	146 Methyl Acetate	43	2.247	2.247	(0.538)	4149	2.00000	2.02
	148 Tert-Butyl alcohol	59	2.434	2.434	(0.583)	12015	40.0000	38.02(a)
	149 Isopropyl Alcohol	45	2.101	2.101	(0.503)	5607	40.0000	33.97

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.



Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D
Date : 16-DEC-2022 13:02
Client ID: VSTD002
Sample Info: VSTD002;VSTD002;1;4;
Purge Volume: 5.0
Column phase: DB624

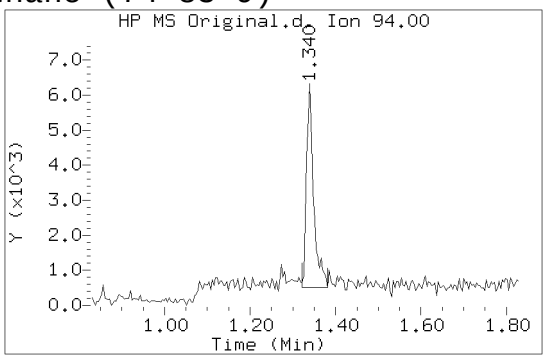
Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D
Inj Date : 16-DEC-2022 13:02
InstruID : voa6.i
LabSampID : VSTD002

Bromomethane (74-83-9)

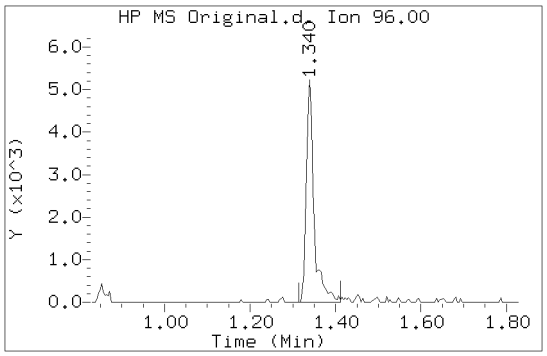
BEFORE

MASS
94
AREA
6762
HEIGHT
5808
27-Dec-2022
16:03
linh
pham



BEFORE

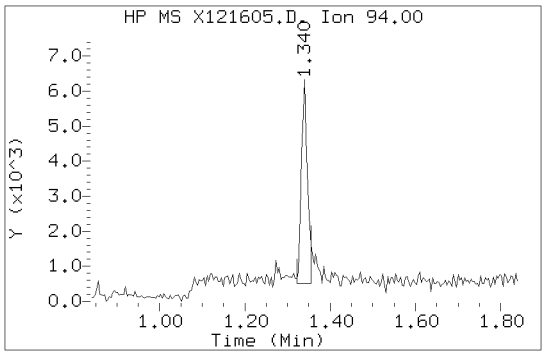
MASS
96
AREA
6661
HEIGHT
5227
27-Dec-2022
16:03
linh
pham



Reason Code:

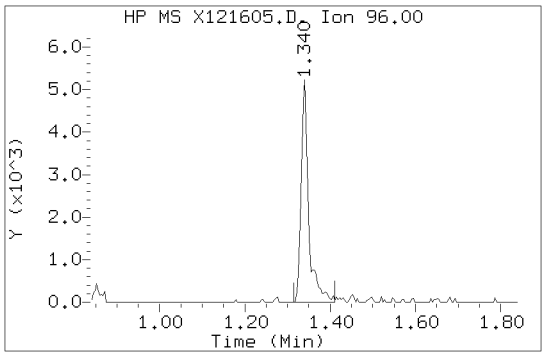
AFTER

MASS
94
AREA
5996
HEIGHT
5808
27-Dec-2022
16:07
linh
pham



AFTER

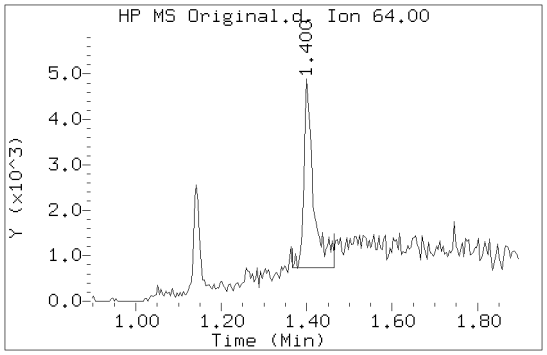
MASS
96
AREA
6661
HEIGHT
5227
27-Dec-2022
16:07
linh
pham



Chloroethane (75-00-3)

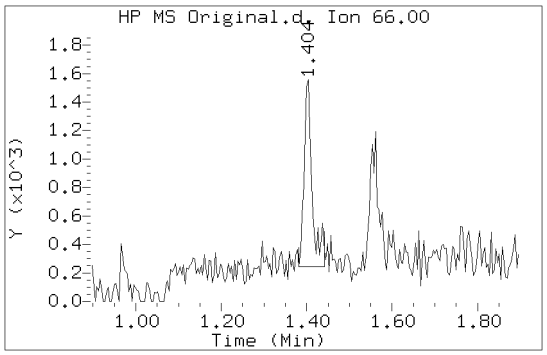
BEFORE

MASS
64
AREA
6641
HEIGHT
4162
27-Dec-2022
16:03
linh
pham



BEFORE

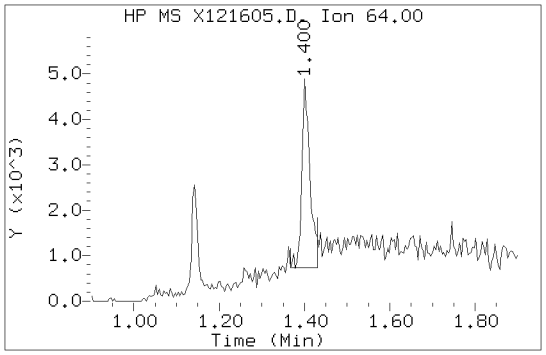
MASS
66
AREA
1745
HEIGHT
1315
27-Dec-2022
16:03
linh
pham



Reason Code:

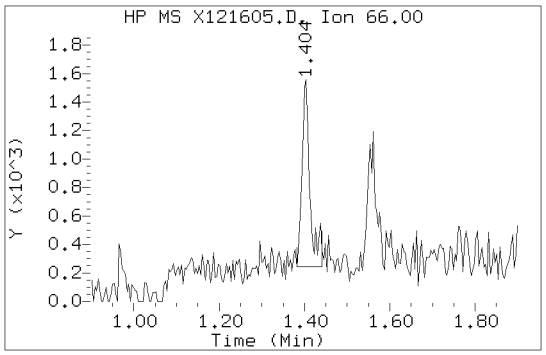
AFTER

MASS
64
AREA
5667
HEIGHT
4162
27-Dec-2022
16:07
linh
pham



AFTER

MASS
66
AREA
1745
HEIGHT
1315
27-Dec-2022
16:07
linh
pham

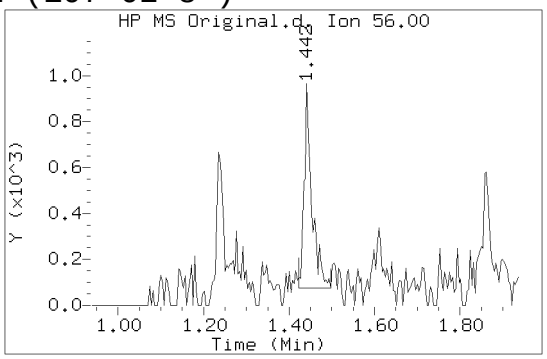


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D
Inj Date : 16-DEC-2022 13:02
InstruID : voa6.i
LabSampID : VSTD002

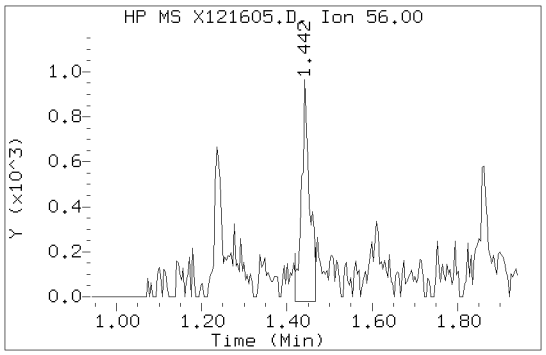
Acrolein (107-02-8)

Reason Code:

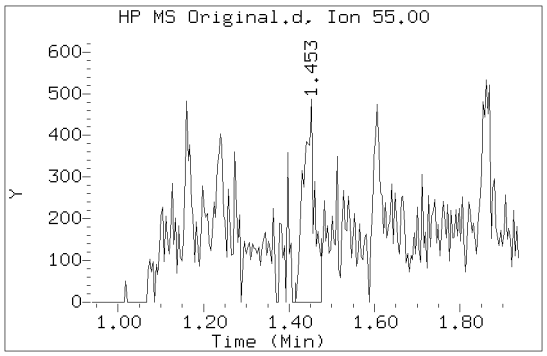
BEFORE
MASS
56
AREA
1122
HEIGHT
890
27-Dec-2022
16:03
linh
pham



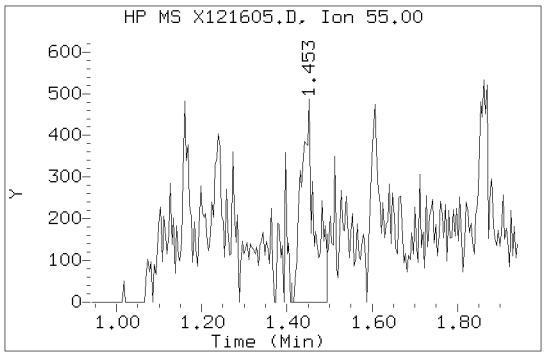
AFTER
MASS
56
AREA
1317
HEIGHT
985
27-Dec-2022
16:07
linh
pham



BEFORE
MASS
55
AREA
885
HEIGHT
487
27-Dec-2022
16:03
linh
pham



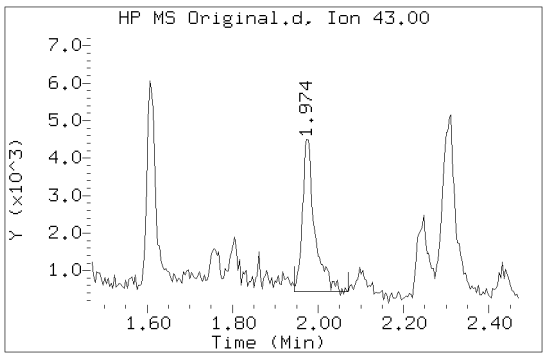
AFTER
MASS
55
AREA
1067
HEIGHT
487
27-Dec-2022
16:07
linh
pham



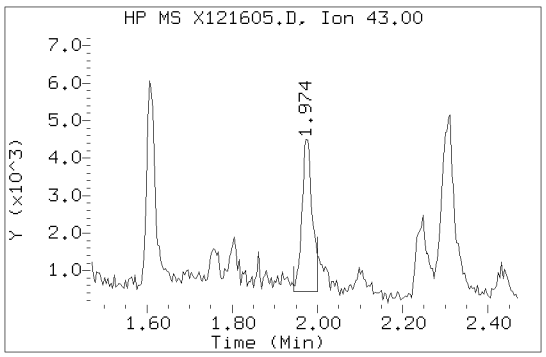
Acetone (67-64-1)

Reason Code:

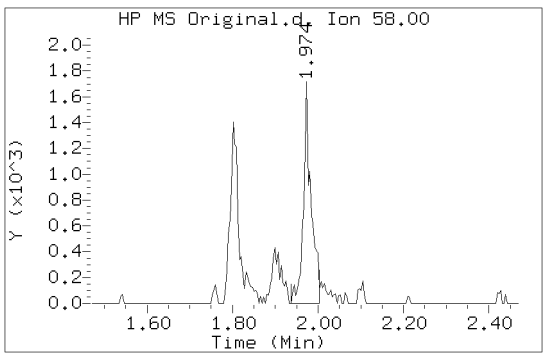
BEFORE
MASS
43
AREA
8369
HEIGHT
4066
27-Dec-2022
16:03
linh
pham



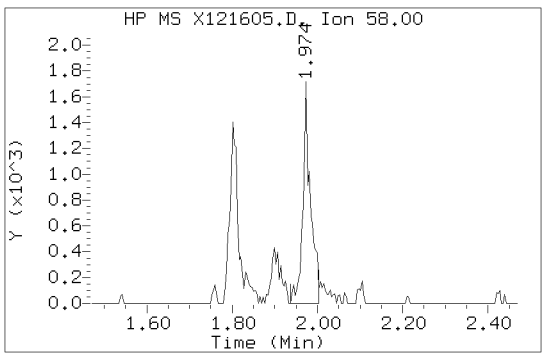
AFTER
MASS
43
AREA
7041
HEIGHT
4066
27-Dec-2022
16:07
linh
pham



BEFORE
MASS
58
AREA
2165
HEIGHT
1717
27-Dec-2022
16:03
linh
pham



AFTER
MASS
58
AREA
2165
HEIGHT
1717
27-Dec-2022
16:07
linh
pham

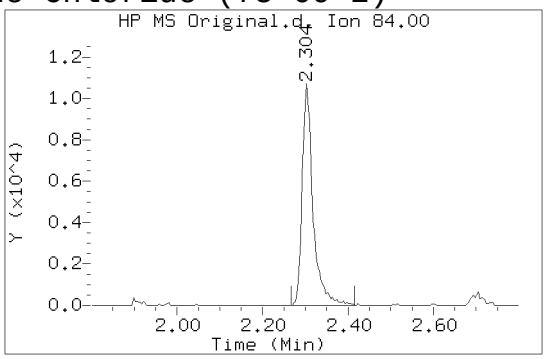


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D
Inj Date : 16-DEC-2022 13:02
InstruID : voa6.i
LabSampID : VSTD002

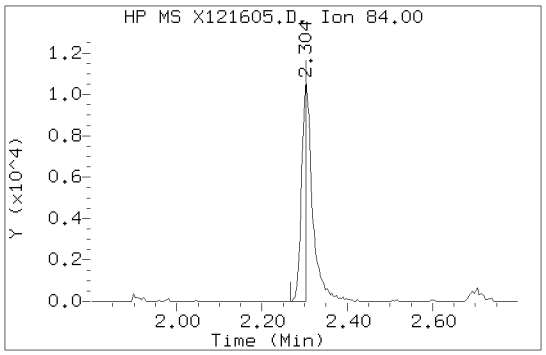
Methylene Chloride (75-09-2)

Reason Code:

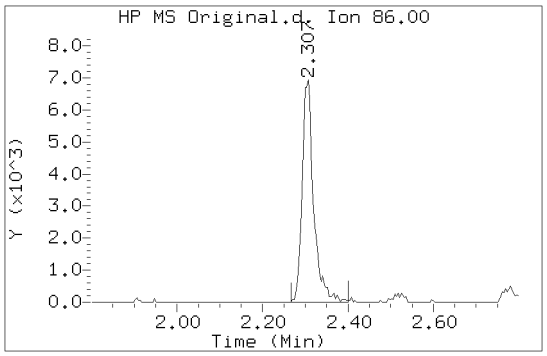
BEFORE
MASS
84
AREA
19299
HEIGHT
10710
27-Dec-2022
16:03
linh
pham



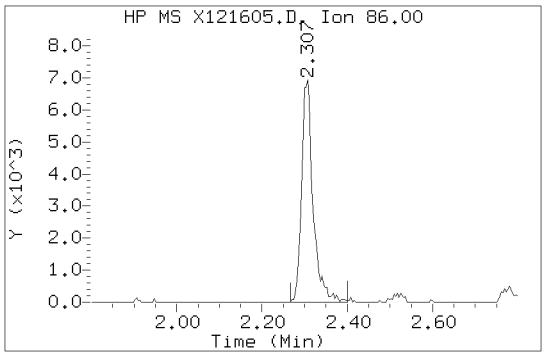
AFTER
MASS
84
AREA
9194
HEIGHT
10710
27-Dec-2022
16:07
linh
pham



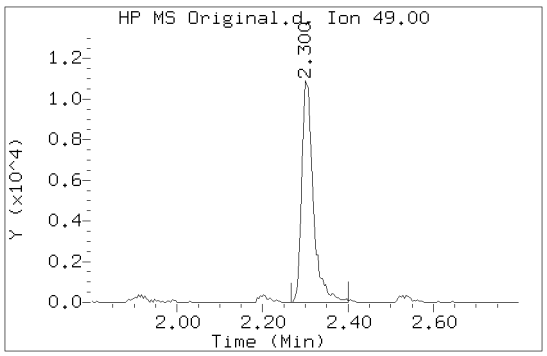
BEFORE
MASS
86
AREA
13231
HEIGHT
6936
27-Dec-2022
16:03
linh
pham



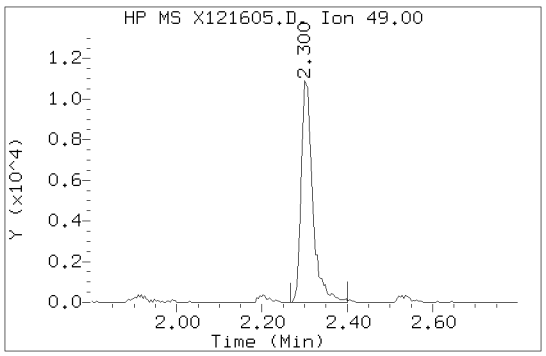
AFTER
MASS
86
AREA
13231
HEIGHT
6936
27-Dec-2022
16:07
linh
pham



BEFORE
MASS
49
AREA
21067
HEIGHT
10905
27-Dec-2022
16:03
linh
pham



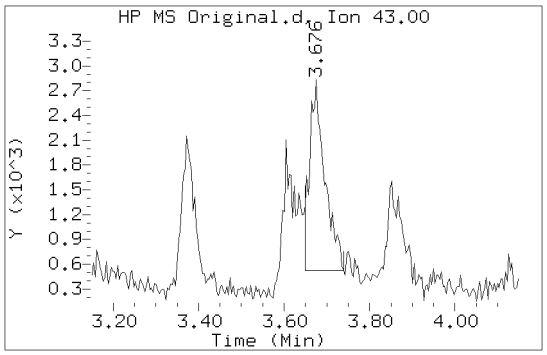
AFTER
MASS
49
AREA
21067
HEIGHT
10905
27-Dec-2022
16:07
linh
pham



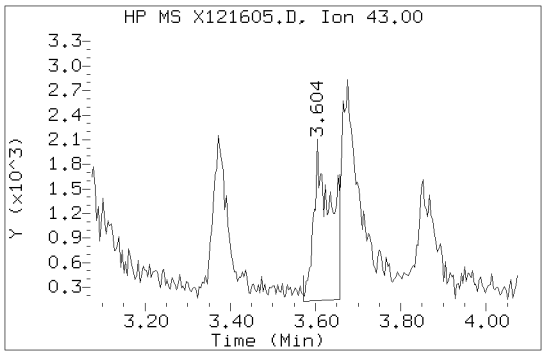
2-Butanone (78-93-3)

Reason Code:

BEFORE
MASS
43
AREA
5778
HEIGHT
2307
27-Dec-2022
16:03
linh
pham



AFTER
MASS
43
AREA
5418
HEIGHT
1969
27-Dec-2022
16:07
linh
pham



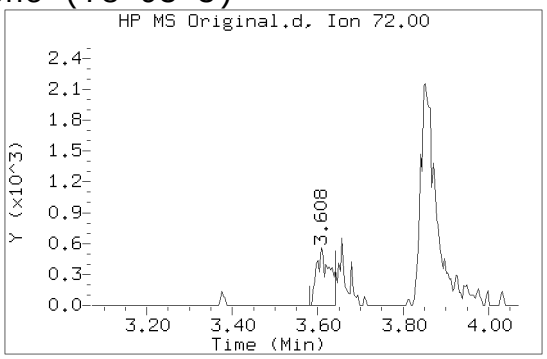
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D
Inj Date : 16-DEC-2022 13:02
InstruID : voa6.i
LabSampID : VSTD002

2-Butanone (78-93-3)

Reason Code:

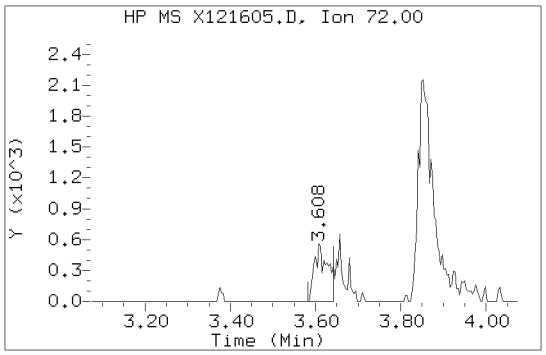
BEFORE

MASS
72
AREA
1209
HEIGHT
563
27-Dec-2022
16:03
linh
pham



AFTER

MASS
72
AREA
1209
HEIGHT
563
27-Dec-2022
16:07
linh
pham

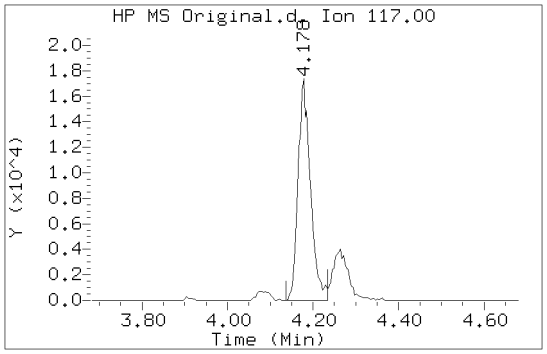


Carbon Tetrachloride (56-23-5)

Reason Code:

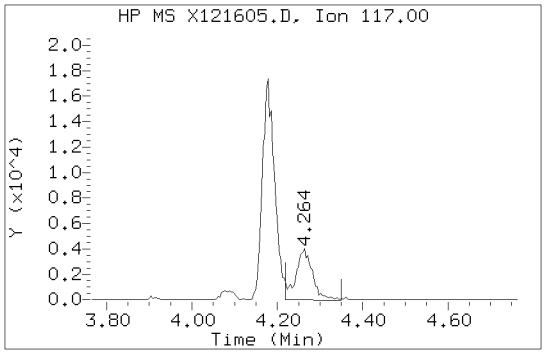
BEFORE

MASS
117
AREA
35555
HEIGHT
17376
27-Dec-2022
16:03
linh
pham



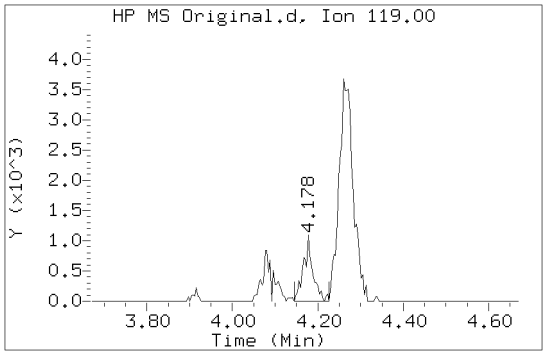
AFTER

MASS
117
AREA
11092
HEIGHT
4036
27-Dec-2022
16:07
linh
pham



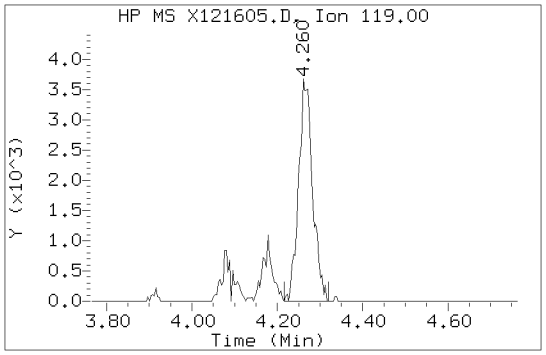
BEFORE

MASS
119
AREA
1692
HEIGHT
1100
27-Dec-2022
16:03
linh
pham



AFTER

MASS
119
AREA
8494
HEIGHT
3676
27-Dec-2022
16:07
linh
pham

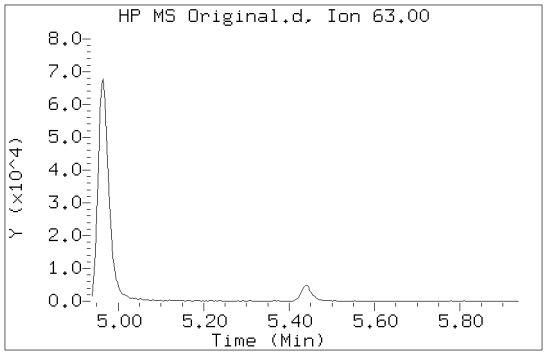


1,2-Dichloropropane (78-87-5)

Reason Code:

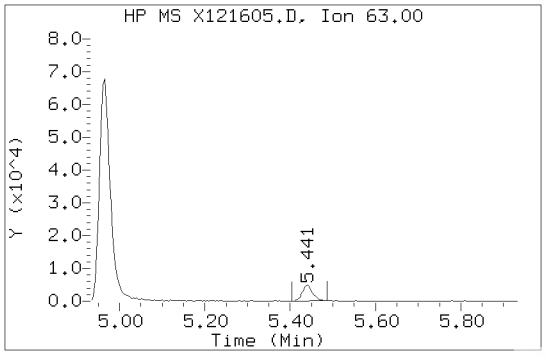
BEFORE

MASS
63
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
63
AREA
8129
HEIGHT
4705
27-Dec-2022
16:07
linh
pham



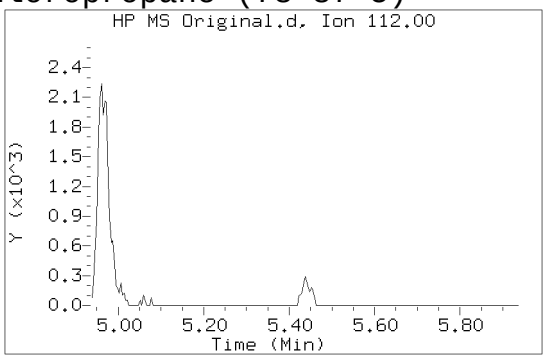
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D
Inj Date : 16-DEC-2022 13:02
InstruID : voa6.i
LabSampID : VSTD002

1,2-Dichloropropane (78-87-5)

Reason Code:

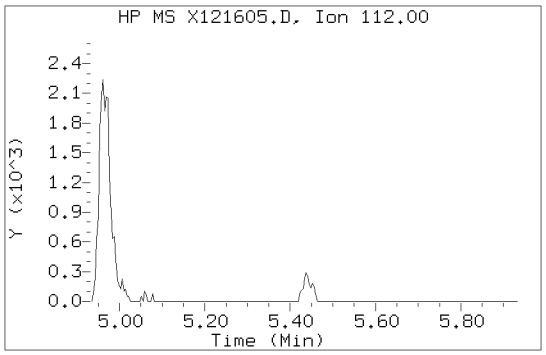
BEFORE

MASS
112
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
112
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

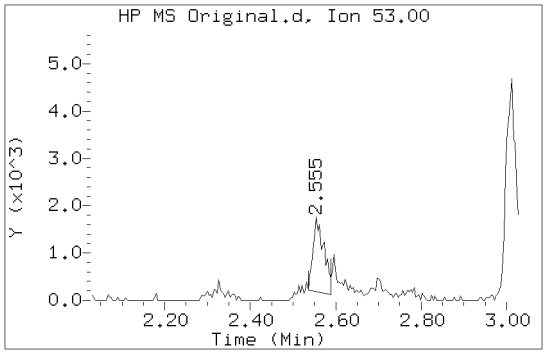


Acrylonitrile (107-13-1)

Reason Code:

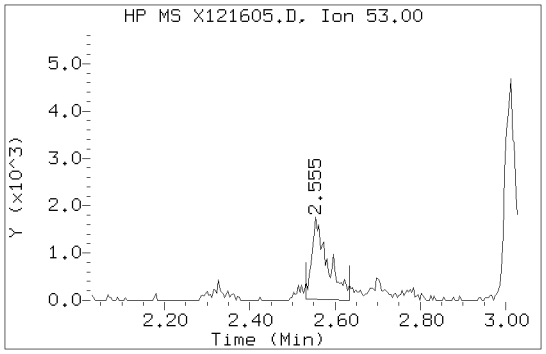
BEFORE

MASS
53
AREA
2810
HEIGHT
1577
27-Dec-2022
16:03
linh
pham



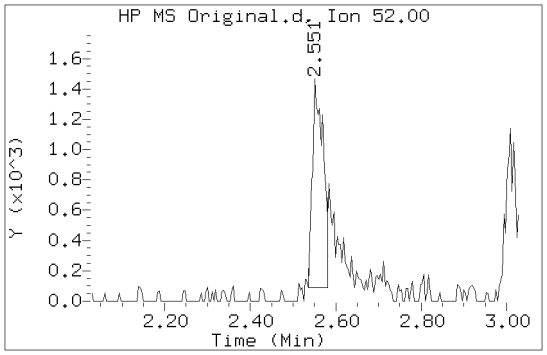
AFTER

MASS
53
AREA
4557
HEIGHT
1735
27-Dec-2022
16:07
linh
pham



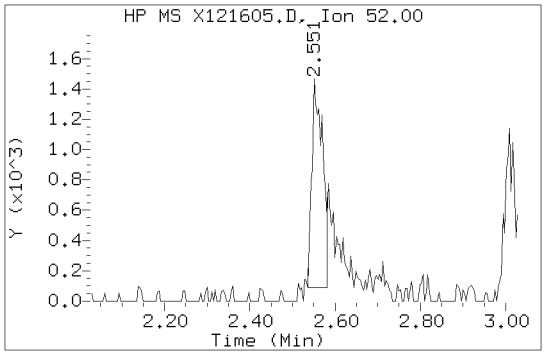
BEFORE

MASS
52
AREA
2408
HEIGHT
1379
27-Dec-2022
16:03
linh
pham



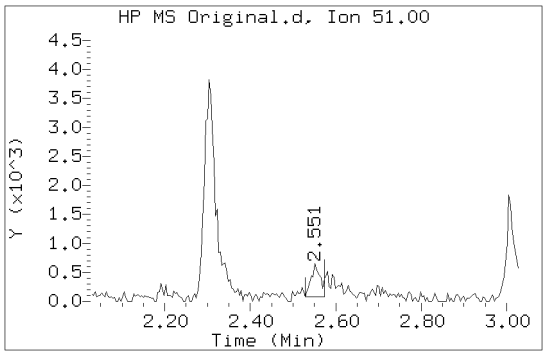
AFTER

MASS
52
AREA
2408
HEIGHT
1379
27-Dec-2022
16:07
linh
pham



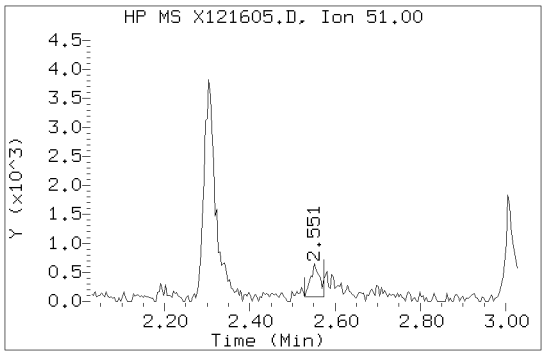
BEFORE

MASS
51
AREA
876
HEIGHT
575
27-Dec-2022
16:03
linh
pham



AFTER

MASS
51
AREA
876
HEIGHT
575
27-Dec-2022
16:07
linh
pham

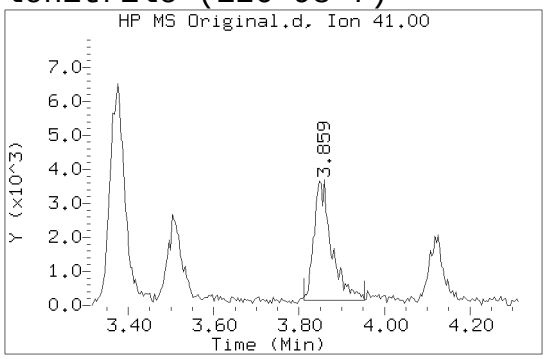


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D
Inj Date : 16-DEC-2022 13:02
InstruID : voa6.i
LabSampID : VSTD002

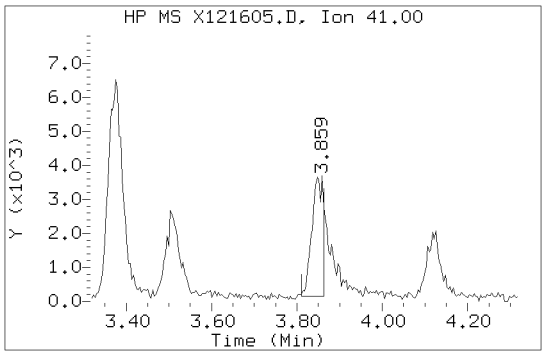
Methacrylonitrile (126-98-7)

Reason Code:

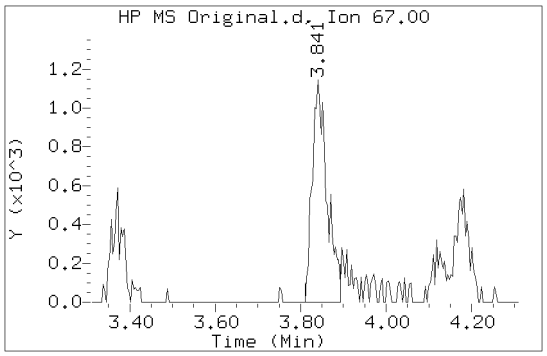
BEFORE
MASS
41
AREA
10013
HEIGHT
3544
27-Dec-2022
16:03
linh
pham



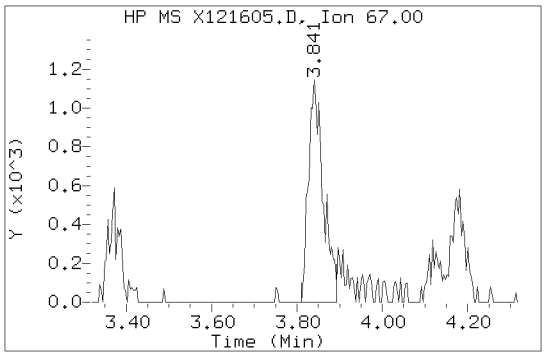
AFTER
MASS
41
AREA
6388
HEIGHT
3544
27-Dec-2022
16:07
linh
pham



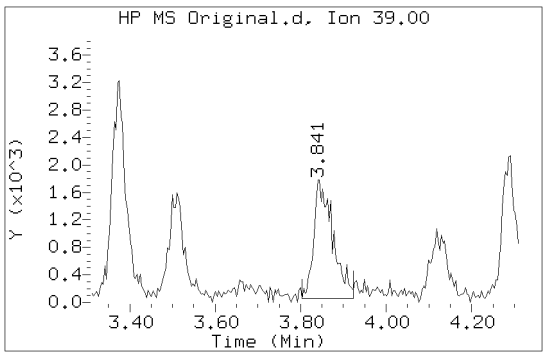
BEFORE
MASS
67
AREA
2751
HEIGHT
1145
27-Dec-2022
16:03
linh
pham



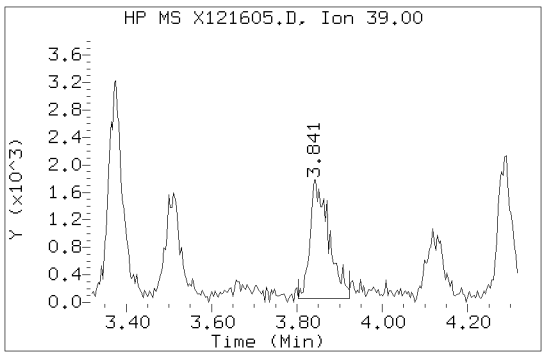
AFTER
MASS
67
AREA
2751
HEIGHT
1145
27-Dec-2022
16:07
linh
pham



BEFORE
MASS
39
AREA
5310
HEIGHT
1724
27-Dec-2022
16:03
linh
pham



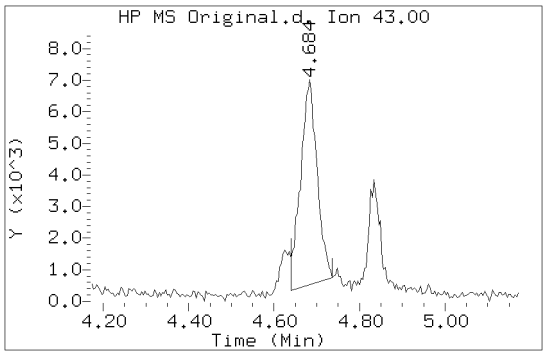
AFTER
MASS
39
AREA
5310
HEIGHT
1724
27-Dec-2022
16:07
linh
pham



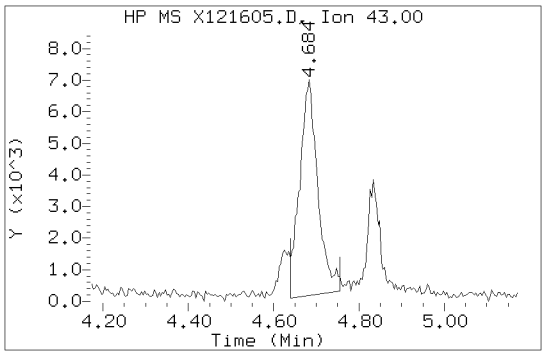
Isobutyl Alcohol (78-83-1)

Reason Code:

BEFORE
MASS
43
AREA
17811
HEIGHT
6479
27-Dec-2022
16:03
linh
pham



AFTER
MASS
43
AREA
20629
HEIGHT
6832
27-Dec-2022
16:07
linh
pham

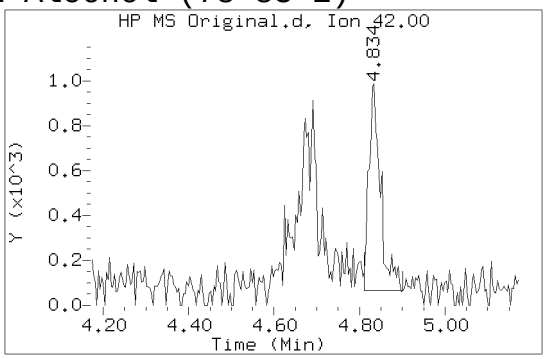


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D
Inj Date : 16-DEC-2022 13:02
InstruID : voa6.i
LabSampID : VSTD002

Isobutyl Alcohol (78-83-1)

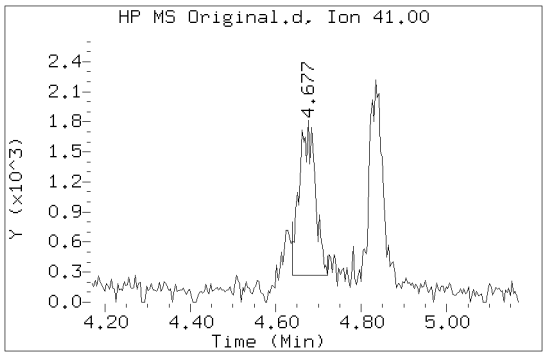
BEFORE

MASS
42
AREA
1728
HEIGHT
920
27-Dec-2022
16:03
linh
pham



BEFORE

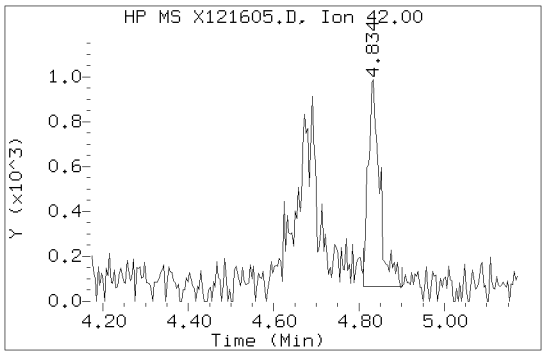
MASS
41
AREA
4067
HEIGHT
1547
27-Dec-2022
16:03
linh
pham



Reason Code:

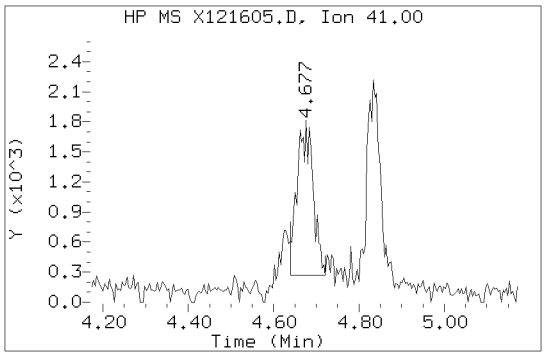
AFTER

MASS
42
AREA
1728
HEIGHT
920
27-Dec-2022
16:07
linh
pham



AFTER

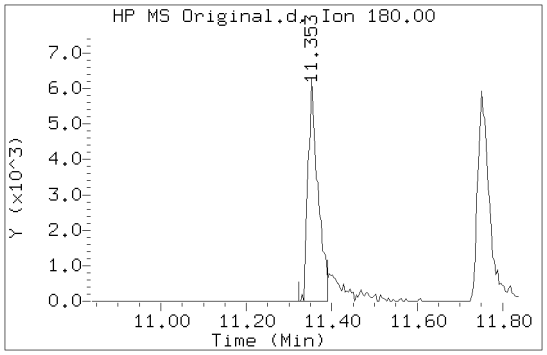
MASS
41
AREA
4067
HEIGHT
1547
27-Dec-2022
16:07
linh
pham



1,2,4-Trichlorobenzene (120-82-1)

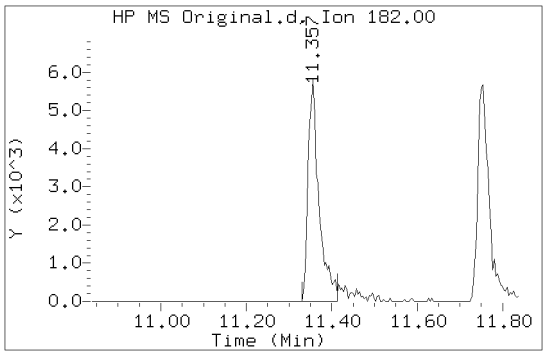
BEFORE

MASS
180
AREA
10131
HEIGHT
6269
27-Dec-2022
16:03
linh
pham



BEFORE

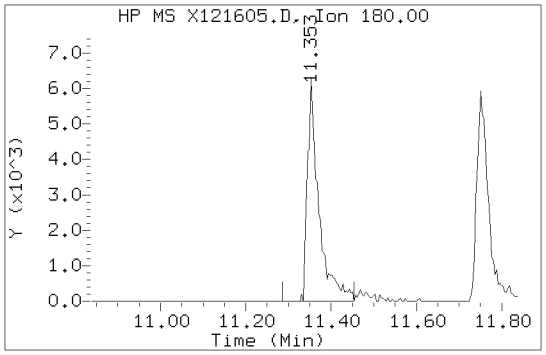
MASS
182
AREA
10317
HEIGHT
5807
27-Dec-2022
16:03
linh
pham



Reason Code:

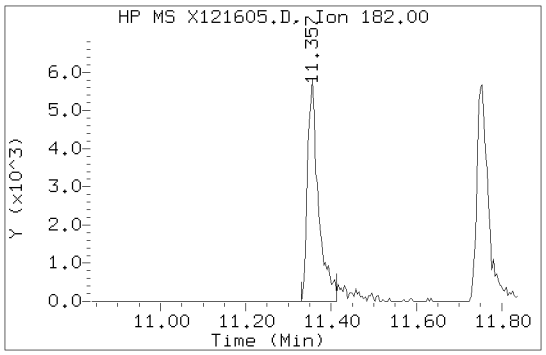
AFTER

MASS
180
AREA
11764
HEIGHT
6269
27-Dec-2022
16:07
linh
pham



AFTER

MASS
182
AREA
10317
HEIGHT
5807
27-Dec-2022
16:07
linh
pham



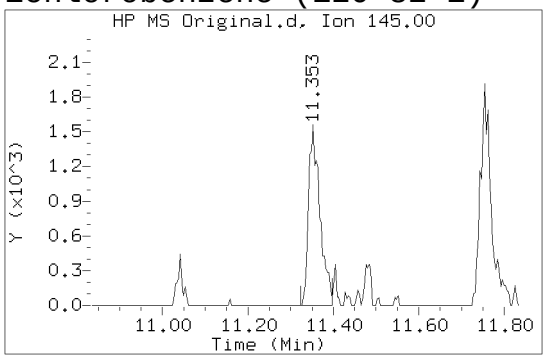
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D
Inj Date : 16-DEC-2022 13:02
InstruID : voa6.i
LabSampID : VSTD002

1,2,4-Trichlorobenzene (120-82-1)

Reason Code:

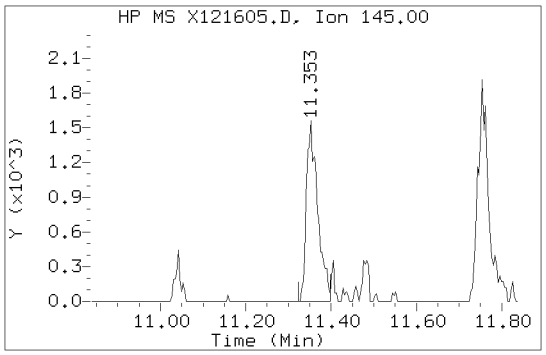
BEFORE

MASS
145
AREA
2887
HEIGHT
1565
27-Dec-2022
16:03
linh
pham



AFTER

MASS
145
AREA
2887
HEIGHT
1565
27-Dec-2022
16:07
linh
pham

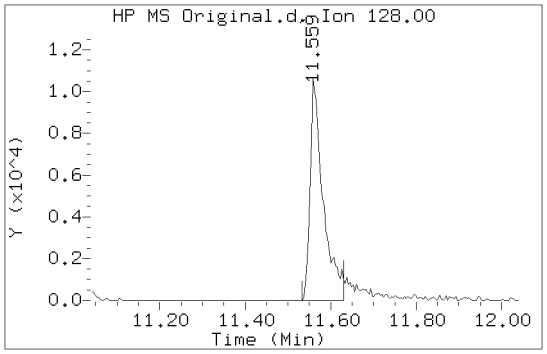


Naphthalene (91-20-3)

Reason Code:

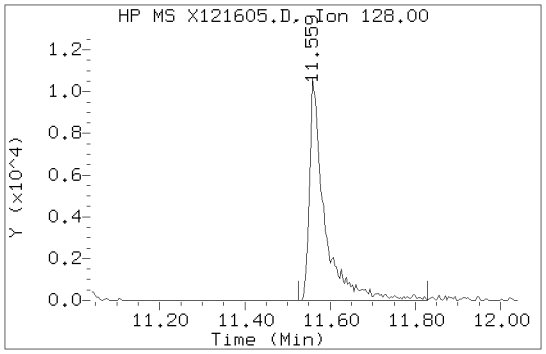
BEFORE

MASS
128
AREA
22581
HEIGHT
10616
27-Dec-2022
16:03
linh
pham



AFTER

MASS
128
AREA
26250
HEIGHT
10616
27-Dec-2022
16:07
linh
pham

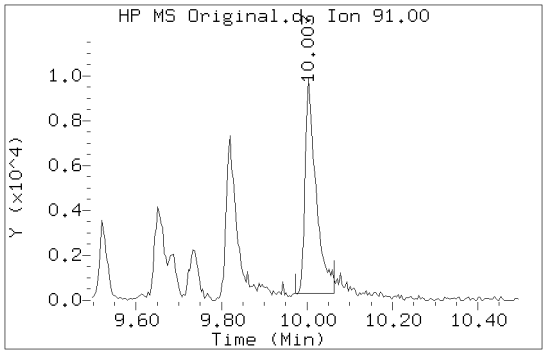


n-Butylbenzene (104-51-8)

Reason Code:

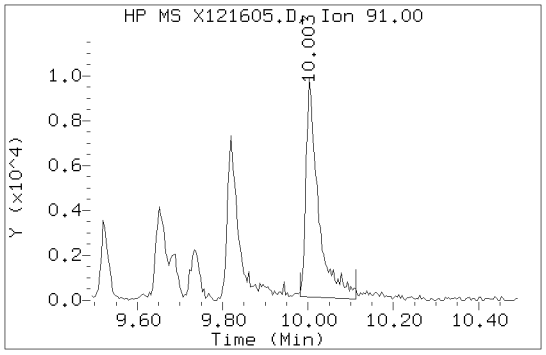
BEFORE

MASS
91
AREA
17181
HEIGHT
9558
27-Dec-2022
16:03
linh
pham



AFTER

MASS
91
AREA
19853
HEIGHT
9720
27-Dec-2022
16:07
linh
pham



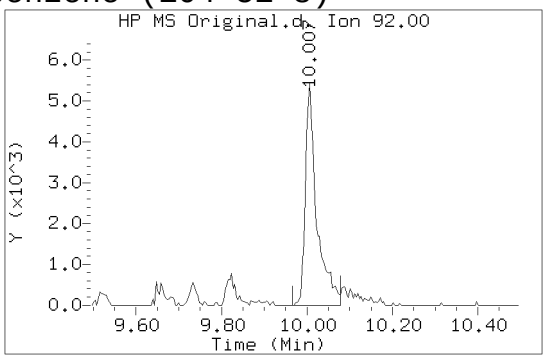
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D
Inj Date : 16-DEC-2022 13:02
InstruID : voa6.i
LabSampID : VSTD002

n-Butylbenzene (104-51-8)

Reason Code:

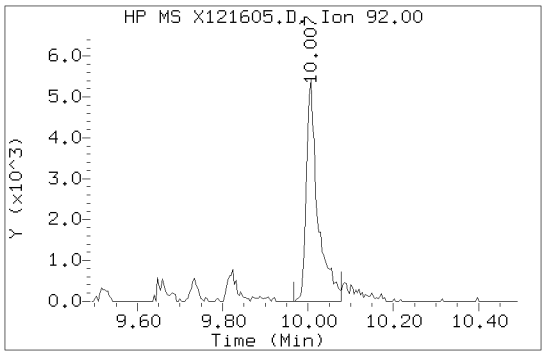
BEFORE

MASS
92
AREA
10185
HEIGHT
5422
27-Dec-2022
16:03
linh
pham



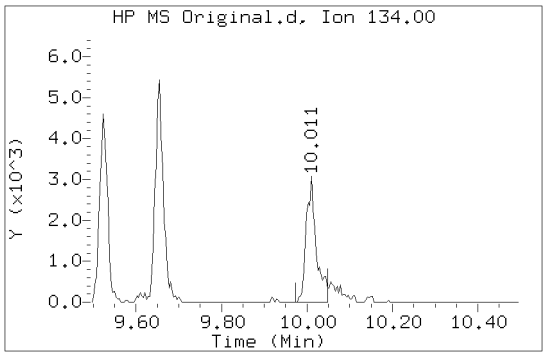
AFTER

MASS
92
AREA
10185
HEIGHT
5422
27-Dec-2022
16:07
linh
pham



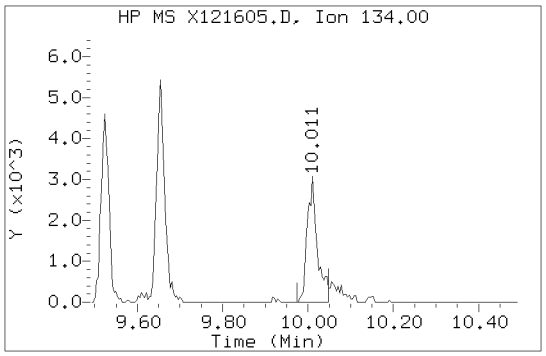
BEFORE

MASS
134
AREA
5059
HEIGHT
3076
27-Dec-2022
16:03
linh
pham



AFTER

MASS
134
AREA
5059
HEIGHT
3076
27-Dec-2022
16:07
linh
pham

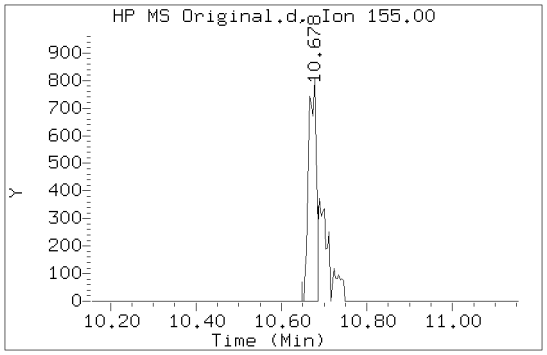


1,2-Dibromo-3-Chloropropane (96-12-8)

Reason Code:

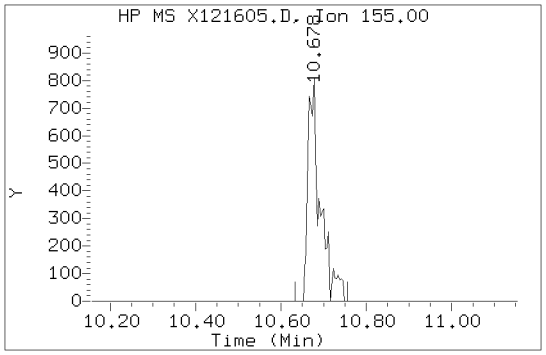
BEFORE

MASS
155
AREA
1026
HEIGHT
806
27-Dec-2022
16:03
linh
pham



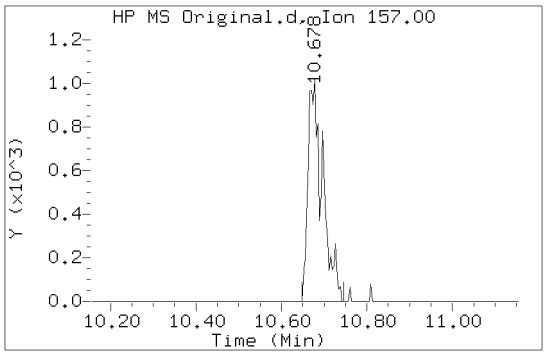
AFTER

MASS
155
AREA
1619
HEIGHT
806
27-Dec-2022
16:07
linh
pham



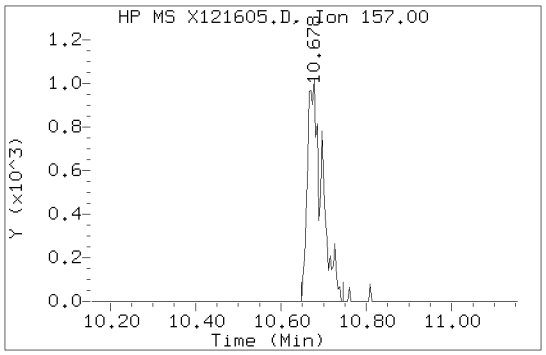
BEFORE

MASS
157
AREA
2422
HEIGHT
1016
27-Dec-2022
16:03
linh
pham



AFTER

MASS
157
AREA
2422
HEIGHT
1016
27-Dec-2022
16:07
linh
pham



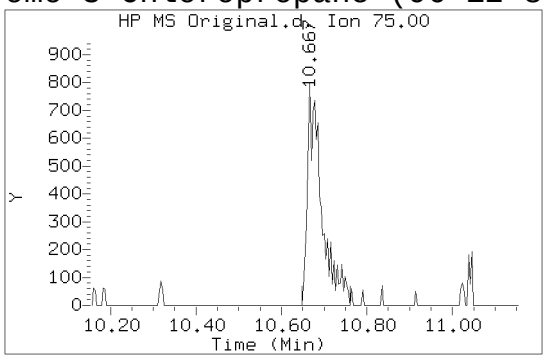
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D
Inj Date : 16-DEC-2022 13:02
InstruID : voa6.i
LabSampID : VSTD002

1,2-Dibromo-3-Chloropropane (96-12-8)

Reason Code:

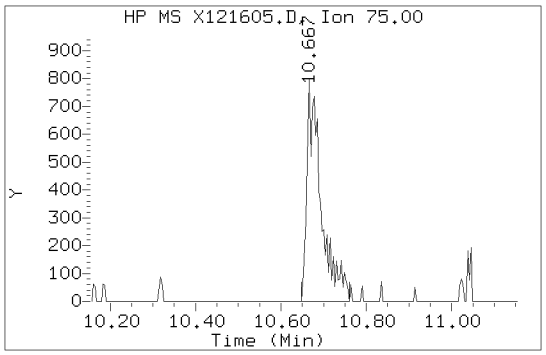
BEFORE

MASS
75
AREA
1843
HEIGHT
796
27-Dec-2022
16:03
linh
pham



AFTER

MASS
75
AREA
1843
HEIGHT
796
27-Dec-2022
16:07
linh
pham

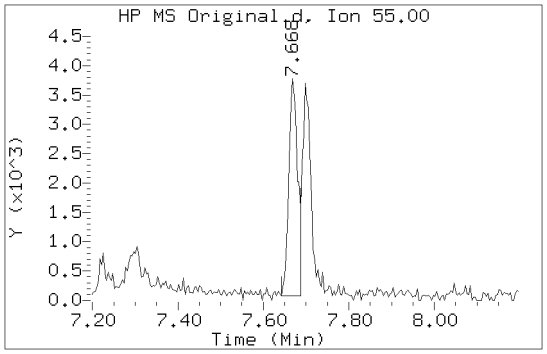


1-Chlorohexane (544-10-5)

Reason Code:

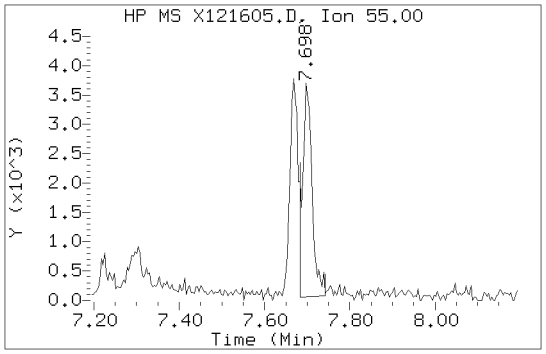
BEFORE

MASS
55
AREA
5357
HEIGHT
3703
27-Dec-2022
16:03
linh
pham



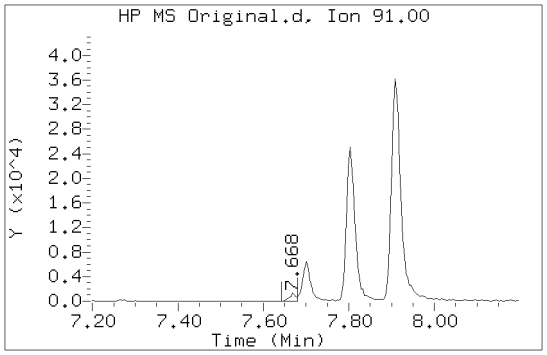
AFTER

MASS
55
AREA
5855
HEIGHT
3647
27-Dec-2022
16:07
linh
pham



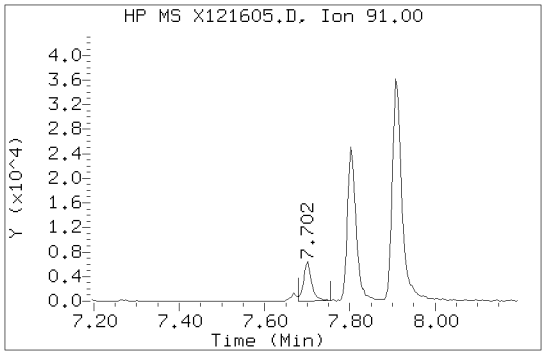
BEFORE

MASS
91
AREA
1356
HEIGHT
1324
27-Dec-2022
16:03
linh
pham



AFTER

MASS
91
AREA
8682
HEIGHT
6440
27-Dec-2022
16:07
linh
pham

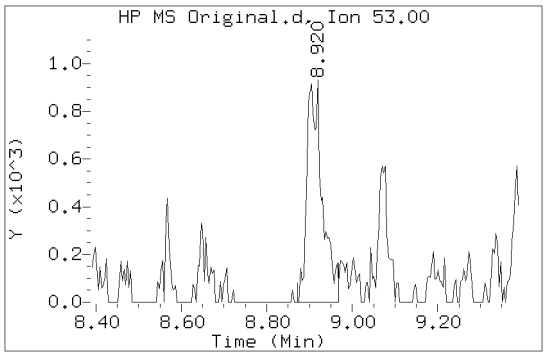


trans-1,4-Dichloro-2-butene (110-57-6)

Reason Code:

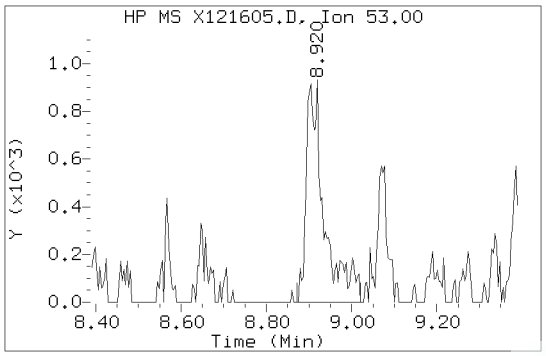
BEFORE

MASS
53
AREA
2313
HEIGHT
932
27-Dec-2022
16:03
linh
pham



AFTER

MASS
53
AREA
2690
HEIGHT
932
27-Dec-2022
16:07
linh
pham



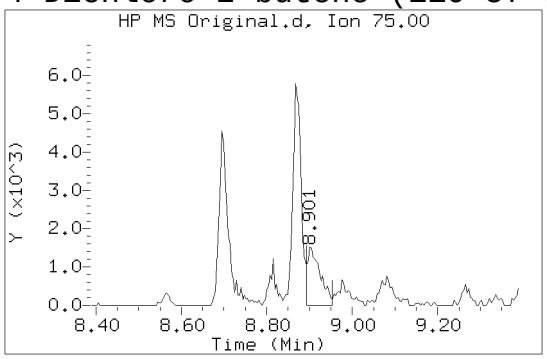
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D
Inj Date : 16-DEC-2022 13:02
InstruID : voa6.i
LabSampID : VSTD002

trans-1,4-Dichloro-2-butene (110-57-6)

Reason Code:

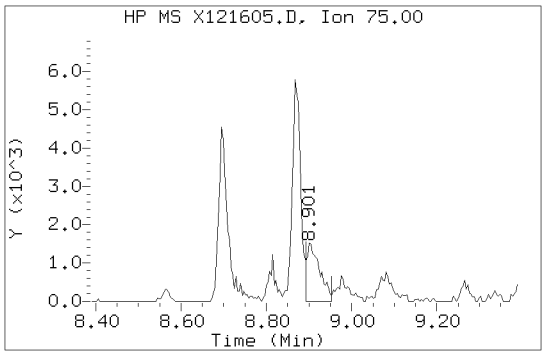
BEFORE

MASS
75
AREA
3228
HEIGHT
1526
27-Dec-2022
16:03
linh
pham



AFTER

MASS
75
AREA
3228
HEIGHT
1526
27-Dec-2022
16:07
linh
pham

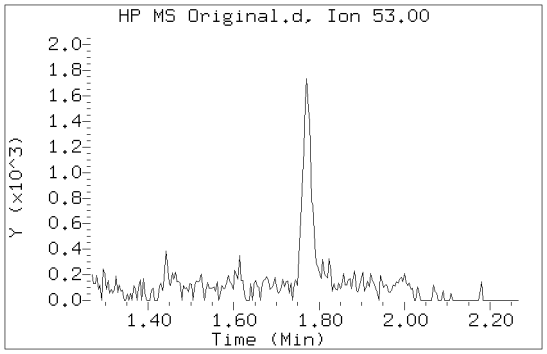


Chloroprene (126-99-8)

Reason Code:

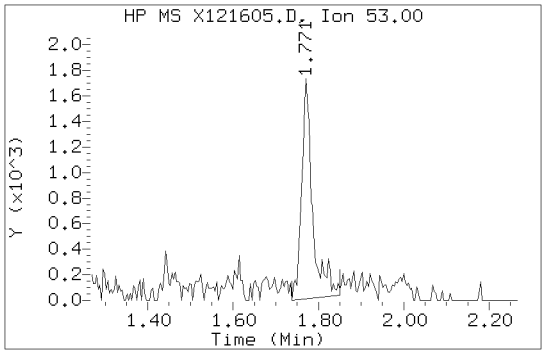
BEFORE

MASS
53
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



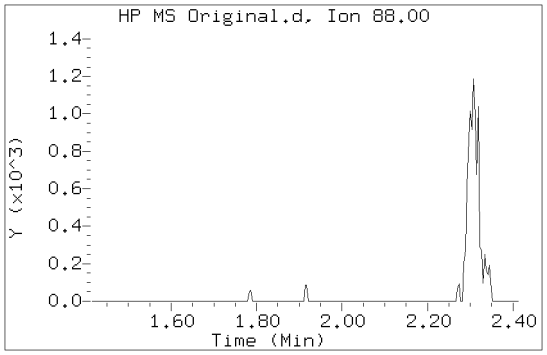
AFTER

MASS
53
AREA
3126
HEIGHT
1722
27-Dec-2022
16:07
linh
pham



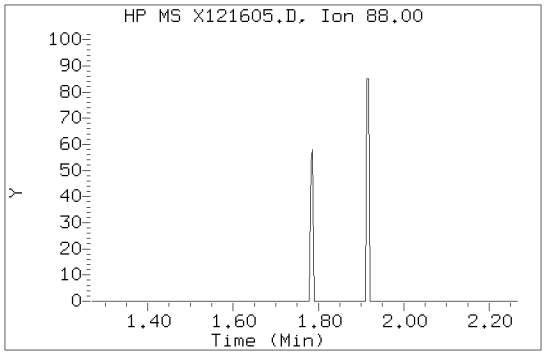
BEFORE

MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

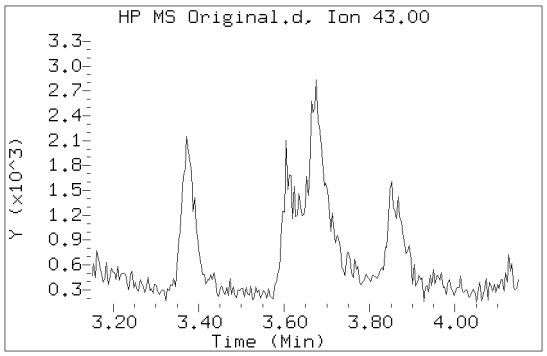


Ethyl Acetate (141-78-6)

Reason Code:

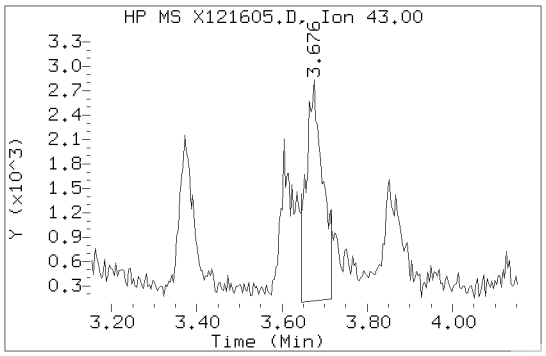
BEFORE

MASS
43
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

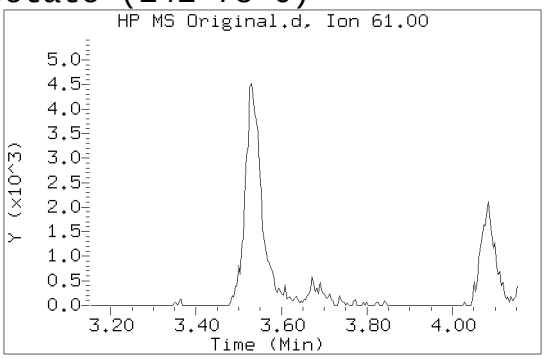
MASS
43
AREA
7422
HEIGHT
2716
27-Dec-2022
16:07
linh
pham



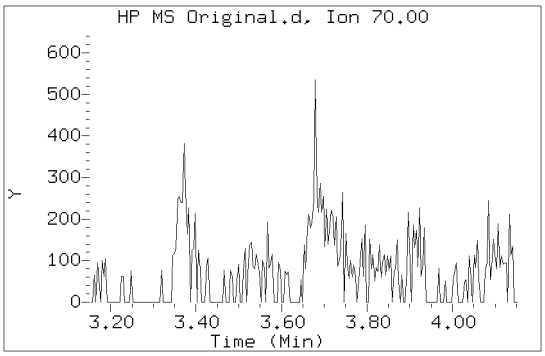
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D
Inj Date : 16-DEC-2022 13:02
InstruID : voa6.i
LabSampID : VSTD002

Ethyl Acetate (141-78-6)

BEFORE
MASS
61
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham

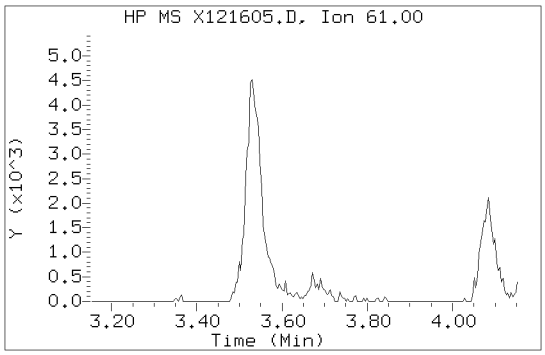


BEFORE
MASS
70
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham

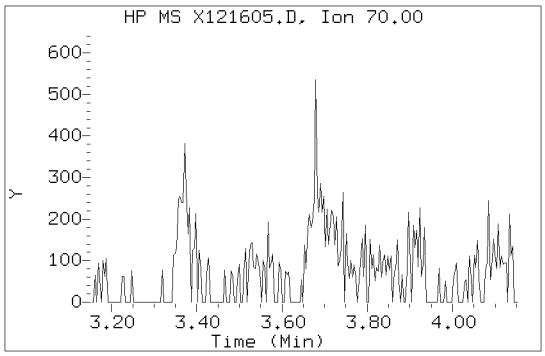


Reason Code:

AFTER
MASS
61
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

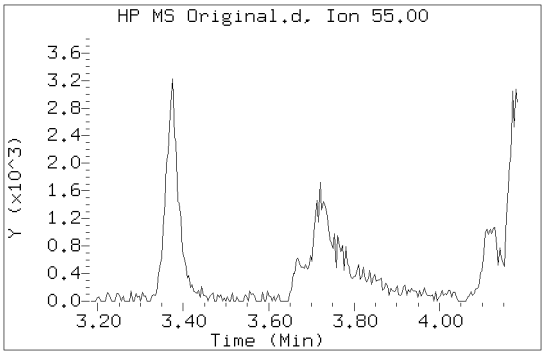


AFTER
MASS
70
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

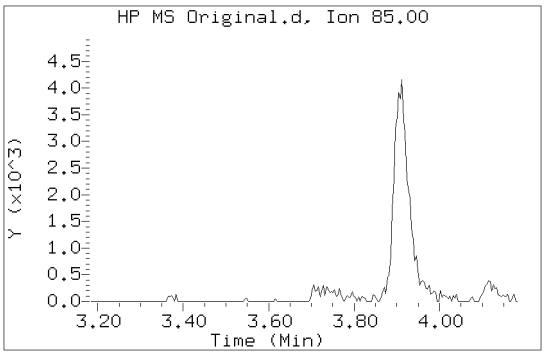


Methyl Acrylate (96-33-3)

BEFORE
MASS
55
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham

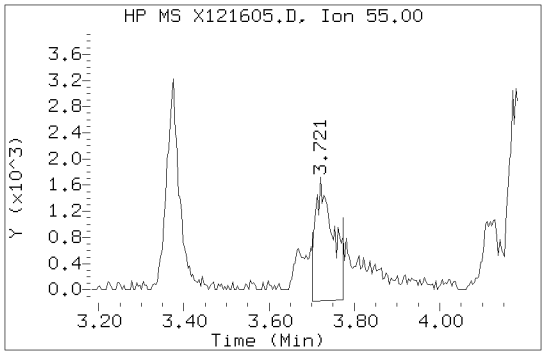


BEFORE
MASS
85
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham

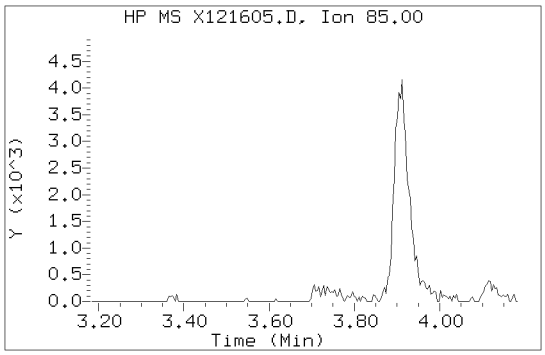


Reason Code:

AFTER
MASS
55
AREA
5443
HEIGHT
1892
27-Dec-2022
16:07
linh
pham



AFTER
MASS
85
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



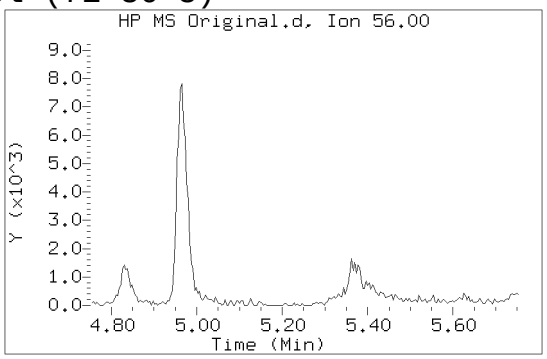
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D
Inj Date : 16-DEC-2022 13:02
InstruID : voa6.i
LabSampID : VSTD002

n-Butanol (71-36-3)

Reason Code:

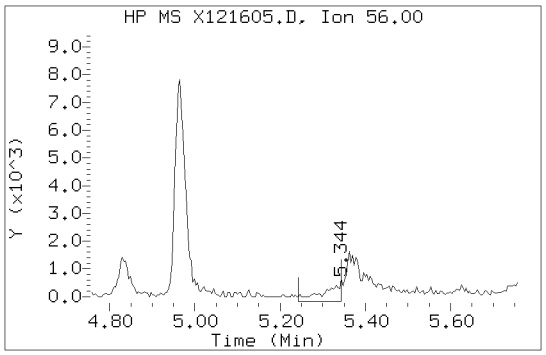
BEFORE

MASS
56
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



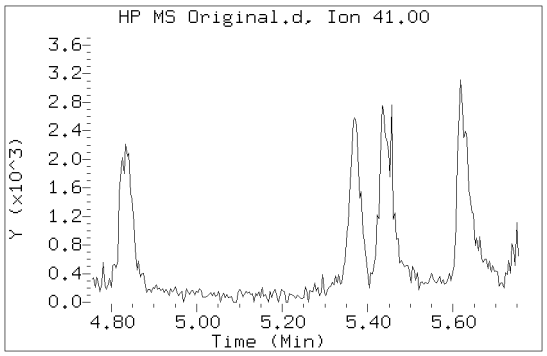
AFTER

MASS
56
AREA
2004
HEIGHT
808
27-Dec-2022
16:07
linh
pham



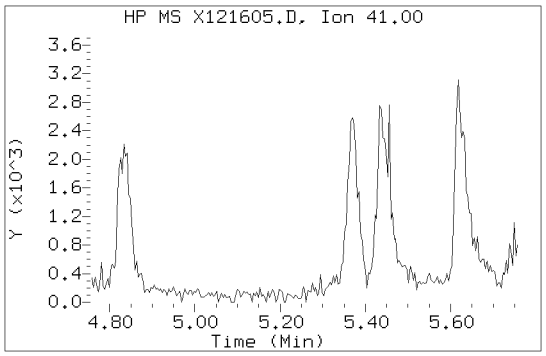
BEFORE

MASS
41
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
41
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

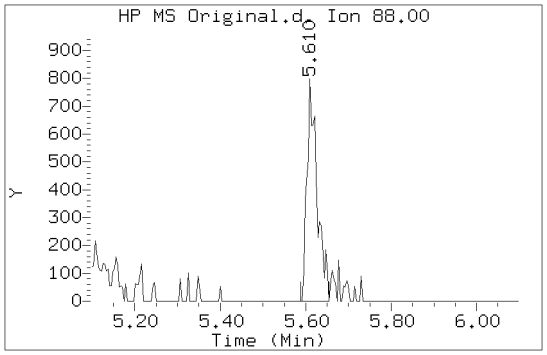


1,4-Dioxane ()

Reason Code:

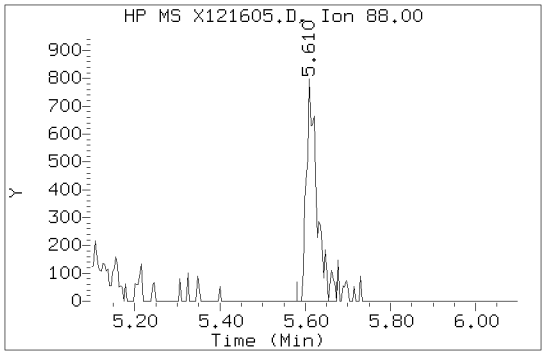
BEFORE

MASS
88
AREA
1335
HEIGHT
798
27-Dec-2022
16:03
linh
pham



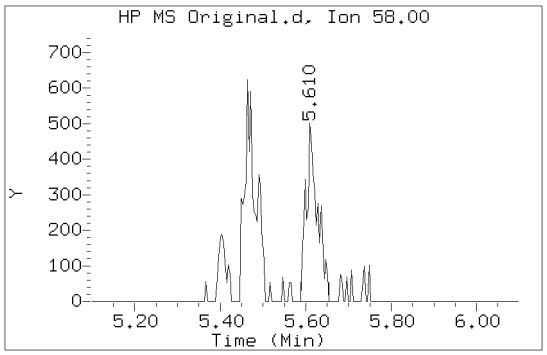
AFTER

MASS
88
AREA
1409
HEIGHT
798
27-Dec-2022
16:07
linh
pham



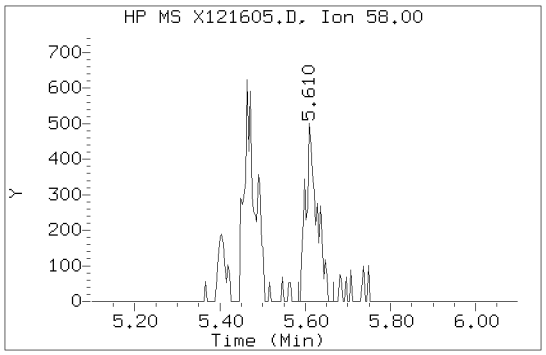
BEFORE

MASS
58
AREA
934
HEIGHT
501
27-Dec-2022
16:03
linh
pham



AFTER

MASS
58
AREA
934
HEIGHT
501
27-Dec-2022
16:07
linh
pham

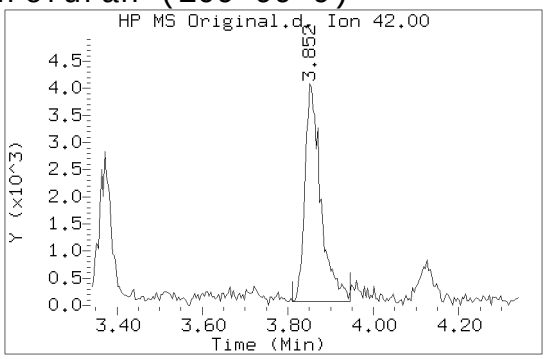


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D
Inj Date : 16-DEC-2022 13:02
InstruID : voa6.i
LabSampID : VSTD002

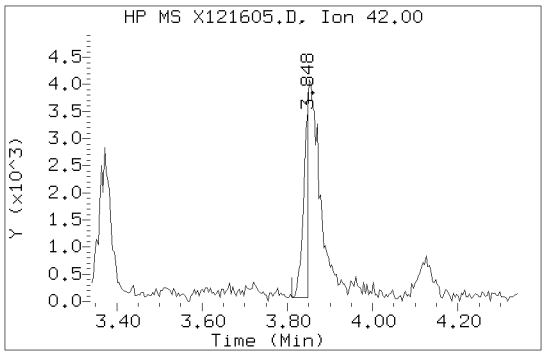
Tetrahydrofuran (109-99-9)

Reason Code:

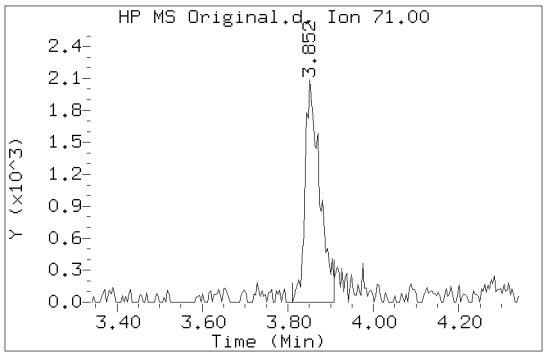
BEFORE
MASS
42
AREA
10469
HEIGHT
4012
27-Dec-2022
16:03
linh
pham



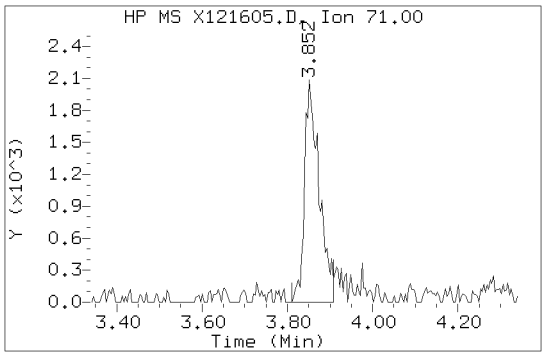
AFTER
MASS
42
AREA
2867
HEIGHT
3419
27-Dec-2022
16:07
linh
pham



BEFORE
MASS
71
AREA
5020
HEIGHT
2086
27-Dec-2022
16:03
linh
pham



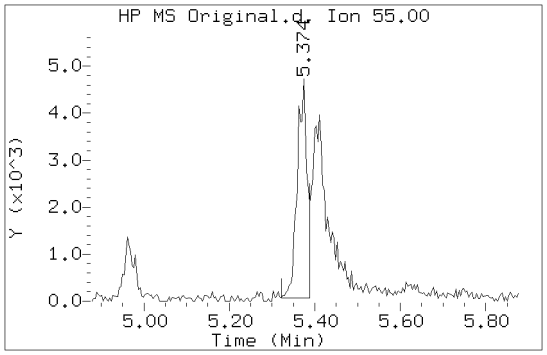
AFTER
MASS
71
AREA
5020
HEIGHT
2086
27-Dec-2022
16:07
linh
pham



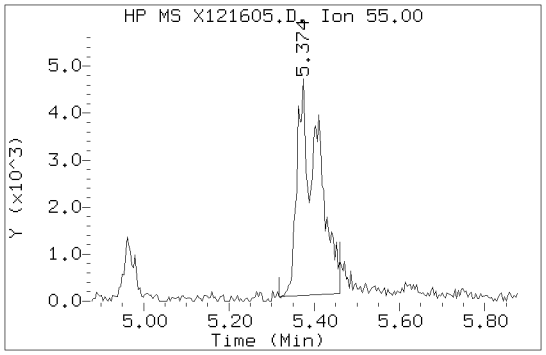
Methylcyclohexane (108-87-2)

Reason Code:

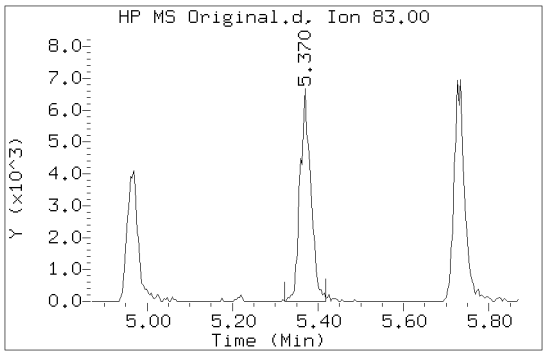
BEFORE
MASS
55
AREA
7676
HEIGHT
4656
27-Dec-2022
16:03
linh
pham



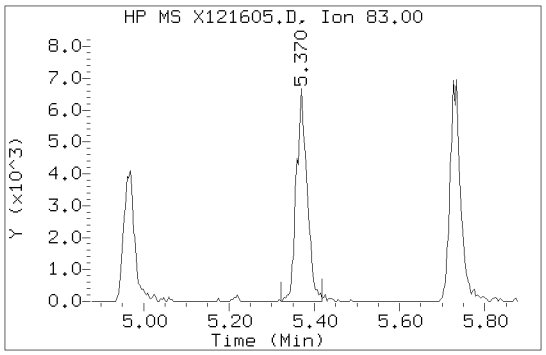
AFTER
MASS
55
AREA
16016
HEIGHT
4611
27-Dec-2022
16:07
linh
pham



BEFORE
MASS
83
AREA
11881
HEIGHT
6672
27-Dec-2022
16:03
linh
pham



AFTER
MASS
83
AREA
11881
HEIGHT
6672
27-Dec-2022
16:07
linh
pham

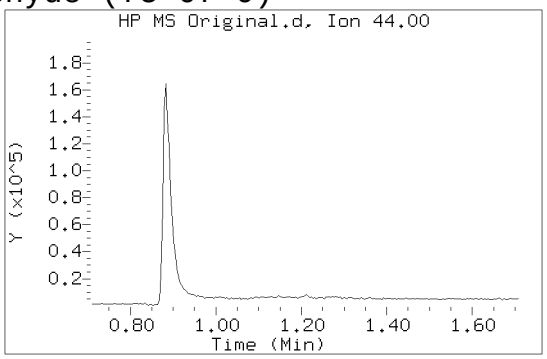


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D
Inj Date : 16-DEC-2022 13:02
InstruID : voa6.i
LabSampID : VSTD002

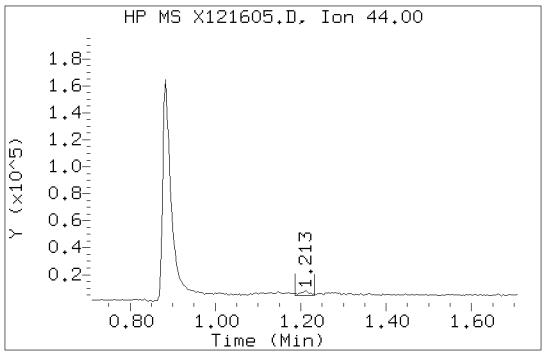
Acetaldehyde (75-07-0)

Reason Code:

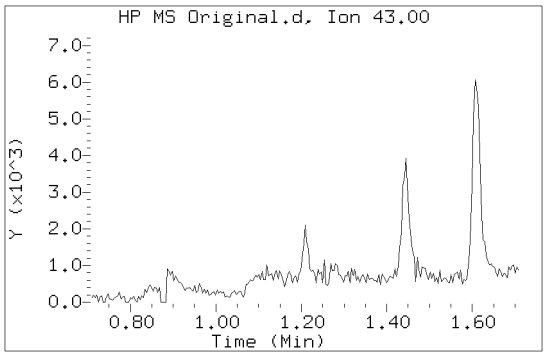
BEFORE
MASS
44
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



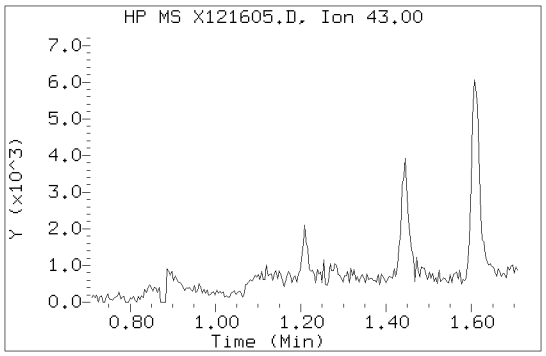
AFTER
MASS
44
AREA
5661
HEIGHT
3463
27-Dec-2022
16:07
linh
pham



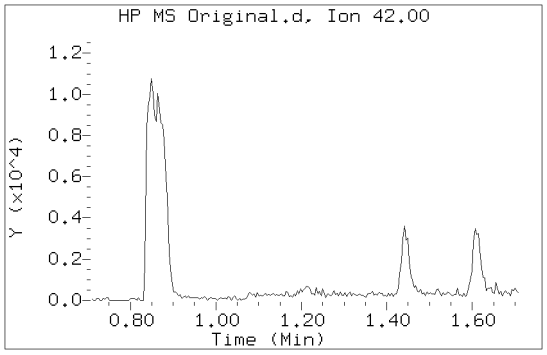
BEFORE
MASS
43
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



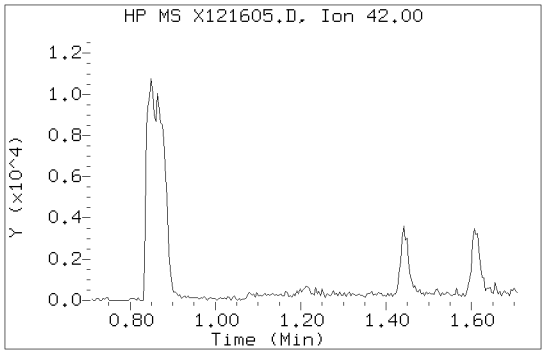
AFTER
MASS
43
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



BEFORE
MASS
42
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER
MASS
42
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121606.D Page 1
Report Date: 27-Dec-2022 16:07

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121606.D
Lab Smp Id: VSTD005 Client Smp ID: VSTD005
Inj Date : 16-DEC-2022 13:23
Operator : PC Inst ID: voa6.i
Smp Info : VSTD005;VSTD005;1;5;
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\8260W.m
Meth Date : 27-Dec-2022 16:07 voa6.i Quant Type: ISTD
Cal Date : 16-DEC-2022 13:02 Cal File: X121605.D
Als bottle: 7 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260V6.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.178	4.178	(1.000)	450664	50.0000	
135 1,4-Dioxane	88	5.602	5.602	(1.341)	4197	100.000	101.88(M)
140 1,3-Butadiene	54	1.164	1.164	(0.279)	14283	5.00000	4.61
25 Methacrylonitrile	41	3.840	3.840	(0.919)	15701	5.00000	4.92(M)
12 Isobutyl Alcohol	43	4.680	4.680	(1.120)	51624	100.000	101.84
13 Acetonitrile	39	2.198	2.198	(0.526)	19635	50.0000	47.87
14 Allyl Chloride	41	2.198	2.198	(0.526)	37993	5.00000	4.86
4 Propionitrile	54	3.660	3.660	(0.876)	23049	50.0000	50.12
136 n-Hexane	57	2.772	2.772	(0.664)	14618	5.00000	4.50
72 trans-1,4-Dichloro-2-butene	53	8.901	8.901	(1.161)	6648	5.00000	4.70(M)
194 Acetaldehyde	44	1.209	1.209	(0.289)	6161	20.0000	0.80(M)
23 Chloroprene	53	1.771	1.771	(0.424)	7154	5.00000	4.66(M)
145 alpha-Methylstyrene	118	9.261	9.261	(0.958)	37831	5.00000	4.79
200 Dimethyl Disulfide	94	6.198	6.198	(0.808)	40144	5.00000	4.53
139 Diethyl ether	59	1.756	1.756	(0.420)	15119	5.00000	5.02
130 Ethyl Acetate	43	3.660	3.660	(0.876)	18020	5.00000	5.12(M)
40 Methyl Methacrylate	41	5.617	5.617	(1.345)	15119	5.00000	4.92
49 Ethyl Methacrylate	69	6.715	6.715	(1.353)	13801	5.00000	4.27
132 n-Butanol	56	5.287	5.287	(1.266)	4891	100.000	125.41(M)
142 Tetrahydrofuran	42	3.848	3.848	(0.921)	7598	10.0000	10.82(M)

150	Allyl alcohol	57	2.772	2.772 (0.664)	14618	100.000	83.50
166	1,2,3-Trimethylbenzene	105	9.733	9.733 (1.007)	80329	5.00000	4.68

Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121606.D Page 2
Report Date: 27-Dec-2022 16:07

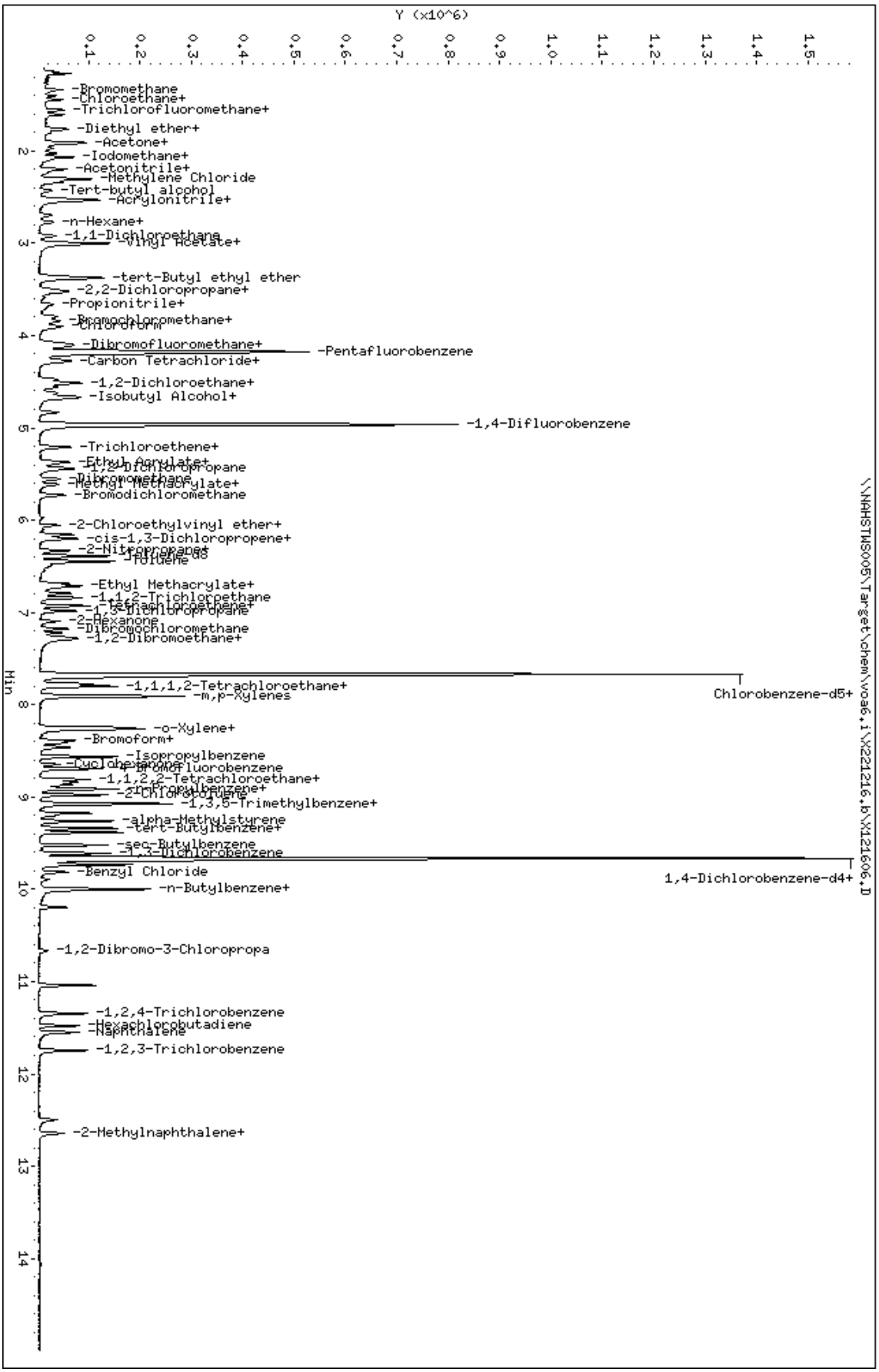
		QUANT SIG					AMOUNTS CAL-AMT	ON-COL
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/l)	(ug/l)
	131 Methyl Acrylate	55	3.705	3.705	(0.887)	14950	5.00000	4.88(M)
	162 Butyl acrylate	55	8.260	8.260	(1.077)	38320	5.00000	4.48
	2 Dichlorodifluoromethane	85	0.972	0.972	(0.233)	15008	5.00000	5.11
	3 Chloromethane	50	1.077	1.077	(0.258)	19623	5.00000	6.81
	5 Vinyl Chloride	62	1.141	1.141	(0.273)	19002	5.00000	4.82
	6 Bromomethane	94	1.336	1.336	(0.320)	15112	5.00000	6.66
	7 Chloroethane	64	1.400	1.400	(0.335)	14167	5.00000	5.17
	8 Trichlorofluoromethane	101	1.557	1.557	(0.373)	26620	5.00000	4.83
	9 Acrolein	56	1.441	1.441	(0.345)	2699	10.0000	11.33
	10 Acetone	43	1.973	1.973	(0.472)	17632	10.0000	13.91
	11 1,1-Dichloroethene	96	1.910	1.910	(0.457)	16850	5.00000	4.92
	15 Iodomethane	142	2.026	2.026	(0.485)	26708	10.0000	9.27
	16 Acrylonitrile	53	2.551	2.551	(0.611)	11047	10.0000	9.52
	17 Methylene Chloride	84	2.303	2.303	(0.551)	22932	5.00000	4.88(M)
	18 Methyl tert-butyl ether	73	2.532	2.532	(0.606)	56330	5.00000	5.03
	19 Carbon Disulfide	76	2.067	2.067	(0.495)	85418	10.0000	9.54
	20 trans-1,2-Dichloroethene	96	2.532	2.532	(0.606)	19006	5.00000	4.96
	21 Vinyl Acetate	43	3.000	3.000	(0.718)	101238	10.0000	10.30
	22 1,1-Dichloroethane	63	2.922	2.922	(0.699)	33810	5.00000	5.03
	24 2-Butanone	43	3.600	3.600	(0.862)	11771	10.0000	11.53(H)
	26 2,2-Dichloropropane	77	3.507	3.507	(0.839)	27881	5.00000	4.88
	27 cis-1,2-Dichloroethene	96	3.533	3.533	(0.846)	22734	5.00000	4.88
	28 Chloroform	83	3.904	3.904	(0.935)	38156	5.00000	5.06
	29 Bromochloromethane	128	3.799	3.799	(0.909)	13213	5.00000	5.18
$	30 Dibromofluoromethane	113	4.103	4.103	(0.982)	24255	5.00000	5.45
	31 1,1,1-Trichloroethane	97	4.080	4.080	(0.977)	29017	5.00000	4.85
	32 1,1-Dichloropropene	75	4.279	4.279	(0.862)	23845	5.00000	4.90(M)
	33 1,2-Dichloroethane	62	4.556	4.556	(0.918)	28173	5.00000	5.01
	34 Carbon Tetrachloride	117	4.264	4.264	(0.859)	24171	5.00000	4.65
$	35 1,2-Dichloroethane-d4	65	4.477	4.477	(1.072)	24938	5.00000	5.70(M)
*	36 1,4-Difluorobenzene	114	4.965	4.965	(1.000)	685413	50.0000	
	37 Benzene	78	4.511	4.511	(0.909)	81981	5.00000	5.00
	38 Trichloroethene	130	5.208	5.208	(1.049)	22693	5.00000	4.88
	39 Bromodichloromethane	83	5.729	5.729	(1.154)	29358	5.00000	4.77
	41 2-Chloroethylvinyl ether	63	6.056	6.056	(1.220)	17700	10.0000	10.12
	42 1,2-Dichloropropane	63	5.437	5.437	(1.095)	21679	5.00000	4.97
	44 Dibromomethane	93	5.557	5.557	(1.119)	14449	5.00000	4.88
	45 4-Methyl-2-Pentanone	43	6.329	6.329	(0.825)	34912	10.0000	9.98
	46 cis-1,3-Dichloropropene	75	6.161	6.161	(1.241)	35507	5.00000	4.92
*	47 Chlorobenzene-d5	117	7.668	7.668	(1.000)	654176	50.0000	
$	48 Toluene-d8	98	6.389	6.389	(0.833)	81640	5.00000	5.05
	50 Toluene	91	6.449	6.449	(0.841)	89594	5.00000	4.95
	51 trans-1,3-Dichloropropene	75	6.689	6.689	(1.347)	28399	5.00000	4.74(M)
	52 2-Hexanone	43	7.094	7.094	(0.925)	24056	10.0000	10.11
	53 1,1,2-Trichloroethane	83	6.839	6.839	(0.892)	18638	5.00000	5.13
	54 1,3-Dichloropropane	76	6.985	6.985	(0.911)	35759	5.00000	5.00
	55 Dibromochloromethane	129	7.176	7.176	(0.936)	25357	5.00000	4.84
	56 Tetrachloroethene	164	6.929	6.929	(0.904)	17219	5.00000	4.60
	57 1,2-Dibromoethane	107	7.263	7.263	(0.947)	23172	5.00000	5.10
	58 1-Chlorohexane	55	7.698	7.698	(1.550)	15210	5.00000	4.59(MH)
	59 Chlorobenzene	112	7.694	7.694	(1.003)	62744	5.00000	4.89
	60 1,1,1,2-Tetrachloroethane	131	7.776	7.776	(1.014)	22632	5.00000	4.74

61 Ethylbenzene	106	7.802	7.802 (1.018)	29550	5.00000	4.89
62 m,p-Xylenes	106	7.907	7.907 (1.031)	73283	10.0000	9.40

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
63	o-Xylene	106	8.245	8.245	(1.075)	37189	5.00000	4.83
64	Styrene	104	8.267	8.267	(1.078)	62411	5.00000	4.84
66	Bromoform	173	8.414	8.414	(1.097)	16801	5.00000	4.63
67	Isopropylbenzene	105	8.563	8.563	(1.117)	85440	5.00000	4.86
68	1,1,2,2-Tetrachloroethane	83	8.841	8.841	(0.915)	29807	5.00000	5.24
$ 69	4-Bromofluorobenzene	95	8.695	8.695	(1.134)	32501	5.00000	5.43
* 70	1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	356340	50.0000	
71	1,2,3-Trichloropropane	75	8.867	8.867	(0.918)	20685	5.00000	5.21(M)
73	n-Propylbenzene	91	8.916	8.916	(0.923)	97603	5.00000	4.94
74	Bromobenzene	156	8.811	8.811	(0.912)	28887	5.00000	4.94
75	1,3,5-Trimethylbenzene	105	9.070	9.070	(0.939)	72501	5.00000	4.97
76	2-Chlorotoluene	91	8.976	8.976	(0.929)	65973	5.00000	5.09
77	4-Chlorotoluene	91	9.077	9.077	(0.939)	75073	5.00000	5.08
78	tert-Butylbenzene	119	9.336	9.336	(0.966)	59375	5.00000	4.97
79	1,2,4-Trimethylbenzene	105	9.381	9.381	(0.971)	75723	5.00000	4.93
81	sec-Butylbenzene	105	9.523	9.523	(0.986)	77577	5.00000	4.88
82	p-Isopropyltoluene	119	9.651	9.651	(0.999)	69666	5.00000	4.89
83	1,3-Dichlorobenzene	146	9.609	9.609	(0.995)	49954	5.00000	5.14
84	1,4-Dichlorobenzene	146	9.684	9.684	(1.002)	52655	5.00000	4.97
86	Benzyl Chloride	91	9.816	9.816	(1.280)	35254	5.00000	5.95
87	n-Butylbenzene	91	9.999	9.999	(1.035)	54831	5.00000	5.63
88	1,2-Dichlorobenzene	146	9.995	9.995	(1.035)	50895	5.00000	5.09
89	1,2-Dibromo-3-Chloropropane	155	10.670	10.670	(1.104)	4911	5.00000	5.49
90	1,2,4-Trichlorobenzene	180	11.345	11.345	(1.174)	31873	5.00000	5.05
91	Hexachlorobutadiene	225	11.480	11.480	(1.188)	13454	5.00000	4.81
92	Naphthalene	128	11.551	11.551	(1.196)	72748	5.00000	5.06
93	1,2,3-Trichlorobenzene	180	11.746	11.746	(1.216)	30274	5.00000	5.01
M 94	1,2-Dichloroethylene (total)	96				41740	10.0000	
M 95	Xylenes (total)	106				110472	15.0000	
141	Cyclohexane	56	4.118	4.118	(0.986)	19859	5.00000	5.52(H)
138	Freon TF	101	1.913	1.913	(0.458)	14845	5.00000	4.48
147	Methylcyclohexane	55	5.388	5.388	(1.085)	38650	5.00000	4.60(M)
146	Methyl Acetate	43	2.236	2.236	(0.535)	8968	5.00000	4.42
148	Tert-Butyl alcohol	59	2.431	2.431	(0.582)	30525	100.000	97.81
149	Isopropyl Alcohol	45	2.097	2.097	(0.502)	16518	100.000	101.35(T)

QC Flag Legend

T - Target compound detected outside RT window.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.



Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121606.D
Date : 16-DEC-2022 13:23
Client ID: VSTD005
Sample Info: VSTD005;VSTD005;1;5;
Purge Volume: 5.0
Column phase: DB624

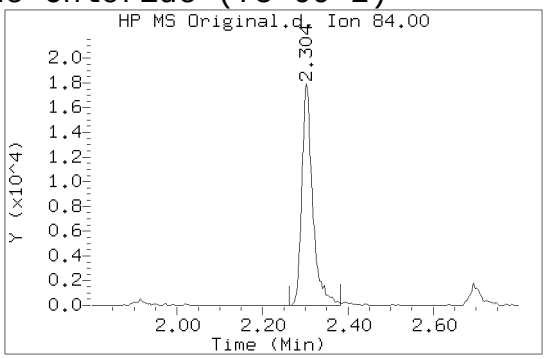
Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121606.D
Inj Date : 16-DEC-2022 13:23
InstruID : voa6.i
LabSampID : VSTD005

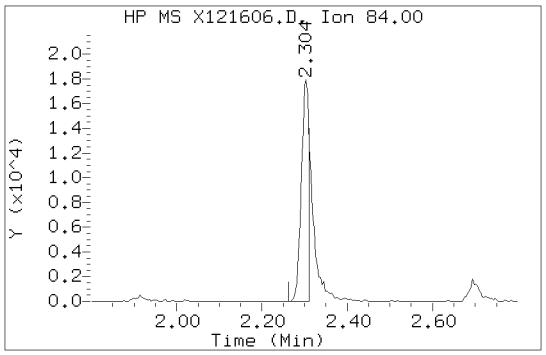
Methylene Chloride (75-09-2)

Reason Code:

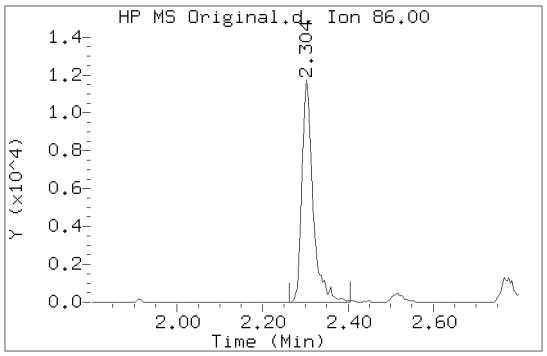
BEFORE
MASS
84
AREA
32325
HEIGHT
17936
27-Dec-2022
16:03
linh
pham



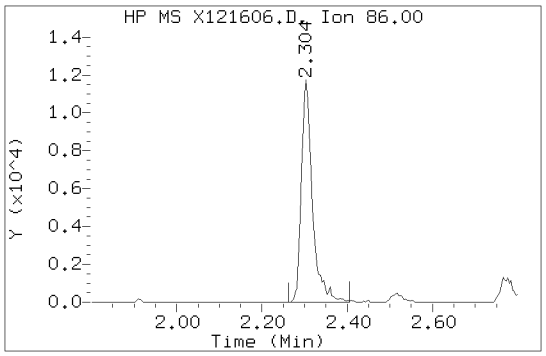
AFTER
MASS
84
AREA
22932
HEIGHT
17936
27-Dec-2022
16:07
linh
pham



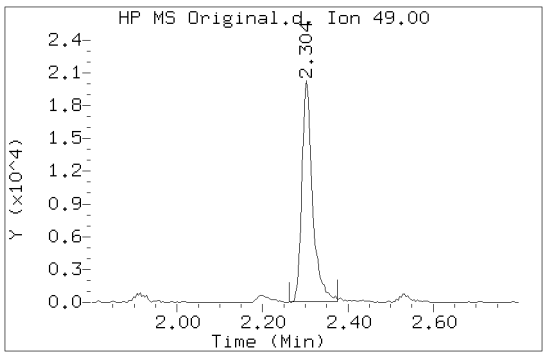
BEFORE
MASS
86
AREA
21691
HEIGHT
11740
27-Dec-2022
16:03
linh
pham



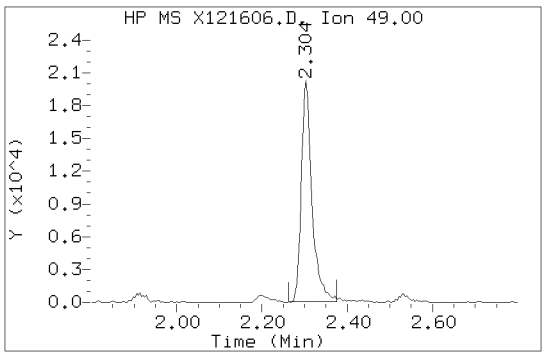
AFTER
MASS
86
AREA
21691
HEIGHT
11740
27-Dec-2022
16:07
linh
pham



BEFORE
MASS
49
AREA
35909
HEIGHT
20222
27-Dec-2022
16:03
linh
pham



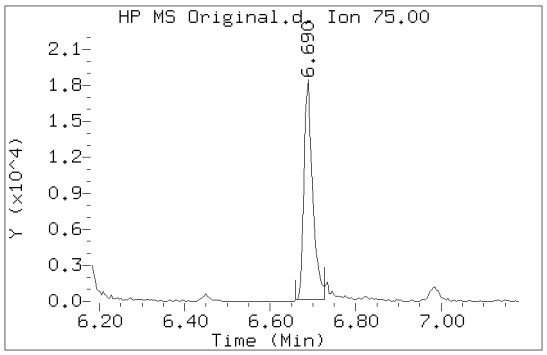
AFTER
MASS
49
AREA
35909
HEIGHT
20222
27-Dec-2022
16:07
linh
pham



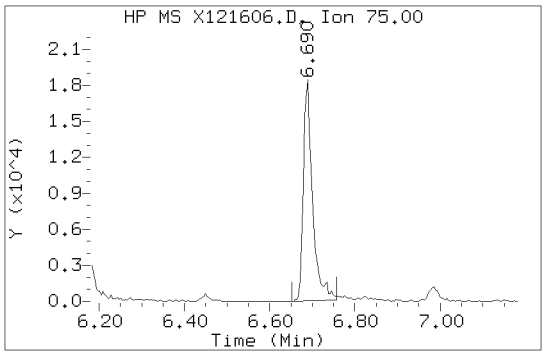
trans-1,3-Dichloropropene (10061-02-6)

Reason Code:

BEFORE
MASS
75
AREA
26483
HEIGHT
18306
27-Dec-2022
16:03
linh
pham



AFTER
MASS
75
AREA
28399
HEIGHT
18443
27-Dec-2022
16:07
linh
pham



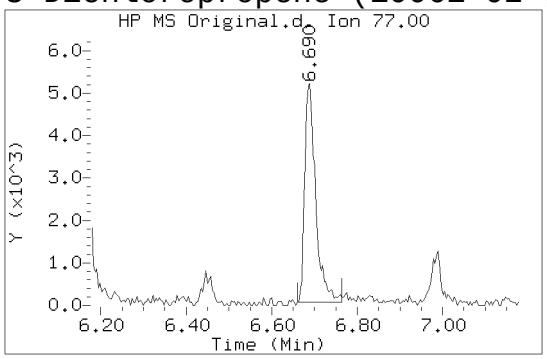
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121606.D
Inj Date : 16-DEC-2022 13:23
InstruID : voa6.i
LabSampID : VSTD005

trans-1,3-Dichloropropene (10061-02-6)

Reason Code:

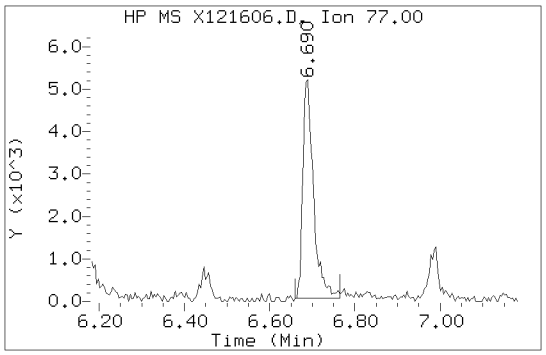
BEFORE

MASS
77
AREA
9244
HEIGHT
5154
27-Dec-2022
16:03
linh
pham



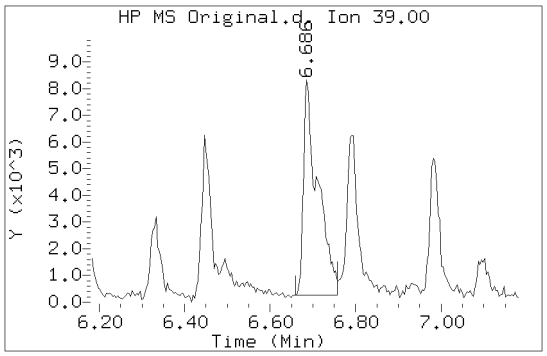
AFTER

MASS
77
AREA
9244
HEIGHT
5154
27-Dec-2022
16:07
linh
pham



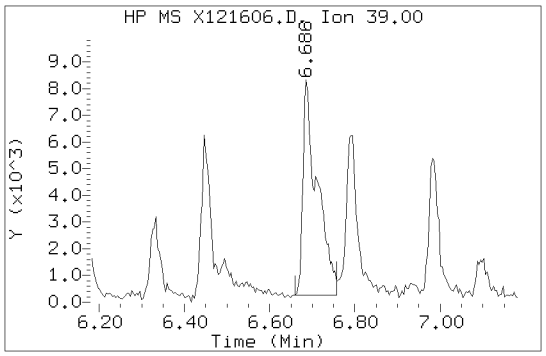
BEFORE

MASS
39
AREA
19092
HEIGHT
8065
27-Dec-2022
16:03
linh
pham



AFTER

MASS
39
AREA
19092
HEIGHT
8065
27-Dec-2022
16:07
linh
pham

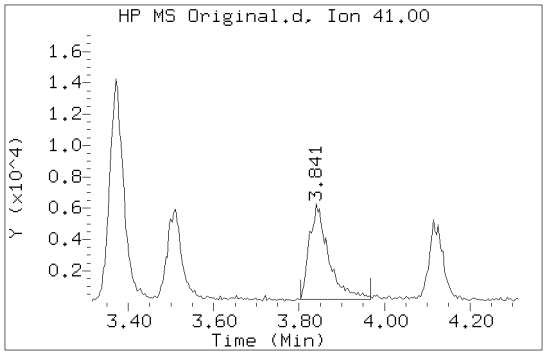


Methacrylonitrile (126-98-7)

Reason Code:

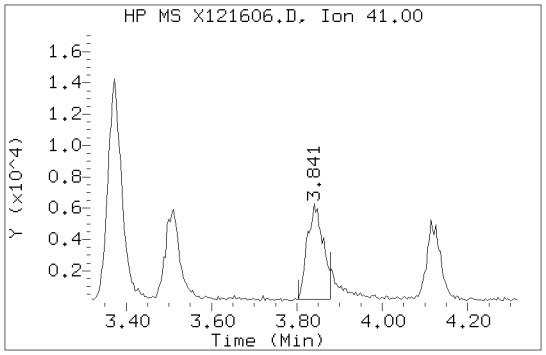
BEFORE

MASS
41
AREA
18790
HEIGHT
6109
27-Dec-2022
16:03
linh
pham



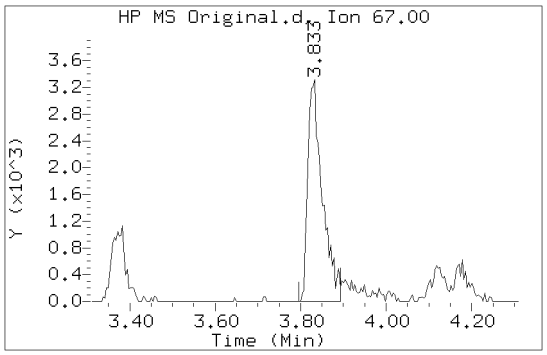
AFTER

MASS
41
AREA
15701
HEIGHT
6109
27-Dec-2022
16:07
linh
pham



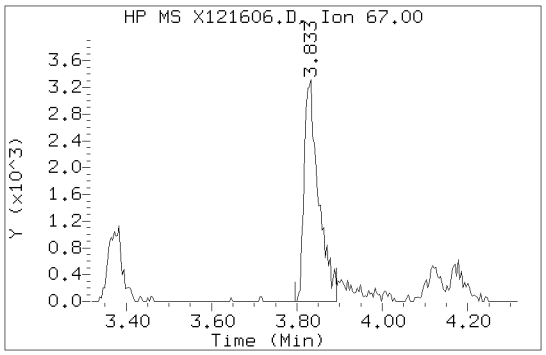
BEFORE

MASS
67
AREA
7866
HEIGHT
3315
27-Dec-2022
16:03
linh
pham



AFTER

MASS
67
AREA
7866
HEIGHT
3315
27-Dec-2022
16:07
linh
pham



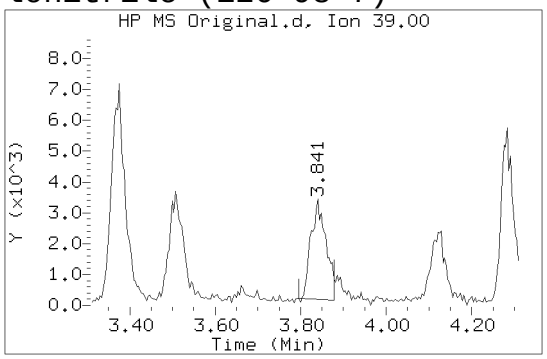
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121606.D
Inj Date : 16-DEC-2022 13:23
InstruID : voa6.i
LabSampID : VSTD005

Methacrylonitrile (126-98-7)

Reason Code:

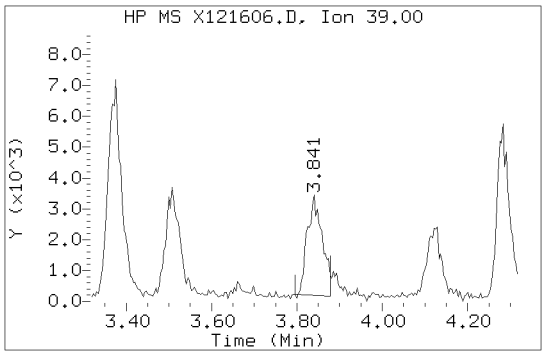
BEFORE

MASS
39
AREA
7951
HEIGHT
3252
27-Dec-2022
16:03
linh
pham



AFTER

MASS
39
AREA
7951
HEIGHT
3252
27-Dec-2022
16:07
linh
pham

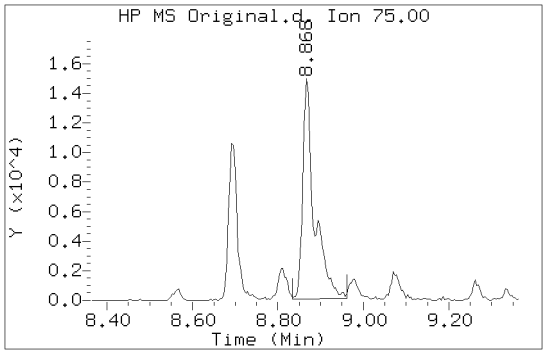


1,2,3-Trichloropropane (96-18-4)

Reason Code:

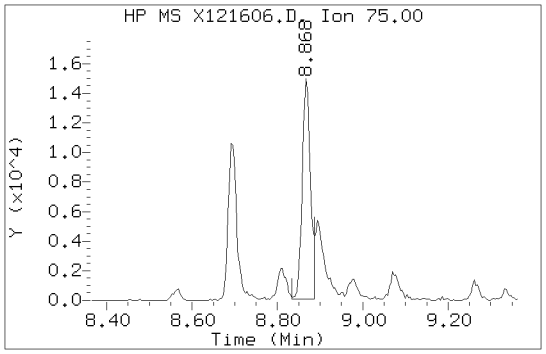
BEFORE

MASS
75
AREA
28905
HEIGHT
14911
27-Dec-2022
16:03
linh
pham



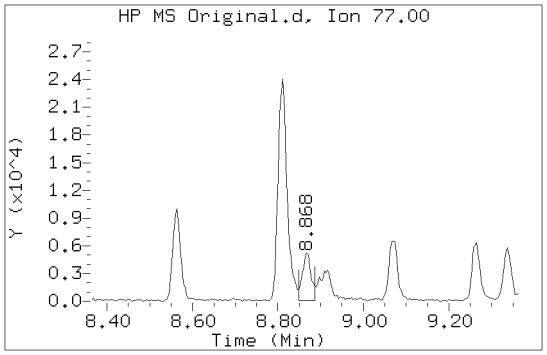
AFTER

MASS
75
AREA
20685
HEIGHT
14911
27-Dec-2022
16:07
linh
pham



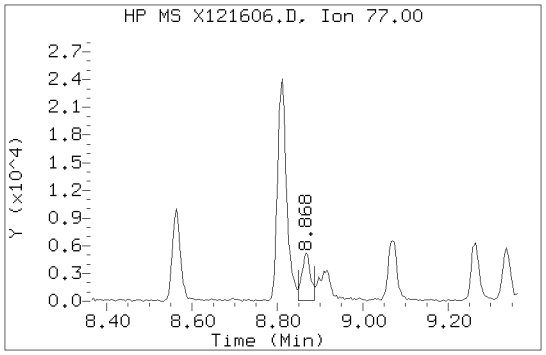
BEFORE

MASS
77
AREA
7524
HEIGHT
5143
27-Dec-2022
16:03
linh
pham



AFTER

MASS
77
AREA
7524
HEIGHT
5143
27-Dec-2022
16:07
linh
pham

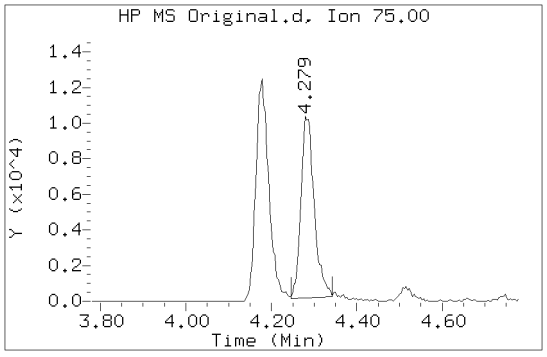


1,1-Dichloropropene (563-58-6)

Reason Code:

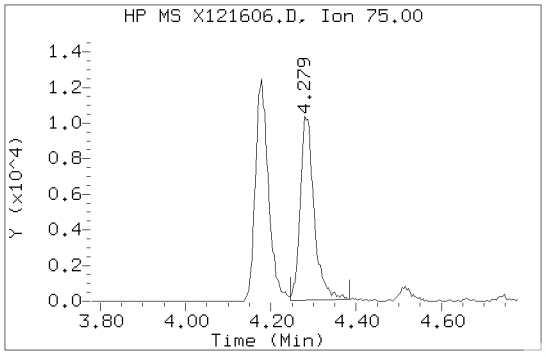
BEFORE

MASS
75
AREA
22411
HEIGHT
10201
27-Dec-2022
16:03
linh
pham



AFTER

MASS
75
AREA
23845
HEIGHT
10354
27-Dec-2022
16:07
linh
pham



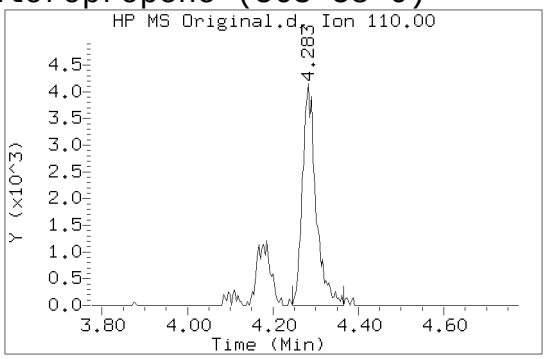
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121606.D
Inj Date : 16-DEC-2022 13:23
InstruID : voa6.i
LabSampID : VSTD005

1,1-Dichloropropene (563-58-6)

Reason Code:

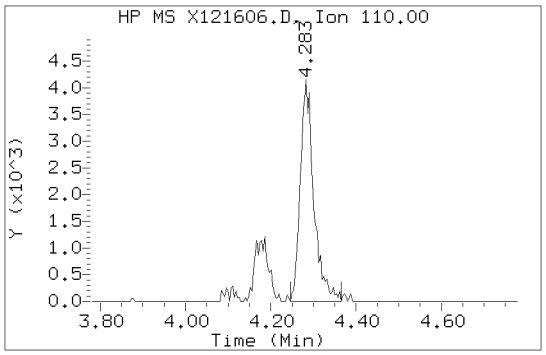
BEFORE

MASS
110
AREA
9244
HEIGHT
4151
27-Dec-2022
16:03
linh
pham



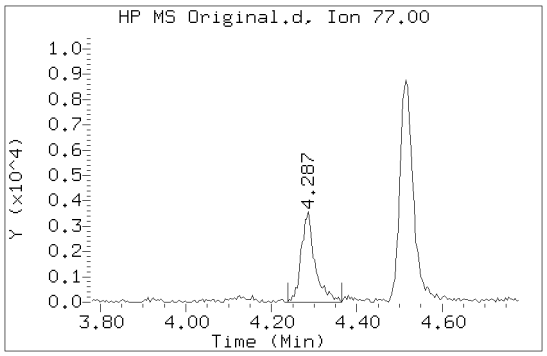
AFTER

MASS
110
AREA
9244
HEIGHT
4151
27-Dec-2022
16:07
linh
pham



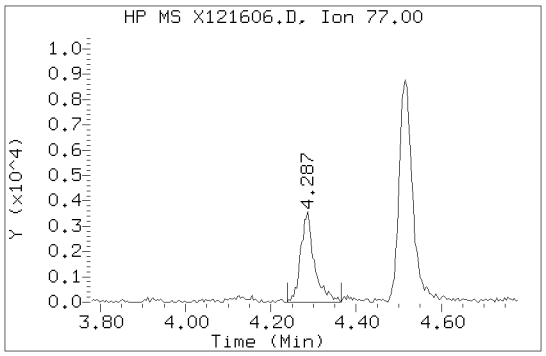
BEFORE

MASS
77
AREA
8083
HEIGHT
3567
27-Dec-2022
16:03
linh
pham



AFTER

MASS
77
AREA
8083
HEIGHT
3567
27-Dec-2022
16:07
linh
pham

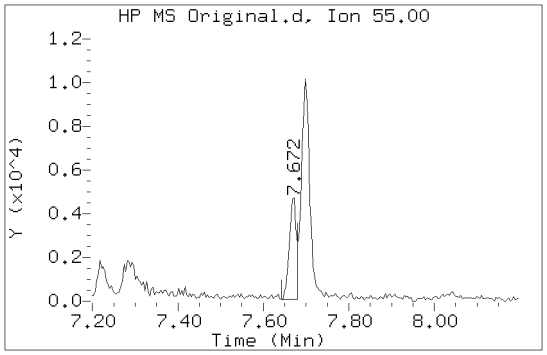


1-Chlorohexane (544-10-5)

Reason Code:

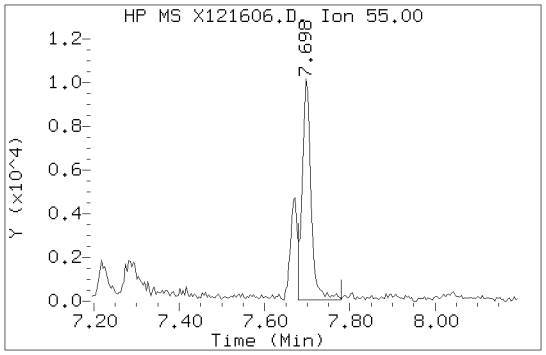
BEFORE

MASS
55
AREA
5371
HEIGHT
4660
27-Dec-2022
16:03
linh
pham



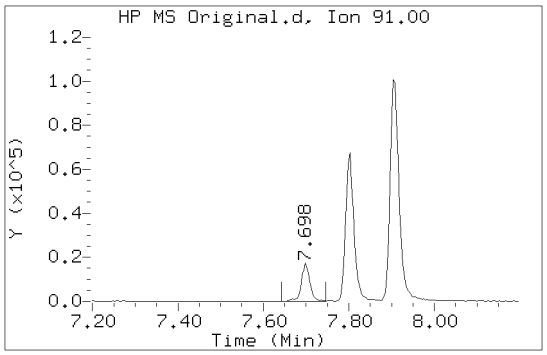
AFTER

MASS
55
AREA
15210
HEIGHT
10126
27-Dec-2022
16:07
linh
pham



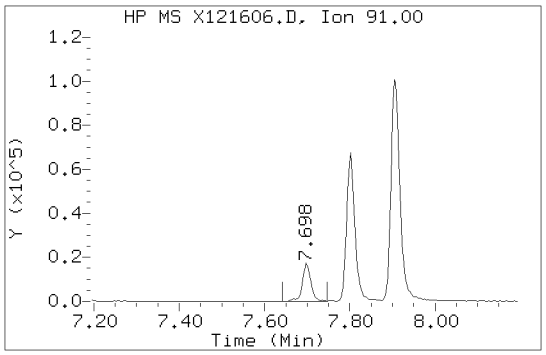
BEFORE

MASS
91
AREA
24578
HEIGHT
17336
27-Dec-2022
16:03
linh
pham



AFTER

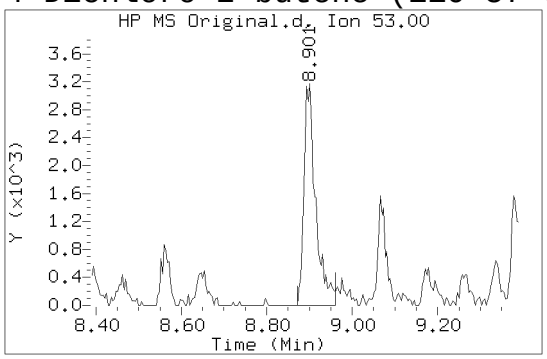
MASS
91
AREA
24578
HEIGHT
17336
27-Dec-2022
16:07
linh
pham



Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121606.D
Inj Date : 16-DEC-2022 13:23
InstruID : voa6.i
LabSampID : VSTD005

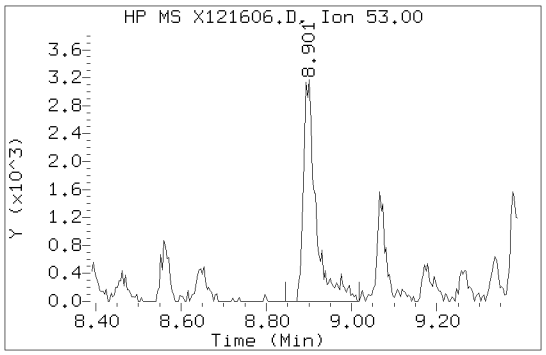
trans-1,4-Dichloro-2-butene (110-57-6)

BEFORE
MASS
53
AREA
6122
HEIGHT
3172
27-Dec-2022
16:03
linh
pham

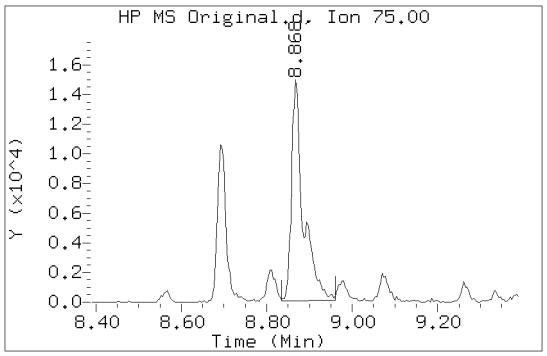


Reason Code:

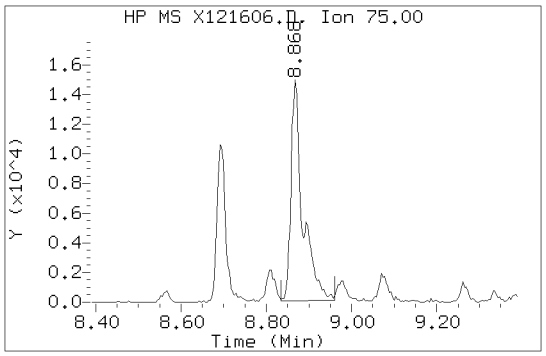
AFTER
MASS
53
AREA
6648
HEIGHT
3172
27-Dec-2022
16:07
linh
pham



BEFORE
MASS
75
AREA
28905
HEIGHT
14911
27-Dec-2022
16:03
linh
pham

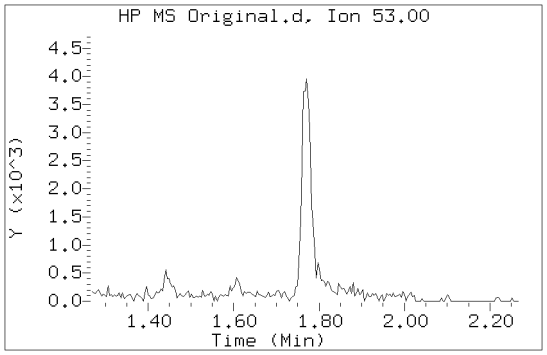


AFTER
MASS
75
AREA
28905
HEIGHT
14911
27-Dec-2022
16:07
linh
pham



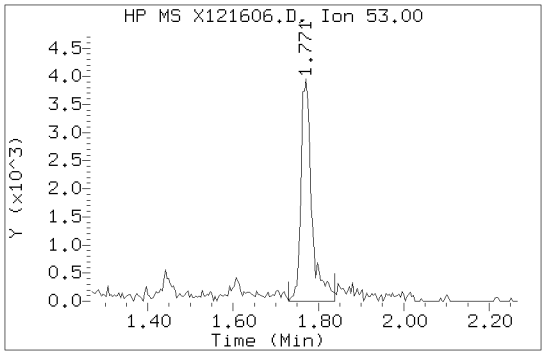
Chloroprene (126-99-8)

BEFORE
MASS
53
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham

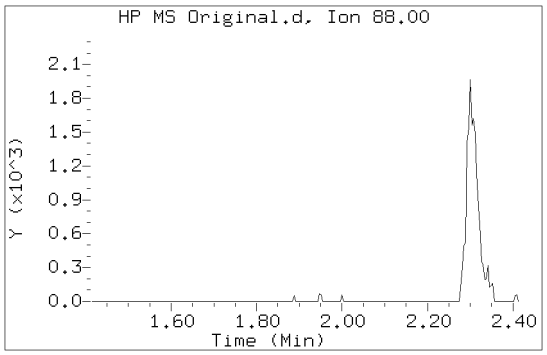


Reason Code:

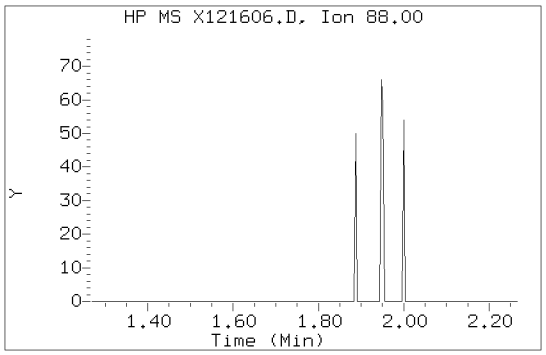
AFTER
MASS
53
AREA
7154
HEIGHT
3955
27-Dec-2022
16:07
linh
pham



BEFORE
MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER
MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



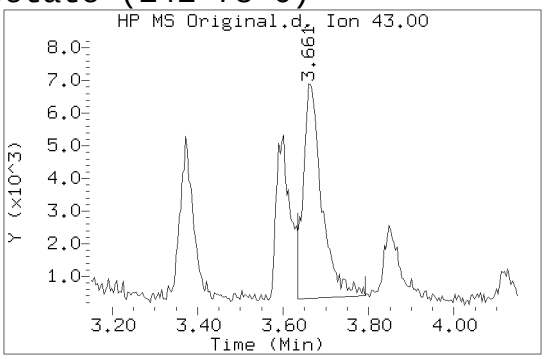
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121606.D
Inj Date : 16-DEC-2022 13:23
InstruID : voa6.i
LabSampID : VSTD005

Ethyl Acetate (141-78-6)

Reason Code:

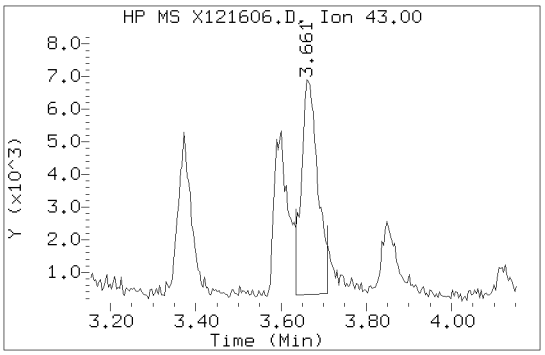
BEFORE

MASS
43
AREA
20113
HEIGHT
6576
27-Dec-2022
16:03
linh
pham



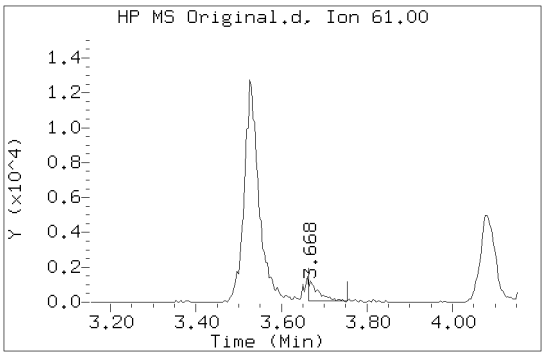
AFTER

MASS
43
AREA
18020
HEIGHT
6576
27-Dec-2022
16:07
linh
pham



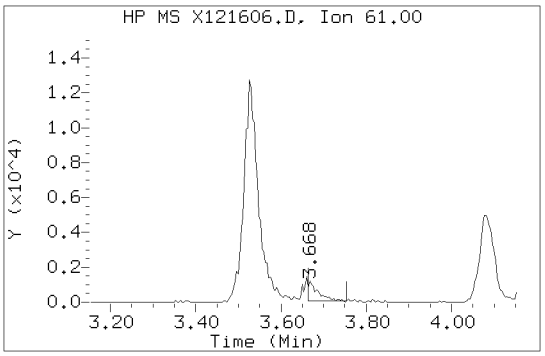
BEFORE

MASS
61
AREA
1766
HEIGHT
1155
27-Dec-2022
16:03
linh
pham



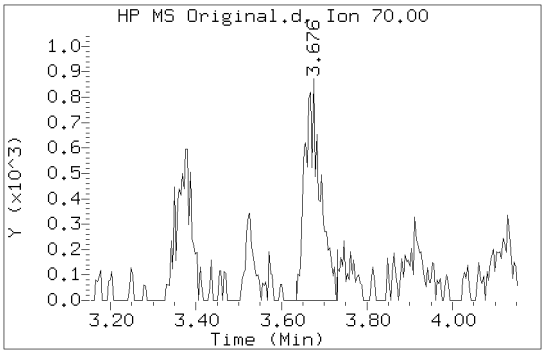
AFTER

MASS
61
AREA
1766
HEIGHT
1155
27-Dec-2022
16:07
linh
pham



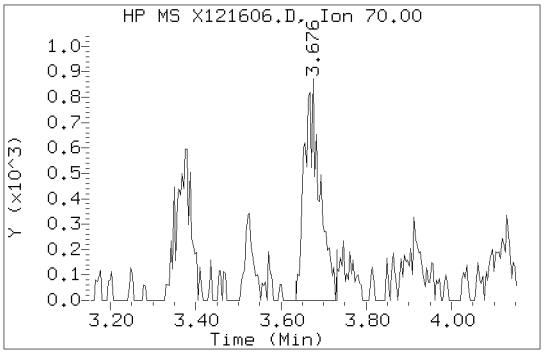
BEFORE

MASS
70
AREA
2205
HEIGHT
873
27-Dec-2022
16:03
linh
pham



AFTER

MASS
70
AREA
2205
HEIGHT
873
27-Dec-2022
16:07
linh
pham

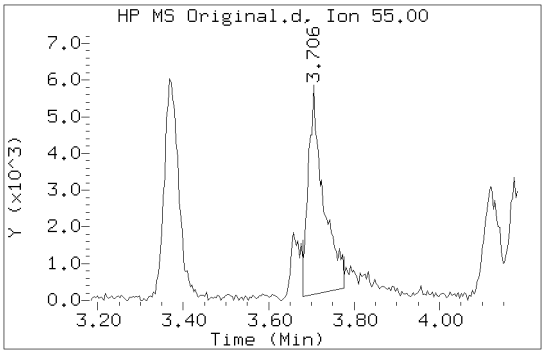


Methyl Acrylate (96-33-3)

Reason Code:

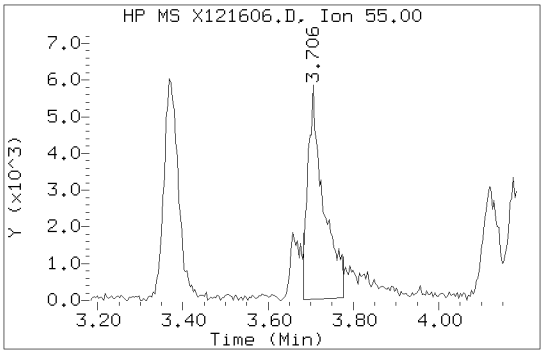
BEFORE

MASS
55
AREA
14157
HEIGHT
5696
27-Dec-2022
16:03
linh
pham



AFTER

MASS
55
AREA
14950
HEIGHT
5831
27-Dec-2022
16:07
linh
pham



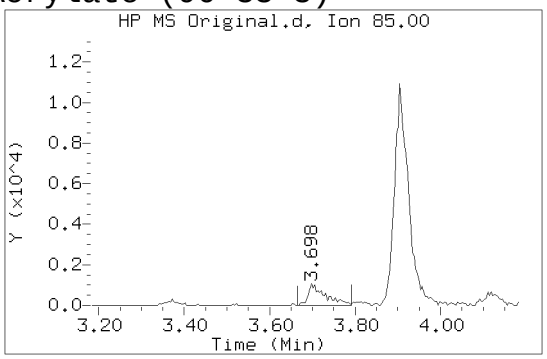
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121606.D
Inj Date : 16-DEC-2022 13:23
InstruID : voa6.i
LabSampID : VSTD005

Methyl Acrylate (96-33-3)

Reason Code:

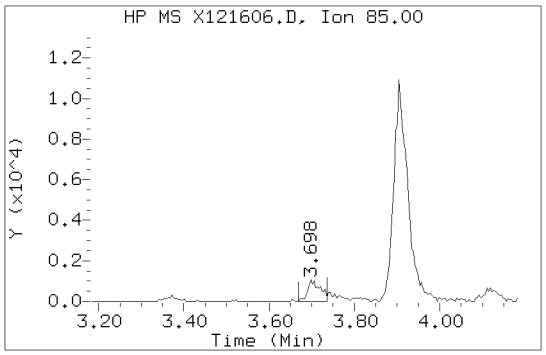
BEFORE

MASS
85
AREA
2934
HEIGHT
1073
27-Dec-2022
16:03
linh
pham



AFTER

MASS
85
AREA
2159
HEIGHT
1073
27-Dec-2022
16:07
linh
pham

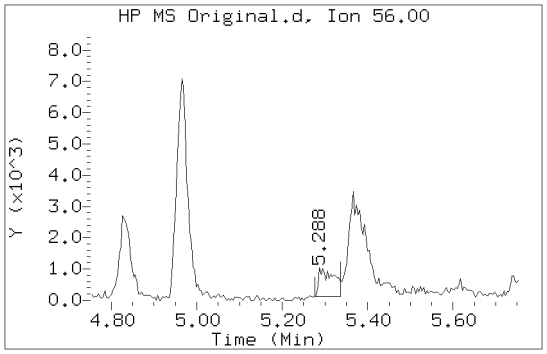


n-Butanol (71-36-3)

Reason Code:

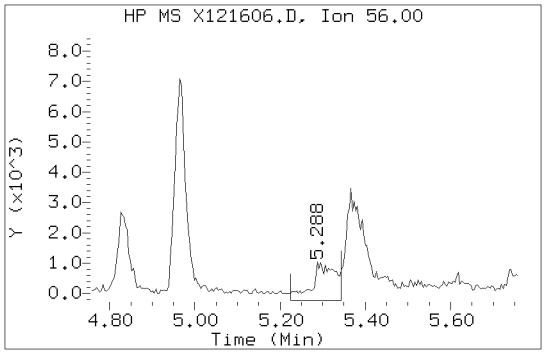
BEFORE

MASS
56
AREA
2243
HEIGHT
922
27-Dec-2022
16:03
linh
pham



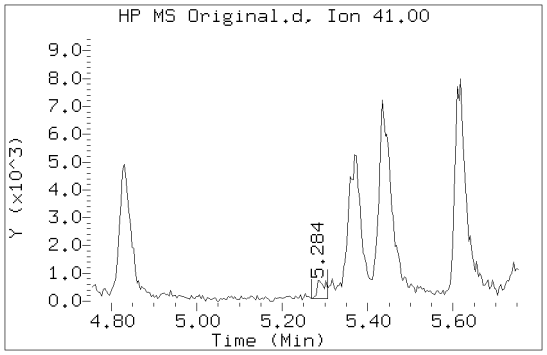
AFTER

MASS
56
AREA
4891
HEIGHT
1266
27-Dec-2022
16:07
linh
pham



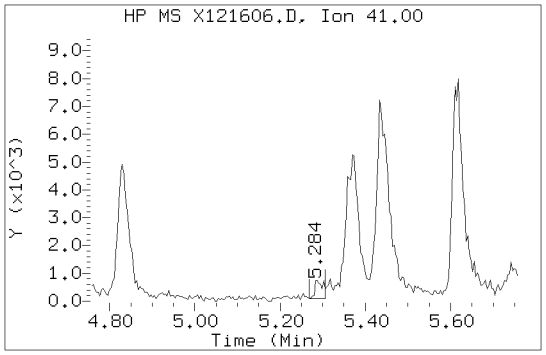
BEFORE

MASS
41
AREA
876
HEIGHT
641
27-Dec-2022
16:03
linh
pham



AFTER

MASS
41
AREA
876
HEIGHT
641
27-Dec-2022
16:07
linh
pham

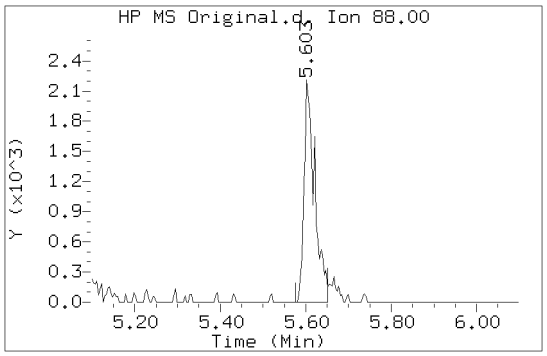


1,4-Dioxane ()

Reason Code:

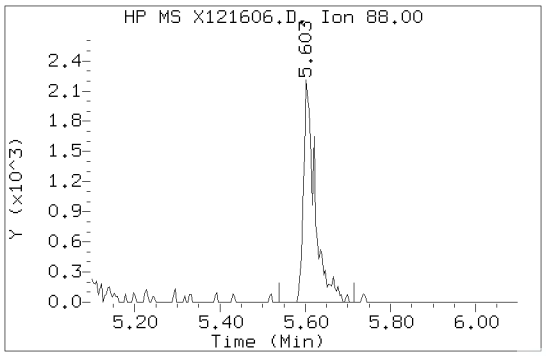
BEFORE

MASS
88
AREA
3873
HEIGHT
2211
27-Dec-2022
16:03
linh
pham



AFTER

MASS
88
AREA
4197
HEIGHT
2211
27-Dec-2022
16:07
linh
pham



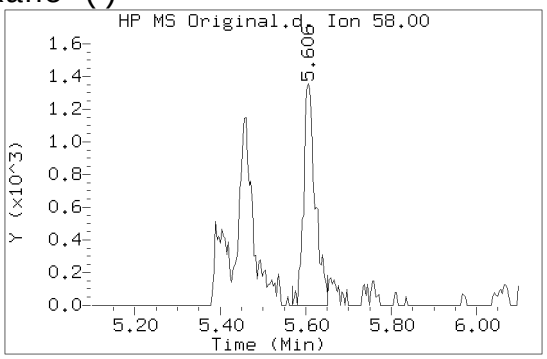
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121606.D
Inj Date : 16-DEC-2022 13:23
InstruID : voa6.i
LabSampID : VSTD005

1,4-Dioxane ()

Reason Code:

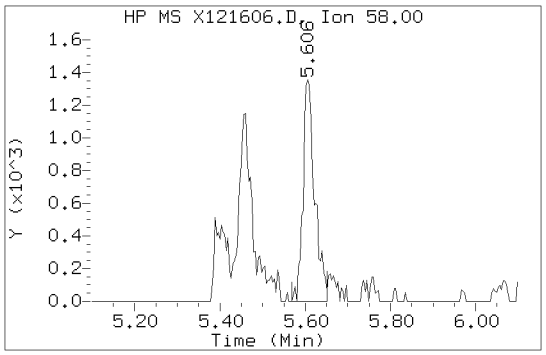
BEFORE

MASS
58
AREA
2625
HEIGHT
1356
27-Dec-2022
16:03
linh
pham



AFTER

MASS
58
AREA
2625
HEIGHT
1356
27-Dec-2022
16:07
linh
pham

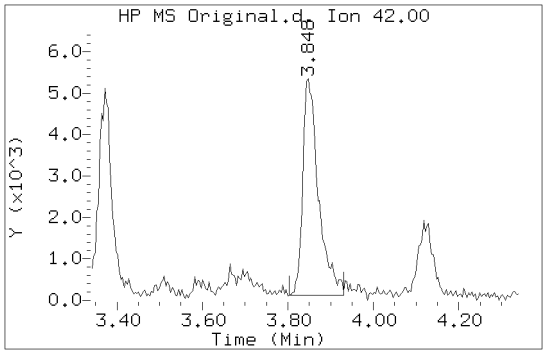


Tetrahydrofuran (109-99-9)

Reason Code:

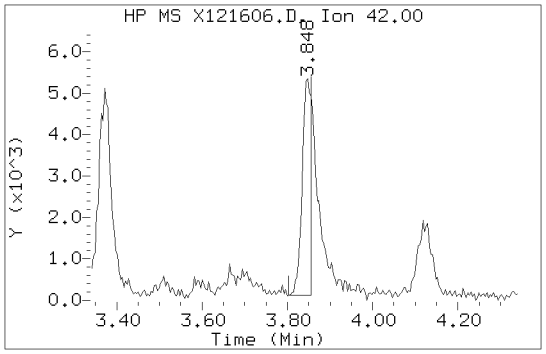
BEFORE

MASS
42
AREA
13557
HEIGHT
5225
27-Dec-2022
16:03
linh
pham



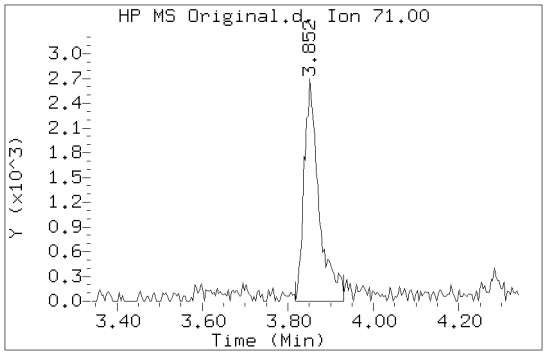
AFTER

MASS
42
AREA
7598
HEIGHT
5225
27-Dec-2022
16:07
linh
pham



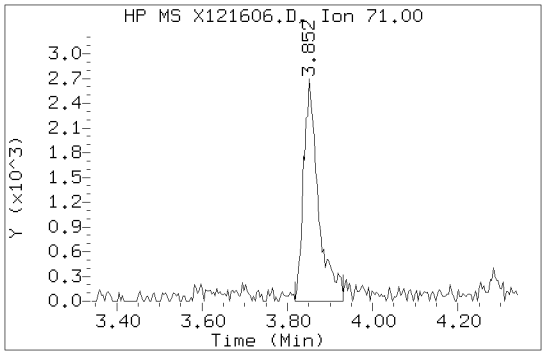
BEFORE

MASS
71
AREA
6572
HEIGHT
2695
27-Dec-2022
16:03
linh
pham



AFTER

MASS
71
AREA
6572
HEIGHT
2695
27-Dec-2022
16:07
linh
pham

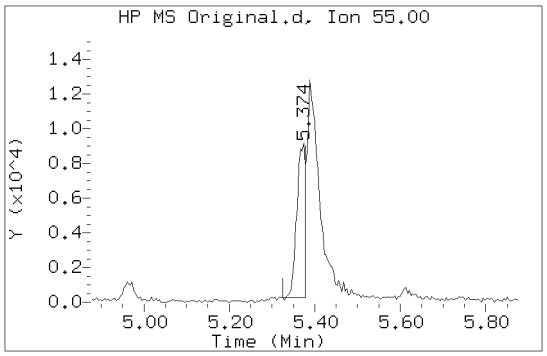


Methylcyclohexane (108-87-2)

Reason Code:

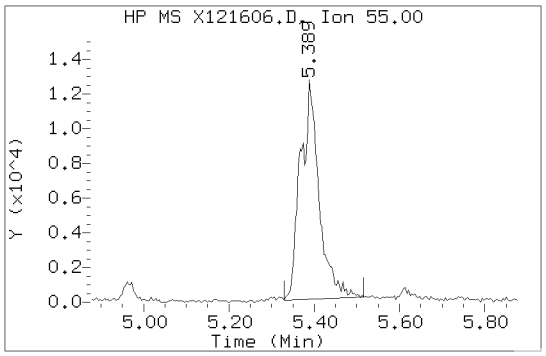
BEFORE

MASS
55
AREA
12381
HEIGHT
8941
27-Dec-2022
16:03
linh
pham



AFTER

MASS
55
AREA
38650
HEIGHT
12647
27-Dec-2022
16:07
linh
pham

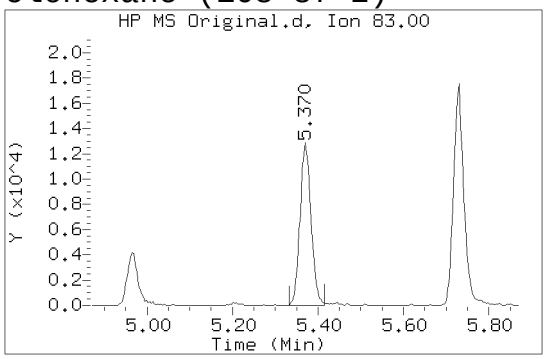


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121606.D
Inj Date : 16-DEC-2022 13:23
InstruID : voa6.i
LabSampID : VSTD005

Methylcyclohexane (108-87-2)

BEFORE

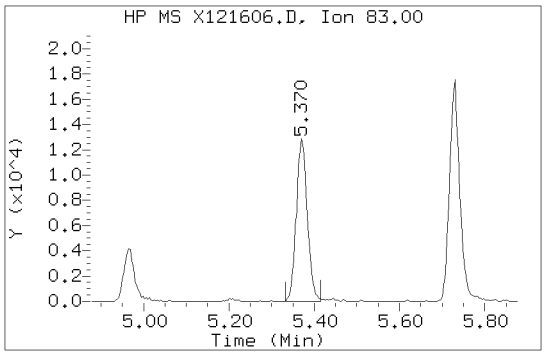
MASS
83
AREA
23564
HEIGHT
12870
27-Dec-2022
16:03
linh
pham



Reason Code:

AFTER

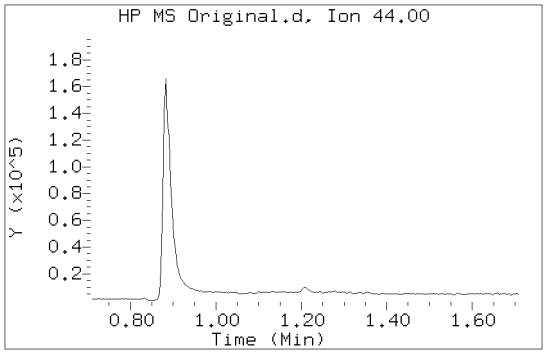
MASS
83
AREA
23564
HEIGHT
12870
27-Dec-2022
16:07
linh
pham



Acetaldehyde (75-07-0)

BEFORE

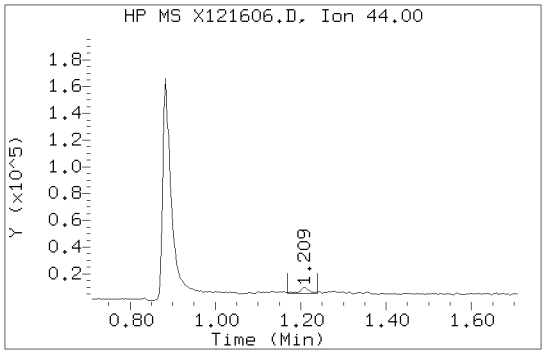
MASS
44
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



Reason Code:

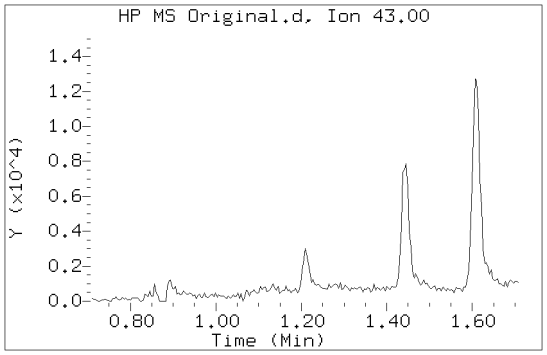
AFTER

MASS
44
AREA
6161
HEIGHT
4314
27-Dec-2022
16:07
linh
pham



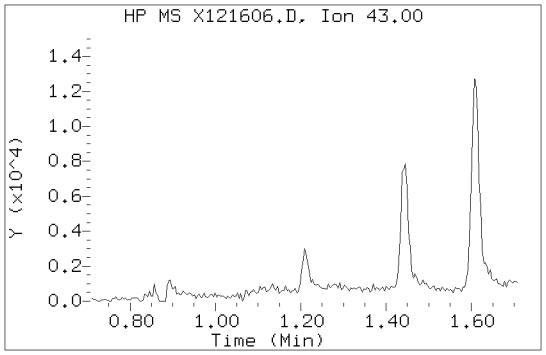
BEFORE

MASS
43
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



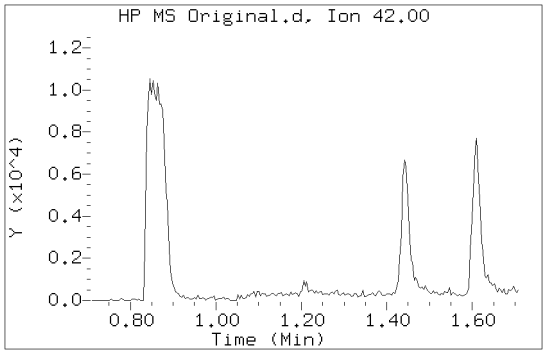
AFTER

MASS
43
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



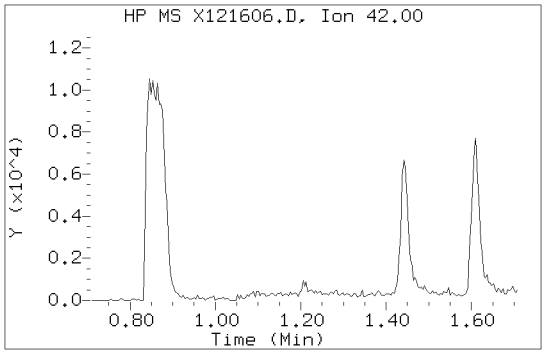
BEFORE

MASS
42
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
42
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



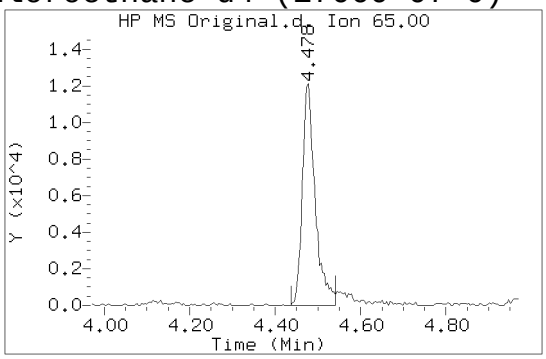
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121606.D
Inj Date : 16-DEC-2022 13:23
InstruID : voa6.i
LabSampID : VSTD005

1,2-Dichloroethane-d4 (17060-07-0)

Reason Code:

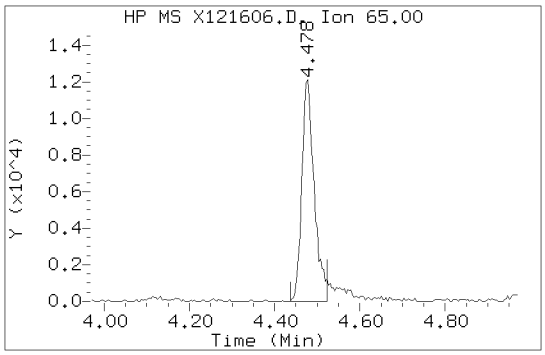
BEFORE

MASS
65
AREA
25815
HEIGHT
12121
27-Dec-2022
16:03
linh
pham



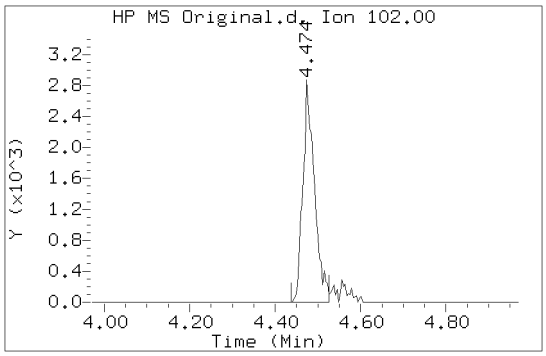
AFTER

MASS
65
AREA
24938
HEIGHT
12121
27-Dec-2022
16:07
linh
pham



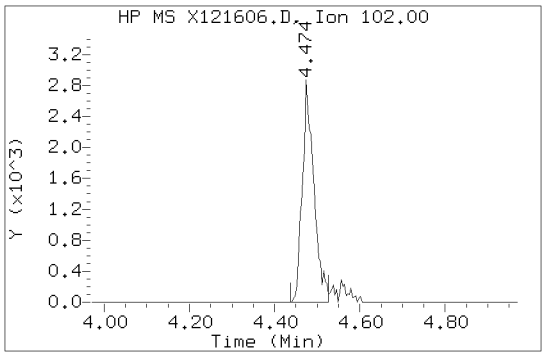
BEFORE

MASS
102
AREA
5492
HEIGHT
2873
27-Dec-2022
16:03
linh
pham



AFTER

MASS
102
AREA
5492
HEIGHT
2873
27-Dec-2022
16:07
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121607.D Page 1
Report Date: 27-Dec-2022 16:07

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121607.D
Lab Smp Id: VSTD020 Client Smp ID: VSTD020
Inj Date : 16-DEC-2022 13:43
Operator : PC Inst ID: voa6.i
Smp Info : VSTD020;VSTD020;1;6;
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\8260W.m
Meth Date : 27-Dec-2022 16:07 voa6.i Quant Type: ISTD
Cal Date : 16-DEC-2022 13:23 Cal File: X121606.D
Als bottle: 8 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260V6.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.178	4.178	(1.000)	459407	50.0000	
135 1,4-Dioxane	88	5.598	5.598	(1.340)	16105	400.000	383.50(M)
140 1,3-Butadiene	54	1.164	1.164	(0.279)	58280	20.0000	18.48
25 Methacrylonitrile	41	3.821	3.821	(0.915)	62911	20.0000	19.33
12 Isobutyl Alcohol	43	4.672	4.672	(1.118)	201008	400.000	388.99
13 Acetonitrile	39	2.195	2.195	(0.525)	81163	200.000	194.11
14 Allyl Chloride	41	2.195	2.195	(0.525)	150748	20.0000	18.93
4 Propionitrile	54	3.653	3.653	(0.874)	85562	200.000	182.52
136 n-Hexane	57	2.768	2.768	(0.663)	65476	20.0000	19.79
72 trans-1,4-Dichloro-2-butene	53	8.893	8.893	(1.160)	26140	20.0000	18.70
194 Acetaldehyde	44	1.209	1.209	(0.289)	32393	80.0000	100.98(M)
23 Chloroprene	53	1.767	1.767	(0.423)	27967	20.0000	17.90(M)
145 alpha-Methylstyrene	118	9.261	9.261	(0.958)	155968	20.0000	19.76
200 Dimethyl Disulfide	94	6.198	6.198	(0.808)	171978	20.0000	19.62
139 Diethyl ether	59	1.756	1.756	(0.420)	55275	20.0000	18.00
130 Ethyl Acetate	43	3.660	3.660	(0.876)	75163	20.0000	20.96
40 Methyl Methacrylate	41	5.606	5.606	(1.342)	56242	20.0000	17.95
49 Ethyl Methacrylate	69	6.712	6.712	(1.352)	58073	20.0000	18.07
132 n-Butanol	56	5.268	5.268	(1.261)	15012	400.000	294.62
142 Tetrahydrofuran	42	3.848	3.848	(0.921)	28221	40.0000	47.81

150	Allyl alcohol	57	2.768	2.768 (0.663)	65476	400.000	366.93
166	1,2,3-Trimethylbenzene	105	9.729	9.729 (1.007)	331546	20.0000	19.32

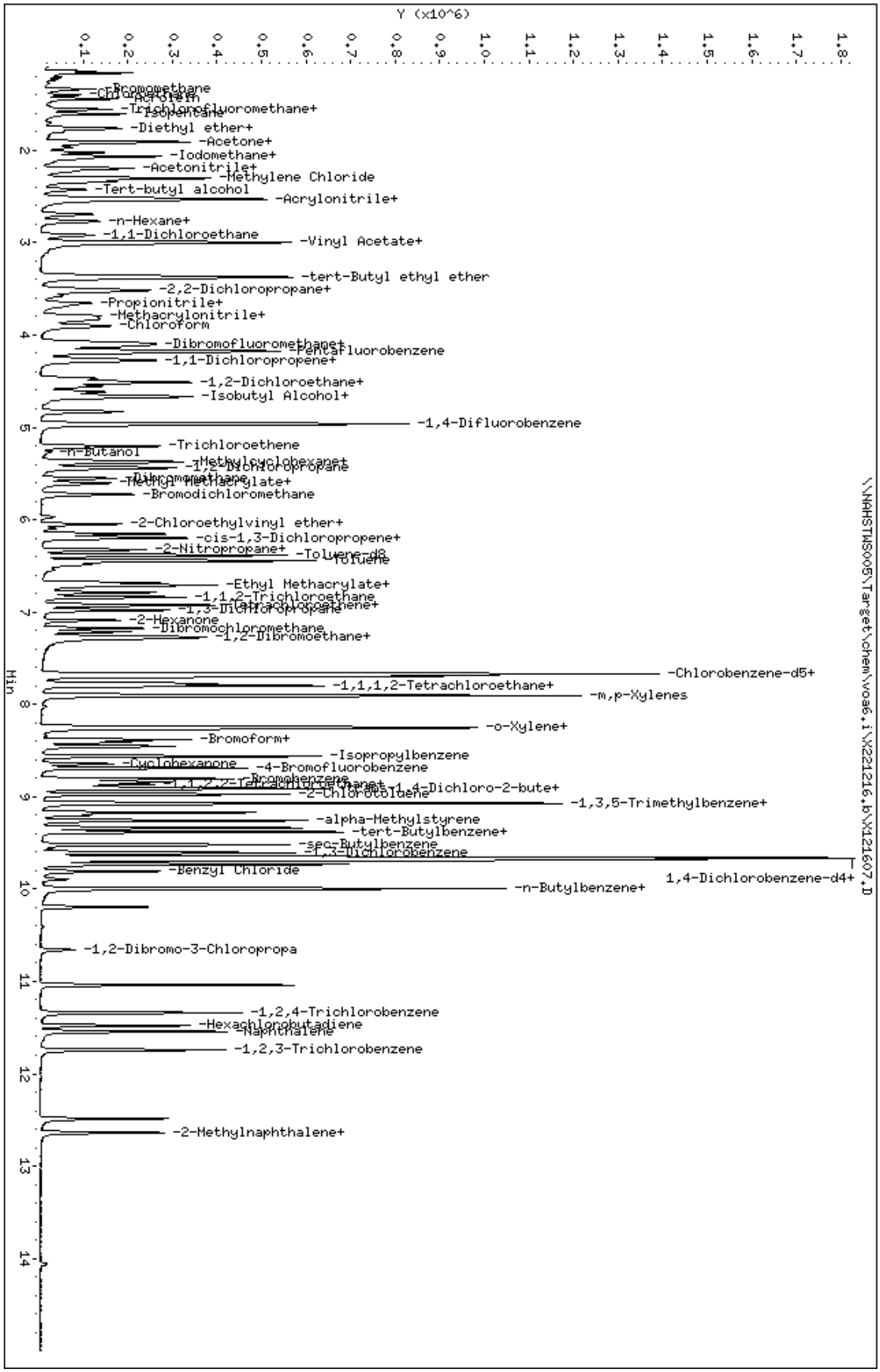
							AMOUNTS	
		QUANT SIG					CAL-AMT	ON-COL
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/l)	(ug/l)
	131 Methyl Acrylate	55	3.690	3.690	(0.883)	57874	20.0000	18.55(M)
	162 Butyl acrylate	55	8.252	8.252	(1.076)	156518	20.0000	18.50
	2 Dichlorodifluoromethane	85	0.972	0.972	(0.233)	63382	20.0000	19.96
	3 Chloromethane	50	1.077	1.077	(0.258)	72324	20.0000	18.84
	5 Vinyl Chloride	62	1.141	1.141	(0.273)	74461	20.0000	18.55
	6 Bromomethane	94	1.340	1.340	(0.321)	52034	20.0000	18.30
	7 Chloroethane	64	1.400	1.400	(0.335)	52021	20.0000	18.62
	8 Trichlorofluoromethane	101	1.557	1.557	(0.373)	106188	20.0000	18.90
	9 Acrolein	56	1.441	1.441	(0.345)	12279	40.0000	40.80
	10 Acetone	43	1.973	1.973	(0.472)	50987	40.0000	39.53
	11 1,1-Dichloroethene	96	1.913	1.913	(0.458)	65650	20.0000	18.82
	15 Iodomethane	142	2.026	2.026	(0.485)	143457	40.0000	34.36
	16 Acrylonitrile	53	2.532	2.532	(0.606)	46552	40.0000	39.36
	17 Methylene Chloride	84	2.303	2.303	(0.551)	94402	20.0000	19.73
	18 Methyl tert-butyl ether	73	2.532	2.532	(0.606)	214504	20.0000	18.79
	19 Carbon Disulfide	76	2.067	2.067	(0.495)	337289	40.0000	36.97
	20 trans-1,2-Dichloroethene	96	2.524	2.524	(0.604)	74471	20.0000	19.08
	21 Vinyl Acetate	43	2.997	2.997	(0.717)	387538	40.0000	38.68
	22 1,1-Dichloroethane	63	2.918	2.918	(0.699)	129644	20.0000	18.93
	24 2-Butanone	43	3.578	3.578	(0.856)	47830	40.0000	36.94(H)
	26 2,2-Dichloropropane	77	3.507	3.507	(0.839)	108952	20.0000	18.73
	27 cis-1,2-Dichloroethene	96	3.525	3.525	(0.844)	88894	20.0000	18.71
	28 Chloroform	83	3.904	3.904	(0.935)	145610	20.0000	18.96
	29 Bromochloromethane	128	3.795	3.795	(0.908)	47919	20.0000	18.42
$	30 Dibromofluoromethane	113	4.099	4.099	(0.981)	90108	20.0000	20.32
	31 1,1,1-Trichloroethane	97	4.080	4.080	(0.977)	116049	20.0000	19.05
	32 1,1-Dichloropropene	75	4.279	4.279	(0.862)	93914	20.0000	19.38
	33 1,2-Dichloroethane	62	4.556	4.556	(0.918)	108750	20.0000	19.45
	34 Carbon Tetrachloride	117	4.260	4.260	(0.858)	93815	20.0000	18.13
$	35 1,2-Dichloroethane-d4	65	4.470	4.470	(1.070)	92990	20.0000	20.13
*	36 1,4-Difluorobenzene	114	4.965	4.965	(1.000)	682389	50.0000	
	37 Benzene	78	4.511	4.511	(0.909)	313141	20.0000	19.21
	38 Trichloroethene	130	5.205	5.205	(1.048)	90292	20.0000	19.53
	39 Bromodichloromethane	83	5.726	5.726	(1.153)	116178	20.0000	18.99
	41 2-Chloroethylvinyl ether	63	6.048	6.048	(1.218)	71559	40.0000	41.12
	42 1,2-Dichloropropane	63	5.437	5.437	(1.095)	82954	20.0000	19.13
	44 Dibromomethane	93	5.553	5.553	(1.119)	57196	20.0000	19.41
	45 4-Methyl-2-Pentanone	43	6.326	6.326	(0.825)	138209	40.0000	39.93
	46 cis-1,3-Dichloropropene	75	6.153	6.153	(1.239)	142141	20.0000	19.79
*	47 Chlorobenzene-d5	117	7.668	7.668	(1.000)	647445	50.0000	
$	48 Toluene-d8	98	6.385	6.385	(0.833)	315179	20.0000	19.70
	50 Toluene	91	6.445	6.445	(0.841)	339968	20.0000	18.99
	51 trans-1,3-Dichloropropene	75	6.682	6.682	(1.346)	116330	20.0000	19.51
	52 2-Hexanone	43	7.086	7.086	(0.924)	93119	40.0000	39.54
	53 1,1,2-Trichloroethane	83	6.839	6.839	(0.892)	69855	20.0000	19.45
	54 1,3-Dichloropropane	76	6.982	6.982	(0.911)	137967	20.0000	19.52
	55 Dibromochloromethane	129	7.176	7.176	(0.936)	100749	20.0000	19.44
	56 Tetrachloroethene	164	6.925	6.925	(0.903)	74611	20.0000	20.15
	57 1,2-Dibromoethane	107	7.263	7.263	(0.947)	88886	20.0000	19.80
	58 1-Chlorohexane	55	7.694	7.694	(1.550)	66757	20.0000	20.24
	59 Chlorobenzene	112	7.694	7.694	(1.003)	240885	20.0000	18.97
	60 1,1,1,2-Tetrachloroethane	131	7.772	7.772	(1.014)	90283	20.0000	19.11

61 Ethylbenzene	106	7.799	7.799 (1.017)	117560	20.0000	19.66
62 m,p-Xylenes	106	7.904	7.904 (1.031)	299082	40.0000	38.80

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	63 o-Xylene	106	8.241	8.241	(1.075)	147602	20.0000	19.40
	64 Styrene	104	8.260	8.260	(1.077)	253280	20.0000	19.86
	66 Bromoform	173	8.410	8.410	(1.097)	69137	20.0000	19.25
	67 Isopropylbenzene	105	8.560	8.560	(1.116)	344283	20.0000	19.80
	68 1,1,2,2-Tetrachloroethane	83	8.837	8.837	(0.915)	112594	20.0000	19.83
$	69 4-Bromofluorobenzene	95	8.691	8.691	(1.133)	116878	20.0000	19.58
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	356229	50.0000	
	71 1,2,3-Trichloropropane	75	8.863	8.863	(0.917)	76967	20.0000	19.41
	73 n-Propylbenzene	91	8.912	8.912	(0.922)	404399	20.0000	20.49
	74 Bromobenzene	156	8.803	8.803	(0.911)	117586	20.0000	20.11
	75 1,3,5-Trimethylbenzene	105	9.070	9.070	(0.939)	295026	20.0000	20.23
	76 2-Chlorotoluene	91	8.976	8.976	(0.929)	256591	20.0000	19.81
	77 4-Chlorotoluene	91	9.070	9.070	(0.939)	294244	20.0000	19.93
	78 tert-Butylbenzene	119	9.336	9.336	(0.966)	242174	20.0000	20.29
	79 1,2,4-Trimethylbenzene	105	9.381	9.381	(0.971)	305461	20.0000	19.91
	81 sec-Butylbenzene	105	9.519	9.519	(0.985)	326826	20.0000	20.58
	82 p-Isopropyltoluene	119	9.651	9.651	(0.999)	294187	20.0000	20.67
	83 1,3-Dichlorobenzene	146	9.606	9.606	(0.994)	197278	20.0000	20.33
	84 1,4-Dichlorobenzene	146	9.684	9.684	(1.002)	207572	20.0000	19.60
	86 Benzyl Chloride	91	9.808	9.808	(1.279)	163895	20.0000	17.99
	87 n-Butylbenzene	91	9.995	9.995	(1.035)	248190	20.0000	19.23
	88 1,2-Dichlorobenzene	146	9.995	9.995	(1.035)	201166	20.0000	20.13
	89 1,2-Dibromo-3-Chloropropane	155	10.663	10.663	(1.104)	18635	20.0000	20.58
	90 1,2,4-Trichlorobenzene	180	11.337	11.337	(1.173)	130463	20.0000	20.69
	91 Hexachlorobutadiene	225	11.480	11.480	(1.188)	55912	20.0000	20.12
	92 Naphthalene	128	11.544	11.544	(1.195)	300432	20.0000	20.94
	93 1,2,3-Trichlorobenzene	180	11.742	11.742	(1.215)	124401	20.0000	20.60
M	94 1,2-Dichloroethylene (total)	96				163365	40.0000	
M	95 Xylenes (total)	106				446684	60.0000	
	141 Cyclohexane	56	4.118	4.118	(0.986)	84355	20.0000	19.01(M)
	138 Freon TF	101	1.910	1.910	(0.457)	64657	20.0000	19.17
	147 Methylcyclohexane	55	5.381	5.381	(1.084)	172044	20.0000	20.59
	146 Methyl Acetate	43	2.228	2.228	(0.533)	38475	20.0000	18.61
	148 Tert-Butyl alcohol	59	2.423	2.423	(0.580)	117583	400.000	369.63
	149 Isopropyl Alcohol	45	2.090	2.090	(0.500)	61646	400.000	371.06

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.



Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121607.D
Date : 16-DEC-2022 13:43
Client ID: VSTD020
Sample Info: VSTD020;VSTD020;1;6;
Purge Volume: 5.0
Column phase: DB624

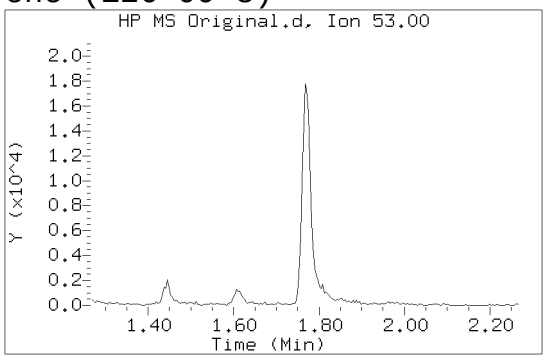
Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121607.D
Inj Date : 16-DEC-2022 13:43
InstruID : voa6.i
LabSampID : VSTD020

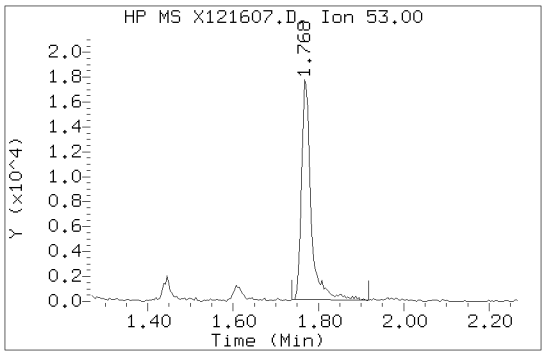
Chloroprene (126-99-8)

Reason Code:

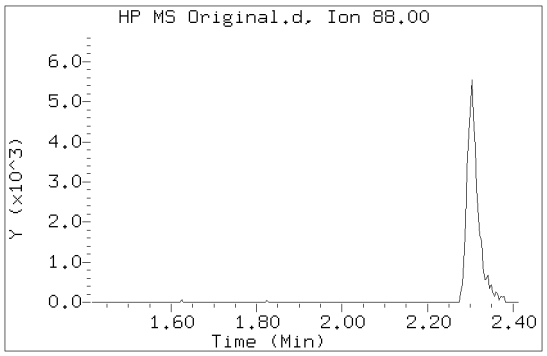
BEFORE
MASS
53
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



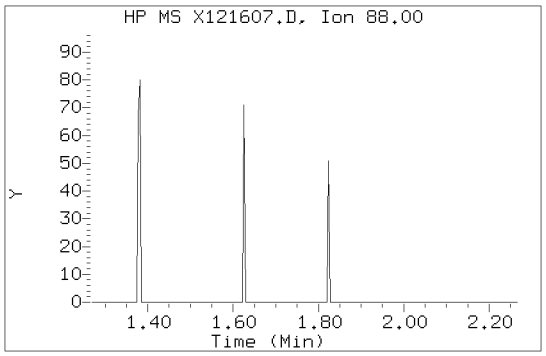
AFTER
MASS
53
AREA
27967
HEIGHT
17627
27-Dec-2022
16:06
linh
pham



BEFORE
MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



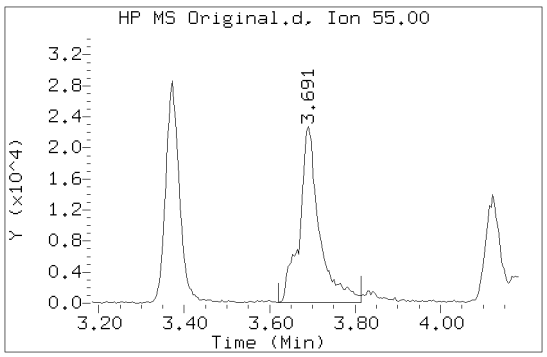
AFTER
MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:06
linh
pham



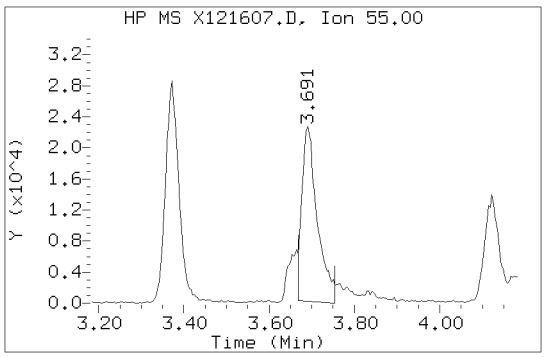
Methyl Acrylate (96-33-3)

Reason Code:

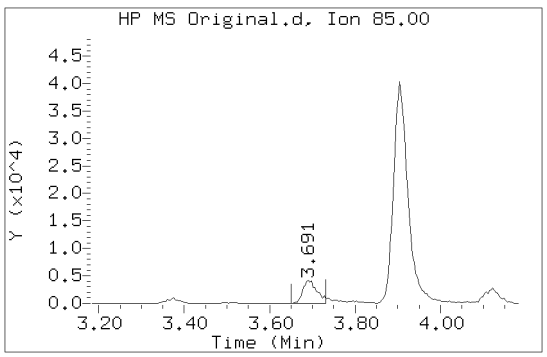
BEFORE
MASS
55
AREA
74503
HEIGHT
22672
27-Dec-2022
16:03
linh
pham



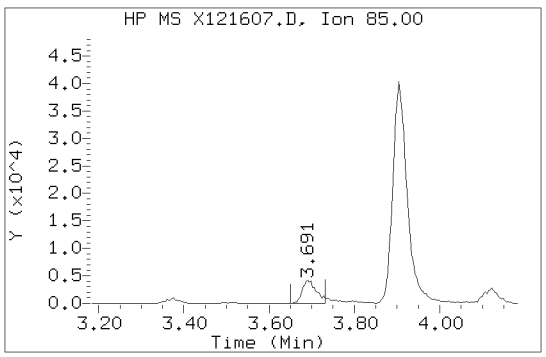
AFTER
MASS
55
AREA
57874
HEIGHT
22490
27-Dec-2022
16:06
linh
pham



BEFORE
MASS
85
AREA
9792
HEIGHT
4239
27-Dec-2022
16:03
linh
pham



AFTER
MASS
85
AREA
9792
HEIGHT
4239
27-Dec-2022
16:06
linh
pham



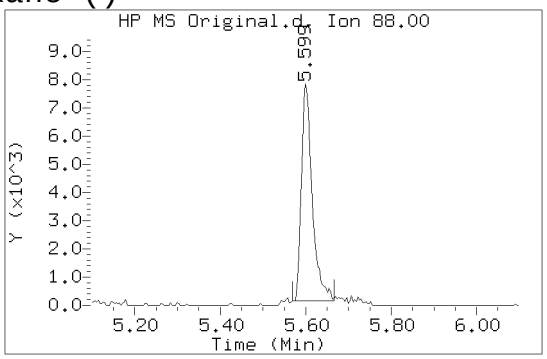
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121607.D
Inj Date : 16-DEC-2022 13:43
InstruID : voa6.i
LabSampID : VSTD020

1,4-Dioxane ()

Reason Code:

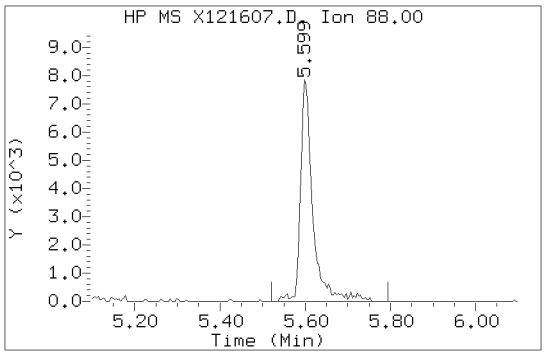
BEFORE

MASS
88
AREA
13920
HEIGHT
7701
27-Dec-2022
16:03
linh
pham



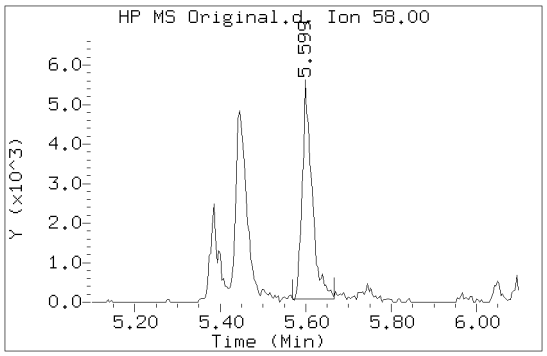
AFTER

MASS
88
AREA
16105
HEIGHT
7857
27-Dec-2022
16:06
linh
pham



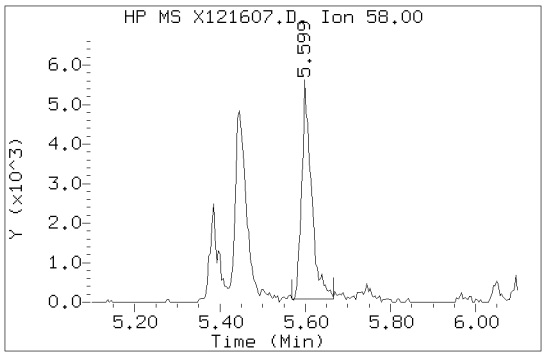
BEFORE

MASS
58
AREA
8930
HEIGHT
5535
27-Dec-2022
16:03
linh
pham



AFTER

MASS
58
AREA
8930
HEIGHT
5535
27-Dec-2022
16:06
linh
pham

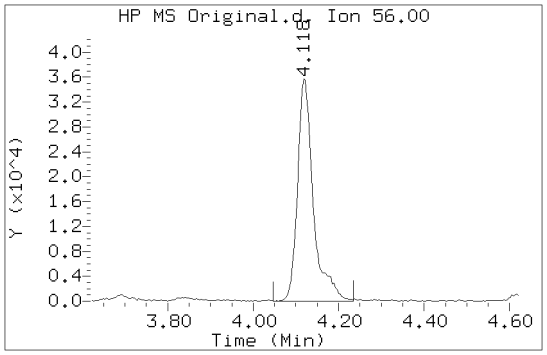


Cyclohexane (110-82-7)

Reason Code:

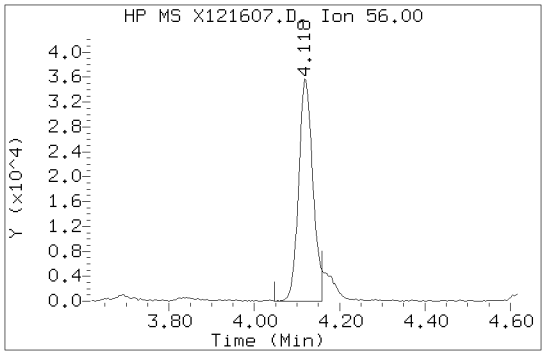
BEFORE

MASS
56
AREA
93540
HEIGHT
35720
27-Dec-2022
16:03
linh
pham



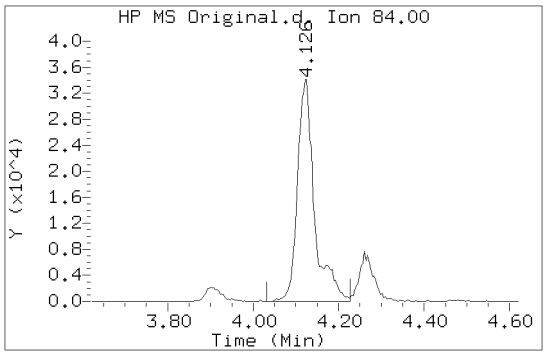
AFTER

MASS
56
AREA
84355
HEIGHT
35720
27-Dec-2022
16:06
linh
pham



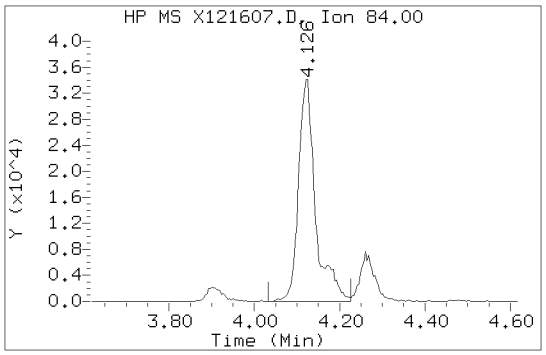
BEFORE

MASS
84
AREA
95724
HEIGHT
34088
27-Dec-2022
16:03
linh
pham



AFTER

MASS
84
AREA
95724
HEIGHT
34088
27-Dec-2022
16:06
linh
pham

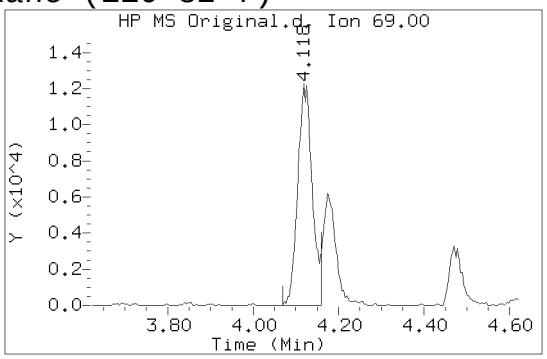


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121607.D
Inj Date : 16-DEC-2022 13:43
InstruID : voa6.i
LabSampID : VSTD020

Cyclohexane (110-82-7)

BEFORE

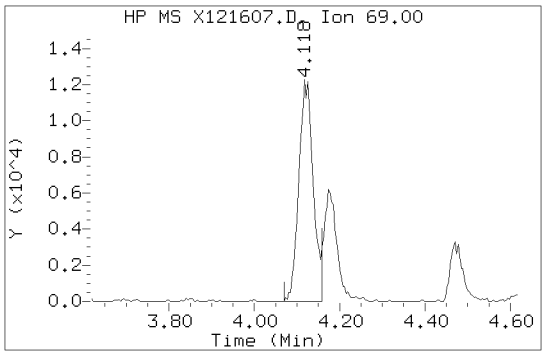
MASS
69
AREA
29515
HEIGHT
12273
27-Dec-2022
16:03
linh
pham



Reason Code:

AFTER

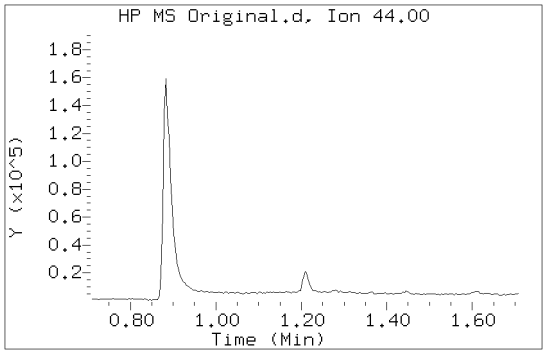
MASS
69
AREA
29515
HEIGHT
12273
27-Dec-2022
16:06
linh
pham



Acetaldehyde (75-07-0)

BEFORE

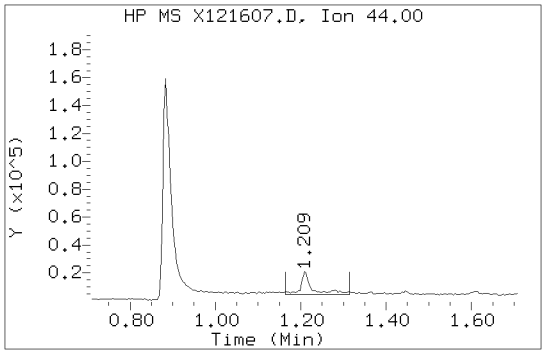
MASS
44
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



Reason Code:

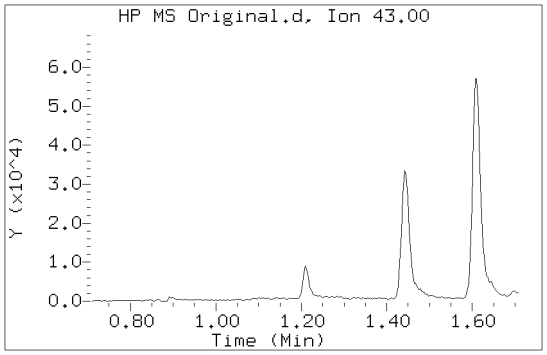
AFTER

MASS
44
AREA
32393
HEIGHT
16632
27-Dec-2022
16:06
linh
pham



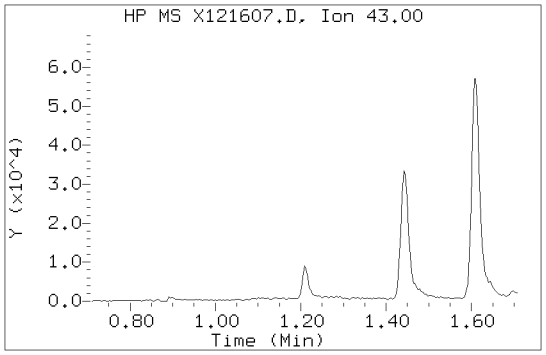
BEFORE

MASS
43
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



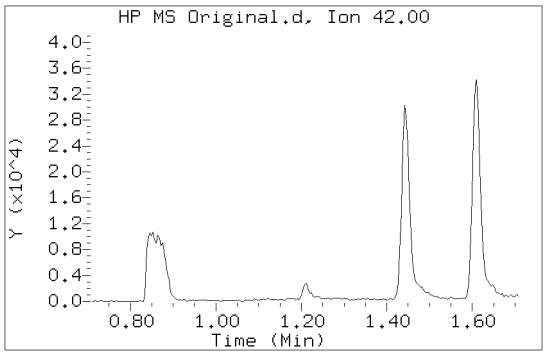
AFTER

MASS
43
AREA
0
HEIGHT
0
27-Dec-2022
16:06
linh
pham



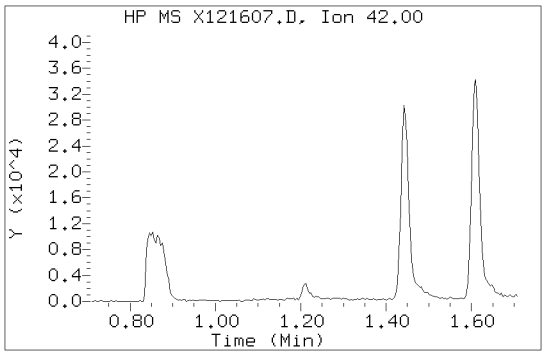
BEFORE

MASS
42
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
42
AREA
0
HEIGHT
0
27-Dec-2022
16:06
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121608.D Page 1
Report Date: 27-Dec-2022 16:07

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121608.D
Lab Smp Id: VSTD050 Client Smp ID: VSTD050
Inj Date : 16-DEC-2022 14:04
Operator : PC Inst ID: voa6.i
Smp Info : VSTD050;VSTD050;1;7;
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\8260W.m
Meth Date : 27-Dec-2022 16:07 voa6.i Quant Type: ISTD
Cal Date : 16-DEC-2022 13:43 Cal File: X121607.D
Als bottle: 9 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260V6.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.178	4.178	(1.000)	457591	50.0000	
135 1,4-Dioxane	88	5.595	5.595	(1.339)	40509	1000.00	968.45
140 1,3-Butadiene	54	1.160	1.160	(0.278)	152324	50.0000	48.50
25 Methacrylonitrile	41	3.821	3.821	(0.915)	147931	50.0000	45.65
12 Isobutyl Alcohol	43	4.672	4.672	(1.118)	499872	1000.00	971.21
13 Acetonitrile	39	2.195	2.195	(0.525)	202696	500.000	486.70
14 Allyl Chloride	41	2.195	2.195	(0.525)	372130	50.0000	46.91
4 Propionitrile	54	3.645	3.645	(0.873)	221995	500.000	475.45
136 n-Hexane	57	2.768	2.768	(0.663)	182358	50.0000	55.34
72 trans-1,4-Dichloro-2-butene	53	8.890	8.890	(1.159)	70497	50.0000	50.03
194 Acetaldehyde	44	1.209	1.209	(0.289)	67188	200.000	235.49(M)
23 Chloroprene	53	1.767	1.767	(0.423)	73877	50.0000	47.48(M)
145 alpha-Methylstyrene	118	9.257	9.257	(0.958)	423646	50.0000	51.17
200 Dimethyl Disulfide	94	6.194	6.194	(0.808)	438695	50.0000	49.65
139 Diethyl ether	59	1.756	1.756	(0.420)	141705	50.0000	46.34
130 Ethyl Acetate	43	3.649	3.649	(0.873)	170590	50.0000	47.77
40 Methyl Methacrylate	41	5.606	5.606	(1.342)	147516	50.0000	47.27
49 Ethyl Methacrylate	69	6.712	6.712	(1.352)	144135	50.0000	44.17
132 n-Butanol	56	5.253	5.253	(1.257)	54418	1000.00	935.85
142 Tetrahydrofuran	42	3.844	3.844	(0.920)	58181	100.000	102.34

150	Allyl alcohol	57	2.768	2.768 (0.663)	182358	1000.00	1026.00
166	1,2,3-Trimethylbenzene	105	9.729	9.729 (1.007)	826758	50.0000	45.95

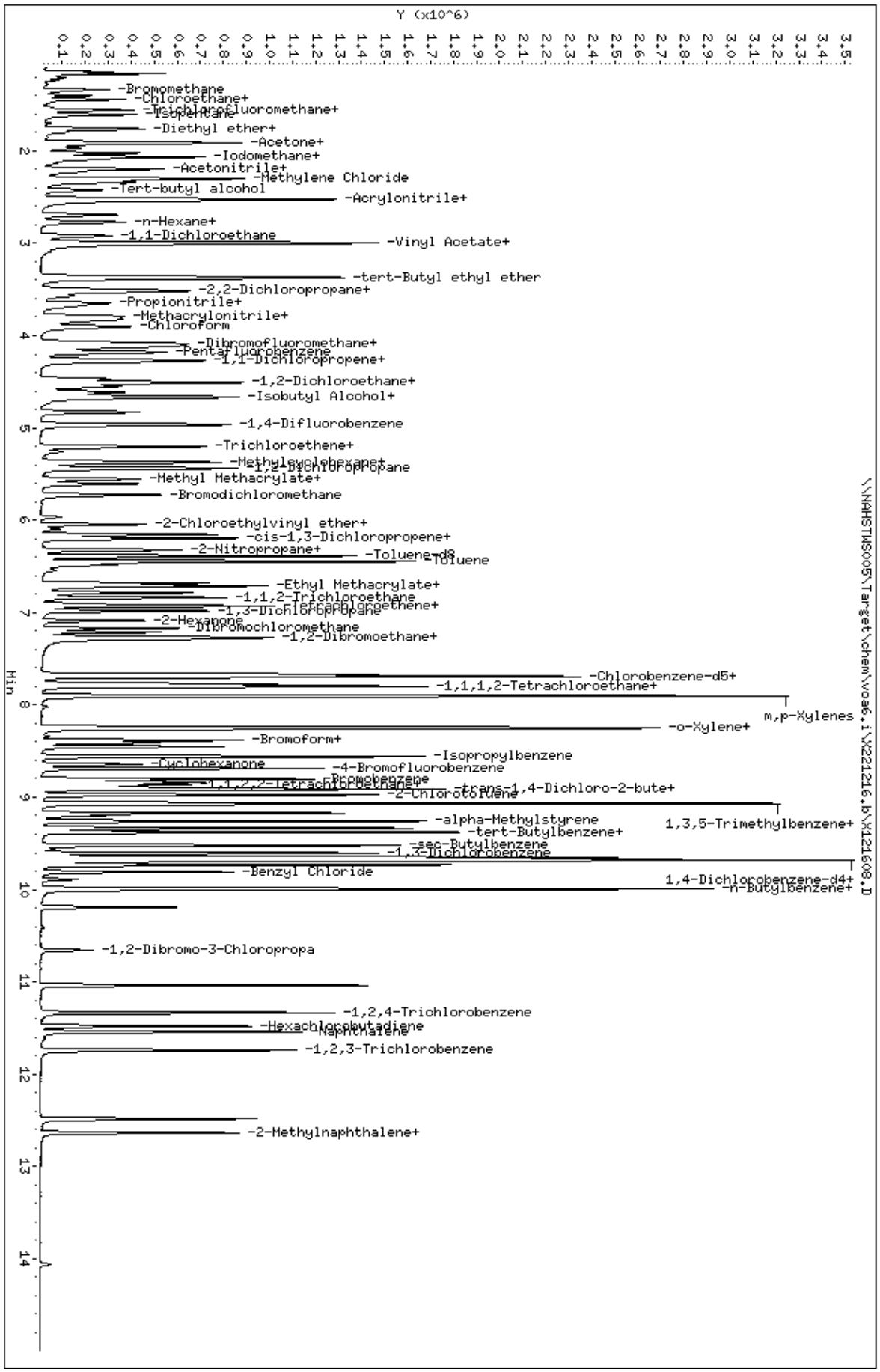
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	131 Methyl Acrylate	55	3.683	3.683	(0.882)	151068	50.0000	48.62(M)
	162 Butyl acrylate	55	8.252	8.252	(1.076)	415774	50.0000	48.76
	2 Dichlorodifluoromethane	85	0.969	0.969	(0.232)	160392	50.0000	50.11
	3 Chloromethane	50	1.077	1.077	(0.258)	192710	50.0000	46.69
	5 Vinyl Chloride	62	1.141	1.141	(0.273)	201812	50.0000	50.48
	6 Bromomethane	94	1.336	1.336	(0.320)	139689	50.0000	46.33
	7 Chloroethane	64	1.400	1.400	(0.335)	134745	50.0000	48.43
	8 Trichlorofluoromethane	101	1.557	1.557	(0.373)	278013	50.0000	49.70
	9 Acrolein	56	1.441	1.441	(0.345)	27445	100.000	88.04
	10 Acetone	43	1.970	1.970	(0.472)	124798	100.000	97.19
	11 1,1-Dichloroethene	96	1.910	1.910	(0.457)	168905	50.0000	48.63
	15 Iodomethane	142	2.022	2.022	(0.484)	455792	100.000	99.60
	16 Acrylonitrile	53	2.528	2.528	(0.605)	118697	100.000	100.77
	17 Methylene Chloride	84	2.300	2.300	(0.550)	225642	50.0000	47.36
	18 Methyl tert-butyl ether	73	2.532	2.532	(0.606)	534667	50.0000	47.03
	19 Carbon Disulfide	76	2.067	2.067	(0.495)	892690	100.000	98.24
	20 trans-1,2-Dichloroethene	96	2.524	2.524	(0.604)	191505	50.0000	49.27
	21 Vinyl Acetate	43	2.993	2.993	(0.716)	983875	100.000	98.59
	22 1,1-Dichloroethane	63	2.918	2.918	(0.699)	330037	50.0000	48.38
	24 2-Butanone	43	3.574	3.574	(0.856)	130179	100.000	95.71(H)
	26 2,2-Dichloropropane	77	3.507	3.507	(0.839)	283996	50.0000	49.03
	27 cis-1,2-Dichloroethene	96	3.525	3.525	(0.844)	228729	50.0000	48.35
	28 Chloroform	83	3.904	3.904	(0.935)	370755	50.0000	48.49
	29 Bromochloromethane	128	3.788	3.788	(0.907)	120638	50.0000	46.58
$	30 Dibromofluoromethane	113	4.095	4.095	(0.980)	211939	50.0000	48.23
	31 1,1,1-Trichloroethane	97	4.080	4.080	(0.977)	300650	50.0000	49.56
	32 1,1-Dichloropropene	75	4.279	4.279	(0.862)	256928	50.0000	52.23
	33 1,2-Dichloroethane	62	4.552	4.552	(0.917)	276500	50.0000	48.70
	34 Carbon Tetrachloride	117	4.260	4.260	(0.858)	251833	50.0000	47.94
$	35 1,2-Dichloroethane-d4	65	4.470	4.470	(1.070)	222293	50.0000	47.94
*	36 1,4-Difluorobenzene	114	4.965	4.965	(1.000)	692830	50.0000	
	37 Benzene	78	4.507	4.507	(0.908)	812279	50.0000	49.09
	38 Trichloroethene	130	5.205	5.205	(1.048)	233833	50.0000	49.83
	39 Bromodichloromethane	83	5.722	5.722	(1.153)	297315	50.0000	47.88
	41 2-Chloroethylvinyl ether	63	6.048	6.048	(1.218)	180920	100.000	102.42
	42 1,2-Dichloropropane	63	5.433	5.433	(1.094)	215079	50.0000	48.87
	44 Dibromomethane	93	5.553	5.553	(1.119)	143223	50.0000	47.87
	45 4-Methyl-2-Pentanone	43	6.322	6.322	(0.824)	336990	100.000	96.59
	46 cis-1,3-Dichloropropene	75	6.153	6.153	(1.239)	366231	50.0000	50.22
*	47 Chlorobenzene-d5	117	7.668	7.668	(1.000)	652727	50.0000	
$	48 Toluene-d8	98	6.386	6.386	(0.833)	772486	50.0000	47.89
	50 Toluene	91	6.446	6.446	(0.841)	889029	50.0000	49.27
	51 trans-1,3-Dichloropropene	75	6.682	6.682	(1.346)	309568	50.0000	51.15
	52 2-Hexanone	43	7.087	7.087	(0.924)	232879	100.000	98.10
	53 1,1,2-Trichloroethane	83	6.839	6.839	(0.892)	172833	50.0000	47.75
	54 1,3-Dichloropropane	76	6.982	6.982	(0.911)	345991	50.0000	48.56
	55 Dibromochloromethane	129	7.176	7.176	(0.936)	260477	50.0000	49.86
	56 Tetrachloroethene	164	6.925	6.925	(0.903)	194749	50.0000	52.17
	57 1,2-Dibromoethane	107	7.259	7.259	(0.947)	229442	50.0000	50.70
	58 1-Chlorohexane	55	7.694	7.694	(1.550)	170128	50.0000	50.81
	59 Chlorobenzene	112	7.694	7.694	(1.003)	624151	50.0000	48.77
	60 1,1,1,2-Tetrachloroethane	131	7.773	7.773	(1.014)	235373	50.0000	49.42

61 Ethylbenzene	106	7.799	7.799 (1.017)	311983	50.0000	51.75
62 m,p-Xylenes	106	7.904	7.904 (1.031)	785955	100.000	101.14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	63 o-Xylene	106	8.241	8.241	(1.075)	385427	50.0000	50.25
	64 Styrene	104	8.260	8.260	(1.077)	673066	50.0000	52.35
	66 Bromoform	173	8.410	8.410	(1.097)	181492	50.0000	50.14
	67 Isopropylbenzene	105	8.560	8.560	(1.116)	920845	50.0000	52.55
	68 1,1,2,2-Tetrachloroethane	83	8.837	8.837	(0.915)	276483	50.0000	46.43
$	69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	292753	50.0000	48.55
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	373588	50.0000	
	71 1,2,3-Trichloropropane	75	8.863	8.863	(0.917)	199888	50.0000	48.08(M)
	73 n-Propylbenzene	91	8.912	8.912	(0.922)	1085689	50.0000	52.46
	74 Bromobenzene	156	8.803	8.803	(0.911)	299078	50.0000	48.79
	75 1,3,5-Trimethylbenzene	105	9.066	9.066	(0.938)	793494	50.0000	51.90
	76 2-Chlorotoluene	91	8.972	8.972	(0.929)	670422	50.0000	49.37
	77 4-Chlorotoluene	91	9.070	9.070	(0.939)	782927	50.0000	50.57
	78 tert-Butylbenzene	119	9.336	9.336	(0.966)	652461	50.0000	52.14
	79 1,2,4-Trimethylbenzene	105	9.381	9.381	(0.971)	815460	50.0000	50.69
	81 sec-Butylbenzene	105	9.519	9.519	(0.985)	889679	50.0000	53.43
	82 p-Isopropyltoluene	119	9.651	9.651	(0.999)	810483	50.0000	54.32
	83 1,3-Dichlorobenzene	146	9.606	9.606	(0.994)	520329	50.0000	51.14
	84 1,4-Dichlorobenzene	146	9.681	9.681	(1.002)	544362	50.0000	49.03
	86 Benzyl Chloride	91	9.808	9.808	(1.279)	472387	50.0000	46.44
	87 n-Butylbenzene	91	9.995	9.995	(1.035)	696355	50.0000	48.48
	88 1,2-Dichlorobenzene	146	9.992	9.992	(1.034)	519532	50.0000	49.58
	89 1,2-Dibromo-3-Chloropropane	155	10.655	10.655	(1.103)	48660	50.0000	51.11
	90 1,2,4-Trichlorobenzene	180	11.337	11.337	(1.173)	355455	50.0000	53.75
	91 Hexachlorobutadiene	225	11.480	11.480	(1.188)	155390	50.0000	52.99
	92 Naphthalene	128	11.540	11.540	(1.194)	799829	50.0000	53.16
	93 1,2,3-Trichlorobenzene	180	11.742	11.742	(1.215)	320836	50.0000	50.66
M	94 1,2-Dichloroethylene (total)	96				420234	100.000	
M	95 Xylenes (total)	106				1171382	150.000	
	141 Cyclohexane	56	4.121	4.121	(0.987)	237699	50.0000	51.49
	138 Freon TF	101	1.913	1.913	(0.458)	172155	50.0000	51.25
	147 Methylcyclohexane	55	5.377	5.377	(1.083)	420886	50.0000	49.62
	146 Methyl Acetate	43	2.228	2.228	(0.533)	96420	50.0000	46.82
	148 Tert-Butyl alcohol	59	2.423	2.423	(0.580)	302677	1000.00	955.26
	149 Isopropyl Alcohol	45	2.090	2.090	(0.500)	157082	1000.00	949.28

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.



Data File: \\NAHSTWS005\Target\chem\voa6,i\X221216,b\X121608,D
Date : 16-DEC-2022 14:04
Client ID: VSTD050
Sample Info: VSTD050;VSTD050;1;7;
Purge Volume: 5.0
Column phase: DB624

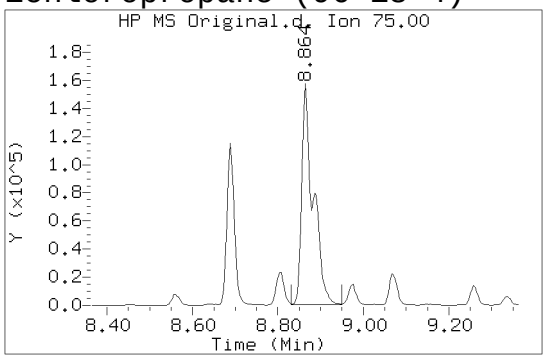
Instrument: voa6,i
Operator: PC
Column diameter: 0.18

Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121608.D
Inj Date : 16-DEC-2022 14:04
InstruID : voa6.i
LabSampID : VSTD050

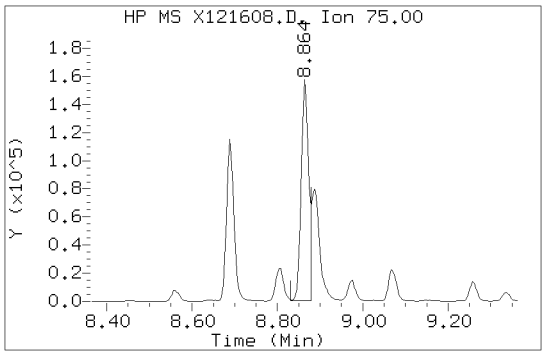
1,2,3-Trichloropropane (96-18-4)

Reason Code:

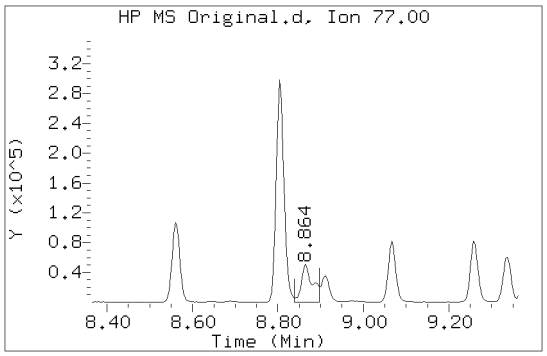
BEFORE
MASS
75
AREA
298610
HEIGHT
157256
27-Dec-2022
16:03
linh
pham



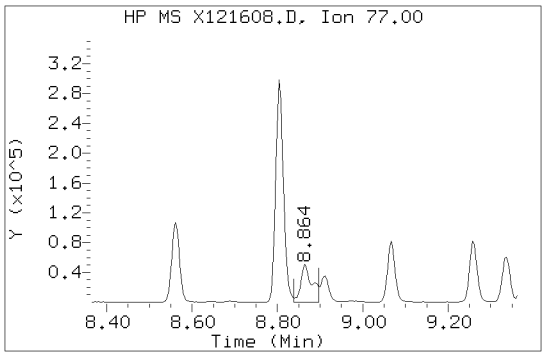
AFTER
MASS
75
AREA
199888
HEIGHT
157257
27-Dec-2022
16:06
linh
pham



BEFORE
MASS
77
AREA
96560
HEIGHT
50650
27-Dec-2022
16:03
linh
pham



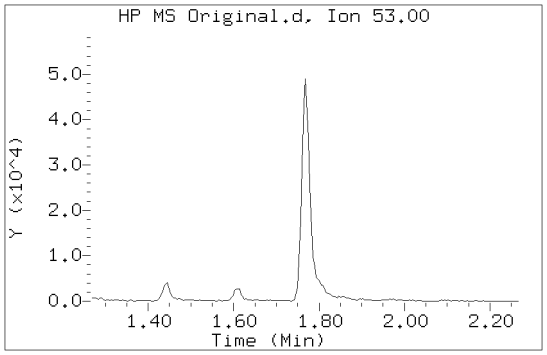
AFTER
MASS
77
AREA
96560
HEIGHT
50650
27-Dec-2022
16:06
linh
pham



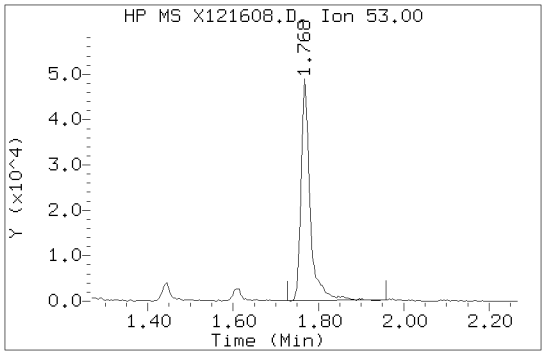
Chloroprene (126-99-8)

Reason Code:

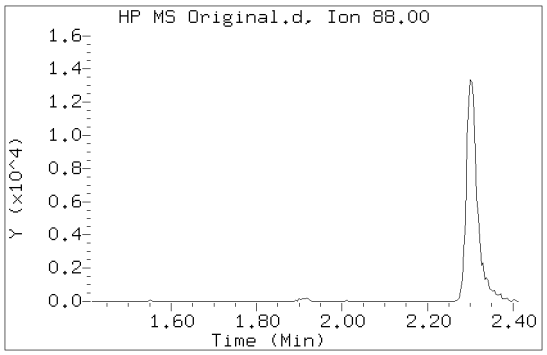
BEFORE
MASS
53
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



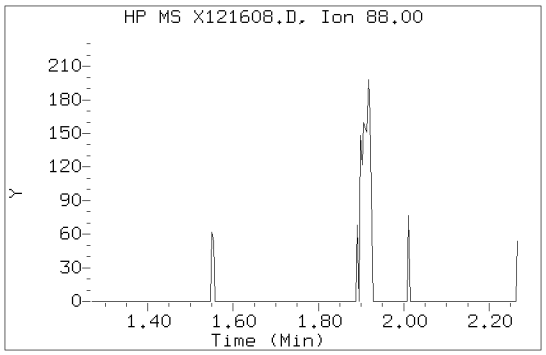
AFTER
MASS
53
AREA
73877
HEIGHT
48802
27-Dec-2022
16:06
linh
pham



BEFORE
MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER
MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:06
linh
pham

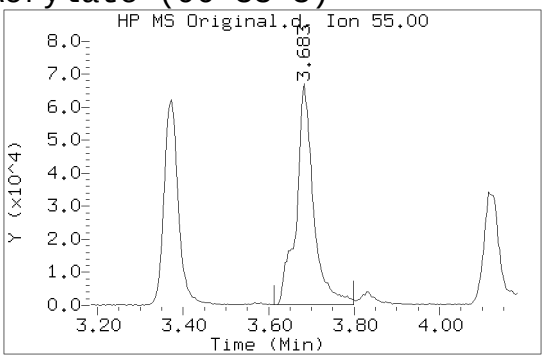


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121608.D
Inj Date : 16-DEC-2022 14:04
InstruID : voa6.i
LabSampID : VSTD050

Methyl Acrylate (96-33-3)

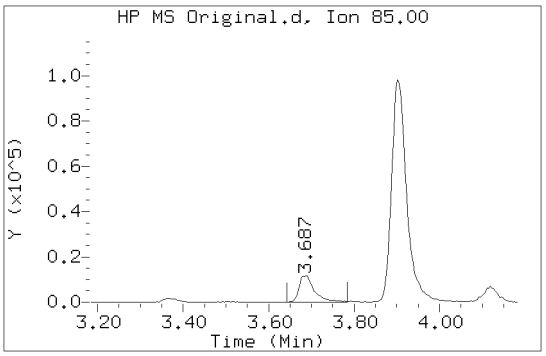
BEFORE

MASS
55
AREA
188598
HEIGHT
66813
27-Dec-2022
16:03
linh
pham



BEFORE

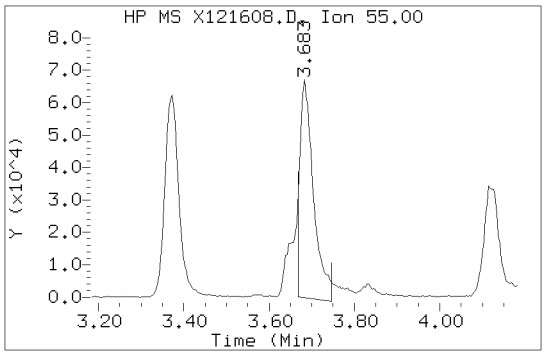
MASS
85
AREA
29996
HEIGHT
11707
27-Dec-2022
16:03
linh
pham



Reason Code:

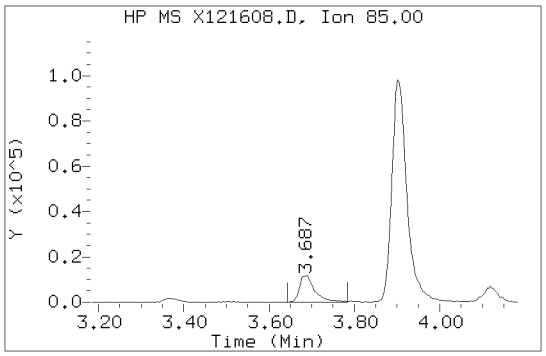
AFTER

MASS
55
AREA
151068
HEIGHT
67146
27-Dec-2022
16:06
linh
pham



AFTER

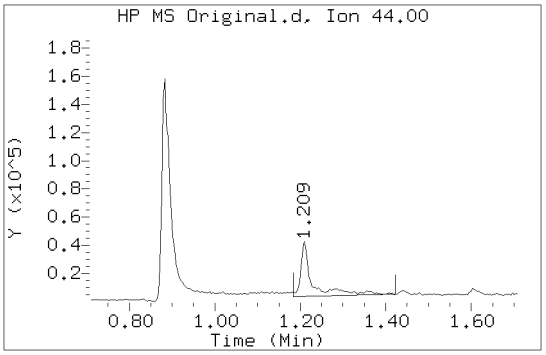
MASS
85
AREA
29996
HEIGHT
11707
27-Dec-2022
16:06
linh
pham



Acetaldehyde (75-07-0)

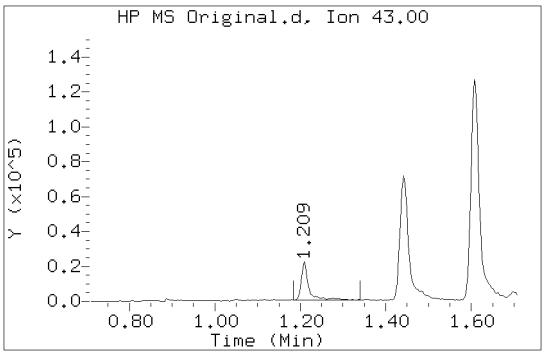
BEFORE

MASS
44
AREA
71920
HEIGHT
38656
27-Dec-2022
16:03
linh
pham



BEFORE

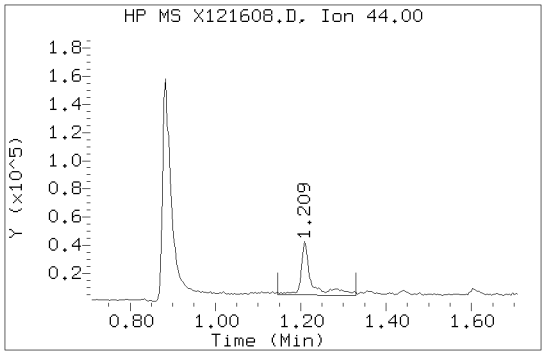
MASS
43
AREA
28032
HEIGHT
22022
27-Dec-2022
16:03
linh
pham



Reason Code:

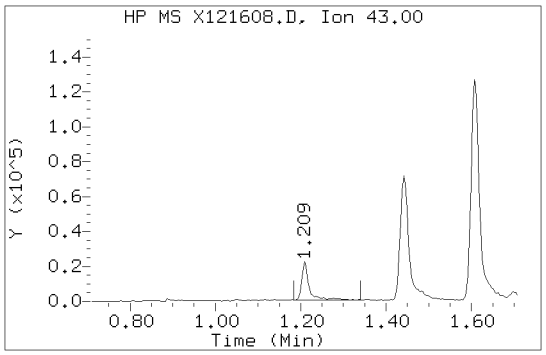
AFTER

MASS
44
AREA
67188
HEIGHT
37862
27-Dec-2022
16:06
linh
pham



AFTER

MASS
43
AREA
28032
HEIGHT
22022
27-Dec-2022
16:06
linh
pham



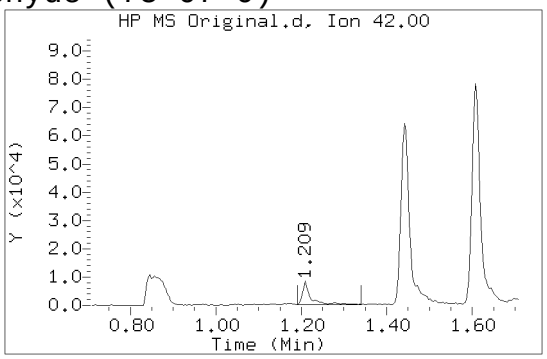
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121608.D
Inj Date : 16-DEC-2022 14:04
InstruID : voa6.i
LabSampID : VSTD050

Acetaldehyde (75-07-0)

Reason Code:

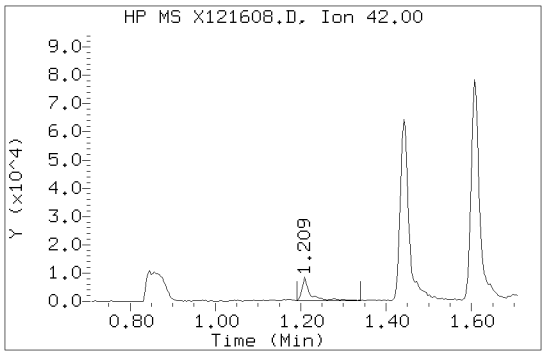
BEFORE

MASS
42
AREA
11352
HEIGHT
8504
27-Dec-2022
16:03
linh
pham



AFTER

MASS
42
AREA
11352
HEIGHT
8504
27-Dec-2022
16:06
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121609.D Page 1
Report Date: 27-Dec-2022 16:07

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121609.D
Lab Smp Id: VSTD100 Client Smp ID: VSTD100
Inj Date : 16-DEC-2022 14:25
Operator : PC Inst ID: voa6.i
Smp Info : VSTD100;VSTD100;1;8;
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\8260W.m
Meth Date : 27-Dec-2022 16:07 voa6.i Quant Type: ISTD
Cal Date : 16-DEC-2022 14:04 Cal File: X121608.D
Als bottle: 10 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260V6.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.178	4.178	(1.000)	454640	50.0000	
135 1,4-Dioxane	88	5.598	5.598	(1.340)	80329	2000.00	1932.89
140 1,3-Butadiene	54	1.160	1.160	(0.278)	300004	100.000	96.14
25 Methacrylonitrile	41	3.822	3.822	(0.915)	296105	100.000	91.97
12 Isobutyl Alcohol	43	4.672	4.672	(1.118)	1010956	2000.00	1976.95
13 Acetonitrile	39	2.195	2.195	(0.525)	413876	1000.00	1000.23
14 Allyl Chloride	41	2.195	2.195	(0.525)	756242	100.000	95.96
4 Propionitrile	54	3.645	3.645	(0.873)	447087	1000.00	963.76
136 n-Hexane	57	2.768	2.768	(0.663)	330416	100.000	100.93
72 trans-1,4-Dichloro-2-butene	53	8.890	8.890	(1.159)	144667	100.000	100.47
194 Acetaldehyde	44	1.209	1.209	(0.289)	107798	400.000	394.60(M)
23 Chloroprene	53	1.767	1.767	(0.423)	146540	100.000	94.79(M)
145 alpha-Methylstyrene	118	9.257	9.257	(0.958)	857105	100.000	100.18
200 Dimethyl Disulfide	94	6.194	6.194	(0.808)	912573	100.000	101.09
139 Diethyl ether	59	1.752	1.752	(0.420)	288002	100.000	94.80
130 Ethyl Acetate	43	3.649	3.649	(0.873)	318062	100.000	89.65
40 Methyl Methacrylate	41	5.606	5.606	(1.342)	295199	100.000	95.22
49 Ethyl Methacrylate	69	6.712	6.712	(1.352)	311883	100.000	96.06
132 n-Butanol	56	5.253	5.253	(1.258)	124057	2000.00	1971.40
142 Tetrahydrofuran	42	3.840	3.840	(0.919)	109518	200.000	196.74

150	Allyl alcohol	57	2.768	2.768 (0.663)	330416	2000.00	1871.09
166	1,2,3-Trimethylbenzene	105	9.729	9.729 (1.007)	1772216	100.000	95.31

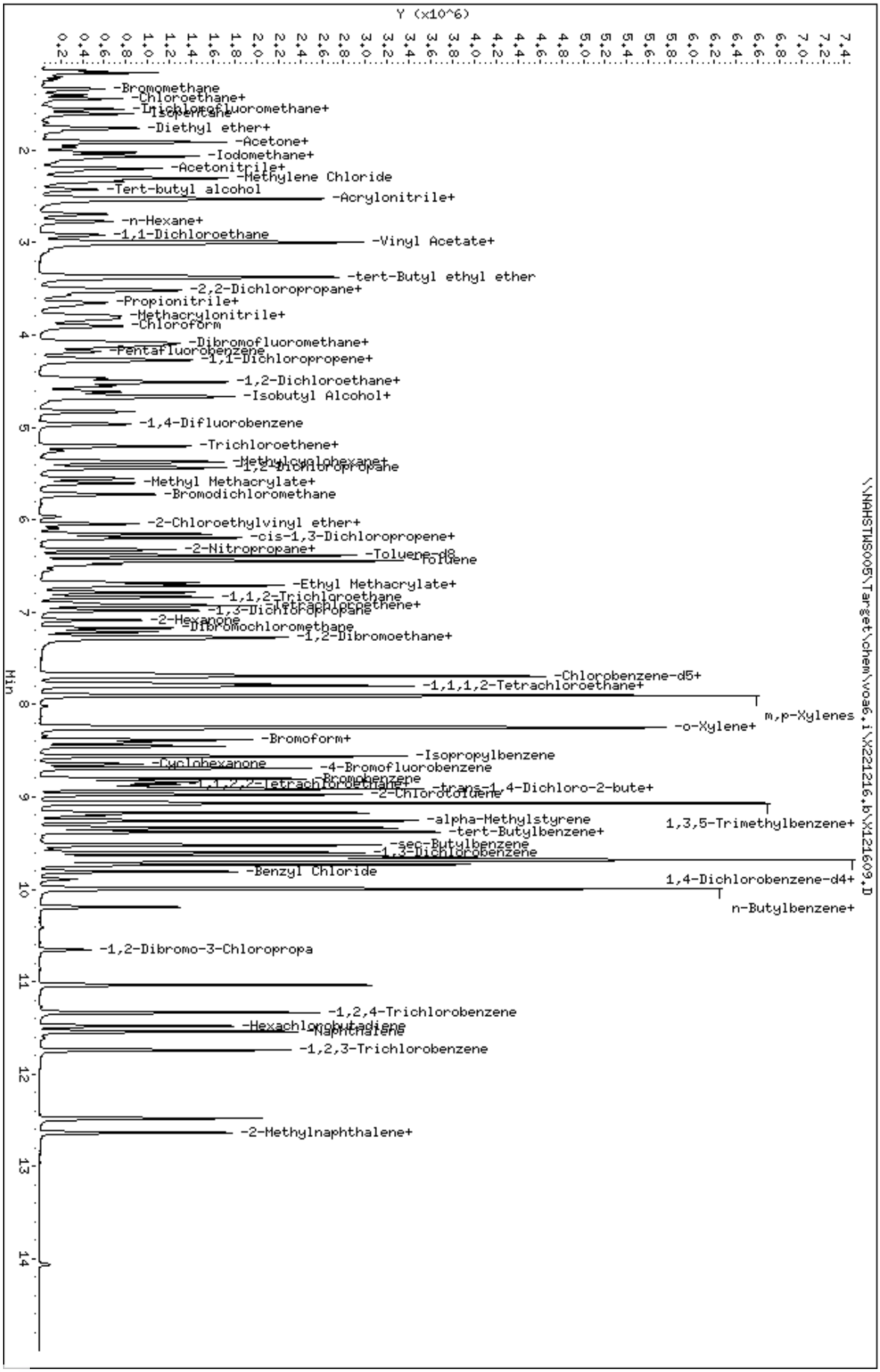
			QUANT SIG					AMOUNTS	
								CAL-AMT	ON-COL
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/l)	(ug/l)
	131	Methyl Acrylate	55	3.683	3.683	(0.882)	308372	100.000	99.90(M)
	162	Butyl acrylate	55	8.249	8.249	(1.076)	901265	100.000	103.44
	2	Dichlorodifluoromethane	85	0.969	0.969	(0.232)	309019	100.000	96.81
	3	Chloromethane	50	1.078	1.078	(0.258)	388163	100.000	92.40
	5	Vinyl Chloride	62	1.141	1.141	(0.273)	390567	100.000	98.34
	6	Bromomethane	94	1.336	1.336	(0.320)	284165	100.000	93.02
	7	Chloroethane	64	1.400	1.400	(0.335)	261091	100.000	94.45
	8	Trichlorofluoromethane	101	1.557	1.557	(0.373)	543907	100.000	97.86
	9	Acrolein	56	1.441	1.441	(0.345)	60756	200.000	192.70
	10	Acetone	43	1.970	1.970	(0.472)	243517	200.000	190.92
	11	1,1-Dichloroethene	96	1.910	1.910	(0.457)	329394	100.000	95.46
	15	Iodomethane	142	2.026	2.026	(0.485)	958603	200.000	197.72
	16	Acrylonitrile	53	2.528	2.528	(0.605)	235604	200.000	201.32
	17	Methylene Chloride	84	2.300	2.300	(0.550)	423827	100.000	89.54
	18	Methyl tert-butyl ether	73	2.532	2.532	(0.606)	1078258	100.000	95.46
	19	Carbon Disulfide	76	2.063	2.063	(0.494)	1765599	200.000	195.57
	20	trans-1,2-Dichloroethene	96	2.524	2.524	(0.604)	376933	100.000	97.60
	21	Vinyl Acetate	43	2.993	2.993	(0.716)	1955305	200.000	197.21
	22	1,1-Dichloroethane	63	2.918	2.918	(0.699)	641083	100.000	94.59
	24	2-Butanone	43	3.570	3.570	(0.855)	264221	200.000	192.38(H)
	26	2,2-Dichloropropane	77	3.507	3.507	(0.839)	554902	100.000	96.43
	27	cis-1,2-Dichloroethene	96	3.522	3.522	(0.843)	443532	100.000	94.37
	28	Chloroform	83	3.904	3.904	(0.935)	715830	100.000	94.23
	29	Bromochloromethane	128	3.792	3.792	(0.908)	239022	100.000	92.88
$	30	Dibromofluoromethane	113	4.095	4.095	(0.980)	438954	100.000	100.72
	31	1,1,1-Trichloroethane	97	4.080	4.080	(0.977)	583361	100.000	96.79
	32	1,1-Dichloropropene	75	4.275	4.275	(0.861)	496096	100.000	101.35
	33	1,2-Dichloroethane	62	4.552	4.552	(0.917)	553661	100.000	98.01
	34	Carbon Tetrachloride	117	4.260	4.260	(0.858)	487488	100.000	93.26
$	35	1,2-Dichloroethane-d4	65	4.466	4.466	(1.069)	455890	100.000	98.67
*	36	1,4-Difluorobenzene	114	4.965	4.965	(1.000)	689427	50.0000	
	37	Benzene	78	4.508	4.508	(0.908)	1590142	100.000	96.58
	38	Trichloroethene	130	5.205	5.205	(1.048)	456948	100.000	97.85
	39	Bromodichloromethane	83	5.722	5.722	(1.153)	587419	100.000	95.07
	41	2-Chloroethylvinyl ether	63	6.044	6.044	(1.217)	345852	200.000	196.75
	42	1,2-Dichloropropane	63	5.433	5.433	(1.094)	420835	100.000	96.09
	44	Dibromomethane	93	5.550	5.550	(1.118)	280146	100.000	94.11
	45	4-Methyl-2-Pentanone	43	6.322	6.322	(0.824)	671115	200.000	188.25
	46	cis-1,3-Dichloropropene	75	6.153	6.153	(1.239)	735867	100.000	101.41
*	47	Chlorobenzene-d5	117	7.668	7.668	(1.000)	666948	50.0000	
$	48	Toluene-d8	98	6.386	6.386	(0.833)	1602890	100.000	97.25
	50	Toluene	91	6.446	6.446	(0.841)	1761917	100.000	95.57
	51	trans-1,3-Dichloropropene	75	6.678	6.678	(1.345)	618784	100.000	102.75
	52	2-Hexanone	43	7.087	7.087	(0.924)	458639	200.000	189.09
	53	1,1,2-Trichloroethane	83	6.839	6.839	(0.892)	342194	100.000	92.52
	54	1,3-Dichloropropane	76	6.982	6.982	(0.911)	682500	100.000	93.75
	55	Dibromochloromethane	129	7.173	7.173	(0.935)	521219	100.000	97.64
	56	Tetrachloroethene	164	6.925	6.925	(0.903)	373651	100.000	97.96
	57	1,2-Dibromoethane	107	7.259	7.259	(0.947)	453499	100.000	98.07
	58	1-Chlorohexane	55	7.694	7.694	(1.550)	326538	100.000	98.00
	59	Chlorobenzene	112	7.694	7.694	(1.003)	1229287	100.000	94.01
	60	1,1,1,2-Tetrachloroethane	131	7.773	7.773	(1.014)	472962	100.000	97.19

61 Ethylbenzene	106	7.799	7.799 (1.017)	612289	100.000	99.40
62 m,p-Xylenes	106	7.904	7.904 (1.031)	1556563	200.000	196.03

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	63 o-Xylene	106	8.241	8.241	(1.075)	767814	100.000	97.97
	64 Styrene	104	8.260	8.260	(1.077)	1350780	100.000	102.83
	66 Bromoform	173	8.410	8.410	(1.097)	367943	100.000	99.50
	67 Isopropylbenzene	105	8.560	8.560	(1.116)	1818857	100.000	101.58
	68 1,1,2,2-Tetrachloroethane	83	8.837	8.837	(0.915)	554091	100.000	90.03
$	69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	615584	100.000	99.86
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	386107	50.0000	
	71 1,2,3-Trichloropropane	75	8.863	8.863	(0.917)	407425	100.000	94.83(M)
	73 n-Propylbenzene	91	8.912	8.912	(0.922)	2152414	100.000	100.64
	74 Bromobenzene	156	8.803	8.803	(0.911)	602819	100.000	95.16
	75 1,3,5-Trimethylbenzene	105	9.066	9.066	(0.938)	1603520	100.000	101.49
	76 2-Chlorotoluene	91	8.972	8.972	(0.929)	1326500	100.000	94.51
	77 4-Chlorotoluene	91	9.070	9.070	(0.939)	1587855	100.000	99.24
	78 tert-Butylbenzene	119	9.336	9.336	(0.966)	1287608	100.000	99.56
	79 1,2,4-Trimethylbenzene	105	9.381	9.381	(0.971)	1640529	100.000	98.68
	81 sec-Butylbenzene	105	9.519	9.519	(0.985)	1778581	100.000	103.36
	82 p-Isopropyltoluene	119	9.651	9.651	(0.999)	1606121	100.000	104.16
	83 1,3-Dichlorobenzene	146	9.606	9.606	(0.994)	1039293	100.000	98.84
	84 1,4-Dichlorobenzene	146	9.681	9.681	(1.002)	1114780	100.000	97.16
	86 Benzyl Chloride	91	9.808	9.808	(1.279)	1009234	100.000	94.18
	87 n-Butylbenzene	91	9.992	9.992	(1.034)	1425779	100.000	94.31
	88 1,2-Dichlorobenzene	146	9.992	9.992	(1.034)	1054319	100.000	97.36
	89 1,2-Dibromo-3-Chloropropane	155	10.655	10.655	(1.103)	94321	100.000	95.78
	90 1,2,4-Trichlorobenzene	180	11.338	11.338	(1.173)	697257	100.000	102.03
	91 Hexachlorobutadiene	225	11.480	11.480	(1.188)	299042	100.000	97.63
	92 Naphthalene	128	11.540	11.540	(1.194)	1592534	100.000	102.42
	93 1,2,3-Trichlorobenzene	180	11.739	11.739	(1.215)	642199	100.000	98.12
M	94 1,2-Dichloroethylene (total)	96				820465	200.000	
M	95 Xylenes (total)	106				2324377	300.000	
	141 Cyclohexane	56	4.118	4.118	(0.986)	432198	100.000	93.19
	138 Freon TF	101	1.913	1.913	(0.458)	327614	100.000	98.16
	147 Methylcyclohexane	55	5.377	5.377	(1.083)	862071	100.000	102.15(A)
	146 Methyl Acetate	43	2.228	2.228	(0.533)	196542	100.000	96.07
	148 Tert-Butyl alcohol	59	2.427	2.427	(0.581)	592215	2000.00	1881.19
	149 Isopropyl Alcohol	45	2.093	2.093	(0.501)	321288	2000.00	1954.21

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.



Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121609.D
Date : 16-DEC-2022 14:25
Client ID: VSTD100
Sample Info: VSTD100;VSTD100;1;8;
Purge Volume: 5.0
Column phase: DB624

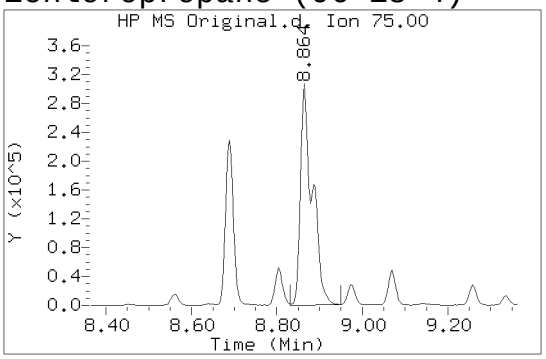
Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121609.D
Inj Date : 16-DEC-2022 14:25
InstruID : voa6.i
LabSampID : VSTD100

1,2,3-Trichloropropane (96-18-4)

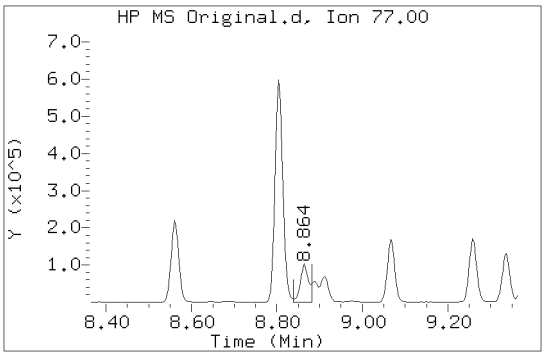
BEFORE

MASS
75
AREA
602953
HEIGHT
307037
27-Dec-2022
16:03
linh
pham



BEFORE

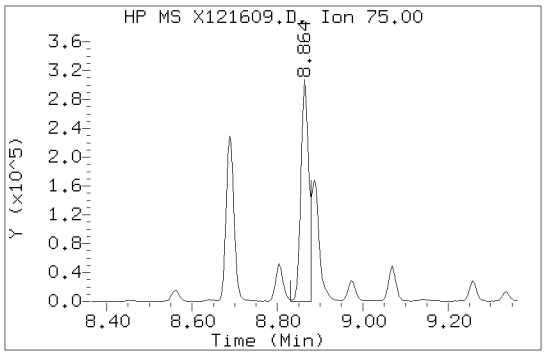
MASS
77
AREA
149362
HEIGHT
103354
27-Dec-2022
16:03
linh
pham



Reason Code:

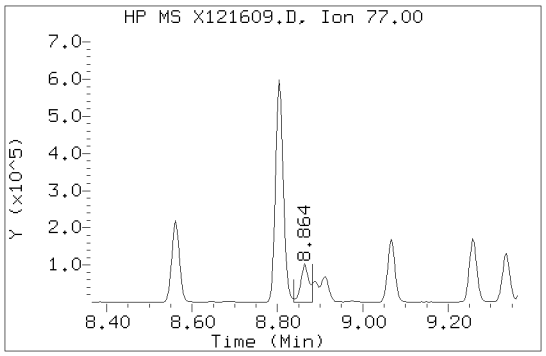
AFTER

MASS
75
AREA
407425
HEIGHT
307037
27-Dec-2022
16:06
linh
pham



AFTER

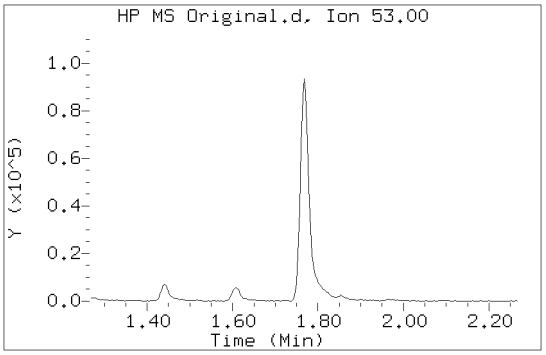
MASS
77
AREA
149362
HEIGHT
103354
27-Dec-2022
16:06
linh
pham



Chloroprene (126-99-8)

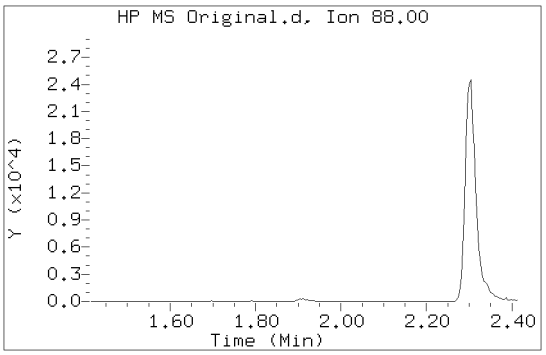
BEFORE

MASS
53
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



BEFORE

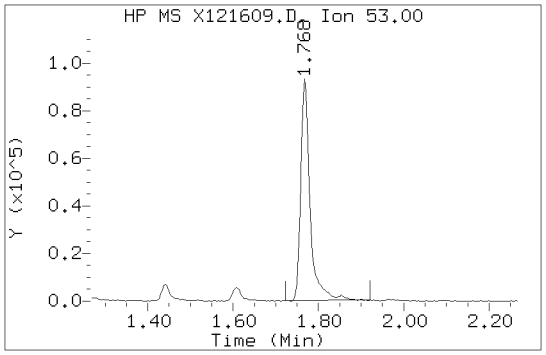
MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



Reason Code:

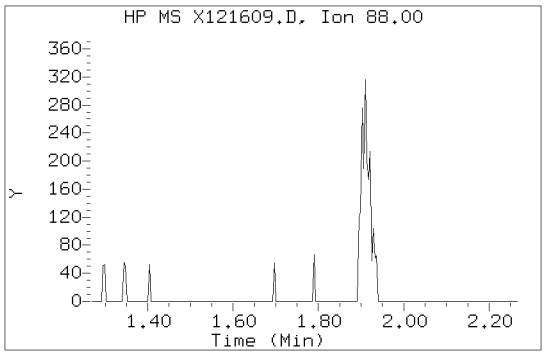
AFTER

MASS
53
AREA
146540
HEIGHT
93219
27-Dec-2022
16:06
linh
pham



AFTER

MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:06
linh
pham

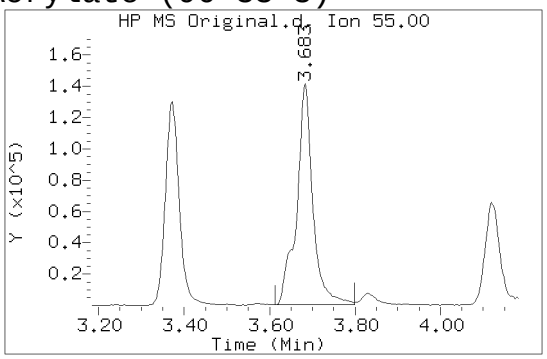


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121609.D
Inj Date : 16-DEC-2022 14:25
InstruID : voa6.i
LabSampID : VSTD100

Methyl Acrylate (96-33-3)

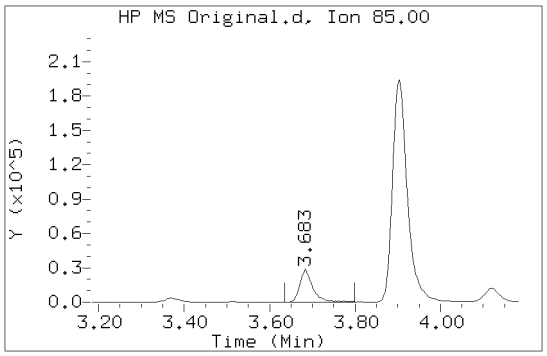
BEFORE

MASS
55
AREA
380041
HEIGHT
141345
27-Dec-2022
16:03
linh
pham



BEFORE

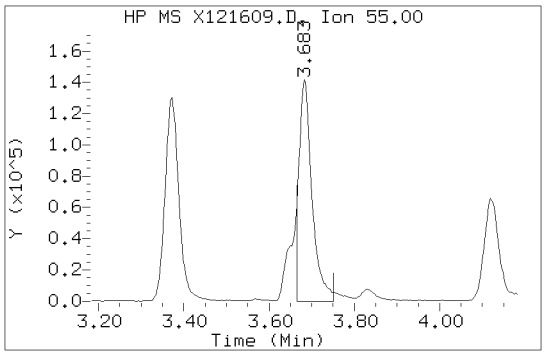
MASS
85
AREA
62241
HEIGHT
29192
27-Dec-2022
16:03
linh
pham



Reason Code:

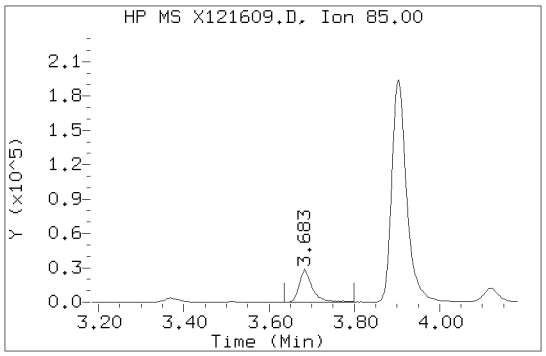
AFTER

MASS
55
AREA
308372
HEIGHT
141781
27-Dec-2022
16:06
linh
pham



AFTER

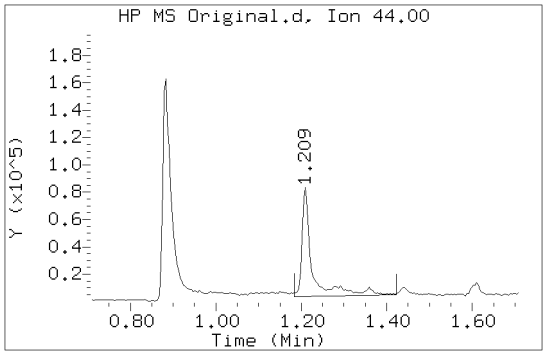
MASS
85
AREA
62241
HEIGHT
29192
27-Dec-2022
16:06
linh
pham



Acetaldehyde (75-07-0)

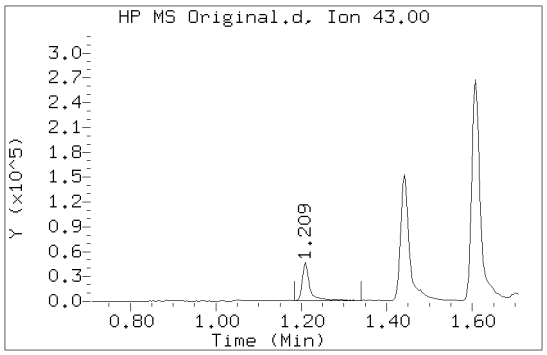
BEFORE

MASS
44
AREA
137215
HEIGHT
79995
27-Dec-2022
16:03
linh
pham



BEFORE

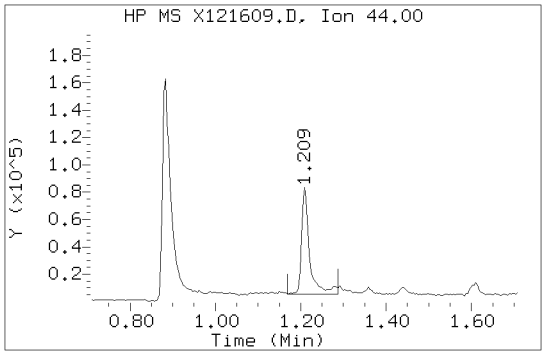
MASS
43
AREA
58307
HEIGHT
46134
27-Dec-2022
16:03
linh
pham



Reason Code:

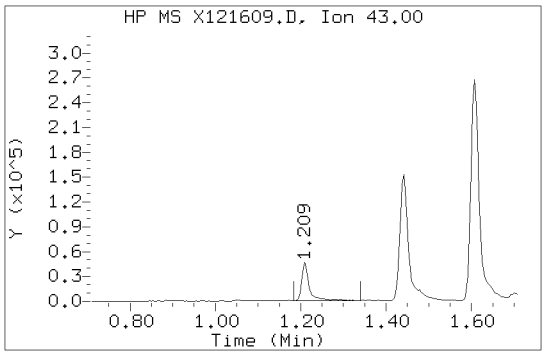
AFTER

MASS
44
AREA
107798
HEIGHT
78310
27-Dec-2022
16:06
linh
pham



AFTER

MASS
43
AREA
58307
HEIGHT
46134
27-Dec-2022
16:06
linh
pham



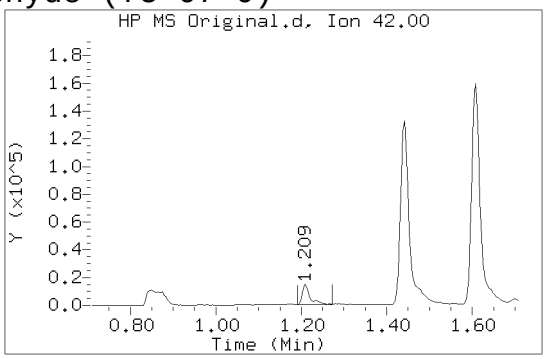
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121609.D
Inj Date : 16-DEC-2022 14:25
InstruID : voa6.i
LabSampID : VSTD100

Acetaldehyde (75-07-0)

Reason Code:

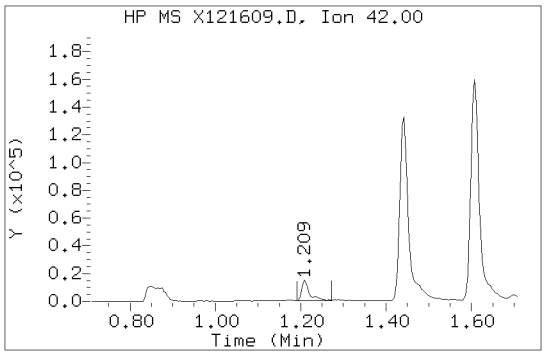
BEFORE

MASS
42
AREA
19613
HEIGHT
14674
27-Dec-2022
16:03
linh
pham



AFTER

MASS
42
AREA
19613
HEIGHT
14674
27-Dec-2022
16:06
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121610.D Page 1
Report Date: 27-Dec-2022 16:07

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121610.D
Lab Smp Id: VSTD150 Client Smp ID: VSTD150
Inj Date : 16-DEC-2022 14:46
Operator : PC Inst ID: voa6.i
Smp Info : VSTD150;VSTD150;1;9;
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\8260W.m
Meth Date : 27-Dec-2022 16:07 voa6.i Quant Type: ISTD
Cal Date : 16-DEC-2022 14:25 Cal File: X121609.D
Als bottle: 11 Calibration Sample, Level: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260V6.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.177	4.177	(1.000)	447266	50.0000	
135 1,4-Dioxane	88	5.598	5.598	(1.340)	128845	3000.00	3151.41
140 1,3-Butadiene	54	1.160	1.160	(0.278)	468966	150.000	152.77
25 Methacrylonitrile	41	3.818	3.818	(0.914)	457301	150.000	144.39
12 Isobutyl Alcohol	43	4.672	4.672	(1.118)	1595753	3000.00	3171.99
13 Acetonitrile	39	2.194	2.194	(0.525)	642798	1500.00	1579.09
14 Allyl Chloride	41	2.194	2.194	(0.525)	1164663	150.000	150.22
4 Propionitrile	54	3.649	3.649	(0.873)	694740	1500.00	1522.31
136 n-Hexane	57	2.768	2.768	(0.663)	533876	150.000	165.78
72 trans-1,4-Dichloro-2-butene	53	8.889	8.889	(1.159)	234252	150.000	161.53
194 Acetaldehyde	44	1.209	1.209	(0.289)	161053	600.000	611.34(M)
23 Chloroprene	53	1.767	1.767	(0.423)	225733	150.000	148.43
145 alpha-Methylstyrene	118	9.257	9.257	(0.958)	1351001	150.000	157.73
200 Dimethyl Disulfide	94	6.198	6.198	(0.808)	1420820	150.000	156.27
139 Diethyl ether	59	1.752	1.752	(0.419)	443624	150.000	148.44
130 Ethyl Acetate	43	3.649	3.649	(0.873)	516433	150.000	147.97
40 Methyl Methacrylate	41	5.602	5.602	(1.341)	465959	150.000	152.78
49 Ethyl Methacrylate	69	6.712	6.712	(1.352)	517063	150.000	157.90
132 n-Butanol	56	5.253	5.253	(1.258)	210842	3000.00	3100.52
142 Tetrahydrofuran	42	3.840	3.840	(0.919)	162133	300.000	297.65

150	Allyl alcohol	57	2.768	2.768 (0.663)	533876	3000.00	3073.09
166	1,2,3-Trimethylbenzene	105	9.729	9.729 (1.007)	2744011	150.000	147.41

Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121610.D Page 2
Report Date: 27-Dec-2022 16:07

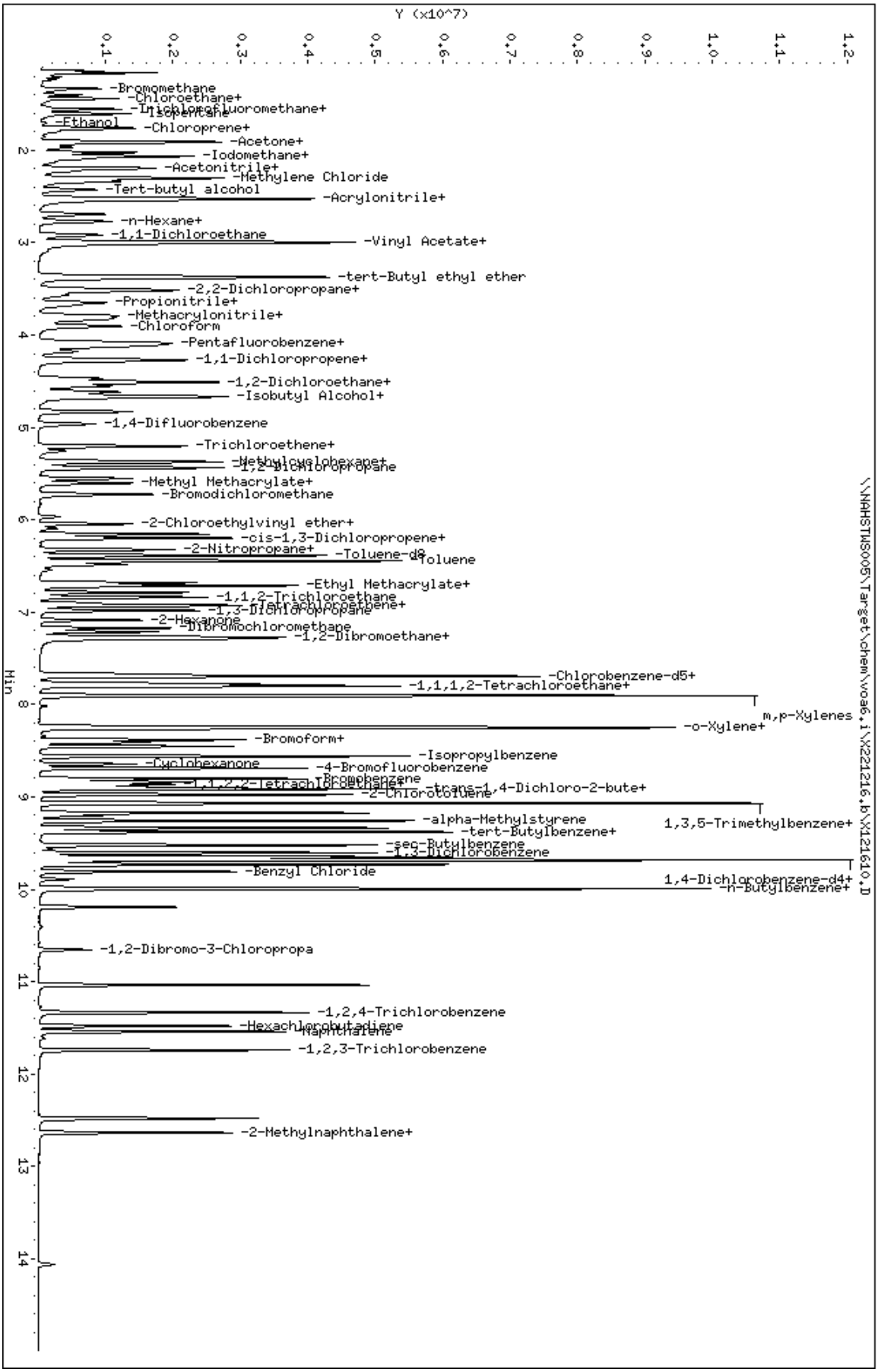
		QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	Compounds							
	131 Methyl Acrylate	55	3.683	3.683	(0.882)	479571	150.000	157.93(M)
	162 Butyl acrylate	55	8.248	8.248	(1.076)	1470193	150.000	167.53
	2 Dichlorodifluoromethane	85	0.969	0.969	(0.232)	476130	150.000	151.40
	3 Chloromethane	50	1.077	1.077	(0.258)	621048	150.000	148.89
	5 Vinyl Chloride	62	1.141	1.141	(0.273)	602774	150.000	154.27
	6 Bromomethane	94	1.332	1.332	(0.319)	470318	150.000	155.29
	7 Chloroethane	64	1.400	1.400	(0.335)	409168	150.000	150.45
	8 Trichlorofluoromethane	101	1.557	1.557	(0.373)	866865	150.000	158.54
	9 Acrolein	56	1.441	1.441	(0.345)	96139	300.000	308.25
	10 Acetone	43	1.969	1.969	(0.472)	373504	300.000	297.68
	11 1,1-Dichloroethene	96	1.910	1.910	(0.457)	516820	150.000	152.24
	15 Iodomethane	142	2.022	2.022	(0.484)	1554547	300.000	304.69
	16 Acrylonitrile	53	2.528	2.528	(0.605)	371872	300.000	323.00
	17 Methylene Chloride	84	2.299	2.299	(0.550)	656037	150.000	140.89
	18 Methyl tert-butyl ether	73	2.532	2.532	(0.606)	1661314	150.000	149.51
	19 Carbon Disulfide	76	2.063	2.063	(0.494)	2747788	300.000	309.38
	20 trans-1,2-Dichloroethene	96	2.524	2.524	(0.604)	579939	150.000	152.65
	21 Vinyl Acetate	43	2.993	2.993	(0.716)	3127175	300.000	320.61
	22 1,1-Dichloroethane	63	2.918	2.918	(0.699)	993924	150.000	149.06
	24 2-Butanone	43	3.570	3.570	(0.855)	407629	300.000	299.97(H)
	26 2,2-Dichloropropane	77	3.506	3.506	(0.839)	858853	150.000	151.71
	27 cis-1,2-Dichloroethene	96	3.521	3.521	(0.843)	693846	150.000	150.07
	28 Chloroform	83	3.904	3.904	(0.935)	1135322	150.000	151.92
	29 Bromochloromethane	128	3.791	3.791	(0.908)	379595	150.000	149.95
$	30 Dibromofluoromethane	113	4.095	4.095	(0.980)	652724	150.000	152.32
	31 1,1,1-Trichloroethane	97	4.080	4.080	(0.977)	907111	150.000	152.99
	32 1,1-Dichloropropene	75	4.279	4.279	(0.862)	766313	150.000	155.22
	33 1,2-Dichloroethane	62	4.552	4.552	(0.917)	857022	150.000	150.42
	34 Carbon Tetrachloride	117	4.264	4.264	(0.859)	758288	150.000	143.83
$	35 1,2-Dichloroethane-d4	65	4.470	4.470	(1.070)	686218	150.000	150.83
*	36 1,4-Difluorobenzene	114	4.965	4.965	(1.000)	695375	50.0000	
	37 Benzene	78	4.511	4.511	(0.909)	2450385	150.000	147.56
	38 Trichloroethene	130	5.205	5.205	(1.048)	707016	150.000	150.11
	39 Bromodichloromethane	83	5.722	5.722	(1.153)	932632	150.000	149.65
	41 2-Chloroethylvinyl ether	63	6.044	6.044	(1.217)	534005	300.000	301.19
	42 1,2-Dichloropropane	63	5.433	5.433	(1.094)	658007	150.000	148.96
	44 Dibromomethane	93	5.549	5.549	(1.118)	444851	150.000	148.16
	45 4-Methyl-2-Pentanone	43	6.325	6.325	(0.825)	1052577	300.000	293.14
	46 cis-1,3-Dichloropropene	75	6.153	6.153	(1.239)	1159982	150.000	158.49
*	47 Chlorobenzene-d5	117	7.667	7.667	(1.000)	671780	50.0000	
$	48 Toluene-d8	98	6.385	6.385	(0.833)	2346444	150.000	141.35
	50 Toluene	91	6.445	6.445	(0.841)	2724692	150.000	146.73
	51 trans-1,3-Dichloropropene	75	6.682	6.682	(1.346)	982044	150.000	161.68
	52 2-Hexanone	43	7.086	7.086	(0.924)	738082	300.000	302.12
	53 1,1,2-Trichloroethane	83	6.839	6.839	(0.892)	540625	150.000	145.13
	54 1,3-Dichloropropane	76	6.981	6.981	(0.911)	1079961	150.000	147.29
	55 Dibromochloromethane	129	7.176	7.176	(0.936)	822094	150.000	152.90
	56 Tetrachloroethene	164	6.929	6.929	(0.904)	574499	150.000	149.53
	57 1,2-Dibromoethane	107	7.259	7.259	(0.947)	715678	150.000	153.66
	58 1-Chlorohexane	55	7.697	7.697	(1.550)	522502	150.000	155.48
	59 Chlorobenzene	112	7.694	7.694	(1.003)	1944205	150.000	147.62
	60 1,1,1,2-Tetrachloroethane	131	7.772	7.772	(1.014)	744470	150.000	151.89

61 Ethylbenzene	106	7.799	7.799 (1.017)	946928	150.000	152.63
62 m,p-Xylenes	106	7.904	7.904 (1.031)	2421267	300.000	302.75

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	63 o-Xylene	106	8.241	8.241	(1.075)	1210374	150.000	153.33
	64 Styrene	104	8.260	8.260	(1.077)	2169528	150.000	163.97
	66 Bromoform	173	8.410	8.410	(1.097)	588916	150.000	158.11
	67 Isopropylbenzene	105	8.560	8.560	(1.116)	2877359	150.000	159.55
	68 1,1,2,2-Tetrachloroethane	83	8.837	8.837	(0.915)	873933	150.000	141.84
$	69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	936681	150.000	150.82
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	386546	50.0000	
	71 1,2,3-Trichloropropane	75	8.863	8.863	(0.917)	702545	150.000	163.33
	73 n-Propylbenzene	91	8.912	8.912	(0.922)	3370402	150.000	157.41
	74 Bromobenzene	156	8.803	8.803	(0.911)	952608	150.000	150.20
	75 1,3,5-Trimethylbenzene	105	9.066	9.066	(0.938)	2529726	150.000	159.93
	76 2-Chlorotoluene	91	8.976	8.976	(0.929)	2083510	150.000	148.28
	77 4-Chlorotoluene	91	9.069	9.069	(0.939)	2540753	150.000	158.62
	78 tert-Butylbenzene	119	9.336	9.336	(0.966)	2055293	150.000	158.74
	79 1,2,4-Trimethylbenzene	105	9.381	9.381	(0.971)	2613455	150.000	157.03
	81 sec-Butylbenzene	105	9.523	9.523	(0.986)	2819238	150.000	163.65
	82 p-Isopropyltoluene	119	9.650	9.650	(0.999)	2542764	150.000	164.71
	83 1,3-Dichlorobenzene	146	9.605	9.605	(0.994)	1650440	150.000	156.79
	84 1,4-Dichlorobenzene	146	9.684	9.684	(1.002)	1766146	150.000	153.76
	86 Benzyl Chloride	91	9.808	9.808	(1.279)	1650494	150.000	151.23
	87 n-Butylbenzene	91	9.992	9.992	(1.034)	2293126	150.000	150.43
	88 1,2-Dichlorobenzene	146	9.992	9.992	(1.034)	1672283	150.000	154.25
	89 1,2-Dibromo-3-Chloropropane	155	10.655	10.655	(1.103)	149691	150.000	151.78
	90 1,2,4-Trichlorobenzene	180	11.337	11.337	(1.173)	1094701	150.000	160.01
	91 Hexachlorobutadiene	225	11.480	11.480	(1.188)	466452	150.000	150.10
	92 Naphthalene	128	11.540	11.540	(1.194)	2498440	150.000	160.50
	93 1,2,3-Trichlorobenzene	180	11.738	11.738	(1.215)	991236	150.000	151.28
M	94 1,2-Dichloroethylene (total)	96				1273785	300.000	
M	95 Xylenes (total)	106				3631641	450.000	
	141 Cyclohexane	56	4.117	4.117	(0.986)	682728	150.000	148.87
	138 Freon TF	101	1.910	1.910	(0.457)	517229	150.000	157.53
	147 Methylcyclohexane	55	5.377	5.377	(1.083)	1358300	150.000	159.57(A)
	146 Methyl Acetate	43	2.224	2.224	(0.533)	301298	150.000	149.70
	148 Tert-Butyl alcohol	59	2.427	2.427	(0.581)	962267	3000.00	3107.07
	149 Isopropyl Alcohol	45	2.093	2.093	(0.501)	514966	3000.00	3183.89

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.



Data File: \\NAHSTWS005\Target\chem\voa6_i\X221216_b\X121610.D
Date : 16-DEC-2022 14:46
Client ID: VSTD150
Sample Info: VSTD150;VSTD150;1;9;
Purge Volume: 5.0
Column phase: DB624

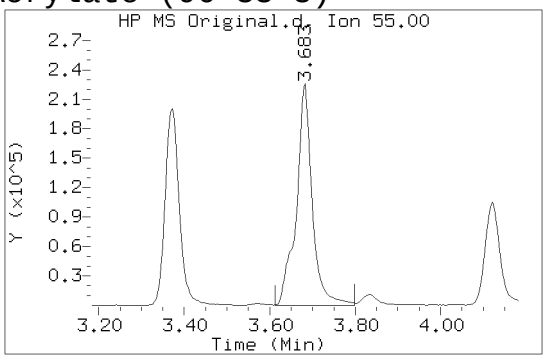
Instrument: voa6_i
Operator: PC
Column diameter: 0.18

Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121610.D
Inj Date : 16-DEC-2022 14:46
InstruID : voa6.i
LabSampID : VSTD150

Methyl Acrylate (96-33-3)

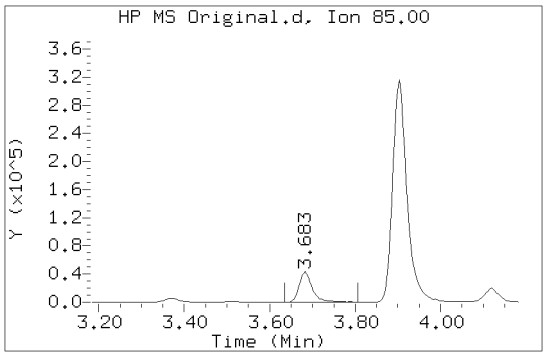
BEFORE

MASS
55
AREA
589884
HEIGHT
225588
27-Dec-2022
16:04
linh
pham



BEFORE

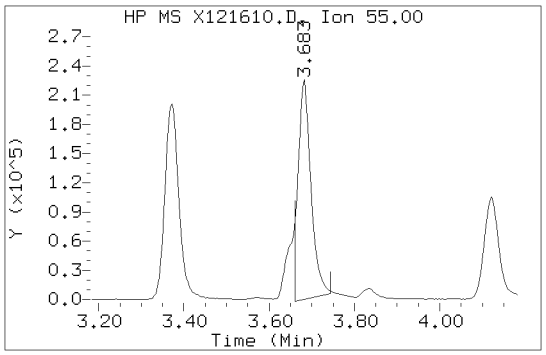
MASS
85
AREA
94462
HEIGHT
43984
27-Dec-2022
16:04
linh
pham



Reason Code:

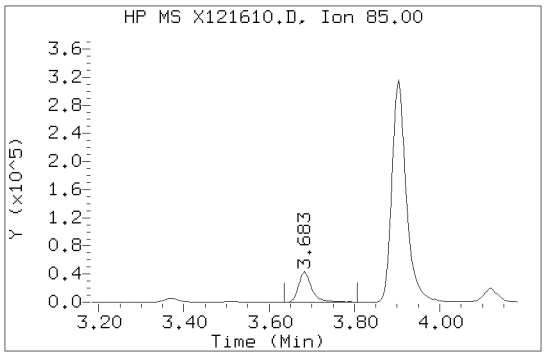
AFTER

MASS
55
AREA
479571
HEIGHT
225684
27-Dec-2022
16:06
linh
pham



AFTER

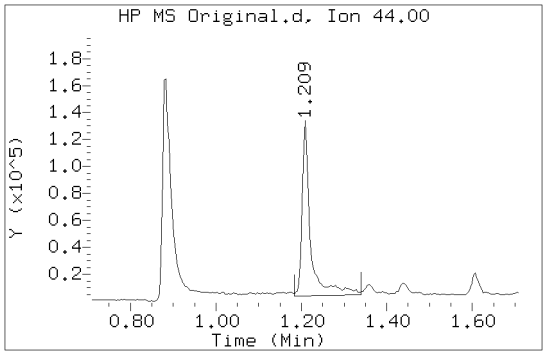
MASS
85
AREA
94462
HEIGHT
43984
27-Dec-2022
16:06
linh
pham



Acetaldehyde (75-07-0)

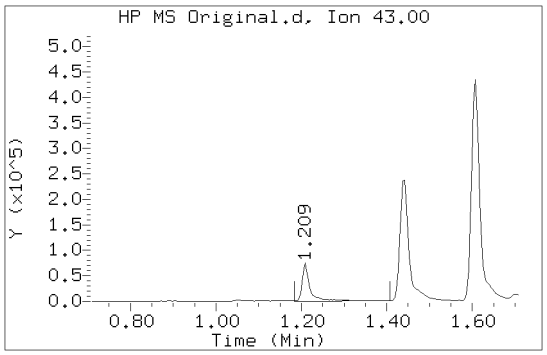
BEFORE

MASS
44
AREA
184291
HEIGHT
129645
27-Dec-2022
16:04
linh
pham



BEFORE

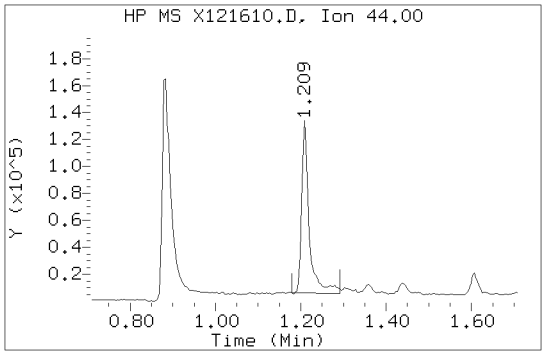
MASS
43
AREA
95359
HEIGHT
74827
27-Dec-2022
16:04
linh
pham



Reason Code:

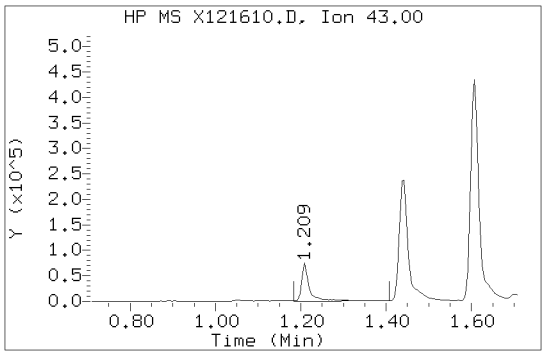
AFTER

MASS
44
AREA
161053
HEIGHT
127430
27-Dec-2022
16:06
linh
pham



AFTER

MASS
43
AREA
95359
HEIGHT
74827
27-Dec-2022
16:06
linh
pham



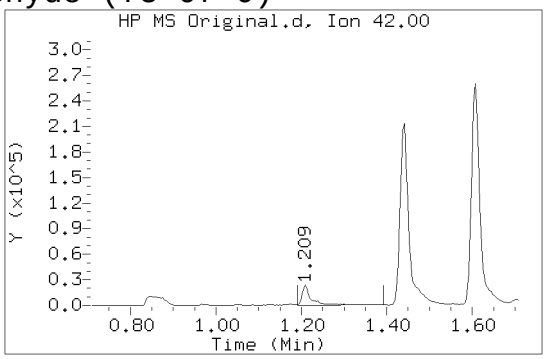
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121610.D
Inj Date : 16-DEC-2022 14:46
InstruID : voa6.i
LabSampID : VSTD150

Acetaldehyde (75-07-0)

Reason Code:

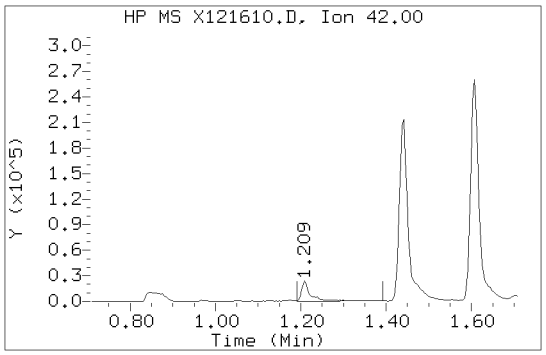
BEFORE

MASS
42
AREA
36089
HEIGHT
23932
27-Dec-2022
16:04
linh
pham



AFTER

MASS
42
AREA
36089
HEIGHT
23932
27-Dec-2022
16:06
linh
pham



ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121611.D
Lab Smp Id: VSTD200 Client Smp ID: VSTD200
Inj Date : 16-DEC-2022 15:07
Operator : PC Inst ID: voa6.i
Smp Info : VSTD200;VSTD200;1;10;
Misc Info : V6;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\8260W.m
Meth Date : 27-Dec-2022 16:07 voa6.i Quant Type: ISTD
Cal Date : 16-DEC-2022 14:46 Cal File: X121610.D
Als bottle: 12 Calibration Sample, Level: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260V6.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1	Pentafluorobenzene	168	4.178	4.178	(1.000)	450847	50.0000	
135	1,4-Dioxane	88	5.598	5.598	(1.340)	179280	4000.00	4350.17(A)
140	1,3-Butadiene	54	1.160	1.160	(0.278)	646265	200.000	208.86(A)
25	Methacrylonitrile	41	3.814	3.814	(0.913)	619479	200.000	194.04
12	Isobutyl Alcohol	43	4.672	4.672	(1.118)	2146631	4000.00	4233.12(A)
13	Acetonitrile	39	2.195	2.195	(0.525)	854153	2000.00	2081.63(A)
14	Allyl Chloride	41	2.195	2.195	(0.525)	1558053	200.000	199.36
4	Propionitrile	54	3.649	3.649	(0.873)	933721	2000.00	2029.71(A)
136	n-Hexane	57	2.768	2.768	(0.663)	726173	200.000	223.70(A)
72	trans-1,4-Dichloro-2-butene	53	8.890	8.890	(1.159)	324976	200.000	217.73(A)
194	Acetaldehyde	44	1.209	1.209	(0.289)	205547	800.000	780.23(M)
23	Chloroprene	53	1.767	1.767	(0.423)	315248	200.000	205.64(A)
145	alpha-Methylstyrene	118	9.261	9.261	(0.958)	1880547	200.000	211.54(A)
200	Dimethyl Disulfide	94	6.198	6.198	(0.808)	1929723	200.000	206.22(A)
139	Diethyl ether	59	1.752	1.752	(0.419)	595638	200.000	197.72
130	Ethyl Acetate	43	3.649	3.649	(0.873)	706790	200.000	200.90(A)
40	Methyl Methacrylate	41	5.602	5.602	(1.341)	643877	200.000	209.45(A)
49	Ethyl Methacrylate	69	6.715	6.715	(1.353)	735246	200.000	222.23(A)
132	n-Butanol	56	5.253	5.253	(1.258)	297334	4000.00	3955.86
142	Tetrahydrofuran	42	3.840	3.840	(0.919)	219995	400.000	401.77(A)

150	Allyl alcohol	57	2.768	2.768 (0.663)	726173	4000.00	4146.79(A)
166	1,2,3-Trimethylbenzene	105	9.733	9.733 (1.007)	3701988	200.000	191.61

Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121611.D Page 2
Report Date: 27-Dec-2022 16:07

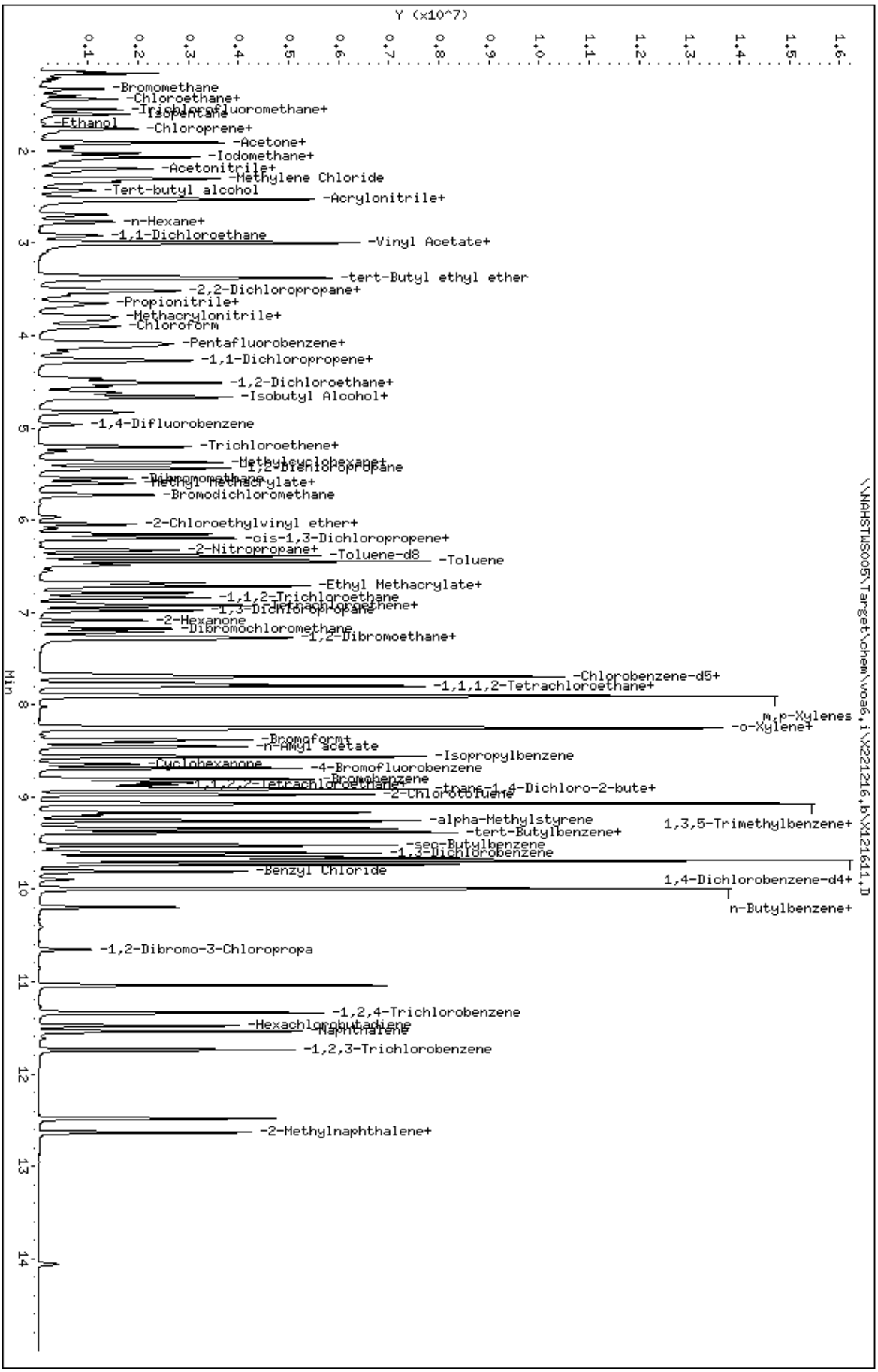
							AMOUNTS	
		QUANT SIG					CAL-AMT	ON-COL
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/l)	(ug/l)
	131 Methyl Acrylate	55	3.683	3.683	(0.882)	646827	200.000	211.32(AM)
	162 Butyl acrylate	55	8.252	8.252	(1.076)	2063916	200.000	228.52(A)
	2 Dichlorodifluoromethane	85	0.969	0.969	(0.232)	635808	200.000	200.44(A)
	3 Chloromethane	50	1.074	1.074	(0.257)	865151	200.000	204.92(A)
	5 Vinyl Chloride	62	1.141	1.141	(0.273)	827926	200.000	210.21(A)
	6 Bromomethane	94	1.329	1.329	(0.318)	666705	200.000	217.67(A)
	7 Chloroethane	64	1.396	1.396	(0.334)	548415	200.000	200.06(A)
	8 Trichlorofluoromethane	101	1.553	1.553	(0.372)	1173529	200.000	212.92(A)
	9 Acrolein	56	1.437	1.437	(0.344)	125874	400.000	399.54
	10 Acetone	43	1.970	1.970	(0.472)	514105	400.000	406.50(A)
	11 1,1-Dichloroethene	96	1.910	1.910	(0.457)	704695	200.000	205.94(A)
	15 Iodomethane	142	2.022	2.022	(0.484)	2193685	400.000	398.07
	16 Acrylonitrile	53	2.528	2.528	(0.605)	504850	400.000	435.02(A)
	17 Methylene Chloride	84	2.299	2.299	(0.550)	863945	200.000	184.07
	18 Methyl tert-butyl ether	73	2.532	2.532	(0.606)	2237559	200.000	199.78
	19 Carbon Disulfide	76	2.067	2.067	(0.495)	3829593	400.000	427.76(A)
	20 trans-1,2-Dichloroethene	96	2.524	2.524	(0.604)	785444	200.000	205.10(A)
	21 Vinyl Acetate	43	2.993	2.993	(0.716)	4210603	400.000	428.26(A)
	22 1,1-Dichloroethane	63	2.918	2.918	(0.699)	1342786	200.000	199.79
	24 2-Butanone	43	3.570	3.570	(0.855)	555896	400.000	404.77(AH)
	26 2,2-Dichloropropane	77	3.507	3.507	(0.839)	1175128	200.000	205.93(A)
	27 cis-1,2-Dichloroethene	96	3.522	3.522	(0.843)	927934	200.000	199.10
	28 Chloroform	83	3.904	3.904	(0.935)	1523082	200.000	202.19(A)
	29 Bromochloromethane	128	3.791	3.791	(0.908)	510028	200.000	199.87
$	30 Dibromofluoromethane	113	4.095	4.095	(0.980)	856027	200.000	198.23
	31 1,1,1-Trichloroethane	97	4.080	4.080	(0.977)	1257327	200.000	210.37(A)
	32 1,1-Dichloropropene	75	4.279	4.279	(0.862)	1048877	200.000	210.29(A)
	33 1,2-Dichloroethane	62	4.552	4.552	(0.917)	1153034	200.000	200.31(A)
	34 Carbon Tetrachloride	117	4.260	4.260	(0.858)	1051824	200.000	197.48
$	35 1,2-Dichloroethane-d4	65	4.470	4.470	(1.070)	919752	200.000	200.47(A)
*	36 1,4-Difluorobenzene	114	4.965	4.965	(1.000)	702551	50.0000	
	37 Benzene	78	4.511	4.511	(0.909)	3321582	200.000	197.98
	38 Trichloroethene	130	5.205	5.205	(1.048)	973709	200.000	204.62(A)
	39 Bromodichloromethane	83	5.722	5.722	(1.153)	1264834	200.000	200.88(A)
	41 2-Chloroethylvinyl ether	63	6.044	6.044	(1.217)	729151	400.000	407.06(A)
	42 1,2-Dichloropropane	63	5.437	5.437	(1.095)	895211	200.000	200.59(A)
	44 Dibromomethane	93	5.550	5.550	(1.118)	600170	200.000	197.85
	45 4-Methyl-2-Pentanone	43	6.326	6.326	(0.825)	1447268	400.000	391.63
	46 cis-1,3-Dichloropropene	75	6.153	6.153	(1.239)	1583645	200.000	214.16(A)
*	47 Chlorobenzene-d5	117	7.671	7.671	(1.000)	691386	50.0000	
$	48 Toluene-d8	98	6.385	6.385	(0.832)	3061758	200.000	179.21
	50 Toluene	91	6.445	6.445	(0.840)	3757557	200.000	196.62
	51 trans-1,3-Dichloropropene	75	6.682	6.682	(1.346)	1365007	200.000	222.44(A)
	52 2-Hexanone	43	7.086	7.086	(0.924)	1026898	400.000	408.42(A)
	53 1,1,2-Trichloroethane	83	6.839	6.839	(0.892)	736981	200.000	192.23
	54 1,3-Dichloropropane	76	6.982	6.982	(0.910)	1482067	200.000	196.39
	55 Dibromochloromethane	129	7.176	7.176	(0.936)	1128140	200.000	203.88(A)
	56 Tetrachloroethene	164	6.929	6.929	(0.903)	798932	200.000	202.05(A)
	57 1,2-Dibromoethane	107	7.259	7.259	(0.946)	970608	200.000	202.48(A)
	58 1-Chlorohexane	55	7.698	7.698	(1.550)	746326	200.000	219.81(A)
	59 Chlorobenzene	112	7.694	7.694	(1.003)	2696715	200.000	198.95
	60 1,1,1,2-Tetrachloroethane	131	7.776	7.776	(1.014)	1028448	200.000	203.88(A)

61 Ethylbenzene	106	7.799	7.799 (1.017)	1312165	200.000	205.50(A)
62 m,p-Xylenes	106	7.904	7.904 (1.030)	3401207	400.000	413.22(A)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	63 o-Xylene	106	8.241	8.241	(1.074)	1701245	200.000	209.41(A)
	64 Styrene	104	8.260	8.260	(1.077)	3030858	200.000	222.58(A)
	66 Bromoform	173	8.410	8.410	(1.096)	809693	200.000	211.22(A)
	67 Isopropylbenzene	105	8.563	8.563	(1.116)	4031708	200.000	217.22(A)
	68 1,1,2,2-Tetrachloroethane	83	8.841	8.841	(0.915)	1186926	200.000	185.61
$	69 4-Bromofluorobenzene	95	8.687	8.687	(1.132)	1277239	200.000	199.81
*	70 1,4-Dichlorobenzene-d4	152	9.666	9.666	(1.000)	401196	50.0000	
	71 1,2,3-Trichloropropane	75	8.863	8.863	(0.917)	864931	200.000	193.75(M)
	73 n-Propylbenzene	91	8.912	8.912	(0.922)	4694239	200.000	211.23(A)
	74 Bromobenzene	156	8.807	8.807	(0.911)	1313631	200.000	199.57
	75 1,3,5-Trimethylbenzene	105	9.070	9.070	(0.938)	3532485	200.000	215.17(A)
	76 2-Chlorotoluene	91	8.976	8.976	(0.929)	2866849	200.000	196.59
	77 4-Chlorotoluene	91	9.070	9.070	(0.938)	3546402	200.000	213.32(A)
	78 tert-Butylbenzene	119	9.336	9.336	(0.966)	2865820	200.000	213.26(A)
	79 1,2,4-Trimethylbenzene	105	9.381	9.381	(0.971)	3599947	200.000	208.40(A)
	81 sec-Butylbenzene	105	9.523	9.523	(0.985)	3952917	200.000	221.08(A)
	82 p-Isopropyltoluene	119	9.651	9.651	(0.998)	3537904	200.000	220.81(A)
	83 1,3-Dichlorobenzene	146	9.606	9.606	(0.994)	2282597	200.000	208.93(A)
	84 1,4-Dichlorobenzene	146	9.684	9.684	(1.002)	2442324	200.000	204.86(A)
	86 Benzyl Chloride	91	9.808	9.808	(1.279)	2286488	200.000	202.63(A)
	87 n-Butylbenzene	91	9.995	9.995	(1.034)	3216534	200.000	202.68(A)
	88 1,2-Dichlorobenzene	146	9.992	9.992	(1.034)	2296902	200.000	204.14(A)
	89 1,2-Dibromo-3-Chloropropane	155	10.655	10.655	(1.102)	205063	200.000	200.30(A)
	90 1,2,4-Trichlorobenzene	180	11.337	11.337	(1.173)	1524896	200.000	214.75(A)
	91 Hexachlorobutadiene	225	11.480	11.480	(1.188)	654615	200.000	200.27(A)
	92 Naphthalene	128	11.540	11.540	(1.194)	3413593	200.000	211.29(A)
	93 1,2,3-Trichlorobenzene	180	11.739	11.739	(1.214)	1363987	200.000	200.56(A)
M	94 1,2-Dichloroethylene (total)	96				1713378	400.000	
M	95 Xylenes (total)	106				5102452	600.000	
	141 Cyclohexane	56	4.121	4.121	(0.987)	943314	200.000	203.60(A)
	138 Freon TF	101	1.910	1.910	(0.457)	714577	200.000	215.91(A)
	147 Methylcyclohexane	55	5.377	5.377	(1.083)	1829310	200.000	212.71(A)
	146 Methyl Acetate	43	2.224	2.224	(0.533)	408781	200.000	201.49(A)
	148 Tert-Butyl alcohol	59	2.431	2.431	(0.582)	1308623	4000.00	4191.87(A)
	149 Isopropyl Alcohol	45	2.093	2.093	(0.501)	697543	4000.00	4278.45(A)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.



Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121611.D
Date : 16-DEC-2022 15:07
Client ID: VSTD200
Sample Info: VSTD200;VSTD200;1;10;
Purge Volume: 5.0
Column phase: DB624

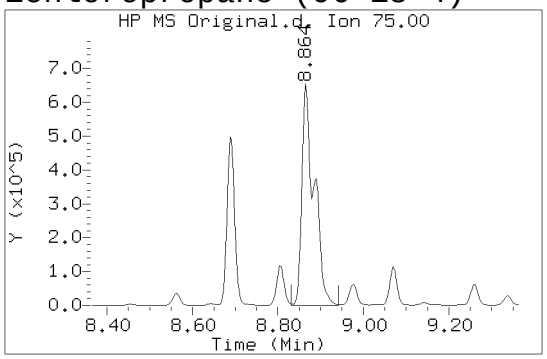
Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121611.D
Inj Date : 16-DEC-2022 15:07
InstruID : voa6.i
LabSampID : VSTD200

1,2,3-Trichloropropane (96-18-4)

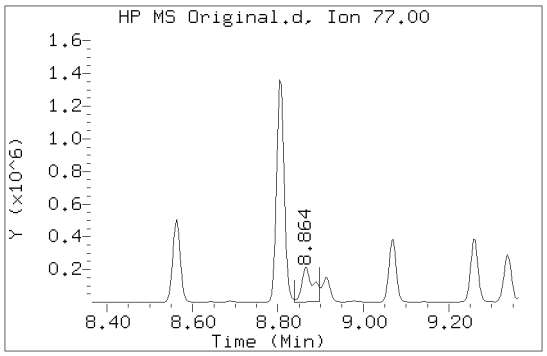
BEFORE

MASS
75
AREA
1323962
HEIGHT
654512
27-Dec-2022
16:04
linh
pham



BEFORE

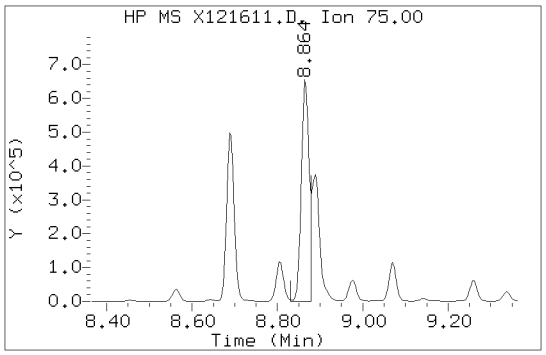
MASS
77
AREA
412197
HEIGHT
211060
27-Dec-2022
16:04
linh
pham



Reason Code:

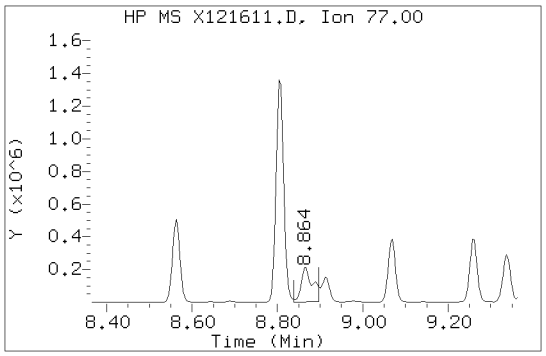
AFTER

MASS
75
AREA
864931
HEIGHT
654512
27-Dec-2022
16:06
linh
pham



AFTER

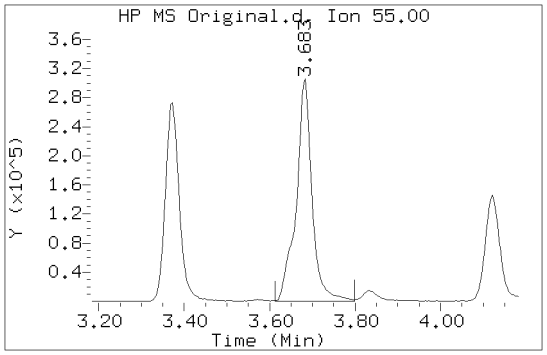
MASS
77
AREA
412197
HEIGHT
211060
27-Dec-2022
16:06
linh
pham



Methyl Acrylate (96-33-3)

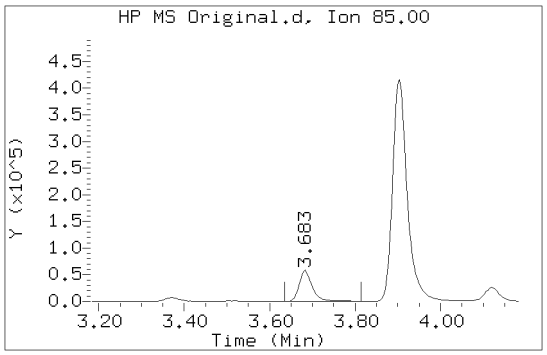
BEFORE

MASS
55
AREA
795765
HEIGHT
305336
27-Dec-2022
16:04
linh
pham



BEFORE

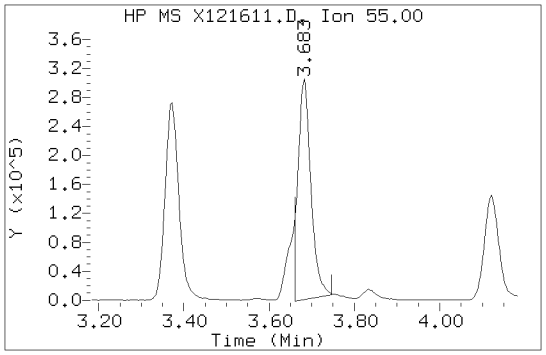
MASS
85
AREA
126210
HEIGHT
59160
27-Dec-2022
16:04
linh
pham



Reason Code:

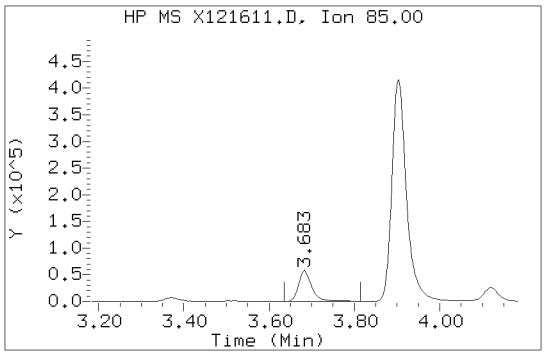
AFTER

MASS
55
AREA
646827
HEIGHT
304558
27-Dec-2022
16:06
linh
pham



AFTER

MASS
85
AREA
126210
HEIGHT
59160
27-Dec-2022
16:06
linh
pham



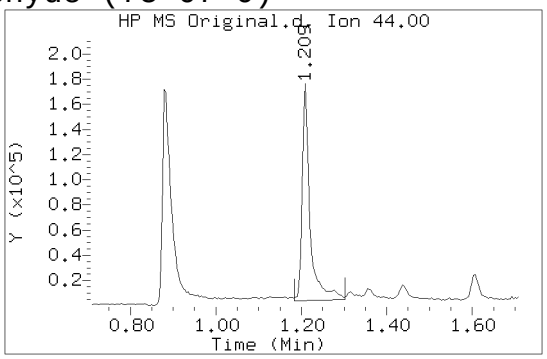
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121611.D
Inj Date : 16-DEC-2022 15:07
InstruID : voa6.i
LabSampID : VSTD200

Acetaldehyde (75-07-0)

Reason Code:

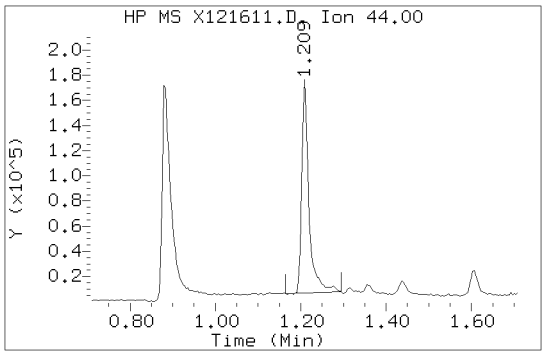
BEFORE

MASS
44
AREA
226389
HEIGHT
172187
27-Dec-2022
16:04
linh
pham



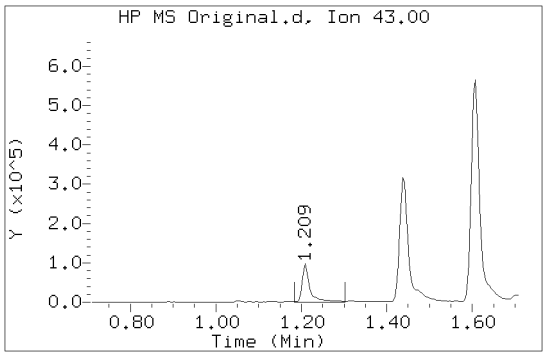
AFTER

MASS
44
AREA
205547
HEIGHT
169403
27-Dec-2022
16:06
linh
pham



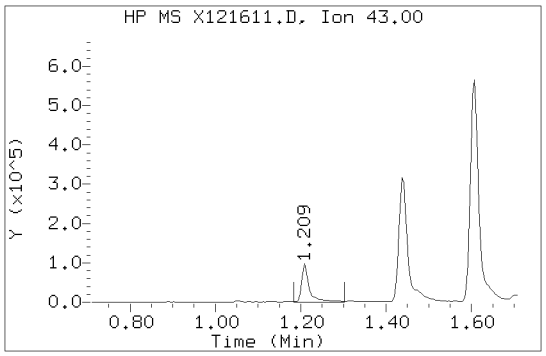
BEFORE

MASS
43
AREA
123674
HEIGHT
97657
27-Dec-2022
16:04
linh
pham



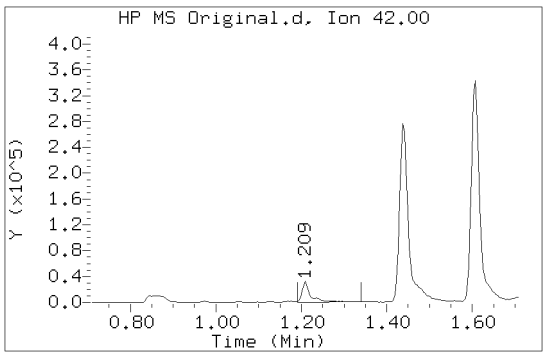
AFTER

MASS
43
AREA
123674
HEIGHT
97657
27-Dec-2022
16:06
linh
pham



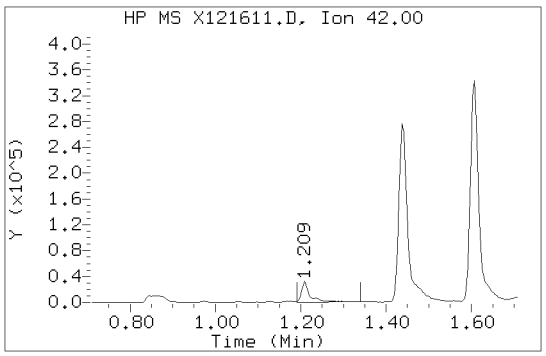
BEFORE

MASS
42
AREA
43931
HEIGHT
31915
27-Dec-2022
16:04
linh
pham



AFTER

MASS
42
AREA
43931
HEIGHT
31915
27-Dec-2022
16:06
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121613.D Page 1
Report Date: 27-Dec-2022 16:07

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121613.D
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 16-DEC-2022 15:49
Operator : PC Inst ID: voa6.i
Smp Info : CCV;CCV;2;;ICV
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\8260W.m
Meth Date : 27-Dec-2022 16:07 voa6.i Quant Type: ISTD
Cal Date : 16-DEC-2022 15:07 Cal File: X121611.D
Als bottle: 14 QC Sample: METHSPIKE
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260V6.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1	Pentafluorobenzene	168	4.178	4.178	(1.000)	457291	50.0000	
135	1,4-Dioxane	88	5.598	5.598	(1.340)	42711	1021.77	1021.76
140	1,3-Butadiene	54	1.164	1.160	(0.279)	155959	49.6927	49.69
25	Methacrylonitrile	41	3.818	3.814	(0.914)	151341	46.7389	46.73
12	Isobutyl Alcohol	43	4.672	4.672	(1.118)	505171	982.151	982.15
13	Acetonitrile	39	2.194	2.195	(0.525)	197937	475.590	475.59
14	Allyl Chloride	41	2.194	2.195	(0.525)	375064	47.3168	47.31
4	Propionitrile	54	3.649	3.649	(0.873)	227186	486.896	486.89
136	n-Hexane	57	2.768	2.768	(0.663)	183599	55.7620	55.76
72	trans-1,4-Dichloro-2-butene	53	8.890	8.890	(1.159)	71513	49.7372	49.73
194	Acetaldehyde	44	1.209	1.209	(0.289)	52697	179.814	179.81(M)
23	Chloroprene	53	1.767	1.767	(0.423)	74243	47.7493	47.74(M)
145	alpha-Methylstyrene	118	9.257	9.261	(0.958)	428317	51.3094	51.30
200	Dimethyl Disulfide	94	6.198	6.198	(0.808)	437905	48.5791	48.57
139	Diethyl ether	59	1.752	1.752	(0.419)	142672	46.6930	46.69
130	Ethyl Acetate	43	3.653	3.649	(0.874)	171211	47.9808	47.98
40	Methyl Methacrylate	41	5.602	5.602	(1.341)	148777	47.7146	47.71
49	Ethyl Methacrylate	69	6.712	6.715	(1.352)	142471	44.0730	44.07
132	n-Butanol	56	5.257	5.253	(1.258)	56842	974.397	974.39
142	Tetrahydrofuran	42	3.840	3.840	(0.919)	61534	108.502	108.50

166 1,2,3-Trimethylbenzene	105	9.729	9.733 (1.007)	846843	46.6777	46.67
131 Methyl Acrylate	55	3.683	3.683 (0.882)	162555	52.3594	52.35

Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121613.D Page 2
Report Date: 27-Dec-2022 16:07

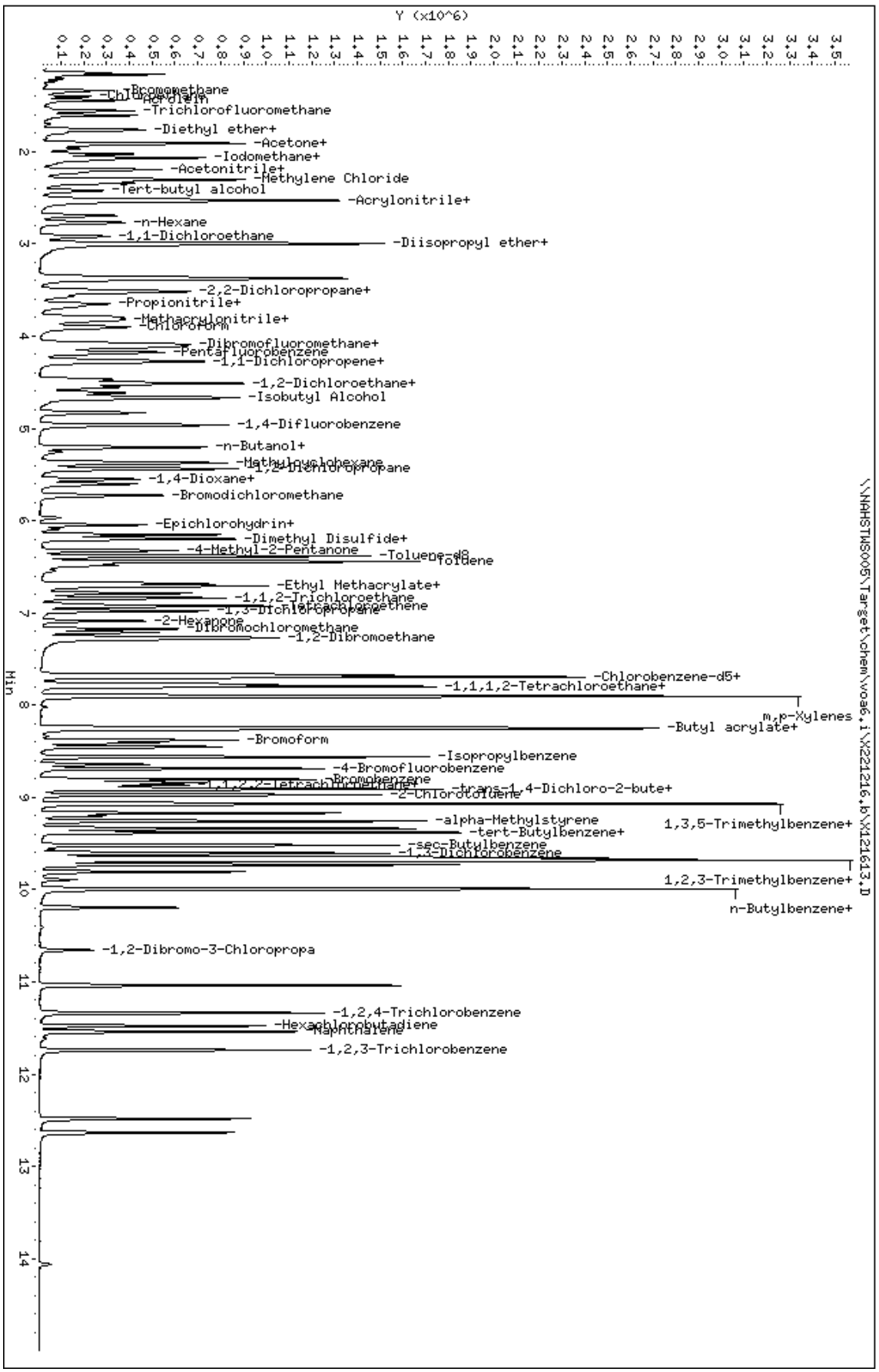
			QUANT SIG					CONCENTRATIONS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/l)	FINAL (ug/l)
	162	Butyl acrylate	55	8.249	8.252	(1.076)	417137	47.9449	47.94
	2	Dichlorodifluoromethane	85	0.972	0.969	(0.233)	166984	52.1924	52.19
	3	Chloromethane	50	1.077	1.074	(0.258)	207623	50.1741	50.17
	5	Vinyl Chloride	62	1.141	1.141	(0.273)	202038	50.5766	50.57
	6	Bromomethane	94	1.336	1.329	(0.320)	153541	50.7886	50.78
	7	Chloroethane	64	1.400	1.396	(0.335)	134354	48.3213	48.32
	8	Trichlorofluoromethane	101	1.557	1.553	(0.373)	285144	51.0083	51.00
	9	Acrolein	56	1.441	1.437	(0.345)	29687	95.0682	95.06
	10	Acetone	43	1.970	1.970	(0.472)	130747	101.899	101.89
	11	1,1-Dichloroethene	96	1.913	1.910	(0.458)	171246	49.3414	49.34
	15	Iodomethane	142	2.026	2.022	(0.485)	440111	96.4856	96.48
	16	Acrylonitrile	53	2.532	2.528	(0.606)	119393	101.430	101.42
	17	Methylene Chloride	84	2.299	2.299	(0.550)	226449	47.5675	47.56
	18	Methyl tert-butyl ether	73	2.532	2.532	(0.606)	546711	48.1256	48.12
	19	Carbon Disulfide	76	2.067	2.067	(0.495)	894433	98.5011	98.50
	20	trans-1,2-Dichloroethene	96	2.528	2.524	(0.605)	194181	49.9917	49.99
	21	Vinyl Acetate	43	2.997	2.993	(0.717)	1044658	104.756	104.75
	22	1,1-Dichloroethane	63	2.918	2.918	(0.699)	328530	48.1931	48.19
	24	2-Butanone	43	3.574	3.570	(0.856)	132931	97.7407	97.74(H)
	26	2,2-Dichloropropane	77	3.507	3.507	(0.839)	295126	50.9895	50.98
	27	cis-1,2-Dichloroethene	96	3.525	3.522	(0.844)	228100	48.2538	48.25
	28	Chloroform	83	3.904	3.904	(0.935)	370227	48.4556	48.45
	29	Bromochloromethane	128	3.795	3.791	(0.908)	122310	47.2570	47.25
$	30	Dibromofluoromethane	113	4.095	4.095	(0.980)	223563	50.9182	50.91
	31	1,1,1-Trichloroethane	97	4.080	4.080	(0.977)	304118	50.1673	50.16
	32	1,1-Dichloropropene	75	4.279	4.279	(0.862)	254008	52.1195	52.11
	33	1,2-Dichloroethane	62	4.552	4.552	(0.917)	278558	49.5262	49.52
	34	Carbon Tetrachloride	117	4.264	4.260	(0.859)	255322	49.0600	49.06
$	35	1,2-Dichloroethane-d4	65	4.470	4.470	(1.070)	233432	50.3661	50.36
*	36	1,4-Difluorobenzene	114	4.965	4.965	(1.000)	686467	50.0000	
	37	Benzene	78	4.511	4.511	(0.909)	824422	50.2921	50.29
	38	Trichloroethene	130	5.205	5.205	(1.048)	238429	51.2807	51.28
	39	Bromodichloromethane	83	5.726	5.722	(1.153)	302844	49.2265	49.22
	41	2-Chloroethylvinyl ether	63	6.048	6.044	(1.218)	182363	104.194	104.19
	42	1,2-Dichloropropane	63	5.433	5.437	(1.094)	216322	49.6089	49.60
	44	Dibromomethane	93	5.550	5.550	(1.118)	145797	49.1915	49.19
	45	4-Methyl-2-Pentanone	43	6.325	6.326	(0.825)	334751	94.0316	94.03
	46	cis-1,3-Dichloropropene	75	6.153	6.153	(1.239)	376514	52.1120	52.11
*	47	Chlorobenzene-d5	117	7.667	7.671	(1.000)	666040	50.0000	
$	48	Toluene-d8	98	6.385	6.385	(0.833)	814721	49.5021	49.50
	50	Toluene	91	6.445	6.445	(0.841)	905906	49.2085	49.20
	51	trans-1,3-Dichloropropene	75	6.682	6.682	(1.346)	314805	52.5028	52.50
	52	2-Hexanone	43	7.086	7.086	(0.924)	234303	96.7356	96.73
	53	1,1,2-Trichloroethane	83	6.839	6.839	(0.892)	176962	47.9147	47.91
	54	1,3-Dichloropropane	76	6.981	6.982	(0.911)	347689	47.8282	47.82
	55	Dibromochloromethane	129	7.176	7.176	(0.936)	263907	49.5095	49.50
	56	Tetrachloroethene	164	6.929	6.929	(0.904)	194246	50.9965	50.99
	57	1,2-Dibromoethane	107	7.259	7.259	(0.947)	232024	50.2468	50.24
	58	1-Chlorohexane	55	7.694	7.698	(1.550)	172462	51.9860	51.98
	59	Chlorobenzene	112	7.694	7.694	(1.003)	631235	48.3416	48.34
	60	1,1,1,2-Tetrachloroethane	131	7.772	7.776	(1.014)	236254	48.6176	48.61
	61	Ethylbenzene	106	7.799	7.799	(1.017)	315635	51.3153	51.31

62 m,p-Xylenes	106	7.904	7.904 (1.031)	794307	100.175	100.17
63 o-Xylene	106	8.241	8.241 (1.075)	389371	49.7531	49.75

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
	64 Styrene	104	8.260	8.260	(1.077)	683415	52.0997	52.09
	66 Bromoform	173	8.410	8.410	(1.097)	182169	49.3304	49.33
	67 Isopropylbenzene	105	8.560	8.563	(1.116)	931467	52.0964	52.09
	68 1,1,2,2-Tetrachloroethane	83	8.837	8.841	(0.915)	280729	46.7506	46.75
$	69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	307493	49.9836	49.98
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.666	(1.000)	376748	50.0000	
	71 1,2,3-Trichloropropane	75	8.863	8.863	(0.917)	201551	48.0786	48.07(M)
	73 n-Propylbenzene	91	8.912	8.912	(0.922)	1099273	52.6761	52.67
	74 Bromobenzene	156	8.803	8.807	(0.911)	306751	49.6271	49.62
	75 1,3,5-Trimethylbenzene	105	9.066	9.070	(0.938)	806374	52.3068	52.30
	76 2-Chlorotoluene	91	8.972	8.976	(0.929)	683941	49.9441	49.94
	77 4-Chlorotoluene	91	9.069	9.070	(0.939)	800114	51.2527	51.25
	78 tert-Butylbenzene	119	9.336	9.336	(0.966)	666730	52.8346	52.83
	79 1,2,4-Trimethylbenzene	105	9.381	9.381	(0.971)	832541	51.3249	51.32
	81 sec-Butylbenzene	105	9.519	9.523	(0.985)	909529	54.1700	54.16
	82 p-Isopropyltoluene	119	9.651	9.651	(0.999)	823827	54.7550	54.75
	83 1,3-Dichlorobenzene	146	9.606	9.606	(0.994)	525438	51.2160	51.21
	84 1,4-Dichlorobenzene	146	9.681	9.684	(1.002)	556610	49.7188	49.71
	87 n-Butylbenzene	91	9.995	9.995	(1.035)	735043	50.6672	50.66
	88 1,2-Dichlorobenzene	146	9.992	9.992	(1.034)	523296	49.5268	49.52
	89 1,2-Dibromo-3-Chloropropane	155	10.655	10.655	(1.103)	48516	50.5353	50.53
	90 1,2,4-Trichlorobenzene	180	11.337	11.337	(1.173)	364475	54.6601	54.66
	91 Hexachlorobutadiene	225	11.480	11.480	(1.188)	170927	57.7383	57.73
	92 Naphthalene	128	11.544	11.540	(1.195)	799121	52.6729	52.67
	93 1,2,3-Trichlorobenzene	180	11.739	11.739	(1.215)	337140	52.7917	52.79
M	94 1,2-Dichloroethylene (total)	96				422281	98.2454	98.24
M	95 Xylenes (total)	106				1183678	149.928	149.92
	141 Cyclohexane	56	4.121	4.121	(0.987)	238664	51.7326	51.73
	138 Freon TF	101	1.913	1.910	(0.458)	177599	52.9072	52.90
	147 Methylcyclohexane	55	5.377	5.377	(1.083)	427649	50.8929	50.89
	146 Methyl Acetate	43	2.228	2.224	(0.533)	99131	48.1755	48.17
	148 Tert-Butyl alcohol	59	2.423	2.431	(0.580)	311463	983.641	983.64
	149 Isopropyl Alcohol	45	2.090	2.093	(0.500)	170003	1028.04	1028.03

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.



Data File: \\NAHSTWS005\Target\chem\voa6,i\X221216,b\X121613.D
Date : 16-DEC-2022 15:49
Client ID: ICV
Sample Info: CCV;CCV;2;;ICV
Purge Volume: 5.0
Column phase: DB624

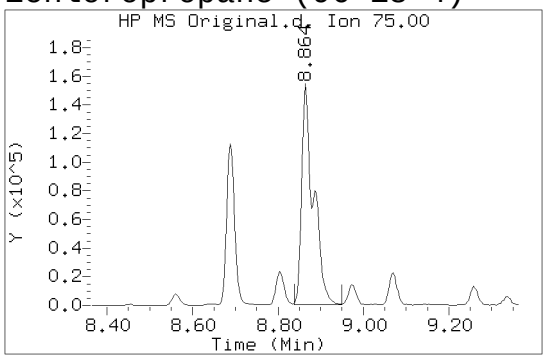
Instrument: voa6,i
Operator: PC
Column diameter: 0.18

Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121613.D
Inj Date : 16-DEC-2022 15:49
InstruID : voa6.i
LabSampID : ICV

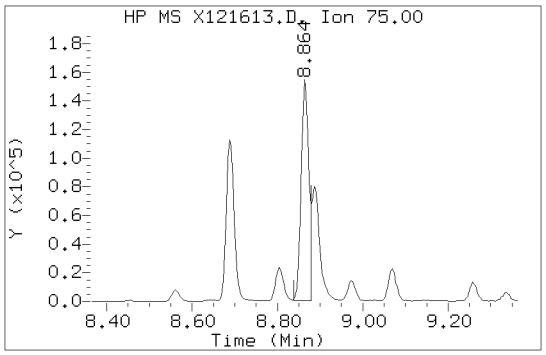
1,2,3-Trichloropropane (96-18-4)

Reason Code:

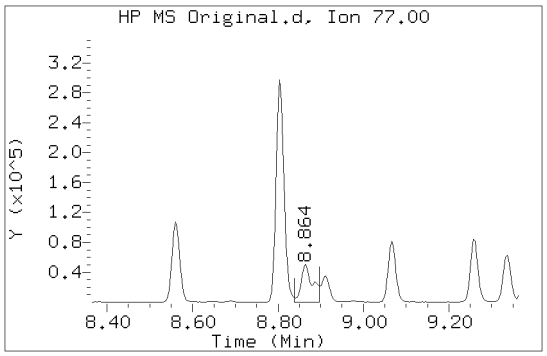
BEFORE
MASS
75
AREA
301229
HEIGHT
154590
27-Dec-2022
16:04
linh
pham



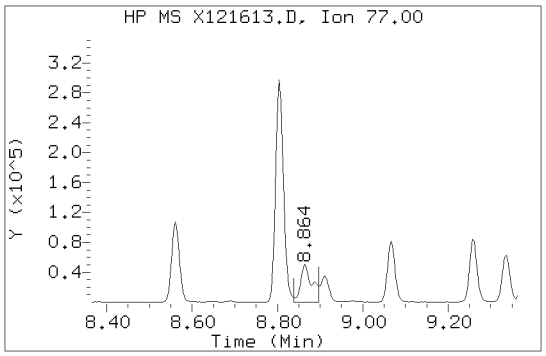
AFTER
MASS
75
AREA
201551
HEIGHT
154590
27-Dec-2022
16:06
linh
pham



BEFORE
MASS
77
AREA
98445
HEIGHT
50627
27-Dec-2022
16:04
linh
pham



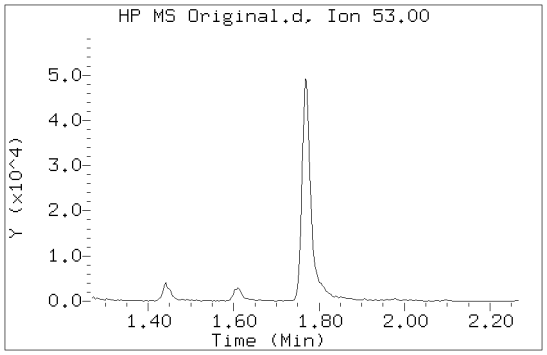
AFTER
MASS
77
AREA
98445
HEIGHT
50627
27-Dec-2022
16:06
linh
pham



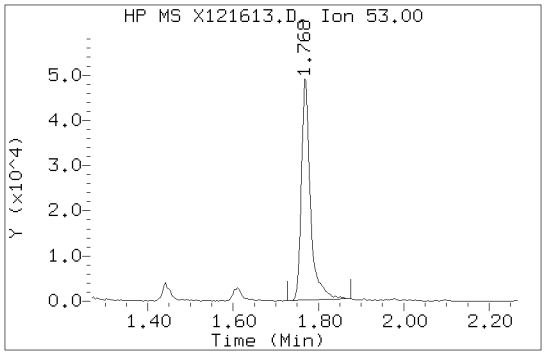
Chloroprene (126-99-8)

Reason Code:

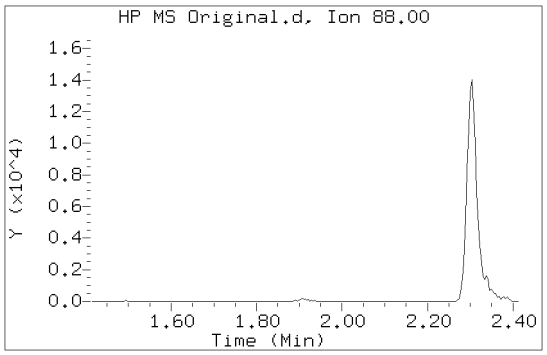
BEFORE
MASS
53
AREA
0
HEIGHT
0
27-Dec-2022
16:04
linh
pham



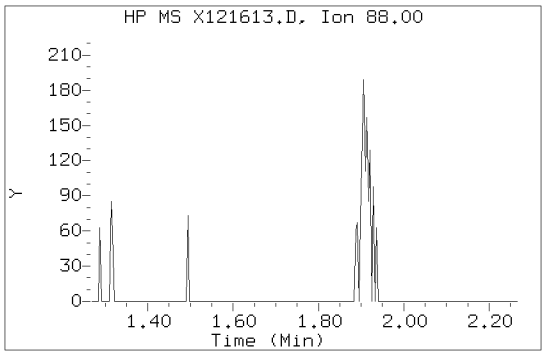
AFTER
MASS
53
AREA
74243
HEIGHT
48931
27-Dec-2022
16:06
linh
pham



BEFORE
MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:04
linh
pham



AFTER
MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:06
linh
pham

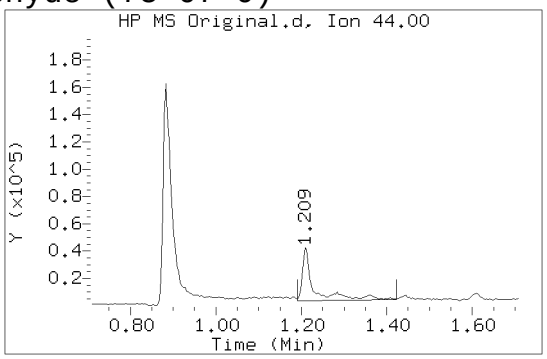


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121613.D
Inj Date : 16-DEC-2022 15:49
InstruID : voa6.i
LabSampID : ICV

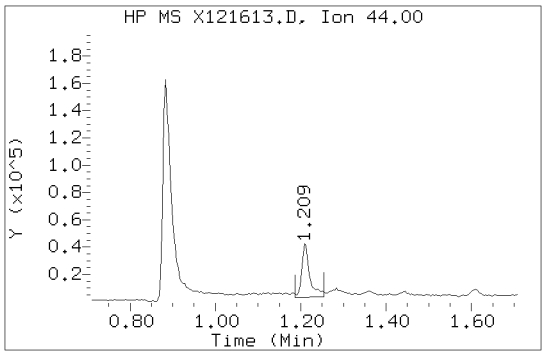
Acetaldehyde (75-07-0)

Reason Code:

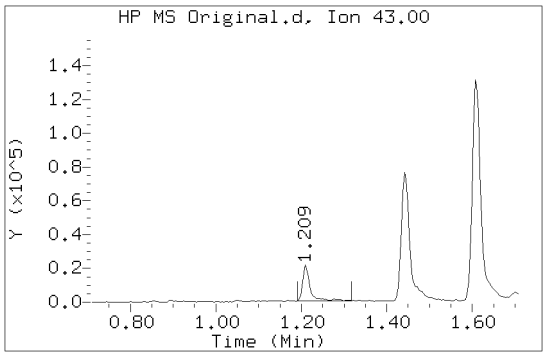
BEFORE
MASS
44
AREA
75387
HEIGHT
39303
27-Dec-2022
16:04
linh
pham



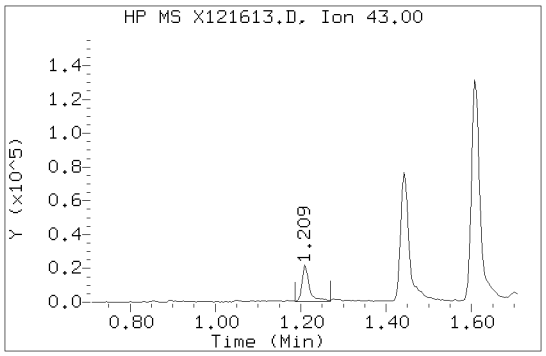
AFTER
MASS
44
AREA
52697
HEIGHT
39303
27-Dec-2022
16:06
linh
pham



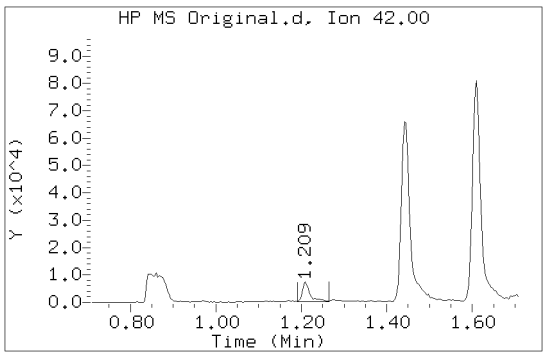
BEFORE
MASS
43
AREA
27778
HEIGHT
21502
27-Dec-2022
16:04
linh
pham



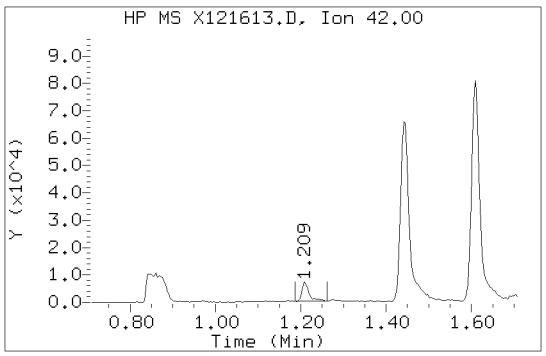
AFTER
MASS
43
AREA
26760
HEIGHT
21664
27-Dec-2022
16:06
linh
pham



BEFORE
MASS
42
AREA
8969
HEIGHT
7131
27-Dec-2022
16:04
linh
pham



AFTER
MASS
42
AREA
8550
HEIGHT
7027
27-Dec-2022
16:06
linh
pham



01181690

right solutions.
right partner.

Raw Data VOA6 425983

Volatiles by by EPA 8260

Workorder

HS23010632

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 18 24

01/31/2023

ALS Environmental–Houston Laboratory

10450 Stancliff Road, Suite 210, Houston, TX 77099

Phone (281) 530-5656 Fax (281) 530-5887

www.alsglobal.com

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230117.b\X011701.D Page 1
Report Date: 17-Jan-2023 11:06

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230117.b\X011701.D
Lab Smp Id: BFB Client Smp ID: BFB
Inj Date : 17-JAN-2023 10:19
Operator : PC Inst ID: voa6.i
Smp Info : BFB;BFB;3;;BFB
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X230117.b\bfb.m
Meth Date : 01-Dec-2022 12:59 Linh.Pham Quant Type: ISTD
Cal Date : Cal File:
Als bottle: 1 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14 Sample Matrix: WATER
Processing Host: NAHSTW7051

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vf	1.000	Volumetric correction factor
Vi	2.000	Injection Volume
Cpnd Variable		Local Compound Variable

RT	EXP RT	REL RT	MASS	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/l)	TARGET RANGE	RATIO
1 bfb						CAS #: 460-00-4		
8.687	8.889	(0.000)	95	141824			0.00- 100.00	100.00
8.687	8.889	(0.000)	50	27392			15.00- 40.00	19.31
8.687	8.889	(0.000)	75	69360			30.00- 60.00	48.91
8.687	8.889	(0.000)	96	9208			5.00- 9.00	6.49
8.687	8.889	(0.000)	173	1022			0.00- 2.00	0.81
8.687	8.889	(0.000)	174	125816			50.00- 0.00	88.71
8.687	8.889	(0.000)	175	9437			5.00- 9.00	7.50
8.687	8.889	(0.000)	176	122544			95.00- 101.00	97.40
8.687	8.889	(0.000)	177	8671			5.00- 9.00	7.08

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	19.31
75	30.00 - 60.00% of mass 95	48.91
96	5.00 - 9.00% of mass 95	6.49
173	Less than 2.00% of mass 174	0.72 (0.81)
174	Greater than 50.00% of mass 95	88.71
175	5.00 - 9.00% of mass 174	6.65 (7.50)
176	95.00 - 101.00% of mass 174	86.41 (97.40)
177	5.00 - 9.00% of mass 176	6.11 (7.08)

Data File: X011701.D
Spectrum: Scan 2160 (8.68)
Location of Maximum: 95.00
Number of points: 112

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1437	65.90	71	96.00	9208	139.90	162
37.00	7212	67.00	391	97.00	230	140.90	1331
38.00	6896	68.00	14014	98.00	848	142.10	245
39.00	3445	69.00	14261	102.60	63	142.90	1494
39.80	922	70.00	1616	103.80	685	144.90	129
41.10	666	71.00	215	104.90	353	145.80	403
42.20	1288	71.90	753	105.80	705	146.90	98
42.90	715	73.00	6315	106.90	218	147.80	328
43.90	1994	74.00	24264	109.70	62	149.80	99
45.00	1378	75.00	69360	110.00	66	151.70	83
46.10	112	76.00	6177	111.00	128	152.80	157
47.00	1484	77.00	868	111.80	60	153.80	141
48.00	1070	78.00	515	113.10	144	154.70	400
49.00	5785	78.90	5842	114.80	181	156.70	305
50.00	27392	79.90	1641	115.90	431	158.70	200
51.00	9063	80.90	5062	116.80	1129	161.10	139
52.00	334	82.00	996	117.80	517	171.80	239
53.00	277	82.80	417	118.80	823	172.90	1022
53.90	108	84.90	65	119.80	50	173.90	125816
55.00	1437	85.80	187	121.90	65	174.90	9437
56.00	2641	87.00	5293	123.70	134	175.90	122544
57.10	4951	88.00	5922	126.80	63	176.90	8671
57.90	335	88.80	190	127.80	470	177.90	227
59.10	62	89.80	50	128.70	262	185.80	100
60.00	1245	90.80	582	129.80	649	262.10	54
61.00	6659	91.90	3762	130.80	211		
62.00	6628	93.00	5701	135.00	345		
63.00	5016	94.00	17224	137.00	132		
63.90	533	95.00	141824	138.70	62		

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230117.b\X011701.D

Date : 17-JAN-2023 10:19

Client ID: BFB

Instrument: voa6.i

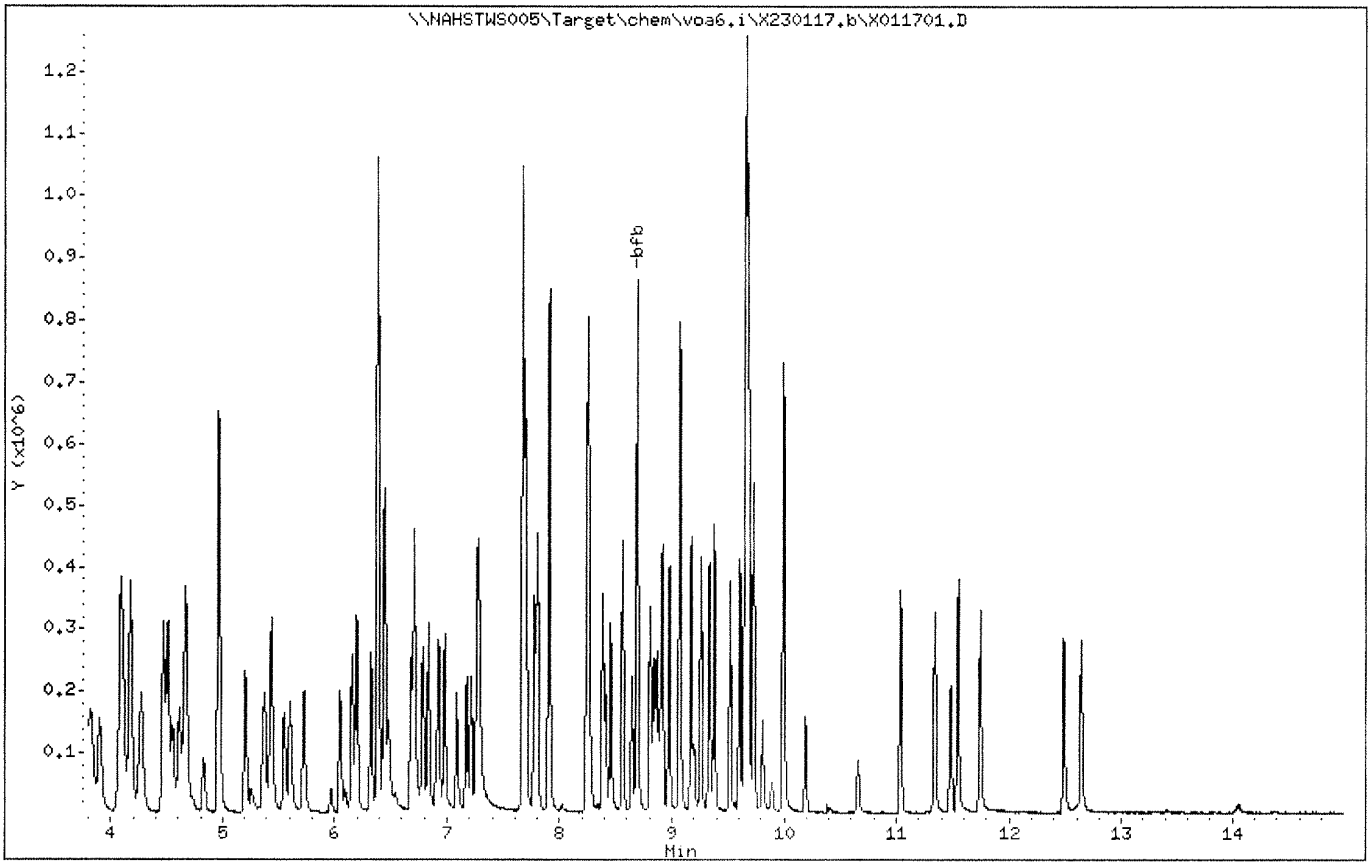
Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230117.b\X011701.D Page 2

Date : 17-JAN-2023 10:19

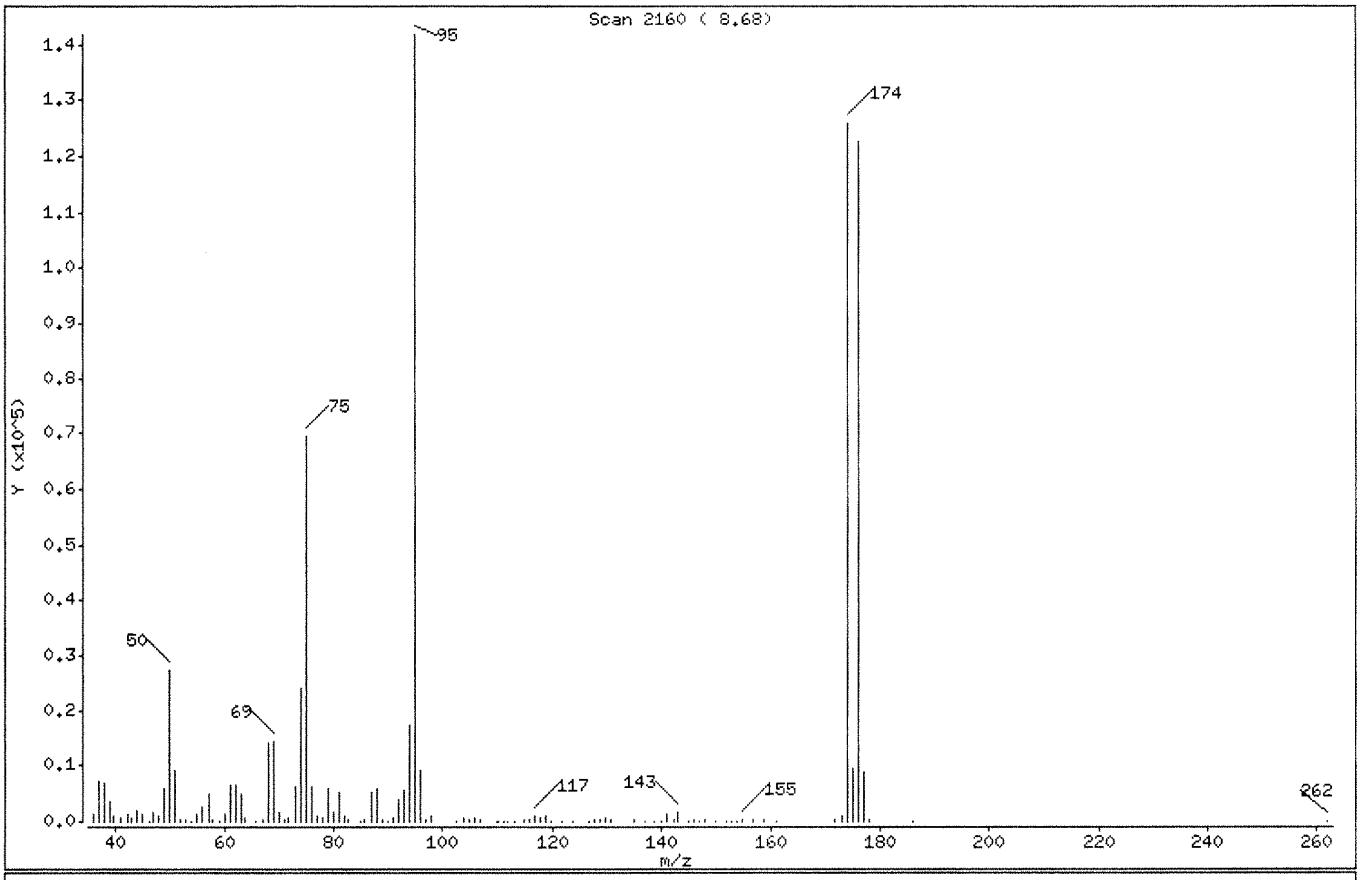
Client ID: BFB Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0 Operator: PC

Column phase: DB624 Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	19.31
75	30.00 - 60.00% of mass 95	48.91
96	5.00 - 9.00% of mass 95	6.49
173	Less than 2.00% of mass 174	0.72 (0.81)
174	Greater than 50.00% of mass 95	88.71
175	5.00 - 9.00% of mass 174	6.65 (7.50)
176	95.00 - 101.00% of mass 174	86.41 (97.40)
177	5.00 - 9.00% of mass 176	6.11 (7.08)

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230117.b\X011701.D

Date : 17-JAN-2023 10:19

Client ID: BFB Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0 Operator: PC

Column phase: DB624 Column diameter: 0.25

Data File: X011701.D
Spectrum: Scan 2160 (8.68)
Location of Maximum: 95.00
Number of points: 112

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1437	65.90	71	96.00	9208	139.90	162
37.00	7212	67.00	391	97.00	230	140.90	1331
38.00	6896	68.00	14014	98.00	848	142.10	245
39.00	3445	69.00	14261	102.60	63	142.90	1494
39.80	922	70.00	1616	103.80	685	144.90	129
41.10	666	71.00	215	104.90	353	145.80	403
42.20	1288	71.90	753	105.80	705	146.90	98
42.90	715	73.00	6315	106.90	218	147.80	328
43.90	1994	74.00	24264	109.70	62	149.80	99
45.00	1378	75.00	69360	110.00	66	151.70	83
46.10	112	76.00	6177	111.00	128	152.80	157
47.00	1484	77.00	868	111.80	60	153.80	141
48.00	1070	78.00	515	113.10	144	154.70	400
49.00	5785	78.90	5842	114.80	181	156.70	305
50.00	27392	79.90	1641	115.90	431	158.70	200
51.00	9063	80.90	5062	116.80	1129	161.10	139
52.00	334	82.00	996	117.80	517	171.80	239
53.00	277	82.80	417	118.80	823	172.90	1022
53.90	108	84.90	65	119.80	50	173.90	125816
55.00	1437	85.80	187	121.90	65	174.90	9437
56.00	2641	87.00	5293	123.70	134	175.90	122544
57.10	4951	88.00	5922	126.80	63	176.90	8671
57.90	335	88.80	190	127.80	470	177.90	227
59.10	62	89.80	50	128.70	262	185.80	100
60.00	1245	90.80	582	129.80	649	262.10	54
61.00	6659	91.90	3762	130.80	211		
62.00	6628	93.00	5701	135.00	345		
63.00	5016	94.00	17224	137.00	132		
63.90	533	95.00	141824	138.70	62		

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230117.b\X011702.D Page 1
Report Date: 25-Jan-2023 10:03

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230117.b\X011702.D
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 17-JAN-2023 10:40
Operator : PC Inst ID: voa6.i
Smp Info : CCV;CCV;2;;
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X230117.b\8260W.m
Meth Date : 25-Jan-2023 10:03 voa6.i Quant Type: ISTD
Cal Date : 16-DEC-2022 14:04 Cal File: X121608.D
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.177	4.177	(1.000)	476097	50.0000	
135 1,4-Dioxane	88	5.598	5.598	(1.340)	45801	1000.00	1052.40
140 1,3-Butadiene	54	1.160	1.160	(0.278)	153958	50.0000	47.11
25 Methacrylonitrile	41	3.818	3.818	(0.914)	173348	50.0000	51.42
12 Isobutyl Alcohol	43	4.672	4.672	(1.118)	586588	1000.00	1095.39
13 Acetonitrile	39	2.194	2.194	(0.525)	232719	500.000	537.07
14 Allyl Chloride	41	2.194	2.194	(0.525)	422308	50.0000	51.17
4 Propionitrile	54	3.645	3.645	(0.873)	252383	500.000	519.53
72 trans-1,4-Dichloro-2-butene	53	8.886	8.886	(1.159)	79822	50.0000	54.03
194 Acetaldehyde	44	1.209	1.209	(0.289)	68459	200.000	230.13
23 Chloroprene	53	1.767	1.767	(0.423)	73622	50.0000	45.47(M)
130 Ethyl Acetate	43	3.649	3.649	(0.873)	196550	50.0000	52.90
40 Methyl Methacrylate	41	5.602	5.602	(1.341)	176099	50.0000	54.24
49 Ethyl Methacrylate	69	6.708	6.708	(1.351)	173391	50.0000	51.82
131 Methyl Acrylate	55	3.683	3.683	(0.882)	215859	50.0000	66.78
2 Dichlorodifluoromethane	85	0.969	0.969	(0.232)	144981	50.0000	43.59
3 Chloromethane	50	1.074	1.074	(0.257)	192115	50.0000	44.83
5 Vinyl Chloride	62	1.141	1.141	(0.273)	198553	50.0000	47.74
6 Bromomethane	94	1.336	1.336	(0.320)	147611	50.0000	47.03
7 Chloroethane	64	1.400	1.400	(0.335)	131691	50.0000	45.49

8	Trichlorofluoromethane	101	1.557	1.557 (0.373)	293920	50.0000	50.50
9	Acrolein	56	1.445	1.445 (0.346)	32455	100.000	99.68

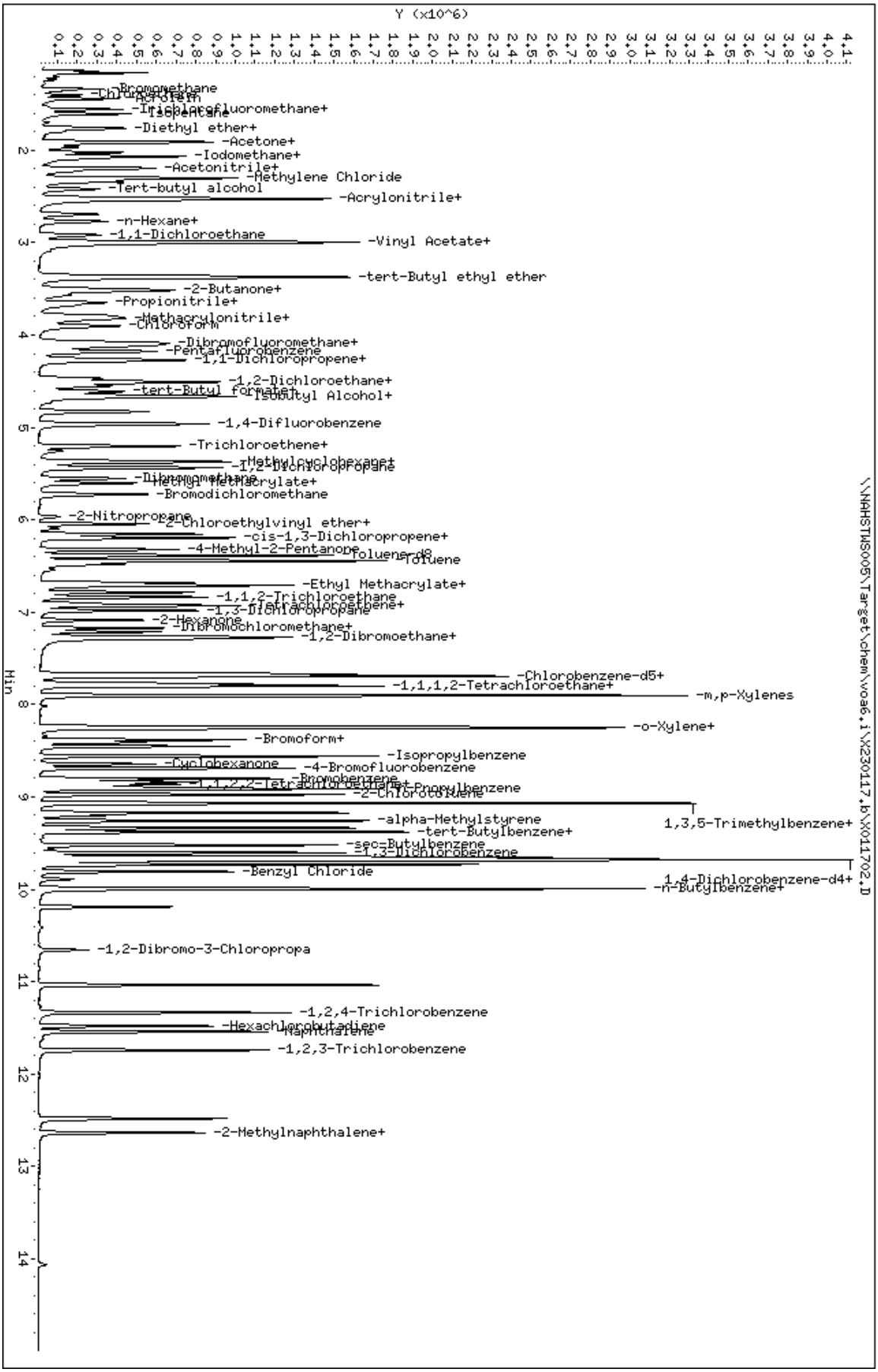
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	10 Acetone	43	1.966	1.966	(0.471)	142094	100.000	106.36
	11 1,1-Dichloroethene	96	1.910	1.910	(0.457)	174192	50.0000	48.20
	15 Iodomethane	142	2.022	2.022	(0.484)	439267	100.000	92.78
	16 Acrylonitrile	53	2.528	2.528	(0.605)	134361	100.000	109.63
	17 Methylene Chloride	84	2.299	2.299	(0.550)	224060	50.0000	45.20
	18 Methyl tert-butyl ether	73	2.528	2.528	(0.605)	591025	50.0000	49.97
	19 Carbon Disulfide	76	2.067	2.067	(0.495)	910413	100.000	96.30
	20 trans-1,2-Dichloroethene	96	2.524	2.524	(0.604)	190634	50.0000	47.13
	21 Vinyl Acetate	43	2.993	2.993	(0.716)	1141277	100.000	109.92
	22 1,1-Dichloroethane	63	2.918	2.918	(0.699)	337306	50.0000	47.52
	24 2-Butanone	43	3.574	3.574	(0.856)	153453	100.000	108.04
	26 2,2-Dichloropropane	77	3.506	3.506	(0.839)	304770	50.0000	50.57
	27 cis-1,2-Dichloroethene	96	3.521	3.521	(0.843)	228245	50.0000	46.37
	28 Chloroform	83	3.900	3.900	(0.934)	381651	50.0000	47.97
	29 Bromochloromethane	128	3.788	3.788	(0.907)	120593	50.0000	44.75
$	30 Dibromofluoromethane	113	4.091	4.091	(0.979)	222623	50.0000	48.69
	31 1,1,1-Trichloroethane	97	4.076	4.076	(0.976)	310715	50.0000	49.23
	32 1,1-Dichloropropene	75	4.275	4.275	(0.861)	260335	50.0000	51.61
	33 1,2-Dichloroethane	62	4.552	4.552	(0.917)	301697	50.0000	51.83
	34 Carbon Tetrachloride	117	4.260	4.260	(0.858)	256214	50.0000	47.57
$	35 1,2-Dichloroethane-d4	65	4.466	4.466	(1.069)	245162	50.0000	50.80
*	36 1,4-Difluorobenzene	114	4.965	4.965	(1.000)	710415	50.0000	
	37 Benzene	78	4.507	4.507	(0.908)	829365	50.0000	48.88
	38 Trichloroethene	130	5.201	5.201	(1.048)	232947	50.0000	48.41
	39 Bromodichloromethane	83	5.722	5.722	(1.153)	305540	50.0000	47.99
	41 2-Chloroethylvinyl ether	63	6.044	6.044	(1.217)	209429	100.000	115.62
	42 1,2-Dichloropropane	63	5.433	5.433	(1.094)	219330	50.0000	48.60
	44 Dibromomethane	93	5.549	5.549	(1.118)	147328	50.0000	48.03
	45 4-Methyl-2-Pentanone	43	6.322	6.322	(0.824)	383878	100.000	104.95
	46 cis-1,3-Dichloropropene	75	6.153	6.153	(1.239)	380742	50.0000	50.92
*	47 Chlorobenzene-d5	117	7.667	7.667	(1.000)	684320	50.0000	
$	48 Toluene-d8	98	6.385	6.385	(0.833)	826288	50.0000	48.86
	50 Toluene	91	6.445	6.445	(0.841)	911910	50.0000	48.21
	51 trans-1,3-Dichloropropene	75	6.682	6.682	(1.346)	325374	50.0000	52.43
	52 2-Hexanone	43	7.086	7.086	(0.924)	271333	100.000	109.03
	53 1,1,2-Trichloroethane	83	6.839	6.839	(0.892)	179615	50.0000	47.33
	54 1,3-Dichloropropane	76	6.981	6.981	(0.911)	362869	50.0000	48.58
	55 Dibromochloromethane	129	7.176	7.176	(0.936)	265568	50.0000	48.49
	56 Tetrachloroethene	164	6.929	6.929	(0.904)	185251	50.0000	47.33
	57 1,2-Dibromoethane	107	7.259	7.259	(0.947)	236179	50.0000	49.78
	58 1-Chlorohexane	55	7.694	7.694	(1.550)	167563	50.0000	48.80
	59 Chlorobenzene	112	7.694	7.694	(1.003)	631105	50.0000	47.04
	60 1,1,1,2-Tetrachloroethane	131	7.772	7.772	(1.014)	241019	50.0000	48.27
	61 Ethylbenzene	106	7.799	7.799	(1.017)	305625	50.0000	48.36
	62 m,p-Xylenes	106	7.904	7.904	(1.031)	783899	100.000	96.22
	63 o-Xylene	106	8.241	8.241	(1.075)	385806	50.0000	47.98
	64 Styrene	104	8.256	8.256	(1.077)	682298	50.0000	50.62
	66 Bromoform	173	8.410	8.410	(1.097)	188163	50.0000	49.59
	67 Isopropylbenzene	105	8.560	8.560	(1.116)	898356	50.0000	48.90
	68 1,1,2,2-Tetrachloroethane	83	8.837	8.837	(0.915)	299486	50.0000	46.77
$	69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	319306	50.0000	50.51
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	401720	50.0000	

71 1,2,3-Trichloropropane	75	8.863	8.863 (0.917)	223067	50.0000	49.90(M)
73 n-Propylbenzene	91	8.912	8.912 (0.922)	1062153	50.0000	47.73

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	
	74 Bromobenzene	156	8.803	8.803	(0.911)	305711	50.0000	46.38	
	75 1,3,5-Trimethylbenzene	105	9.066	9.066	(0.938)	791463	50.0000	48.14	
	76 2-Chlorotoluene	91	8.972	8.972	(0.929)	690184	50.0000	47.26	
	77 4-Chlorotoluene	91	9.069	9.069	(0.939)	809227	50.0000	48.61	
	78 tert-Butylbenzene	119	9.336	9.336	(0.966)	635285	50.0000	47.21	
	79 1,2,4-Trimethylbenzene	105	9.381	9.381	(0.971)	830871	50.0000	48.03	
	81 sec-Butylbenzene	105	9.523	9.523	(0.986)	866123	50.0000	48.37	
	82 p-Isopropyltoluene	119	9.651	9.651	(0.999)	790156	50.0000	49.25	
	83 1,3-Dichlorobenzene	146	9.606	9.606	(0.994)	522452	50.0000	47.75	
	84 1,4-Dichlorobenzene	146	9.680	9.680	(1.002)	564180	50.0000	47.26	
	87 n-Butylbenzene	91	9.992	9.992	(1.034)	716659	50.0000	46.48	
	88 1,2-Dichlorobenzene	146	9.992	9.992	(1.034)	532216	50.0000	47.23	
	89 1,2-Dibromo-3-Chloropropane	155	10.655	10.655	(1.103)	49450	50.0000	48.31	
	90 1,2,4-Trichlorobenzene	180	11.337	11.337	(1.173)	350147	50.0000	49.24	
	91 Hexachlorobutadiene	225	11.480	11.480	(1.188)	143948	50.0000	45.72	
	92 Naphthalene	128	11.540	11.540	(1.194)	798886	50.0000	49.38	
	93 1,2,3-Trichlorobenzene	180	11.742	11.742	(1.215)	319764	50.0000	46.95	
M	94 1,2-Dichloroethylene (total)	96				418879	100.000		(a)
	141 Cyclohexane	56	4.118	4.118	(0.986)	226875	50.0000	47.34	
	138 Freon TF	101	1.910	1.910	(0.457)	167159	50.0000	47.83	
	147 Methylcyclohexane	55	5.377	5.377	(1.083)	509950	50.0000	58.64	
	146 Methyl Acetate	43	2.228	2.228	(0.533)	113818	50.0000	53.12	
	148 Tert-Butyl alcohol	59	2.419	2.419	(0.579)	346352	1000.00	1050.61	
	149 Isopropyl Alcohol	45	2.086	2.086	(0.499)	191078	1000.00	1109.84	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230117.b\X011702.D
Date : 17-JAN-2023 10:40
Client ID: CCV
Sample Info: CCV;CCV;2;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

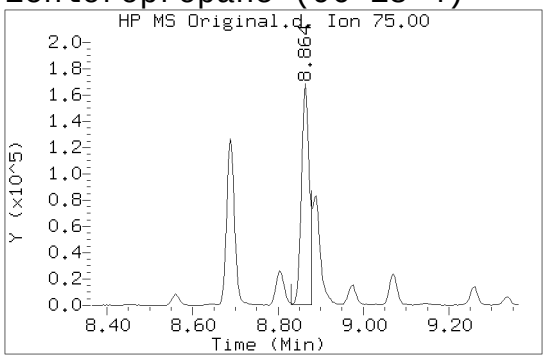
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230117.b\X011702.D
Inj Date : 17-JAN-2023 10:40
InstruID : voa6.i
LabSampID : CCV

1,2,3-Trichloropropane (96-18-4)

Reason Code:

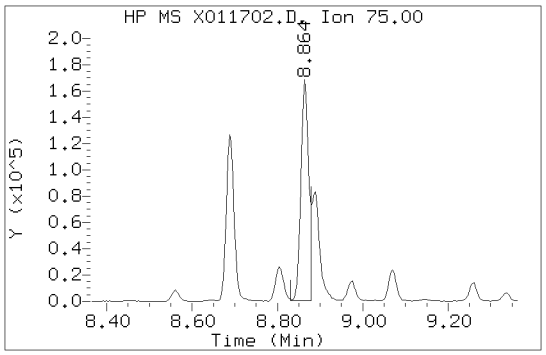
BEFORE

MASS
75
AREA
223067
HEIGHT
168310
25-Jan-2023
10:03
linh
pham



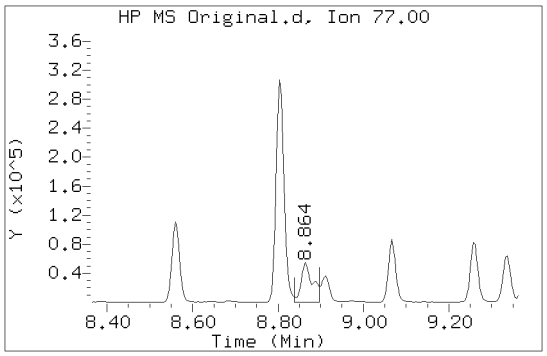
AFTER

MASS
75
AREA
223067
HEIGHT
168310
25-Jan-2023
10:03
linh
pham



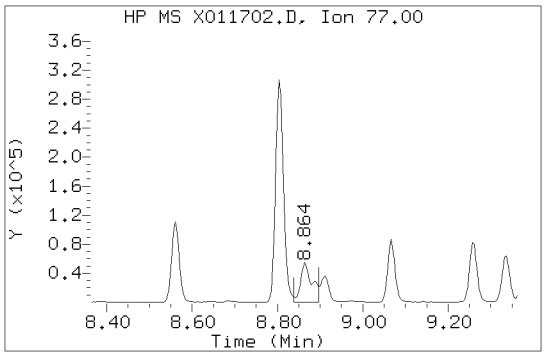
BEFORE

MASS
77
AREA
106126
HEIGHT
54619
25-Jan-2023
10:03
linh
pham



AFTER

MASS
77
AREA
106126
HEIGHT
54619
25-Jan-2023
10:03
linh
pham

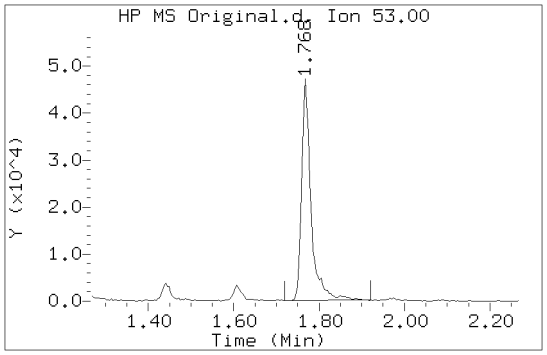


Chloroprene (126-99-8)

Reason Code:

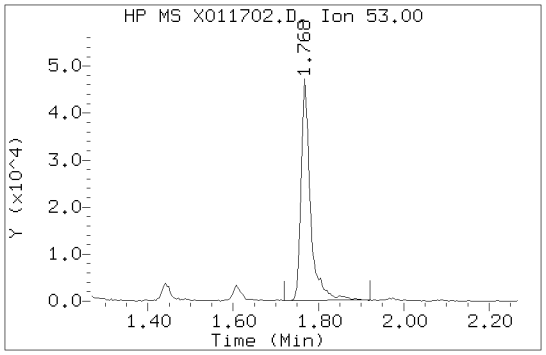
BEFORE

MASS
53
AREA
73622
HEIGHT
47096
25-Jan-2023
10:03
linh
pham



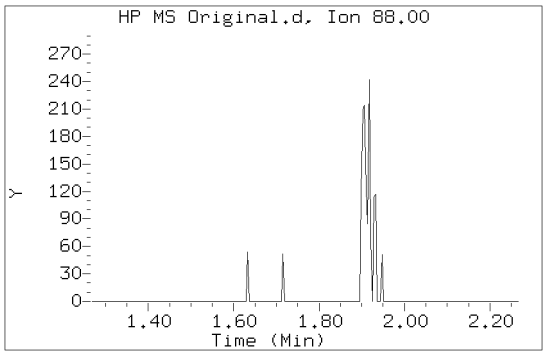
AFTER

MASS
53
AREA
73622
HEIGHT
47096
25-Jan-2023
10:03
linh
pham



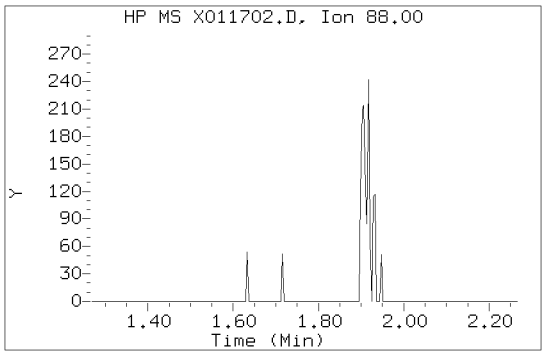
BEFORE

MASS
88
AREA
0
HEIGHT
0
25-Jan-2023
10:03
linh
pham



AFTER

MASS
88
AREA
0
HEIGHT
0
25-Jan-2023
10:03
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230117.b\X011704.D Page 1
Report Date: 17-Jan-2023 20:52

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230117.b\X011704.D
Lab Smp Id: CCB Client Smp ID: CCB
Inj Date : 17-JAN-2023 11:22
Operator : PC Inst ID: voa6.i
Smp Info : CCB;CCB;;;
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X230117.b\8260W.m
Meth Date : 17-Jan-2023 20:34 voa6.i Quant Type: ISTD
Cal Date : 16-DEC-2022 14:04 Cal File: X121608.D
Als bottle: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTWS005

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.178	4.177	(1.000)	558855	50.0000	
$ 30 Dibromofluoromethane	113	4.095	4.091	(0.980)	240904	44.8766	44.87
$ 35 1,2-Dichloroethane-d4	65	4.466	4.466	(1.069)	269132	47.5310	47.53
* 36 1,4-Difluorobenzene	114	4.965	4.965	(1.000)	779396	50.0000	
* 47 Chlorobenzene-d5	117	7.668	7.667	(1.000)	696003	50.0000	
$ 48 Toluene-d8	98	6.385	6.385	(0.833)	906695	52.7187	52.71
$ 69 4-Bromofluorobenzene	95	8.691	8.687	(1.133)	310135	48.2450	48.24
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	352793	50.0000	

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230117.b\X011707.D Page 1
Report Date: 25-Jan-2023 10:03

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230117.b\X011707.D
Lab Smp Id: VBLKW-230117 Client Smp ID: VBLKW-230117
Inj Date : 17-JAN-2023 12:25
Operator : PC Inst ID: voa6.i
Smp Info : VBLKW-230117;VBLKW-230117;3;;BLANK
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X230117.b\8260W.m
Meth Date : 25-Jan-2023 10:03 voa6.i Quant Type: ISTD
Cal Date : 16-DEC-2022 14:04 Cal File: X121608.D
Als bottle: 7 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.177	4.177	(1.000)	540552	50.0000	
$ 30 Dibromofluoromethane	113	4.095	4.091	(0.980)	237352	45.7151	45.71
$ 35 1,2-Dichloroethane-d4	65	4.466	4.466	(1.069)	263298	48.0721	48.07
* 36 1,4-Difluorobenzene	114	4.965	4.965	(1.000)	765436	50.0000	
* 47 Chlorobenzene-d5	117	7.671	7.667	(1.000)	667545	50.0000	
$ 48 Toluene-d8	98	6.385	6.385	(0.832)	883007	53.5301	53.53
$ 69 4-Bromofluorobenzene	95	8.691	8.687	(1.133)	299730	48.6136	48.61
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	339871	50.0000	

01181706

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230117.b\X011707.D

Date : 17-JAN-2023 12:25

Client ID: VBLKW-230117

Instrument: voa6.i

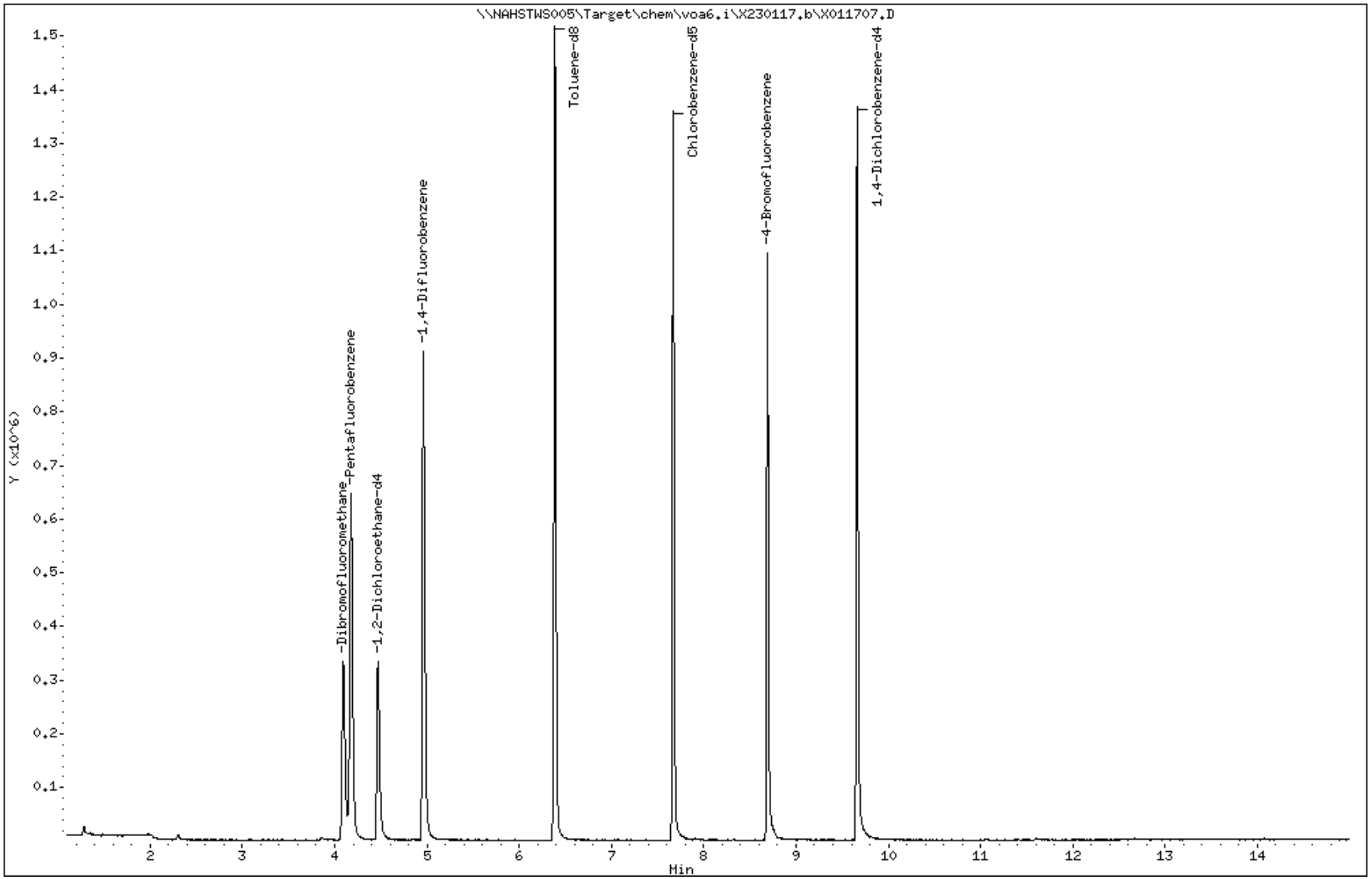
Sample Info: VBLKW-230117;VBLKW-230117;3;;BLANK

Purge Volume: 5.0

Operator: PC

Column phase: DB624

Column diameter: 0.18



Data File : \\NAHSTWS005\Target\chem\voa6.i\X230117.b\X011707.D
Inj Date : 17-JAN-2023 12:25
InstruID : voa6.i
LabSampID : VBLKW-230117

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230117.b\X011708.D Page 1
Report Date: 25-Jan-2023 10:03

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230117.b\X011708.D
Lab Smp Id: VLCSW-230117 Client Smp ID: VLCSW-230117
Inj Date : 17-JAN-2023 12:46
Operator : PC Inst ID: voa6.i
Smp Info : VLCSW-230117;VLCSW-230117;3;;LCS
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X230117.b\8260W.m
Meth Date : 25-Jan-2023 10:03 voa6.i Quant Type: ISTD
Cal Date : 16-DEC-2022 14:04 Cal File: X121608.D
Als bottle: 8 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.174	4.177	(1.000)	469497	50.0000	
135 1,4-Dioxane	88	5.595	5.598	(1.340)	21252	495.189	495.18(a)
140 1,3-Butadiene	54	1.160	1.160	(0.278)	69584	21.5949	21.59
25 Methacrylonitrile	41	3.818	3.818	(0.915)	76862	23.1203	23.12
12 Isobutyl Alcohol	43	4.672	4.672	(1.119)	243368	460.854	460.85
13 Acetonitrile	39	2.195	2.194	(0.526)	95573	223.667	223.66
14 Allyl Chloride	41	2.195	2.194	(0.526)	175187	21.5264	21.52
4 Propionitrile	54	3.649	3.645	(0.874)	105053	219.292	219.29(a)
72 trans-1,4-Dichloro-2-butene	53	8.890	8.886	(1.159)	33285	23.5709	23.57
23 Chloroprene	53	1.767	1.767	(0.423)	33542	21.0117	21.01(M)
130 Ethyl Acetate	43	3.653	3.649	(0.875)	85479	23.3322	23.33
40 Methyl Methacrylate	41	5.606	5.602	(1.343)	70990	22.1755	22.17
49 Ethyl Methacrylate	69	6.708	6.708	(1.352)	85328	26.1939	26.19
131 Methyl Acrylate	55	3.690	3.683	(0.884)	73922	23.1914	23.19
2 Dichlorodifluoromethane	85	0.969	0.969	(0.232)	79848	24.5182	24.51
3 Chloromethane	50	1.074	1.074	(0.257)	94657	23.5096	23.50
5 Vinyl Chloride	62	1.141	1.141	(0.274)	93122	22.7054	22.70
6 Bromomethane	94	1.336	1.336	(0.320)	66859	22.5568	22.55
7 Chloroethane	64	1.400	1.400	(0.335)	58650	20.5455	20.54
8 Trichlorofluoromethane	101	1.557	1.557	(0.373)	135179	23.5530	23.55

9	Acrolein	56	1.441	1.445 (0.345)	12547	40.7955	40.79
10	Acetone	43	1.966	1.966 (0.471)	68263	51.8012	51.80(M)

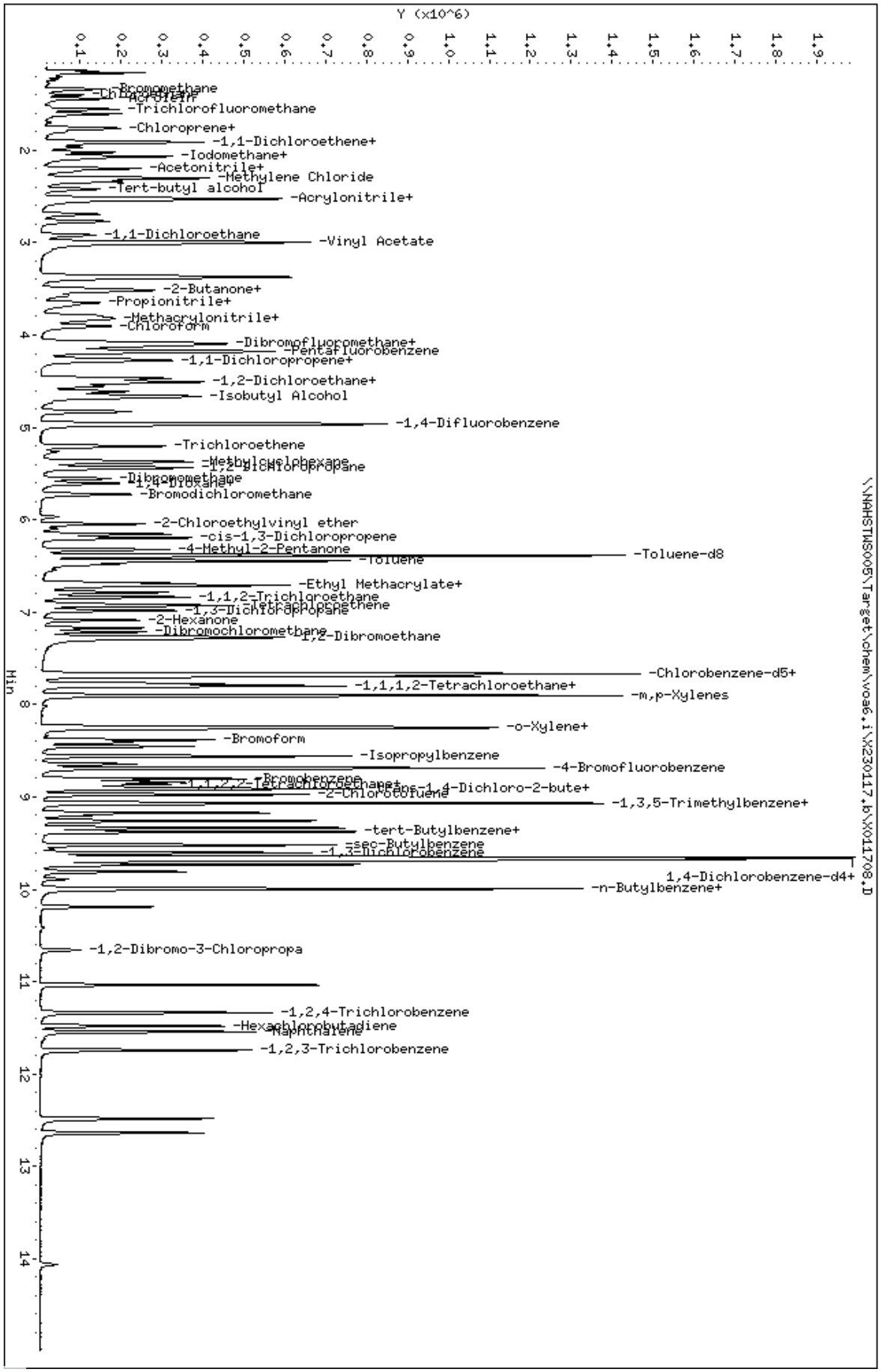
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
	11 1,1-Dichloroethene	96	1.910	1.910	(0.458)	78393	22.0003	22.00
	15 Iodomethane	142	2.022	2.022	(0.485)	180980	41.5283	41.52
	16 Acrylonitrile	53	2.536	2.528	(0.608)	54712	45.2719	45.27
	17 Methylene Chloride	84	2.300	2.299	(0.551)	99445	20.3462	20.34
	18 Methyl tert-butyl ether	73	2.532	2.528	(0.607)	245720	21.0678	21.06
	19 Carbon Disulfide	76	2.067	2.067	(0.495)	400608	42.9707	42.97
	20 trans-1,2-Dichloroethene	96	2.524	2.524	(0.605)	84729	21.2463	21.24
	21 Vinyl Acetate	43	2.997	2.993	(0.718)	478229	46.7090	46.70
	22 1,1-Dichloroethane	63	2.918	2.918	(0.699)	143493	20.5022	20.50
	24 2-Butanone	43	3.574	3.574	(0.856)	66273	49.0182	49.01
	26 2,2-Dichloropropane	77	3.507	3.506	(0.840)	131542	22.1359	22.13
	27 cis-1,2-Dichloroethene	96	3.525	3.521	(0.845)	95412	19.6593	19.65
	28 Chloroform	83	3.904	3.900	(0.935)	159597	20.3451	20.34
	29 Bromochloromethane	128	3.792	3.788	(0.908)	51065	19.2171	19.21
$	30 Dibromofluoromethane	113	4.091	4.091	(0.980)	216286	47.9705	47.97
	31 1,1,1-Trichloroethane	97	4.076	4.076	(0.977)	136121	21.8707	21.87
	32 1,1-Dichloropropene	75	4.279	4.275	(0.862)	115217	23.4603	23.46
	33 1,2-Dichloroethane	62	4.553	4.552	(0.918)	126774	22.3673	22.36
	34 Carbon Tetrachloride	117	4.264	4.260	(0.859)	114035	21.7441	21.74
$	35 1,2-Dichloroethane-d4	65	4.466	4.466	(1.070)	250072	52.5419	52.54
*	36 1,4-Difluorobenzene	114	4.961	4.965	(1.000)	691761	50.0000	
	37 Benzene	78	4.508	4.507	(0.909)	353346	21.3902	21.39
	38 Trichloroethene	130	5.205	5.201	(1.049)	101713	21.7088	21.70
	39 Bromodichloromethane	83	5.726	5.722	(1.154)	125218	20.1981	20.19
	41 2-Chloroethylvinyl ether	63	6.044	6.044	(1.218)	99485	56.4061	56.40
	42 1,2-Dichloropropane	63	5.433	5.433	(1.095)	90926	20.6924	20.69
	44 Dibromomethane	93	5.553	5.549	(1.119)	62088	20.7880	20.78
	45 4-Methyl-2-Pentanone	43	6.322	6.322	(0.824)	177664	50.8139	50.81
	46 cis-1,3-Dichloropropene	75	6.153	6.153	(1.240)	152479	20.9426	20.94
*	47 Chlorobenzene-d5	117	7.668	7.667	(1.000)	654137	50.0000	
$	48 Toluene-d8	98	6.386	6.385	(0.833)	808378	50.0104	50.01
	50 Toluene	91	6.446	6.445	(0.841)	389580	21.5469	21.54
	51 trans-1,3-Dichloropropene	75	6.682	6.682	(1.347)	131849	21.8213	21.82
	52 2-Hexanone	43	7.087	7.086	(0.924)	125309	52.6772	52.67
	53 1,1,2-Trichloroethane	83	6.839	6.839	(0.892)	77113	21.2592	21.25
	54 1,3-Dichloropropane	76	6.982	6.981	(0.911)	152064	21.2986	21.29
	55 Dibromochloromethane	129	7.173	7.176	(0.935)	108261	20.6796	20.67
	56 Tetrachloroethene	164	6.925	6.929	(0.903)	83708	22.3762	22.37
	57 1,2-Dibromoethane	107	7.259	7.259	(0.947)	99357	21.9082	21.90
	58 1-Chlorohexane	55	7.694	7.694	(1.551)	80780	24.1635	24.16
	59 Chlorobenzene	112	7.694	7.694	(1.003)	267210	20.8360	20.83
	60 1,1,1,2-Tetrachloroethane	131	7.773	7.772	(1.014)	97688	20.4686	20.46
	61 Ethylbenzene	106	7.799	7.799	(1.017)	133942	22.1722	22.17
	62 m,p-Xylenes	106	7.904	7.904	(1.031)	336840	43.2539	43.25
	63 o-Xylene	106	8.241	8.241	(1.075)	161344	20.9914	20.99
	64 Styrene	104	8.260	8.256	(1.077)	280142	21.7451	21.74
	66 Bromoform	173	8.410	8.410	(1.097)	74793	20.6221	20.62
	67 Isopropylbenzene	105	8.560	8.560	(1.116)	404721	23.0477	23.04
	68 1,1,2,2-Tetrachloroethane	83	8.837	8.837	(0.915)	127654	21.4688	21.46
$	69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	305395	50.5451	50.54
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	373059	50.0000	
	71 1,2,3-Trichloropropane	75	8.863	8.863	(0.917)	93992	22.6428	22.64(M)

73 n-Propylbenzene	91	8.912	8.912 (0.922)	481347	23.2938	23.29
74 Bromobenzene	156	8.803	8.803 (0.911)	123927	20.2475	20.24

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
	75 1,3,5-Trimethylbenzene	105	9.066	9.066	(0.938)	347787	22.7829	22.78
	76 2-Chlorotoluene	91	8.972	8.972	(0.929)	293974	21.6794	21.67
	77 4-Chlorotoluene	91	9.070	9.069	(0.939)	339538	21.9648	21.96
	78 tert-Butylbenzene	119	9.336	9.336	(0.966)	293221	23.4659	23.46
	79 1,2,4-Trimethylbenzene	105	9.381	9.381	(0.971)	354029	22.0412	22.04
	81 sec-Butylbenzene	105	9.519	9.523	(0.985)	405029	24.3614	24.36
	82 p-Isopropyltoluene	119	9.651	9.651	(0.999)	363813	24.4196	24.41
	83 1,3-Dichlorobenzene	146	9.606	9.606	(0.994)	219385	21.5956	21.59
	84 1,4-Dichlorobenzene	146	9.681	9.680	(1.002)	235210	21.2177	21.21
	87 n-Butylbenzene	91	9.992	9.992	(1.034)	326866	23.7321	23.73
	88 1,2-Dichlorobenzene	146	9.992	9.992	(1.034)	222373	21.2544	21.25
	89 1,2-Dibromo-3-Chloropropane	155	10.659	10.655	(1.103)	22260	23.4652	23.46
	90 1,2,4-Trichlorobenzene	180	11.338	11.337	(1.173)	158093	23.9436	23.94
	91 Hexachlorobutadiene	225	11.480	11.480	(1.188)	74518	25.5890	25.58
	92 Naphthalene	128	11.544	11.540	(1.195)	367405	24.4564	24.45
	93 1,2,3-Trichlorobenzene	180	11.742	11.742	(1.215)	151216	23.9126	23.91
M	94 1,2-Dichloroethylene (total)	96				180141	40.9056	40.90
M	95 Xylenes (total)	106				498184	64.2452	64.24
	141 Cyclohexane	56	4.121	4.118	(0.987)	113512	24.6420	24.64
	138 Freon TF	101	1.913	1.910	(0.458)	79132	22.9608	22.96
	147 Methylcyclohexane	55	5.377	5.377	(1.084)	205463	24.2642	24.26
	146 Methyl Acetate	43	2.228	2.228	(0.534)	45262	21.4245	21.42
	148 Tert-Butyl alcohol	59	2.423	2.419	(0.581)	166846	513.222	513.22
	149 Isopropyl Alcohol	45	2.090	2.086	(0.501)	89648	528.024	528.02

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230117.b\X011708.D
Date : 17-JAN-2023 12:46
Client ID: VLCSW-230117
Sample Info: VLCSW-230117;VLCSW-230117;3;;LCS
Purge Volume: 5.0
Column phase: DB624

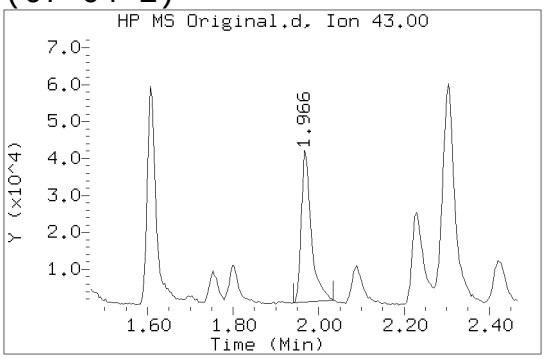
Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File : \\NAHSTWS005\Target\chem\voa6.i\X230117.b\X011708.D
Inj Date : 17-JAN-2023 12:46
InstruID : voa6.i
LabSampID : VLCSW-230117

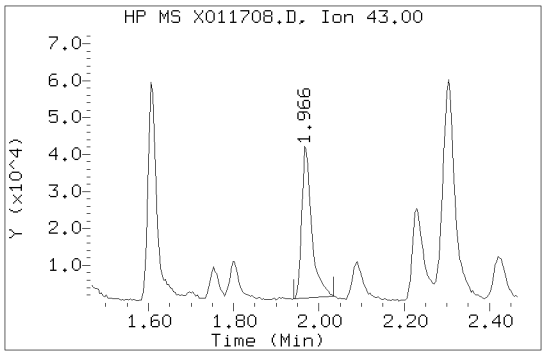
Acetone (67-64-1)

Reason Code:

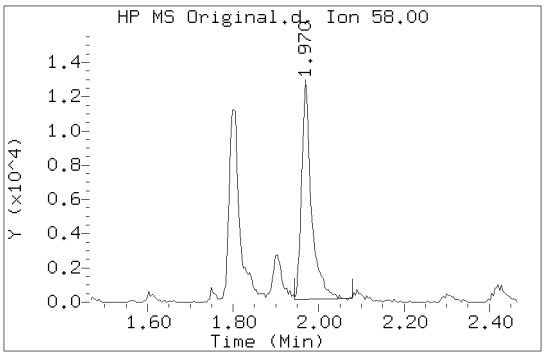
BEFORE
MASS
43
AREA
68263
HEIGHT
41122
25-Jan-2023
10:03
linh
pham



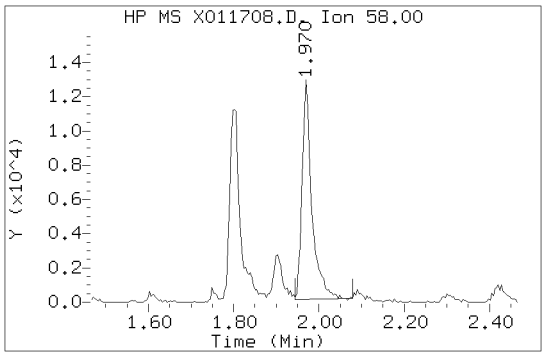
AFTER
MASS
43
AREA
68263
HEIGHT
41122
25-Jan-2023
10:03
linh
pham



BEFORE
MASS
58
AREA
20868
HEIGHT
12823
25-Jan-2023
10:03
linh
pham



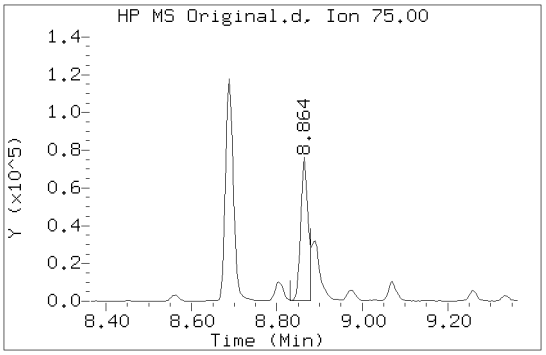
AFTER
MASS
58
AREA
20868
HEIGHT
12823
25-Jan-2023
10:03
linh
pham



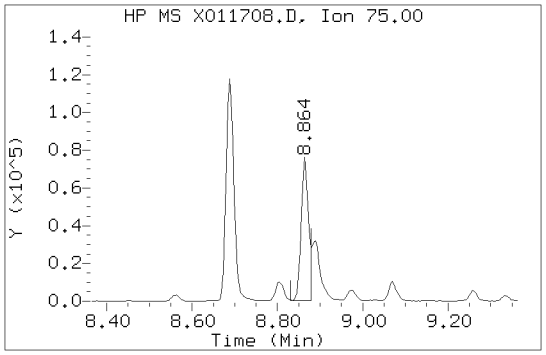
1,2,3-Trichloropropane (96-18-4)

Reason Code:

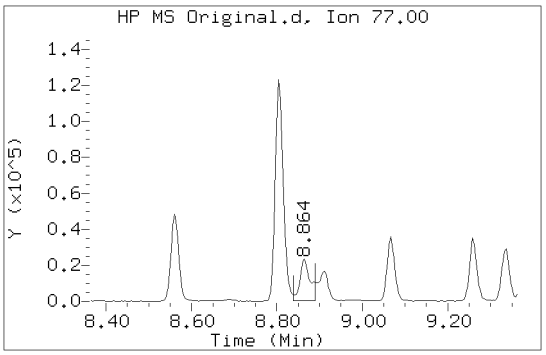
BEFORE
MASS
75
AREA
93992
HEIGHT
75958
25-Jan-2023
10:03
linh
pham



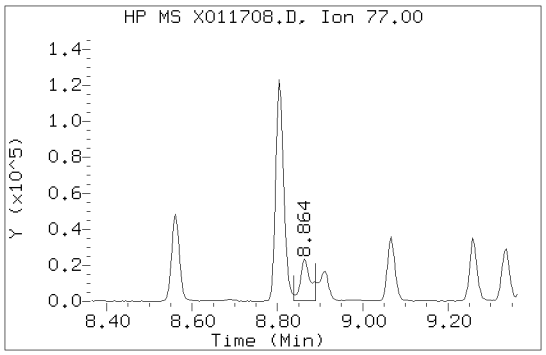
AFTER
MASS
75
AREA
93992
HEIGHT
75958
25-Jan-2023
10:03
linh
pham



BEFORE
MASS
77
AREA
40514
HEIGHT
23388
25-Jan-2023
10:03
linh
pham



AFTER
MASS
77
AREA
40514
HEIGHT
23388
25-Jan-2023
10:03
linh
pham



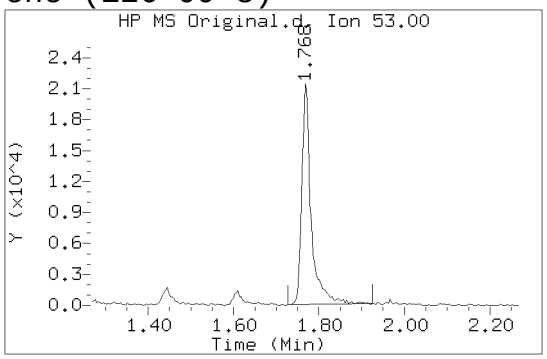
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230117.b\X011708.D
Inj Date : 17-JAN-2023 12:46
InstruID : voa6.i
LabSampID : VLCSW-230117

Chloroprene (126-99-8)

Reason Code:

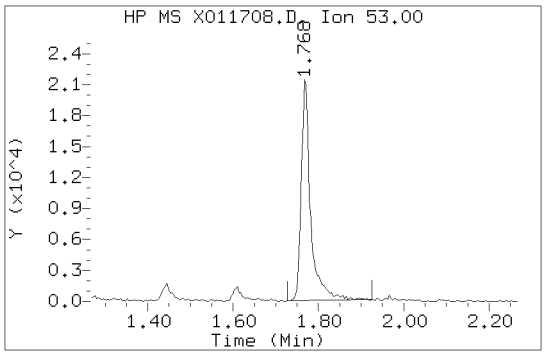
BEFORE

MASS
53
AREA
33542
HEIGHT
21401
25-Jan-2023
10:03
linh
pham



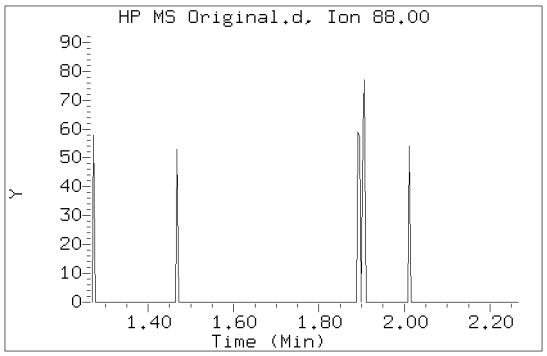
AFTER

MASS
53
AREA
33542
HEIGHT
21401
25-Jan-2023
10:03
linh
pham



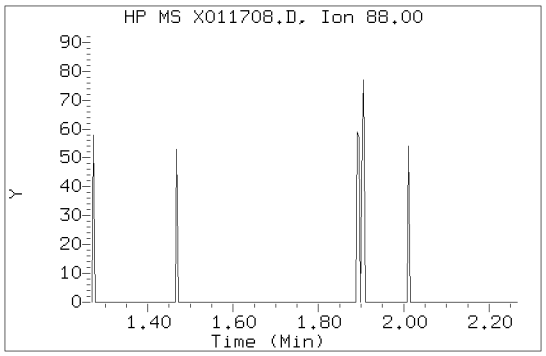
BEFORE

MASS
88
AREA
0
HEIGHT
0
25-Jan-2023
10:03
linh
pham



AFTER

MASS
88
AREA
0
HEIGHT
0
25-Jan-2023
10:03
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230117.b\X011710.D Page 1
Report Date: 25-Jan-2023 10:03

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230117.b\X011710.D
Lab Smp Id: HS23010632-07 Client Smp ID: HS23010632-07
Inj Date : 17-JAN-2023 13:28
Operator : PC Inst ID: voa6.i
Smp Info : HS23010632-07;HS23010632-07;;;
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X230117.b\8260W.m
Meth Date : 25-Jan-2023 10:03 voa6.i Quant Type: ISTD
Cal Date : 16-DEC-2022 14:04 Cal File: X121608.D
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.174	4.177	(1.000)	534995	50.0000	
$ 30 Dibromofluoromethane	113	4.095	4.091	(0.981)	237881	46.2950	46.29
$ 35 1,2-Dichloroethane-d4	65	4.466	4.466	(1.070)	265307	48.9371	48.93
* 36 1,4-Difluorobenzene	114	4.965	4.965	(1.000)	756909	50.0000	
* 47 Chlorobenzene-d5	117	7.668	7.667	(1.000)	658158	50.0000	
$ 48 Toluene-d8	98	6.386	6.385	(0.833)	874519	53.7717	53.77
$ 69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	293683	48.3126	48.31
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	331771	50.0000	

01181717

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230117.b\X011710.D

Date : 17-JAN-2023 13:28

Client ID: HS23010632-07

Instrument: voa6.i

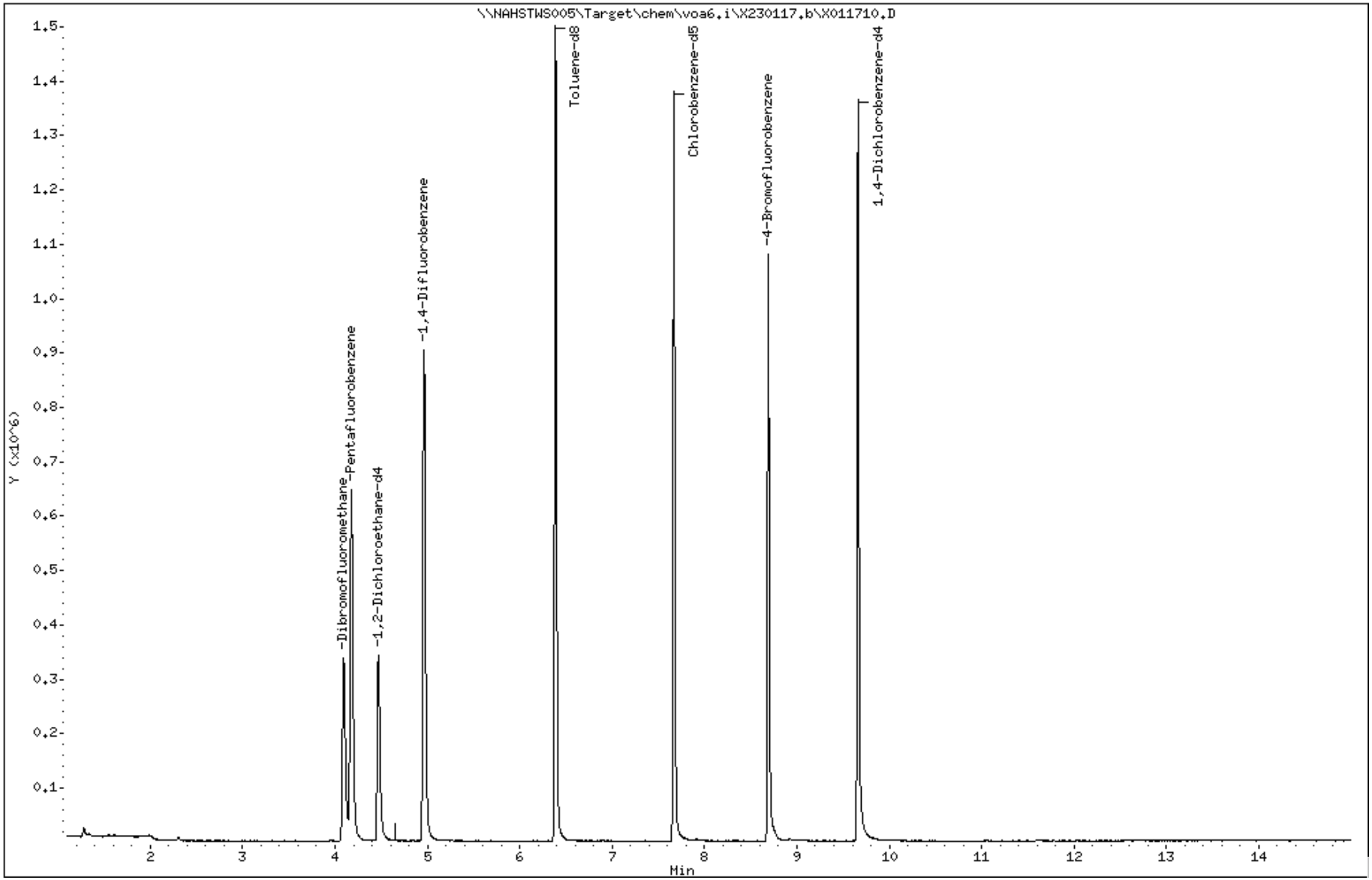
Sample Info: HS23010632-07;HS23010632-07;;;

Purge Volume: 5.0

Operator: PC

Column phase: DB624

Column diameter: 0.18



Data File : \\NAHSTWS005\Target\chem\voa6.i\X230117.b\X011710.D
Inj Date : 17-JAN-2023 13:28
InstruID : voa6.i
LabSampID : HS23010632-07

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230117.b\X011713.D Page 1
Report Date: 25-Jan-2023 10:03

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230117.b\X011713.D
Lab Smp Id: HS23010632-01 Client Smp ID: HS23010632-01
Inj Date : 17-JAN-2023 14:31
Operator : PC Inst ID: voa6.i
Smp Info : HS23010632-01;HS23010632-01;;;
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X230117.b\8260W.m
Meth Date : 25-Jan-2023 10:03 voa6.i Quant Type: ISTD
Cal Date : 16-DEC-2022 14:04 Cal File: X121608.D
Als bottle: 13
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.174	4.177	(1.000)	540367	50.0000	
$ 30 Dibromofluoromethane	113	4.095	4.091	(0.981)	231007	44.5039	44.50
$ 35 1,2-Dichloroethane-d4	65	4.466	4.466	(1.070)	257913	47.1105	47.11
* 36 1,4-Difluorobenzene	114	4.961	4.965	(1.000)	754687	50.0000	
* 47 Chlorobenzene-d5	117	7.668	7.667	(1.000)	667098	50.0000	
$ 48 Toluene-d8	98	6.386	6.385	(0.833)	880403	53.4080	53.40
$ 69 4-Bromofluorobenzene	95	8.691	8.687	(1.133)	294885	47.8608	47.86
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	338729	50.0000	

01181720

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230117.b\X011713.D

Date : 17-JAN-2023 14:31

Client ID: HS23010632-01

Instrument: voa6.i

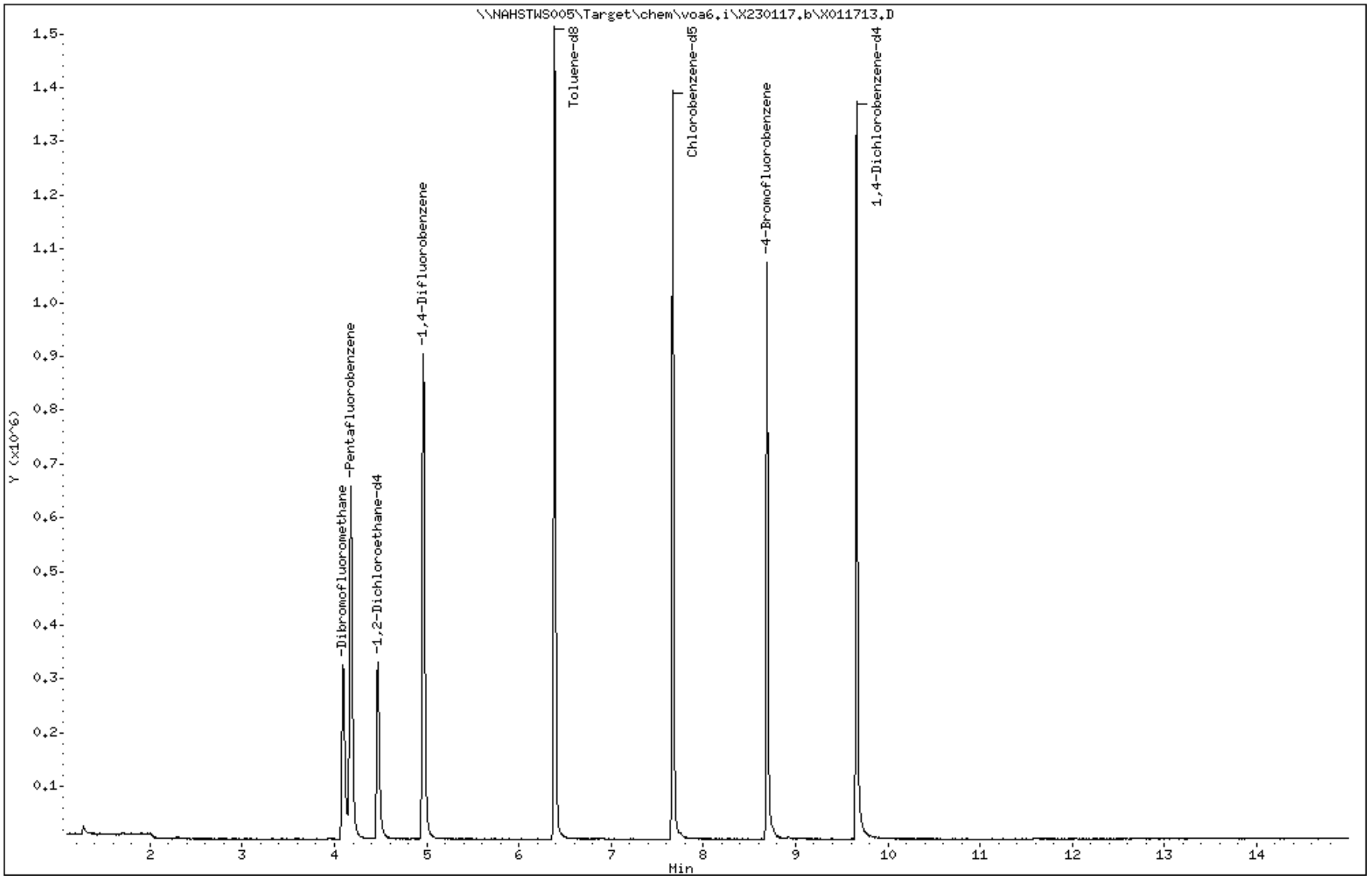
Sample Info: HS23010632-01;HS23010632-01;;;

Purge Volume: 5.0

Operator: PC

Column phase: DB624

Column diameter: 0.18



Data File : \\NAHSTWS005\Target\chem\voa6.i\X230117.b\X011713.D
Inj Date : 17-JAN-2023 14:31
InstruID : voa6.i
LabSampID : HS23010632-01

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230117.b\X011714.D Page 1
Report Date: 25-Jan-2023 10:03

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230117.b\X011714.D
Lab Smp Id: HS23010632-02 Client Smp ID: HS23010632-02
Inj Date : 17-JAN-2023 14:52
Operator : PC Inst ID: voa6.i
Smp Info : HS23010632-02;HS23010632-02;;;
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X230117.b\8260W.m
Meth Date : 25-Jan-2023 10:03 voa6.i Quant Type: ISTD
Cal Date : 16-DEC-2022 14:04 Cal File: X121608.D
Als bottle: 14
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
*	1 Pentafluorobenzene	168	4.174	4.177	(1.000)	538164	50.0000	
	11 1,1-Dichloroethene	96	1.909	1.910	(0.458)	12357	3.02539	3.02(a)
	22 1,1-Dichloroethane	63	2.918	2.918	(0.699)	3326	0.41458	0.41(a)
	27 cis-1,2-Dichloroethene	96	3.525	3.521	(0.845)	47915	8.61302	8.61
$	30 Dibromofluoromethane	113	4.095	4.091	(0.981)	237924	46.0298	46.02
	33 1,2-Dichloroethane	62	4.552	4.552	(0.917)	94653	15.3459	15.34
$	35 1,2-Dichloroethane-d4	65	4.470	4.466	(1.071)	263433	48.3088	48.30
*	36 1,4-Difluorobenzene	114	4.965	4.965	(1.000)	752801	50.0000	
	38 Trichloroethene	130	5.205	5.201	(1.048)	1369835	268.660	268.65(A)
*	47 Chlorobenzene-d5	117	7.667	7.667	(1.000)	663297	50.0000	
$	48 Toluene-d8	98	6.385	6.385	(0.833)	872248	53.2166	53.21
$	69 4-Bromofluorobenzene	95	8.691	8.687	(1.133)	298715	48.7591	48.75
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	347152	50.0000	
M	94 1,2-Dichloroethylene (total)	96				47915	8.61302	8.61(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

A - Target compound detected but, quantitated amount exceeded maximum amount.

01181724

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230117.b\X011714.D

Date : 17-JAN-2023 14:52

Client ID: HS23010632-02

Instrument: voa6.i

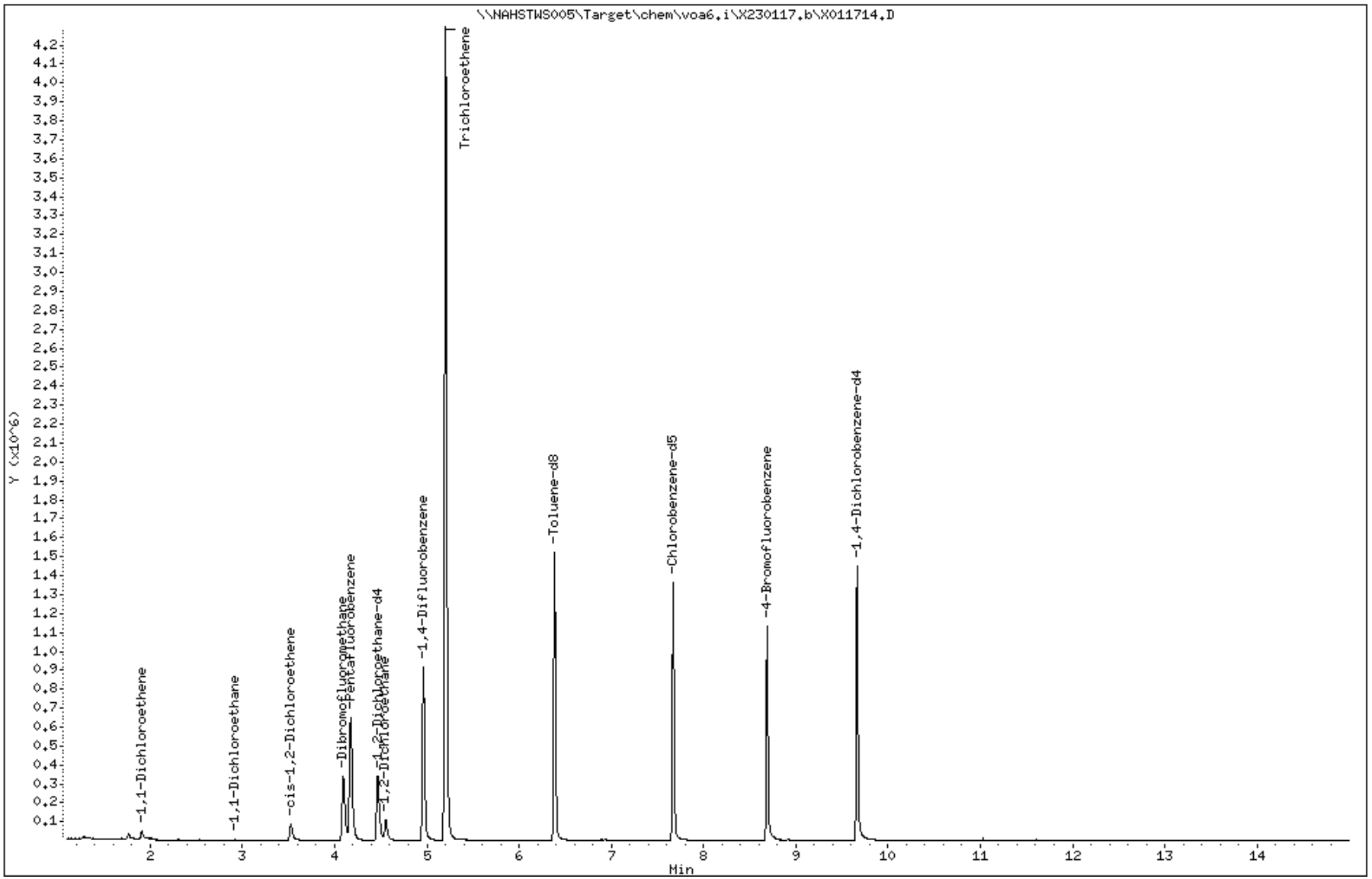
Sample Info: HS23010632-02;HS23010632-02;;;

Purge Volume: 5.0

Operator: PC

Column phase: DB624

Column diameter: 0.18



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230117.b\X011714.D

Date : 17-JAN-2023 14:52

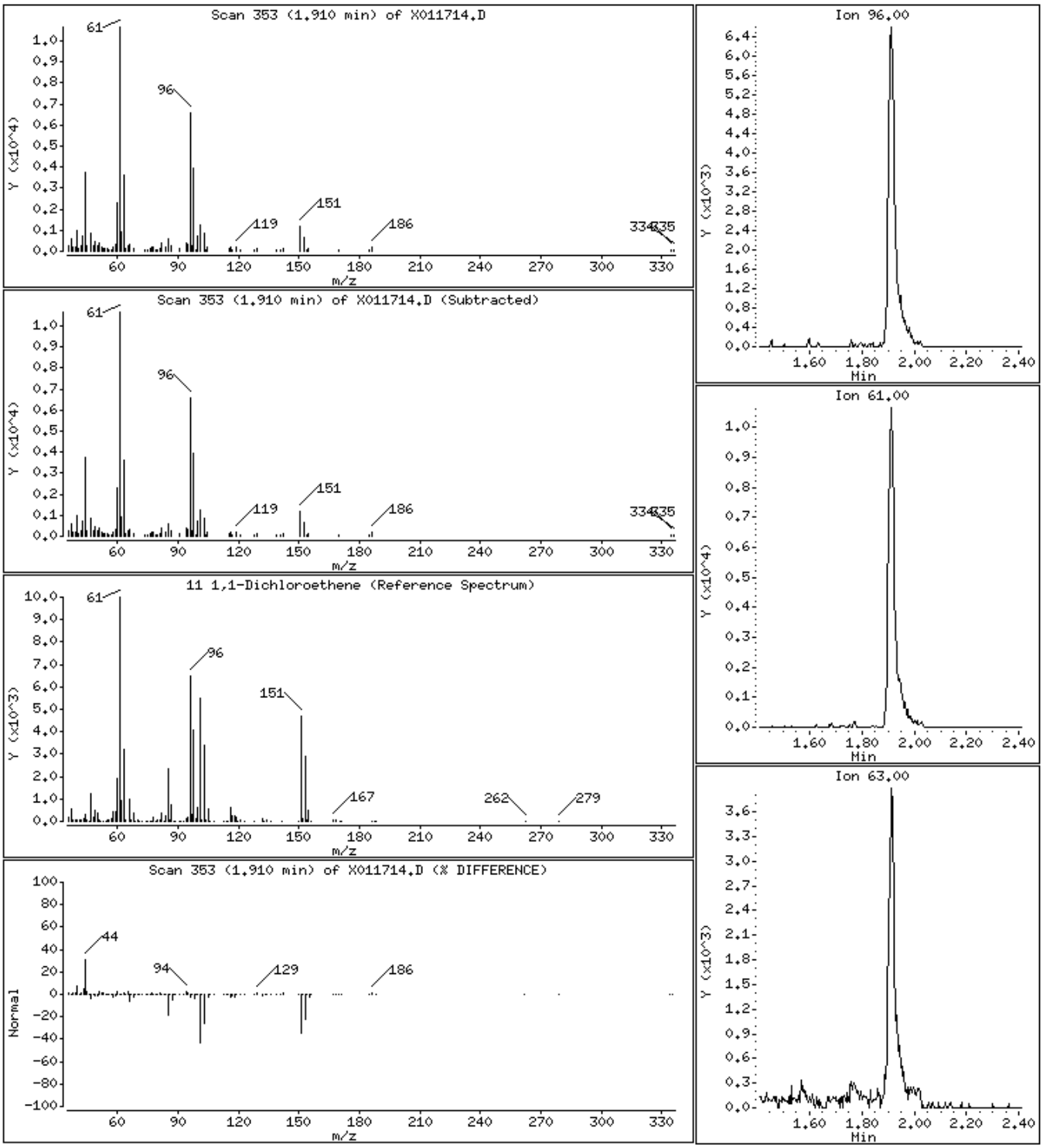
Client ID: HS23010632-02 Instrument: voa6.i

Sample Info: HS23010632-02;HS23010632-02;;;

Purge Volume: 5.0 Operator: PC

Column phase: DB624 Column diameter: 0.18

11 1,1-Dichloroethene Concentration: 3.02 ug/l



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230117.b\X011714.D

Date : 17-JAN-2023 14:52

Client ID: HS23010632-02

Instrument: voa6.i

Sample Info: HS23010632-02;HS23010632-02;;;

Purge Volume: 5.0

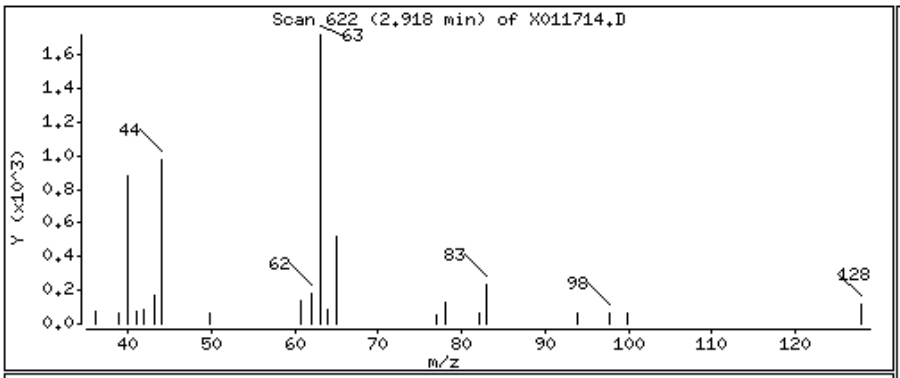
Operator: PC

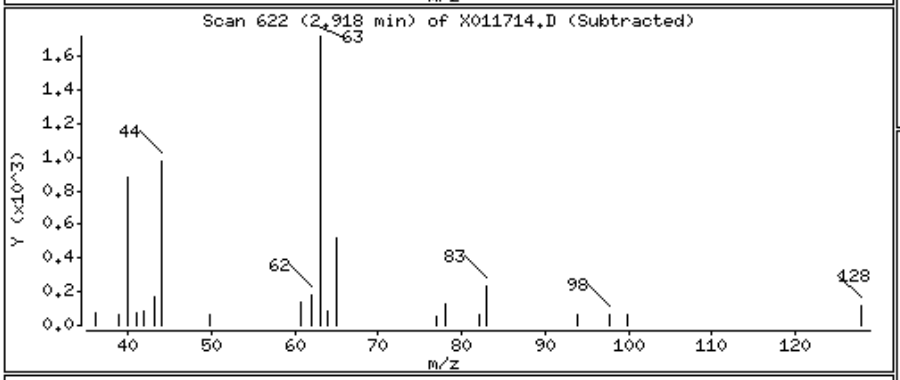
Column phase: DB624

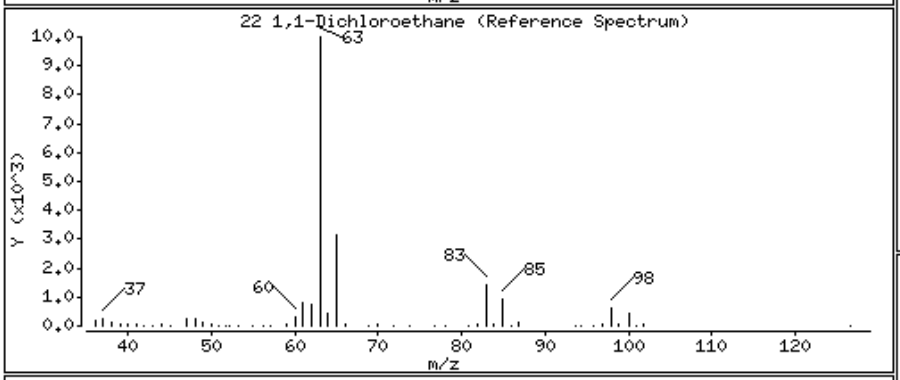
Column diameter: 0.18

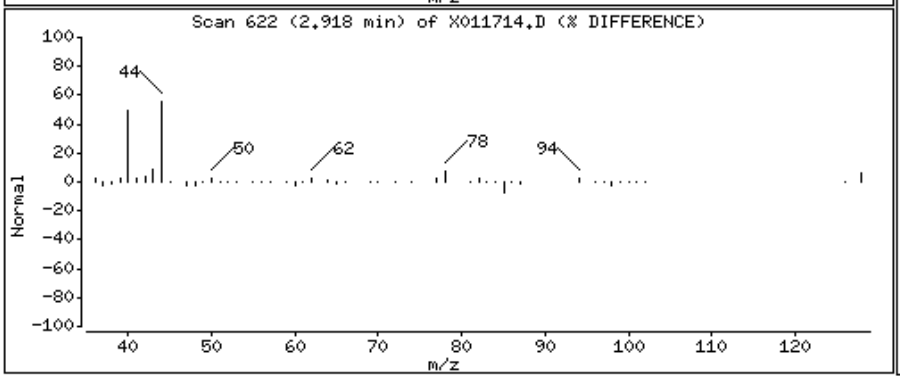
22 1,1-Dichloroethane

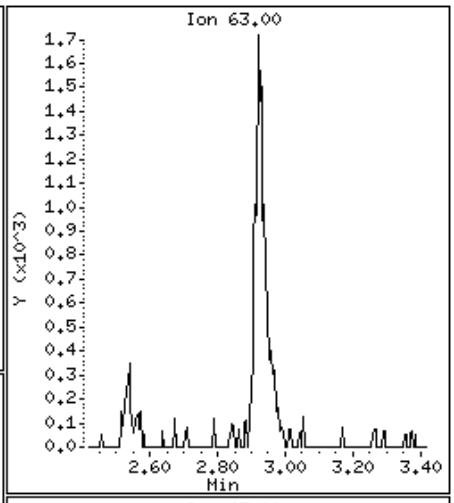
Concentration: 0.41 ug/l

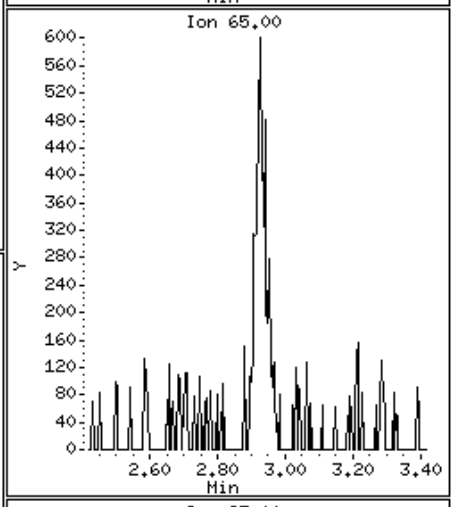


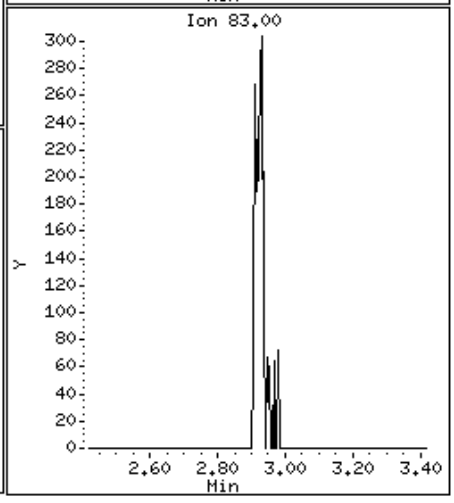












Data File: \\NAHSTWS005\Target\chem\voa6.i\X230117.b\X011714.D

Date : 17-JAN-2023 14:52

Client ID: HS23010632-02

Instrument: voa6.i

Sample Info: HS23010632-02;HS23010632-02;;;

Purge Volume: 5.0

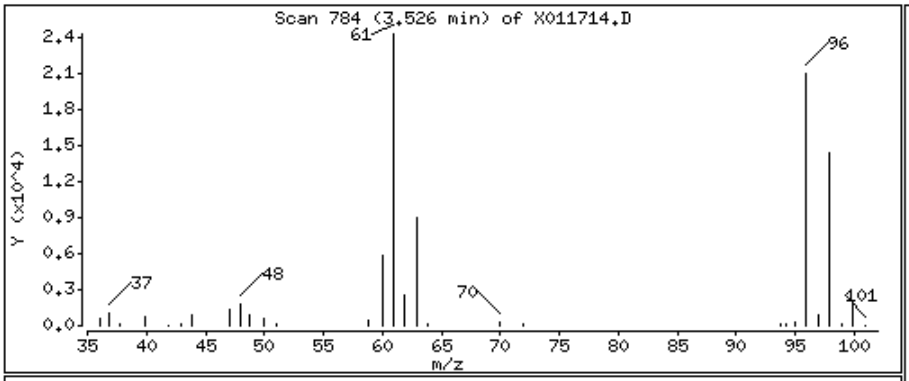
Operator: PC

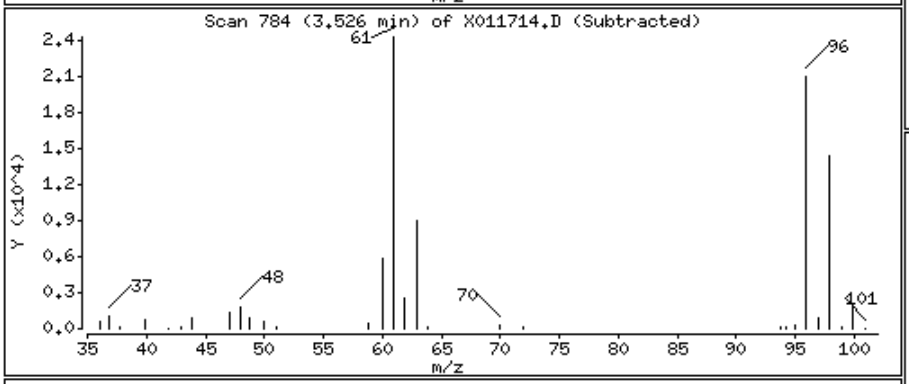
Column phase: DB624

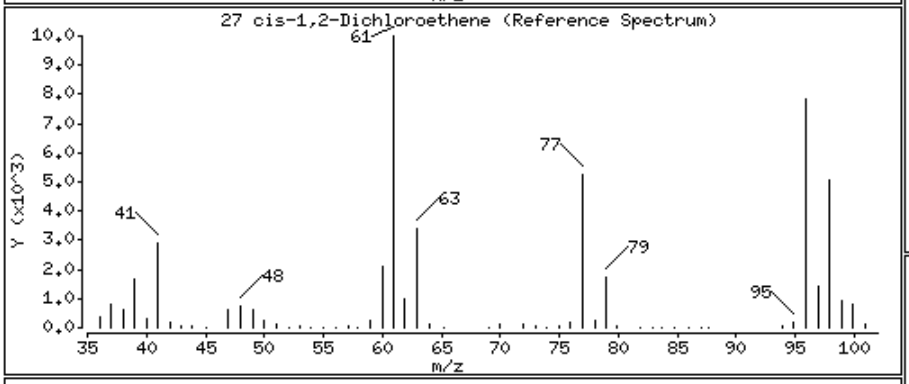
Column diameter: 0.18

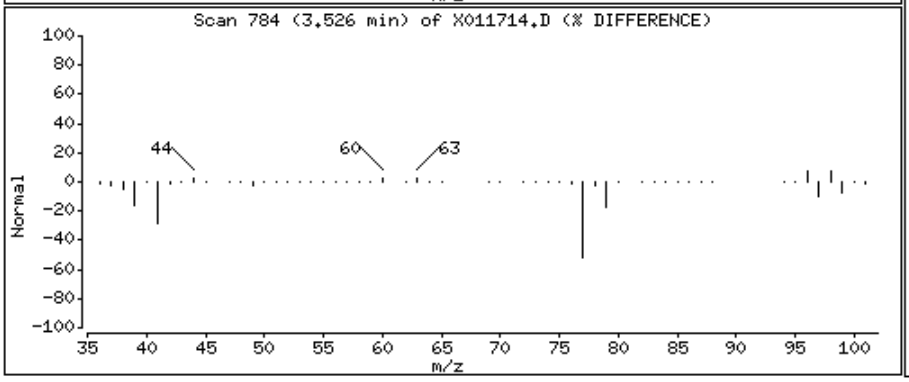
27 cis-1,2-Dichloroethene

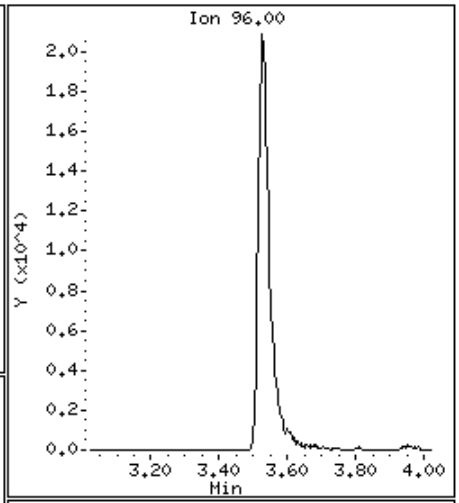
Concentration: 8.61 ug/l

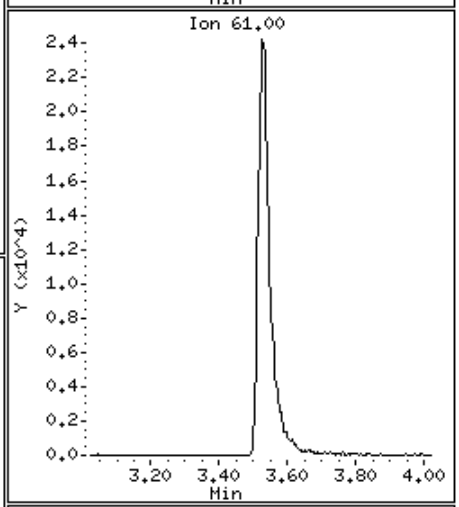


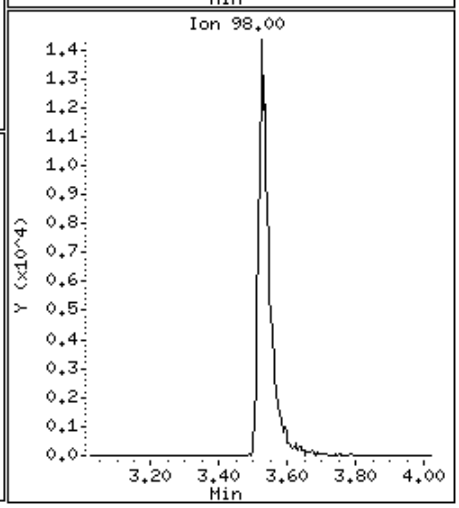












Data File: \\NAHSTWS005\Target\chem\voa6.i\X230117.b\X011714.D Page 5

Date : 17-JAN-2023 14:52

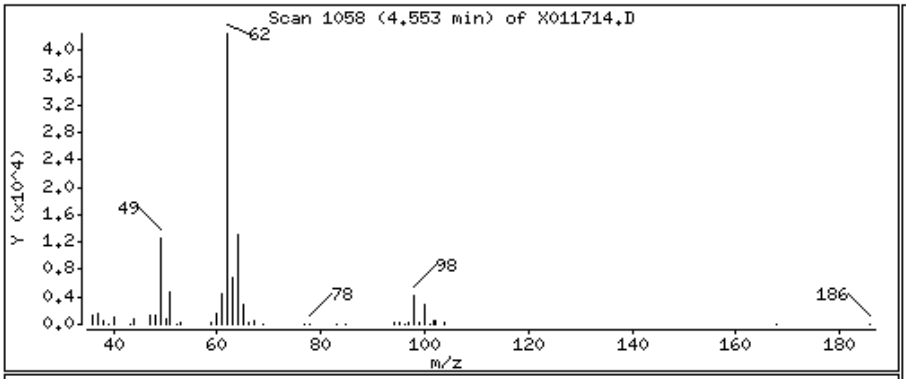
Client ID: HS23010632-02 Instrument: voa6.i

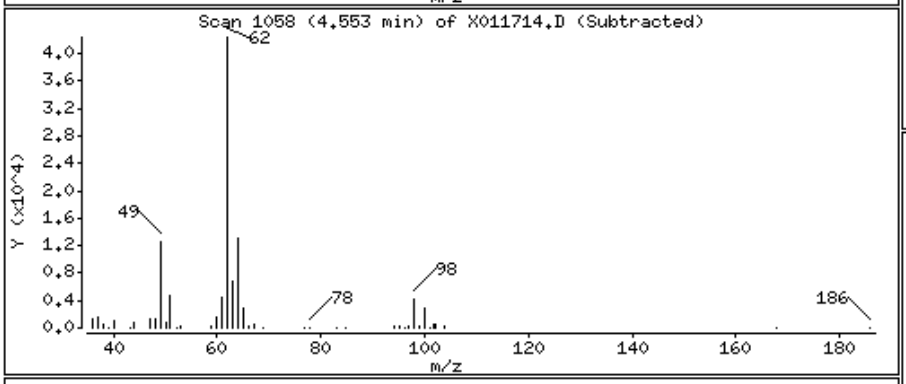
Sample Info: HS23010632-02;HS23010632-02;;;

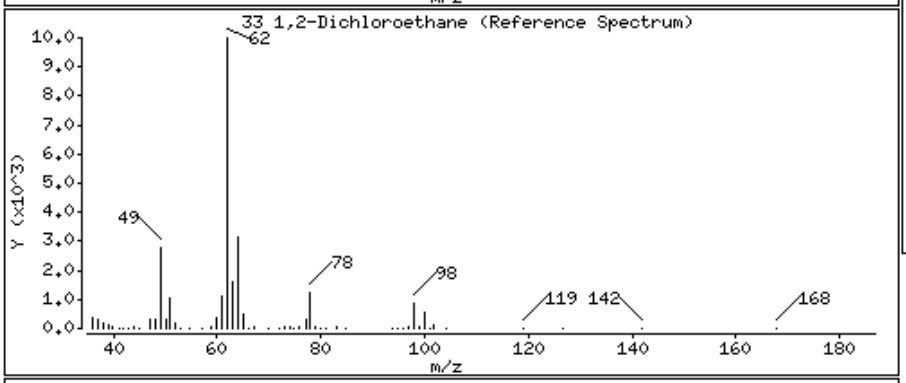
Purge Volume: 5.0 Operator: PC

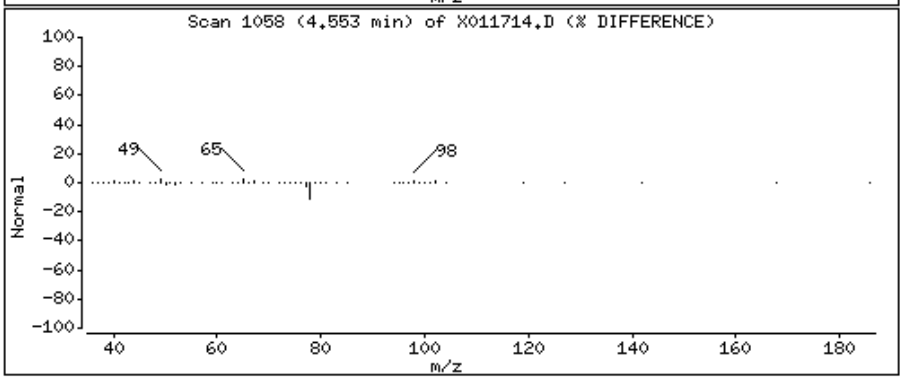
Column phase: DB624 Column diameter: 0.18

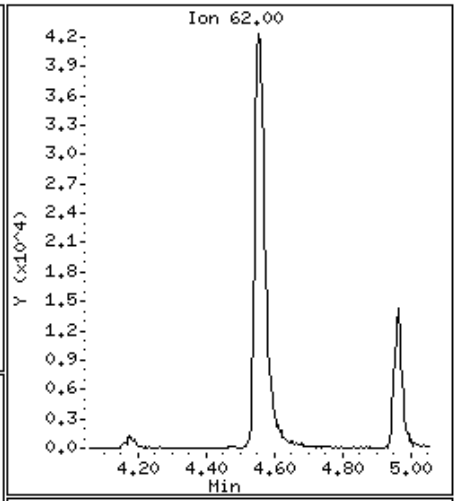
33 1,2-Dichloroethane Concentration: 15.34 ug/l

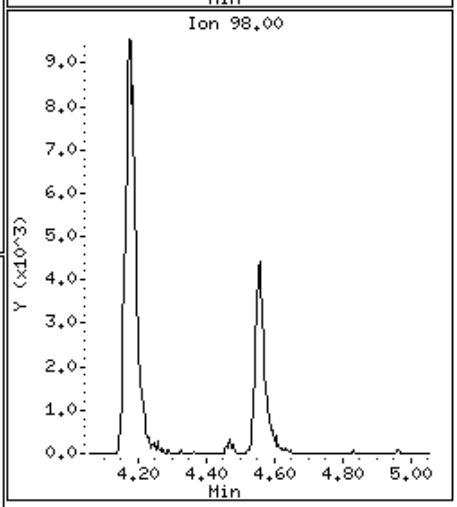












Data File: \\NAHSTWS005\Target\chem\voa6.i\X230117.b\X011714.D

Date : 17-JAN-2023 14:52

Client ID: HS23010632-02

Instrument: voa6.i

Sample Info: HS23010632-02;HS23010632-02;;;

Purge Volume: 5.0

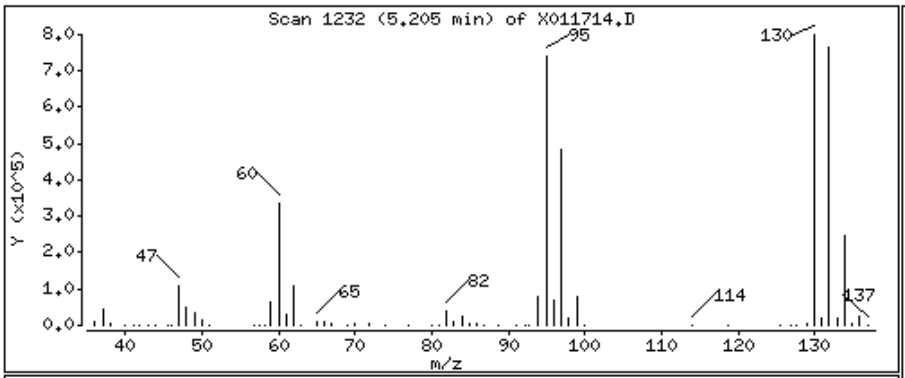
Operator: PC

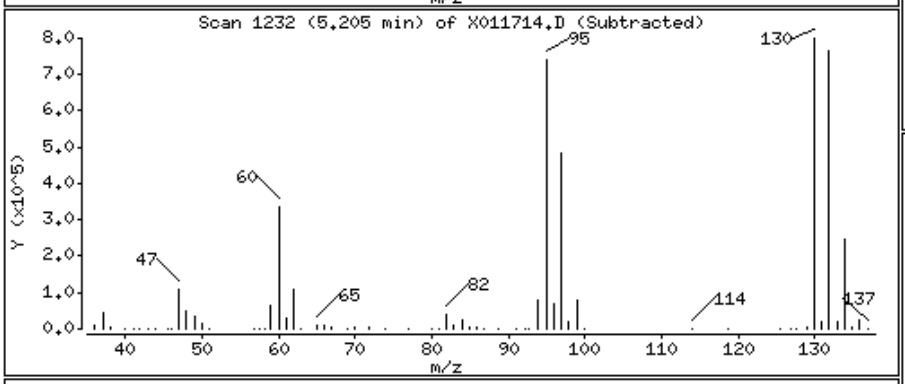
Column phase: DB624

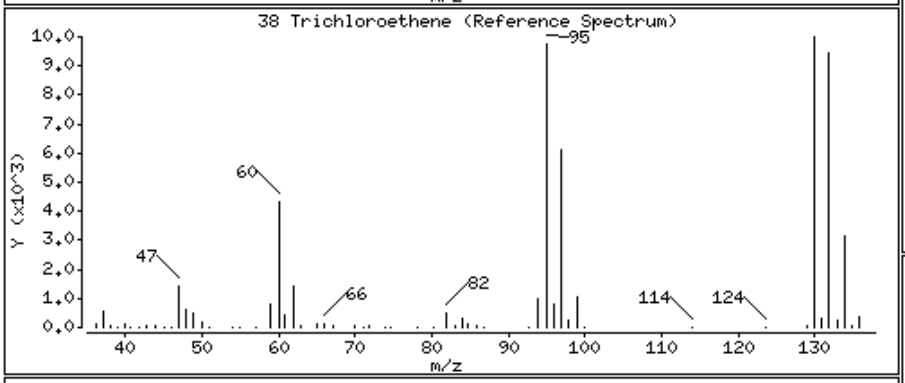
Column diameter: 0.18

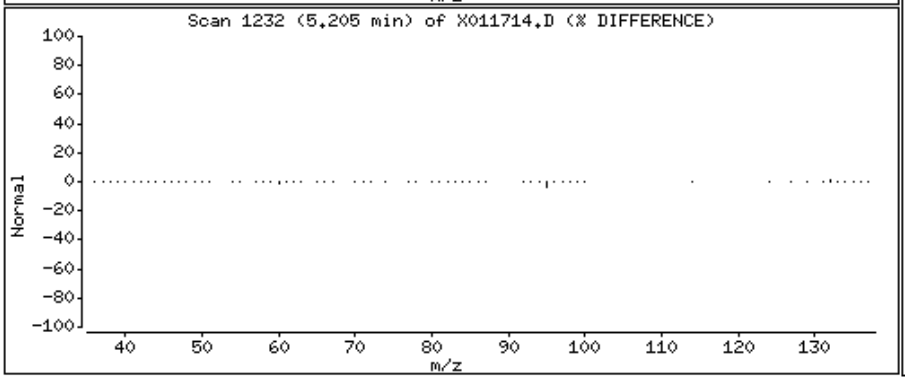
38 Trichloroethene

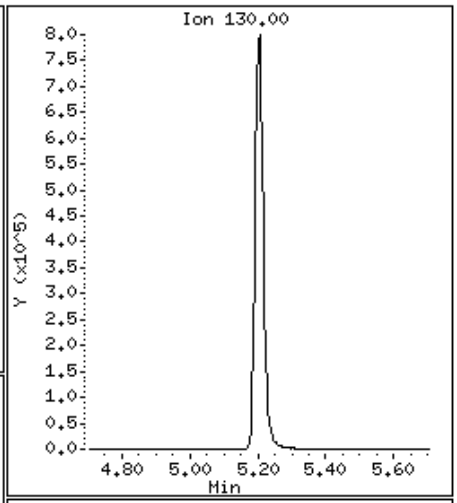
Concentration: 268.65 ug/l

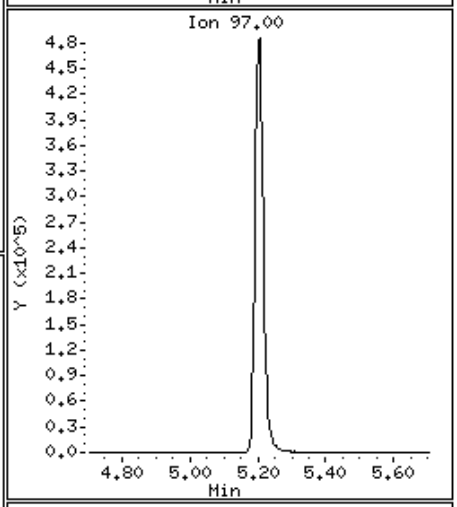


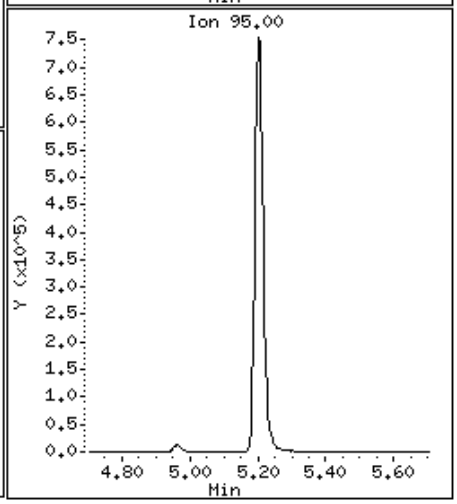












Data File : \\NAHSTWS005\Target\chem\voa6.i\X230117.b\X011714.D
Inj Date : 17-JAN-2023 14:52
InstruID : voa6.i
LabSampID : HS23010632-02

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230117.b\X011715.D Page 1
Report Date: 25-Jan-2023 10:03

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230117.b\X011715.D
Lab Smp Id: HS23010632-03 Client Smp ID: HS23010632-03
Inj Date : 17-JAN-2023 15:13
Operator : PC Inst ID: voa6.i
Smp Info : HS23010632-03;HS23010632-03;;;
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X230117.b\8260W.m
Meth Date : 25-Jan-2023 10:03 voa6.i Quant Type: ISTD
Cal Date : 16-DEC-2022 14:04 Cal File: X121608.D
Als bottle: 15
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

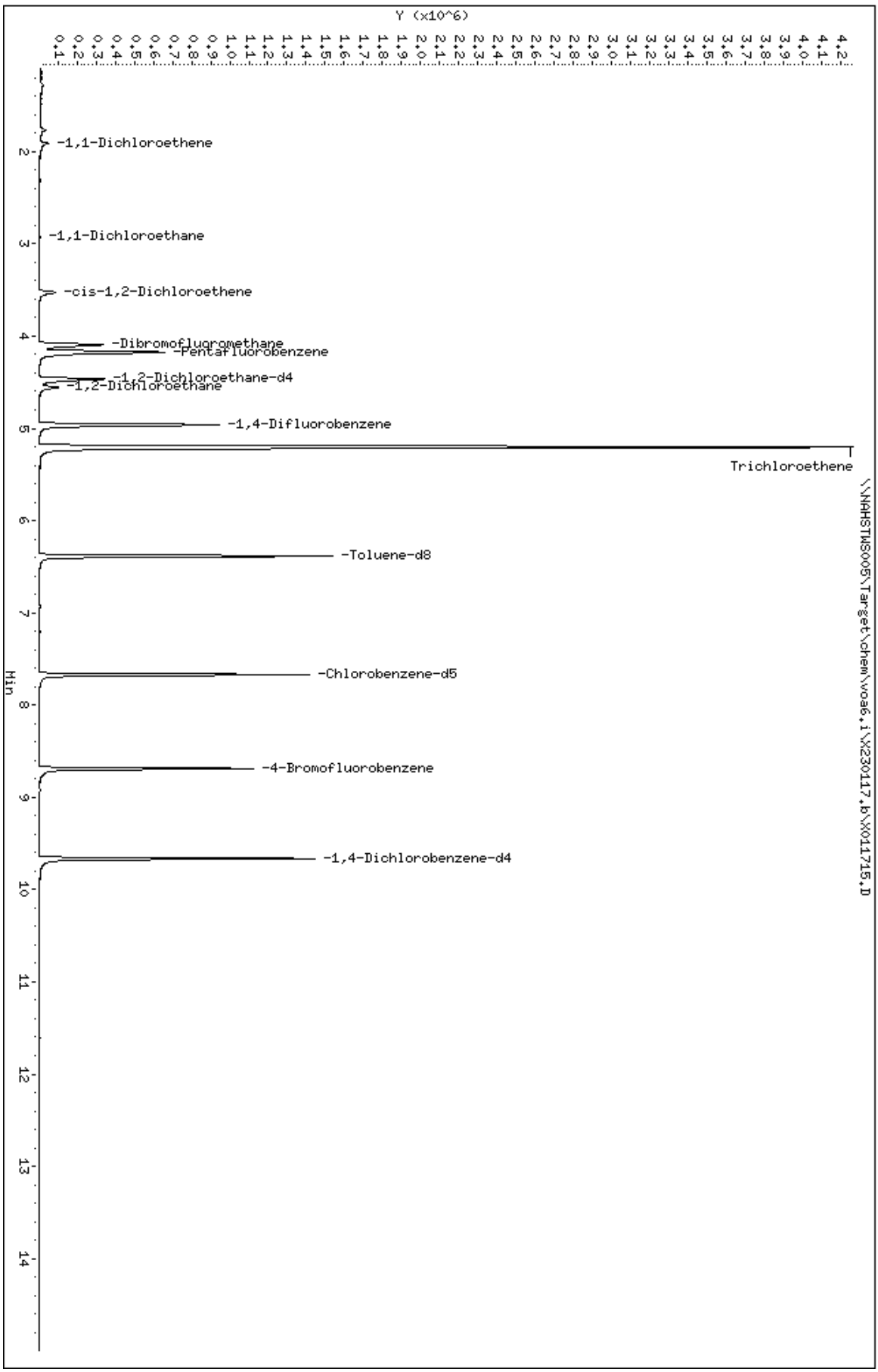
Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
*	1 Pentafluorobenzene	168	4.177	4.177	(1.000)	541953	50.0000	
	11 1,1-Dichloroethene	96	1.910	1.910	(0.457)	11575	2.81412	2.81(a)
	22 1,1-Dichloroethane	63	2.922	2.918	(0.699)	3857	0.47741	0.47(a)
	27 cis-1,2-Dichloroethene	96	3.529	3.521	(0.845)	49560	8.84643	8.84
$	30 Dibromofluoromethane	113	4.095	4.091	(0.980)	235905	45.3175	45.31
	33 1,2-Dichloroethane	62	4.556	4.552	(0.918)	91351	14.5386	14.53
$	35 1,2-Dichloroethane-d4	65	4.466	4.466	(1.069)	264022	48.0796	48.07
*	36 1,4-Difluorobenzene	114	4.961	4.965	(1.000)	766885	50.0000	
	38 Trichloroethene	130	5.205	5.201	(1.049)	1371106	263.970	263.97(A)
*	47 Chlorobenzene-d5	117	7.667	7.667	(1.000)	680002	50.0000	
$	48 Toluene-d8	98	6.385	6.385	(0.833)	885282	52.6849	52.68
$	69 4-Bromofluorobenzene	95	8.691	8.687	(1.133)	304334	48.4563	48.45
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	356260	50.0000	
M	94 1,2-Dichloroethylene (total)	96				49560	8.84643	8.84(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

A - Target compound detected but, quantitated amount exceeded maximum amount.



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230117.b\X011715.D
Date : 17-JAN-2023 15:13
Client ID: HS230106J2-03
Sample Info: HS230106J2-03;HS230106J2-03;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230117.b\X011715.D

Date : 17-JAN-2023 15:13

Client ID: HS23010632-03

Instrument: voa6.i

Sample Info: HS23010632-03;HS23010632-03;;;

Purge Volume: 5.0

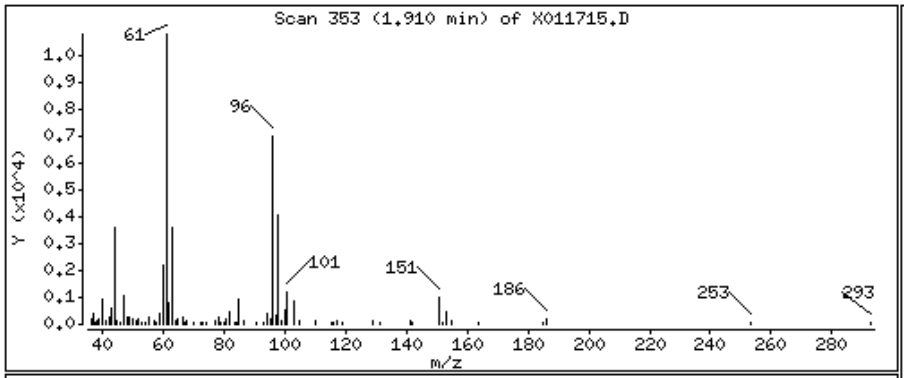
Operator: PC

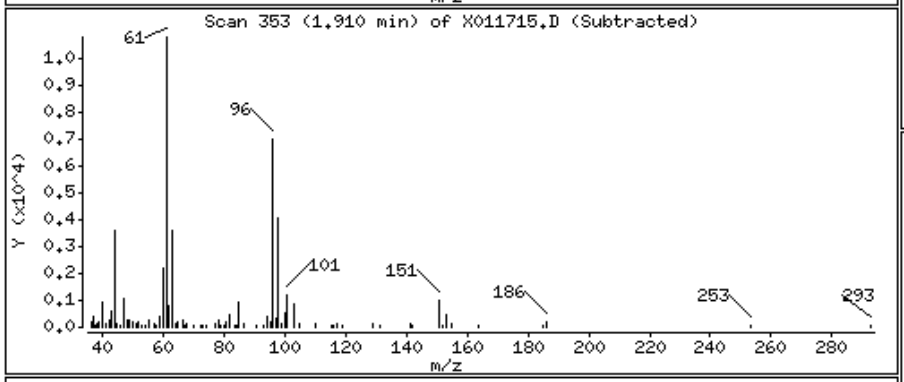
Column phase: DB624

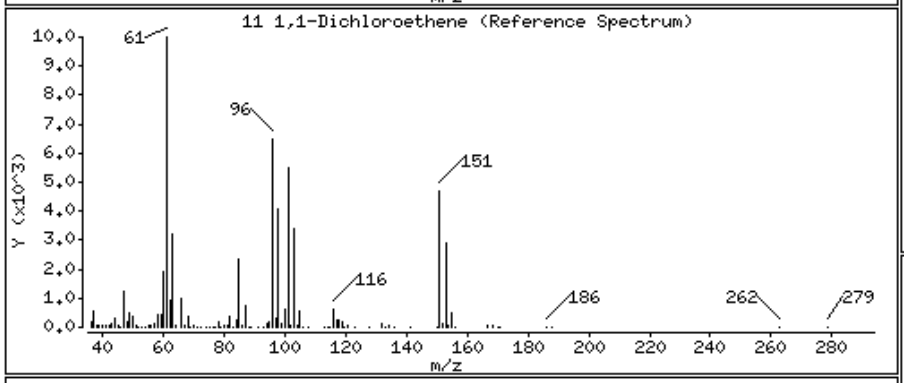
Column diameter: 0.18

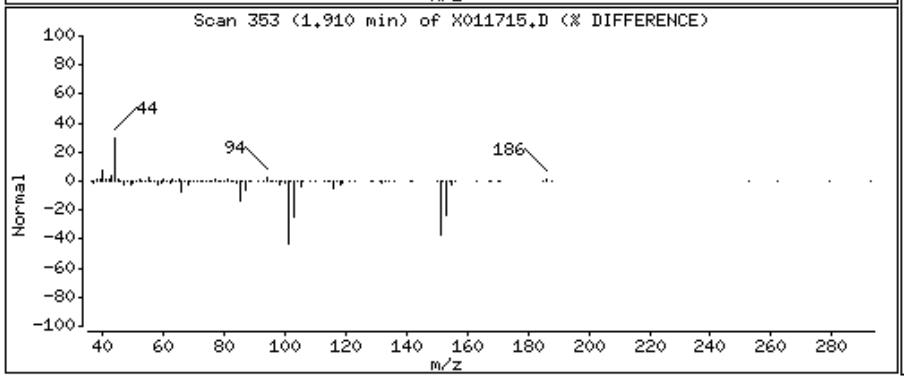
11 1,1-Dichloroethene

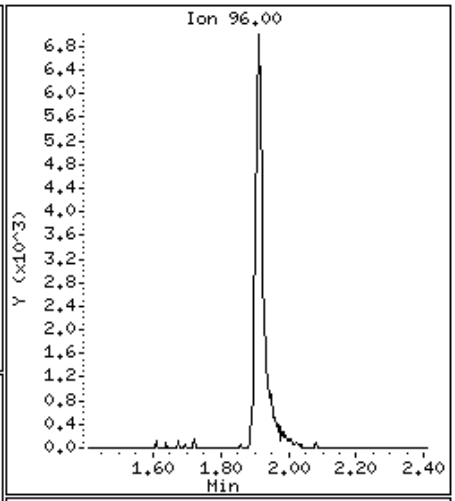
Concentration: 2.81 ug/l

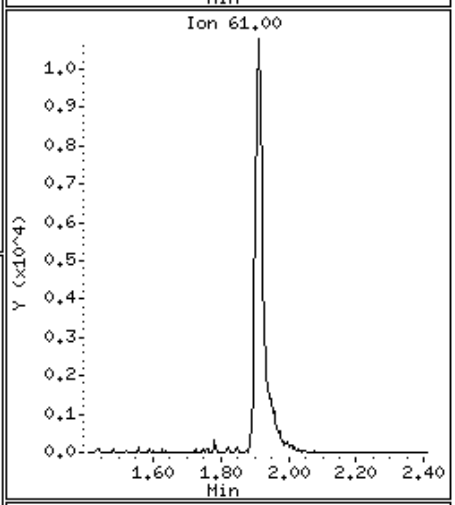


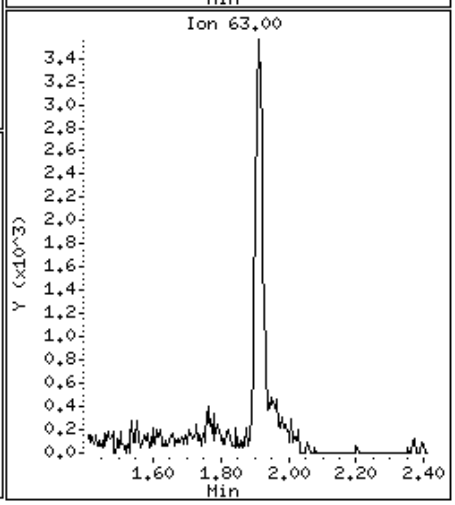












Data File: \\NAHSTWS005\Target\chem\voa6.i\X230117.b\X011715.D

Date : 17-JAN-2023 15:13

Client ID: HS23010632-03

Instrument: voa6.i

Sample Info: HS23010632-03;HS23010632-03;;;

Purge Volume: 5.0

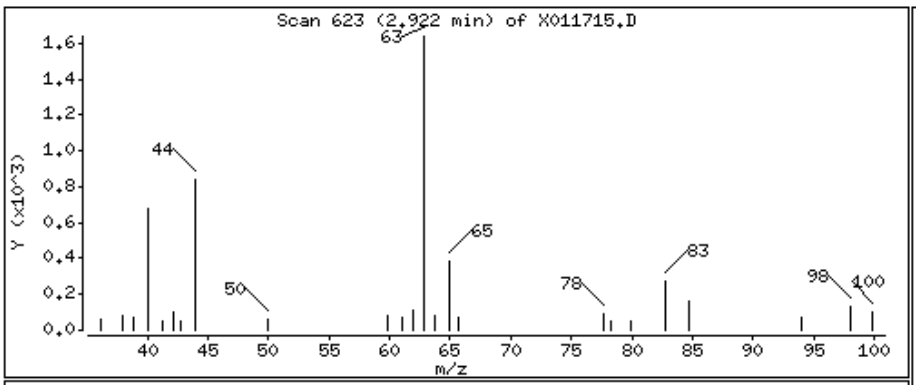
Operator: PC

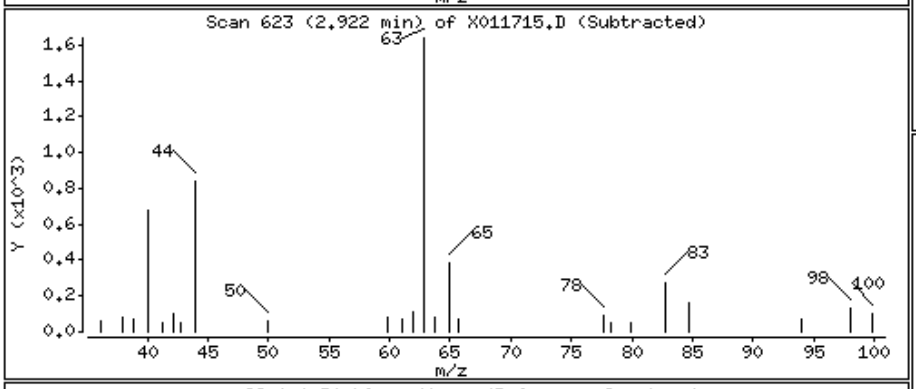
Column phase: DB624

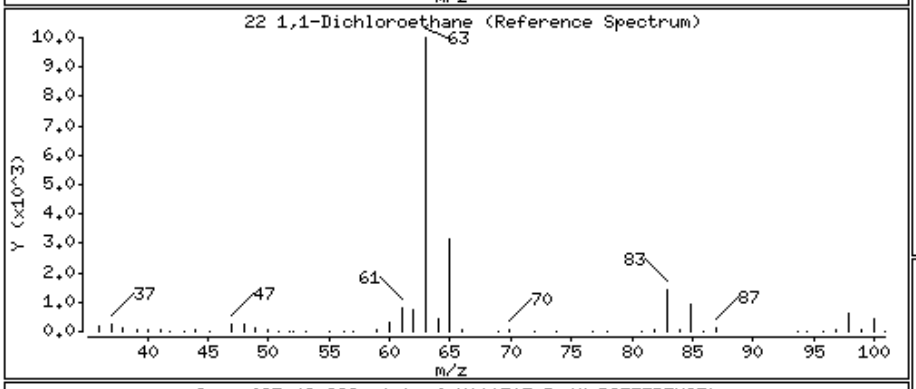
Column diameter: 0.18

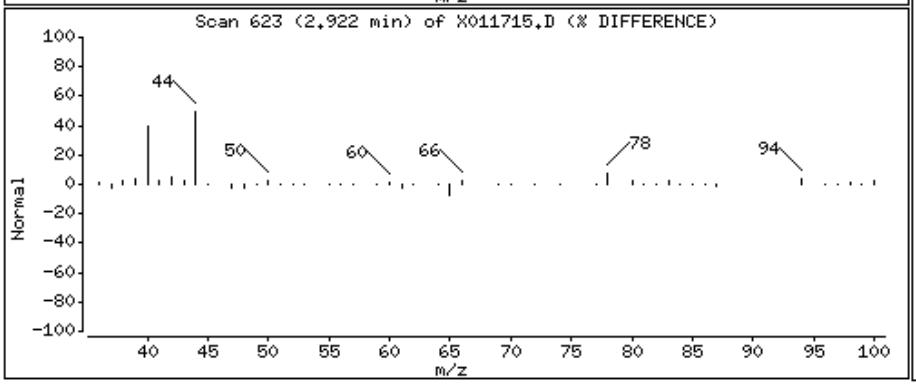
22 1,1-Dichloroethane

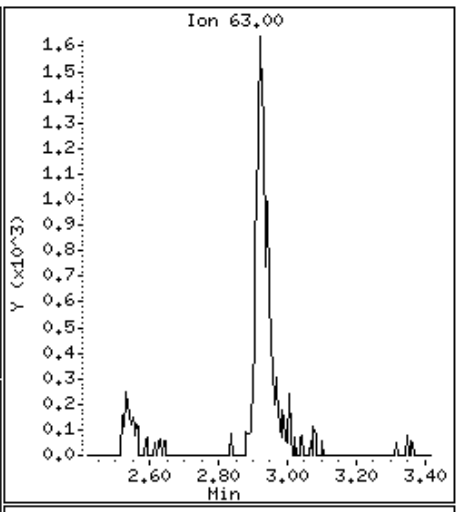
Concentration: 0.47 ug/l

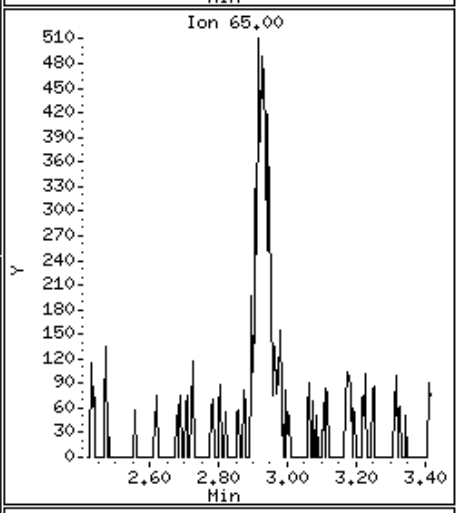


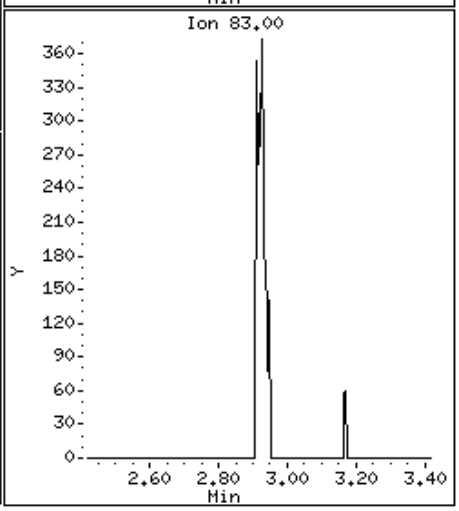












Data File: \\NAHSTWS005\Target\chem\voa6.i\X230117.b\X011715.D

Date : 17-JAN-2023 15:13

Client ID: HS23010632-03

Instrument: voa6.i

Sample Info: HS23010632-03;HS23010632-03;;;

Purge Volume: 5.0

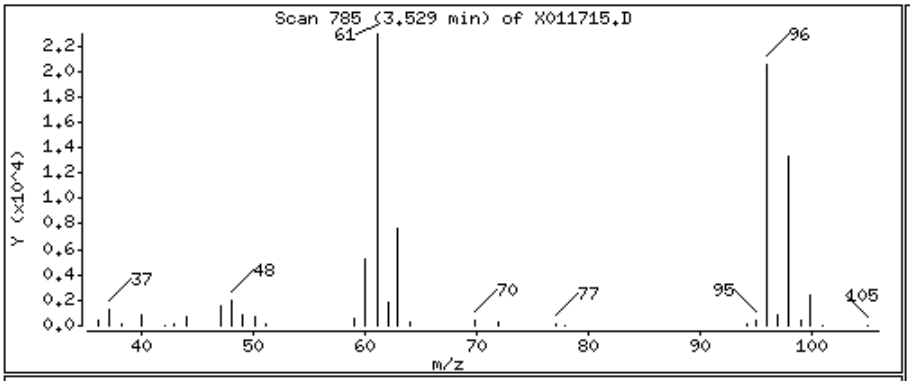
Operator: PC

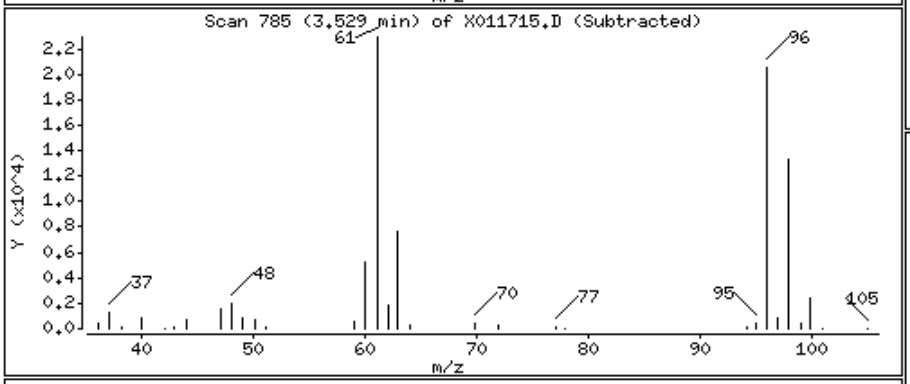
Column phase: DB624

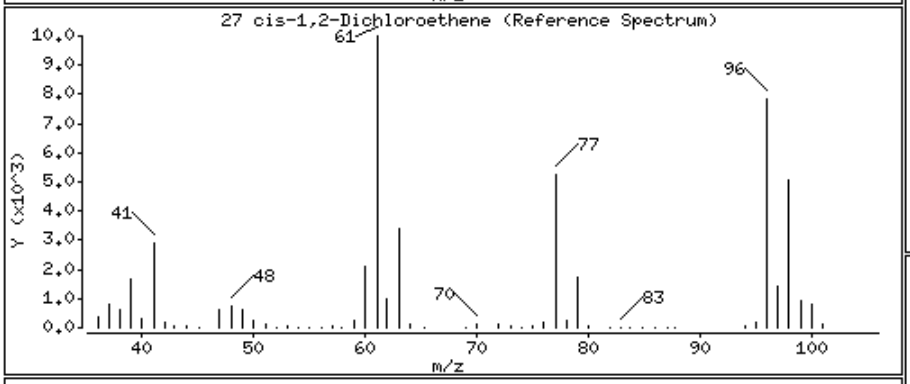
Column diameter: 0.18

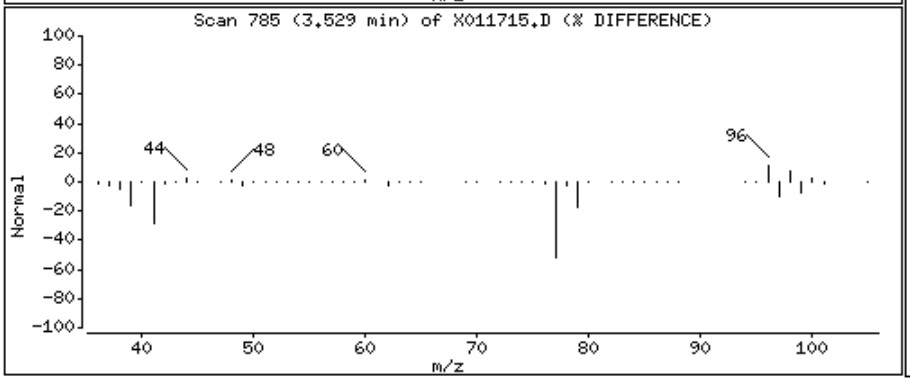
27 cis-1,2-Dichloroethene

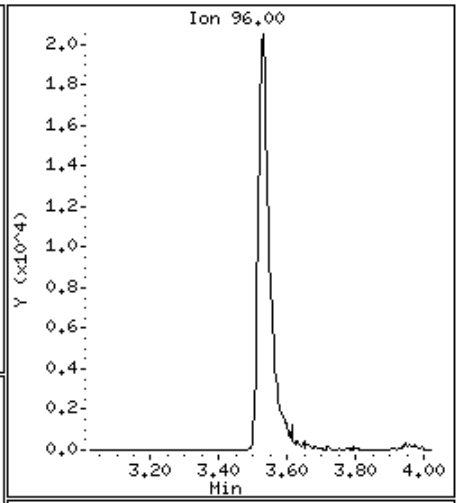
Concentration: 8.84 ug/l

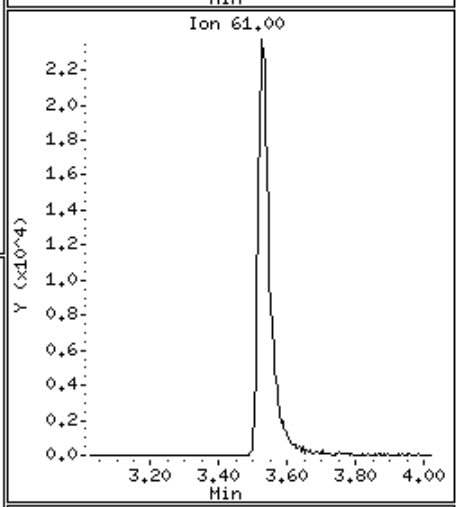


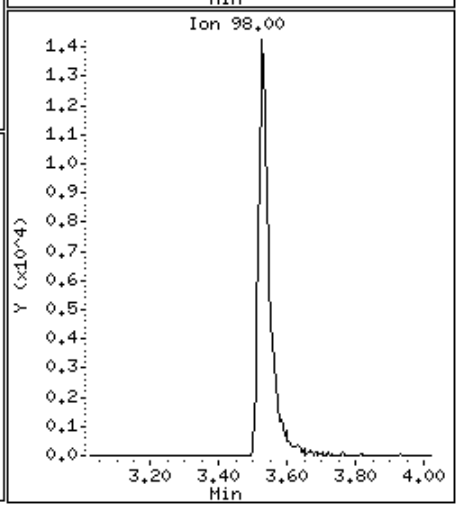












Data File: \\NAHSTWS005\Target\chem\voa6.i\X230117.b\X011715.D Page 5

Date : 17-JAN-2023 15:13

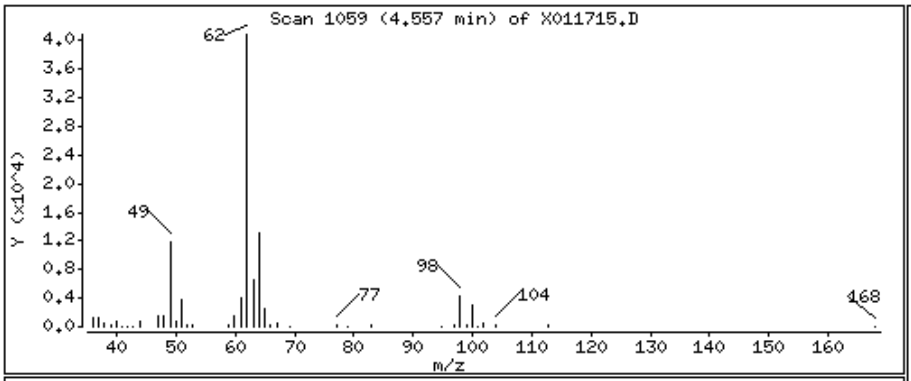
Client ID: HS23010632-03 Instrument: voa6.i

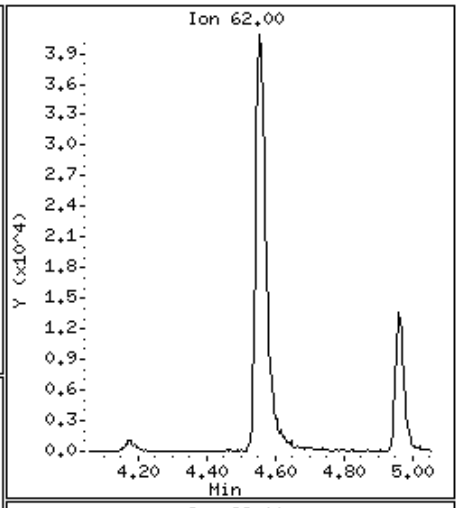
Sample Info: HS23010632-03;HS23010632-03;;;

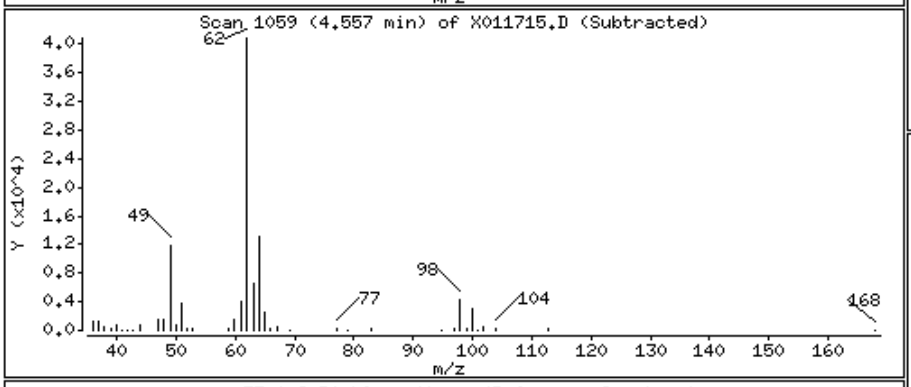
Purge Volume: 5.0 Operator: PC

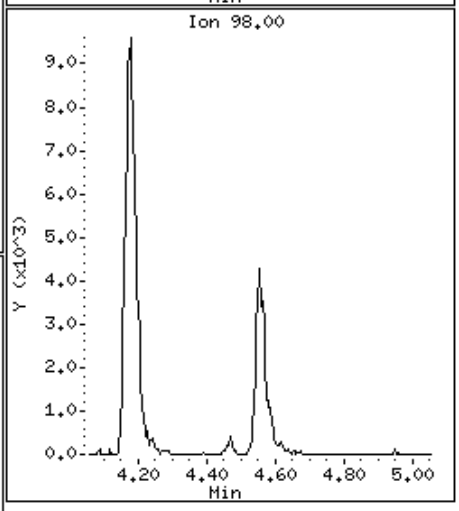
Column phase: DB624 Column diameter: 0.18

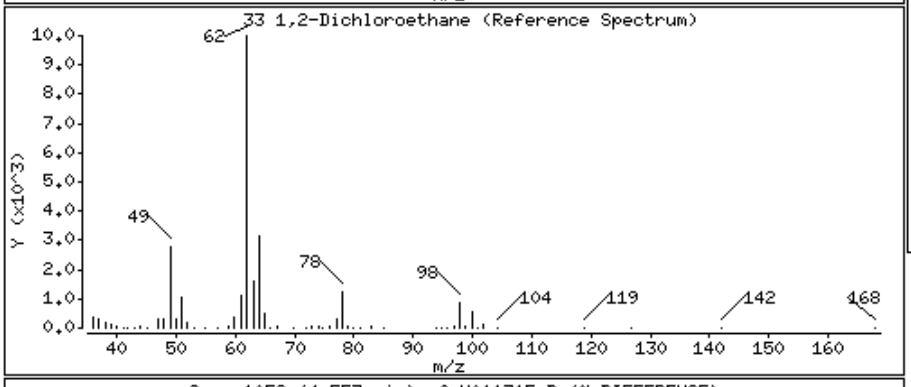
33 1,2-Dichloroethane Concentration: 14.53 ug/l

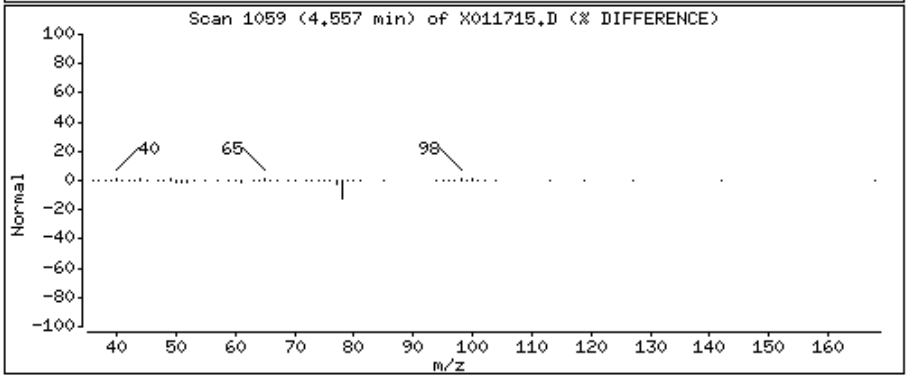












Data File: \\NAHSTWS005\Target\chem\voa6.i\X230117.b\X011715.D

Date : 17-JAN-2023 15:13

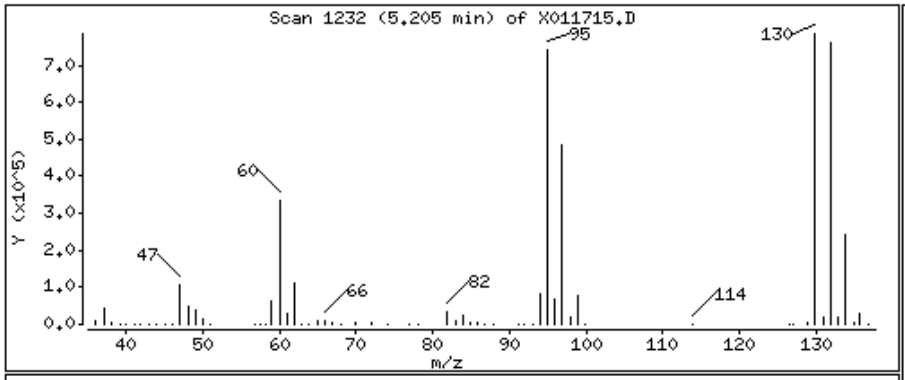
Client ID: HS23010632-03 Instrument: voa6.i

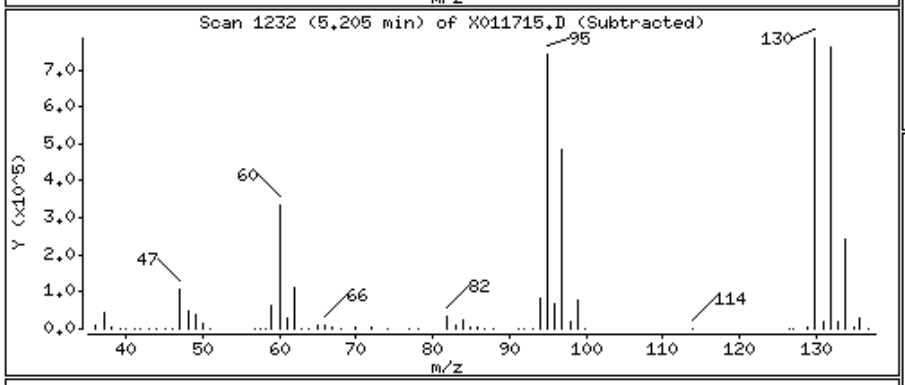
Sample Info: HS23010632-03;HS23010632-03;;;

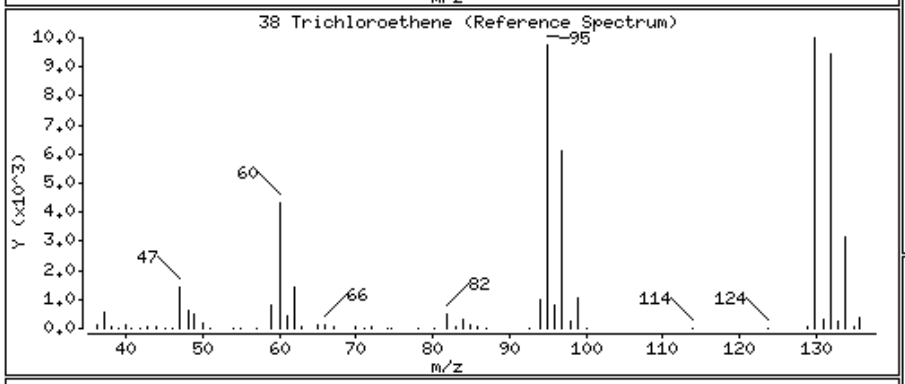
Purge Volume: 5.0 Operator: PC

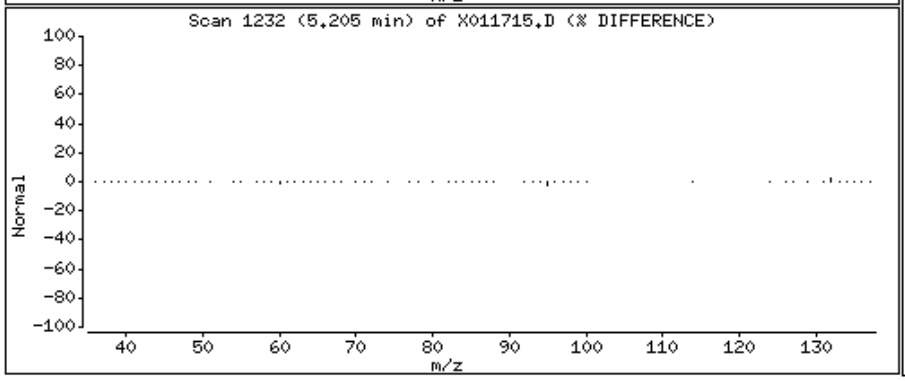
Column phase: DB624 Column diameter: 0.18

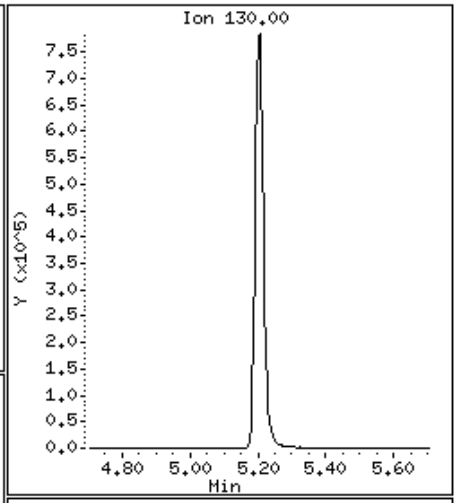
38 Trichloroethene Concentration: 263.97 ug/l

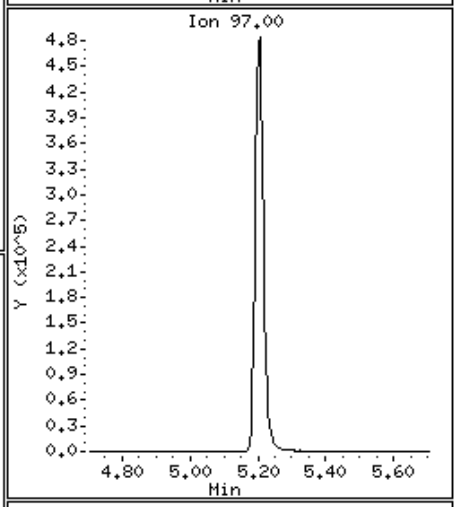


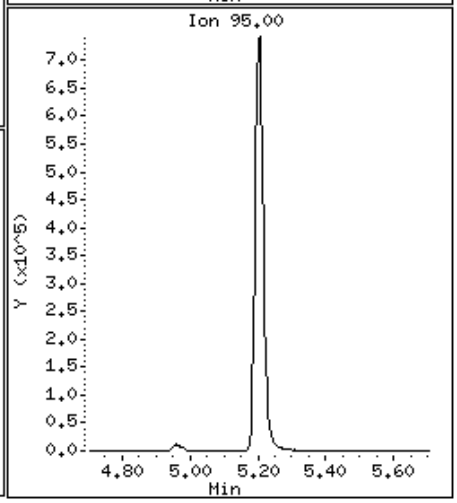












Data File : \\NAHSTWS005\Target\chem\voa6.i\X230117.b\X011715.D
Inj Date : 17-JAN-2023 15:13
InstruID : voa6.i
LabSampID : HS23010632-03

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230117.b\X011719.D Page 1
Report Date: 25-Jan-2023 10:03

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230117.b\X011719.D
Lab Smp Id: HS23010472-04MS Client Smp ID: HS23010472-04MS
Inj Date : 17-JAN-2023 16:37
Operator : PC Inst ID: voa6.i
Smp Info : HS23010472-04MS;HS23010472-04MS;3;;MS
Misc Info : V6;WATER;0;50;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X230117.b\8260W.m
Meth Date : 25-Jan-2023 10:03 voa6.i Quant Type: ISTD
Cal Date : 16-DEC-2022 14:04 Cal File: X121608.D
Als bottle: 19 QC Sample: MS
Dil Factor: 50.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	50.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1	Pentafluorobenzene	168	4.178	4.177	(1.000)	540134	50.0000	
135	1,4-Dioxane	88	5.598	5.598	(1.340)	19394	392.799	19639.93(a)
140	1,3-Butadiene	54	1.160	1.160	(0.278)	80116	21.6119	1080.59
25	Methacrylonitrile	41	3.821	3.818	(0.915)	72002	18.8260	941.29
12	Isobutyl Alcohol	43	4.672	4.672	(1.118)	253293	416.921	20846.07
13	Acetonitrile	39	2.195	2.194	(0.525)	108890	221.506	11075.29
14	Allyl Chloride	41	2.195	2.194	(0.525)	192019	20.5090	1025.45
4	Propionitrile	54	3.645	3.645	(0.873)	110439	200.386	10019.31(a)
72	trans-1,4-Dichloro-2-butene	53	8.886	8.886	(1.159)	32612	22.0203	1101.01
194	Acetaldehyde	44	1.209	1.209	(0.289)	29576	73.2197	3660.98
23	Chloroprene	53	1.767	1.767	(0.423)	41241	22.4560	1122.79(M)
130	Ethyl Acetate	43	3.653	3.649	(0.874)	89013	21.1193	1055.96
40	Methyl Methacrylate	41	5.606	5.602	(1.342)	71143	19.3170	965.84
49	Ethyl Methacrylate	69	6.708	6.708	(1.352)	67980	18.9905	949.52
131	Methyl Acrylate	55	3.687	3.683	(0.882)	76591	20.8864	1044.31
2	Dichlorodifluoromethane	85	0.969	0.969	(0.232)	72895	19.5371	976.85
3	Chloromethane	50	1.074	1.074	(0.257)	97551	21.2904	1064.51
5	Vinyl Chloride	62	1.141	1.141	(0.273)	104092	22.0610	1103.04
6	Bromomethane	94	1.336	1.336	(0.320)	75944	22.2935	1114.67
7	Chloroethane	64	1.400	1.400	(0.335)	65882	20.0607	1003.03

8	Trichlorofluoromethane	101	1.554	1.557 (0.372)	164617	24.9311	1246.55
9	Acrolein	56	1.441	1.445 (0.345)	17685	49.3460	2467.30

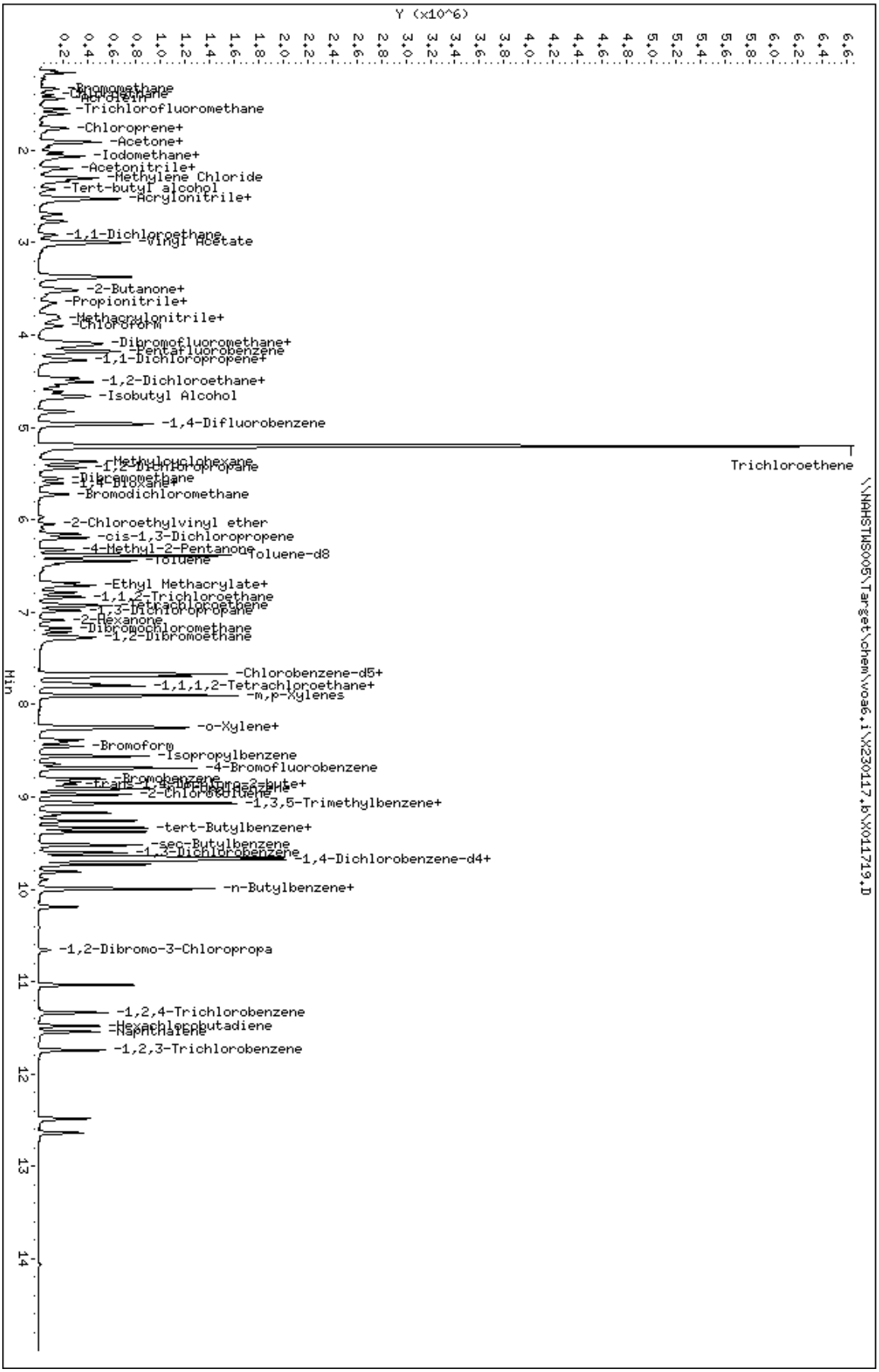
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
	10 Acetone	43	1.970	1.966	(0.472)	49328	32.5244	1626.21
	11 1,1-Dichloroethene	96	1.910	1.910	(0.457)	94141	22.9647	1148.23
	15 Iodomethane	142	2.022	2.022	(0.484)	192811	38.7435	1937.17
	16 Acrylonitrile	53	2.532	2.528	(0.606)	59681	42.9253	2146.26
	17 Methylene Chloride	84	2.300	2.299	(0.550)	105654	18.7896	939.47
	18 Methyl tert-butyl ether	73	2.528	2.528	(0.605)	261059	19.4557	972.78
	19 Carbon Disulfide	76	2.063	2.067	(0.494)	471156	43.9288	2196.43
	20 trans-1,2-Dichloroethene	96	2.524	2.524	(0.604)	94661	20.6326	1031.62
	21 Vinyl Acetate	43	2.993	2.993	(0.716)	495578	42.0734	2103.67
	22 1,1-Dichloroethane	63	2.918	2.918	(0.699)	160311	19.9097	995.48
	24 2-Butanone	43	3.578	3.574	(0.856)	54614	35.9703	1798.51
	26 2,2-Dichloropropane	77	3.507	3.506	(0.839)	148126	21.6668	1083.34
	27 cis-1,2-Dichloroethene	96	3.522	3.521	(0.843)	110677	19.8223	991.11
	28 Chloroform	83	3.900	3.900	(0.934)	177811	19.7027	985.13
	29 Bromochloromethane	128	3.791	3.788	(0.908)	54565	17.8488	892.44
$	30 Dibromofluoromethane	113	4.095	4.091	(0.980)	234501	45.1991	45.19
	31 1,1,1-Trichloroethane	97	4.080	4.076	(0.977)	159029	22.2099	1110.49
	32 1,1-Dichloropropene	75	4.279	4.275	(0.862)	138411	25.6468	1282.34
	33 1,2-Dichloroethane	62	4.552	4.552	(0.918)	131598	21.1290	1056.44
	34 Carbon Tetrachloride	117	4.264	4.260	(0.859)	138682	24.0641	1203.20
$	35 1,2-Dichloroethane-d4	65	4.470	4.466	(1.070)	249485	45.5995	45.59
*	36 1,4-Difluorobenzene	114	4.961	4.965	(1.000)	760168	50.0000	
	37 Benzene	78	4.511	4.507	(0.909)	394698	21.7433	1087.16
	38 Trichloroethene	130	5.205	5.201	(1.049)	2098460	407.573	20378.65(A)
	39 Bromodichloromethane	83	5.722	5.722	(1.153)	136382	20.0192	1000.96
	41 2-Chloroethylvinyl ether	63	6.048	6.044	(1.219)	52706	27.1941	1359.70
	42 1,2-Dichloropropane	63	5.433	5.433	(1.095)	98866	20.4746	1023.73
	44 Dibromomethane	93	5.550	5.549	(1.119)	64821	19.7500	987.50
	45 4-Methyl-2-Pentanone	43	6.326	6.322	(0.825)	164497	44.8600	2242.99
	46 cis-1,3-Dichloropropene	75	6.153	6.153	(1.240)	162624	20.3260	1016.29
*	47 Chlorobenzene-d5	117	7.668	7.667	(1.000)	686043	50.0000	
$	48 Toluene-d8	98	6.386	6.385	(0.833)	890112	52.5059	52.50
	50 Toluene	91	6.446	6.445	(0.841)	435536	22.9684	1148.41
	51 trans-1,3-Dichloropropene	75	6.682	6.682	(1.347)	136124	20.5015	1025.07
	52 2-Hexanone	43	7.087	7.086	(0.924)	109612	43.9355	2196.77
	53 1,1,2-Trichloroethane	83	6.835	6.839	(0.891)	79146	20.8049	1040.24
	54 1,3-Dichloropropane	76	6.982	6.981	(0.911)	159046	21.2405	1062.02
	55 Dibromochloromethane	129	7.177	7.176	(0.936)	112222	20.4392	1021.96
	56 Tetrachloroethene	164	6.925	6.929	(0.903)	107006	27.2738	1363.68
	57 1,2-Dibromoethane	107	7.259	7.259	(0.947)	101318	21.3016	1065.07
	58 1-Chlorohexane	55	7.694	7.694	(1.551)	103567	28.1919	1409.59
	59 Chlorobenzene	112	7.690	7.694	(1.003)	290321	21.5853	1079.26
	60 1,1,1,2-Tetrachloroethane	131	7.773	7.772	(1.014)	107669	21.5107	1075.53
	61 Ethylbenzene	106	7.799	7.799	(1.017)	155434	24.5333	1226.66
	62 m,p-Xylenes	106	7.904	7.904	(1.031)	384503	47.0780	2353.90
	63 o-Xylene	106	8.241	8.241	(1.075)	184289	22.8615	1143.07
	64 Styrene	104	8.260	8.256	(1.077)	310832	23.0052	1150.25
	66 Bromoform	173	8.410	8.410	(1.097)	76606	20.1397	1006.98
	67 Isopropylbenzene	105	8.560	8.560	(1.116)	483334	26.2444	1312.21
	68 1,1,2,2-Tetrachloroethane	83	8.837	8.837	(0.915)	126885	21.3511	1067.55
$	69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	313494	49.4739	49.47
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	372856	50.0000	

71 1,2,3-Trichloropropane	75	8.863	8.863 (0.917)	98832	23.8218	1191.08(M)
73 n-Propylbenzene	91	8.912	8.912 (0.922)	565549	27.3835	1369.17

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
	74 Bromobenzene	156	8.807	8.803	(0.912)	136484	22.3113	1115.56
	75 1,3,5-Trimethylbenzene	105	9.066	9.066	(0.938)	403395	26.4400	1322.00
	76 2-Chlorotoluene	91	8.972	8.972	(0.929)	335129	24.7279	1236.39
	77 4-Chlorotoluene	91	9.070	9.069	(0.939)	383512	24.8230	1241.14
	78 tert-Butylbenzene	119	9.336	9.336	(0.966)	351275	28.1271	1406.35
	79 1,2,4-Trimethylbenzene	105	9.377	9.381	(0.971)	400979	24.9778	1248.88
	81 sec-Butylbenzene	105	9.519	9.523	(0.985)	489171	29.4383	1471.91
	82 p-Isopropyltoluene	119	9.647	9.651	(0.998)	432143	29.0218	1451.09
	83 1,3-Dichlorobenzene	146	9.606	9.606	(0.994)	244586	24.0894	1204.46
	84 1,4-Dichlorobenzene	146	9.681	9.680	(1.002)	256446	23.1459	1157.29
	87 n-Butylbenzene	91	9.995	9.992	(1.035)	376232	27.0619	1353.09
	88 1,2-Dichlorobenzene	146	9.992	9.992	(1.034)	238722	22.8294	1141.47
	89 1,2-Dibromo-3-Chloropropane	155	10.659	10.655	(1.103)	21171	22.3339	1116.69
	90 1,2,4-Trichlorobenzene	180	11.338	11.337	(1.173)	162660	24.6487	1232.43
	91 Hexachlorobutadiene	225	11.480	11.480	(1.188)	80642	27.6975	1384.87
	92 Naphthalene	128	11.544	11.540	(1.195)	354396	23.6033	1180.16
	93 1,2,3-Trichlorobenzene	180	11.742	11.742	(1.215)	149003	23.5754	1178.77
M	94 1,2-Dichloroethylene (total)	96				205338	40.4549	2022.74
M	95 Xylenes (total)	106				568792	69.9395	3496.97
	141 Cyclohexane	56	4.118	4.118	(0.986)	154737	28.9652	1448.26
	138 Freon TF	101	1.910	1.910	(0.457)	103033	25.9861	1299.30
	147 Methylcyclohexane	55	5.377	5.377	(1.084)	231466	24.8752	1243.76
	146 Methyl Acetate	43	2.228	2.228	(0.533)	49823	20.4992	1024.96
	148 Tert-Butyl alcohol	59	2.423	2.419	(0.580)	152639	408.119	20405.93
	149 Isopropyl Alcohol	45	2.090	2.086	(0.500)	81502	417.265	20863.26

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
exceeded maximum amount.
M - Compound response manually integrated.



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230117.b\X011719.D
Date : 17-JAN-2023 16:37
Client ID: HS23010472-04HS
Sample Info: HS23010472-04HS;HS23010472-04HS;3;;HS
Purge Volume: 5.0
Column phase: DB624

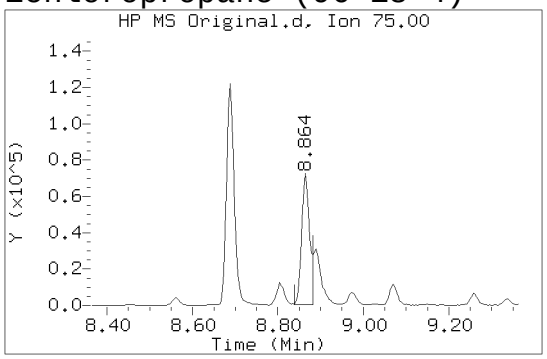
Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File : \\NAHSTWS005\Target\chem\voa6.i\X230117.b\X011719.D
Inj Date : 17-JAN-2023 16:37
InstruID : voa6.i
LabSampID : HS23010472-04MS

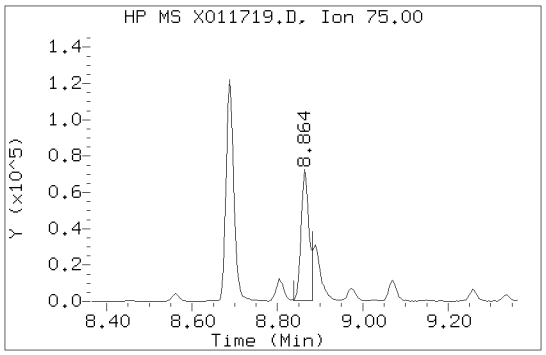
1,2,3-Trichloropropane (96-18-4)

Reason Code:

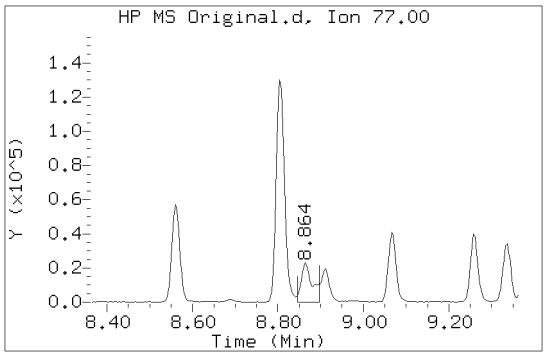
BEFORE
MASS
75
AREA
98832
HEIGHT
72378
25-Jan-2023
10:03
linh
pham



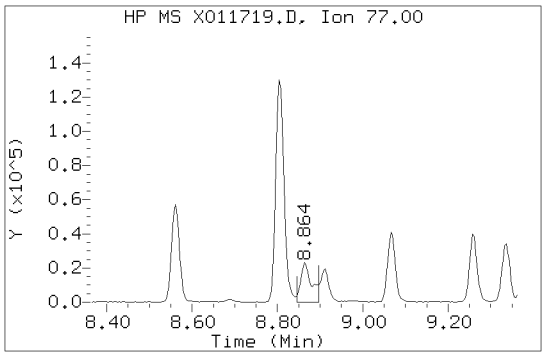
AFTER
MASS
75
AREA
98832
HEIGHT
72378
25-Jan-2023
10:03
linh
pham



BEFORE
MASS
77
AREA
42830
HEIGHT
23082
25-Jan-2023
10:03
linh
pham



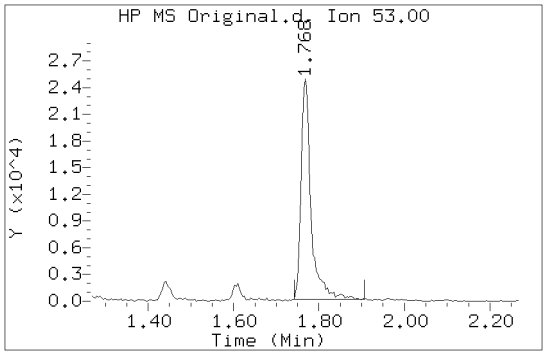
AFTER
MASS
77
AREA
42830
HEIGHT
23082
25-Jan-2023
10:03
linh
pham



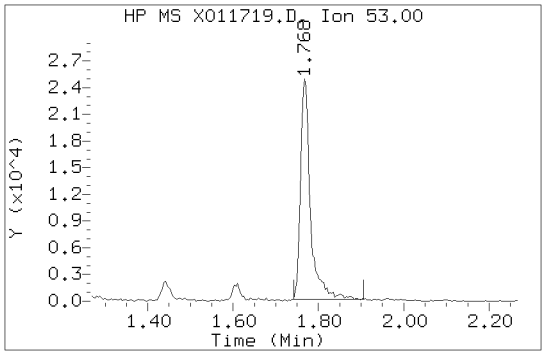
Chloroprene (126-99-8)

Reason Code:

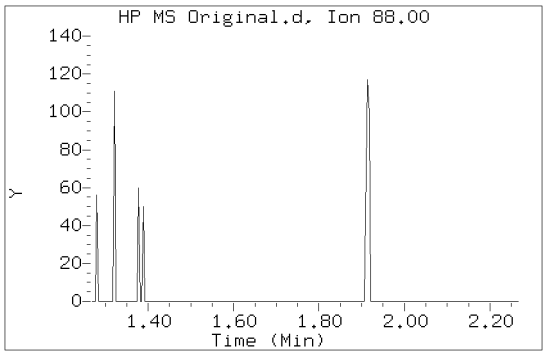
BEFORE
MASS
53
AREA
41241
HEIGHT
24767
25-Jan-2023
10:03
linh
pham



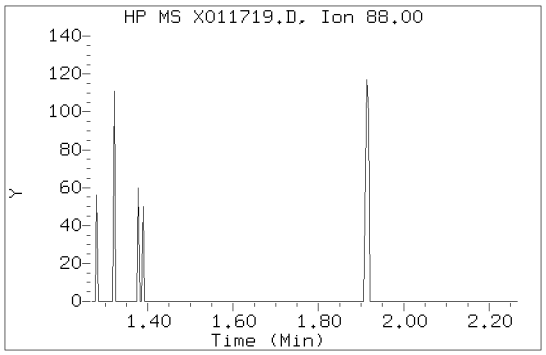
AFTER
MASS
53
AREA
41241
HEIGHT
24767
25-Jan-2023
10:03
linh
pham



BEFORE
MASS
88
AREA
0
HEIGHT
0
25-Jan-2023
10:03
linh
pham



AFTER
MASS
88
AREA
0
HEIGHT
0
25-Jan-2023
10:03
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230117.b\X011720.D Page 1
Report Date: 25-Jan-2023 10:03

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230117.b\X011720.D
Lab Smp Id: HS23010472-04MSD Client Smp ID: HS23010472-04MSD
Inj Date : 17-JAN-2023 16:58
Operator : PC Inst ID: voa6.i
Smp Info : HS23010472-04MSD;HS23010472-04MSD;3;;MSD
Misc Info : V6;WATER;0;50;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X230117.b\8260W.m
Meth Date : 25-Jan-2023 10:03 voa6.i Quant Type: ISTD
Cal Date : 16-DEC-2022 14:04 Cal File: X121608.D
Als bottle: 19 QC Sample: MSD
Dil Factor: 50.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	50.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.174	4.177	(1.000)	544635	50.0000	
135 1,4-Dioxane	88	5.598	5.598	(1.341)	19027	382.181	19109.04(a)
140 1,3-Butadiene	54	1.160	1.160	(0.278)	70911	18.9707	948.53
25 Methacrylonitrile	41	3.821	3.818	(0.916)	69504	18.0227	901.13
12 Isobutyl Alcohol	43	4.672	4.672	(1.119)	241683	394.524	19726.18
13 Acetonitrile	39	2.195	2.194	(0.526)	97949	197.603	9880.14
14 Allyl Chloride	41	2.195	2.194	(0.526)	176389	18.6839	934.19
4 Propionitrile	54	3.653	3.645	(0.875)	99050	178.236	8911.80(a)
72 trans-1,4-Dichloro-2-butene	53	8.890	8.886	(1.159)	30186	20.3332	1016.66
194 Acetaldehyde	44	1.209	1.209	(0.290)	71640	208.542	10427.09
23 Chloroprene	53	1.767	1.767	(0.423)	37957	20.4970	1024.85(M)
130 Ethyl Acetate	43	3.649	3.649	(0.874)	80385	18.9146	945.73
40 Methyl Methacrylate	41	5.606	5.602	(1.343)	70348	18.9433	947.16
49 Ethyl Methacrylate	69	6.712	6.708	(1.353)	65831	18.3215	916.07
131 Methyl Acrylate	55	3.686	3.683	(0.883)	76561	20.7056	1035.28
2 Dichlorodifluoromethane	85	0.969	0.969	(0.232)	64347	17.1525	857.62
3 Chloromethane	50	1.074	1.074	(0.257)	84092	18.5222	926.10
5 Vinyl Chloride	62	1.141	1.141	(0.273)	90618	19.0466	952.33
6 Bromomethane	94	1.336	1.336	(0.320)	64548	19.0687	953.43
7 Chloroethane	64	1.400	1.400	(0.335)	58811	17.7596	887.98

8	Trichlorofluoromethane	101	1.553	1.557 (0.372)	142962	21.4726	1073.62
9	Acrolein	56	1.437	1.445 (0.344)	14823	41.4947	2074.73

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
	10 Acetone	43	1.970	1.966	(0.472)	46880	30.6529	1532.64
	11 1,1-Dichloroethene	96	1.910	1.910	(0.458)	79573	19.2506	962.52
	15 Iodomethane	142	2.022	2.022	(0.485)	178557	35.8920	1794.60
	16 Acrylonitrile	53	2.532	2.528	(0.607)	54127	38.6089	1930.44
	17 Methylene Chloride	84	2.299	2.299	(0.551)	94794	16.7189	835.94
	18 Methyl tert-butyl ether	73	2.532	2.528	(0.607)	241401	17.8420	892.10
	19 Carbon Disulfide	76	2.063	2.067	(0.494)	403302	37.2916	1864.57
	20 trans-1,2-Dichloroethene	96	2.524	2.524	(0.605)	79959	17.2840	864.20
	21 Vinyl Acetate	43	2.993	2.993	(0.717)	450728	37.9495	1897.47
	22 1,1-Dichloroethane	63	2.918	2.918	(0.699)	139711	17.2079	860.39
	24 2-Butanone	43	3.578	3.574	(0.857)	50801	33.4169	1670.84
	26 2,2-Dichloropropane	77	3.507	3.506	(0.840)	126303	18.3220	916.10
	27 cis-1,2-Dichloroethene	96	3.522	3.521	(0.844)	96910	17.2132	860.65
	28 Chloroform	83	3.900	3.900	(0.934)	155544	17.0929	854.64
	29 Bromochloromethane	128	3.788	3.788	(0.908)	49513	16.0624	803.12
$	30 Dibromofluoromethane	113	4.095	4.091	(0.981)	230762	44.1068	44.10
	31 1,1,1-Trichloroethane	97	4.080	4.076	(0.978)	141282	19.5683	978.41
	32 1,1-Dichloropropene	75	4.275	4.275	(0.862)	122795	22.6682	1133.41
	33 1,2-Dichloroethane	62	4.552	4.552	(0.918)	117736	18.8327	941.63
	34 Carbon Tetrachloride	117	4.260	4.260	(0.859)	121905	21.0739	1053.69
$	35 1,2-Dichloroethane-d4	65	4.466	4.466	(1.070)	258253	46.8047	46.80
*	36 1,4-Difluorobenzene	114	4.961	4.965	(1.000)	763020	50.0000	
	37 Benzene	78	4.507	4.507	(0.909)	347354	19.0637	953.18
	38 Trichloroethene	130	5.205	5.201	(1.049)	2001496	387.287	19364.36(A)
	39 Bromodichloromethane	83	5.726	5.722	(1.154)	122078	17.8526	892.62
	41 2-Chloroethylvinyl ether	63	6.048	6.044	(1.219)	42342	21.7651	1088.25
	42 1,2-Dichloropropane	63	5.433	5.433	(1.095)	89373	18.4395	921.97
	44 Dibromomethane	93	5.553	5.549	(1.119)	59656	18.1084	905.41
	45 4-Methyl-2-Pentanone	43	6.322	6.322	(0.824)	149908	40.7832	2039.15
	46 cis-1,3-Dichloropropene	75	6.153	6.153	(1.240)	145766	18.1508	907.54
*	47 Chlorobenzene-d5	117	7.668	7.667	(1.000)	687695	50.0000	
$	48 Toluene-d8	98	6.385	6.385	(0.833)	890639	52.4108	52.41
	50 Toluene	91	6.445	6.445	(0.841)	383488	20.1750	1008.74
	51 trans-1,3-Dichloropropene	75	6.682	6.682	(1.347)	124557	18.6893	934.46
	52 2-Hexanone	43	7.086	7.086	(0.924)	101719	40.6738	2033.69
	53 1,1,2-Trichloroethane	83	6.839	6.839	(0.892)	71111	18.6479	932.39
	54 1,3-Dichloropropane	76	6.982	6.981	(0.911)	146287	19.4896	974.48
	55 Dibromochloromethane	129	7.176	7.176	(0.936)	104495	18.9862	949.30
	56 Tetrachloroethene	164	6.925	6.929	(0.903)	94439	24.0129	1200.64
	57 1,2-Dibromoethane	107	7.259	7.259	(0.947)	92508	19.4026	970.12
	58 1-Chlorohexane	55	7.694	7.694	(1.551)	92077	24.9705	1248.52
	59 Chlorobenzene	112	7.694	7.694	(1.003)	259608	19.2554	962.77
	60 1,1,1,2-Tetrachloroethane	131	7.772	7.772	(1.014)	95417	19.0171	950.85
	61 Ethylbenzene	106	7.799	7.799	(1.017)	134702	21.2100	1060.49
	62 m,p-Xylenes	106	7.904	7.904	(1.031)	342394	41.8216	2091.07
	63 o-Xylene	106	8.241	8.241	(1.075)	165408	20.4700	1023.49
	64 Styrene	104	8.260	8.256	(1.077)	275685	20.3549	1017.74
	66 Bromoform	173	8.410	8.410	(1.097)	70464	18.4804	924.02
	67 Isopropylbenzene	105	8.560	8.560	(1.116)	426227	23.0880	1154.39
	68 1,1,2,2-Tetrachloroethane	83	8.837	8.837	(0.915)	116596	19.3922	969.61
$	69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	315411	49.6566	49.65
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	377231	50.0000	

71 1,2,3-Trichloropropane	75	8.863	8.863 (0.917)	84942	20.2364	1011.81(M)
73 n-Propylbenzene	91	8.912	8.912 (0.922)	497321	23.8006	1190.03

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
	74 Bromobenzene	156	8.803	8.803	(0.911)	124556	20.1252	1006.26
	75 1,3,5-Trimethylbenzene	105	9.066	9.066	(0.938)	357810	23.1802	1159.01
	76 2-Chlorotoluene	91	8.972	8.972	(0.929)	296741	21.6415	1082.07
	77 4-Chlorotoluene	91	9.070	9.069	(0.939)	341008	21.8159	1090.79
	78 tert-Butylbenzene	119	9.336	9.336	(0.966)	309047	24.4589	1222.94
	79 1,2,4-Trimethylbenzene	105	9.381	9.381	(0.971)	359391	22.1275	1106.37
	81 sec-Butylbenzene	105	9.519	9.523	(0.985)	433784	25.8023	1290.11
	82 p-Isopropyltoluene	119	9.647	9.651	(0.998)	379482	25.1897	1259.48
	83 1,3-Dichlorobenzene	146	9.606	9.606	(0.994)	216720	21.0973	1054.86
	84 1,4-Dichlorobenzene	146	9.681	9.680	(1.002)	229492	20.4729	1023.64
	87 n-Butylbenzene	91	9.995	9.992	(1.035)	338577	24.2673	1213.36
	88 1,2-Dichlorobenzene	146	9.992	9.992	(1.034)	216548	20.4687	1023.43
	89 1,2-Dibromo-3-Chloropropane	155	10.659	10.655	(1.103)	18737	19.5485	977.42
	90 1,2,4-Trichlorobenzene	180	11.337	11.337	(1.173)	151467	22.6863	1134.31
	91 Hexachlorobutadiene	225	11.480	11.480	(1.188)	73364	24.9167	1245.83
	92 Naphthalene	128	11.544	11.540	(1.195)	336037	22.1210	1106.05
	93 1,2,3-Trichlorobenzene	180	11.742	11.742	(1.215)	139334	21.7899	1089.49
M	94 1,2-Dichloroethylene (total)	96				176869	34.4972	1724.86
M	95 Xylenes (total)	106				507802	62.2915	3114.57
	141 Cyclohexane	56	4.118	4.118	(0.987)	134309	25.1091	1255.45
	138 Freon TF	101	1.910	1.910	(0.458)	87283	21.8319	1091.59
	147 Methylcyclohexane	55	5.377	5.377	(1.084)	212638	22.7664	1138.31
	146 Methyl Acetate	43	2.228	2.228	(0.534)	43998	17.9530	897.64
	148 Tert-Butyl alcohol	59	2.423	2.419	(0.581)	148470	393.691	19684.56
	149 Isopropyl Alcohol	45	2.090	2.086	(0.501)	80611	409.293	20464.65

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
exceeded maximum amount.
M - Compound response manually integrated.

01181752

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230117.b\X011720.D

Date : 17-JAN-2023 16:58

Client ID: HS23010472-04MSD

Instrument: voa6.i

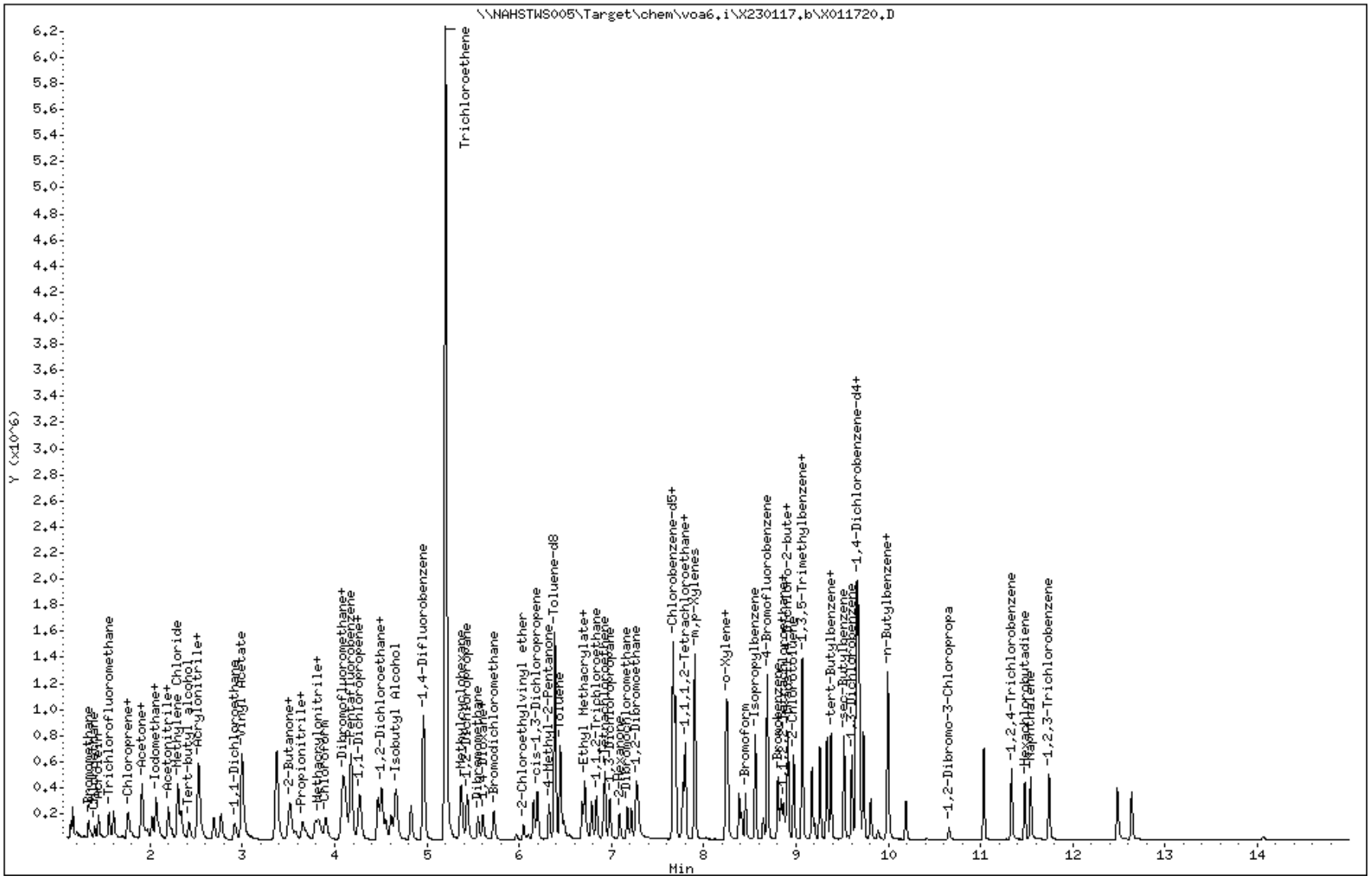
Sample Info: HS23010472-04MSD;HS23010472-04MSD;3;;MSD

Purge Volume: 5.0

Operator: PC

Column phase: DB624

Column diameter: 0.18



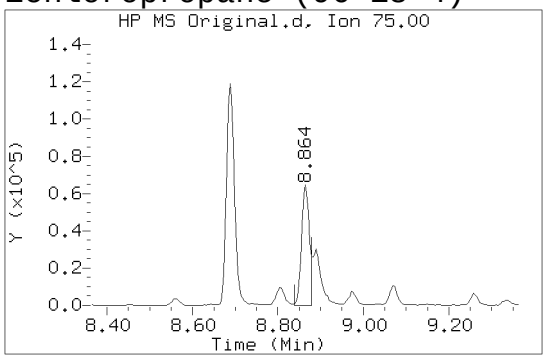
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230117.b\X011720.D
Inj Date : 17-JAN-2023 16:58
InstruID : voa6.i
LabSampID : HS23010472-04MSD

1,2,3-Trichloropropane (96-18-4)

Reason Code:

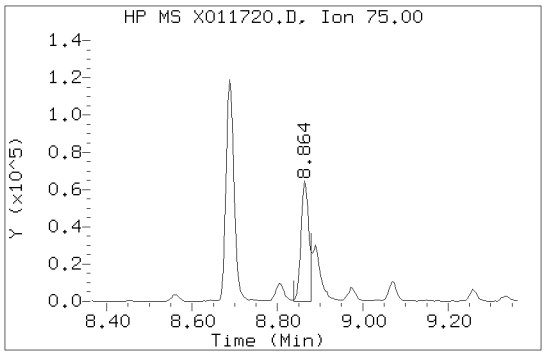
BEFORE

MASS
75
AREA
84942
HEIGHT
64520
25-Jan-2023
10:03
linh
pham



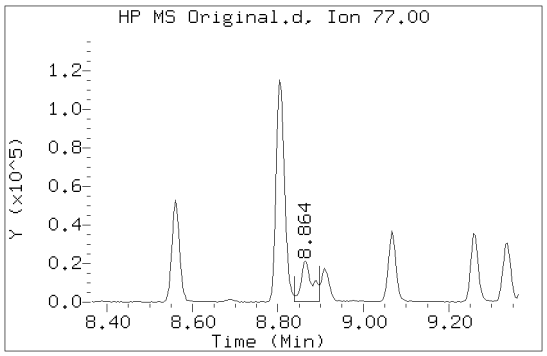
AFTER

MASS
75
AREA
84942
HEIGHT
64520
25-Jan-2023
10:03
linh
pham



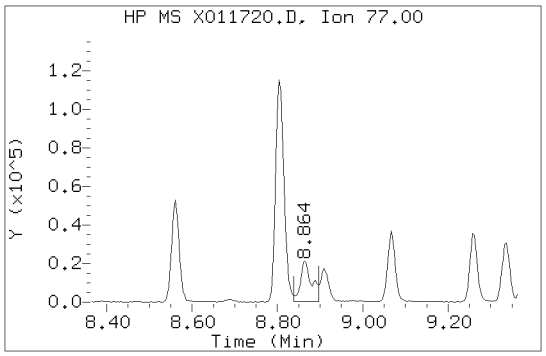
BEFORE

MASS
77
AREA
40498
HEIGHT
20886
25-Jan-2023
10:03
linh
pham



AFTER

MASS
77
AREA
40498
HEIGHT
20886
25-Jan-2023
10:03
linh
pham

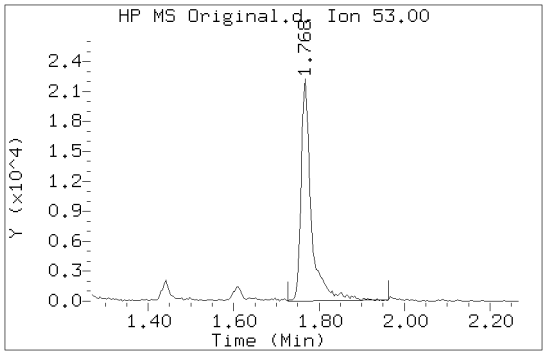


Chloroprene (126-99-8)

Reason Code:

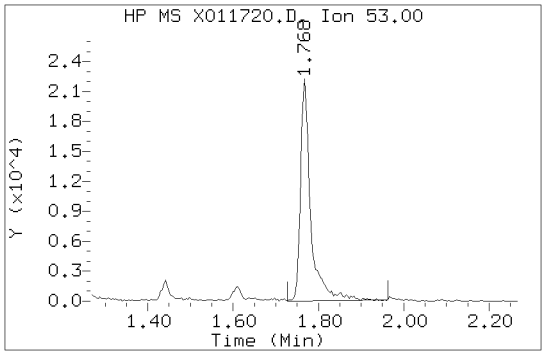
BEFORE

MASS
53
AREA
37957
HEIGHT
22231
25-Jan-2023
10:03
linh
pham



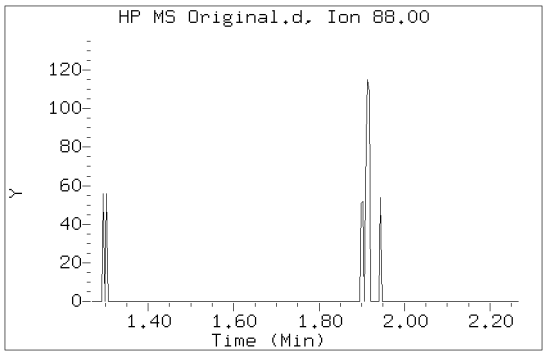
AFTER

MASS
53
AREA
37957
HEIGHT
22231
25-Jan-2023
10:03
linh
pham



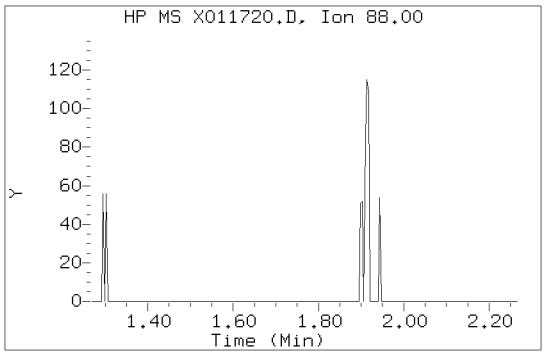
BEFORE

MASS
88
AREA
0
HEIGHT
0
25-Jan-2023
10:03
linh
pham



AFTER

MASS
88
AREA
0
HEIGHT
0
25-Jan-2023
10:03
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230117.b\X011723.D Page 1
Report Date: 25-Jan-2023 10:03

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230117.b\X011723.D
Lab Smp Id: CCV-END Client Smp ID: CCV-END
Inj Date : 17-JAN-2023 18:01
Operator : PC Inst ID: voa6.i
Smp Info : CCV-END;CCV-END;2;;
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X230117.b\8260W.m
Meth Date : 25-Jan-2023 10:03 voa6.i Quant Type: ISTD
Cal Date : 16-DEC-2022 14:04 Cal File: X121608.D
Als bottle: 22 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.178	4.178	(1.000)	454603	50.0000	
135 1,4-Dioxane	88	5.595	5.595	(1.339)	47534	1000.00	1143.86
140 1,3-Butadiene	54	1.160	1.160	(0.278)	141543	50.0000	45.36
25 Methacrylonitrile	41	3.818	3.818	(0.914)	172133	50.0000	53.47
12 Isobutyl Alcohol	43	4.672	4.672	(1.118)	568708	1000.00	1112.21
13 Acetonitrile	39	2.195	2.195	(0.525)	214846	500.000	519.27
14 Allyl Chloride	41	2.195	2.195	(0.525)	393763	50.0000	49.96
4 Propionitrile	54	3.645	3.645	(0.873)	252087	500.000	543.45
72 trans-1,4-Dichloro-2-butene	53	8.890	8.890	(1.159)	75588	50.0000	53.14
194 Acetaldehyde	44	1.209	1.209	(0.289)	89344	200.000	323.09
23 Chloroprene	53	1.771	1.771	(0.424)	65010	50.0000	42.05(M)
130 Ethyl Acetate	43	3.649	3.649	(0.873)	203546	50.0000	57.37
40 Methyl Methacrylate	41	5.602	5.602	(1.341)	170834	50.0000	55.11
49 Ethyl Methacrylate	69	6.708	6.708	(1.352)	182182	50.0000	56.56
131 Methyl Acrylate	55	3.679	3.679	(0.881)	209560	50.0000	67.89
2 Dichlorodifluoromethane	85	0.969	0.969	(0.232)	131288	50.0000	41.36
3 Chloromethane	50	1.074	1.074	(0.257)	185740	50.0000	45.37
5 Vinyl Chloride	62	1.141	1.141	(0.273)	184217	50.0000	46.38
6 Bromomethane	94	1.336	1.336	(0.320)	137091	50.0000	45.79
7 Chloroethane	64	1.400	1.400	(0.335)	123844	50.0000	44.80

8	Trichlorofluoromethane	101	1.557	1.557 (0.373)	273472	50.0000	49.20
9	Acrolein	56	1.441	1.441 (0.345)	27177	100.000	87.76

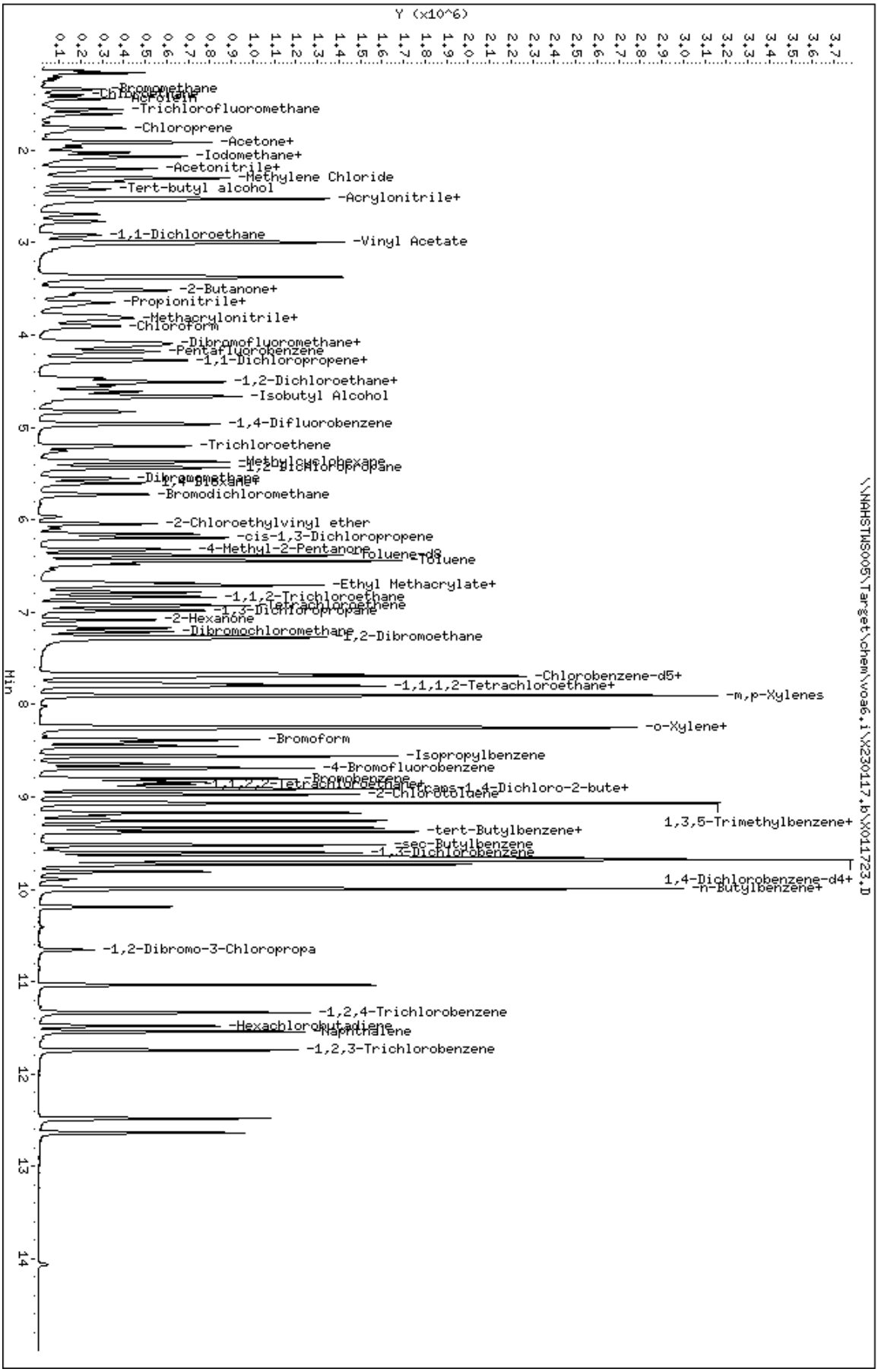
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	10 Acetone	43	1.966	1.966	(0.471)	148203	100.000	116.19
	11 1,1-Dichloroethene	96	1.910	1.910	(0.457)	163826	50.0000	47.48
	15 Iodomethane	142	2.022	2.022	(0.484)	434762	100.000	95.92
	16 Acrylonitrile	53	2.528	2.528	(0.605)	128879	100.000	110.13
	17 Methylene Chloride	84	2.300	2.300	(0.550)	210102	50.0000	44.39
	18 Methyl tert-butyl ether	73	2.528	2.528	(0.605)	553693	50.0000	49.02
	19 Carbon Disulfide	76	2.067	2.067	(0.495)	846025	100.000	93.72
	20 trans-1,2-Dichloroethene	96	2.524	2.524	(0.604)	181679	50.0000	47.04
	21 Vinyl Acetate	43	2.993	2.993	(0.716)	960193	100.000	96.85
	22 1,1-Dichloroethane	63	2.918	2.918	(0.699)	315168	50.0000	46.50
	24 2-Butanone	43	3.570	3.570	(0.855)	153270	100.000	112.87
	26 2,2-Dichloropropane	77	3.503	3.503	(0.838)	259379	50.0000	45.07
	27 cis-1,2-Dichloroethene	96	3.522	3.522	(0.843)	210845	50.0000	44.86
	28 Chloroform	83	3.904	3.904	(0.935)	354336	50.0000	46.65
	29 Bromochloromethane	128	3.788	3.788	(0.907)	114868	50.0000	44.64
$	30 Dibromofluoromethane	113	4.095	4.095	(0.980)	214507	50.0000	49.13
	31 1,1,1-Trichloroethane	97	4.080	4.080	(0.977)	293017	50.0000	48.62
	32 1,1-Dichloropropene	75	4.279	4.279	(0.862)	247328	50.0000	50.93
	33 1,2-Dichloroethane	62	4.552	4.552	(0.918)	282935	50.0000	50.48
	34 Carbon Tetrachloride	117	4.264	4.264	(0.859)	243030	50.0000	46.86
$	35 1,2-Dichloroethane-d4	65	4.466	4.466	(1.069)	237547	50.0000	51.55
*	36 1,4-Difluorobenzene	114	4.961	4.961	(1.000)	684003	50.0000	
	37 Benzene	78	4.511	4.511	(0.909)	785813	50.0000	48.10
	38 Trichloroethene	130	5.205	5.205	(1.049)	228040	50.0000	49.22
	39 Bromodichloromethane	83	5.726	5.726	(1.154)	285728	50.0000	46.61
	41 2-Chloroethylvinyl ether	63	6.044	6.044	(1.218)	206639	100.000	118.48
	42 1,2-Dichloropropane	63	5.433	5.433	(1.095)	206117	50.0000	47.43
	44 Dibromomethane	93	5.550	5.550	(1.119)	140951	50.0000	47.72
	45 4-Methyl-2-Pentanone	43	6.322	6.322	(0.824)	390147	100.000	110.78
	46 cis-1,3-Dichloropropene	75	6.153	6.153	(1.240)	350114	50.0000	48.63
*	47 Chlorobenzene-d5	117	7.668	7.668	(1.000)	658867	50.0000	
$	48 Toluene-d8	98	6.386	6.386	(0.833)	806550	50.0000	49.53
	50 Toluene	91	6.446	6.446	(0.841)	865085	50.0000	47.50
	51 trans-1,3-Dichloropropene	75	6.678	6.678	(1.346)	302072	50.0000	50.56
	52 2-Hexanone	43	7.087	7.087	(0.924)	279221	100.000	116.53
	53 1,1,2-Trichloroethane	83	6.839	6.839	(0.892)	175405	50.0000	48.01
	54 1,3-Dichloropropane	76	6.982	6.982	(0.911)	351231	50.0000	48.84
	55 Dibromochloromethane	129	7.173	7.173	(0.935)	254942	50.0000	48.34
	56 Tetrachloroethene	164	6.925	6.925	(0.903)	177934	50.0000	47.22
	57 1,2-Dibromoethane	107	7.259	7.259	(0.947)	231559	50.0000	50.69
	58 1-Chlorohexane	55	7.694	7.694	(1.551)	158967	50.0000	48.09
	59 Chlorobenzene	112	7.694	7.694	(1.003)	597866	50.0000	46.28
	60 1,1,1,2-Tetrachloroethane	131	7.773	7.773	(1.014)	228309	50.0000	47.49
	61 Ethylbenzene	106	7.799	7.799	(1.017)	292432	50.0000	48.06
	62 m,p-Xylenes	106	7.904	7.904	(1.031)	743451	100.000	94.78
	63 o-Xylene	106	8.241	8.241	(1.075)	366497	50.0000	47.34
	64 Styrene	104	8.256	8.256	(1.077)	649814	50.0000	50.07
	66 Bromoform	173	8.410	8.410	(1.097)	184192	50.0000	50.42
	67 Isopropylbenzene	105	8.560	8.560	(1.116)	884708	50.0000	50.01
	68 1,1,2,2-Tetrachloroethane	83	8.837	8.837	(0.915)	288657	50.0000	46.71
$	69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	310765	50.0000	51.06
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	387695	50.0000	

71 1,2,3-Trichloropropane	75	8.863	8.863 (0.917)	223403	50.0000	51.78(M)
73 n-Propylbenzene	91	8.912	8.912 (0.922)	1049763	50.0000	48.88

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	
	74 Bromobenzene	156	8.803	8.803	(0.911)	286291	50.0000	45.00	
	75 1,3,5-Trimethylbenzene	105	9.066	9.066	(0.938)	777532	50.0000	49.01	
	76 2-Chlorotoluene	91	8.972	8.972	(0.929)	657640	50.0000	46.66	
	77 4-Chlorotoluene	91	9.070	9.070	(0.939)	773090	50.0000	48.12	
	78 tert-Butylbenzene	119	9.336	9.336	(0.966)	633966	50.0000	48.81	
	79 1,2,4-Trimethylbenzene	105	9.377	9.377	(0.971)	799077	50.0000	47.87	
	81 sec-Butylbenzene	105	9.519	9.519	(0.985)	875721	50.0000	50.68	
	82 p-Isopropyltoluene	119	9.647	9.647	(0.998)	793735	50.0000	51.26	
	83 1,3-Dichlorobenzene	146	9.606	9.606	(0.994)	501370	50.0000	47.49	
	84 1,4-Dichlorobenzene	146	9.681	9.681	(1.002)	536401	50.0000	46.56	
	87 n-Butylbenzene	91	9.992	9.992	(1.034)	700378	50.0000	47.04	
	88 1,2-Dichlorobenzene	146	9.992	9.992	(1.034)	514272	50.0000	47.29	
	89 1,2-Dibromo-3-Chloropropane	155	10.655	10.655	(1.103)	51011	50.0000	51.63	
	90 1,2,4-Trichlorobenzene	180	11.338	11.338	(1.173)	352022	50.0000	51.30	
	91 Hexachlorobutadiene	225	11.480	11.480	(1.188)	137826	50.0000	45.36	
	92 Naphthalene	128	11.540	11.540	(1.194)	825380	50.0000	52.86	
	93 1,2,3-Trichlorobenzene	180	11.739	11.739	(1.215)	334489	50.0000	50.89	
M	94 1,2-Dichloroethylene (total)	96				392524	100.000		(a)
	141 Cyclohexane	56	4.121	4.121	(0.987)	216921	50.0000	47.40	
	138 Freon TF	101	1.913	1.913	(0.458)	153320	50.0000	45.94	
	147 Methylcyclohexane	55	5.377	5.377	(1.084)	467227	50.0000	55.80	
	146 Methyl Acetate	43	2.228	2.228	(0.533)	113351	50.0000	55.41	
	148 Tert-Butyl alcohol	59	2.423	2.423	(0.580)	375108	1000.00	1191.64	
	149 Isopropyl Alcohol	45	2.086	2.086	(0.499)	204190	1000.00	1242.07	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230117.b\X011723.D
Date : 17-JAN-2023 18:01
Client ID: CCV-END
Sample Info: CCV-END;CCV-END;2;;
Purge Volume: 5.0
Column phase: DB624

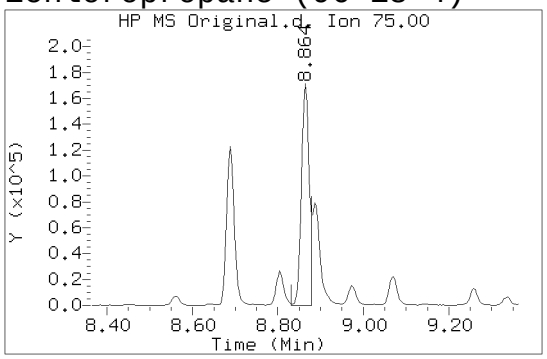
Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File : \\NAHSTWS005\Target\chem\voa6.i\X230117.b\X011723.D
Inj Date : 17-JAN-2023 18:01
InstruID : voa6.i
LabSampID : CCV-END

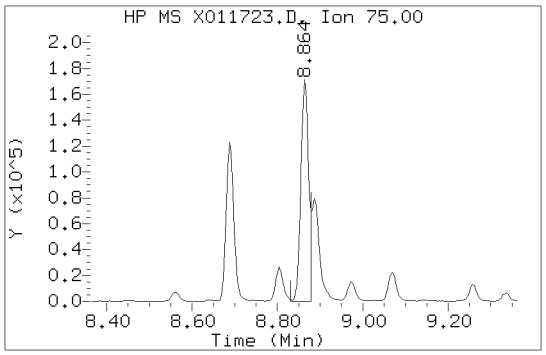
1,2,3-Trichloropropane (96-18-4)

Reason Code:

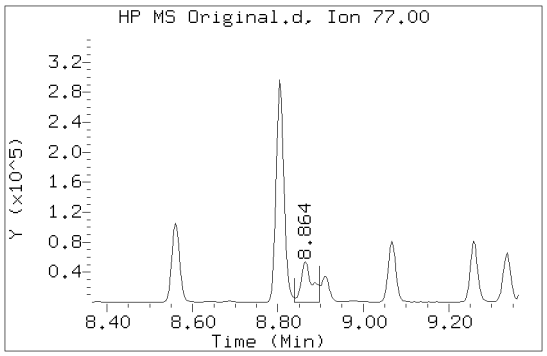
BEFORE
MASS
75
AREA
223403
HEIGHT
171095
25-Jan-2023
10:03
linh
pham



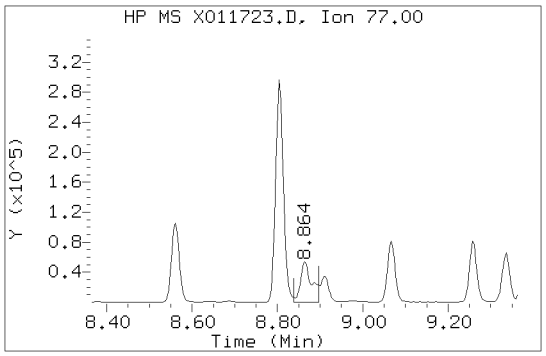
AFTER
MASS
75
AREA
223403
HEIGHT
171095
25-Jan-2023
10:03
linh
pham



BEFORE
MASS
77
AREA
102228
HEIGHT
54076
25-Jan-2023
10:03
linh
pham



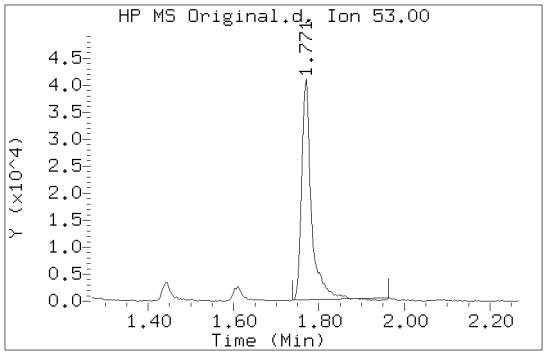
AFTER
MASS
77
AREA
102228
HEIGHT
54076
25-Jan-2023
10:03
linh
pham



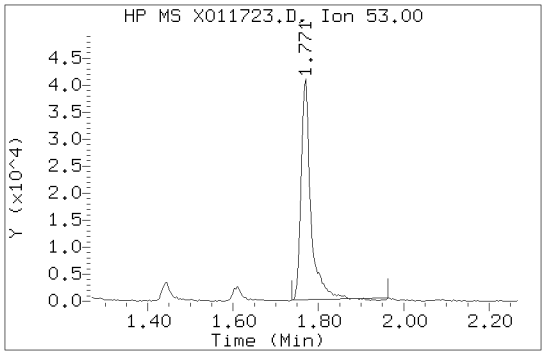
Chloroprene (126-99-8)

Reason Code:

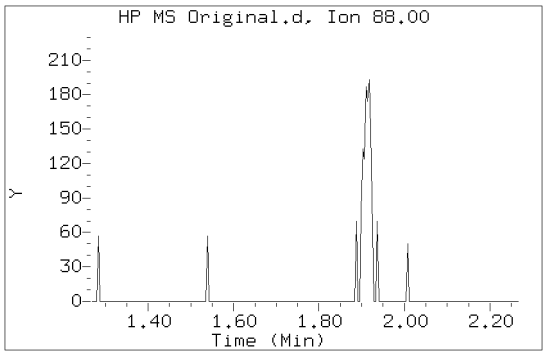
BEFORE
MASS
53
AREA
65010
HEIGHT
40875
25-Jan-2023
10:03
linh
pham



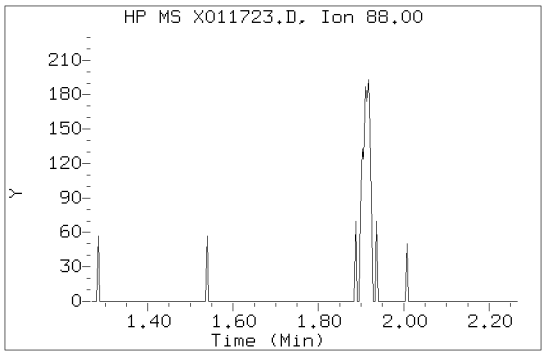
AFTER
MASS
53
AREA
65010
HEIGHT
40875
25-Jan-2023
10:03
linh
pham



BEFORE
MASS
88
AREA
0
HEIGHT
0
25-Jan-2023
10:03
linh
pham



AFTER
MASS
88
AREA
0
HEIGHT
0
25-Jan-2023
10:03
linh
pham



01181761

right solutions.
right partner.

Raw Data VOA6 426067

Volatiles by by EPA 8260

Workorder

HS23010632

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 18 24

01/31/2023

ALS Environmental–Houston Laboratory

10450 Stancliff Road, Suite 210, Houston, TX 77099

Phone (281) 530-5656 Fax (281) 530-5887

www.alsglobal.com

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230118.b\X011801.D Page 1
Report Date: 18-Jan-2023 12:01

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230118.b\X011801.D
Lab Smp Id: BFB Client Smp ID: BFB
Inj Date : 18-JAN-2023 11:06
Operator : PC Inst ID: voa6.i
Smp Info : BFB;BFB;3;;BFB
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X230118.b\bfb.m
Meth Date : 01-Dec-2022 12:59 Linh.Pham Quant Type: ISTD
Cal Date : Cal File:
Als bottle: 1 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14 Sample Matrix: WATER
Processing Host: NAHSTW7051

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vf	1.000	Volumetric correction factor
Vi	2.000	Injection Volume
Cpnd Variable		Local Compound Variable

					CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/l)		
RT	EXP RT	REL RT	MASS	RESPONSE			TARGET RANGE	RATIO
1 bfb							CAS #: 460-00-4	
8.687	8.889	(0.000)	95	62312			0.00- 100.00	100.00
8.687	8.889	(0.000)	50	12562			15.00- 40.00	20.16
8.687	8.889	(0.000)	75	31304			30.00- 60.00	50.24
8.687	8.889	(0.000)	96	3715			5.00- 9.00	5.96
8.687	8.889	(0.000)	173	307			0.00- 2.00	0.55
8.687	8.889	(0.000)	174	55672			50.00- 0.00	89.34
8.687	8.889	(0.000)	175	4556			5.00- 9.00	8.18
8.687	8.889	(0.000)	176	52904			95.00- 101.00	95.03
8.687	8.889	(0.000)	177	3924			5.00- 9.00	7.42

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	20.16
75	30.00 - 60.00% of mass 95	50.24
96	5.00 - 9.00% of mass 95	5.96
173	Less than 2.00% of mass 174	0.49 (0.55)
174	Greater than 50.00% of mass 95	89.34
175	5.00 - 9.00% of mass 174	7.31 (8.18)
176	95.00 - 101.00% of mass 174	84.90 (95.03)
177	5.00 - 9.00% of mass 176	6.30 (7.42)

Data File: X011801.D
Spectrum: Scan 2159 (8.68), Background Scan 2154
Location of Maximum: 95.00
Number of points: 81

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.10	666	69.00	4263	104.80	30	143.90	52
37.00	3305	72.00	635	106.60	279	144.90	121
38.00	2527	73.00	3196	108.80	60	145.80	95
44.10	110	74.00	9996	110.70	152	147.60	76
45.00	588	75.00	31304	111.80	202	148.00	83
45.80	82	75.90	2963	113.00	86	154.60	110
47.20	1109	76.90	295	115.90	291	154.90	128
47.80	518	78.00	74	116.80	253	156.80	139
48.90	2654	78.90	2212	117.70	498	158.90	66
50.00	12562	80.90	2252	118.80	397	160.80	86
51.00	3501	81.90	480	126.70	57	172.60	381
56.00	76	86.80	2832	127.80	323	172.90	307
57.00	2444	87.90	2849	128.70	209	173.90	55672
57.90	16	90.90	87	129.70	252	174.90	4556
59.90	675	91.90	1838	130.80	81	175.90	52904
61.00	3376	92.90	2551	134.80	132	176.90	3924
62.00	3210	94.00	7352	136.60	72	178.00	86
63.00	2266	95.00	62312	137.20	150	186.00	218
64.10	227	96.00	3715	140.90	777		
66.80	134	103.10	73	141.90	113		
68.00	6053	103.90	393	142.90	658		

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230118.b\X011801.D

Date : 18-JAN-2023 11:06

Client ID: BFB

Instrument: voa6.i

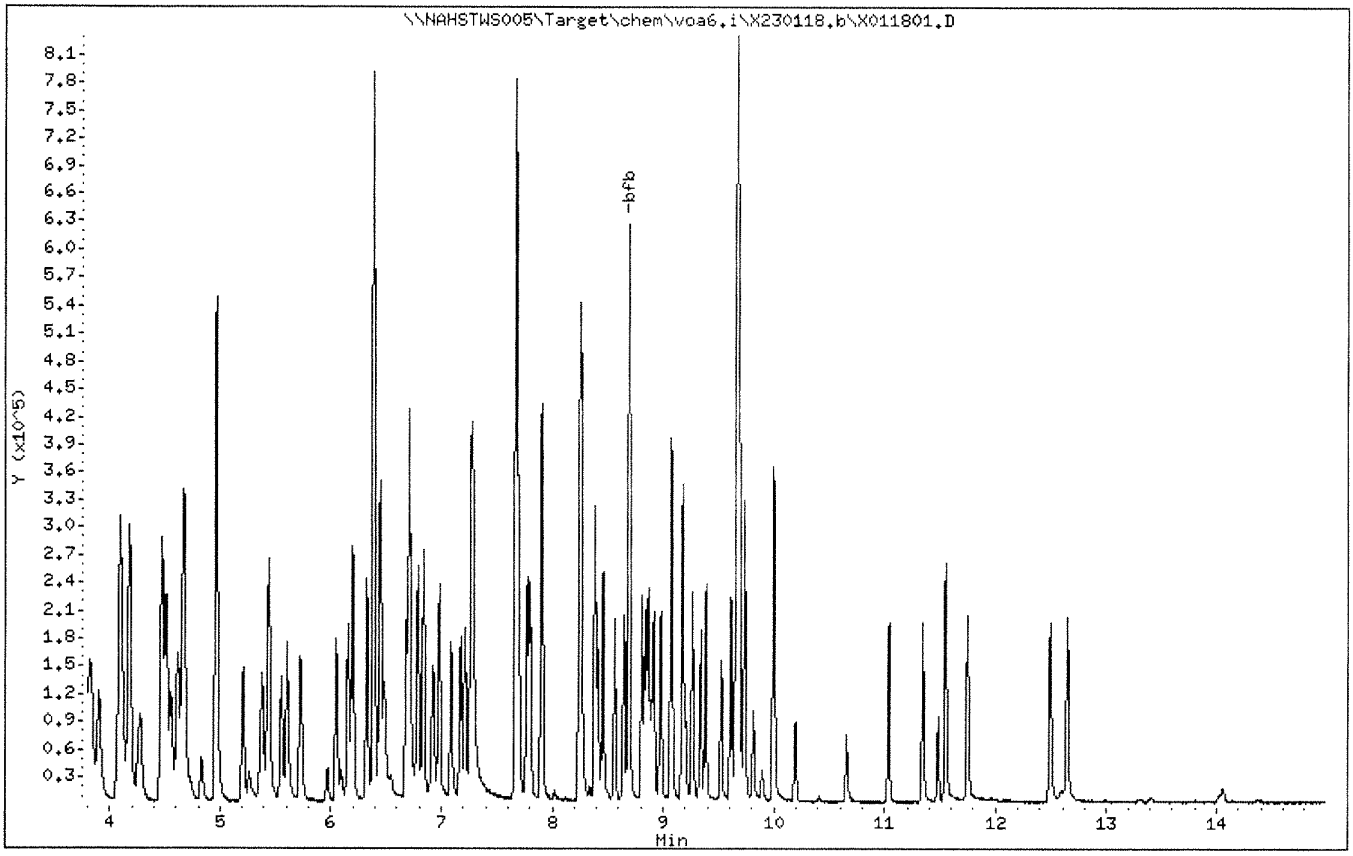
Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230118.b\X011801.D

Date : 18-JAN-2023 11:06

Client ID: BFB

Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

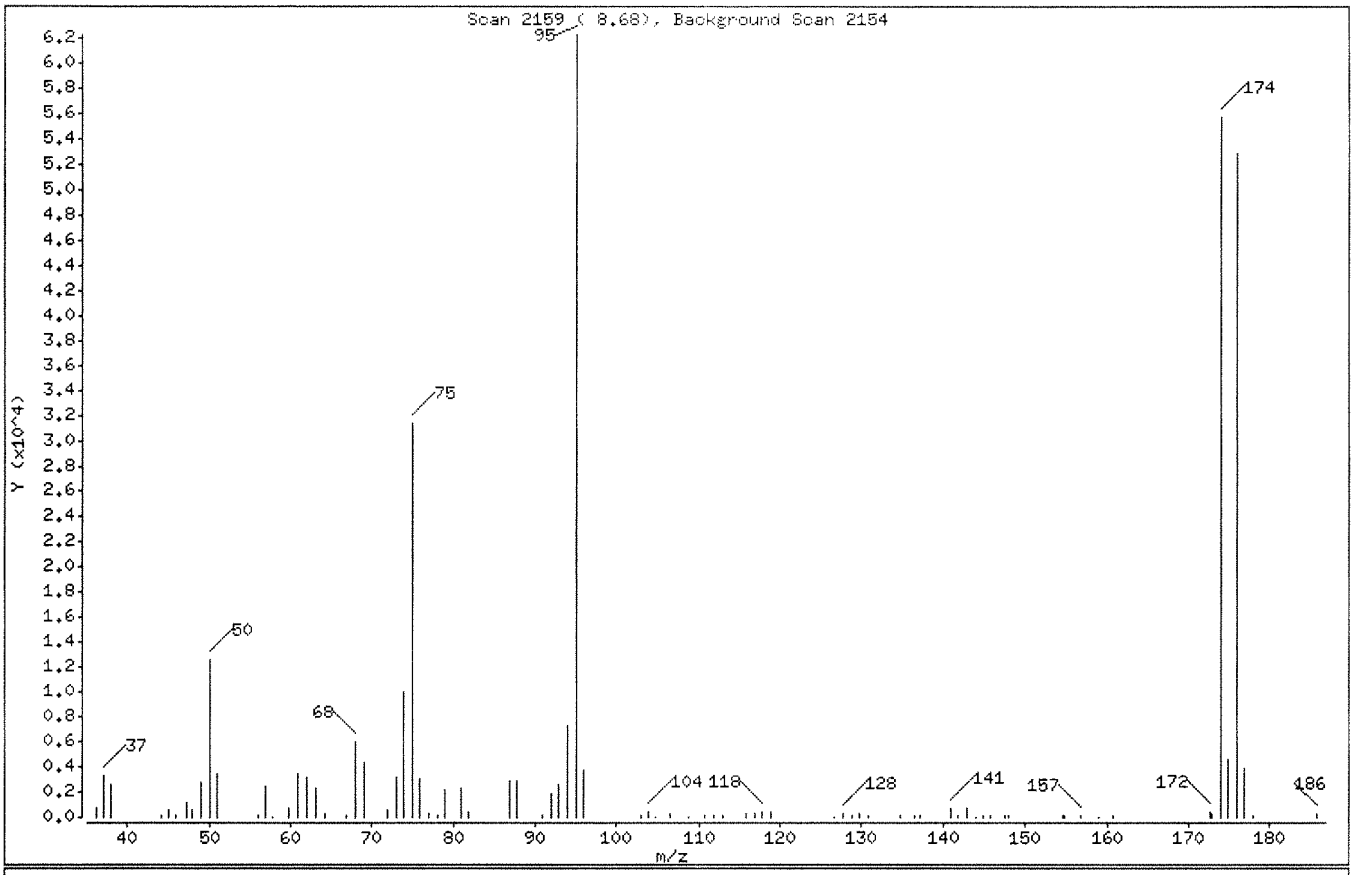
Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	20.16
75	30.00 - 60.00% of mass 95	50.24
96	5.00 - 9.00% of mass 95	5.96
173	Less than 2.00% of mass 174	0.49 (0.55)
174	Greater than 50.00% of mass 95	89.34
175	5.00 - 9.00% of mass 174	7.31 (8.18)
176	95.00 - 101.00% of mass 174	84.90 (95.03)
177	5.00 - 9.00% of mass 176	6.30 (7.42)

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230118.b\X011801.D

Date : 18-JAN-2023 11:06

Client ID: BFB

Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25

Data File: X011801.D
Spectrum: Scan 2159 (8.68), Background Scan 2154
Location of Maximum: 95.00
Number of points: 81

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.10	666	69.00	4263	104.80	30	143.90	52
37.00	3305	72.00	635	106.60	279	144.90	121
38.00	2527	73.00	3196	108.80	60	145.80	95
44.10	110	74.00	9996	110.70	152	147.60	76
45.00	588	75.00	31304	111.80	202	148.00	83
45.80	82	75.90	2963	113.00	86	154.60	110
47.20	1109	76.90	295	115.90	291	154.90	128
47.80	518	78.00	74	116.80	253	156.80	139
48.90	2654	78.90	2212	117.70	498	158.90	66
50.00	12562	80.90	2252	118.80	397	160.80	86
51.00	3501	81.90	480	126.70	57	172.60	381
56.00	76	86.80	2832	127.80	323	172.90	307
57.00	2444	87.90	2849	128.70	209	173.90	55672
57.90	16	90.90	87	129.70	252	174.90	4556
59.90	675	91.90	1838	130.80	81	175.90	52904
61.00	3376	92.90	2551	134.80	132	176.90	3924
62.00	3210	94.00	7352	136.60	72	178.00	86
63.00	2266	95.00	62312	137.20	150	186.00	218
64.10	227	96.00	3715	140.90	777		
66.80	134	103.10	73	141.90	113		
68.00	6053	103.90	393	142.90	658		

Data File : \\NAHSTWS005\Target\chem\voa6.i\X230118.b\X011801.D
Inj Date : 18-JAN-2023 11:06
InstruID : voa6.i
LabSampID : BFB

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230118.b\X011803.D Page 1
Report Date: 25-Jan-2023 10:05

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230118.b\X011803.D
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 18-JAN-2023 11:48
Operator : PC Inst ID: voa6.i
Smp Info : CCV;CCV;2;;
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X230118.b\8260W.m
Meth Date : 25-Jan-2023 10:05 voa6.i Quant Type: ISTD
Cal Date : 16-DEC-2022 14:04 Cal File: X121608.D
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.177	4.177	(1.000)	489424	50.0000	
135 1,4-Dioxane	88	5.598	5.598	(1.340)	46942	1000.00	1049.25
140 1,3-Butadiene	54	1.160	1.160	(0.278)	146309	50.0000	43.55
25 Methacrylonitrile	41	3.814	3.814	(0.913)	174531	50.0000	50.36
12 Isobutyl Alcohol	43	4.672	4.672	(1.118)	586950	1000.00	1066.22
13 Acetonitrile	39	2.194	2.194	(0.525)	216646	500.000	486.36
14 Allyl Chloride	41	2.194	2.194	(0.525)	409229	50.0000	48.23
4 Propionitrile	54	3.645	3.645	(0.873)	245492	500.000	491.58
72 trans-1,4-Dichloro-2-butene	53	8.890	8.890	(1.159)	79972	50.0000	53.18
194 Acetaldehyde	44	1.209	1.209	(0.289)	67587	200.000	220.09
23 Chloroprene	53	1.767	1.767	(0.423)	70567	50.0000	42.40(M)
130 Ethyl Acetate	43	3.649	3.649	(0.873)	208091	50.0000	54.48
40 Methyl Methacrylate	41	5.602	5.602	(1.341)	174845	50.0000	52.39
49 Ethyl Methacrylate	69	6.708	6.708	(1.351)	177350	50.0000	52.03
139 Diethyl ether	59	1.752	1.752	(0.419)	147672	50.0000	45.15
142 Tetrahydrofuran	42	3.840	3.840	(0.919)	64460	100.000	106.13
156 Diisopropyl ether	45	2.997	2.997	(0.717)	602379	50.0000	47.44
166 1,2,3-Trimethylbenzene	105	9.729	9.729	(1.007)	868613	50.0000	43.57
2 Dichlorodifluoromethane	85	0.969	0.969	(0.232)	160887	50.0000	47.02
3 Chloromethane	50	1.074	1.074	(0.257)	197643	50.0000	44.87

5 Vinyl Chloride	62	1.141	1.141 (0.273)	192196	50.0000	44.95
6 Bromomethane	94	1.336	1.336 (0.320)	136489	50.0000	42.48

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230118.b\X011803.D Page 2
Report Date: 25-Jan-2023 10:05

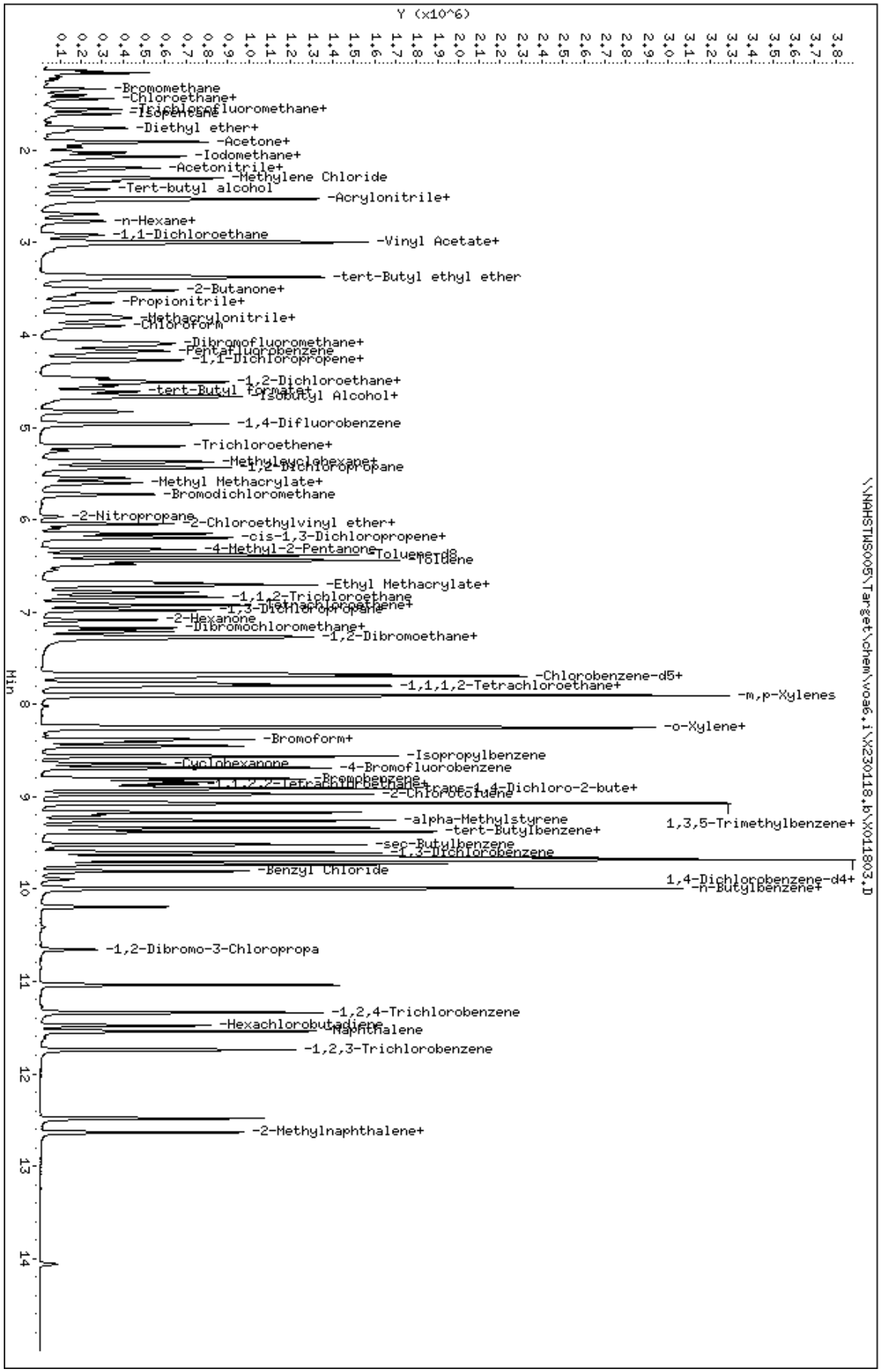
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	7 Chloroethane	64	1.400	1.400	(0.335)	127931	50.0000	42.99
	8 Trichlorofluoromethane	101	1.557	1.557	(0.373)	266667	50.0000	44.57
	9 Acrolein	56	1.441	1.441	(0.345)	27093	100.000	81.48
	10 Acetone	43	1.970	1.970	(0.472)	148497	100.000	108.13
	11 1,1-Dichloroethene	96	1.910	1.910	(0.457)	164342	50.0000	44.24
	15 Iodomethane	142	2.022	2.022	(0.484)	429078	100.000	88.48
	16 Acrylonitrile	53	2.528	2.528	(0.605)	131992	100.000	104.77
	17 Methylene Chloride	84	2.299	2.299	(0.550)	219621	50.0000	43.10
	18 Methyl tert-butyl ether	73	2.528	2.528	(0.605)	580541	50.0000	47.74
	19 Carbon Disulfide	76	2.067	2.067	(0.495)	860805	100.000	88.57
	20 trans-1,2-Dichloroethene	96	2.524	2.524	(0.604)	184592	50.0000	44.40
	21 Vinyl Acetate	43	2.993	2.993	(0.716)	1159587	100.000	108.64
	22 1,1-Dichloroethane	63	2.918	2.918	(0.699)	328053	50.0000	44.96
	24 2-Butanone	43	3.570	3.570	(0.855)	155742	100.000	106.70
	26 2,2-Dichloropropane	77	3.503	3.503	(0.838)	286311	50.0000	46.21
	27 cis-1,2-Dichloroethene	96	3.521	3.521	(0.843)	221783	50.0000	43.83
	28 Chloroform	83	3.904	3.904	(0.935)	373028	50.0000	45.61
	29 Bromochloromethane	128	3.788	3.788	(0.907)	120171	50.0000	43.38
$	30 Dibromofluoromethane	113	4.095	4.095	(0.980)	222773	50.0000	47.39
	31 1,1,1-Trichloroethane	97	4.076	4.076	(0.976)	289952	50.0000	44.69
	32 1,1-Dichloropropene	75	4.279	4.279	(0.862)	243664	50.0000	47.42
	33 1,2-Dichloroethane	62	4.552	4.552	(0.917)	304343	50.0000	51.32
	34 Carbon Tetrachloride	117	4.264	4.264	(0.859)	235794	50.0000	42.97
$	35 1,2-Dichloroethane-d4	65	4.466	4.466	(1.069)	250267	50.0000	50.45
*	36 1,4-Difluorobenzene	114	4.965	4.965	(1.000)	723703	50.0000	
	37 Benzene	78	4.507	4.507	(0.908)	807196	50.0000	46.70
	38 Trichloroethene	130	5.205	5.205	(1.048)	221791	50.0000	45.24
	39 Bromodichloromethane	83	5.726	5.726	(1.153)	302821	50.0000	46.69
	41 2-Chloroethylvinyl ether	63	6.044	6.044	(1.217)	237285	100.000	128.59
	42 1,2-Dichloropropane	63	5.433	5.433	(1.094)	217128	50.0000	47.23
	44 Dibromomethane	93	5.553	5.553	(1.119)	146615	50.0000	46.92
	45 4-Methyl-2-Pentanone	43	6.322	6.322	(0.824)	404653	100.000	108.68
	46 cis-1,3-Dichloropropene	75	6.153	6.153	(1.239)	375201	50.0000	49.25
*	47 Chlorobenzene-d5	117	7.667	7.667	(1.000)	696562	50.0000	
$	48 Toluene-d8	98	6.385	6.385	(0.833)	848410	50.0000	49.29
	50 Toluene	91	6.445	6.445	(0.841)	888559	50.0000	46.15
	51 trans-1,3-Dichloropropene	75	6.678	6.678	(1.345)	327289	50.0000	51.77
	52 2-Hexanone	43	7.083	7.083	(0.924)	289924	100.000	114.45
	53 1,1,2-Trichloroethane	83	6.839	6.839	(0.892)	182377	50.0000	47.21
	54 1,3-Dichloropropane	76	6.981	6.981	(0.911)	367873	50.0000	48.38
	55 Dibromochloromethane	129	7.173	7.173	(0.935)	267957	50.0000	48.06
	56 Tetrachloroethene	164	6.925	6.925	(0.903)	174876	50.0000	43.89
	57 1,2-Dibromoethane	107	7.259	7.259	(0.947)	240796	50.0000	49.86
	58 1-Chlorohexane	55	7.694	7.694	(1.550)	161130	50.0000	46.07
	59 Chlorobenzene	112	7.694	7.694	(1.003)	623465	50.0000	45.65
	60 1,1,1,2-Tetrachloroethane	131	7.772	7.772	(1.014)	238993	50.0000	47.02
	61 Ethylbenzene	106	7.799	7.799	(1.017)	302984	50.0000	47.10
	62 m,p-Xylenes	106	7.904	7.904	(1.031)	775386	100.000	93.50
	63 o-Xylene	106	8.241	8.241	(1.075)	382264	50.0000	46.70
	64 Styrene	104	8.260	8.260	(1.077)	686373	50.0000	50.03
	66 Bromoform	173	8.410	8.410	(1.097)	194509	50.0000	50.36
	67 Isopropylbenzene	105	8.560	8.560	(1.116)	893634	50.0000	47.79

	68 1,1,2,2-Tetrachloroethane	83	8.837	8.837 (0.915)	314357	50.0000	47.65
$	69 4-Bromofluorobenzene	95	8.687	8.687 (1.133)	332267	50.0000	51.64

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	413903	50.0000	
	71 1,2,3-Trichloropropane	75	8.863	8.863	(0.917)	231981	50.0000	50.36(M)
	73 n-Propylbenzene	91	8.912	8.912	(0.922)	1066657	50.0000	46.52
	74 Bromobenzene	156	8.803	8.803	(0.911)	311504	50.0000	45.87
	75 1,3,5-Trimethylbenzene	105	9.066	9.066	(0.938)	806932	50.0000	47.64
	76 2-Chlorotoluene	91	8.972	8.972	(0.929)	700662	50.0000	46.57
	77 4-Chlorotoluene	91	9.069	9.069	(0.939)	825983	50.0000	48.16
	78 tert-Butylbenzene	119	9.336	9.336	(0.966)	632476	50.0000	45.62
	79 1,2,4-Trimethylbenzene	105	9.377	9.377	(0.971)	841522	50.0000	47.22
	81 sec-Butylbenzene	105	9.519	9.519	(0.985)	854852	50.0000	46.34
	82 p-Isopropyltoluene	119	9.651	9.651	(0.999)	792103	50.0000	47.92
	83 1,3-Dichlorobenzene	146	9.606	9.606	(0.994)	538443	50.0000	47.77
	84 1,4-Dichlorobenzene	146	9.680	9.680	(1.002)	583310	50.0000	47.42
	87 n-Butylbenzene	91	9.995	9.995	(1.035)	698648	50.0000	44.07
	88 1,2-Dichlorobenzene	146	9.992	9.992	(1.034)	549480	50.0000	47.33
	89 1,2-Dibromo-3-Chloropropane	155	10.655	10.655	(1.103)	53893	50.0000	51.09
	90 1,2,4-Trichlorobenzene	180	11.337	11.337	(1.173)	368136	50.0000	50.25
	91 Hexachlorobutadiene	225	11.480	11.480	(1.188)	134386	50.0000	41.46
	92 Naphthalene	128	11.540	11.540	(1.194)	890909	50.0000	53.45
	93 1,2,3-Trichlorobenzene	180	11.742	11.742	(1.215)	345239	50.0000	49.20
M	94 1,2-Dichloroethylene (total)	96				406375	100.000	(a)
	141 Cyclohexane	56	4.118	4.118	(0.986)	204295	50.0000	41.62
	138 Freon TF	101	1.910	1.910	(0.457)	147042	50.0000	40.92
	147 Methylcyclohexane	55	5.377	5.377	(1.083)	452124	50.0000	51.03
	146 Methyl Acetate	43	2.224	2.224	(0.533)	110075	50.0000	49.98
	148 Tert-Butyl alcohol	59	2.423	2.423	(0.580)	378966	1000.00	1118.24
	149 Isopropyl Alcohol	45	2.086	2.086	(0.499)	206959	1000.00	1169.35

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230118.b\X011803.D
Date : 18-JAN-2023 11:48
Client ID: CCV
Sample Info: CCV,CCV,2,,
Purge Volume: 5.0
Column phase: DB624

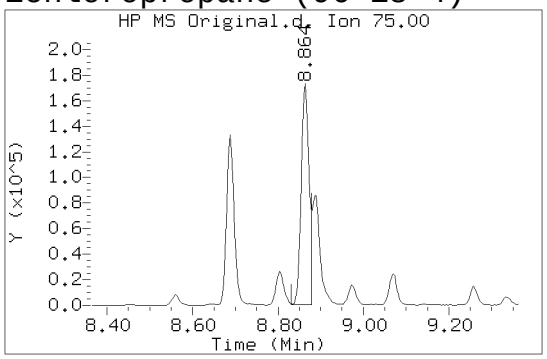
Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File : \\NAHSTWS005\Target\chem\voa6.i\X230118.b\X011803.D
Inj Date : 18-JAN-2023 11:48
InstruID : voa6.i
LabSampID : CCV

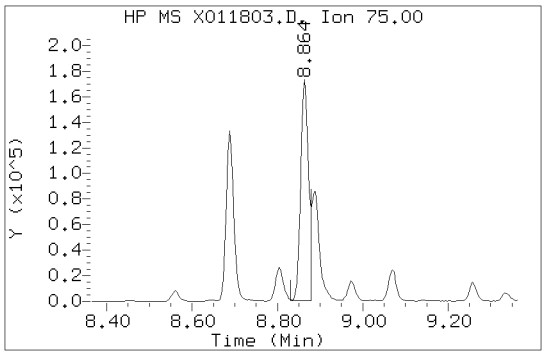
1,2,3-Trichloropropane (96-18-4)

Reason Code:

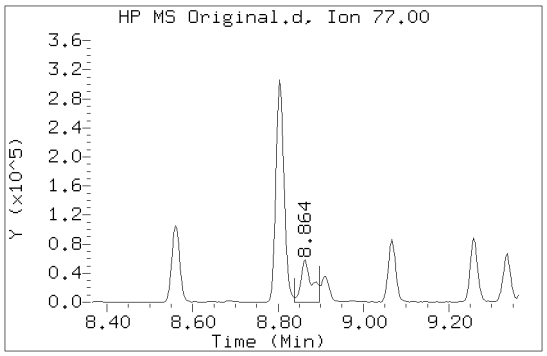
BEFORE
MASS
75
AREA
231981
HEIGHT
173029
25-Jan-2023
10:05
linh
pham



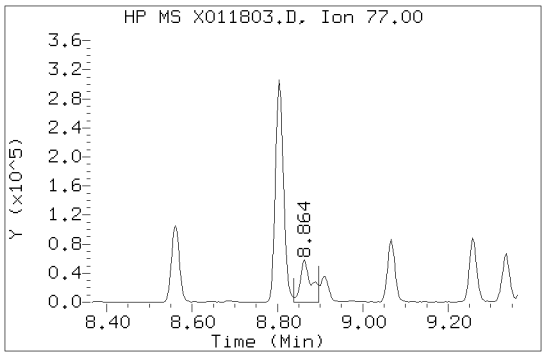
AFTER
MASS
75
AREA
231981
HEIGHT
173029
25-Jan-2023
10:05
linh
pham



BEFORE
MASS
77
AREA
108866
HEIGHT
58467
25-Jan-2023
10:05
linh
pham



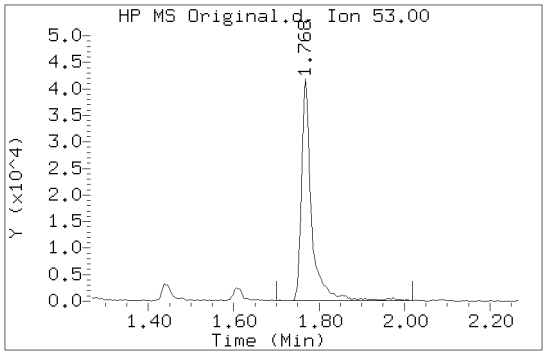
AFTER
MASS
77
AREA
108866
HEIGHT
58467
25-Jan-2023
10:05
linh
pham



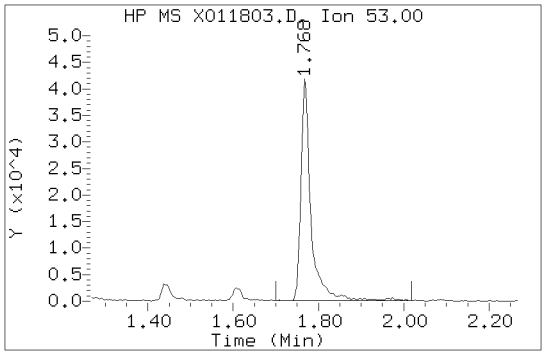
Chloroprene (126-99-8)

Reason Code:

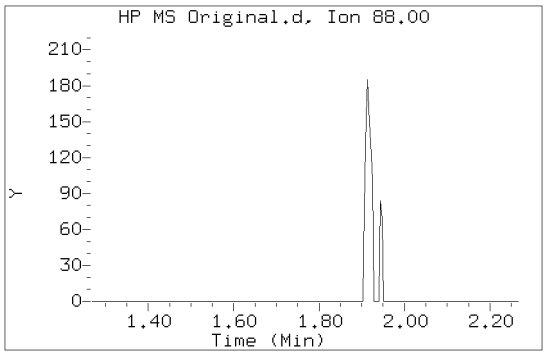
BEFORE
MASS
53
AREA
70567
HEIGHT
41782
25-Jan-2023
10:05
linh
pham



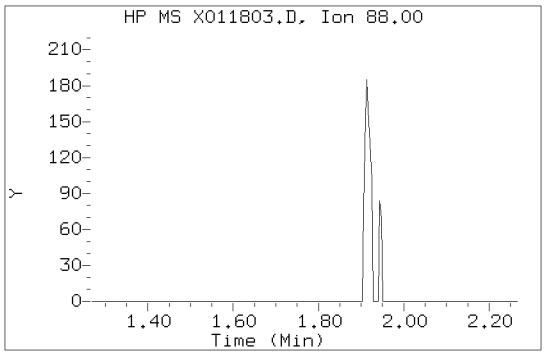
AFTER
MASS
53
AREA
70567
HEIGHT
41782
25-Jan-2023
10:05
linh
pham



BEFORE
MASS
88
AREA
0
HEIGHT
0
25-Jan-2023
10:05
linh
pham



AFTER
MASS
88
AREA
0
HEIGHT
0
25-Jan-2023
10:05
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230118.b\X011804.D Page 1
Report Date: 18-Jan-2023 21:31

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230118.b\X011804.D
Lab Smp Id: CCB Client Smp ID: CCB
Inj Date : 18-JAN-2023 12:09
Operator : PC Inst ID: voa6.i
Smp Info : CCB;CCB;;;
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\nahstws005\Target\chem\voa6.i\X230118.b\8260W.m
Meth Date : 18-Jan-2023 17:04 pcabasca Quant Type: ISTD
Cal Date : 16-DEC-2022 14:04 Cal File: X121608.D
Als bottle: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7051

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.174	4.177	(1.000)	547114	50.0000	
$ 30 Dibromofluoromethane	113	4.099	4.095	(0.982)	239447	45.5649	45.56
$ 35 1,2-Dichloroethane-d4	65	4.466	4.466	(1.070)	268428	48.4189	48.41
* 36 1,4-Difluorobenzene	114	4.965	4.965	(1.000)	768486	50.0000	
* 47 Chlorobenzene-d5	117	7.668	7.667	(1.000)	671866	50.0000	
$ 48 Toluene-d8	98	6.386	6.385	(0.833)	893916	53.8429	53.84
$ 69 4-Bromofluorobenzene	95	8.691	8.687	(1.133)	302063	48.6768	48.67
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	341638	50.0000	

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230118.b\X011805.D Page 1
Report Date: 25-Jan-2023 10:05

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230118.b\X011805.D
Lab Smp Id: VLCSW-230118 Client Smp ID: VLCSW-230118
Inj Date : 18-JAN-2023 12:30
Operator : PC Inst ID: voa6.i
Smp Info : VLCSW-230118;VLCSW-230118;3;;LCS
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X230118.b\8260W.m
Meth Date : 25-Jan-2023 10:05 voa6.i Quant Type: ISTD
Cal Date : 16-DEC-2022 14:04 Cal File: X121608.D
Als bottle: 5 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.177	4.177	(1.000)	473146	50.0000	
135 1,4-Dioxane	88	5.598	5.598	(1.340)	19933	460.873	460.87(a)
140 1,3-Butadiene	54	1.164	1.160	(0.279)	64452	19.8480	19.84
25 Methacrylonitrile	41	3.821	3.814	(0.915)	71540	21.3535	21.35
12 Isobutyl Alcohol	43	4.672	4.672	(1.118)	258525	485.780	485.78
13 Acetonitrile	39	2.194	2.194	(0.525)	93699	217.590	217.58
14 Allyl Chloride	41	2.194	2.194	(0.525)	174469	21.2728	21.27
4 Propionitrile	54	3.649	3.645	(0.873)	108874	225.515	225.51(a)
72 trans-1,4-Dichloro-2-butene	53	8.890	8.890	(1.159)	31877	22.0843	22.08
194 Acetaldehyde	44	1.209	1.209	(0.289)	71526	243.145	243.14
23 Chloroprene	53	1.771	1.767	(0.424)	29893	18.5814	18.58(M)
130 Ethyl Acetate	43	3.653	3.649	(0.874)	91604	24.8112	24.81
40 Methyl Methacrylate	41	5.606	5.602	(1.342)	75429	23.3804	23.38
49 Ethyl Methacrylate	69	6.708	6.708	(1.351)	75091	22.6980	22.69
139 Diethyl ether	59	1.752	1.752	(0.419)	63171	19.9815	19.98
142 Tetrahydrofuran	42	3.840	3.840	(0.919)	26312	42.9830	42.98
156 Diisopropyl ether	45	2.993	2.997	(0.716)	252405	20.5645	20.56
166 1,2,3-Trimethylbenzene	105	9.729	9.729	(1.007)	385496	20.9467	20.94
2 Dichlorodifluoromethane	85	0.969	0.969	(0.232)	58421	17.9081	17.90
3 Chloromethane	50	1.074	1.074	(0.257)	82950	20.7316	20.73

5 Vinyl Chloride	62	1.141	1.141 (0.273)	81246	19.6569	19.65
6 Bromomethane	94	1.336	1.336 (0.320)	61143	20.6326	20.63

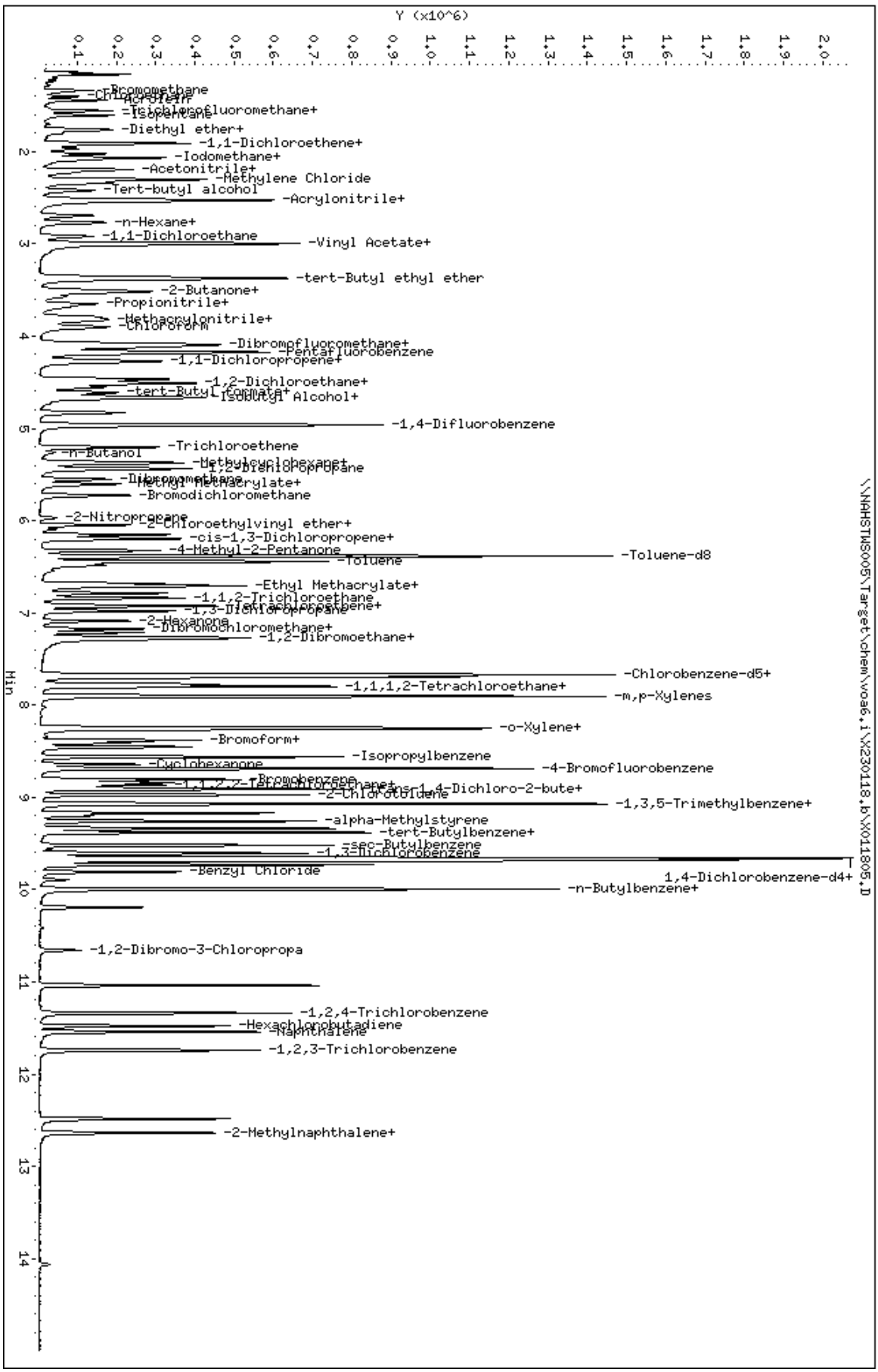
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
	7 Chloroethane	64	1.400	1.400	(0.335)	55014	19.1231	19.12
	8 Trichlorofluoromethane	101	1.557	1.557	(0.373)	120961	20.9131	20.91
	9 Acrolein	56	1.445	1.441	(0.346)	11891	38.5325	38.53
	10 Acetone	43	1.970	1.970	(0.472)	69517	52.3463	52.34(M)
	11 1,1-Dichloroethene	96	1.913	1.910	(0.458)	72740	20.2564	20.25
	15 Iodomethane	142	2.022	2.022	(0.484)	172450	39.4774	39.47
	16 Acrylonitrile	53	2.532	2.528	(0.606)	57328	47.0707	47.07
	17 Methylene Chloride	84	2.299	2.299	(0.550)	101585	20.6237	20.62
	18 Methyl tert-butyl ether	73	2.532	2.528	(0.606)	247454	21.0528	21.05
	19 Carbon Disulfide	76	2.067	2.067	(0.495)	387529	41.2472	41.24
	20 trans-1,2-Dichloroethene	96	2.528	2.524	(0.605)	80463	20.0209	20.02
	21 Vinyl Acetate	43	2.993	2.993	(0.716)	491828	47.6668	47.66
	22 1,1-Dichloroethane	63	2.918	2.918	(0.699)	145321	20.6032	20.60
	24 2-Butanone	43	3.578	3.570	(0.856)	63690	46.8847	46.88
	26 2,2-Dichloropropane	77	3.506	3.503	(0.839)	129540	21.6309	21.63
	27 cis-1,2-Dichloroethene	96	3.529	3.521	(0.845)	96286	19.6864	19.68
	28 Chloroform	83	3.904	3.904	(0.935)	162386	20.5410	20.54
	29 Bromochloromethane	128	3.791	3.788	(0.908)	52354	19.5502	19.55
$	30 Dibromofluoromethane	113	4.095	4.095	(0.980)	222171	48.8989	48.89
	31 1,1,1-Trichloroethane	97	4.076	4.076	(0.976)	131770	21.0084	21.00
	32 1,1-Dichloropropene	75	4.279	4.279	(0.862)	112059	22.4675	22.46
	33 1,2-Dichloroethane	62	4.556	4.552	(0.918)	131619	22.8661	22.86
	34 Carbon Tetrachloride	117	4.264	4.264	(0.859)	107958	20.2698	20.26
$	35 1,2-Dichloroethane-d4	65	4.470	4.466	(1.070)	259864	54.1697	54.16
*	36 1,4-Difluorobenzene	114	4.965	4.965	(1.000)	702531	50.0000	
	37 Benzene	78	4.511	4.507	(0.909)	351961	20.9797	20.97
	38 Trichloroethene	130	5.205	5.205	(1.048)	99963	21.0082	21.00
	39 Bromodichloromethane	83	5.726	5.726	(1.153)	128152	20.3545	20.35
	41 2-Chloroethylvinyl ether	63	6.048	6.044	(1.218)	88983	49.6783	49.67
	42 1,2-Dichloropropane	63	5.433	5.433	(1.094)	93347	20.9177	20.91
	44 Dibromomethane	93	5.553	5.553	(1.119)	64169	21.1554	21.15
	45 4-Methyl-2-Pentanone	43	6.322	6.322	(0.824)	169847	47.5247	47.52
	46 cis-1,3-Dichloropropene	75	6.153	6.153	(1.239)	156653	21.1860	21.18
*	47 Chlorobenzene-d5	117	7.667	7.667	(1.000)	668637	50.0000	
$	48 Toluene-d8	98	6.385	6.385	(0.833)	822274	49.7669	49.76
	50 Toluene	91	6.445	6.445	(0.841)	389135	21.0556	21.05
	51 trans-1,3-Dichloropropene	75	6.682	6.678	(1.346)	132682	21.6226	21.62
	52 2-Hexanone	43	7.086	7.083	(0.924)	123626	50.8427	50.84
	53 1,1,2-Trichloroethane	83	6.839	6.839	(0.892)	78410	21.1480	21.14
	54 1,3-Dichloropropane	76	6.981	6.981	(0.911)	156640	21.4637	21.46
	55 Dibromochloromethane	129	7.176	7.173	(0.936)	111717	20.8769	20.87
	56 Tetrachloroethene	164	6.925	6.925	(0.903)	82751	21.6407	21.64
	57 1,2-Dibromoethane	107	7.259	7.259	(0.947)	103028	22.2250	22.22
	58 1-Chlorohexane	55	7.694	7.694	(1.550)	81584	24.0299	24.02
	59 Chlorobenzene	112	7.694	7.694	(1.003)	267888	20.4359	20.43
	60 1,1,1,2-Tetrachloroethane	131	7.772	7.772	(1.014)	101325	20.7702	20.77
	61 Ethylbenzene	106	7.799	7.799	(1.017)	134198	21.7329	21.73
	62 m,p-Xylenes	106	7.904	7.904	(1.031)	343058	43.0970	43.09
	63 o-Xylene	106	8.241	8.241	(1.075)	167173	21.2781	21.27
	64 Styrene	104	8.260	8.260	(1.077)	287153	21.8059	21.80
	66 Bromoform	173	8.410	8.410	(1.097)	76199	20.5542	20.55
	67 Isopropylbenzene	105	8.560	8.560	(1.116)	412165	22.9626	22.96

	68	1,1,2,2-Tetrachloroethane	83	8.837	8.837 (0.915)	130567	21.4350	21.43
$	69	4-Bromofluorobenzene	95	8.687	8.687 (1.133)	308398	49.9360	49.93

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	382174	50.0000	
	71 1,2,3-Trichloropropane	75	8.863	8.863	(0.917)	100266	23.5782	23.57(M)
	73 n-Propylbenzene	91	8.912	8.912	(0.922)	496223	23.4409	23.44
	74 Bromobenzene	156	8.807	8.803	(0.912)	128739	20.5321	20.53
	75 1,3,5-Trimethylbenzene	105	9.066	9.066	(0.938)	365335	23.3616	23.36
	76 2-Chlorotoluene	91	8.976	8.972	(0.929)	306104	22.0356	22.03
	77 4-Chlorotoluene	91	9.069	9.069	(0.939)	359374	22.6935	22.69
	78 tert-Butylbenzene	119	9.336	9.336	(0.966)	298059	23.2842	23.28
	79 1,2,4-Trimethylbenzene	105	9.381	9.377	(0.971)	374145	22.7380	22.73
	81 sec-Butylbenzene	105	9.523	9.519	(0.986)	414704	24.3484	24.34
	82 p-Isopropyltoluene	119	9.651	9.651	(0.999)	377102	24.7079	24.70
	83 1,3-Dichlorobenzene	146	9.606	9.606	(0.994)	232591	22.3495	22.34
	84 1,4-Dichlorobenzene	146	9.680	9.680	(1.002)	248492	21.8812	21.88
	87 n-Butylbenzene	91	9.995	9.995	(1.035)	342035	24.2031	24.20
	88 1,2-Dichlorobenzene	146	9.992	9.992	(1.034)	232353	21.6786	21.67
	89 1,2-Dibromo-3-Chloropropane	155	10.659	10.655	(1.103)	21156	21.7762	21.77
	90 1,2,4-Trichlorobenzene	180	11.337	11.337	(1.173)	174691	25.8264	25.82
	91 Hexachlorobutadiene	225	11.480	11.480	(1.188)	79982	26.8050	26.80
	92 Naphthalene	128	11.544	11.540	(1.195)	393349	25.5589	25.55
	93 1,2,3-Trichlorobenzene	180	11.742	11.742	(1.215)	164302	25.3623	25.36
M	94 1,2-Dichloroethylene (total)	96				176749	39.7074	39.70
M	95 Xylenes (total)	106				510231	64.3751	64.37
	141 Cyclohexane	56	4.118	4.118	(0.986)	107777	23.2895	23.28
	138 Freon TF	101	1.913	1.910	(0.458)	72249	20.8019	20.80
	147 Methylcyclohexane	55	5.381	5.377	(1.084)	204648	23.7975	23.79
	146 Methyl Acetate	43	2.228	2.224	(0.533)	52659	24.7336	24.73
	148 Tert-Butyl alcohol	59	2.423	2.423	(0.580)	160861	490.996	490.99
	149 Isopropyl Alcohol	45	2.090	2.086	(0.500)	86867	507.698	507.69

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230118.b\X011805.D
Date : 18-JAN-2023 12:30
Client ID: VLCSW-230118
Sample Info: VLCSW-230118;VLCSW-230118;3;LCS
Purge Volume: 5.0
Column phase: DB624

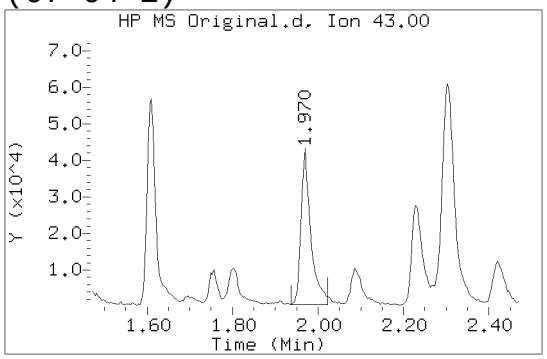
Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File : \\NAHSTWS005\Target\chem\voa6.i\X230118.b\X011805.D
Inj Date : 18-JAN-2023 12:30
InstruID : voa6.i
LabSampID : VLCSW-230118

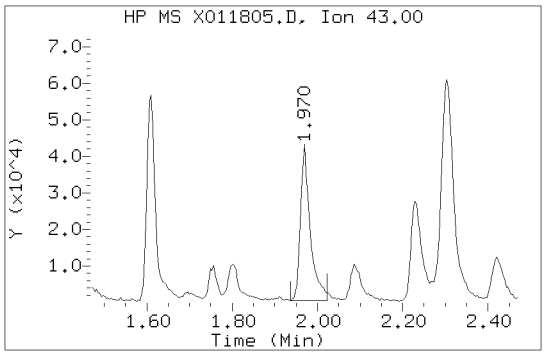
Acetone (67-64-1)

Reason Code:

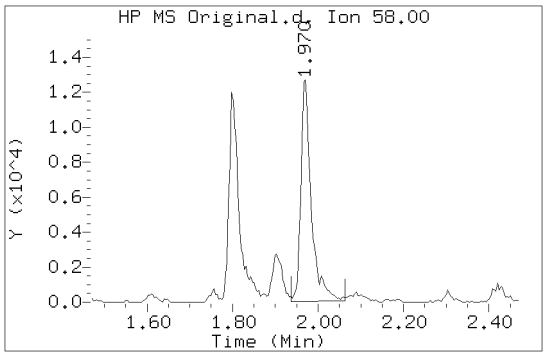
BEFORE
MASS
43
AREA
69517
HEIGHT
42795
25-Jan-2023
10:05
linh
pham



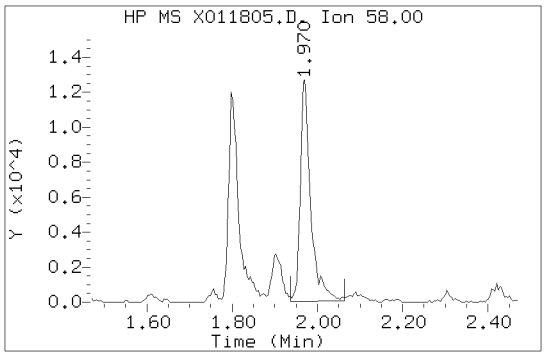
AFTER
MASS
43
AREA
69517
HEIGHT
42795
25-Jan-2023
10:05
linh
pham



BEFORE
MASS
58
AREA
22182
HEIGHT
12666
25-Jan-2023
10:05
linh
pham



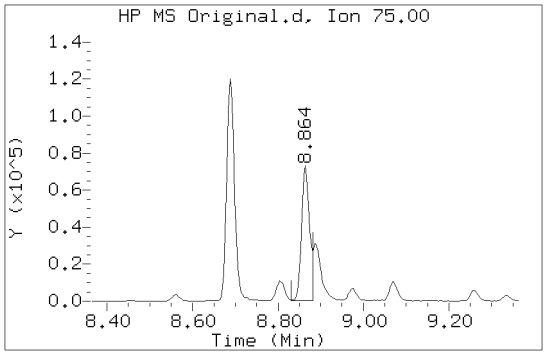
AFTER
MASS
58
AREA
22182
HEIGHT
12666
25-Jan-2023
10:05
linh
pham



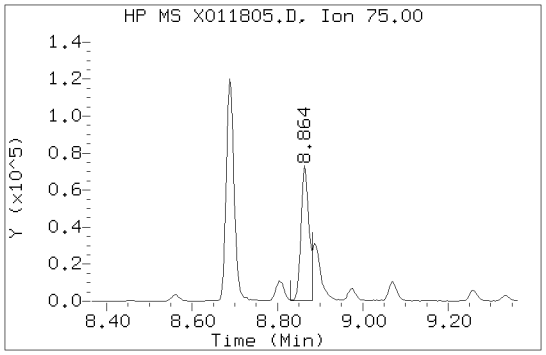
1,2,3-Trichloropropane (96-18-4)

Reason Code:

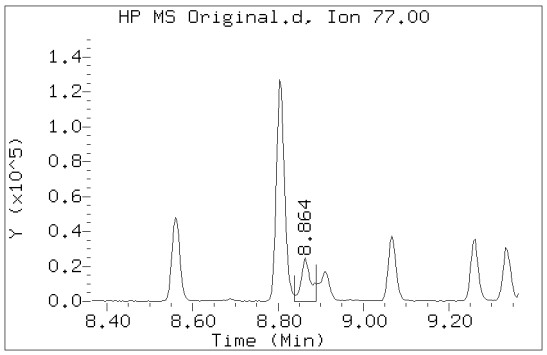
BEFORE
MASS
75
AREA
100266
HEIGHT
72980
25-Jan-2023
10:05
linh
pham



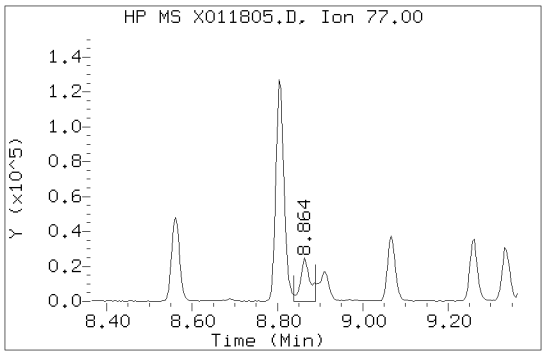
AFTER
MASS
75
AREA
100266
HEIGHT
72980
25-Jan-2023
10:05
linh
pham



BEFORE
MASS
77
AREA
40111
HEIGHT
24680
25-Jan-2023
10:05
linh
pham



AFTER
MASS
77
AREA
40111
HEIGHT
24680
25-Jan-2023
10:05
linh
pham



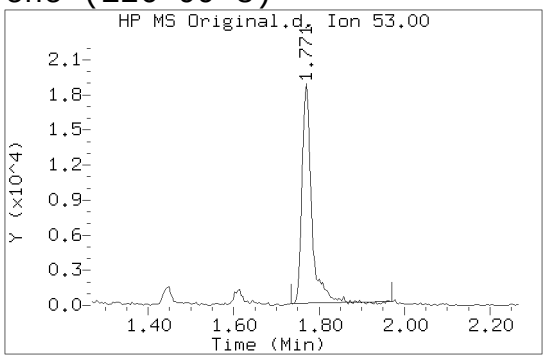
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230118.b\X011805.D
Inj Date : 18-JAN-2023 12:30
InstruID : voa6.i
LabSampID : VLCSW-230118

Chloroprene (126-99-8)

Reason Code:

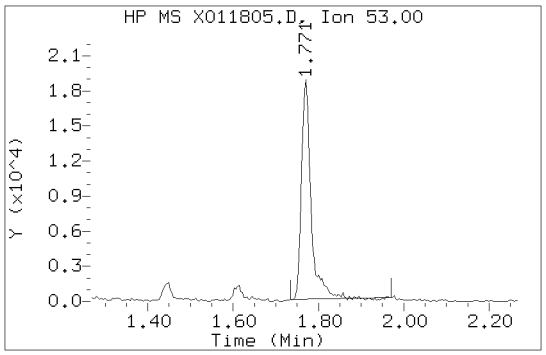
BEFORE

MASS
53
AREA
29893
HEIGHT
18782
25-Jan-2023
10:05
linh
pham



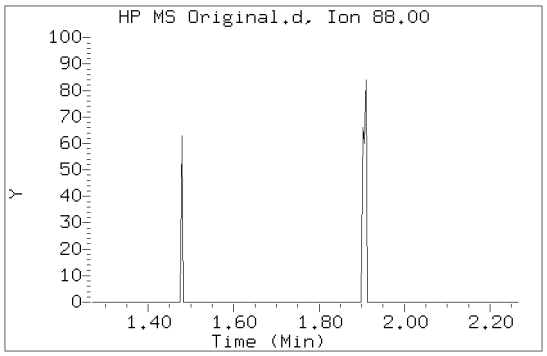
AFTER

MASS
53
AREA
29893
HEIGHT
18782
25-Jan-2023
10:05
linh
pham



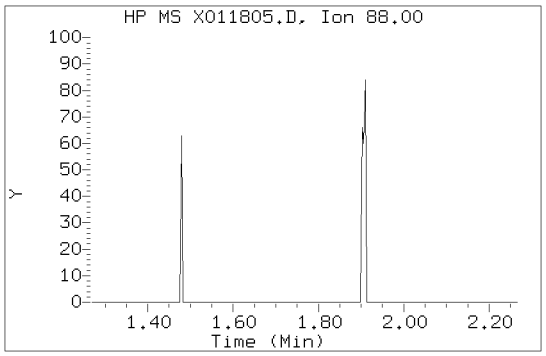
BEFORE

MASS
88
AREA
0
HEIGHT
0
25-Jan-2023
10:05
linh
pham



AFTER

MASS
88
AREA
0
HEIGHT
0
25-Jan-2023
10:05
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230118.b\X011807.D Page 1
Report Date: 25-Jan-2023 10:05

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230118.b\X011807.D
Lab Smp Id: VBLKW-230118 Client Smp ID: VBLKW-230118
Inj Date : 18-JAN-2023 13:12
Operator : PC Inst ID: voa6.i
Smp Info : VBLKW-230118;VBLKW-230118;3;;BLANK
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X230118.b\8260W.m
Meth Date : 25-Jan-2023 10:05 voa6.i Quant Type: ISTD
Cal Date : 16-DEC-2022 14:04 Cal File: X121608.D
Als bottle: 7 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.178	4.177	(1.000)	535465	50.0000	
$ 30 Dibromofluoromethane	113	4.095	4.095	(0.980)	235300	45.7506	45.75
$ 35 1,2-Dichloroethane-d4	65	4.470	4.466	(1.070)	263064	48.4833	48.48
* 36 1,4-Difluorobenzene	114	4.965	4.965	(1.000)	749587	50.0000	
* 47 Chlorobenzene-d5	117	7.668	7.667	(1.000)	673748	50.0000	
$ 48 Toluene-d8	98	6.386	6.385	(0.833)	879056	52.8000	52.79
$ 69 4-Bromofluorobenzene	95	8.691	8.687	(1.133)	306688	49.2833	49.28
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	355069	50.0000	

01181786

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230118.b\X011807.D

Date : 18-JAN-2023 13:12

Client ID: VBLKW-230118

Instrument: voa6.i

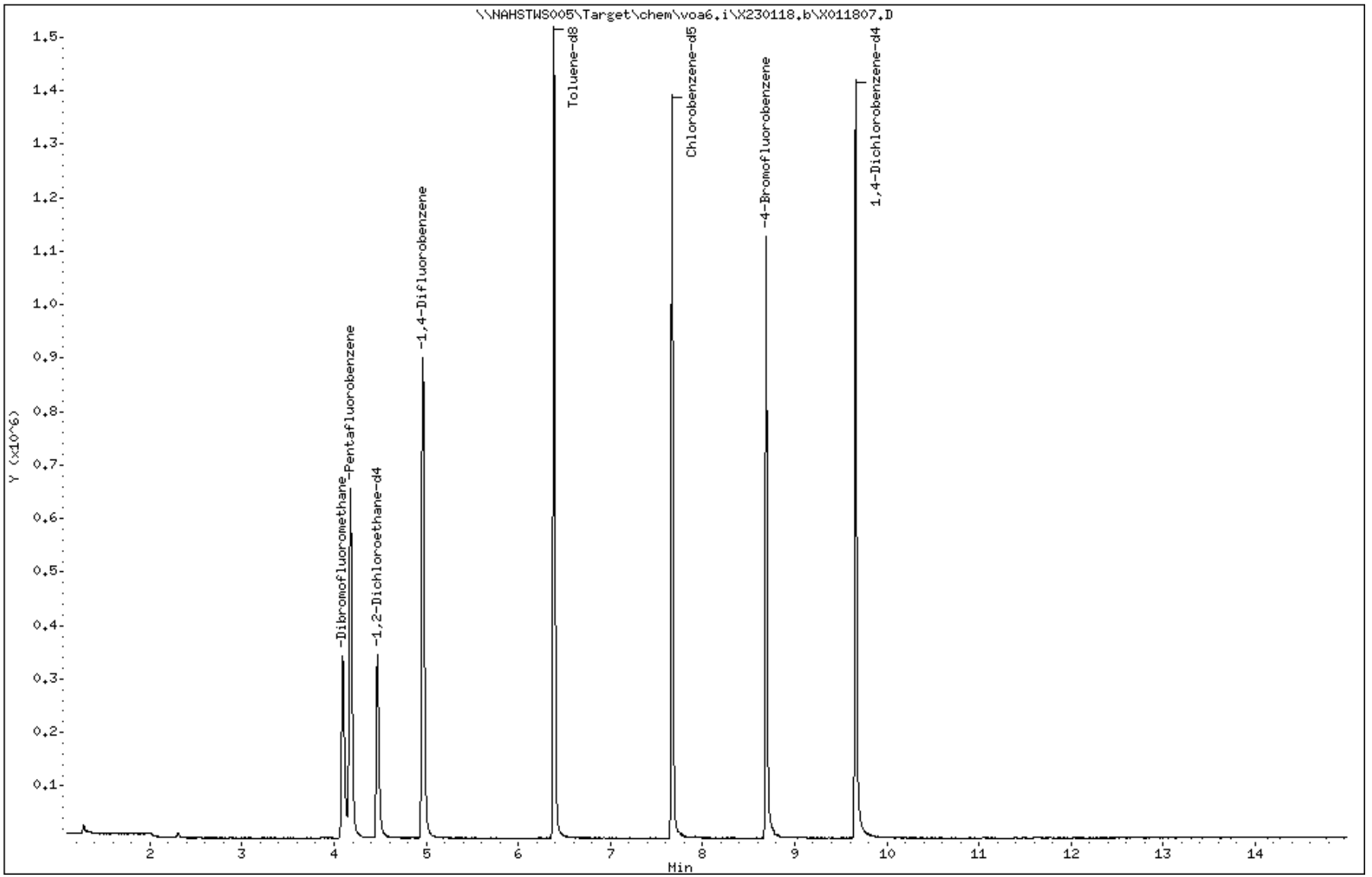
Sample Info: VBLKW-230118;VBLKW-230118;3;;BLANK

Purge Volume: 5.0

Operator: PC

Column phase: DB624

Column diameter: 0.18



Data File : \\NAHSTWS005\Target\chem\voa6.i\X230118.b\X011807.D
Inj Date : 18-JAN-2023 13:12
InstruID : voa6.i
LabSampID : VBLKW-230118

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230118.b\X011813.D Page 1
Report Date: 25-Jan-2023 10:05

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230118.b\X011813.D
Lab Smp Id: HS23010794-01MS Client Smp ID: HS23010794-01MS
Inj Date : 18-JAN-2023 15:18
Operator : PC Inst ID: voa6.i
Smp Info : HS23010794-01MS;HS23010794-01MS;3;;MS
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X230118.b\8260W.m
Meth Date : 25-Jan-2023 10:05 voa6.i Quant Type: ISTD
Cal Date : 16-DEC-2022 14:04 Cal File: X121608.D
Als bottle: 13 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.177	4.177	(1.000)	531106	50.0000	
135 1,4-Dioxane	88	5.598	5.598	(1.340)	17991	370.577	370.57(a)
140 1,3-Butadiene	54	1.160	1.160	(0.278)	77876	21.3647	21.36
25 Methacrylonitrile	41	3.821	3.814	(0.915)	63370	16.8507	16.85
12 Isobutyl Alcohol	43	4.676	4.672	(1.119)	240328	402.305	402.30
13 Acetonitrile	39	2.194	2.194	(0.525)	100316	207.533	207.53
14 Allyl Chloride	41	2.194	2.194	(0.525)	176622	19.1852	19.18
4 Propionitrile	54	3.649	3.645	(0.873)	97294	179.536	179.53(a)
72 trans-1,4-Dichloro-2-butene	53	8.889	8.890	(1.159)	30438	20.8171	20.81
194 Acetaldehyde	44	1.209	1.209	(0.289)	24318	57.4117	57.41
23 Chloroprene	53	1.767	1.767	(0.423)	41048	22.7308	22.73(M)
130 Ethyl Acetate	43	3.653	3.649	(0.874)	87400	21.0891	21.08
40 Methyl Methacrylate	41	5.606	5.602	(1.342)	65610	18.1175	18.11
49 Ethyl Methacrylate	69	6.712	6.708	(1.353)	60636	17.2173	17.21
139 Diethyl ether	59	1.752	1.752	(0.419)	64319	18.1244	18.12
142 Tetrahydrofuran	42	3.844	3.840	(0.920)	22263	31.6200	31.61
156 Diisopropyl ether	45	2.997	2.997	(0.717)	257377	18.6812	18.68
166 1,2,3-Trimethylbenzene	105	9.729	9.729	(1.007)	373061	20.9303	20.93
2 Dichlorodifluoromethane	85	0.969	0.969	(0.232)	71939	19.6072	19.60
3 Chloromethane	50	1.074	1.074	(0.257)	92590	20.6279	20.62

5 Vinyl Chloride	62	1.141	1.141 (0.273)	102970	22.1942	22.19
6 Bromomethane	94	1.336	1.336 (0.320)	67820	20.4091	20.40

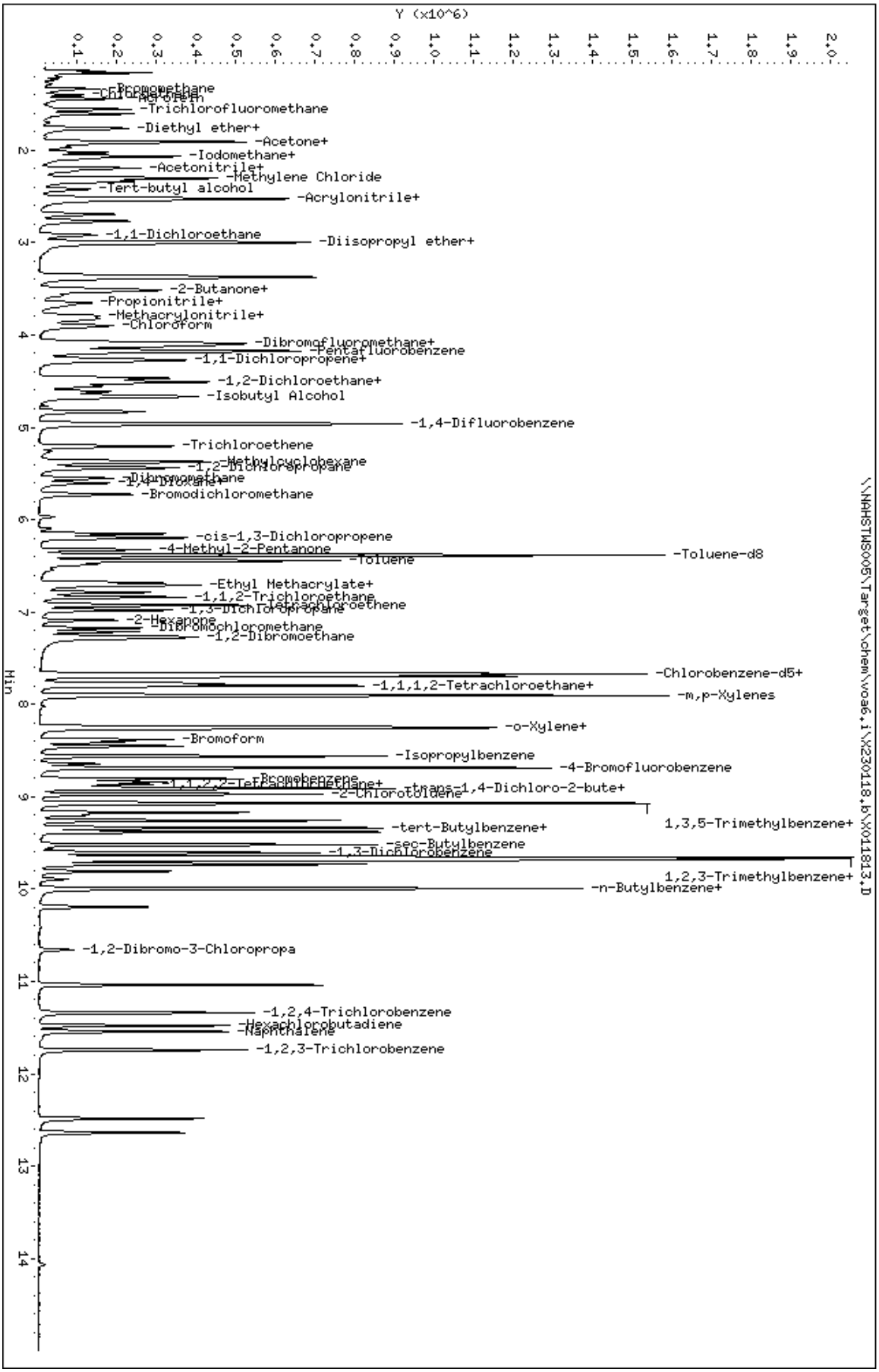
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
	7 Chloroethane	64	1.400	1.400	(0.335)	63367	19.6229	19.62
	8 Trichlorofluoromethane	101	1.557	1.557	(0.373)	158220	24.3696	24.36
	9 Acrolein	56	1.441	1.441	(0.345)	16117	45.9418	45.94
	10 Acetone	43	1.969	1.970	(0.472)	45372	30.4223	30.42
	11 1,1-Dichloroethene	96	1.910	1.910	(0.457)	100964	25.0478	25.04
	15 Iodomethane	142	2.022	2.022	(0.484)	170027	35.1360	35.13
	16 Acrylonitrile	53	2.532	2.528	(0.606)	54511	39.8733	39.87
	17 Methylene Chloride	84	2.303	2.299	(0.551)	98776	17.8650	17.86
	18 Methyl tert-butyl ether	73	2.528	2.528	(0.605)	238352	18.0654	18.06
	19 Carbon Disulfide	76	2.067	2.067	(0.495)	452679	42.9235	42.92
	20 trans-1,2-Dichloroethene	96	2.528	2.524	(0.605)	90356	20.0290	20.02
	21 Vinyl Acetate	43	2.997	2.993	(0.717)	462920	39.9689	39.96
	22 1,1-Dichloroethane	63	2.918	2.918	(0.699)	156645	19.7851	19.78
	24 2-Butanone	43	3.578	3.570	(0.856)	51104	34.3769	34.37
	26 2,2-Dichloropropane	77	3.503	3.503	(0.838)	145497	21.6440	21.64
	27 cis-1,2-Dichloroethene	96	3.521	3.521	(0.843)	104192	18.9781	18.97
	28 Chloroform	83	3.900	3.904	(0.934)	170125	19.1715	19.17
	29 Bromochloromethane	128	3.791	3.788	(0.908)	52040	17.3122	17.31
$	30 Dibromofluoromethane	113	4.095	4.095	(0.980)	232314	45.5400	45.53
	31 1,1,1-Trichloroethane	97	4.076	4.076	(0.976)	152829	21.7068	21.70
	32 1,1-Dichloropropene	75	4.279	4.279	(0.862)	132478	24.9509	24.95
	33 1,2-Dichloroethane	62	4.552	4.552	(0.918)	128144	20.9126	20.91
	34 Carbon Tetrachloride	117	4.260	4.264	(0.859)	133949	23.6248	23.62
$	35 1,2-Dichloroethane-d4	65	4.470	4.466	(1.070)	251733	46.7853	46.78
*	36 1,4-Difluorobenzene	114	4.961	4.965	(1.000)	747876	50.0000	
	37 Benzene	78	4.511	4.507	(0.909)	378439	21.1903	21.19
	38 Trichloroethene	130	5.208	5.205	(1.050)	113456	22.3982	22.39
	39 Bromodichloromethane	83	5.726	5.726	(1.154)	129673	19.3473	19.34
	42 1,2-Dichloropropane	63	5.433	5.433	(1.095)	94211	19.8313	19.83
	44 Dibromomethane	93	5.553	5.553	(1.119)	61482	19.0406	19.04
	45 4-Methyl-2-Pentanone	43	6.322	6.322	(0.824)	151805	41.9320	41.93
	46 cis-1,3-Dichloropropene	75	6.153	6.153	(1.240)	156221	19.8466	19.84
*	47 Chlorobenzene-d5	117	7.667	7.667	(1.000)	677318	50.0000	
$	48 Toluene-d8	98	6.385	6.385	(0.833)	879381	52.5411	52.54
	50 Toluene	91	6.445	6.445	(0.841)	417698	22.3114	22.31
	51 trans-1,3-Dichloropropene	75	6.682	6.678	(1.347)	129343	19.8004	19.80
	52 2-Hexanone	43	7.086	7.083	(0.924)	103898	42.1816	42.18
	53 1,1,2-Trichloroethane	83	6.839	6.839	(0.892)	75587	20.1254	20.12
	54 1,3-Dichloropropane	76	6.981	6.981	(0.911)	152942	20.6884	20.68
	55 Dibromochloromethane	129	7.176	7.173	(0.936)	107719	19.8718	19.87
	56 Tetrachloroethene	164	6.929	6.925	(0.904)	97046	25.0538	25.05
	57 1,2-Dibromoethane	107	7.259	7.259	(0.947)	96227	20.4918	20.49
	58 1-Chlorohexane	55	7.694	7.694	(1.551)	99168	27.4381	27.43
	59 Chlorobenzene	112	7.694	7.694	(1.003)	281800	21.2216	21.22
	60 1,1,1,2-Tetrachloroethane	131	7.772	7.772	(1.014)	102479	20.7375	20.73
	61 Ethylbenzene	106	7.799	7.799	(1.017)	146961	23.4948	23.49
	62 m,p-Xylenes	106	7.904	7.904	(1.031)	371242	46.0399	46.03
	63 o-Xylene	106	8.241	8.241	(1.075)	178941	22.4840	22.48
	64 Styrene	104	8.260	8.260	(1.077)	300291	22.5113	22.51
	66 Bromoform	173	8.410	8.410	(1.097)	72283	19.2479	19.24
	67 Isopropylbenzene	105	8.560	8.560	(1.116)	462951	25.4614	25.46
	68 1,1,2,2-Tetrachloroethane	83	8.837	8.837	(0.915)	122478	20.7609	20.76

$	69	4-Bromofluorobenzene	95	8.687	8.687 (1.133)	313751	50.1514	50.15
*	70	1,4-Dichlorobenzene-d4	152	9.662	9.662 (1.000)	370137	50.0000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
	71 1,2,3-Trichloropropane	75	8.863	8.863	(0.917)	86389	20.9756	20.97(M)
	73 n-Propylbenzene	91	8.912	8.912	(0.922)	547134	26.6864	26.68
	74 Bromobenzene	156	8.803	8.803	(0.911)	129757	21.3674	21.36
	75 1,3,5-Trimethylbenzene	105	9.066	9.066	(0.938)	388547	25.6539	25.65
	76 2-Chlorotoluene	91	8.972	8.972	(0.929)	321562	23.9011	23.90
	77 4-Chlorotoluene	91	9.069	9.069	(0.939)	370760	24.1739	24.17
	78 tert-Butylbenzene	119	9.336	9.336	(0.966)	333793	26.9237	26.92
	79 1,2,4-Trimethylbenzene	105	9.381	9.377	(0.971)	388336	24.3679	24.36
	81 sec-Butylbenzene	105	9.519	9.519	(0.985)	471753	28.5986	28.59
	82 p-Isopropyltoluene	119	9.650	9.651	(0.999)	416838	28.1996	28.19
	83 1,3-Dichlorobenzene	146	9.605	9.606	(0.994)	237181	23.5317	23.53
	84 1,4-Dichlorobenzene	146	9.680	9.680	(1.002)	248458	22.5897	22.58
	87 n-Butylbenzene	91	9.995	9.995	(1.035)	369286	26.7774	26.77
	88 1,2-Dichlorobenzene	146	9.995	9.992	(1.035)	232005	22.3501	22.35
	89 1,2-Dibromo-3-Chloropropane	155	10.659	10.655	(1.103)	18988	20.1870	20.18
	90 1,2,4-Trichlorobenzene	180	11.337	11.337	(1.173)	156794	23.9343	23.93
	91 Hexachlorobutadiene	225	11.480	11.480	(1.188)	77984	26.9846	26.98
	92 Naphthalene	128	11.544	11.540	(1.195)	340035	22.8132	22.81
	93 1,2,3-Trichlorobenzene	180	11.742	11.742	(1.215)	147160	23.4549	23.45
M	94 1,2-Dichloroethylene (total)	96				194548	39.0071	39.00
M	95 Xylenes (total)	106				550183	68.5239	68.52
	141 Cyclohexane	56	4.121	4.118	(0.987)	146470	27.9309	27.93
	138 Freon TF	101	1.913	1.910	(0.458)	98375	25.2331	25.23
	147 Methylcyclohexane	55	5.377	5.377	(1.084)	215607	23.5517	23.55
	146 Methyl Acetate	43	2.228	2.224	(0.533)	45805	19.1664	19.16
	148 Tert-Butyl alcohol	59	2.423	2.423	(0.580)	142595	387.745	387.74
	149 Isopropyl Alcohol	45	2.089	2.086	(0.500)	75779	394.560	394.56

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230118.b\X011813.D
Date : 18-JAN-2023 15:18
Client ID: HS23010794-01MS
Sample Info: HS23010794-01MS;HS23010794-01MS;3;;MS
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

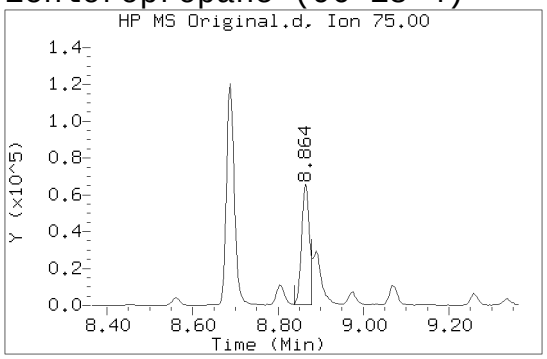
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230118.b\X011813.D
Inj Date : 18-JAN-2023 15:18
InstruID : voa6.i
LabSampID : HS23010794-01MS

1,2,3-Trichloropropane (96-18-4)

Reason Code:

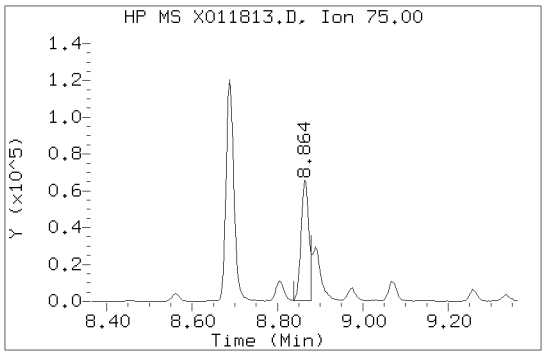
BEFORE

MASS
75
AREA
86389
HEIGHT
65712
25-Jan-2023
10:05
linh
pham



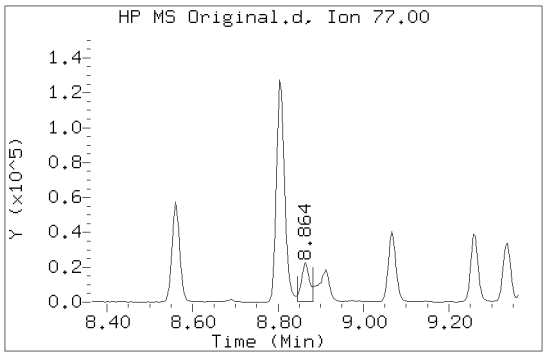
AFTER

MASS
75
AREA
86389
HEIGHT
65712
25-Jan-2023
10:05
linh
pham



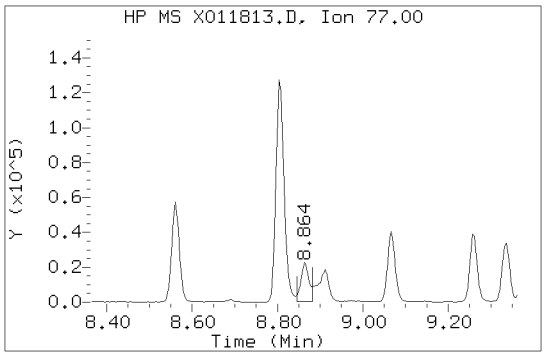
BEFORE

MASS
77
AREA
31158
HEIGHT
22517
25-Jan-2023
10:05
linh
pham



AFTER

MASS
77
AREA
31158
HEIGHT
22517
25-Jan-2023
10:05
linh
pham

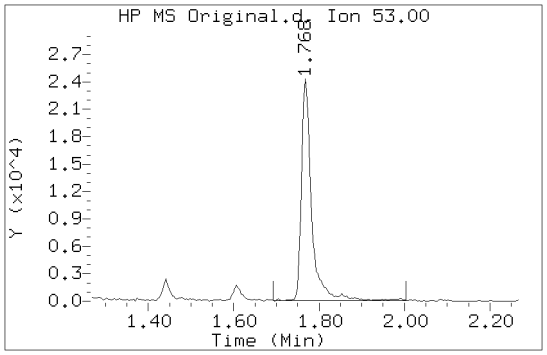


Chloroprene (126-99-8)

Reason Code:

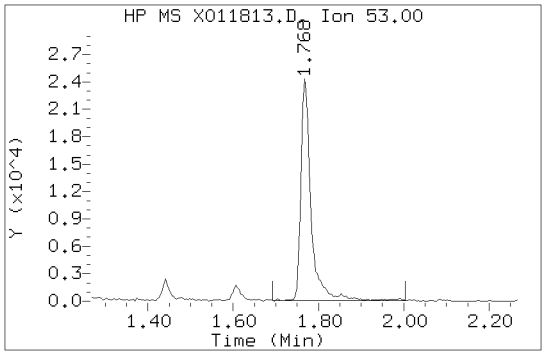
BEFORE

MASS
53
AREA
41048
HEIGHT
24249
25-Jan-2023
10:05
linh
pham



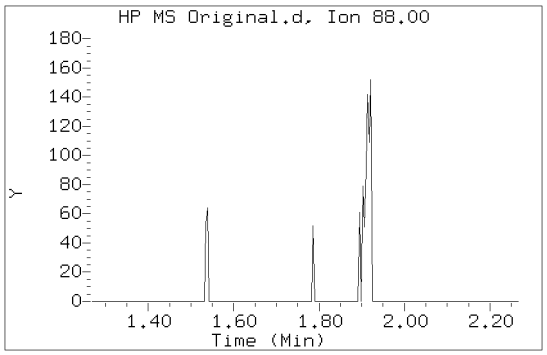
AFTER

MASS
53
AREA
41048
HEIGHT
24249
25-Jan-2023
10:05
linh
pham



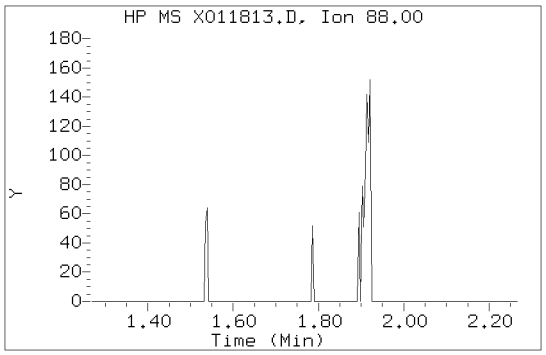
BEFORE

MASS
88
AREA
0
HEIGHT
0
25-Jan-2023
10:05
linh
pham



AFTER

MASS
88
AREA
0
HEIGHT
0
25-Jan-2023
10:05
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230118.b\X011814.D Page 1
Report Date: 25-Jan-2023 10:05

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230118.b\X011814.D
Lab Smp Id: HS23010794-01MSD Client Smp ID: HS23010794-01MSD
Inj Date : 18-JAN-2023 15:39
Operator : PC Inst ID: voa6.i
Smp Info : HS23010794-01MSD;HS23010794-01MSD;3;;MSD
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X230118.b\8260W.m
Meth Date : 25-Jan-2023 10:05 voa6.i Quant Type: ISTD
Cal Date : 16-DEC-2022 14:04 Cal File: X121608.D
Als bottle: 13 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.177	4.177	(1.000)	554704	50.0000	
135 1,4-Dioxane	88	5.598	5.598	(1.340)	18868	372.108	372.10(a)
140 1,3-Butadiene	54	1.160	1.160	(0.278)	75375	19.7989	19.79
25 Methacrylonitrile	41	3.825	3.814	(0.916)	69584	17.7159	17.71
12 Isobutyl Alcohol	43	4.672	4.672	(1.118)	248917	398.957	398.95
13 Acetonitrile	39	2.194	2.194	(0.525)	102276	202.587	202.58
14 Allyl Chloride	41	2.194	2.194	(0.525)	178447	18.5588	18.55
4 Propionitrile	54	3.649	3.645	(0.873)	102175	180.522	180.52(a)
72 trans-1,4-Dichloro-2-butene	53	8.889	8.890	(1.159)	30978	19.8982	19.89
194 Acetaldehyde	44	1.205	1.209	(0.288)	57343	158.908	158.90
23 Chloroprene	53	1.767	1.767	(0.423)	39226	20.7978	20.79(M)
130 Ethyl Acetate	43	3.653	3.649	(0.874)	87843	20.2943	20.29
40 Methyl Methacrylate	41	5.606	5.602	(1.342)	67899	17.9519	17.95
49 Ethyl Methacrylate	69	6.708	6.708	(1.352)	63501	17.1314	17.13
139 Diethyl ether	59	1.752	1.752	(0.419)	65444	17.6569	17.65
142 Tetrahydrofuran	42	3.848	3.840	(0.921)	23817	32.4649	32.46
156 Diisopropyl ether	45	2.997	2.997	(0.717)	262145	18.2178	18.21
166 1,2,3-Trimethylbenzene	105	9.729	9.729	(1.007)	376228	19.4848	19.48
2 Dichlorodifluoromethane	85	0.969	0.969	(0.232)	68141	17.8185	17.81
3 Chloromethane	50	1.074	1.074	(0.257)	88052	18.9802	18.98

5 Vinyl Chloride	62	1.141	1.141 (0.273)	97643	20.1507	20.15
6 Bromomethane	94	1.336	1.336 (0.320)	68529	19.8025	19.80

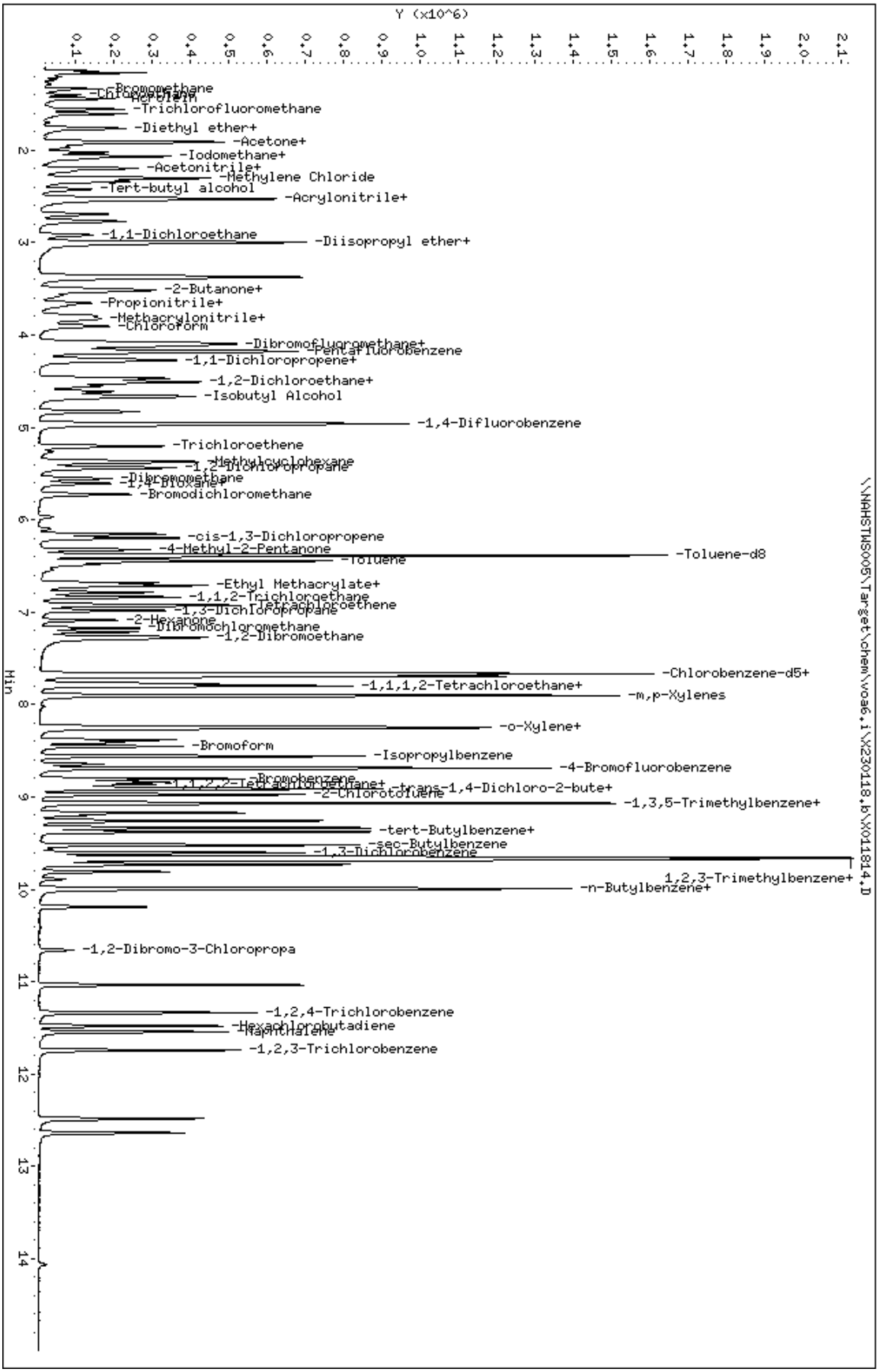
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
	7 Chloroethane	64	1.400	1.400	(0.335)	61884	18.3484	18.34
	8 Trichlorofluoromethane	101	1.557	1.557	(0.373)	151100	22.2829	22.28
	9 Acrolein	56	1.441	1.441	(0.345)	14787	40.7004	40.70
	10 Acetone	43	1.969	1.970	(0.472)	47381	30.4178	30.41
	11 1,1-Dichloroethene	96	1.909	1.910	(0.457)	89030	21.1475	21.14
	15 Iodomethane	142	2.022	2.022	(0.484)	179728	35.5155	35.51
	16 Acrylonitrile	53	2.532	2.528	(0.606)	54105	37.8926	37.89
	17 Methylene Chloride	84	2.299	2.299	(0.550)	97474	16.8795	16.87
	18 Methyl tert-butyl ether	73	2.528	2.528	(0.605)	248484	18.0322	18.03
	19 Carbon Disulfide	76	2.067	2.067	(0.495)	441392	40.0727	40.07
	20 trans-1,2-Dichloroethene	96	2.528	2.524	(0.605)	88841	18.8554	18.85
	21 Vinyl Acetate	43	2.997	2.993	(0.717)	476906	39.4248	39.42
	22 1,1-Dichloroethane	63	2.918	2.918	(0.699)	154956	18.7391	18.73
	24 2-Butanone	43	3.578	3.570	(0.856)	53320	34.3448	34.34
	26 2,2-Dichloropropane	77	3.506	3.503	(0.839)	143154	20.3896	20.38
	27 cis-1,2-Dichloroethene	96	3.521	3.521	(0.843)	102099	17.8057	17.80
	28 Chloroform	83	3.904	3.904	(0.935)	169116	18.2470	18.24
	29 Bromochloromethane	128	3.791	3.788	(0.908)	52425	16.6984	16.69
$	30 Dibromofluoromethane	113	4.095	4.095	(0.980)	241932	45.4073	45.40
	31 1,1,1-Trichloroethane	97	4.080	4.076	(0.977)	150400	20.4530	20.45
	32 1,1-Dichloropropene	75	4.275	4.279	(0.862)	127828	22.8741	22.87
	33 1,2-Dichloroethane	62	4.552	4.552	(0.918)	132194	20.4973	20.49
	34 Carbon Tetrachloride	117	4.260	4.264	(0.859)	131043	21.9593	21.95
$	35 1,2-Dichloroethane-d4	65	4.470	4.466	(1.070)	264024	46.9810	46.98
*	36 1,4-Difluorobenzene	114	4.961	4.965	(1.000)	787144	50.0000	
	37 Benzene	78	4.507	4.507	(0.909)	372894	19.8381	19.83
	38 Trichloroethene	130	5.208	5.205	(1.050)	108328	20.3189	20.31
	39 Bromodichloromethane	83	5.726	5.726	(1.154)	133567	18.9341	18.93
	42 1,2-Dichloropropane	63	5.433	5.433	(1.095)	96585	19.3168	19.31
	44 Dibromomethane	93	5.553	5.553	(1.119)	63653	18.7295	18.72
	45 4-Methyl-2-Pentanone	43	6.322	6.322	(0.824)	161319	41.8506	41.85
	46 cis-1,3-Dichloropropene	75	6.153	6.153	(1.240)	158232	19.0993	19.09
*	47 Chlorobenzene-d5	117	7.667	7.667	(1.000)	721168	50.0000	
$	48 Toluene-d8	98	6.385	6.385	(0.833)	928752	52.1168	52.11
	50 Toluene	91	6.445	6.445	(0.841)	415198	20.8294	20.82
	51 trans-1,3-Dichloropropene	75	6.681	6.678	(1.347)	133573	19.4279	19.42
	52 2-Hexanone	43	7.086	7.083	(0.924)	108337	41.3094	41.30
	53 1,1,2-Trichloroethane	83	6.839	6.839	(0.892)	77969	19.4973	19.49
	54 1,3-Dichloropropane	76	6.981	6.981	(0.911)	155087	19.7030	19.70
	55 Dibromochloromethane	129	7.173	7.173	(0.935)	110969	19.2266	19.22
	56 Tetrachloroethene	164	6.925	6.925	(0.903)	95478	23.1502	23.15
	57 1,2-Dibromoethane	107	7.259	7.259	(0.947)	100565	20.1134	20.11
	58 1-Chlorohexane	55	7.694	7.694	(1.551)	98356	25.8559	25.85
	59 Chlorobenzene	112	7.694	7.694	(1.003)	279794	19.7894	19.78
	60 1,1,1,2-Tetrachloroethane	131	7.772	7.772	(1.014)	103307	19.6340	19.63
	61 Ethylbenzene	106	7.799	7.799	(1.017)	147544	22.1537	22.15
	62 m,p-Xylenes	106	7.904	7.904	(1.031)	372284	43.3619	43.36
	63 o-Xylene	106	8.241	8.241	(1.075)	175456	20.7056	20.70
	64 Styrene	104	8.260	8.260	(1.077)	298098	20.9881	20.98
	66 Bromoform	173	8.410	8.410	(1.097)	74010	18.5095	18.50
	67 Isopropylbenzene	105	8.560	8.560	(1.116)	457727	23.6434	23.64
	68 1,1,2,2-Tetrachloroethane	83	8.837	8.837	(0.915)	124002	19.4029	19.40

$	69	4-Bromofluorobenzene	95	8.687	8.687 (1.133)	331339	49.7429	49.74
*	70	1,4-Dichlorobenzene-d4	152	9.662	9.662 (1.000)	400970	50.0000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
71	1,2,3-Trichloropropane	75	8.863	8.863	(0.917)	90299	20.2390	20.23(M)
73	n-Propylbenzene	91	8.912	8.912	(0.922)	544455	24.5137	24.51
74	Bromobenzene	156	8.803	8.803	(0.911)	132337	20.1165	20.11
75	1,3,5-Trimethylbenzene	105	9.066	9.066	(0.938)	387981	23.6467	23.64
76	2-Chlorotoluene	91	8.972	8.972	(0.929)	321283	22.0441	22.04
77	4-Chlorotoluene	91	9.069	9.069	(0.939)	371694	22.3712	22.37
78	tert-Butylbenzene	119	9.336	9.336	(0.966)	332575	24.7627	24.76
79	1,2,4-Trimethylbenzene	105	9.377	9.377	(0.971)	389965	22.5885	22.58
81	sec-Butylbenzene	105	9.519	9.519	(0.985)	469230	26.2583	26.25
82	p-Isopropyltoluene	119	9.647	9.651	(0.998)	409401	25.5668	25.56
83	1,3-Dichlorobenzene	146	9.605	9.606	(0.994)	233465	21.3819	21.38
84	1,4-Dichlorobenzene	146	9.680	9.680	(1.002)	250932	21.0603	21.06
87	n-Butylbenzene	91	9.992	9.995	(1.034)	371762	25.0096	25.00
88	1,2-Dichlorobenzene	146	9.992	9.992	(1.034)	233542	20.7681	20.76
89	1,2-Dibromo-3-Chloropropane	155	10.659	10.655	(1.103)	19806	19.4409	19.44
90	1,2,4-Trichlorobenzene	180	11.337	11.337	(1.173)	159950	22.5386	22.53
91	Hexachlorobutadiene	225	11.480	11.480	(1.188)	77268	24.6898	24.68
92	Naphthalene	128	11.543	11.540	(1.195)	348747	21.5985	21.59
93	1,2,3-Trichlorobenzene	180	11.742	11.742	(1.215)	147233	21.6620	21.66
M 94	1,2-Dichloroethylene (total)	96				190940	36.6611	36.66
M 95	Xylenes (total)	106				547740	64.0675	64.06
141	Cyclohexane	56	4.121	4.118	(0.987)	144856	26.5149	26.51
138	Freon TF	101	1.909	1.910	(0.457)	97552	23.9575	23.95
147	Methylcyclohexane	55	5.377	5.377	(1.084)	215206	22.3352	22.33
146	Methyl Acetate	43	2.228	2.224	(0.533)	47655	19.0922	19.09
148	Tert-Butyl alcohol	59	2.423	2.423	(0.580)	155186	404.030	404.03
149	Isopropyl Alcohol	45	2.089	2.086	(0.500)	82022	408.898	408.89

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230118.b\X011814.D
Date : 18-JAN-2023 15:39
Client ID: HS230107Q4-01HSD
Sample Info: HS230107Q4-01HSD;HS230107Q4-01HSD;3;;HSD
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

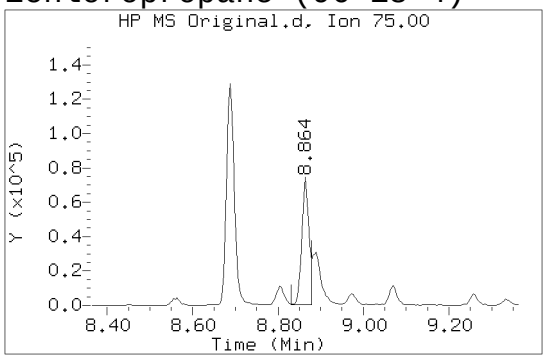
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230118.b\X011814.D
Inj Date : 18-JAN-2023 15:39
InstruID : voa6.i
LabSampID : HS23010794-01MSD

1,2,3-Trichloropropane (96-18-4)

Reason Code:

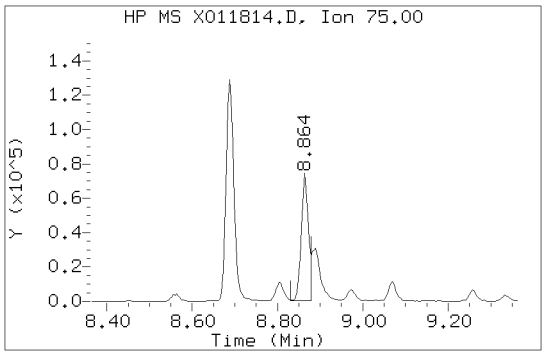
BEFORE

MASS
75
AREA
90299
HEIGHT
74453
25-Jan-2023
10:05
linh
pham



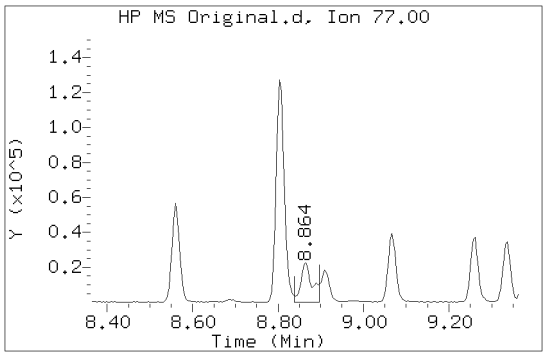
AFTER

MASS
75
AREA
90299
HEIGHT
74453
25-Jan-2023
10:05
linh
pham



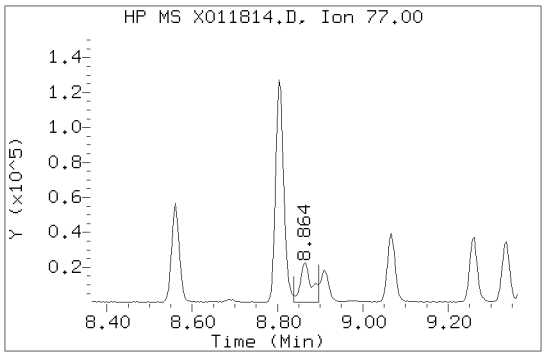
BEFORE

MASS
77
AREA
43712
HEIGHT
22355
25-Jan-2023
10:05
linh
pham



AFTER

MASS
77
AREA
43712
HEIGHT
22355
25-Jan-2023
10:05
linh
pham

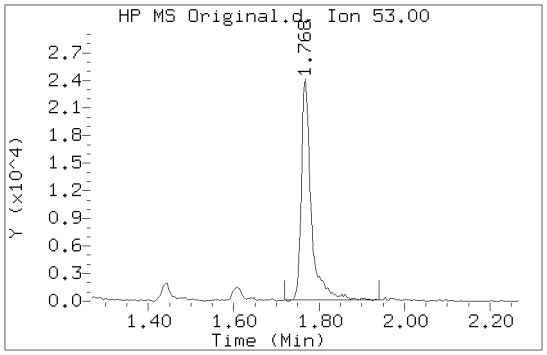


Chloroprene (126-99-8)

Reason Code:

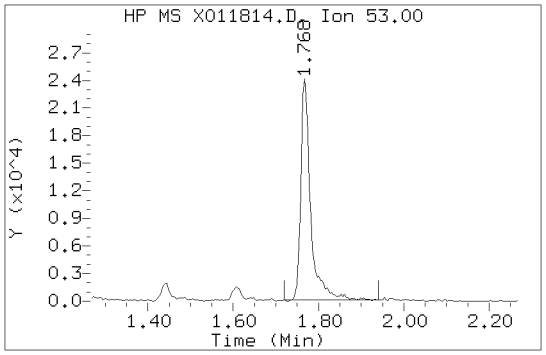
BEFORE

MASS
53
AREA
39226
HEIGHT
24039
25-Jan-2023
10:05
linh
pham



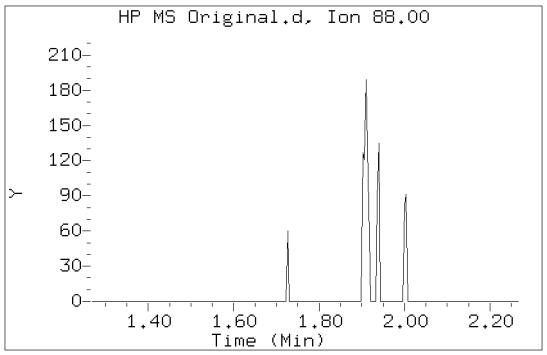
AFTER

MASS
53
AREA
39226
HEIGHT
24039
25-Jan-2023
10:05
linh
pham



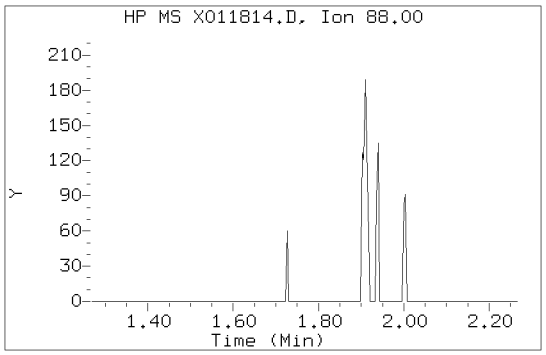
BEFORE

MASS
88
AREA
0
HEIGHT
0
25-Jan-2023
10:05
linh
pham



AFTER

MASS
88
AREA
0
HEIGHT
0
25-Jan-2023
10:05
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230118.b\X011815.D Page 1
Report Date: 25-Jan-2023 10:05

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230118.b\X011815.D
Lab Smp Id: HS23010632-02 Client Smp ID: HS23010632-02
Inj Date : 18-JAN-2023 16:00
Operator : PC Inst ID: voa6.i
Smp Info : HS23010632-02;HS23010632-02;;;
Misc Info : V6;WATER;0;5;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X230118.b\8260W.m
Meth Date : 25-Jan-2023 10:05 voa6.i Quant Type: ISTD
Cal Date : 16-DEC-2022 14:04 Cal File: X121608.D
Als bottle: 14
Dil Factor: 5.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	5.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
*	1 Pentafluorobenzene	168	4.177	4.177	(1.000)	545213	50.0000	
	11 1,1-Dichloroethene	96	1.913	1.910	(0.458)	4236	1.02370	5.11(a)
	27 cis-1,2-Dichloroethene	96	3.529	3.521	(0.845)	8774	1.55679	7.78(a)
$	30 Dibromofluoromethane	113	4.099	4.095	(0.981)	238556	45.5536	45.55
	33 1,2-Dichloroethane	62	4.560	4.552	(0.919)	18171	2.89171	14.45(a)
$	35 1,2-Dichloroethane-d4	65	4.470	4.466	(1.070)	262289	47.4818	47.48
*	36 1,4-Difluorobenzene	114	4.961	4.965	(1.000)	766943	50.0000	
	38 Trichloroethene	130	5.205	5.205	(1.049)	238292	45.8734	229.36
*	47 Chlorobenzene-d5	117	7.667	7.667	(1.000)	679473	50.0000	
$	48 Toluene-d8	98	6.385	6.385	(0.833)	888063	52.8916	52.89
$	69 4-Bromofluorobenzene	95	8.691	8.687	(1.133)	309626	49.3361	49.33
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	357702	50.0000	
M	94 1,2-Dichloroethylene (total)	96				8774	1.55679	7.78(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

01181803

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230118.b\X011815.D

Page 1

Date : 18-JAN-2023 16:00

Client ID: HS23010632-02

Instrument: voa6.i

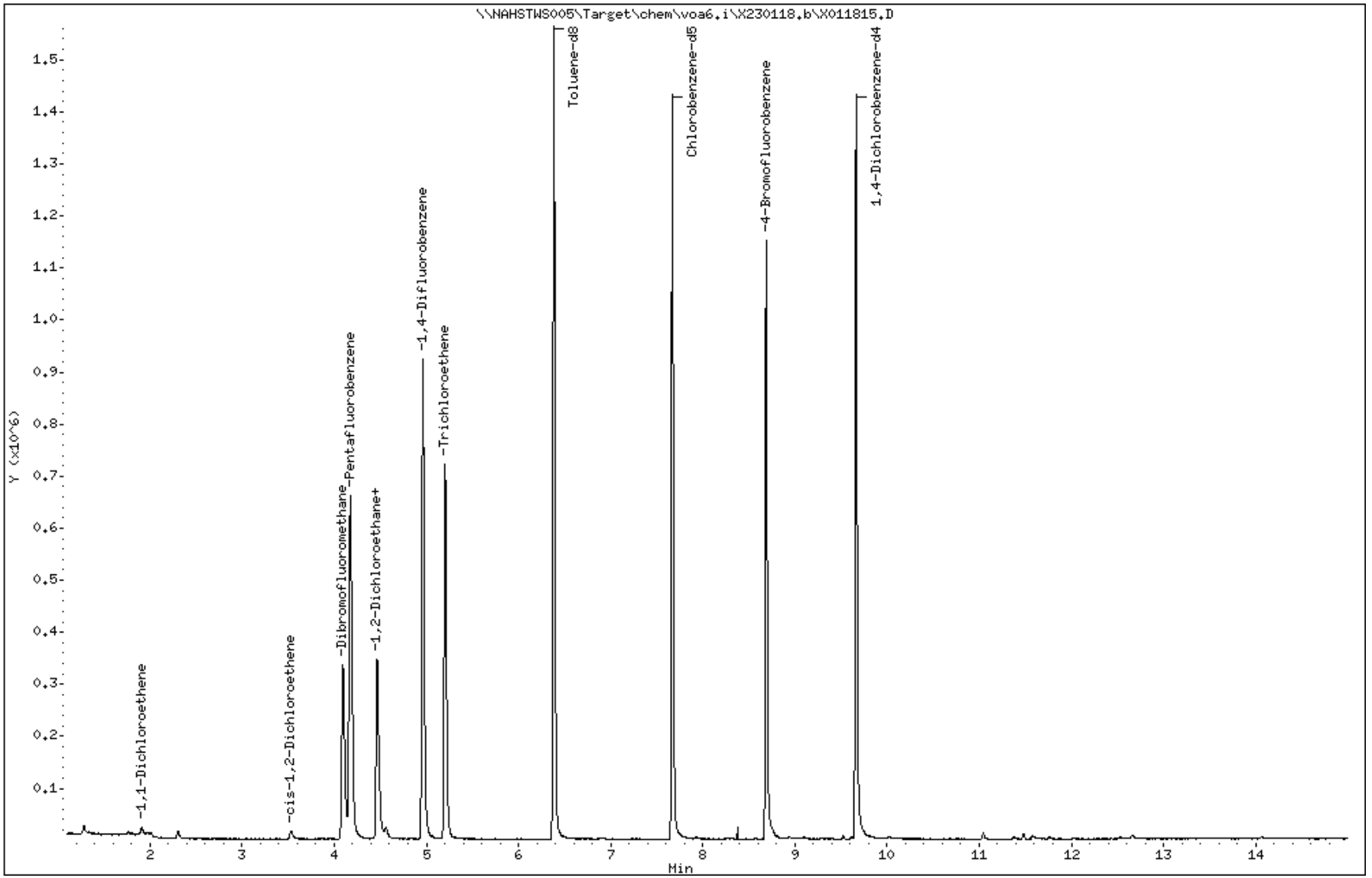
Sample Info: HS23010632-02;HS23010632-02;;;

Purge Volume: 5.0

Operator: PC

Column phase: DB624

Column diameter: 0.18



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230118.b\X011815.D

Date : 18-JAN-2023 16:00

Client ID: HS23010632-02

Instrument: voa6.i

Sample Info: HS23010632-02;HS23010632-02;;;

Purge Volume: 5.0

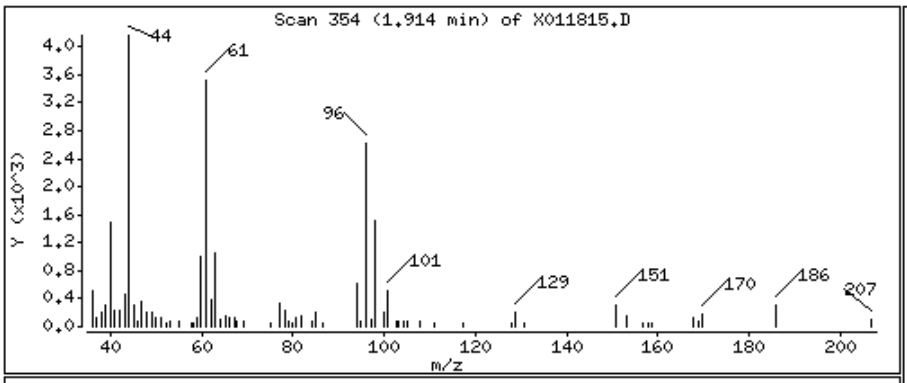
Operator: PC

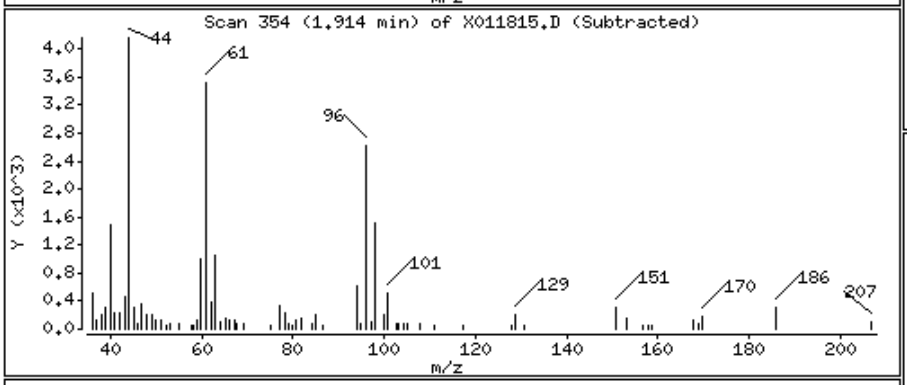
Column phase: DB624

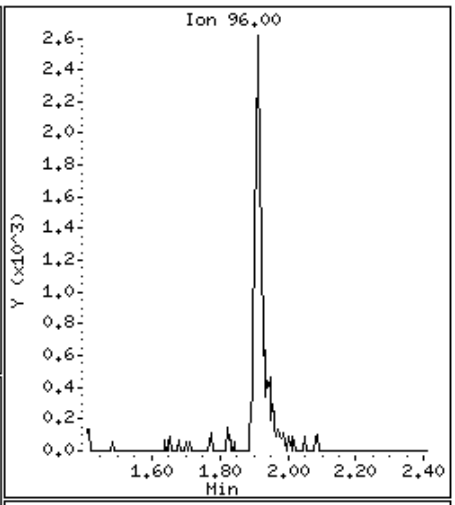
Column diameter: 0.18

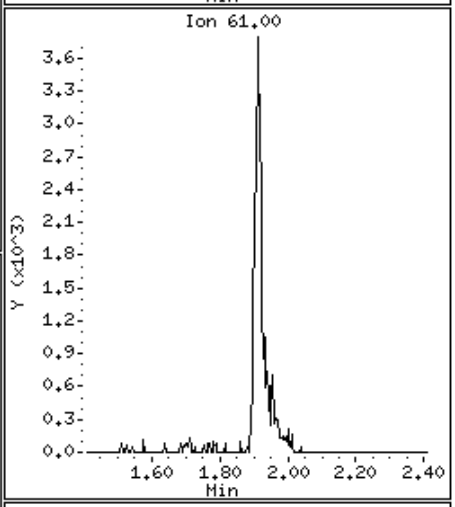
11 1,1-Dichloroethene

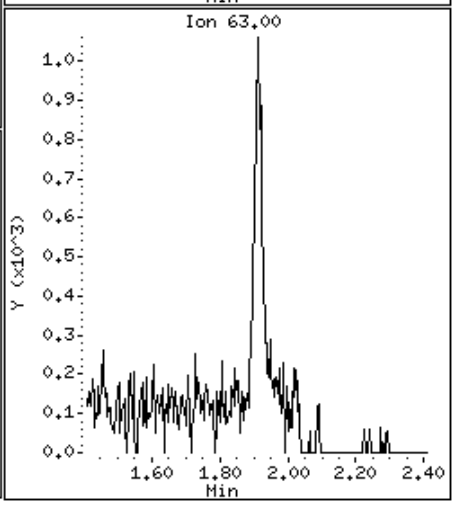
Concentration: 5.11 ug/l











Data File: \\NAHSTWS005\Target\chem\voa6.i\X230118.b\X011815.D

Date : 18-JAN-2023 16:00

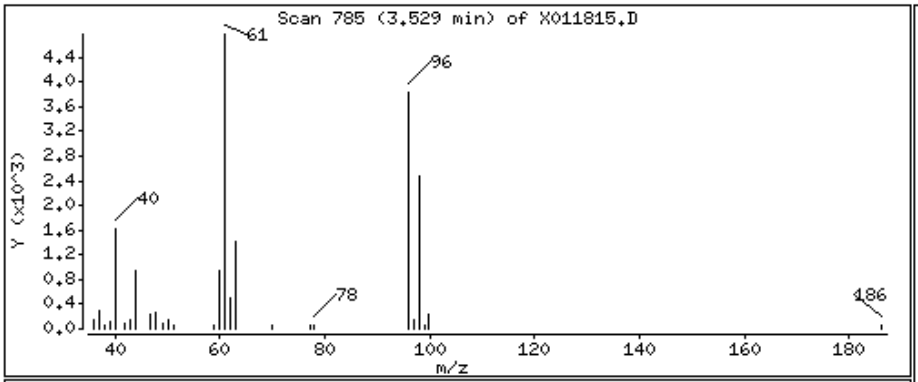
Client ID: HS23010632-02 Instrument: voa6.i

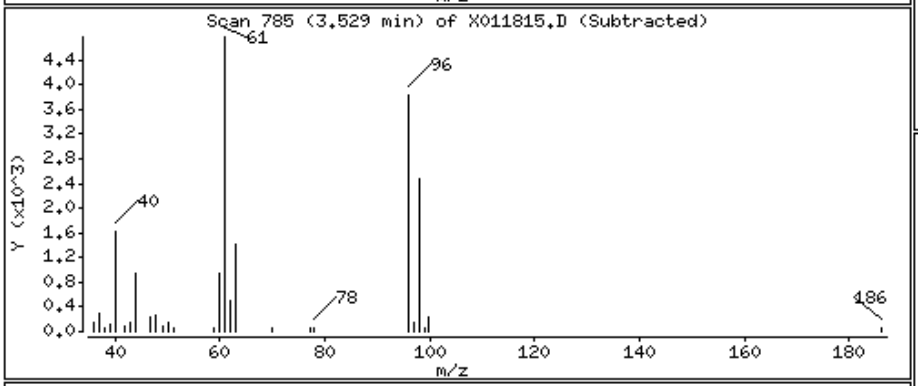
Sample Info: HS23010632-02;HS23010632-02;;;

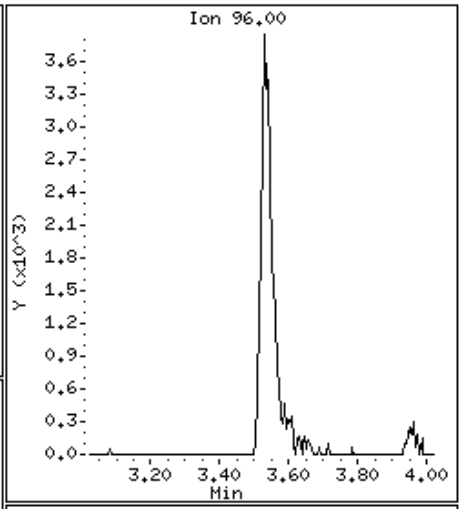
Purge Volume: 5.0 Operator: PC

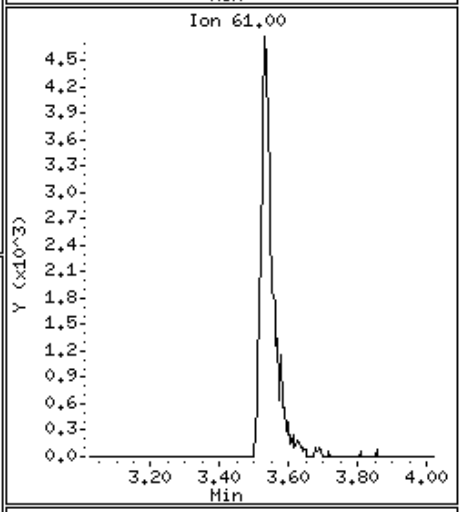
Column phase: DB624 Column diameter: 0.18

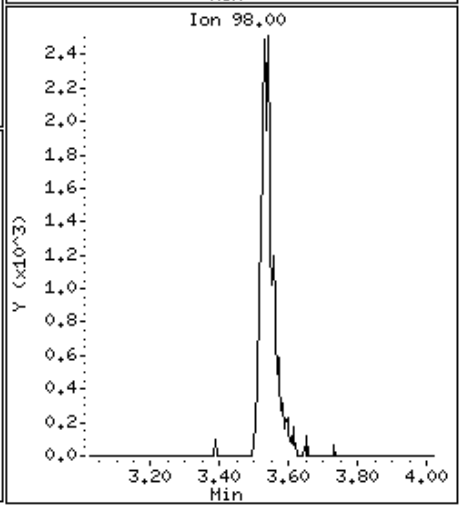
27 cis-1,2-Dichloroethene Concentration: 7.78 ug/l











Data File: \\NAHSTWS005\Target\chem\voa6.i\X230118.b\X011815.D

Date : 18-JAN-2023 16:00

Client ID: HS23010632-02

Instrument: voa6.i

Sample Info: HS23010632-02;HS23010632-02;;;

Purge Volume: 5.0

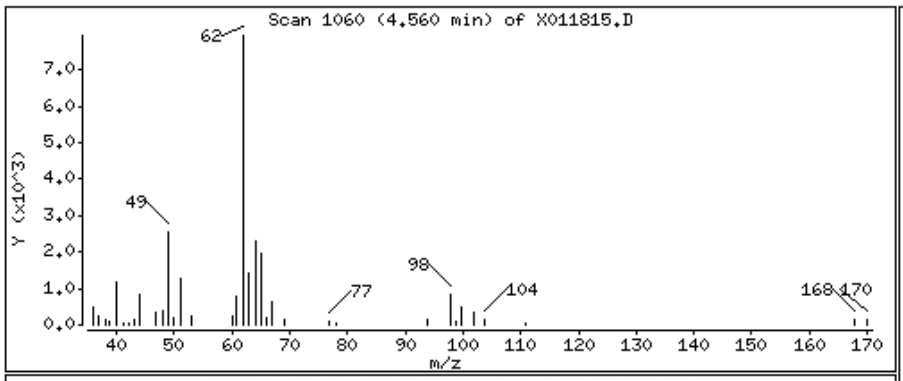
Operator: PC

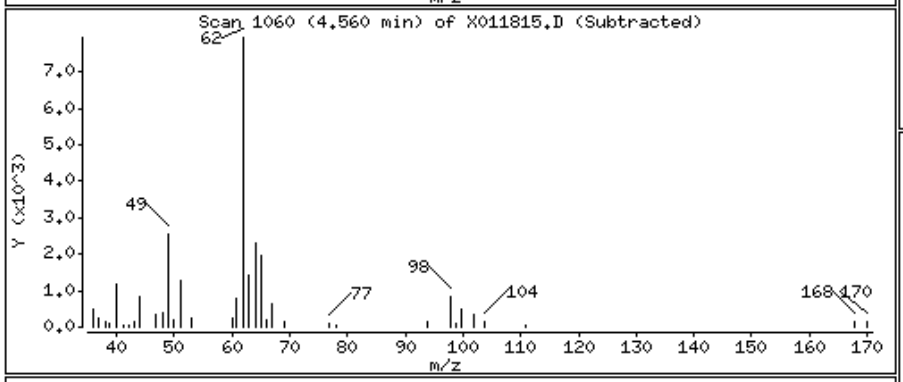
Column phase: DB624

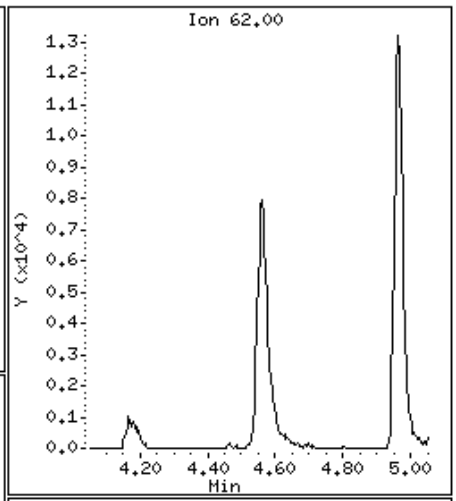
Column diameter: 0.18

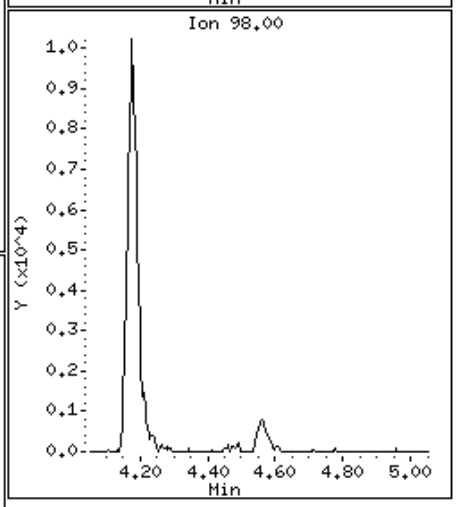
33 1,2-Dichloroethane

Concentration: 14.45 ug/l









Data File: \\NAHSTWS005\Target\chem\voa6.i\X230118.b\X011815.D

Date : 18-JAN-2023 16:00

Client ID: HS23010632-02

Instrument: voa6.i

Sample Info: HS23010632-02;HS23010632-02;;;

Purge Volume: 5.0

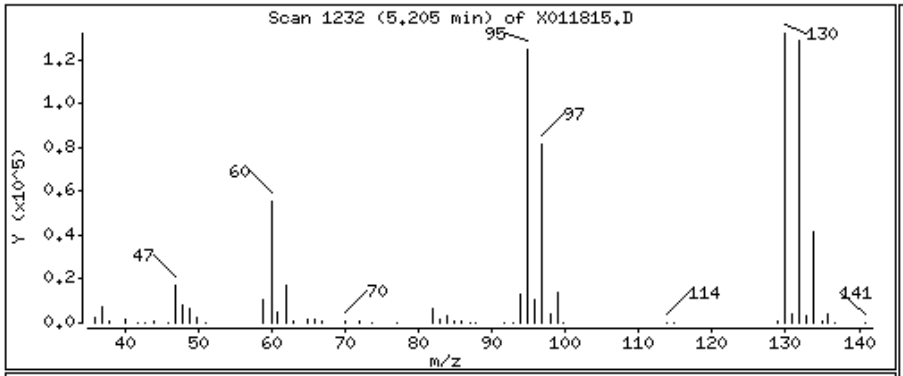
Operator: PC

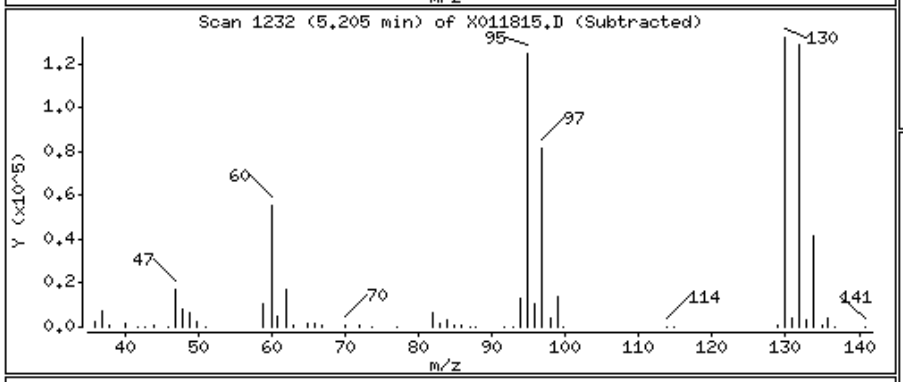
Column phase: DB624

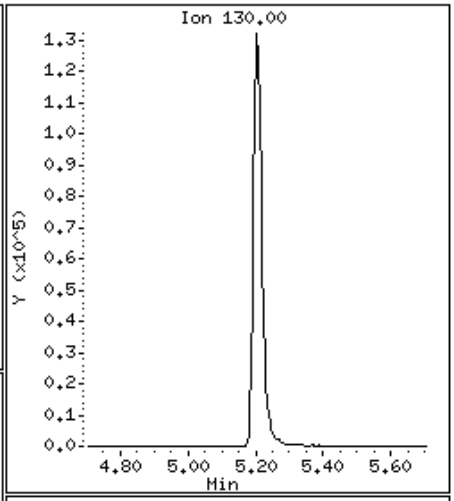
Column diameter: 0.18

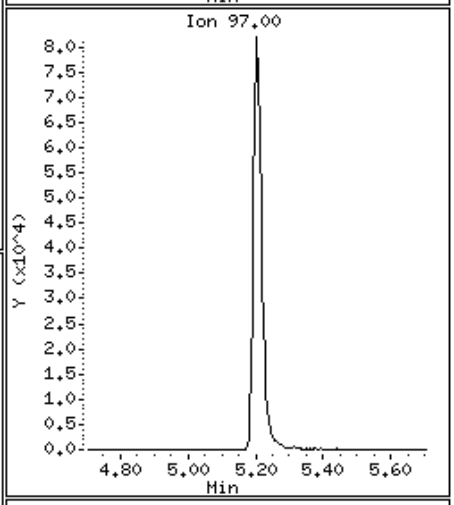
38 Trichloroethene

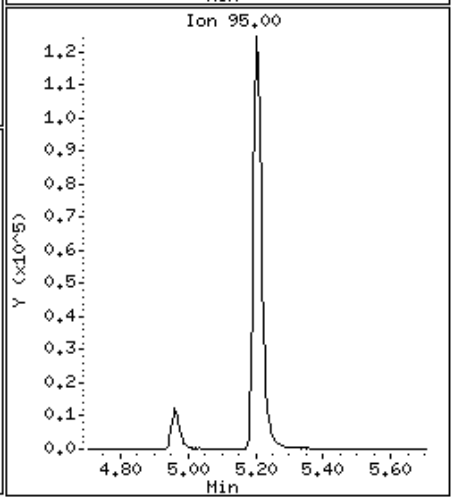
Concentration: 229.36 ug/l











Data File : \\NAHSTWS005\Target\chem\voa6.i\X230118.b\X011815.D
Inj Date : 18-JAN-2023 16:00
InstruID : voa6.i
LabSampID : HS23010632-02

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230118.b\X011816.D Page 1
Report Date: 25-Jan-2023 10:05

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230118.b\X011816.D
Lab Smp Id: HS23010632-03 Client Smp ID: HS23010632-03
Inj Date : 18-JAN-2023 16:21
Operator : PC Inst ID: voa6.i
Smp Info : HS23010632-03;HS23010632-03;;;
Misc Info : V6;WATER;0;5;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X230118.b\8260W.m
Meth Date : 25-Jan-2023 10:05 voa6.i Quant Type: ISTD
Cal Date : 16-DEC-2022 14:04 Cal File: X121608.D
Als bottle: 15
Dil Factor: 5.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	5.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
*	1 Pentafluorobenzene	168	4.177	4.177	(1.000)	538319	50.0000	
	11 1,1-Dichloroethene	96	1.913	1.910	(0.458)	3170	0.77590	3.87(a)
	27 cis-1,2-Dichloroethene	96	3.529	3.521	(0.845)	8425	1.51401	7.57(a)
$	30 Dibromofluoromethane	113	4.095	4.095	(0.980)	230401	44.5562	44.55
	33 1,2-Dichloroethane	62	4.560	4.552	(0.918)	18042	2.92791	14.63(a)
$	35 1,2-Dichloroethane-d4	65	4.470	4.466	(1.070)	260618	47.7818	47.78
*	36 1,4-Difluorobenzene	114	4.965	4.965	(1.000)	752083	50.0000	
	38 Trichloroethene	130	5.205	5.205	(1.048)	237557	46.6355	233.17
*	47 Chlorobenzene-d5	117	7.667	7.667	(1.000)	670790	50.0000	
$	48 Toluene-d8	98	6.385	6.385	(0.833)	881471	53.1785	53.17
$	69 4-Bromofluorobenzene	95	8.691	8.687	(1.133)	301758	48.7056	48.70
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	350188	50.0000	
M	94 1,2-Dichloroethylene (total)	96				8425	1.51401	7.57(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

01181810

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230118.b\X011816.D

Date : 18-JAN-2023 16:21

Client ID: HS23010632-03

Instrument: voa6.i

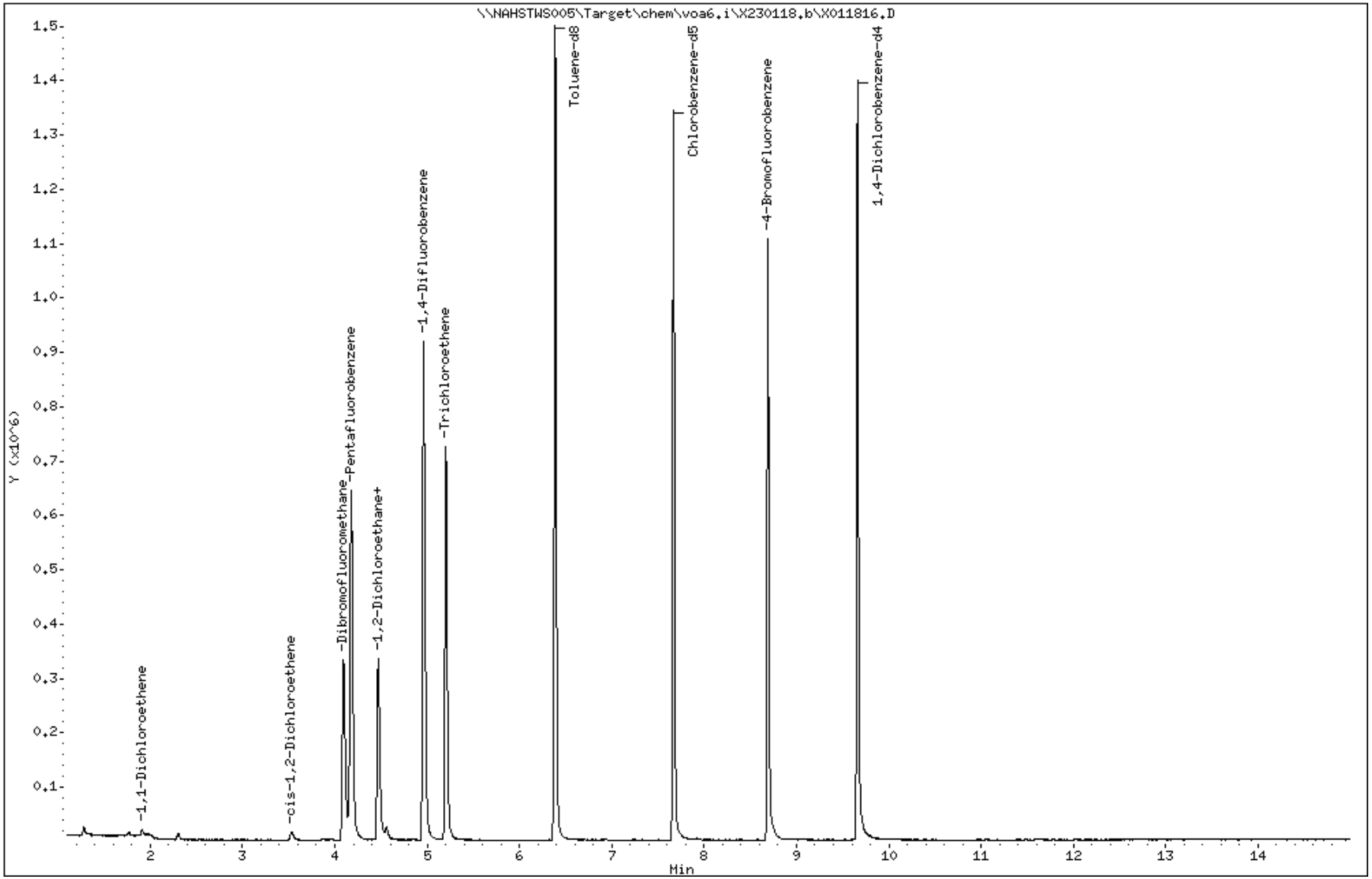
Sample Info: HS23010632-03;HS23010632-03;;;

Purge Volume: 5.0

Operator: PC

Column phase: DB624

Column diameter: 0.18



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230118.b\X011816.D

Date : 18-JAN-2023 16:21

Client ID: HS23010632-03

Instrument: voa6.i

Sample Info: HS23010632-03;HS23010632-03;;;

Purge Volume: 5.0

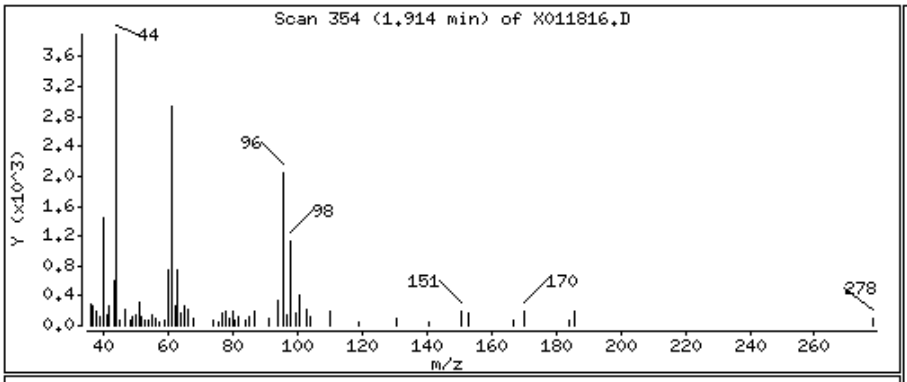
Operator: PC

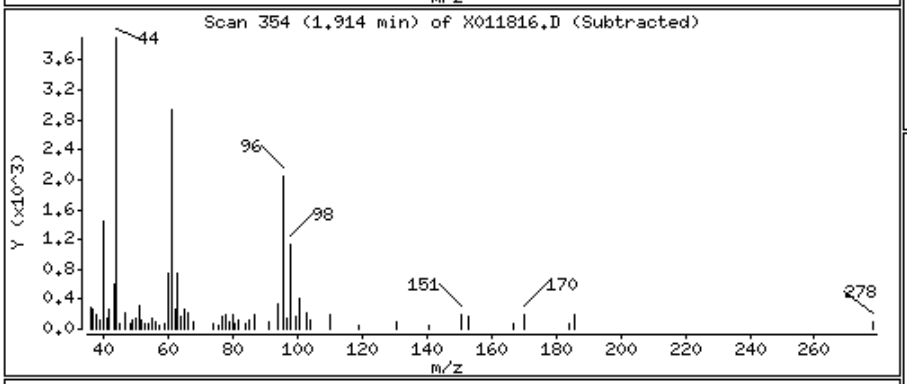
Column phase: DB624

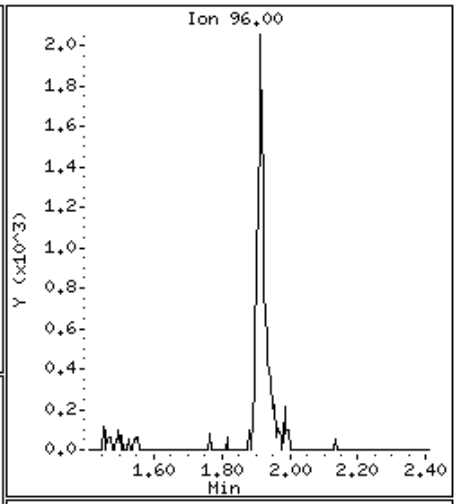
Column diameter: 0.18

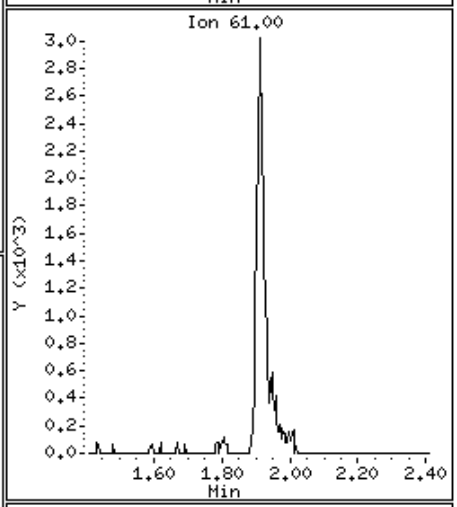
11 1,1-Dichloroethene

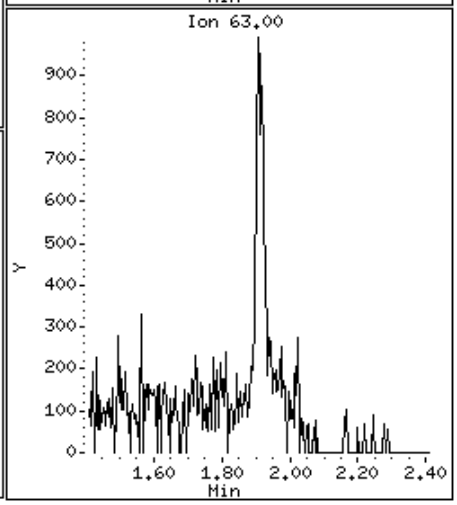
Concentration: 3.87 ug/l











Data File: \\NAHSTWS005\Target\chem\voa6.i\X230118.b\X011816.D

Date : 18-JAN-2023 16:21

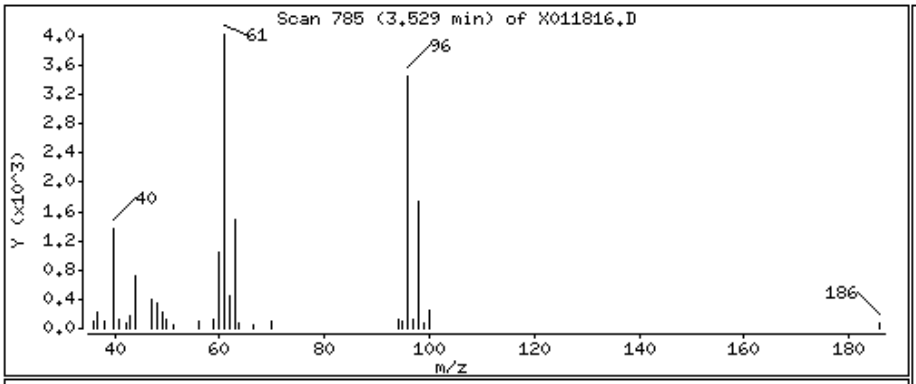
Client ID: HS23010632-03 Instrument: voa6.i

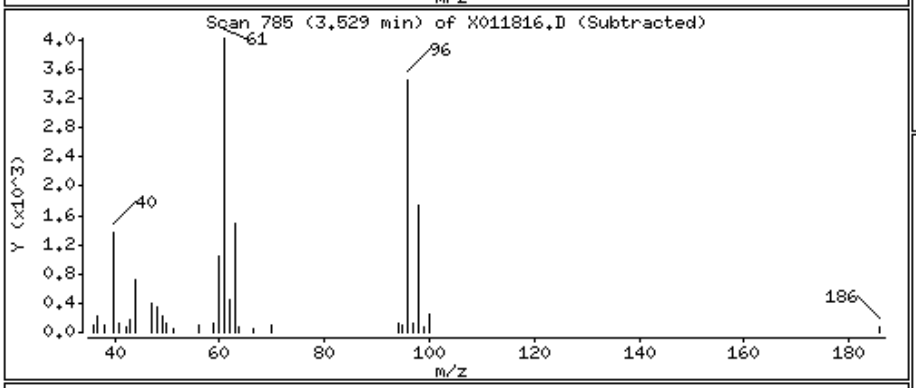
Sample Info: HS23010632-03;HS23010632-03;;;

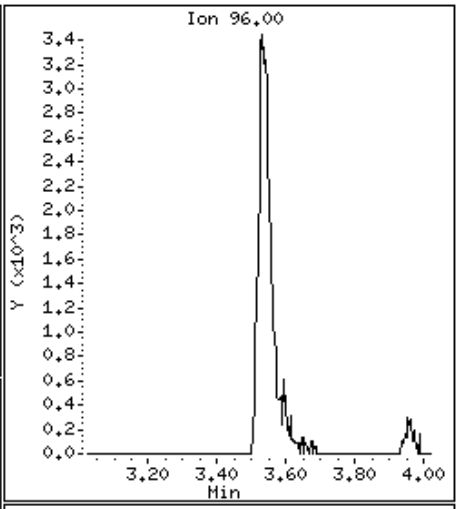
Purge Volume: 5.0 Operator: PC

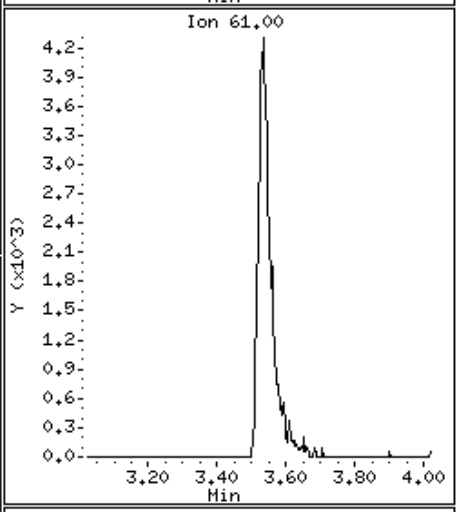
Column phase: DB624 Column diameter: 0.18

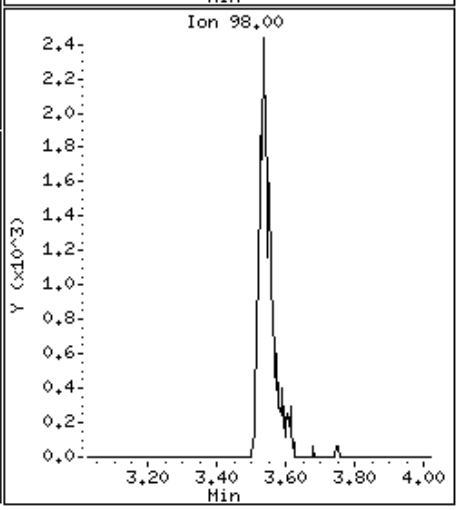
27 cis-1,2-Dichloroethene Concentration: 7.57 ug/l











Data File: \\NAHSTWS005\Target\chem\voa6.i\X230118.b\X011816.D

Date : 18-JAN-2023 16:21

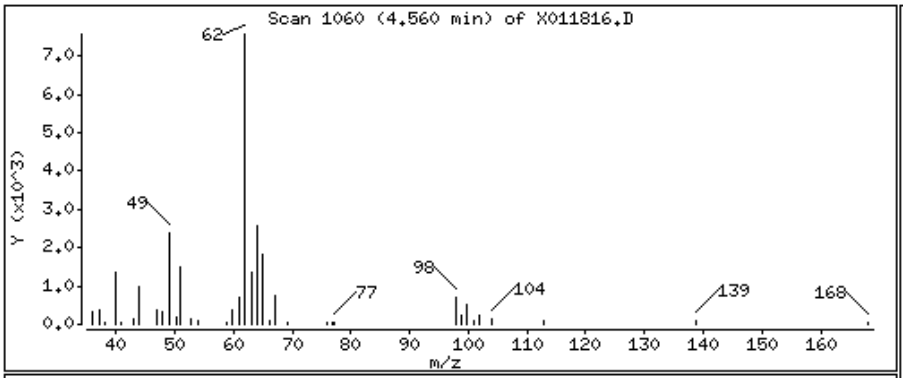
Client ID: HS23010632-03 Instrument: voa6.i

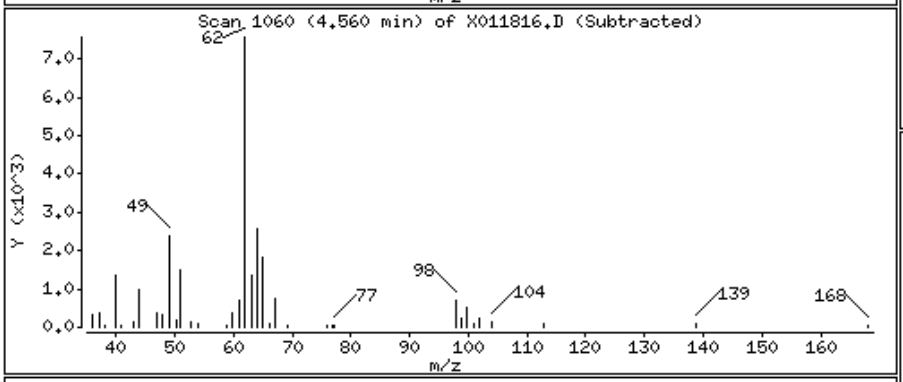
Sample Info: HS23010632-03;HS23010632-03;;;

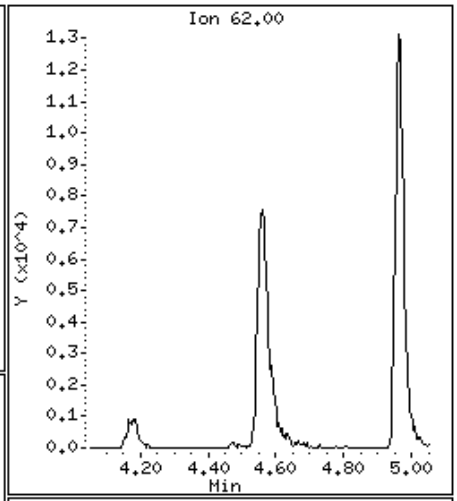
Purge Volume: 5.0 Operator: PC

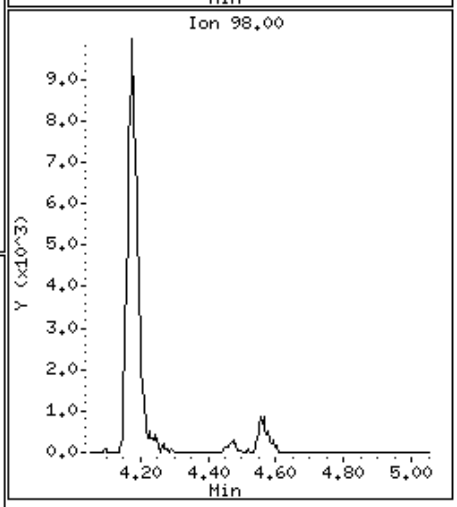
Column phase: DB624 Column diameter: 0.18

33 1,2-Dichloroethane Concentration: 14.63 ug/l









Data File: \\NAHSTWS005\Target\chem\voa6.i\X230118.b\X011816.D

Date : 18-JAN-2023 16:21

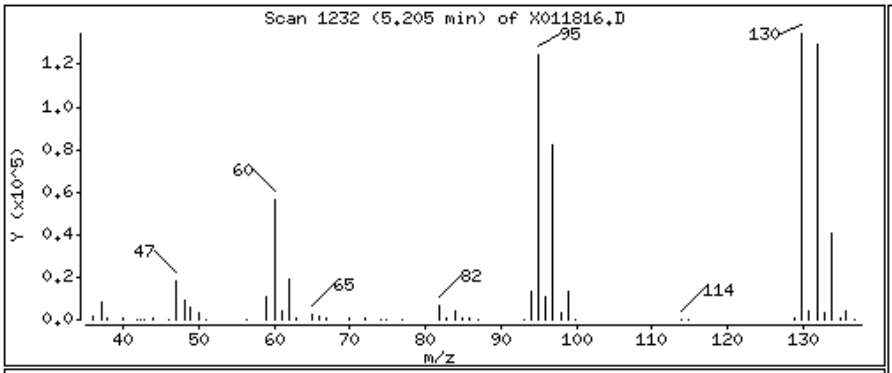
Client ID: HS23010632-03 Instrument: voa6.i

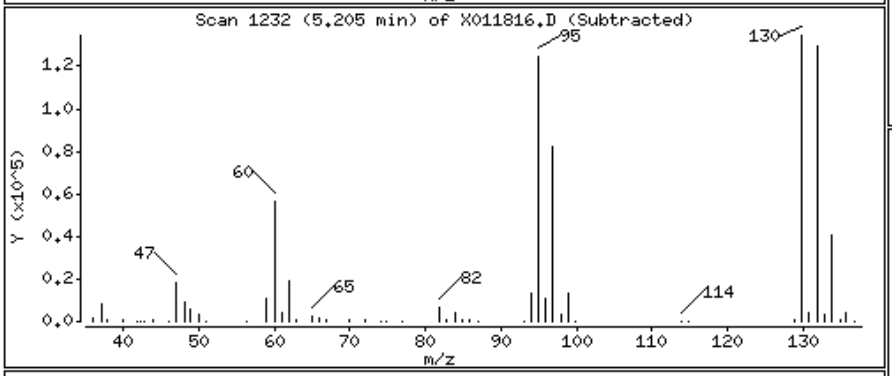
Sample Info: HS23010632-03;HS23010632-03;;;

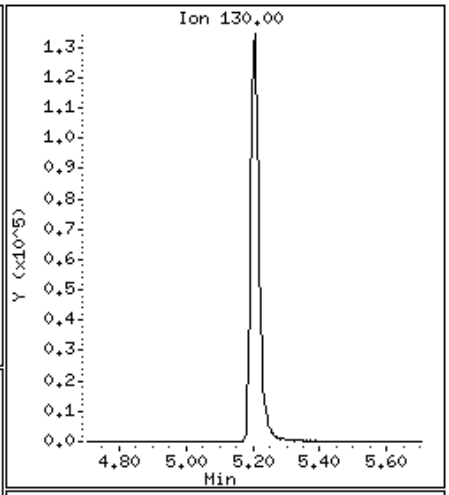
Purge Volume: 5.0 Operator: PC

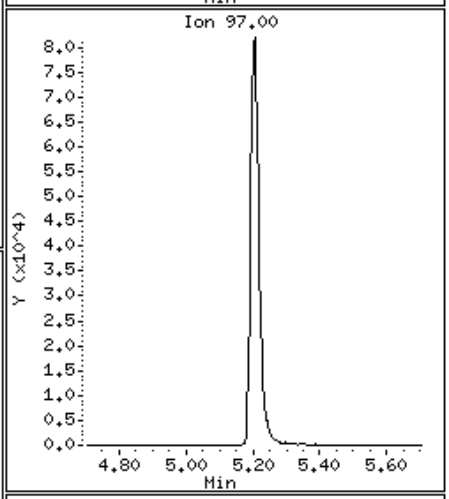
Column phase: DB624 Column diameter: 0.18

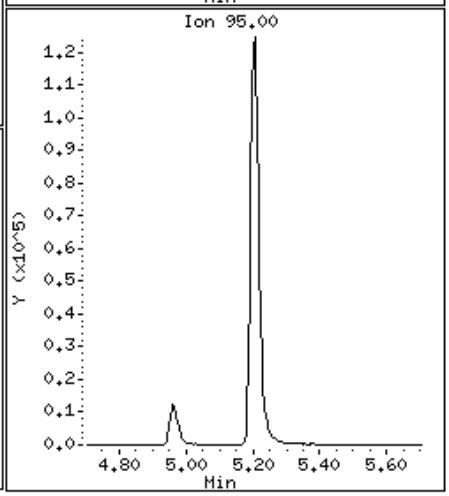
38 Trichloroethene Concentration: 233.17 ug/l











Data File : \\NAHSTWS005\Target\chem\voa6.i\X230118.b\X011816.D
Inj Date : 18-JAN-2023 16:21
InstruID : voa6.i
LabSampID : HS23010632-03

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230118.b\X011830.D Page 1
Report Date: 25-Jan-2023 10:05

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230118.b\X011830.D
Lab Smp Id: CCV-END Client Smp ID: CCV-END
Inj Date : 18-JAN-2023 21:16
Operator : PC Inst ID: voa6.i
Smp Info : CCV-END;CCV-END;2;;
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X230118.b\8260W.m
Meth Date : 25-Jan-2023 10:05 voa6.i Quant Type: ISTD
Cal Date : 16-DEC-2022 14:04 Cal File: X121608.D
Als bottle: 29 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.178	4.178	(1.000)	447898	50.0000	
135 1,4-Dioxane	88	5.598	5.598	(1.340)	45707	1000.00	1116.36
140 1,3-Butadiene	54	1.160	1.160	(0.278)	136977	50.0000	44.55
25 Methacrylonitrile	41	3.814	3.814	(0.913)	164930	50.0000	52.00
12 Isobutyl Alcohol	43	4.672	4.672	(1.118)	557279	1000.00	1106.18
13 Acetonitrile	39	2.195	2.195	(0.525)	188652	500.000	462.78
14 Allyl Chloride	41	2.195	2.195	(0.525)	363937	50.0000	46.87
4 Propionitrile	54	3.645	3.645	(0.873)	240649	500.000	526.56
72 trans-1,4-Dichloro-2-butene	53	8.890	8.890	(1.159)	74831	50.0000	52.82
194 Acetaldehyde	44	1.209	1.209	(0.289)	89120	200.000	327.39
23 Chloroprene	53	1.767	1.767	(0.423)	66877	50.0000	43.91(M)
130 Ethyl Acetate	43	3.649	3.649	(0.873)	193509	50.0000	55.36
40 Methyl Methacrylate	41	5.602	5.602	(1.341)	169697	50.0000	55.56
49 Ethyl Methacrylate	69	6.708	6.708	(1.351)	178626	50.0000	55.65
139 Diethyl ether	59	1.752	1.752	(0.420)	136776	50.0000	45.70
142 Tetrahydrofuran	42	3.840	3.840	(0.919)	59166	100.000	106.45
156 Diisopropyl ether	45	2.997	2.997	(0.717)	547415	50.0000	47.11
166 1,2,3-Trimethylbenzene	105	9.729	9.729	(1.007)	877682	50.0000	46.97
2 Dichlorodifluoromethane	85	0.969	0.969	(0.232)	127329	50.0000	40.71
3 Chloromethane	50	1.074	1.074	(0.257)	176072	50.0000	43.73

5 Vinyl Chloride	62	1.141	1.141 (0.273)	182235	50.0000	46.57
6 Bromomethane	94	1.336	1.336 (0.320)	138905	50.0000	47.04

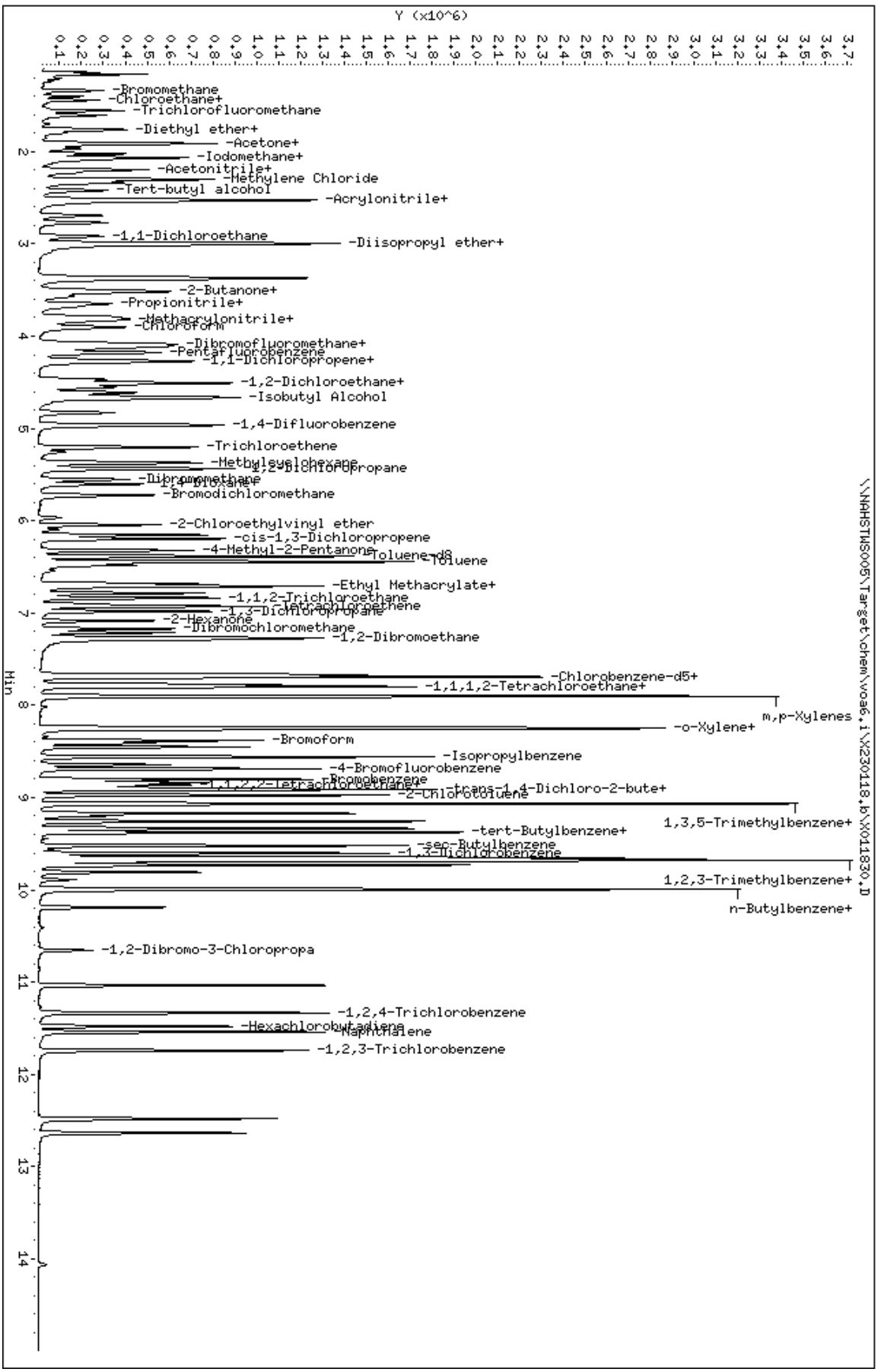
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	7 Chloroethane	64	1.400	1.400	(0.335)	123205	50.0000	45.24
	8 Trichlorofluoromethane	101	1.557	1.557	(0.373)	270838	50.0000	49.46
	9 Acrolein	56	1.441	1.441	(0.345)	22292	100.000	73.54
	10 Acetone	43	1.970	1.970	(0.472)	138307	100.000	110.05
	11 1,1-Dichloroethene	96	1.910	1.910	(0.457)	165433	50.0000	48.66
	15 Iodomethane	142	2.022	2.022	(0.484)	404210	100.000	90.89
	16 Acrylonitrile	53	2.528	2.528	(0.605)	125745	100.000	109.06
	17 Methylene Chloride	84	2.300	2.300	(0.550)	215372	50.0000	46.18
	18 Methyl tert-butyl ether	73	2.528	2.528	(0.605)	535491	50.0000	48.12
	19 Carbon Disulfide	76	2.067	2.067	(0.495)	843910	100.000	94.88
	20 trans-1,2-Dichloroethene	96	2.524	2.524	(0.604)	183537	50.0000	48.24
	21 Vinyl Acetate	43	2.993	2.993	(0.716)	895518	100.000	91.68
	22 1,1-Dichloroethane	63	2.918	2.918	(0.699)	322602	50.0000	48.31
	24 2-Butanone	43	3.570	3.570	(0.855)	144545	100.000	108.17
	26 2,2-Dichloropropane	77	3.503	3.503	(0.839)	245755	50.0000	43.34
	27 cis-1,2-Dichloroethene	96	3.522	3.522	(0.843)	219054	50.0000	47.31
	28 Chloroform	83	3.900	3.900	(0.934)	367030	50.0000	49.04
	29 Bromochloromethane	128	3.792	3.792	(0.908)	118417	50.0000	46.71
$	30 Dibromofluoromethane	113	4.095	4.095	(0.980)	212404	50.0000	49.38
	31 1,1,1-Trichloroethane	97	4.080	4.080	(0.977)	294661	50.0000	49.62
	32 1,1-Dichloropropene	75	4.275	4.275	(0.861)	251574	50.0000	51.98
	33 1,2-Dichloroethane	62	4.552	4.552	(0.917)	291934	50.0000	52.27
	34 Carbon Tetrachloride	117	4.260	4.260	(0.858)	246590	50.0000	47.71
$	35 1,2-Dichloroethane-d4	65	4.470	4.470	(1.070)	236780	50.0000	52.15
*	36 1,4-Difluorobenzene	114	4.965	4.965	(1.000)	681617	50.0000	
	37 Benzene	78	4.508	4.508	(0.908)	805367	50.0000	49.47
	38 Trichloroethene	130	5.205	5.205	(1.048)	237254	50.0000	51.39
	39 Bromodichloromethane	83	5.722	5.722	(1.153)	292391	50.0000	47.86
	41 2-Chloroethylvinyl ether	63	6.044	6.044	(1.217)	202295	100.000	116.40
	42 1,2-Dichloropropane	63	5.433	5.433	(1.094)	213350	50.0000	49.27
	44 Dibromomethane	93	5.553	5.553	(1.119)	144184	50.0000	48.99
	45 4-Methyl-2-Pentanone	43	6.322	6.322	(0.824)	384274	100.000	109.55
	46 cis-1,3-Dichloropropene	75	6.153	6.153	(1.239)	352781	50.0000	49.17
*	47 Chlorobenzene-d5	117	7.668	7.668	(1.000)	656244	50.0000	
$	48 Toluene-d8	98	6.386	6.386	(0.833)	803304	50.0000	49.53
	50 Toluene	91	6.446	6.446	(0.841)	894247	50.0000	49.30
	51 trans-1,3-Dichloropropene	75	6.682	6.682	(1.346)	303871	50.0000	51.03
	52 2-Hexanone	43	7.083	7.083	(0.924)	269380	100.000	112.87
	53 1,1,2-Trichloroethane	83	6.839	6.839	(0.892)	175979	50.0000	48.35
	54 1,3-Dichloropropane	76	6.982	6.982	(0.911)	354972	50.0000	49.55
	55 Dibromochloromethane	129	7.173	7.173	(0.935)	257036	50.0000	48.94
	56 Tetrachloroethene	164	6.925	6.925	(0.903)	185769	50.0000	49.49
	57 1,2-Dibromoethane	107	7.259	7.259	(0.947)	231860	50.0000	50.96
	58 1-Chlorohexane	55	7.694	7.694	(1.550)	170391	50.0000	51.72
	59 Chlorobenzene	112	7.690	7.690	(1.003)	618944	50.0000	48.10
	60 1,1,1,2-Tetrachloroethane	131	7.773	7.773	(1.014)	235966	50.0000	49.28
	61 Ethylbenzene	106	7.799	7.799	(1.017)	306368	50.0000	50.55
	62 m,p-Xylenes	106	7.904	7.904	(1.031)	793032	100.000	101.50
	63 o-Xylene	106	8.241	8.241	(1.075)	386744	50.0000	50.15
	64 Styrene	104	8.260	8.260	(1.077)	683670	50.0000	52.89
	66 Bromoform	173	8.410	8.410	(1.097)	183092	50.0000	50.32
	67 Isopropylbenzene	105	8.560	8.560	(1.116)	941429	50.0000	53.43

	68 1,1,2,2-Tetrachloroethane	83	8.837	8.837 (0.915)	286534	50.0000	46.33
$	69 4-Bromofluorobenzene	95	8.687	8.687 (1.133)	308986	50.0000	50.97

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	387986	50.0000	
	71 1,2,3-Trichloropropane	75	8.863	8.863	(0.917)	220346	50.0000	51.03(M)
	73 n-Propylbenzene	91	8.912	8.912	(0.922)	1115412	50.0000	51.90
	74 Bromobenzene	156	8.803	8.803	(0.911)	303554	50.0000	47.68
	75 1,3,5-Trimethylbenzene	105	9.066	9.066	(0.938)	837224	50.0000	52.73
	76 2-Chlorotoluene	91	8.972	8.972	(0.929)	701393	50.0000	49.73
	77 4-Chlorotoluene	91	9.070	9.070	(0.939)	830727	50.0000	51.67
	78 tert-Butylbenzene	119	9.336	9.336	(0.966)	686773	50.0000	52.84
	79 1,2,4-Trimethylbenzene	105	9.377	9.377	(0.971)	867018	50.0000	51.90
	81 sec-Butylbenzene	105	9.519	9.519	(0.985)	937280	50.0000	54.20
	82 p-Isopropyltoluene	119	9.651	9.651	(0.999)	851583	50.0000	54.96
	83 1,3-Dichlorobenzene	146	9.606	9.606	(0.994)	533440	50.0000	50.48
	84 1,4-Dichlorobenzene	146	9.681	9.681	(1.002)	572648	50.0000	49.66
	87 n-Butylbenzene	91	9.992	9.992	(1.034)	747521	50.0000	50.05
	88 1,2-Dichlorobenzene	146	9.992	9.992	(1.034)	545377	50.0000	50.12
	89 1,2-Dibromo-3-Chloropropane	155	10.655	10.655	(1.103)	50418	50.0000	50.99
	90 1,2,4-Trichlorobenzene	180	11.338	11.338	(1.173)	371288	50.0000	54.06
	91 Hexachlorobutadiene	225	11.480	11.480	(1.188)	143533	50.0000	47.19
	92 Naphthalene	128	11.540	11.540	(1.194)	852103	50.0000	54.53
	93 1,2,3-Trichlorobenzene	180	11.742	11.742	(1.215)	346160	50.0000	52.63
M	94 1,2-Dichloroethylene (total)	96				402591	100.000	(a)
	141 Cyclohexane	56	4.121	4.121	(0.987)	228359	50.0000	50.56
	138 Freon TF	101	1.910	1.910	(0.457)	157541	50.0000	47.91
	147 Methylcyclohexane	55	5.377	5.377	(1.083)	423021	50.0000	50.70
	146 Methyl Acetate	43	2.225	2.225	(0.533)	111747	50.0000	55.44
	148 Tert-Butyl alcohol	59	2.420	2.420	(0.579)	347621	1000.00	1120.85
	149 Isopropyl Alcohol	45	2.086	2.086	(0.499)	188194	1000.00	1161.90

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230118.b\X011830.D
Date : 18-JAN-2023 21:16
Client ID: CCV-END
Sample Info: CCV-END;CCV-END;2;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

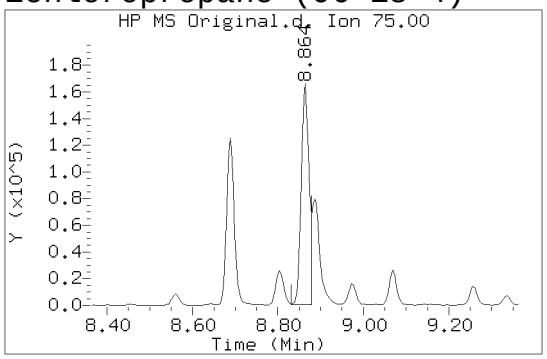
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230118.b\X011830.D
Inj Date : 18-JAN-2023 21:16
InstruID : voa6.i
LabSampID : CCV-END

1,2,3-Trichloropropane (96-18-4)

Reason Code:

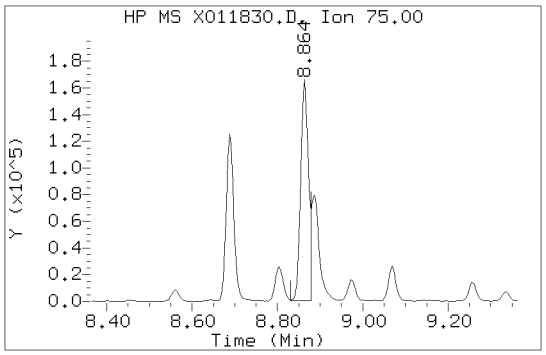
BEFORE

MASS
75
AREA
220346
HEIGHT
165857
25-Jan-2023
10:05
linh
pham



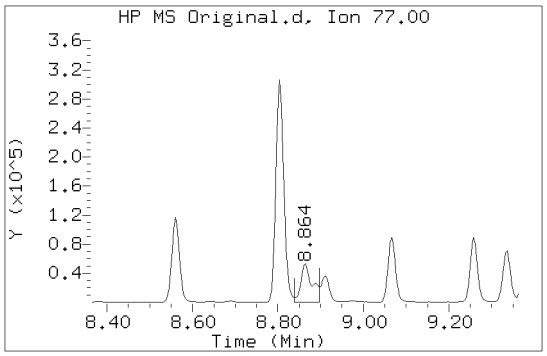
AFTER

MASS
75
AREA
220346
HEIGHT
165857
25-Jan-2023
10:05
linh
pham



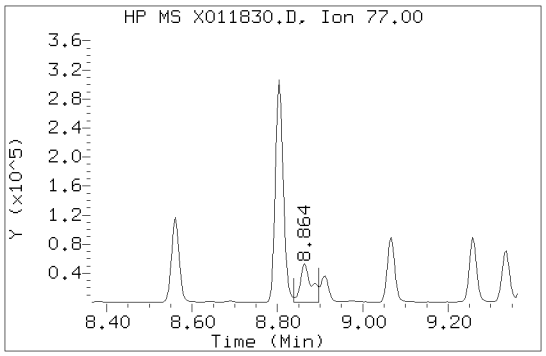
BEFORE

MASS
77
AREA
101903
HEIGHT
52916
25-Jan-2023
10:05
linh
pham



AFTER

MASS
77
AREA
101903
HEIGHT
52916
25-Jan-2023
10:05
linh
pham

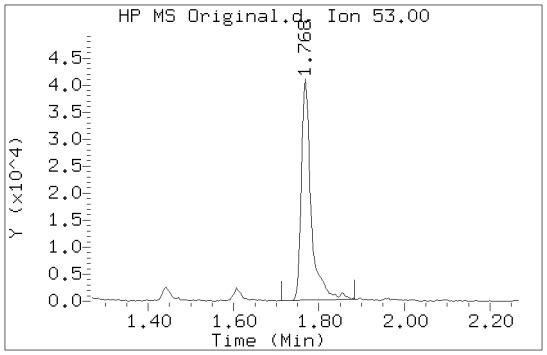


Chloroprene (126-99-8)

Reason Code:

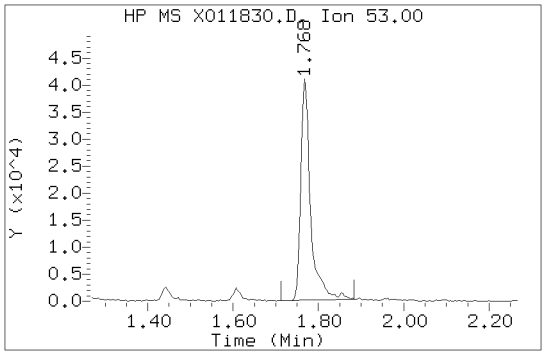
BEFORE

MASS
53
AREA
66877
HEIGHT
40890
25-Jan-2023
10:05
linh
pham



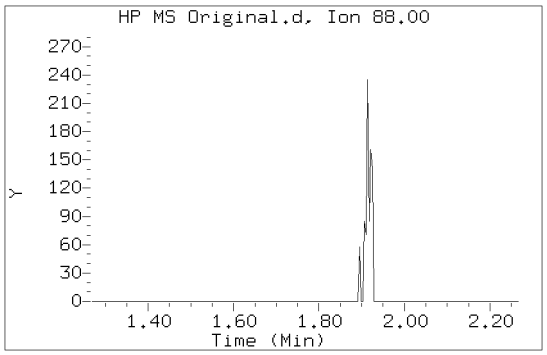
AFTER

MASS
53
AREA
66877
HEIGHT
40890
25-Jan-2023
10:05
linh
pham



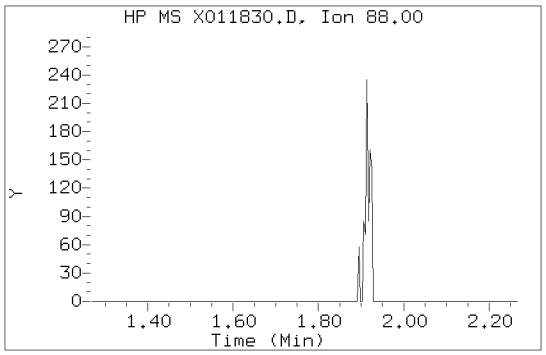
BEFORE

MASS
88
AREA
0
HEIGHT
0
25-Jan-2023
10:05
linh
pham



AFTER

MASS
88
AREA
0
HEIGHT
0
25-Jan-2023
10:05
linh
pham



HS23010632-MSSEMI-SW8270SIM

ALS WO# HS23010632

01181824

right solutions.
right partner.

Form 1

Organic Analysis Data Sheet

Semi-Volatiles by by EPA 8270SIM

Workorder

HS23010632

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 18 24

02/01/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP 18 24

Workorder
HS23010632

Semi-Volatiles by EPA 8270SIM

HS23010632-01		Collected	Received	Matrix	Basis
126_011123		01/11/23 08:15	01/12/23 09:15	Groundwater	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile	PrepBatch
1,4-Dioxane	ug/L	0.020		0.010	0.010	0.010	1	01/30/23 14:03	SV-6_426872	08	188515

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP 18 24

Workorder
HS23010632

Semi-Volatiles by EPA 8270SIM

HS23010632-02		Collected	Received	Matrix	Basis
MW16_011123		01/11/23 09:00	01/12/23 09:15	Groundwater	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile	PrepBatch
1,4-Dioxane	ug/L	1.4		0.10	0.10	0.10	10	01/30/23 16:44	SV-6_426872	17	188515

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP 18 24

Workorder
HS23010632

Semi-Volatiles by EPA 8270SIM

HS23010632-03		Collected	Received	Matrix	Basis
MW16_011123_a		01/11/23 09:00	01/12/23 09:15	Groundwater	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile	PrepBatch
1,4-Dioxane	ug/L	1.2		0.10	0.10	0.10	10	01/30/23 17:10	SV-6_426872	18	188515

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP 18 24

Workorder
HS23010632

Semi-Volatiles by EPA 8270SIM

HS23010632-04		Collected	Received	Matrix	Basis
MW17_011123		01/11/23 09:45	01/12/23 09:15	Groundwater	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile	PrepBatch
1,4-Dioxane	ug/L	0.028		0.010	0.010	0.010	1	01/30/23 14:57	SV-6_426872	11	188515

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP 18 24

Workorder
HS23010632

Semi-Volatiles by EPA 8270SIM

HS23010632-05		Collected	Received	Matrix	Basis
MW17_011123_a		01/11/23 09:45	01/12/23 09:15	Groundwater	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile	PrepBatch
1,4-Dioxane	ug/L	0.10		0.010	0.010	0.010	1	01/30/23 15:15	SV-6_426872	12	188515

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP 18 24

Workorder
HS23010632

Semi-Volatiles by EPA 8270SIM

HS23010632-06		Collected	Received	Matrix	Basis
18CPTMW16_011123		01/11/23 10:50	01/12/23 09:15	Groundwater	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile	PrepBatch
1,4-Dioxane	ug/L	0.010		0.010	0.010	0.010	1	01/30/23 15:33	SV-6_426872	13	188515

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP 18 24

Workorder
HS23010632

Semi-Volatiles by EPA 8270SIM

MBLK-188515

Collected	Received	Matrix	Basis
NA	NA	Aqueous	Wet

MBLK-188515

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile	PrepBatch
1,4-Dioxane	ug/L	0.010	U	0.010	0.010	0.010	1	01/30/23 13:10	SV-6_426872	05	188515

01181832

right solutions.
right partner.

Form 2

System Monitoring Compound Recovery

Semi-Volatiles by by EPA 8270SIM

Workorder

HS23010632

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 18 24

02/01/2023

ALS Environmental–Houston Laboratory

10450 Stancliff Road, Suite 210, Houston, TX 77099

Phone (281) 530-5656 Fax (281) 530-5887

www.alsglobal.com

Form 2 - System Monitoring Compound Recovery

Client Bhate Environmental Associates, Inc.

Project LHAAP 18 24

Workorder
HS23010632

RunID
SV-6_426872

Semi-Volatiles by EPA 8270SIM

MBLK-188515	Analyzed 01/30/23		Conc Units ug/L		DF 1
Surrogate	Result Conc	Spike Conc	%Recovery	%Recovery Limits	Q
2-Fluorobiphenyl	0.09426	0.08	118	40-140	
4-Terphenyl-d14	0.0759	0.08	94.9	40-140	
Nitrobenzene-d5	0.09076	0.08	113	40-140	

LCS1-188515	Analyzed 01/30/23		Conc Units ug/L		DF 1
Surrogate	Result Conc	Spike Conc	%Recovery	%Recovery Limits	Q
2-Fluorobiphenyl	0.0927	0.08	116	40-140	
4-Terphenyl-d14	0.07735	0.08	96.7	40-140	
Nitrobenzene-d5	0.08762	0.08	110	40-140	

LCSD1-188515	Analyzed 01/30/23		Conc Units ug/L		DF 1
Surrogate	Result Conc	Spike Conc	%Recovery	%Recovery Limits	Q
2-Fluorobiphenyl	0.09217	0.08	115	40-140	
4-Terphenyl-d14	0.07173	0.08	89.7	40-140	
Nitrobenzene-d5	0.08954	0.08	112	40-140	

HS23010632-01	Analyzed 01/30/23		Conc Units ug/L		DF 1
Surrogate	Result Conc	Spike Conc	%Recovery	%Recovery Limits	Q
2-Fluorobiphenyl	0.089	0.08	112	40-140	
4-Terphenyl-d14	0.084	0.08	105	40-140	
Nitrobenzene-d5	0.083	0.08	103	40-140	

HS23010632-04	Analyzed 01/30/23		Conc Units ug/L		DF 1
Surrogate	Result Conc	Spike Conc	%Recovery	%Recovery Limits	Q
2-Fluorobiphenyl	0.099	0.08	123	40-140	
4-Terphenyl-d14	0.082	0.08	103	40-140	
Nitrobenzene-d5	0.087	0.08	109	40-140	

Q - Surrogate %Recovery Flag * - %Recovery / RPD Outside Limits

Form 2 - System Monitoring Compound Recovery

Client Bhate Environmental Associates, Inc.

Project LHAAP 18 24

Workorder
HS23010632

RunID
SV-6_426872

Semi-Volatiles by EPA 8270SIM

HS23010632-05	Analyzed 01/30/23		Conc Units ug/L		DF 1
Surrogate	Result Conc	Spike Conc	%Recovery	%Recovery Limits	Q
2-Fluorobiphenyl	0.098	0.08	122	40-140	
4-Terphenyl-d14	0.089	0.08	112	40-140	
Nitrobenzene-d5	0.089	0.08	111	40-140	

HS23010632-06	Analyzed 01/30/23		Conc Units ug/L		DF 1
Surrogate	Result Conc	Spike Conc	%Recovery	%Recovery Limits	Q
2-Fluorobiphenyl	0.099	0.08	124	40-140	
4-Terphenyl-d14	0.091	0.08	114	40-140	
Nitrobenzene-d5	0.090	0.08	113	40-140	

HS23010632-02	Analyzed 01/30/23		Conc Units ug/L		DF 10
Surrogate	Result Conc	Spike Conc	%Recovery	%Recovery Limits	Q
2-Fluorobiphenyl	0.085	0.08	106	40-140	
4-Terphenyl-d14	0.21	0.08	268	40-140	*
Nitrobenzene-d5	0.092	0.08	115	40-140	

HS23010632-03	Analyzed 01/30/23		Conc Units ug/L		DF 10
Surrogate	Result Conc	Spike Conc	%Recovery	%Recovery Limits	Q
2-Fluorobiphenyl	0.098	0.08	122	40-140	
4-Terphenyl-d14	0.20	0.08	249	40-140	*
Nitrobenzene-d5	0.069	0.08	85.7	40-140	

Q - Surrogate %Recovery Flag * - %Recovery / RPD Outside Limits

01181835

right solutions.
right partner.

Form 3B

Laboratory Control Sample Recovery

Semi-Volatiles by by EPA 8270SIM

Workorder

HS23010632

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 18 24

02/01/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Form 3B - Laboratory Control Sample Recovery

Client Bhate Environmental Associates, Inc.

Project LHAAP 18 24

Workorder
HS23010632

Semi-Volatiles by EPA 8270SIM

SV-6_426872		QC ID	LCS1-188515			LCS1-188515					
QC Matrix	Aqueous	Run Date	01/30/23			01/30/23					
Prep Method	SW3510	Units Run Time	13:28			13:46					
Prep Batch	188515 01/18/23	ug/L Prep Amt	1000 mL			1000 mL					
Analyte		%R Limits	Spike Added	LCS Result	%R	Q	LCSD Result	%R	Q	RPD Limit	RPD	Q
1,4-Dioxane		40-140	0.08	0.04944	62		0.04559	57.0		20	8.12	
2-Fluorobiphenyl		40-140	0.08	0.0927	116		0.09217	115.0		20	0.582	
4-Terphenyl-d14		40-140	0.08	0.07735	97		0.07173	90.0		20	7.54	
Nitrobenzene-d5		40-140	0.08	0.08762	110		0.08954	112.0		20	2.16	

- %Recovery / RPD Flag * - %Recovery / RPD Outside Limits

01181837

right solutions.
right partner.

Form 4

Method Blank Summary

Semi-Volatiles by by EPA 8270SIM

Workorder

HS23010632

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 18 24

02/01/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Form 4 - Method Blank Summary

Client Bhate Environmental Associates, Inc.

Project LHAAP 18 24

Workorder
HS23010632

Semi-Volatiles by EPA 8270SIM

Client Sample ID	Type	Lab Sample ID	File ID	Date Analyzed	Run ID
METHOD BLANK	MBLK	MBLK-188515	05.D	01/30/23 13:10	SV-6_426872
LCS1-188515	LCS	LCS1-188515	06.D	01/30/23 13:28	SV-6_426872
LCSD1-188515	LCSD	LCSD1-188515	07.D	01/30/23 13:46	SV-6_426872
126_011123	SAMP	HS23010632-01	08.D	01/30/23 14:03	SV-6_426872
MW17_011123	SAMP	HS23010632-04	11.D	01/30/23 14:57	SV-6_426872
MW17_011123_a	SAMP	HS23010632-05	12.D	01/30/23 15:15	SV-6_426872
18CPTMW16_011123	SAMP	HS23010632-06	13.D	01/30/23 15:33	SV-6_426872
MW16_011123	SAMP	HS23010632-02	17.D	01/30/23 16:44	SV-6_426872
MW16_011123_a	SAMP	HS23010632-03	18.D	01/30/23 17:10	SV-6_426872

01181839

right solutions.
right partner.

Form 5

Instrument Performance Check

Semi-Volatiles by by EPA 8270SIM

Workorder

HS23010632

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 18 24

02/01/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Form 5 - Instrument Performance Check

Client Bhate Environmental Associates, Inc.

Project LHAAP 18 24

Workorder
HS23010632

RunID
SV-6_426872

Tune File 01.D 01/30/23 11:02

m / e	Ion Abundance Criterion	%RA
51	30.0 - 80.0% of mass 198	33.6 (33.63)
68	Less than 2.0% of mass 69	0.5 (1.62) 1
69	Mass 69 RA	29.2 (29.19)
70	Less than 2.0% of mass 69	0 (0) 1
127	25.0 - 75.0% of mass 198	38.4 (38.36)
197	Less than 1.0% of mass 198	0.6 (0.58)
198	Base peak, 100% RA	100 (69.55)
199	5.0 - 9.0% of mass 198	6.4 (6.44)
275	10.0 - 30.0% of mass 198	29.9 (29.87)
365	Greater than 0.75% of mass	4.4 (4.43)
441	Present, but less than mass	21.7 (75.03)
442	40.0 - 110.0% of mass 198	143.8 (143.77)
443	15.0 - 24.0% of mass 442	28.9 (20.08) 2

Value is % of mass 1) 69 2) 442 RA - Relative Abundance

This check applies to the following analyses

	Type	Date Analyzed	Lab File ID	Sample ID
1	CCV	01/30/23 12:15	03	14DX-0.08
2	MBLK	01/30/23 13:10	05	MBLK-188515
3	LCS	01/30/23 13:28	06	LCS1-188515
4	LCSD	01/30/23 13:46	07	LCSD1-188515
5	SAMP	01/30/23 14:03	08	126_011123
6	SAMP	01/30/23 14:57	11	MW17_011123
7	SAMP	01/30/23 15:15	12	MW17_011123_a
8	SAMP	01/30/23 15:33	13	18CPTMW16_011123
9	SAMP	01/30/23 16:44	17	MW16_011123
10	SAMP	01/30/23 17:10	18	MW16_011123_a
11	CCV	01/30/23 17:28	19	14DX-CCV_END

Form 5 - Instrument Performance Check

Client Bhate Environmental Associates, Inc.

Project LHAAP 18 24

Workorder
HS23010632

RunID
SV-6_427063

Tune File 01.D 01/26/23 10:28

m / e	Ion Abundance Criterion	%RA
51	30.0 - 80.0% of mass 198	66.8 (66.77)
68	Less than 2.0% of mass 69	0.7 (1.46) 1
69	Mass 69 RA	46 (45.99)
70	Less than 2.0% of mass 69	0.2 (0.5) 1
127	25.0 - 75.0% of mass 198	51.7 (51.66)
197	Less than 1.0% of mass 198	0.6 (0.64)
198	Base peak, 100% RA	100 (100)
199	5.0 - 9.0% of mass 198	6.8 (6.75)
275	10.0 - 30.0% of mass 198	22.3 (22.35)
365	Greater than 0.75% of mass	2.9 (2.89)
441	Present, but less than mass	9.8 (71.9)
442	40.0 - 110.0% of mass 198	66.1 (66.06)
443	15.0 - 24.0% of mass 442	13.6 (20.62) 2

Value is % of mass 1) 69 2) 442 RA - Relative Abundance

This check applies to the following analyses

	Type	Date Analyzed	Lab File ID	Sample ID
1	ICAL1	01/26/23 17:04	18	1 4-DX-0.01
2	ICAL2	01/26/23 17:22	19	1 4-DX-0.03
3	ICAL3	01/26/23 17:40	20	1 4-DX-0.05
4	ICAL4	01/26/23 17:58	21	1 4-DX-0.08
5	ICAL5	01/26/23 18:16	22	1 4-DX-0.1
6	ICAL6	01/26/23 18:34	23	1 4-DX-0.15
7	ICAL7	01/26/23 18:51	24	1 4-DX-0.2
8	ICAL8	01/26/23 19:09	25	1 4-DX-0.5
9	ICV	01/26/23 19:27	26	1 4-DX-ICV

01181842

right solutions.
right partner.

Form 6

Initial Calibration Data

Semi-Volatiles by by EPA 8270SIM

Workorder

HS23010632

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 18 24

02/01/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Initial Calibration Data

Client Bhate Environmental Associates, Inc.
Project LHAAP 18 24

Workorder
HS23010632

RunID
SV-6_427063

Semi-Volatiles by by EPA 8270SIM

Calibration Files

Level 1 ..SV6.i\230126.b\18.D
Level 2 ..SV6.i\230126.b\19.D
Level 3 ..SV6.i\230126.b\20.D
Level 4 ..SV6.i\230126.b\21.D
Level 5 ..SV6.i\230126.b\22.D
Level 6 ..SV6.i\230126.b\23.D
Level 7 ..SV6.i\230126.b\24.D
Level 8 ..SV6.i\230126.b\25.D

ICAL Start Date 10-MAR-2022 1025
ICAL End Date 26-JAN-2023 1909

Compound	Level 1 0.010 / Level 7 0.200	Level 2 0.030 / Level 8 0.500	Level 3 0.050	Level 4 0.080	Level 5 0.100	Level 6 0.150	Curve	b	m1	m2	%RSD or R^2	Q
1,4-Dioxane	0.46310 0.34382	0.38441 0.32997	0.40793	0.33224	0.32371	0.33309	AVRG		0.36478		13.63385	
	0.34382	0.32997					AVRG		0.36478		13.63385	
----------	---	---	---	---	---	---	---	---	---	---	---	
Nitrobenzene-d5	0.25894 0.30550	0.28069 0.29426	0.30421	0.28403	0.28044	0.30017	AVRG		0.28853		5.44076	
2-Fluorobiphenyl	1.34238 1.34111	1.24919 1.36027	1.26097	1.30443	1.30577	1.33599	AVRG		1.31252		3.06364	
158 4-Terphenyl-d14	1097 24628	2568 48596	5479	7348	8150	13832	QUAD	0.15559	0.48409	-0.00721	0.99726	

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits

01181844

right solutions.
right partner.

Form 6I

Initial Calibration Verification (ICV)

Semi-Volatiles by by EPA 8270SIM

Workorder

HS23010632

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 18 24

02/01/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Initial Calibration Verification (ICV)

Client Bhate Environmental Associates, Inc.
Project LHAAP 18 24

Workorder HS23010632

RunID SV-6_427063

Semi-Volatiles by by EPA 8270SIM

Instrument ID SV6.i ICAL Date 26-JAN-2023
Lab File ID 26.D ICAL Time 1758
?VAL? ?VAL? Conc Units ug/L
Analysis Type SV Level LOW

Compound	CONC Added	CONC Recovered	% Recovered	Limits	Q
1,4-Dioxane	0.08000	0.03481	43.51	40-140	
Nitrobenzene-d5	0.08000	0.07196	89.95	40-140	
2-Fluorobiphenyl	0.08000	0.07917	98.96	40-140	
158 4-Terphenyl-d14	0.08000	0.08903	111.29	40-140	

01181846

right solutions.
right partner.

Form 7

Continuing Calibration Verification (CCV)

Semi-Volatiles by by EPA 8270SIM

Workorder

HS23010632

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 18 24

02/01/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.
Project LHAAP 18 24

Workorder
HS23010632

RunID
SV-6_426872

Semi-Volatiles by by EPA 8270SIM

Instrument ID SV6.i
Lab File ID 03.D
Analysis Type WATER
Lab Sample ID 14DX-0.08
Injection Date 30-JAN-2023 1215
ICAL Date(s) 10-MAR-2022 26-JAN-2023
ICAL Times 1025 1909
Quant Type ISTD

Compound	$\overline{RRF}$ / $\overline{RRF}$ / Amount	RF0.080	CCV RRF0.080	Min RRF	%D / %D / %DRIFT	Max %D / %D / %DRIFT	Curve CURVE TYPE	Q
Nitrobenzene-d5	0.28853	0.31254	0.31254	0.010	8.32149	20.0	Averaged	
2-Fluorobiphenyl	1.31252	1.34452	1.34452	0.010	2.43834	20.0	Averaged	
158 4-Terphenyl-d14	0.08000	0.06570	1.31525	0.010	-17.87898	20.0	Quadratic	
1,4-Dioxane	0.36478	0.32360	0.32360	0.010	-11.28852	20.0	Averaged	

Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.
Project LHAAP 18 24

Workorder
HS23010632

RunID
SV-6_426872

Semi-Volatiles by by EPA 8270SIM

Instrument ID SV6.i
Lab File ID 19.D
Analysis Type WATER
Lab Sample ID 14DX-CCV_END
Injection Date 30-JAN-2023 1728
ICAL Date(s) 10-MAR-2022 26-JAN-2023
ICAL Times 1025 1909
Quant Type ISTD

Compound	$\overline{RRF}$ / $\overline{RRF}$ / Amount	RF0.080	CCV RRF0.080	Min RRF	%D / %D / %DRIFT	Max %D / %D / %DRIFT	Curve CURVE TYPE	Q
Nitrobenzene-d5	0.28853	0.26182	0.26182	0.010	-9.25539	50.0	Averaged	
2-Fluorobiphenyl	1.31252	1.41164	1.41164	0.010	7.55203	50.0	Averaged	
158 4-Terphenyl-d14	0.08000	0.07611	1.59373	0.010	-4.86547	50.0	Quadratic	
1,4-Dioxane	0.36478	0.27485	0.27485	0.010	-24.65337	50.0	Averaged	

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS23010632

Lab File ID (Standard): 03 Date Analyzed: 01/30/23

Instrument ID: SV6 Time Analyzed: 1215

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
	12 HOUR STD	2364	3.49	8247	4.60	4708	6.28
	UPPER LIMIT	4728	3.99	16494	5.10	9416	6.78
	LOWER LIMIT	1182	2.99	4124	4.10	2354	5.78
	CLIENT SAMPLE NO.						
01	MBLK-188515	3784	3.49	13530	4.60	7549	6.28
02	LCS1-188515	3920	3.49	14283	4.61	8009	6.28
03	LCSD1-188515	3542	3.49	12491	4.60	7406	6.28
04	HS23010632-01	2165	3.49	7687	4.61	4394	6.28
05	HS23010632-04	2042	3.49	7325	4.60	4037	6.28
06	HS23010632-05	3317	3.49	11854	4.60	6443	6.28
07	HS23010632-06	2443	3.49	8536	4.60	4688	6.28
08	HS23010632-02	2638	3.49	9222	4.60	5546	6.28
09	HS23010632-03	1579	3.49	5963	4.60	3330	6.28
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS23010632

Lab File ID (Standard): 03 Date Analyzed: 01/30/23

Instrument ID: SV6 Time Analyzed: 1215

		IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #
	12 HOUR STD	9319	7.73	4904	10.56	4970	12.62
	UPPER LIMIT	18638	8.23	9808	11.06	9940	13.12
	LOWER LIMIT	4660	7.23	2452	10.06	2485	12.12
	CLIENT SAMPLE NO.						
01	MBLK-188515	14899	7.73	7042	10.55	6339	12.62
02	LCS1-188515	15881	7.73	7325	10.55	6284	12.61
03	LCSD1-188515	14420	7.73	6811	10.55	5558	12.61
04	HS23010632-01	8204	7.73	3229	10.55	3254	12.61
05	HS23010632-04	7974	7.73	3522	10.55	3031	12.61
06	HS23010632-05	12622	7.73	5294	10.55	5795	12.61
07	HS23010632-06	9231	7.73	3568	10.55	3439	12.61
08	HS23010632-02	11289	7.73	4668	10.55	3400	12.61
09	HS23010632-03	6563	7.74	2700	10.56	2267*	12.62
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

01181851

right solutions.
right partner.

Form 12

Preparation Log

<textMethods>

Workorder

HS23010632

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 18 24

02/01/2023

ALS Environmental–Houston Laboratory

10450 Stancliff Road, Suite 210, Houston, TX 77099

Phone (281) 530-5656 Fax (281) 530-5887

www.alsglobal.com

Form 12 - Preparation Log

Client Bhate Environmental Associates, Inc.

Project LHAAP 18 24

Workorder
HS23010632

RunID
188515

Semi-VolatilesEPA 3510

Prep Batch 188515 **Prep Method** **Prep Date** 01/18/23

	Matrix	Type	Lab Sample ID	Initial Amt (mL)	Final Amt (mL)	Client Sample ID
1	Aqueous	MBLK	MBLK-188515	1000	1	MBLK-188515
2	Aqueous	LCS	LCS1-188515	1000	1	LCS1-188515
3	Aqueous	LCSD	LCSD1-188515	1000	1	LCSD1-188515
4	Groundwater	SAMP	HS23010632-01	1000	1	126_011123
5	Groundwater	SAMP	HS23010632-02	1000	1	MW16_011123
6	Groundwater	SAMP	HS23010632-03	1000	1	MW16_011123_a
7	Groundwater	SAMP	HS23010632-04	1000	1	MW17_011123
8	Groundwater	SAMP	HS23010632-05	1000	1	MW17_011123_a
9	Groundwater	SAMP	HS23010632-06	1000	1	18CPTMW16_011123

01181853

right solutions.
right partner.

Analysis Run Log

Semi-Volatiles by by EPA 8270SIM

Workorder

HS23010632

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 18 24

02/01/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

SV06 -Logbook

Batch: 53080 **Analyst:** Marco Gutierrez

Date: 01-26-2023 **Reviewer:**

Method: R8270D SIM 14DX/PAH ICAL **Laboratory:** Houston

Comments:

#	Samp ID	Type	Analyzed	DF	Init Wt/Vol	Final Vol	File ID	Matrix	Status	pH
1	DFTPP	TUNE	01-26-2023 10:28 am	1.00	0.00 gm	0.00 mL	01.D		Y	NA
2	SLSTD-2.5	CCV	01-26-2023 10:40 am	1.00	1000.00 mL	1000.00 mL	02.D	Liquid	Y	NA
3	SIM PAH-0.08	CCV	01-26-2023 11:11 am	1.00	1000.00 mL	1000.00 mL	03.D	Liquid	Y	NA
4	SIM PAH-0.08	CCV	01-26-2023 11:39 am	1.00	1000.00 mL	1000.00 mL	03A.D	Liquid	Y	NA
5	1 4-DX-0.08	CCV	01-26-2023 11:59 am	1.00	1000.00 mL	1000.00 mL	04.D	Liquid	Y	NA
6	SIM PAH-0.08	CCV	01-26-2023 12:35 pm	1.00	1000.00 mL	1000.00 mL	05.D	Liquid	Y	NA
7	SIM PAH-0.010	ICAL1	01-26-2023 01:03 pm	1.00	1000.00 mL	1000.00 mL	06.D	Liquid	Y	NA
8	SIM PAH-0.025	ICAL2	01-26-2023 01:23 pm	1.00	1000.00 mL	1000.00 mL	07.D	Liquid	Y	NA
9	SIM PAH-0.05	ICAL3	01-26-2023 01:43 pm	1.00	1000.00 mL	1000.00 mL	08.D	Liquid	Y	NA
10	SIM PAH-0.08	ICAL4	01-26-2023 02:03 pm	1.00	1000.00 mL	1000.00 mL	09.D	Liquid	Y	NA
11	SIM PAH-0.1	ICAL5	01-26-2023 02:23 pm	1.00	1000.00 mL	1000.00 mL	10.D	Liquid	Y	NA
12	SIM PAH-0.15	ICAL6	01-26-2023 02:43 pm	1.00	1000.00 mL	1000.00 mL	11.D	Liquid	Y	NA
13	SIM PAH-0.2	ICAL7	01-26-2023 03:03 pm	1.00	1000.00 mL	1000.00 mL	12.D	Liquid	Y	NA
14	SIM PAH-0.5	ICAL8	01-26-2023 03:24 pm	1.00	1000.00 mL	1000.00 mL	13.D	Liquid	Y	NA
15	IBLK	SAMP	01-26-2023 03:44 pm	1.00	1000.00 mL	1000.00 mL	14.D	Liquid	Y	NA
16	SIM PAH-0.010	SAMP	01-26-2023 04:04 pm	1.00	1000.00 mL	1000.00 mL	15.D	Liquid	Y	NA
17	SIM PAH-ICV	ICV	01-26-2023 04:24 pm	1.00	1000.00 mL	1000.00 mL	16.D	Liquid	Y	NA
18	CCB	SAMP	01-26-2023 04:44 pm	1.00	1000.00 mL	1000.00 mL	17.D	Liquid	Y	NA
19	1 4-DX-0.01	ICAL1	01-26-2023 05:04 pm	1.00	1000.00 mL	1000.00 mL	18.D	Liquid	Y	NA
20	1 4-DX-0.03	ICAL2	01-26-2023 05:22 pm	1.00	1000.00 mL	1000.00 mL	19.D	Liquid	Y	NA
21	1 4-DX-0.05	ICAL3	01-26-2023 05:40 pm	1.00	1000.00 mL	1000.00 mL	20.D	Liquid	Y	NA
22	1 4-DX-0.08	ICAL4	01-26-2023 05:58 pm	1.00	1000.00 mL	1000.00 mL	21.D	Liquid	Y	NA
23	1 4-DX-0.1	ICAL5	01-26-2023 06:16 pm	1.00	1000.00 mL	1000.00 mL	22.D	Liquid	Y	NA
24	1 4-DX-0.15	ICAL6	01-26-2023 06:34 pm	1.00	1000.00 mL	1000.00 mL	23.D	Liquid	Y	NA
25	1 4-DX-0.2	ICAL7	01-26-2023 06:51 pm	1.00	1000.00 mL	1000.00 mL	24.D	Liquid	Y	NA
26	1 4-DX-0.5	ICAL8	01-26-2023 07:09 pm	1.00	1000.00 mL	1000.00 mL	25.D	Liquid	Y	NA
27	1 4-DX-ICV	ICV	01-26-2023 07:27 pm	1.00	1000.00 mL	1000.00 mL	26.D	Liquid	Y	NA
28	CCB	SAMP	01-26-2023 07:45 pm	1.00	1000.00 mL	1000.00 mL	27.D	Liquid	Y	NA

Form 13 - Analysis Run Log

Client Bhate Environmental Associates, Inc.

Project LHAAP 18 24

Workorder
HS23010632

Semi-Volatiles by EPA 8270SIM

RUNID
SV-6_426872

Run ID SV-6_426872 **Start Date** 01/30/23 **EndDate** 01/30/23 **Matrix** Aqueous

Client Sample ID	Type	Lab Sample ID	File ID	Analysis Date	DF
MBLK-188515	MBLK	MBLK-188515	05.D	01/30/23 13:10	1
LCS1-188515	LCS	LCS1-188515	06.D	01/30/23 13:28	1
LCSD1-188515	LCSD	LCSD1-188515	07.D	01/30/23 13:46	1
126_011123	SAMP	HS23010632-01	08.D	01/30/23 14:03	1
MW17_011123	SAMP	HS23010632-04	11.D	01/30/23 14:57	1
MW17_011123_a	SAMP	HS23010632-05	12.D	01/30/23 15:15	1
18CPTMW16_011123	SAMP	HS23010632-06	13.D	01/30/23 15:33	1
MW16_011123	SAMP	HS23010632-02	17.D	01/30/23 16:44	10
MW16_011123_a	SAMP	HS23010632-03	18.D	01/30/23 17:10	10

01181856

right solutions.
right partner.

Raw Data SV-6 426872

Semi-Volatiles by by EPA 8270SIM

Workorder

HS23010632

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 18 24

02/01/2023

ALS Environmental–Houston Laboratory

10450 Stancliff Road, Suite 210, Houston, TX 77099

Phone (281) 530-5656 Fax (281) 530-5887

www.alsglobal.com

Data File: \\NAHSTWS005\Target\chem\SV6.i\230130.b\01.D Page 1
Report Date: 30-Jan-2023 11:23

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\SV6.i\230130.b\01.D
Lab Smp Id: DFTPP Client Smp ID: DFTPP
Inj Date : 30-JAN-2023 11:02
Operator : smith Inst ID: SV6.i
Smp Info : DFTPP;DFTPP;3;;DFTPP
Misc Info :
Comment :
Method : \\NAHSTWS005\Target\chem\SV6.i\230130.b\DFTPP.m
Meth Date : 27-Sep-2022 15:32 Linh.Pham Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 1 QC Sample: DFTPP
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14 Sample Matrix: None
Processing Host: NAHSTW7095

					CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
RT	EXP RT	DLT RT	MASS	RESPONSE				
1 dftpp						CAS #: 5074-71-5		
5.378	6.357	-0.979	198	76770			0.00- 100.00	69.55
5.378	6.357	-0.979	51	25816			10.00- 80.00	33.63
5.378	6.357	-0.979	68	364			0.00- 2.00	1.62
5.378	6.357	-0.979	69	22408			0.00- 0.00	29.19
5.378	6.357	-0.979	70	0	0.0	0.0	0.00- 2.00	0.00
5.378	6.357	-0.979	127	29450			10.00- 80.00	38.36
5.378	6.357	-0.979	197	449			0.00- 2.00	0.58
5.378	6.357	-0.979	199	4941			5.00- 9.00	6.44
5.378	6.357	-0.979	275	22930			10.00- 60.00	29.87
5.378	6.357	-0.979	365	3401			1.00- 100.00	4.43
5.378	6.357	-0.979	441	16632			0.01- 99.99	75.03
5.378	6.357	-0.979	442	110376			50.00- 150.00	143.77
5.378	6.357	-0.979	443	22168			15.00- 24.00	20.08

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	33.63
68	Less than 2.00% of mass 69	0.47 (1.62)
69	Mass 69 relative abundance	29.19
70	Less than 2.00% of mass 69	0.00 (0.00)
127	10.00 - 80.00% of mass 198	38.36
197	Less than 2.00% of mass 198	0.58
199	5.00 - 9.00% of mass 198	6.44
275	10.00 - 60.00% of mass 198	29.87
365	1.00 - 100.00% of mass 198	4.43
441	Present, but less than mass 443	21.66
442	50.00 - 150.00% of mass 198	143.77
443	15.00 - 24.00% of mass 442	28.88 (20.08)

Data File: 01.D
Spectrum: HP ChemStation MS 01.D, Scan 522: 5.379 min. (SUB)
Location of Maximum: 442.10
Number of points: 210

m/z	Y	m/z	Y	m/z	Y	m/z	Y
38.00	391	122.00	575	189.00	564	265.90	224
39.10	1819	123.00	890	191.00	285	272.10	199
40.00	210	123.90	406	192.00	749	273.00	1706
41.00	172	125.00	311	193.00	963	274.00	3971
50.10	6493	127.00	29448	194.10	197	275.00	22928
51.10	25816	128.00	2234	196.00	2630	276.00	3099
52.10	1400	129.00	11074	196.70	449	277.00	1922
55.00	210	130.00	1021	198.00	76768	278.00	264
56.00	830	130.90	218	199.00	4941	282.90	161
57.00	1860	134.00	285	200.00	494	283.90	159
61.00	313	135.00	918	201.60	415	285.00	377
62.00	270	136.00	356	203.00	563	293.00	425
63.00	1033	137.00	505	204.10	2666	296.00	6798
64.00	168	141.00	1586	205.00	4765	297.00	1026
65.10	451	142.00	509	206.10	19408	303.10	773
68.10	364	143.00	332	207.00	2747	304.00	196
69.00	22408	146.00	259	208.00	529	314.10	275
73.00	187	147.00	738	209.00	250	315.00	685
74.00	2191	148.00	1884	210.00	239	316.00	348
75.00	3578	148.90	370	211.00	919	321.00	216
76.00	1262	151.00	161	211.70	206	323.10	2270
77.10	26032	151.80	159	215.00	231	324.10	407
78.10	1671	153.00	496	216.00	430	326.90	433
79.00	1449	154.00	364	217.00	5373	328.00	215
80.00	1309	155.00	801	218.00	635	331.90	158
81.00	1825	156.00	1324	221.00	4201	332.90	264
82.00	403	157.00	297	223.00	1298	334.10	1430
83.00	503	158.00	268	224.00	11491	335.00	338
85.00	314	158.90	206	225.10	2968	341.00	271
86.00	11	160.00	446	226.10	308	346.00	476
87.00	255	161.00	778	227.00	4576	352.00	719
88.00	163	162.00	207	228.00	632	353.00	518
90.90	420	164.90	574	229.00	1054	354.00	763
92.00	432	166.00	609	231.00	413	365.00	3401
93.00	2975	167.00	3609	233.90	314	366.00	464
94.00	207	168.00	1426	235.00	333	371.00	196
98.00	2322	169.00	319	236.00	202	372.00	1374
99.00	1819	171.90	248	237.00	401	373.00	358
100.00	163	173.00	349	239.00	181	383.00	351
101.00	1077	174.00	829	241.00	274	390.00	300
103.00	272	175.00	1351	242.00	637	402.00	547
104.00	578	176.00	420	243.00	661	403.00	785
105.00	556	177.00	576	244.10	9241	404.00	274
106.00	196	178.00	238	245.10	1272	421.00	788
107.00	8398	179.00	2550	246.00	1805	422.10	765

108.00	1228	180.00	1808	246.90	419	423.10	5623
109.10	248	181.00	724	249.00	351	424.10	1076
110.00	15028	181.90	156	255.00	48088	441.10	16632
111.00	2454	184.00	238	256.00	6712	442.10	110376
112.00	290	185.00	1321	257.00	534	443.10	22168
116.00	510	186.10	9872	258.00	2987	444.10	2067
117.00	7084	187.00	2719	259.00	423		
118.00	408	188.00	200	265.00	1163		

Data File: \\NAHSTWS005\Target\chem\SV6.i\230130.b\01.D

Date : 30-JAN-2023 11:02

Client ID: DFTPP

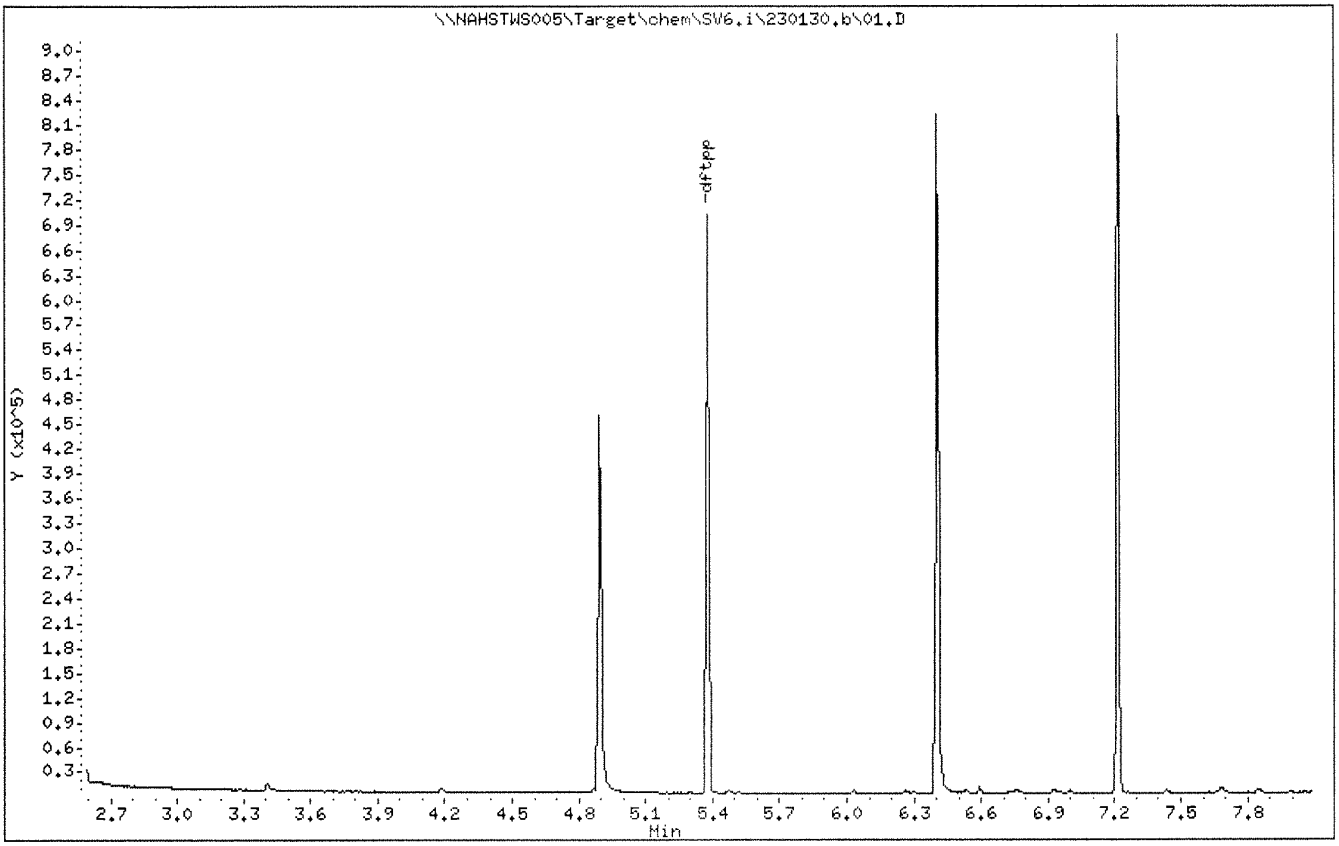
Instrument: SV6.i

Sample Info: DFTPP;DFTPP;3;;DFTPP

Operator: smith

Column phase: DB-5MS

Column diameter: 0.25



Data File: \\NAHSTWS005\Target\chem\SV6.i\230130.b\01.D

Date : 30-JAN-2023 11:02

Client ID: DFTPP

Instrument: SV6.i

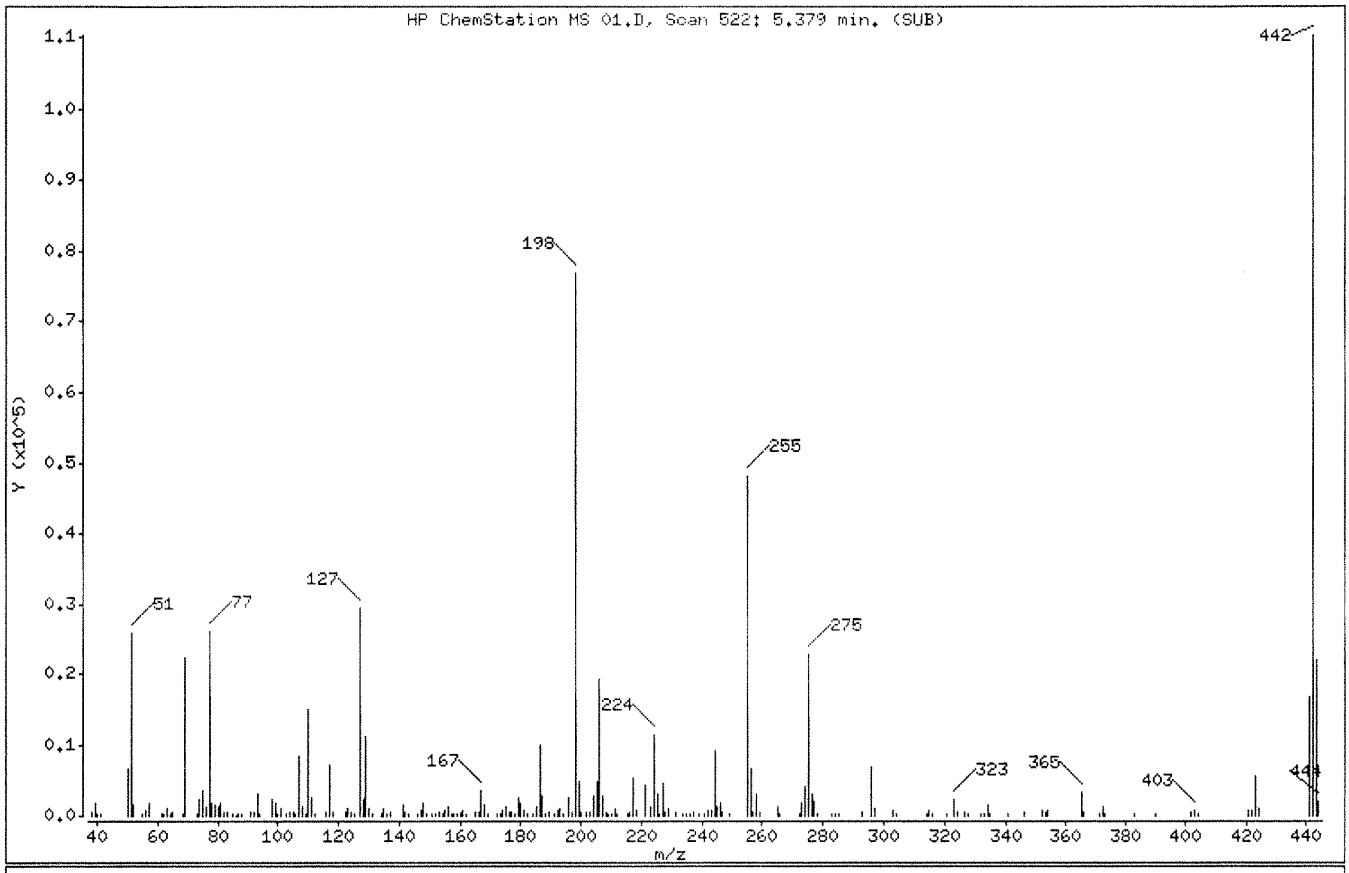
Sample Info: DFTPP;DFTPP;3;;DFTPP

Operator: smith

Column phase: DB-5MS

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	33.63
68	Less than 2.00% of mass 69	0.47 (1.62)
69	Mass 69 relative abundance	29.19
70	Less than 2.00% of mass 69	0.00 (0.00)
127	10.00 - 80.00% of mass 198	38.36
197	Less than 2.00% of mass 198	0.58
199	5.00 - 9.00% of mass 198	6.44
275	10.00 - 60.00% of mass 198	29.87
365	1.00 - 100.00% of mass 198	4.43
441	Present, but less than mass 443	21.66
442	50.00 - 150.00% of mass 198	143.77
443	15.00 - 24.00% of mass 442	28.88 (20.08)

Data File: \\NAHSTWS005\Target\chem\SV6.i\230130.b\01.D

Date : 30-JAN-2023 11:02

Client ID: DFTPP Instrument: SV6.i

Sample Info: DFTPP;DFTPP;3;;DFTPP

Operator: smith

Column phase: DB-5MS Column diameter: 0.25

Data File: 01.D
Spectrum: HP ChemStation MS 01.D, Scan 522: 5.379 min. (SUB)
Location of Maximum: 442.10
Number of points: 210

m/z	Y	m/z	Y	m/z	Y	m/z	Y
38.00	391	122.00	575	189.00	564	265.90	224
39.10	1819	123.00	890	191.00	285	272.10	199
40.00	210	123.90	406	192.00	749	273.00	1706
41.00	172	125.00	311	193.00	963	274.00	3971
50.10	6493	127.00	29448	194.10	197	275.00	22928
51.10	25816	128.00	2234	196.00	2630	276.00	3099
52.10	1400	129.00	11074	196.70	449	277.00	1922
55.00	210	130.00	1021	198.00	76768	278.00	264
56.00	830	130.90	218	199.00	4941	282.90	161
57.00	1860	134.00	285	200.00	494	283.90	159
61.00	313	135.00	918	201.60	415	285.00	377
62.00	270	136.00	356	203.00	563	293.00	425
63.00	1033	137.00	505	204.10	2666	296.00	6798
64.00	168	141.00	1586	205.00	4765	297.00	1026
65.10	451	142.00	509	206.10	19408	303.10	773
68.10	364	143.00	332	207.00	2747	304.00	196
69.00	22408	146.00	259	208.00	529	314.10	275
73.00	187	147.00	738	209.00	250	315.00	685
74.00	2191	148.00	1884	210.00	239	316.00	348
75.00	3578	148.90	370	211.00	919	321.00	216
76.00	1262	151.00	161	211.70	206	323.10	2270
77.10	26032	151.80	159	215.00	231	324.10	407
78.10	1671	153.00	496	216.00	430	326.90	433
79.00	1449	154.00	364	217.00	5373	328.00	215
80.00	1309	155.00	801	218.00	635	331.90	158
81.00	1825	156.00	1324	221.00	4201	332.90	264
82.00	403	157.00	297	223.00	1298	334.10	1430
83.00	503	158.00	268	224.00	11491	335.00	338
85.00	314	158.90	206	225.10	2968	341.00	271
86.00	11	160.00	446	226.10	308	346.00	476
87.00	255	161.00	778	227.00	4576	352.00	719
88.00	163	162.00	207	228.00	632	353.00	518
90.90	420	164.90	574	229.00	1054	354.00	763
92.00	432	166.00	609	231.00	413	365.00	3401
93.00	2975	167.00	3609	233.90	314	366.00	464

Data File: \\NAHSTWS005\Target\chem\SV6.i\230130.b\01.D

Date : 30-JAN-2023 11:02

Client ID: DFTPP Instrument: SV6.i

Sample Info: DFTPP;DFTPP;3;;DFTPP

Operator: smith

Column phase: DB-5MS Column diameter: 0.25

Data File: 01.D
Spectrum: HP ChemStation MS 01.D, Scan 522: 5.379 min. (SUB)
Location of Maximum: 442.10
Number of points: 210

m/z	Y	m/z	Y	m/z	Y	m/z	Y
94.00	207	168.00	1426	235.00	333	371.00	196
98.00	2322	169.00	319	236.00	202	372.00	1374
99.00	1819	171.90	248	237.00	401	373.00	358
100.00	163	173.00	349	239.00	181	383.00	351
101.00	1077	174.00	829	241.00	274	390.00	300
103.00	272	175.00	1351	242.00	637	402.00	547
104.00	578	176.00	420	243.00	661	403.00	785
105.00	556	177.00	576	244.10	9241	404.00	274
106.00	196	178.00	238	245.10	1272	421.00	788
107.00	8398	179.00	2550	246.00	1805	422.10	765
108.00	1228	180.00	1808	246.90	419	423.10	5623
109.10	248	181.00	724	249.00	351	424.10	1076
110.00	15028	181.90	156	255.00	48088	441.10	16632
111.00	2454	184.00	238	256.00	6712	442.10	110376
112.00	290	185.00	1321	257.00	534	443.10	22168
116.00	510	186.10	9872	258.00	2987	444.10	2067
117.00	7084	187.00	2719	259.00	423		
118.00	408	188.00	200	265.00	1163		

Data File : \\NAHSTWS005\Target\chem\SV6.i\230130.b\01.D
Inj Date : 30-JAN-2023 11:02
InstruID : SV6.i
LabSampID : DFTPP

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\SV6.i\230130.b\03.D Page 1
Report Date: 30-Jan-2023 12:40

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230130.b\03.D
Lab Smp Id: 14DX-0.08 Client Smp ID: 14DX-0.08
Inj Date : 30-JAN-2023 12:15
Operator : LG Inst ID: SV6.i
Smp Info : 14DX-0.08
Misc Info : ;;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\SV6.i\230130.b\DXSIM.m
Meth Date : 30-Jan-2023 12:38 marco.guti Quant Type: ISTD
Cal Date : 26-JAN-2023 19:09 Cal File: 25.D
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7095

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)
* 20 1,4-Dichlorobenzene-d4	152	3.485	3.485	(1.000)	2364	0.10000	(aQM)
* 45 Naphthalene-d8	136	4.604	4.604	(1.000)	8247	0.10000	(M)
$ 33 Nitrobenzene-d5	82	3.952	3.952	(0.858)	2062	0.08000	0.08666(QM)
* 86 Acenaphthene-d10	164	6.284	6.284	(1.000)	4708	0.10000	
$ 69 2-Fluorobiphenyl	172	5.633	5.633	(0.896)	5064	0.08000	0.08195(M)
* 126 Phenanthrene-d10	188	7.734	7.734	(1.000)	9319	0.10000	
* 182 Chrysene-d12	240	10.558	10.558	(1.000)	4904	0.10000	(M)
$ 158 4-Terphenyl-d14	244	9.326	9.326	(0.883)	5160	0.08000	0.06570(QM)
* 198 Perylene-d12	264	12.615	12.615	(1.000)	4970	0.10000	
1 1,4-Dioxane	58	1.710	1.710	(0.491)	612	0.08000	0.07097(QM)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

01181867

Data File: \\NAHSTWS005\Target\chem\SV6.i\230130.b\03.D

Date : 30-JAN-2023 12:15

Client ID: 14DX-0.08

Instrument: SV6.i

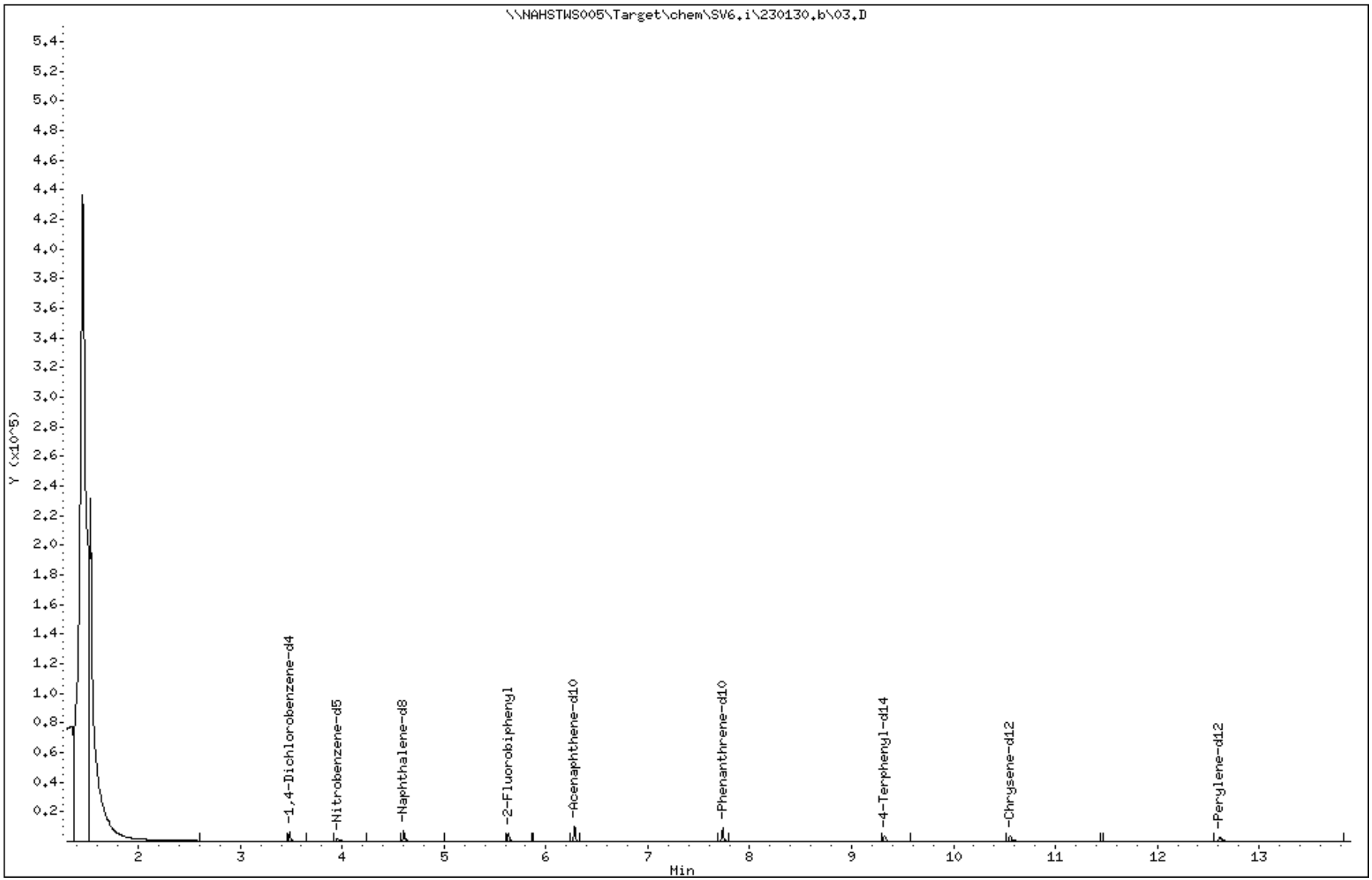
Sample Info: 14DX-0.08

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28

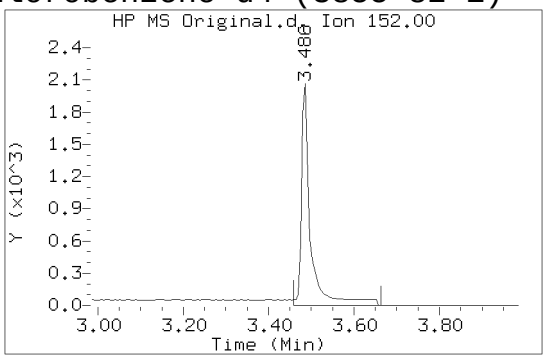


Data File : \\NAHSTWS005\Target\chem\SV6.i\230130.b\03.D
Inj Date : 30-JAN-2023 12:15
InstruID : SV6.i
LabSampID : 14DX-0.08

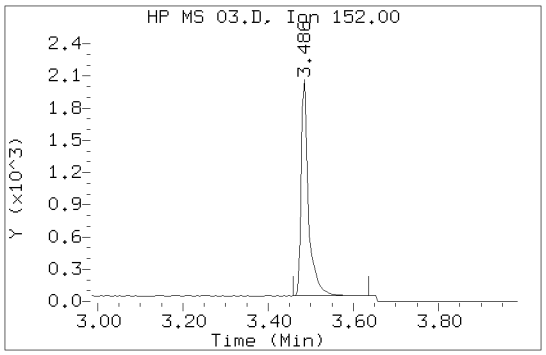
1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

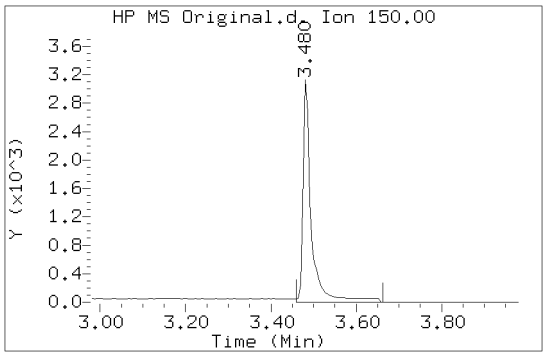
BEFORE
MASS
152
AREA
2983
HEIGHT
2066
30-Jan-2023
12:31
ALSHS
Server



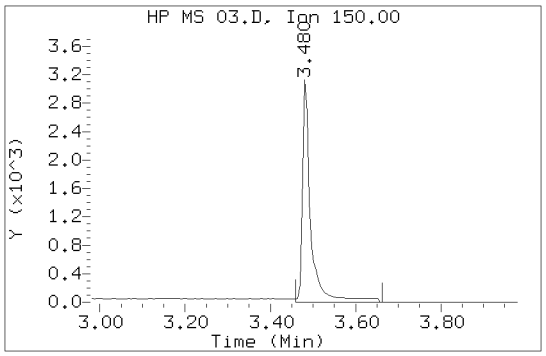
AFTER
MASS
152
AREA
2364
HEIGHT
2014
30-Jan-2023
12:40



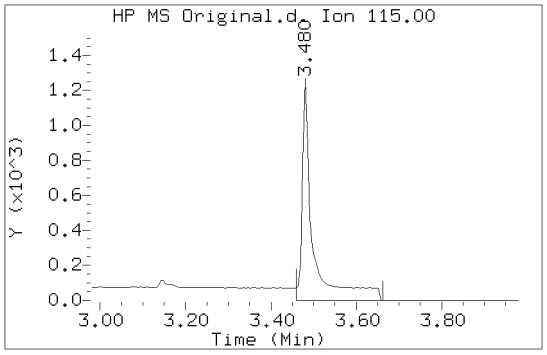
BEFORE
MASS
150
AREA
4169
HEIGHT
3127
30-Jan-2023
12:31
ALSHS
Server



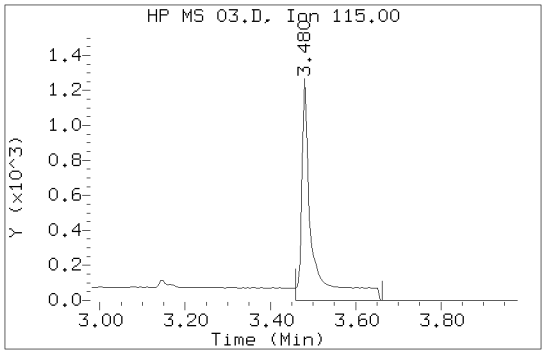
AFTER
MASS
150
AREA
4169
HEIGHT
3127
30-Jan-2023
12:40



BEFORE
MASS
115
AREA
2160
HEIGHT
1267
30-Jan-2023
12:31
ALSHS
Server



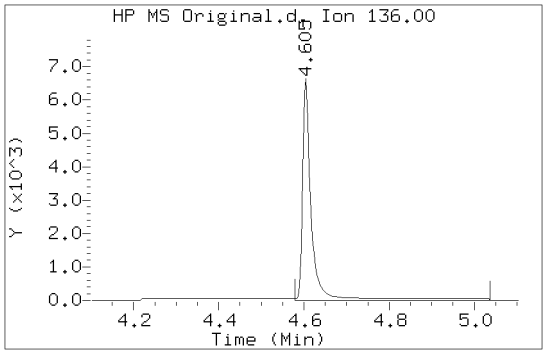
AFTER
MASS
115
AREA
2160
HEIGHT
1267
30-Jan-2023
12:40



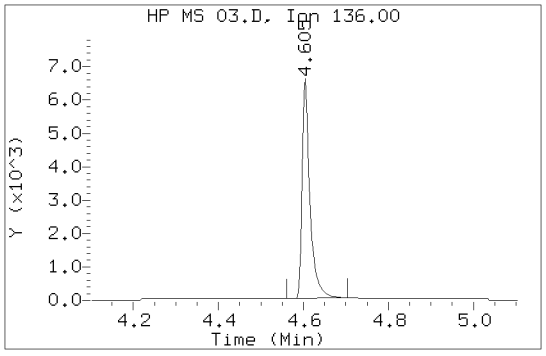
Naphthalene-d8 (1146-65-2)

Reason Code:

BEFORE
MASS
136
AREA
9971
HEIGHT
6638
30-Jan-2023
12:31
ALSHS
Server



AFTER
MASS
136
AREA
8247
HEIGHT
6575
30-Jan-2023
12:40



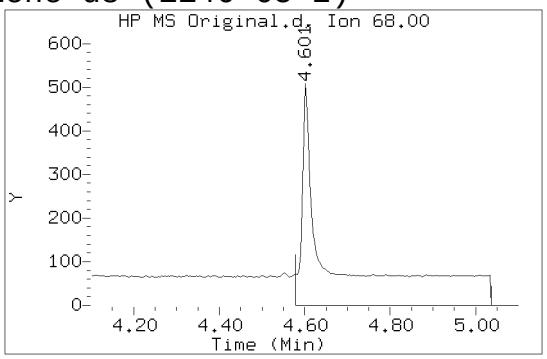
Data File : \\NAHSTWS005\Target\chem\SV6.i\230130.b\03.D
Inj Date : 30-JAN-2023 12:15
InstruID : SV6.i
LabSampID : 14DX-0.08

Naphthalene-d8 (1146-65-2)

Reason Code:

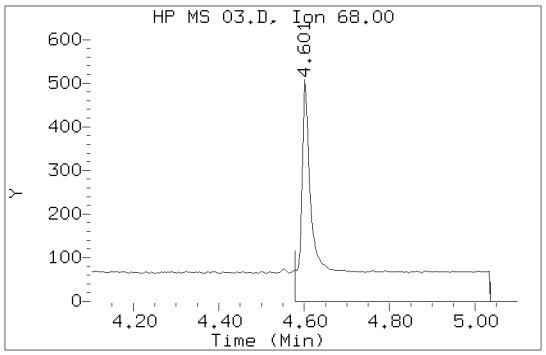
BEFORE

MASS
68
AREA
2414
HEIGHT
508
30-Jan-2023
12:31
ALSHS
Server



AFTER

MASS
68
AREA
2414
HEIGHT
508
30-Jan-2023
12:40

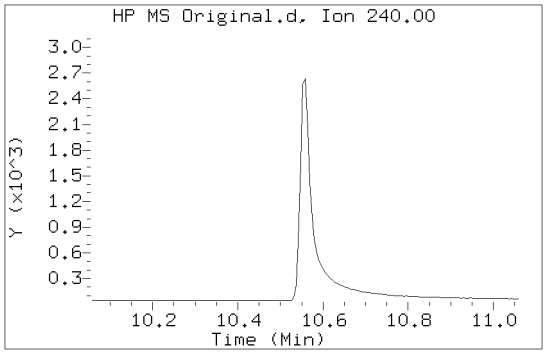


Chrysene-d12 (1719-03-5)

Reason Code:

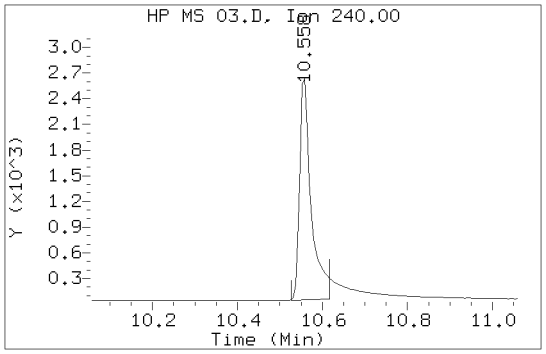
BEFORE

MASS
240
AREA
0
HEIGHT
0
30-Jan-2023
12:31
ALSHS
Server



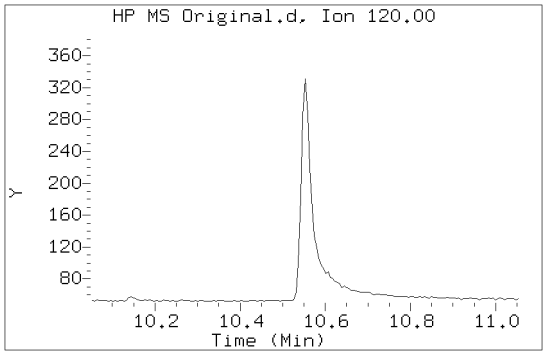
AFTER

MASS
240
AREA
4904
HEIGHT
2584
30-Jan-2023
12:40



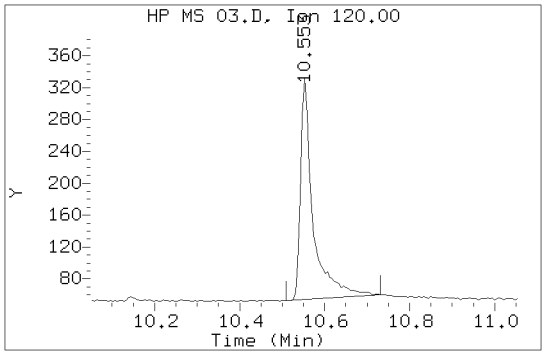
BEFORE

MASS
120
AREA
0
HEIGHT
0
30-Jan-2023
12:31
ALSHS
Server



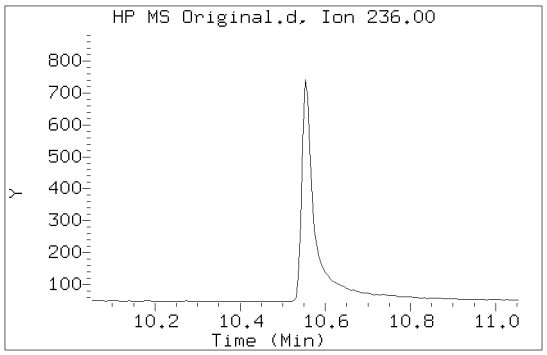
AFTER

MASS
120
AREA
562
HEIGHT
276
30-Jan-2023
12:40



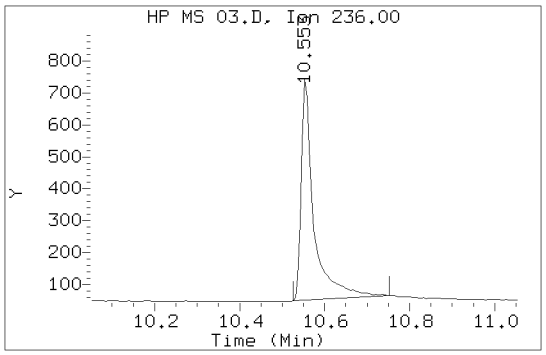
BEFORE

MASS
236
AREA
0
HEIGHT
0
30-Jan-2023
12:31
ALSHS
Server



AFTER

MASS
236
AREA
1421
HEIGHT
691
30-Jan-2023
12:40

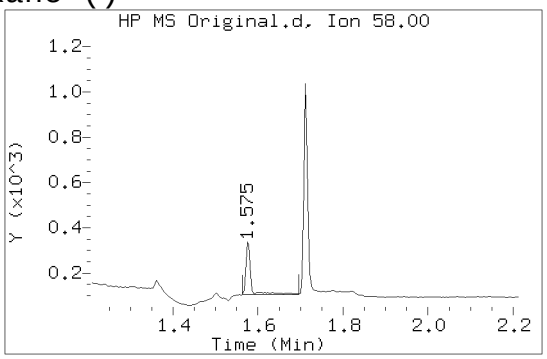


Data File : \\NAHSTWS005\Target\chem\SV6.i\230130.b\03.D
Inj Date : 30-JAN-2023 12:15
InstruID : SV6.i
LabSampID : 14DX-0.08

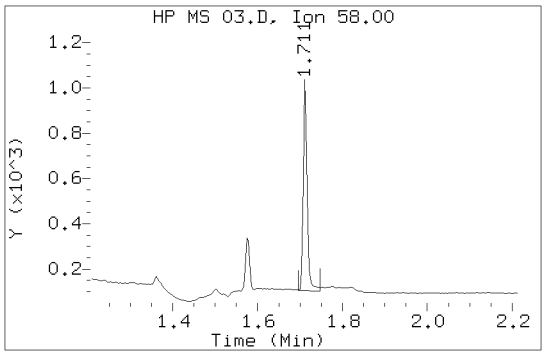
1,4-Dioxane ()

Reason Code:

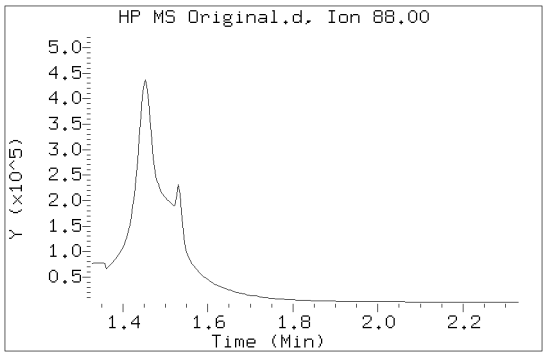
BEFORE
MASS
58
AREA
187
HEIGHT
231
30-Jan-2023
12:31
ALSHS
Server



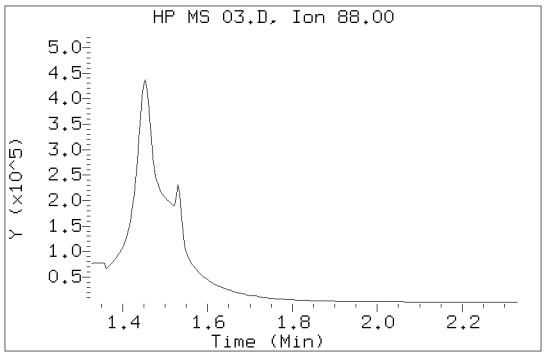
AFTER
MASS
58
AREA
612
HEIGHT
930
30-Jan-2023
12:40



BEFORE
MASS
88
AREA
0
HEIGHT
0
30-Jan-2023
12:31
ALSHS
Server



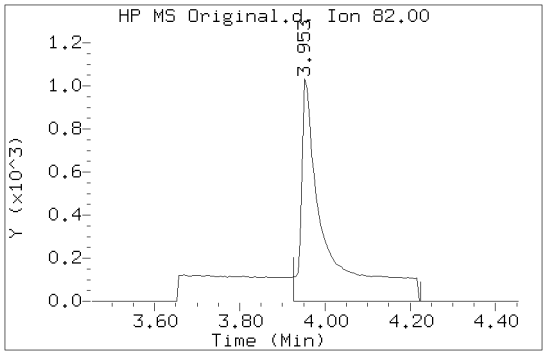
AFTER
MASS
88
AREA
0
HEIGHT
0
30-Jan-2023
12:40



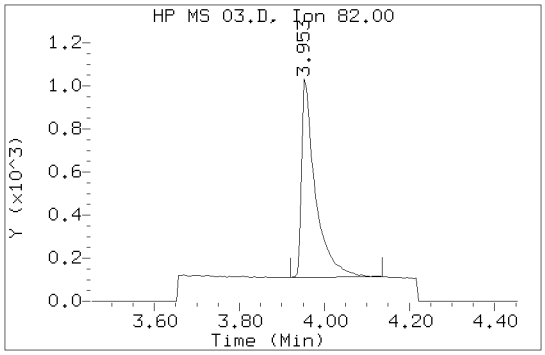
Nitrobenzene-d5 (4165-60-0)

Reason Code:

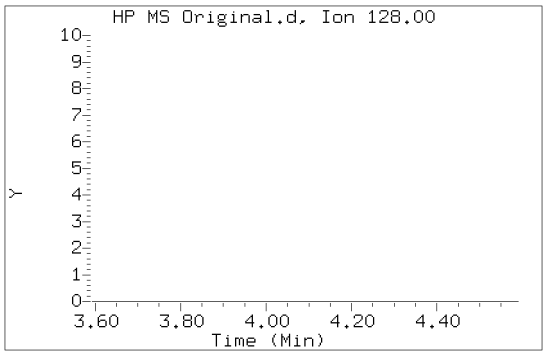
BEFORE
MASS
82
AREA
4012
HEIGHT
1033
30-Jan-2023
12:31
ALSHS
Server



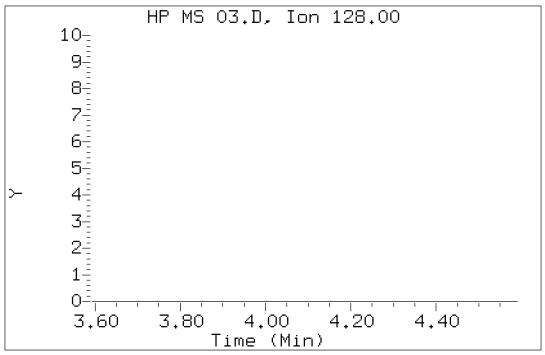
AFTER
MASS
82
AREA
2062
HEIGHT
922
30-Jan-2023
12:40



BEFORE
MASS
128
AREA
0
HEIGHT
0
30-Jan-2023
12:31
ALSHS
Server



AFTER
MASS
128
AREA
0
HEIGHT
0
30-Jan-2023
12:40



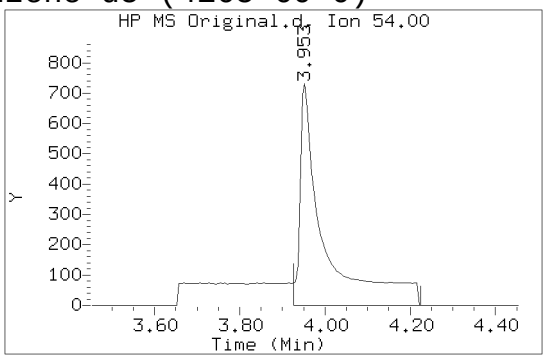
Data File : \\NAHSTWS005\Target\chem\SV6.i\230130.b\03.D
Inj Date : 30-JAN-2023 12:15
InstruID : SV6.i
LabSampID : 14DX-0.08

Nitrobenzene-d5 (4165-60-0)

Reason Code:

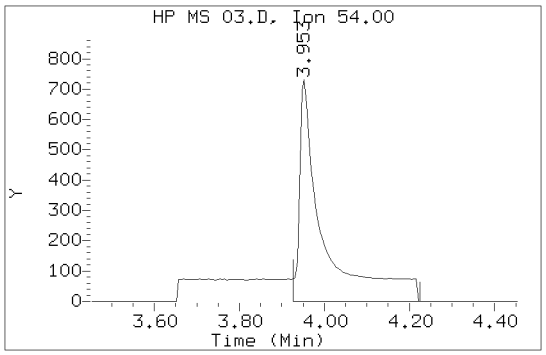
BEFORE

MASS
54
AREA
2800
HEIGHT
731
30-Jan-2023
12:31
ALSHS
Server



AFTER

MASS
54
AREA
2800
HEIGHT
731
30-Jan-2023
12:40

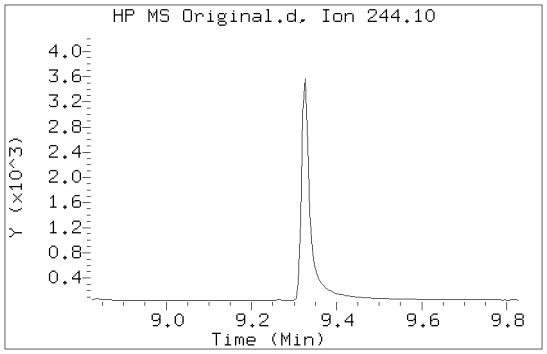


4-Terphenyl-d14 (1718-51-0)

Reason Code:

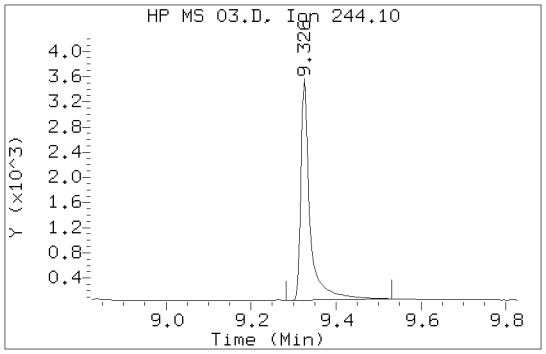
BEFORE

MASS
244.1
AREA
7057
HEIGHT
3567
30-Jan-2023
12:31
ALSHS
Server



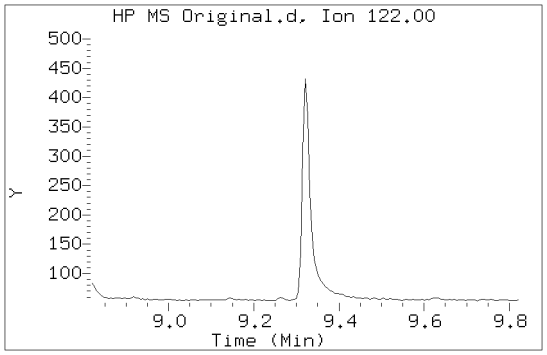
AFTER

MASS
244.1
AREA
5160
HEIGHT
3514
30-Jan-2023
12:40



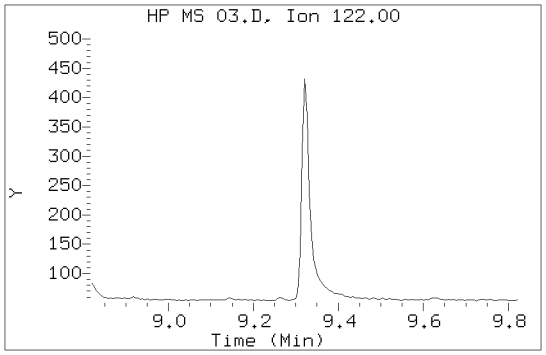
BEFORE

MASS
122
AREA
2355
HEIGHT
432
30-Jan-2023
12:31
ALSHS
Server



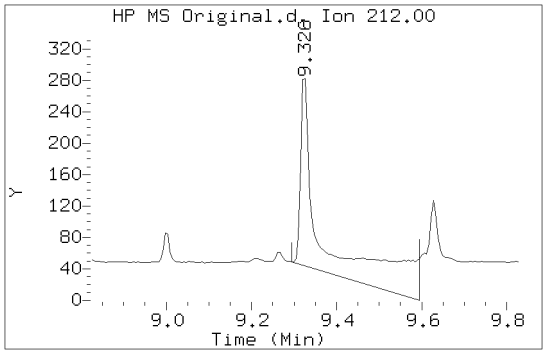
AFTER

MASS
122
AREA
2355
HEIGHT
432
30-Jan-2023
12:40



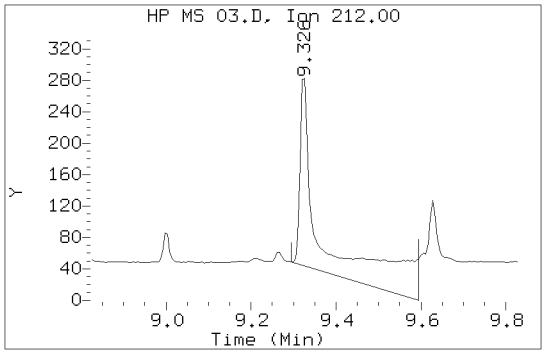
BEFORE

MASS
212
AREA
828
HEIGHT
238
30-Jan-2023
12:31
ALSHS
Server



AFTER

MASS
212
AREA
828
HEIGHT
238
30-Jan-2023
12:40



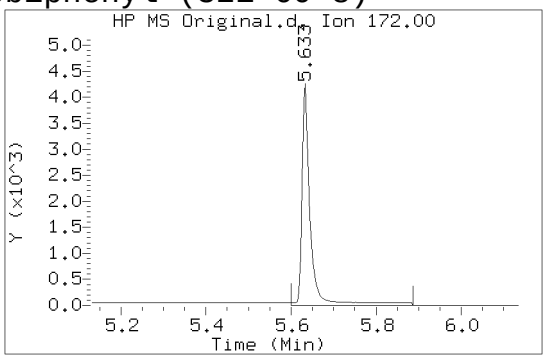
Data File : \\NAHSTWS005\Target\chem\SV6.i\230130.b\03.D
Inj Date : 30-JAN-2023 12:15
InstruID : SV6.i
LabSampID : 14DX-0.08

2-Fluorobiphenyl (321-60-8)

Reason Code:

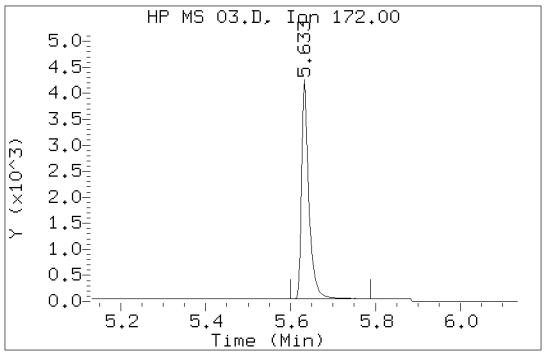
BEFORE

MASS
172
AREA
5945
HEIGHT
4261
30-Jan-2023
12:31
ALSHS
Server



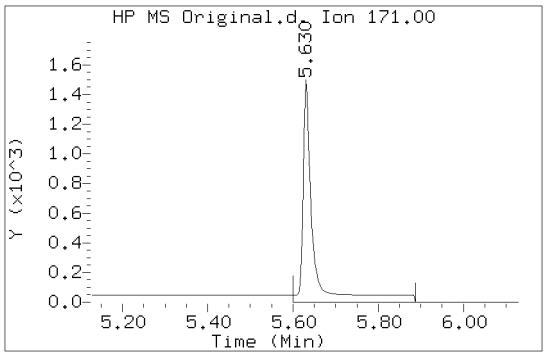
AFTER

MASS
172
AREA
5064
HEIGHT
4210
30-Jan-2023
12:40



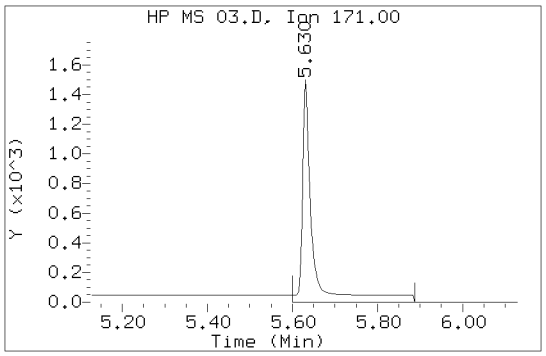
BEFORE

MASS
171
AREA
2558
HEIGHT
1499
30-Jan-2023
12:31
ALSHS
Server



AFTER

MASS
171
AREA
2558
HEIGHT
1499
30-Jan-2023
12:40



Data File: \\NAHSTWS005\Target\chem\SV6.i\230130.b\05.D Page 1
Report Date: 01-Feb-2023 16:30

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230130.b\05.D
Lab Smp Id: MBLK-188515
Inj Date : 30-JAN-2023 13:10
Operator : LG Inst ID: SV6.i
Smp Info : MBLK-188515
Misc Info : ;;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\SV6.i\230130.b\DXSIM.m
Meth Date : 01-Feb-2023 15:44 Linh.Pham Quant Type: ISTD
Cal Date : 26-JAN-2023 19:09 Cal File: 25.D
Als bottle: 5 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)
* 20 1,4-Dichlorobenzene-d4	152	3.491	3.491	(1.000)	3784	0.10000	(aM)
* 45 Naphthalene-d8	136	4.604	4.604	(1.000)	13530	0.10000	(M)
$ 33 Nitrobenzene-d5	82	3.952	3.957	(0.858)	3543	0.09076	0.09076(M)
* 86 Acenaphthene-d10	164	6.284	6.284	(1.000)	7549	0.10000	(M)
$ 69 2-Fluorobiphenyl	172	5.633	5.633	(0.896)	9339	0.09426	0.09426(M)
* 126 Phenanthrene-d10	188	7.734	7.734	(1.000)	14899	0.10000	
* 182 Chrysene-d12	240	10.552	10.552	(1.000)	7042	0.10000	(M)
$ 158 4-Terphenyl-d14	244	9.326	9.320	(0.884)	8947	0.07590	0.07590(M)
* 198 Perylene-d12	264	12.615	12.614	(1.000)	6339	0.10000	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

01181874

Data File: \\NAHSTWS005\Target\chem\SV6.i\230130.b\05.D

Date : 30-JAN-2023 13:10

Client ID:

Instrument: SV6.i

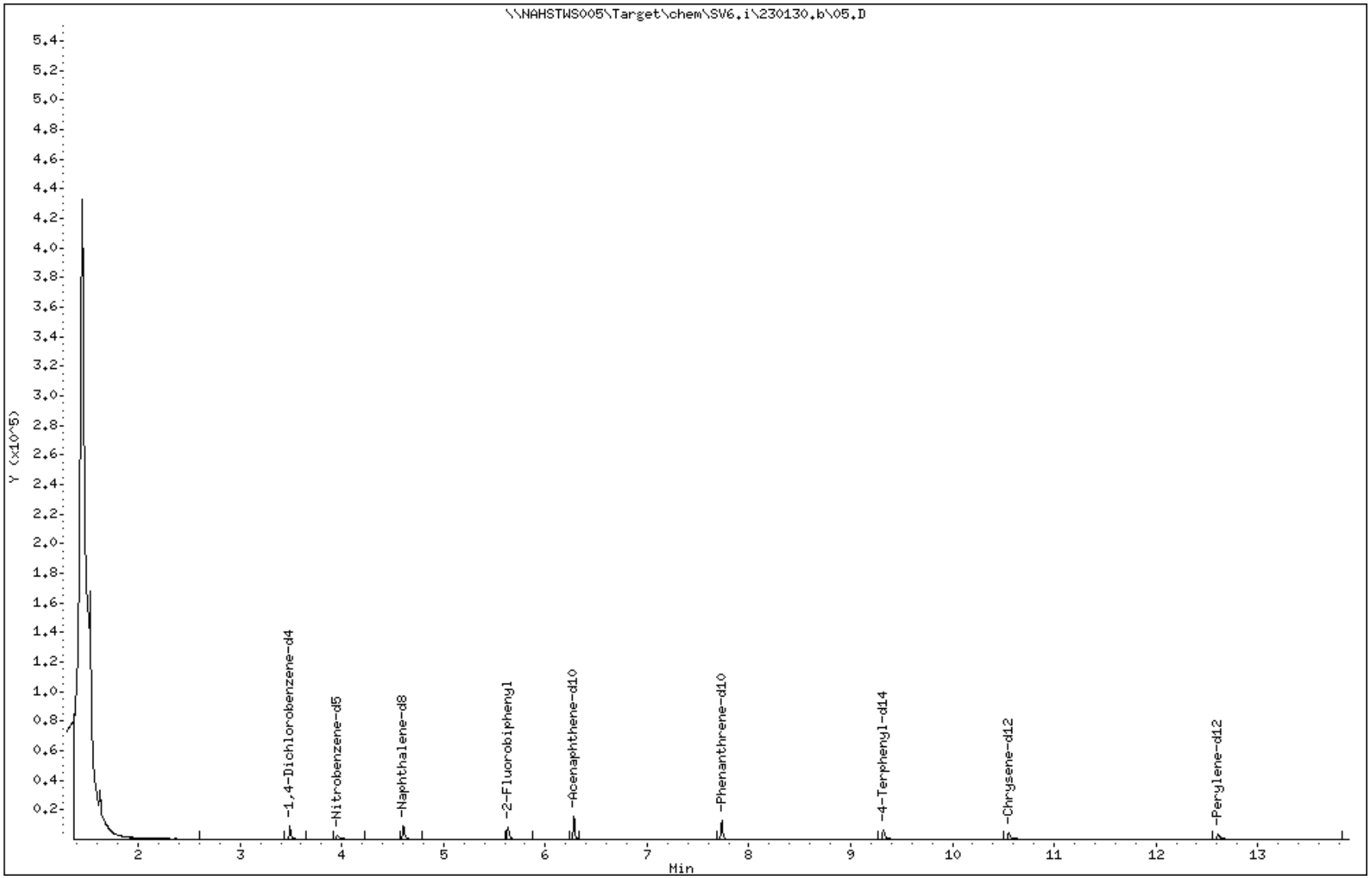
Sample Info: MBLK-188515

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28



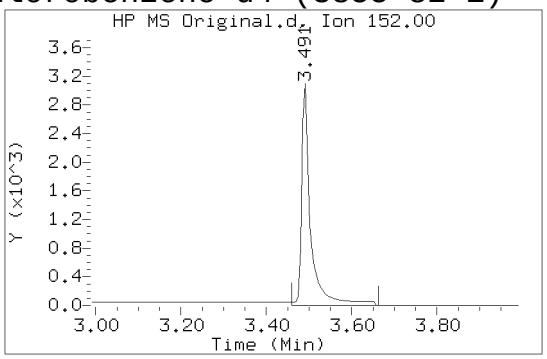
Data File : \\NAHSTWS005\Target\chem\SV6.i\230130.b\05.D
Inj Date : 30-JAN-2023 13:10
InstruID : SV6.i
LabSampID : MBLK-188515

1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

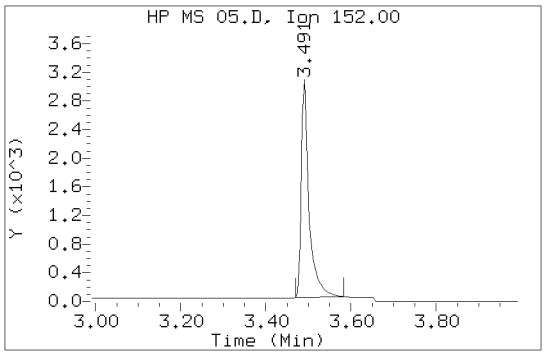
BEFORE

MASS
152
AREA
4452
HEIGHT
3098
30-Jan-2023
13:25
ALSHS
Server



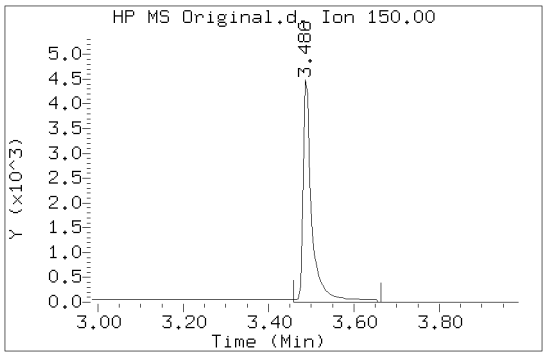
AFTER

MASS
152
AREA
3784
HEIGHT
3045
01-Feb-2023
16:30
ALSHS
Ser



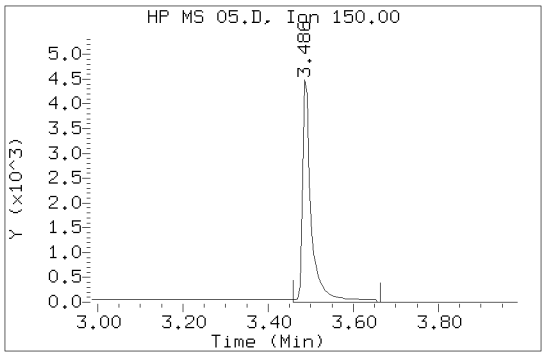
BEFORE

MASS
150
AREA
6401
HEIGHT
4484
30-Jan-2023
13:25
ALSHS
Server



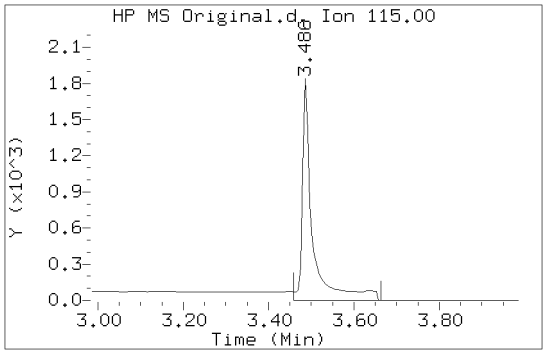
AFTER

MASS
150
AREA
6401
HEIGHT
4484
01-Feb-2023
16:30
ALSHS
Ser



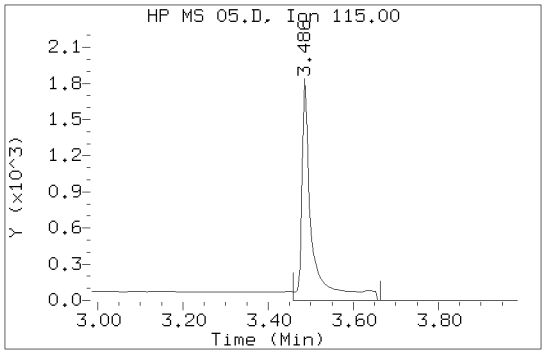
BEFORE

MASS
115
AREA
2993
HEIGHT
1839
30-Jan-2023
13:25
ALSHS
Server



AFTER

MASS
115
AREA
2993
HEIGHT
1839
01-Feb-2023
16:30
ALSHS
Ser

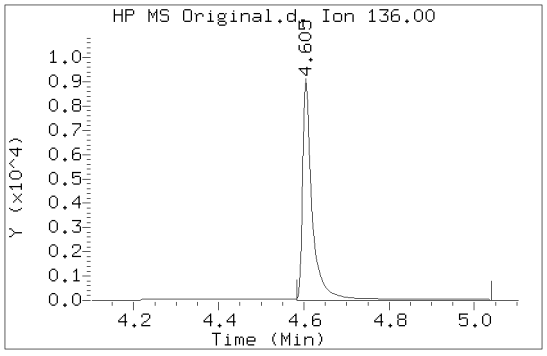


Naphthalene-d8 (1146-65-2)

Reason Code:

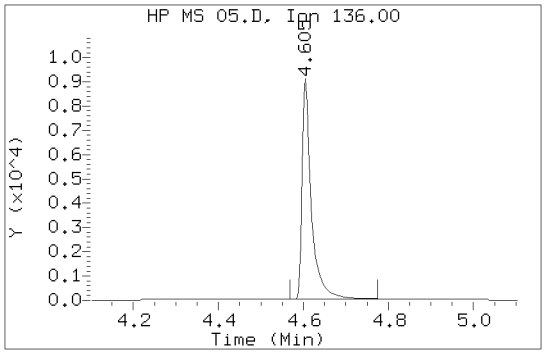
BEFORE

MASS
136
AREA
15113
HEIGHT
9128
30-Jan-2023
13:25
ALSHS
Server



AFTER

MASS
136
AREA
13530
HEIGHT
9072
01-Feb-2023
16:30
ALSHS
Ser



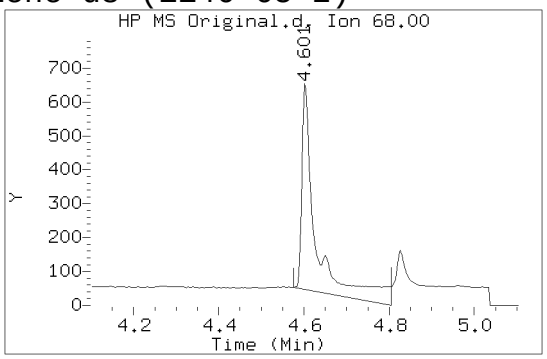
Data File : \\NAHSTWS005\Target\chem\SV6.i\230130.b\05.D
Inj Date : 30-JAN-2023 13:10
InstruID : SV6.i
LabSampID : MBLK-188515

Naphthalene-d8 (1146-65-2)

Reason Code:

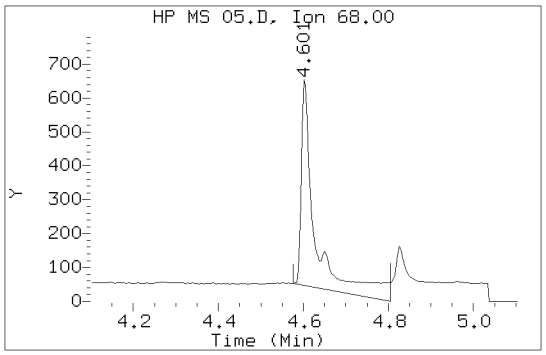
BEFORE

MASS
68
AREA
1357
HEIGHT
606
30-Jan-2023
13:25
ALSHS
Server



AFTER

MASS
68
AREA
1357
HEIGHT
606
01-Feb-2023
16:30
ALSHS
Ser

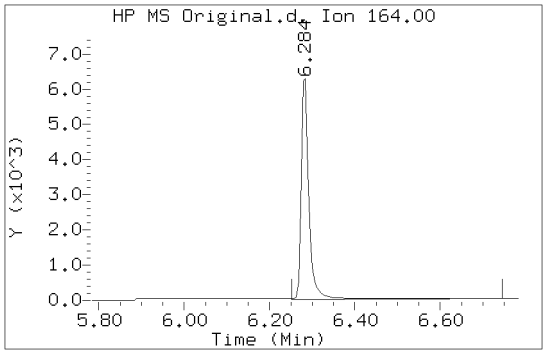


Acenaphthene-d10 (15067-26-2)

Reason Code:

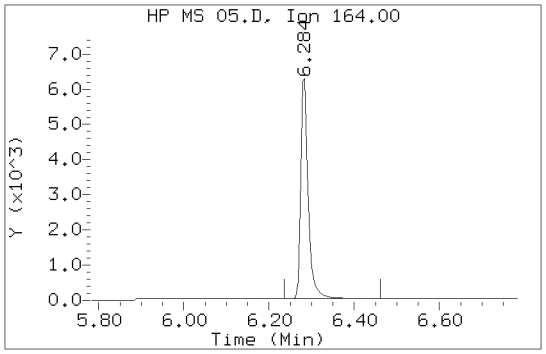
BEFORE

MASS
164
AREA
8010
HEIGHT
6276
30-Jan-2023
13:25
ALSHS
Server



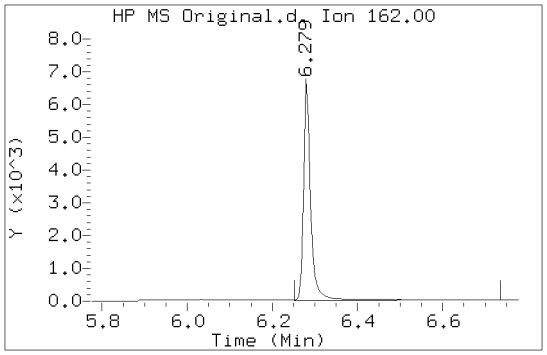
AFTER

MASS
164
AREA
7549
HEIGHT
6249
01-Feb-2023
16:30
ALSHS
Ser



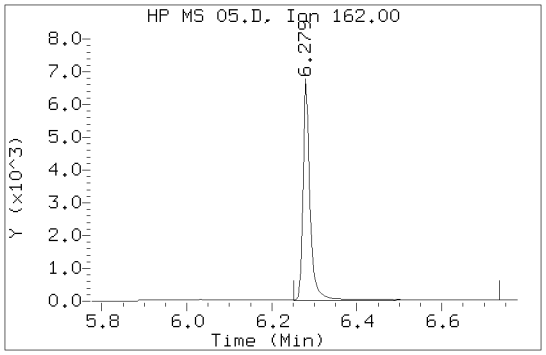
BEFORE

MASS
162
AREA
7967
HEIGHT
6761
30-Jan-2023
13:25
ALSHS
Server



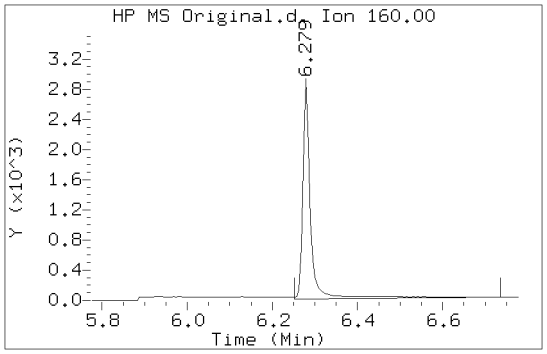
AFTER

MASS
162
AREA
7967
HEIGHT
6761
01-Feb-2023
16:30
ALSHS
Ser



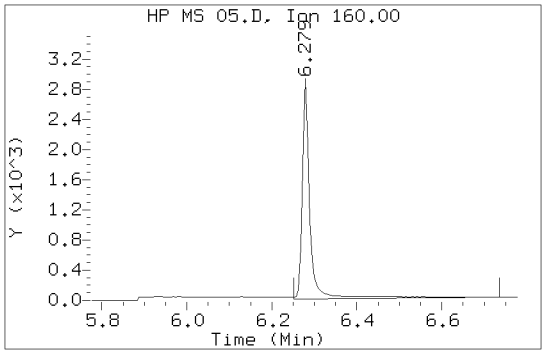
BEFORE

MASS
160
AREA
3641
HEIGHT
2919
30-Jan-2023
13:25
ALSHS
Server



AFTER

MASS
160
AREA
3641
HEIGHT
2919
01-Feb-2023
16:30
ALSHS
Ser



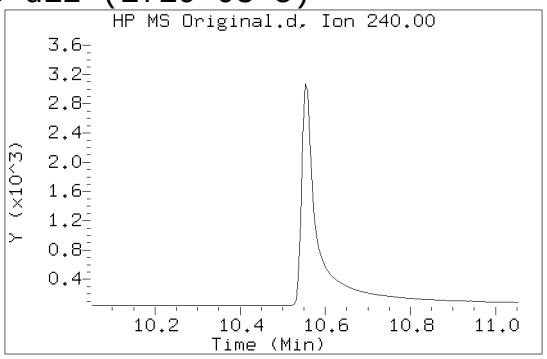
Data File : \\NAHSTWS005\Target\chem\SV6.i\230130.b\05.D
Inj Date : 30-JAN-2023 13:10
InstruID : SV6.i
LabSampID : MBLK-188515

Chrysene-d12 (1719-03-5)

Reason Code:

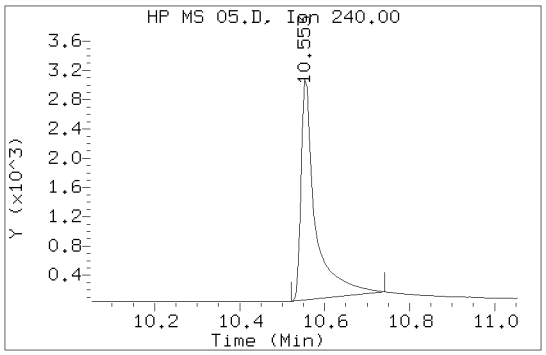
BEFORE

MASS
240
AREA
0
HEIGHT
0
30-Jan-2023
13:25
ALSHS
Server



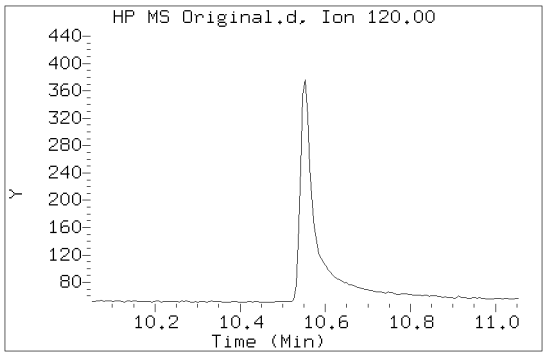
AFTER

MASS
240
AREA
7042
HEIGHT
3009
01-Feb-2023
16:30
ALSHS
Ser



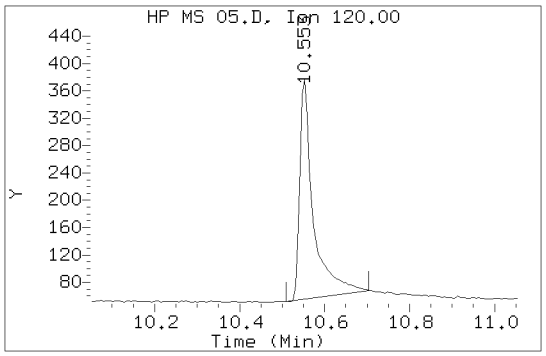
BEFORE

MASS
120
AREA
0
HEIGHT
0
30-Jan-2023
13:25
ALSHS
Server



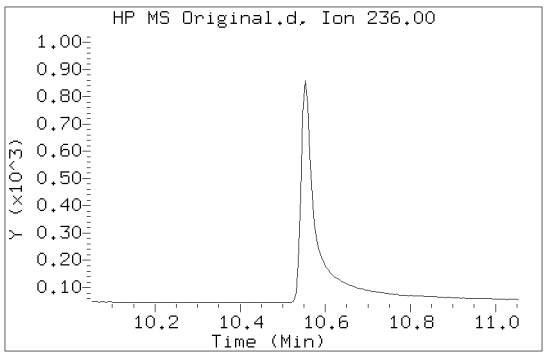
AFTER

MASS
120
AREA
710
HEIGHT
320
01-Feb-2023
16:30
ALSHS
Ser



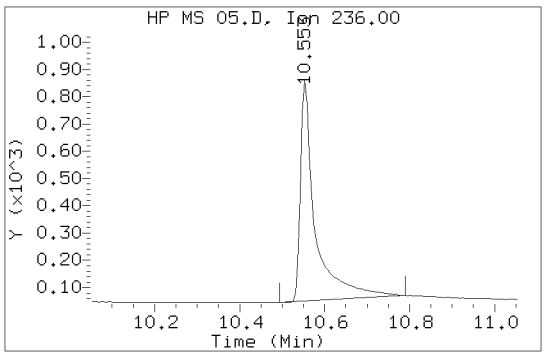
BEFORE

MASS
236
AREA
0
HEIGHT
0
30-Jan-2023
13:25
ALSHS
Server



AFTER

MASS
236
AREA
1938
HEIGHT
807
01-Feb-2023
16:30
ALSHS
Ser

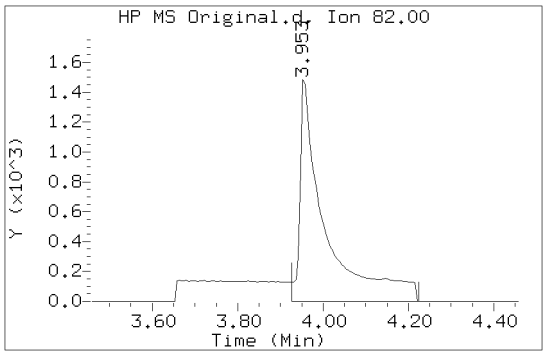


Nitrobenzene-d5 (4165-60-0)

Reason Code:

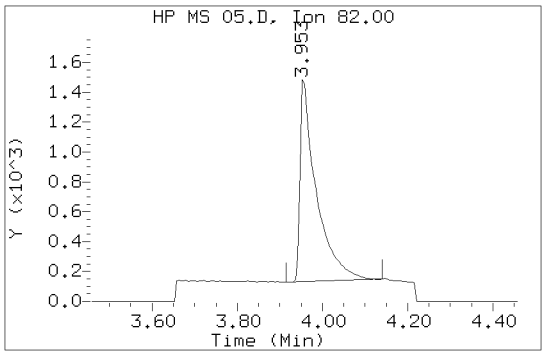
BEFORE

MASS
82
AREA
5988
HEIGHT
1484
30-Jan-2023
13:25
ALSHS
Server



AFTER

MASS
82
AREA
3543
HEIGHT
1351
01-Feb-2023
16:30
ALSHS
Ser



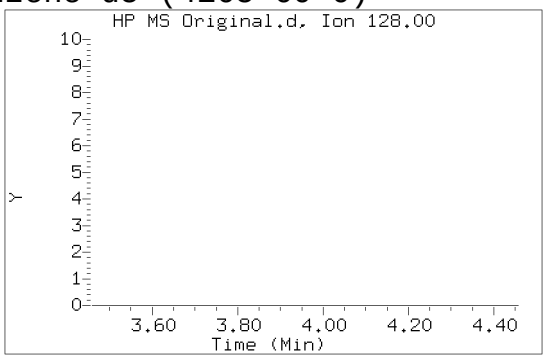
Data File : \\NAHSTWS005\Target\chem\SV6.i\230130.b\05.D
Inj Date : 30-JAN-2023 13:10
InstruID : SV6.i
LabSampID : MBLK-188515

Nitrobenzene-d5 (4165-60-0)

Reason Code:

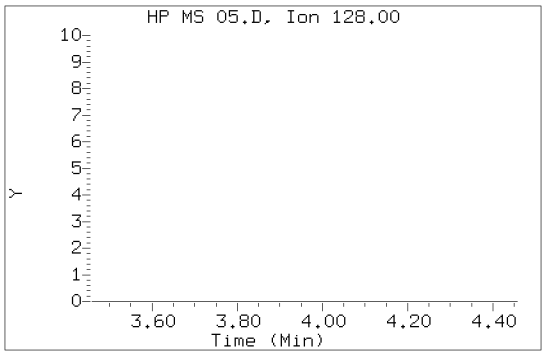
BEFORE

MASS
128
AREA
0
HEIGHT
0
30-Jan-2023
13:25
ALSHS
Server



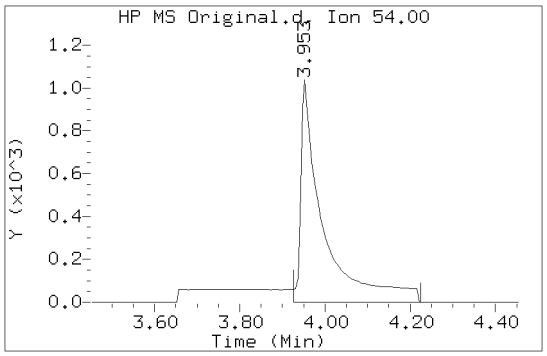
AFTER

MASS
128
AREA
0
HEIGHT
0
01-Feb-2023
16:30
ALSHS
Ser



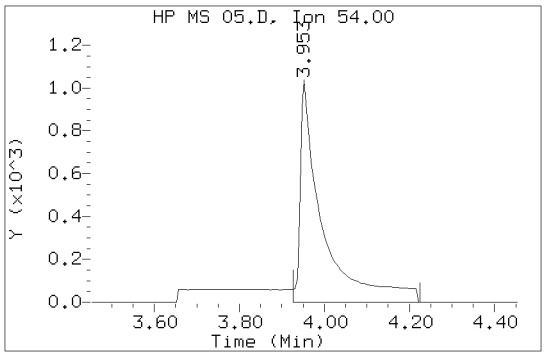
BEFORE

MASS
54
AREA
3711
HEIGHT
1038
30-Jan-2023
13:25
ALSHS
Server



AFTER

MASS
54
AREA
3711
HEIGHT
1038
01-Feb-2023
16:30
ALSHS
Ser

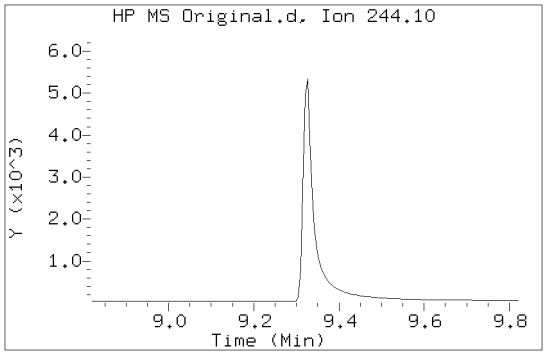


4-Terphenyl-d14 (1718-51-0)

Reason Code:

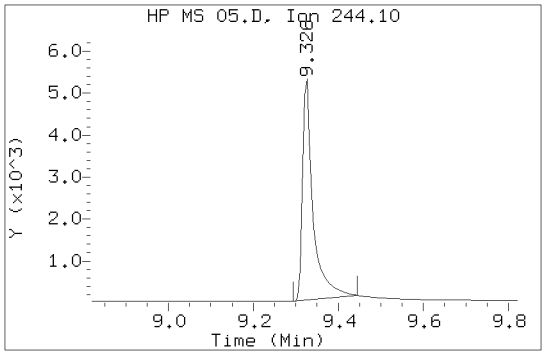
BEFORE

MASS
244.1
AREA
0
HEIGHT
0
30-Jan-2023
13:25
ALSHS
Server



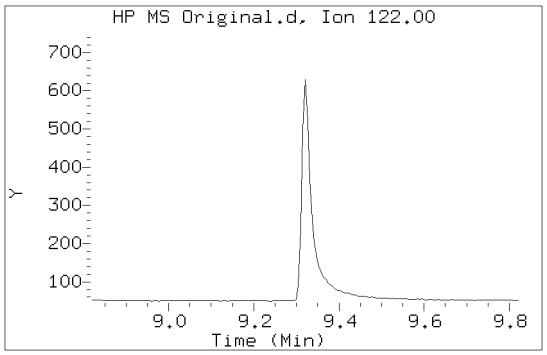
AFTER

MASS
244.1
AREA
8947
HEIGHT
5265
01-Feb-2023
16:30
ALSHS
Ser



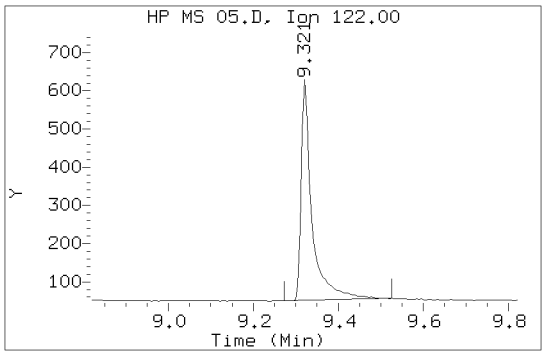
BEFORE

MASS
122
AREA
0
HEIGHT
0
30-Jan-2023
13:25
ALSHS
Server



AFTER

MASS
122
AREA
1014
HEIGHT
577
01-Feb-2023
16:30
ALSHS
Ser



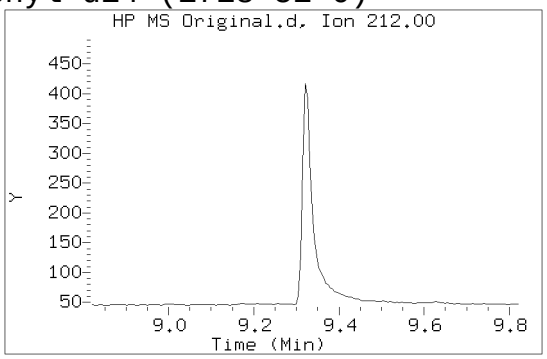
Data File : \\NAHSTWS005\Target\chem\SV6.i\230130.b\05.D
Inj Date : 30-JAN-2023 13:10
InstruID : SV6.i
LabSampID : MBLK-188515

4-Terphenyl-d14 (1718-51-0)

Reason Code:

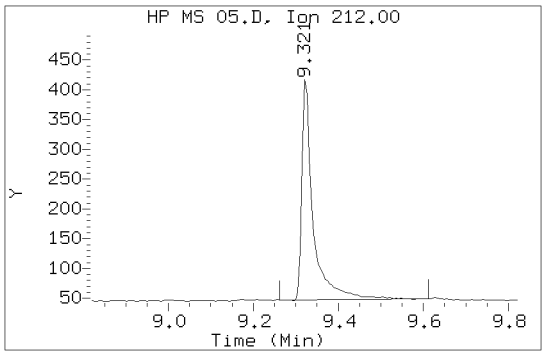
BEFORE

MASS
212
AREA
0
HEIGHT
0
30-Jan-2023
13:25
ALSHS
Server



AFTER

MASS
212
AREA
678
HEIGHT
369
01-Feb-2023
16:30
ALSHS
Ser

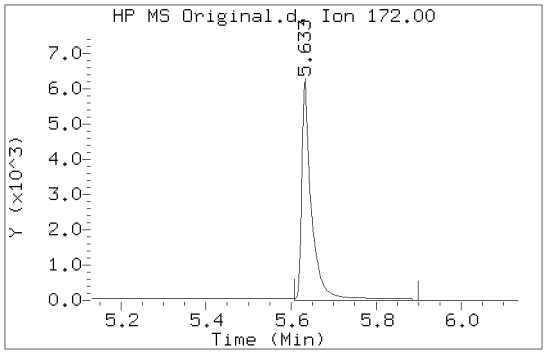


2-Fluorobiphenyl (321-60-8)

Reason Code:

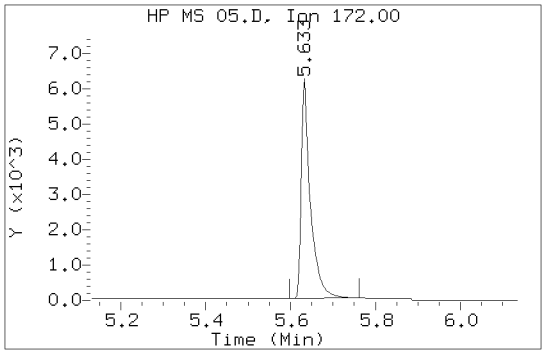
BEFORE

MASS
172
AREA
10450
HEIGHT
6282
30-Jan-2023
13:25
ALSHS
Server



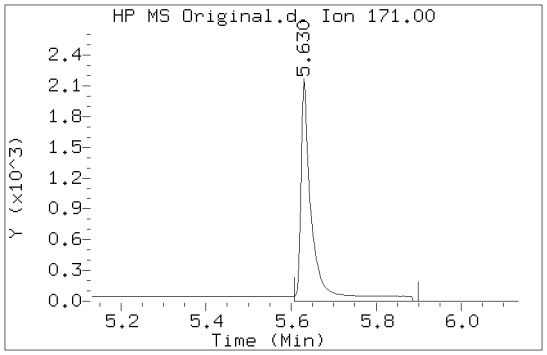
AFTER

MASS
172
AREA
9339
HEIGHT
6227
01-Feb-2023
16:30
ALSHS
Ser



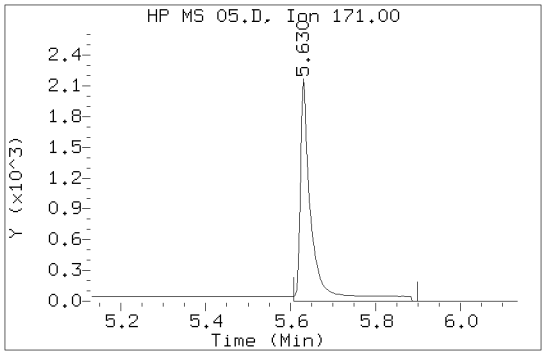
BEFORE

MASS
171
AREA
4051
HEIGHT
2168
30-Jan-2023
13:25
ALSHS
Server



AFTER

MASS
171
AREA
4051
HEIGHT
2168
01-Feb-2023
16:30
ALSHS
Ser



Data File: \\NAHSTWS005\Target\chem\SV6.i\230130.b\06.D Page 1
Report Date: 30-Jan-2023 17:00

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230130.b\06.D
Lab Smp Id: LCS1-188515
Inj Date : 30-JAN-2023 13:28
Operator : LG Inst ID: SV6.i
Smp Info : LCS1-188515
Misc Info :
Comment :
Method : \\nahstws005\Target\chem\SV6.i\230130.b\DXSIM.m
Meth Date : 30-Jan-2023 12:38 marco.guti Quant Type: ISTD
Cal Date : 26-JAN-2023 19:09 Cal File: 25.D
Als bottle: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTWS005

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)
* 20 1,4-Dichlorobenzene-d4	152	3.491	3.485	(1.000)	3920	0.10000	(aM)
* 45 Naphthalene-d8	136	4.605	4.604	(1.000)	14283	0.10000	(M)
$ 33 Nitrobenzene-d5	82	3.952	3.952	(0.858)	3611	0.08762	0.08762(M)
* 86 Acenaphthene-d10	164	6.278	6.284	(1.000)	8009	0.10000	(M)
$ 69 2-Fluorobiphenyl	172	5.633	5.633	(0.897)	9745	0.09270	0.09270(M)
* 126 Phenanthrene-d10	188	7.728	7.734	(1.000)	15881	0.10000	
* 182 Chrysene-d12	240	10.552	10.558	(1.000)	7325	0.10000	(M)
$ 158 4-Terphenyl-d14	244	9.320	9.326	(0.883)	9535	0.07735	0.07735(M)
* 198 Perylene-d12	264	12.609	12.615	(1.000)	6284	0.10000	
1 1,4-Dioxane	58	1.759	1.710	(0.504)	707	0.04944	0.04944(M)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

01181881

Data File: \\NAHSTWS005\Target\chem\SV6.i\230130.b\06.D

Date : 30-JAN-2023 13:28

Client ID:

Instrument: SV6.i

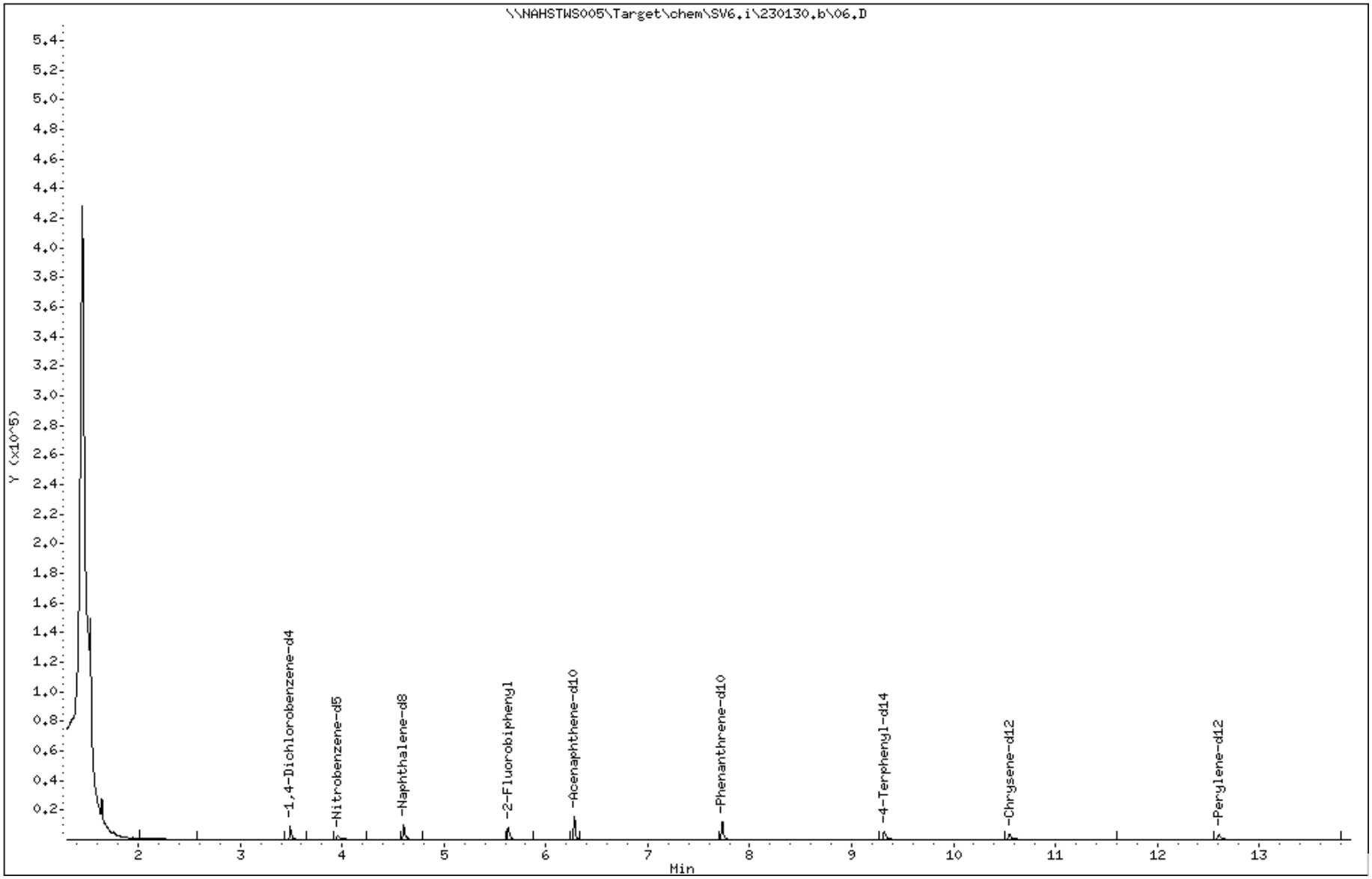
Sample Info: LCS1-188515

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28



Data File: \\NAHSTWS005\Target\chem\SV6.i\230130.b\06.D

Date : 30-JAN-2023 13:28

Client ID:

Instrument: SV6.i

Sample Info: LCS1-188515

Purge Volume: 1000.0

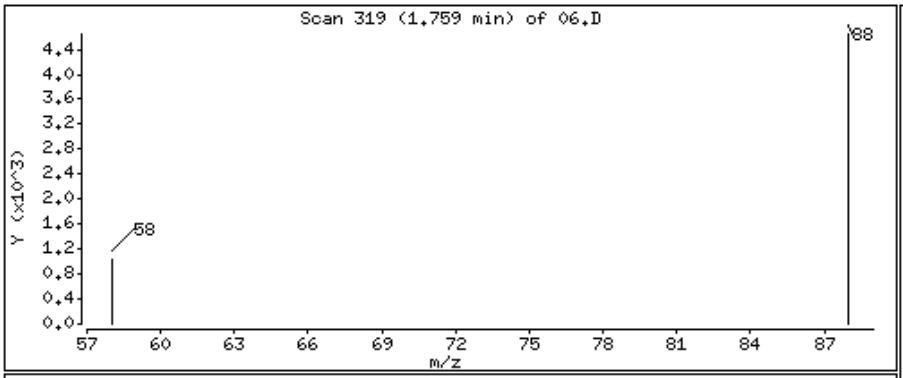
Operator: LG

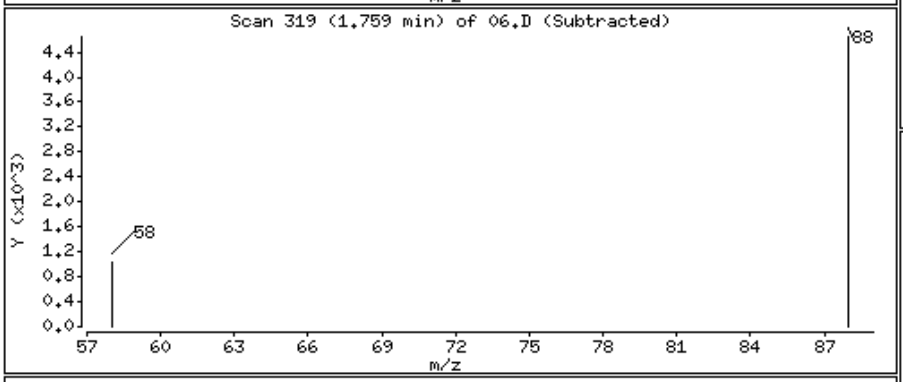
Column phase: RTX-5SIL MS

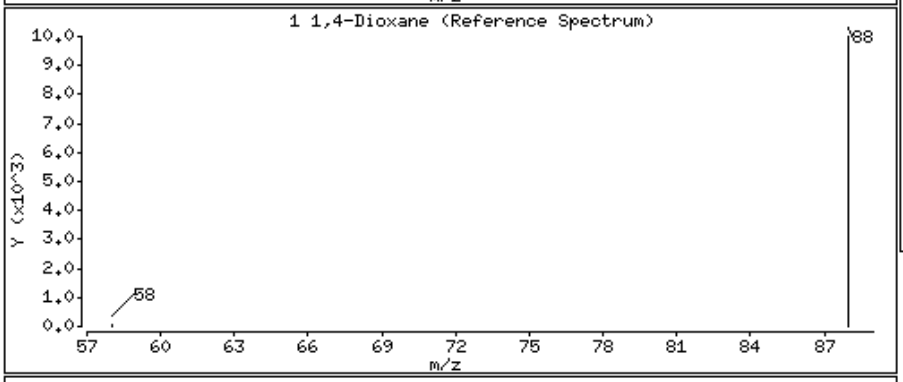
Column diameter: 0.28

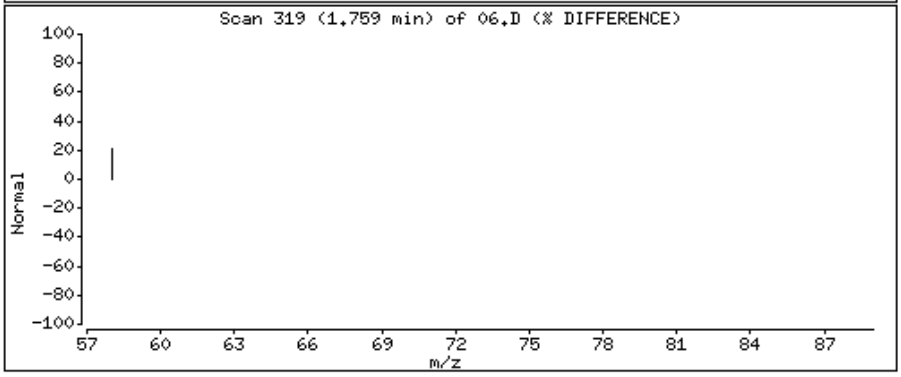
1 1,4-Dioxane

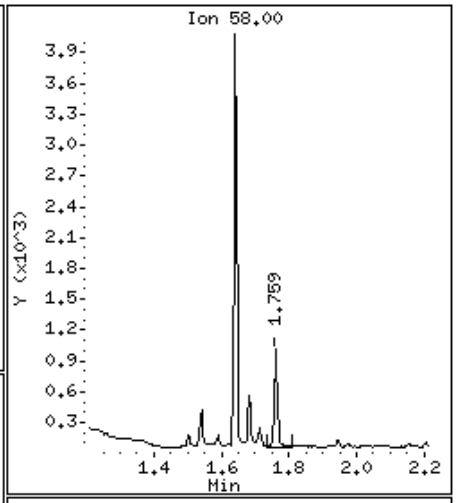
Concentration: 0.04944 ug/L

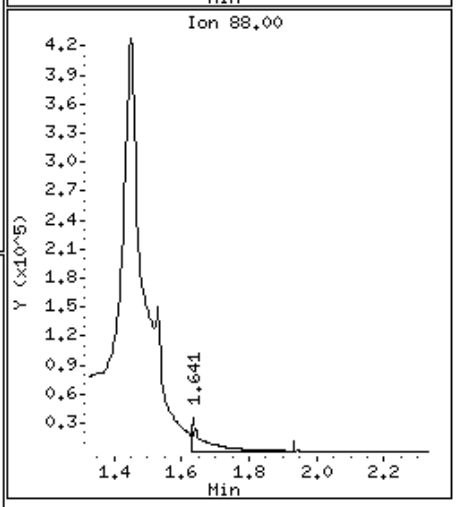










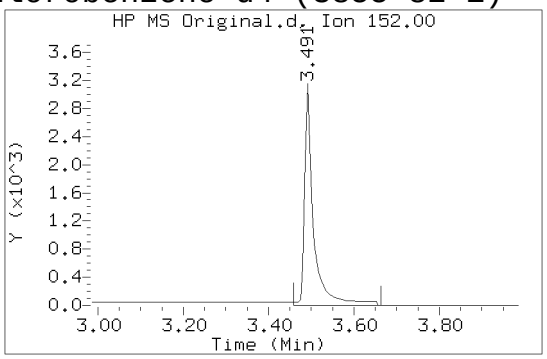


Data File : \\NAHSTWS005\Target\chem\SV6.i\230130.b\06.D
Inj Date : 30-JAN-2023 13:28
InstruID : SV6.i
LabSampID : LCS1-188515

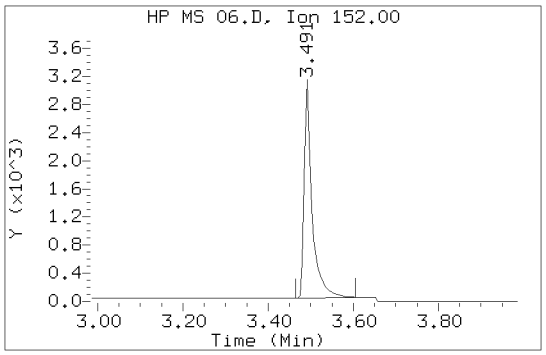
1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

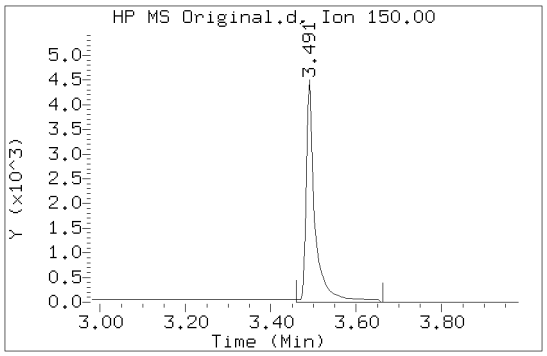
BEFORE
MASS
152
AREA
4546
HEIGHT
3153
30-Jan-2023
13:42
ALSHS
Server



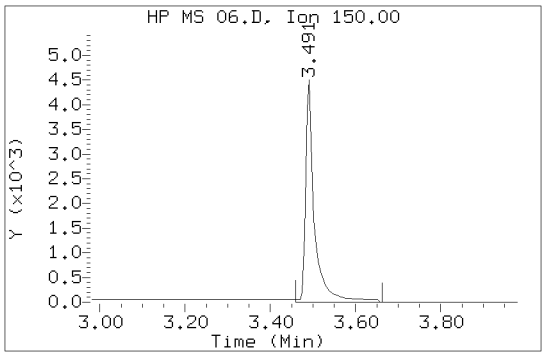
AFTER
MASS
152
AREA
3920
HEIGHT
3103
30-Jan-2023
17:00



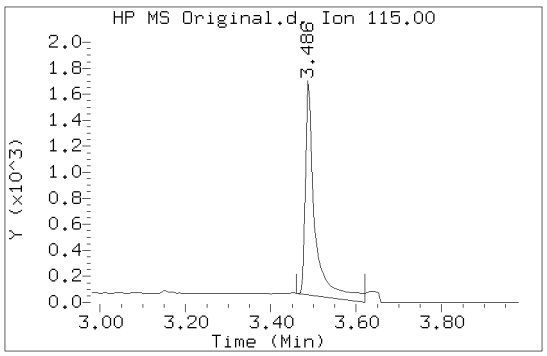
BEFORE
MASS
150
AREA
6530
HEIGHT
4502
30-Jan-2023
13:42
ALSHS
Server



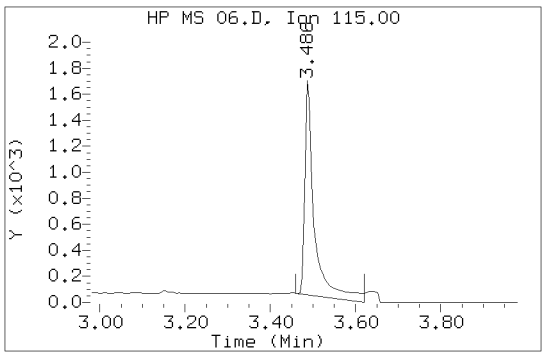
AFTER
MASS
150
AREA
6530
HEIGHT
4502
30-Jan-2023
17:00



BEFORE
MASS
115
AREA
2537
HEIGHT
1645
30-Jan-2023
13:42
ALSHS
Server



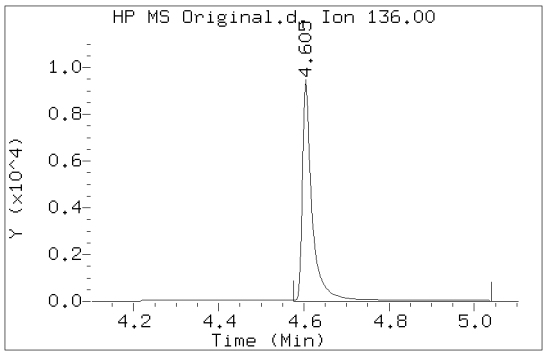
AFTER
MASS
115
AREA
2537
HEIGHT
1645
30-Jan-2023
17:00



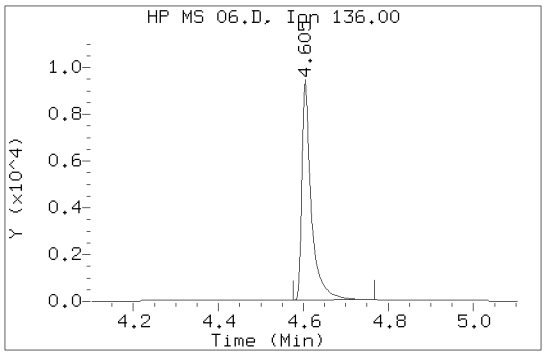
Naphthalene-d8 (1146-65-2)

Reason Code:

BEFORE
MASS
136
AREA
15950
HEIGHT
9480
30-Jan-2023
13:42
ALSHS
Server



AFTER
MASS
136
AREA
14283
HEIGHT
9423
30-Jan-2023
17:00



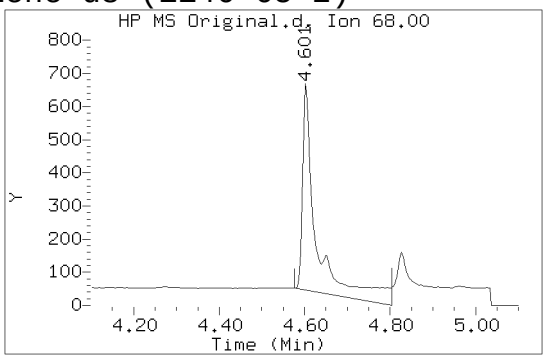
Data File : \\NAHSTWS005\Target\chem\SV6.i\230130.b\06.D
Inj Date : 30-JAN-2023 13:28
InstruID : SV6.i
LabSampID : LCS1-188515

Naphthalene-d8 (1146-65-2)

Reason Code:

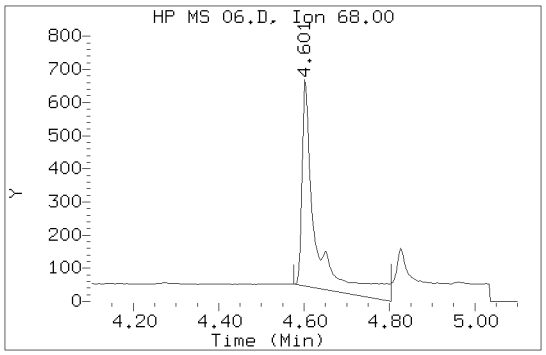
BEFORE

MASS
68
AREA
1393
HEIGHT
621
30-Jan-2023
13:42
ALSHS
Server



AFTER

MASS
68
AREA
1393
HEIGHT
621
30-Jan-2023
17:00

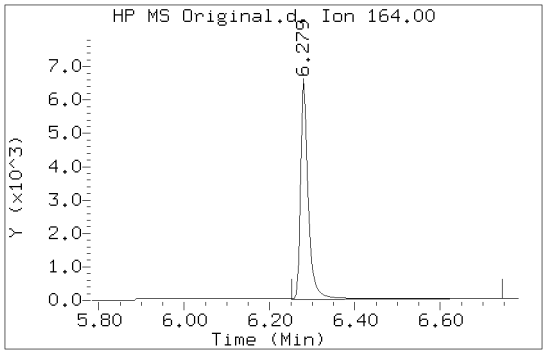


Acenaphthene-d10 (15067-26-2)

Reason Code:

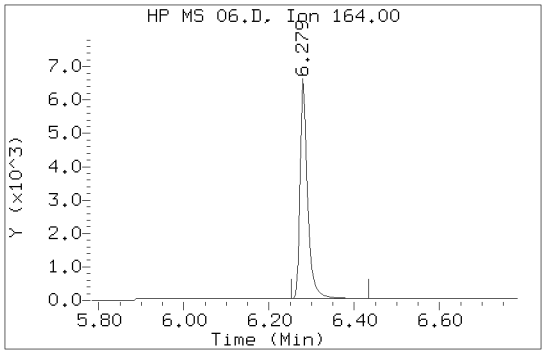
BEFORE

MASS
164
AREA
8496
HEIGHT
6613
30-Jan-2023
13:42
ALSHS
Server



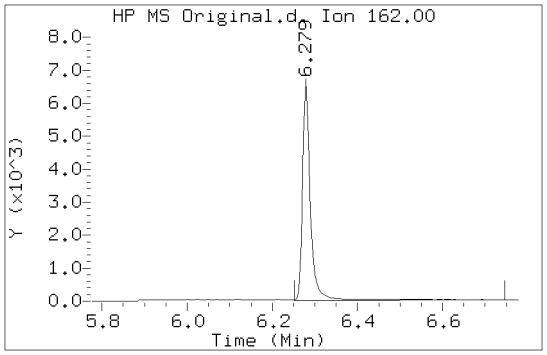
AFTER

MASS
164
AREA
8009
HEIGHT
6585
30-Jan-2023
17:00



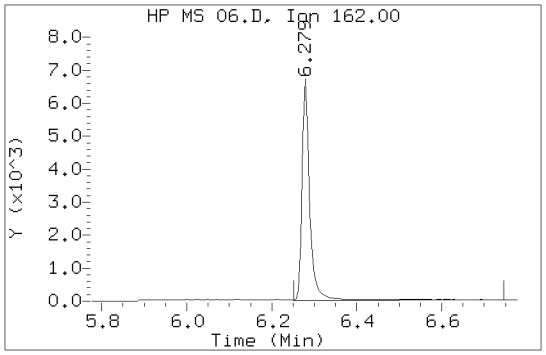
BEFORE

MASS
162
AREA
8451
HEIGHT
6716
30-Jan-2023
13:42
ALSHS
Server



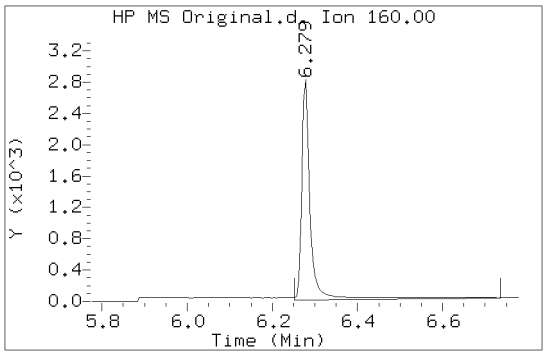
AFTER

MASS
162
AREA
8451
HEIGHT
6716
30-Jan-2023
17:00



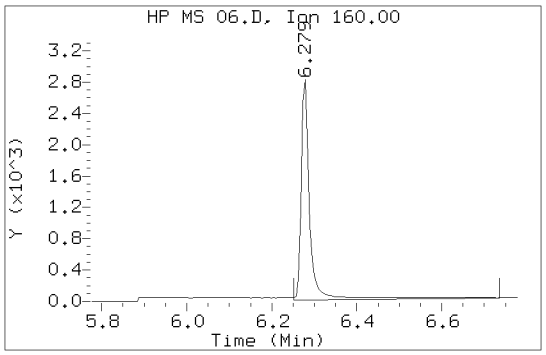
BEFORE

MASS
160
AREA
3869
HEIGHT
2809
30-Jan-2023
13:42
ALSHS
Server



AFTER

MASS
160
AREA
3869
HEIGHT
2809
30-Jan-2023
17:00

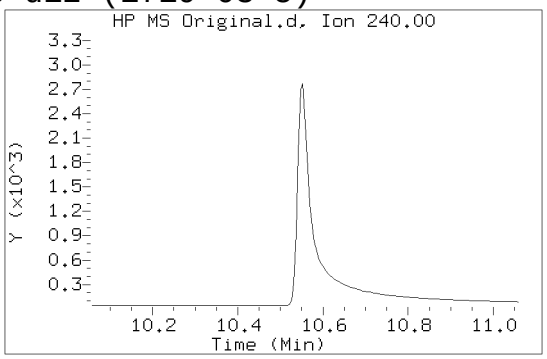


Data File : \\NAHSTWS005\Target\chem\SV6.i\230130.b\06.D
Inj Date : 30-JAN-2023 13:28
InstruID : SV6.i
LabSampID : LCS1-188515

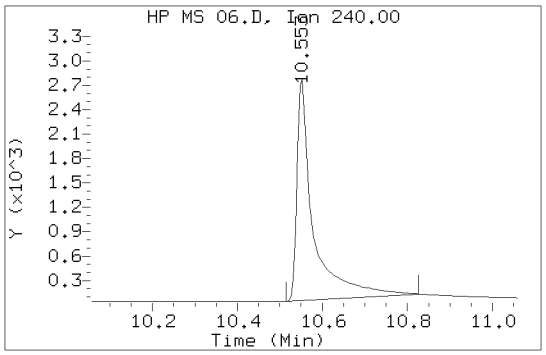
Chrysene-d12 (1719-03-5)

Reason Code:

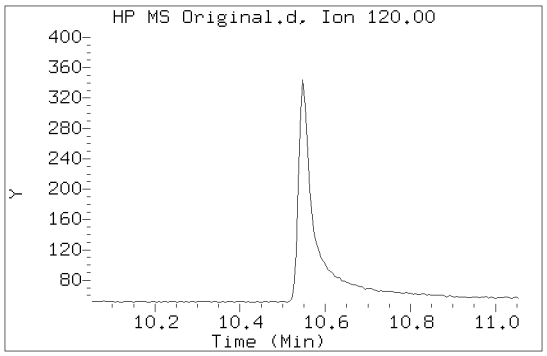
BEFORE
MASS
240
AREA
0
HEIGHT
0
30-Jan-2023
13:42
ALSHS
Server



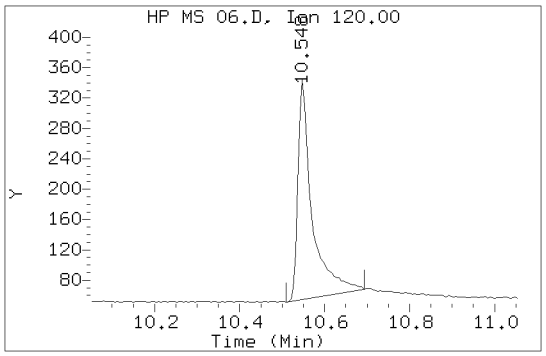
AFTER
MASS
240
AREA
7325
HEIGHT
2711
30-Jan-2023
17:00



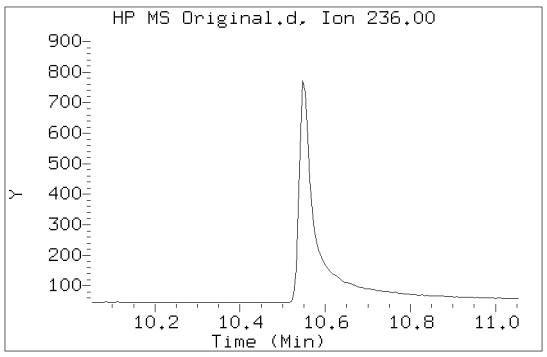
BEFORE
MASS
120
AREA
0
HEIGHT
0
30-Jan-2023
13:42
ALSHS
Server



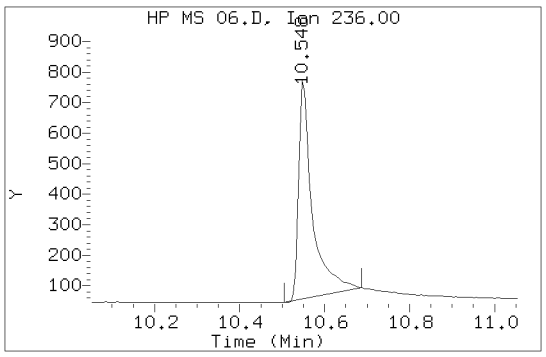
AFTER
MASS
120
AREA
670
HEIGHT
289
30-Jan-2023
17:00



BEFORE
MASS
236
AREA
0
HEIGHT
0
30-Jan-2023
13:42
ALSHS
Server



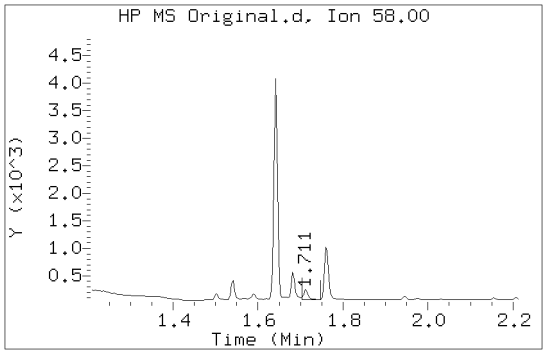
AFTER
MASS
236
AREA
1599
HEIGHT
713
30-Jan-2023
17:00



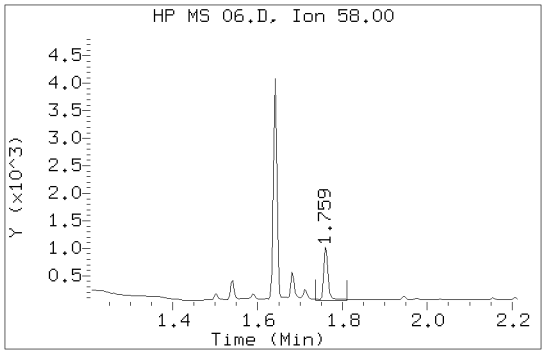
1,4-Dioxane ()

Reason Code:

BEFORE
MASS
58
AREA
142
HEIGHT
181
30-Jan-2023
13:42
ALSHS
Server



AFTER
MASS
58
AREA
707
HEIGHT
965
30-Jan-2023
17:00



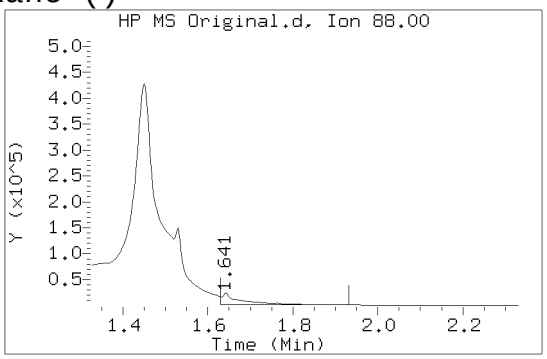
Data File : \\NAHSTWS005\Target\chem\SV6.i\230130.b\06.D
Inj Date : 30-JAN-2023 13:28
InstruID : SV6.i
LabSampID : LCS1-188515

1,4-Dioxane ()

Reason Code:

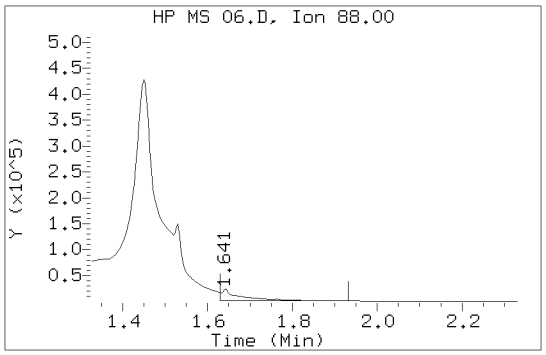
BEFORE

MASS
88
AREA
77165
HEIGHT
22554
30-Jan-2023
13:42
ALSHS
Server



AFTER

MASS
88
AREA
77165
HEIGHT
22554
30-Jan-2023
17:00

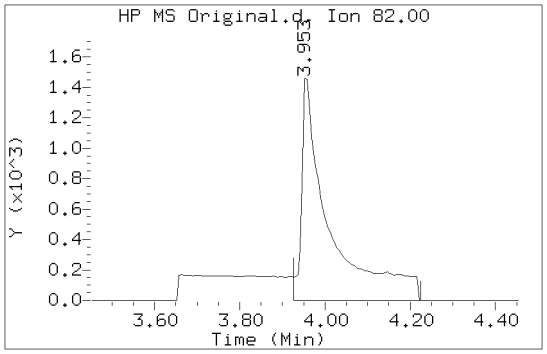


Nitrobenzene-d5 (4165-60-0)

Reason Code:

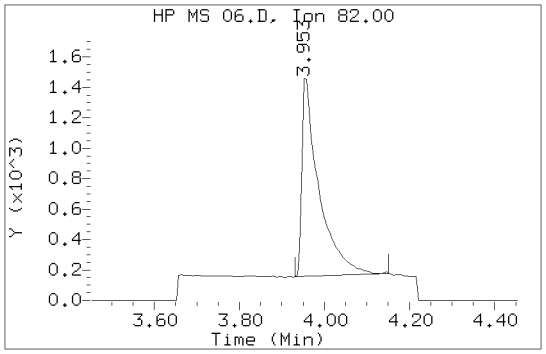
BEFORE

MASS
82
AREA
6510
HEIGHT
1457
30-Jan-2023
13:42
ALSHS
Server



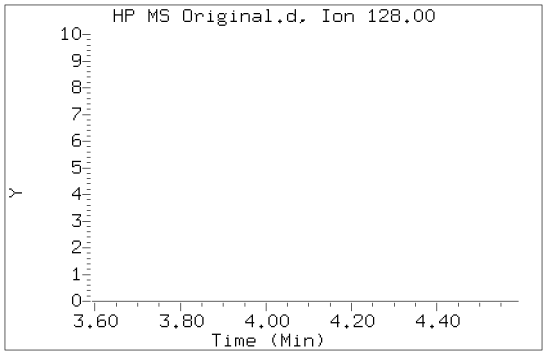
AFTER

MASS
82
AREA
3611
HEIGHT
1299
30-Jan-2023
17:00



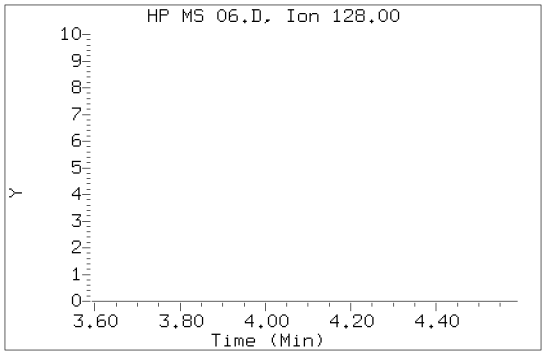
BEFORE

MASS
128
AREA
0
HEIGHT
0
30-Jan-2023
13:42
ALSHS
Server



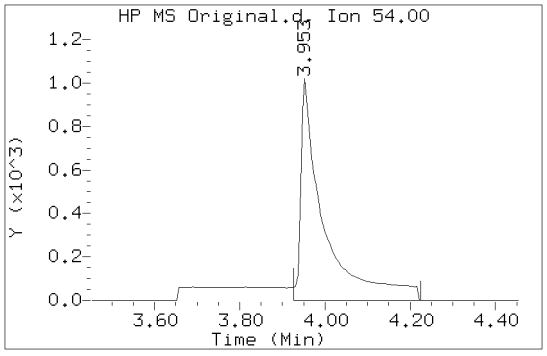
AFTER

MASS
128
AREA
0
HEIGHT
0
30-Jan-2023
17:00



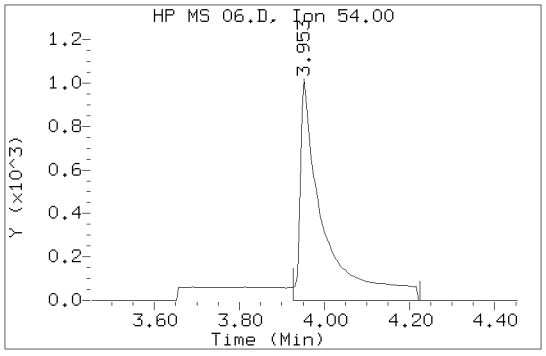
BEFORE

MASS
54
AREA
3767
HEIGHT
1020
30-Jan-2023
13:42
ALSHS
Server



AFTER

MASS
54
AREA
3767
HEIGHT
1020
30-Jan-2023
17:00



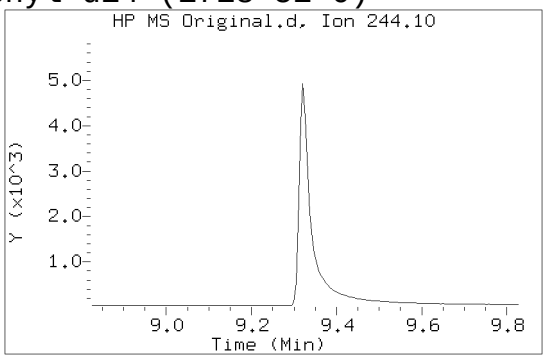
Data File : \\NAHSTWS005\Target\chem\SV6.i\230130.b\06.D
Inj Date : 30-JAN-2023 13:28
InstruID : SV6.i
LabSampID : LCS1-188515

4-Terphenyl-d14 (1718-51-0)

Reason Code:

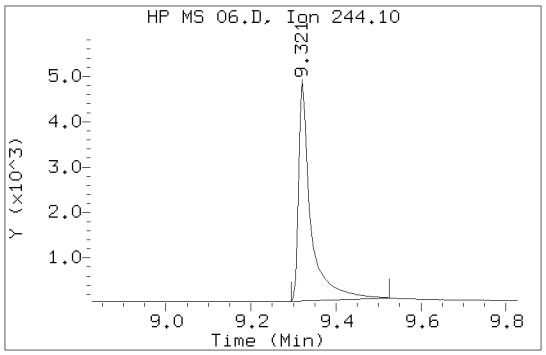
BEFORE

MASS
244.1
AREA
0
HEIGHT
0
30-Jan-2023
13:42
ALSHS
Server



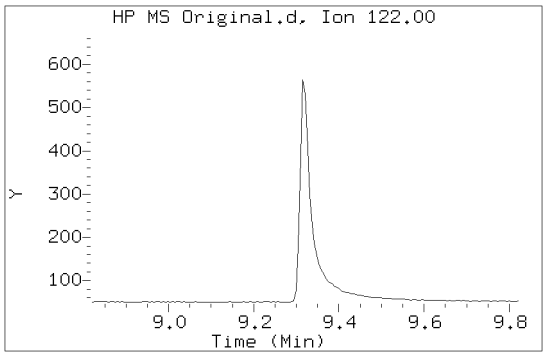
AFTER

MASS
244.1
AREA
9535
HEIGHT
4866
30-Jan-2023
17:00



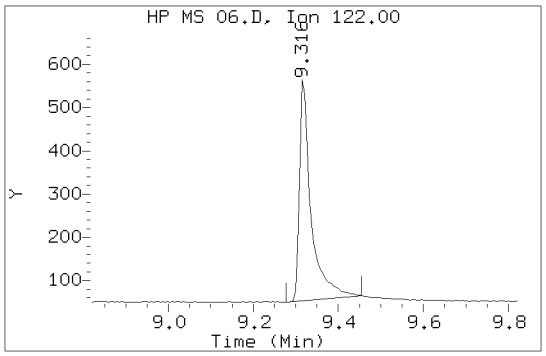
BEFORE

MASS
122
AREA
0
HEIGHT
0
30-Jan-2023
13:42
ALSHS
Server



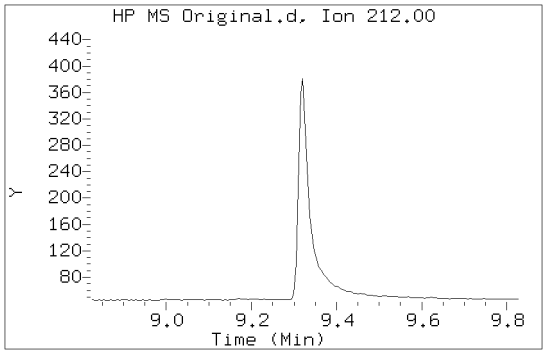
AFTER

MASS
122
AREA
961
HEIGHT
510
30-Jan-2023
17:00



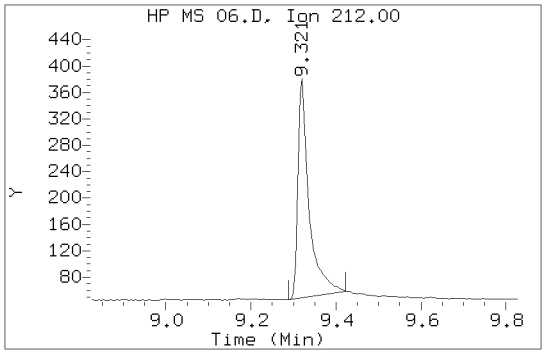
BEFORE

MASS
212
AREA
0
HEIGHT
0
30-Jan-2023
13:42
ALSHS
Server



AFTER

MASS
212
AREA
599
HEIGHT
331
30-Jan-2023
17:00

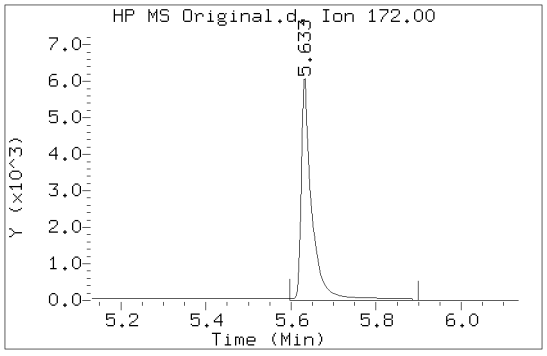


2-Fluorobiphenyl (321-60-8)

Reason Code:

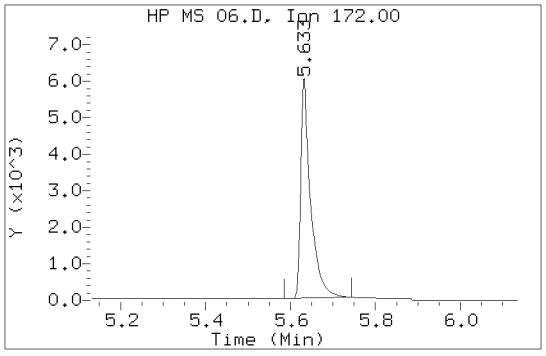
BEFORE

MASS
172
AREA
11000
HEIGHT
6071
30-Jan-2023
13:42
ALSHS
Server



AFTER

MASS
172
AREA
9745
HEIGHT
6011
30-Jan-2023
17:00



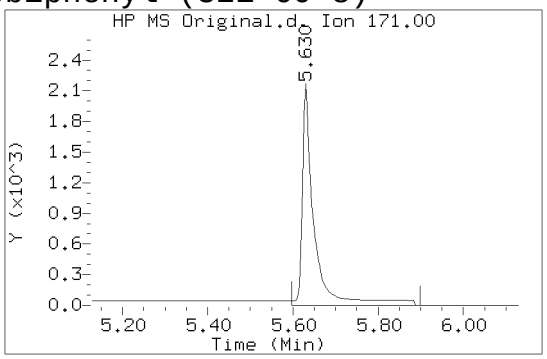
Data File : \\NAHSTWS005\Target\chem\SV6.i\230130.b\06.D
Inj Date : 30-JAN-2023 13:28
InstruID : SV6.i
LabSampID : LCS1-188515

2-Fluorobiphenyl (321-60-8)

Reason Code:

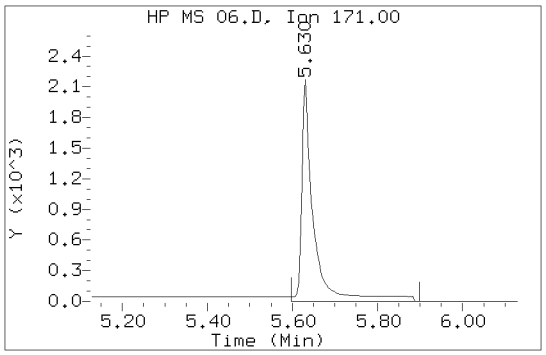
BEFORE

MASS
171
AREA
4269
HEIGHT
2170
30-Jan-2023
13:42
ALSHS
Server



AFTER

MASS
171
AREA
4269
HEIGHT
2170
30-Jan-2023
17:00



Data File: \\NAHSTWS005\Target\chem\SV6.i\230130.b\07.D Page 1
Report Date: 01-Feb-2023 16:31

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230130.b\07.D
Lab Smp Id: LCSD1-188515
Inj Date : 30-JAN-2023 13:46
Operator : LG Inst ID: SV6.i
Smp Info : LCSD1-188515
Misc Info : ;;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\SV6.i\230130.b\DXSIM.m
Meth Date : 01-Feb-2023 15:44 Linh.Pham Quant Type: ISTD
Cal Date : 26-JAN-2023 19:09 Cal File: 25.D
Als bottle: 6 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)
* 20 1,4-Dichlorobenzene-d4	152	3.491	3.491	(1.000)	3542	0.10000	(aM)
* 45 Naphthalene-d8	136	4.604	4.604	(1.000)	12491	0.10000	(M)
$ 33 Nitrobenzene-d5	82	3.958	3.957	(0.860)	3227	0.08954	0.08954(M)
* 86 Acenaphthene-d10	164	6.278	6.284	(1.000)	7406	0.10000	(M)
$ 69 2-Fluorobiphenyl	172	5.629	5.633	(0.897)	8959	0.09217	0.09217(M)
* 126 Phenanthrene-d10	188	7.734	7.734	(1.000)	14420	0.10000	(M)
* 182 Chrysene-d12	240	10.547	10.552	(1.000)	6811	0.10000	(M)
$ 158 4-Terphenyl-d14	244	9.320	9.320	(0.884)	8045	0.07173	0.07173(M)
* 198 Perylene-d12	264	12.609	12.614	(1.000)	5558	0.10000	
1 1,4-Dioxane	58	1.758	1.744	(0.504)	589	0.04559	0.04559(M)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

01181890

Data File: \\NAHSTWS005\Target\chem\SV6.i\230130.b\07.D

Date : 30-JAN-2023 13:46

Client ID:

Instrument: SV6.i

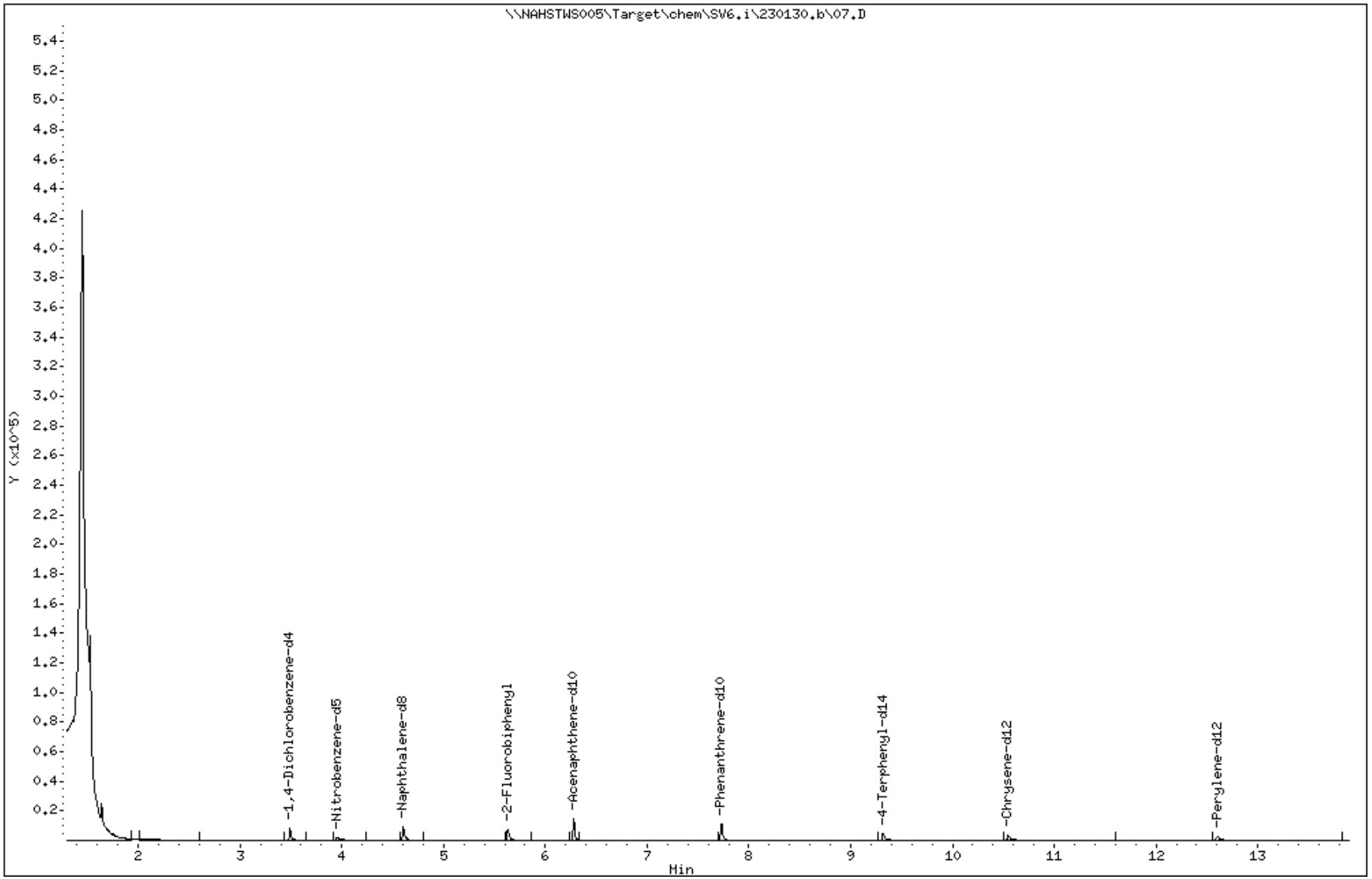
Sample Info: LCSD1-188515

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28



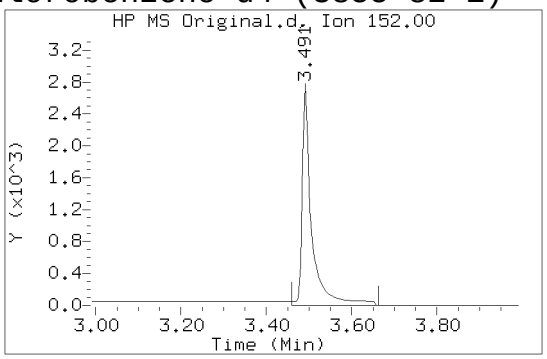
Data File : \\NAHSTWS005\Target\chem\SV6.i\230130.b\07.D
Inj Date : 30-JAN-2023 13:46
InstruID : SV6.i
LabSampID : LCSD1-188515

1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

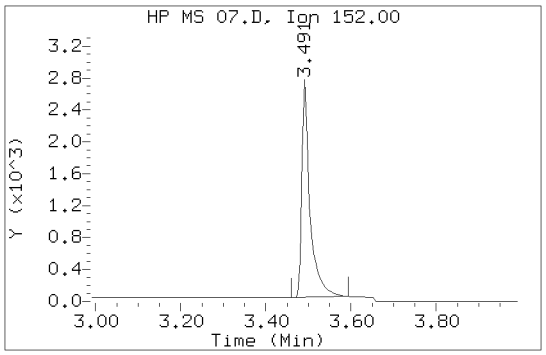
BEFORE

MASS
152
AREA
4195
HEIGHT
2779
30-Jan-2023
14:02
ALSHS
Server



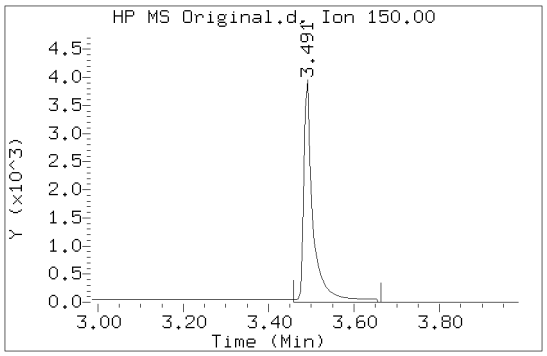
AFTER

MASS
152
AREA
3542
HEIGHT
2728
01-Feb-2023
16:30
ALSHS
Ser



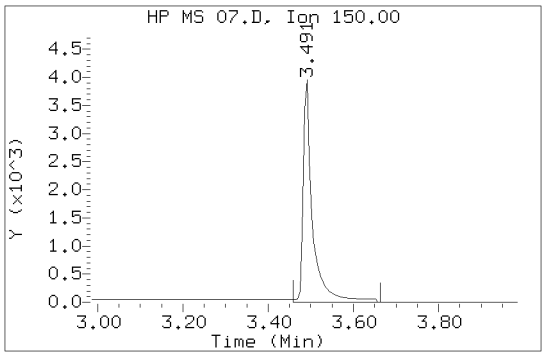
BEFORE

MASS
150
AREA
5988
HEIGHT
3953
30-Jan-2023
14:02
ALSHS
Server



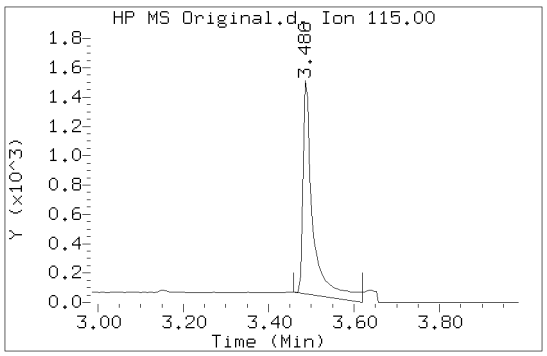
AFTER

MASS
150
AREA
5988
HEIGHT
3953
01-Feb-2023
16:30
ALSHS
Ser



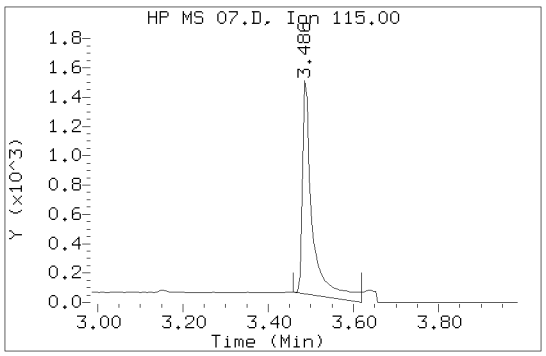
BEFORE

MASS
115
AREA
2335
HEIGHT
1455
30-Jan-2023
14:02
ALSHS
Server



AFTER

MASS
115
AREA
2335
HEIGHT
1455
01-Feb-2023
16:30
ALSHS
Ser

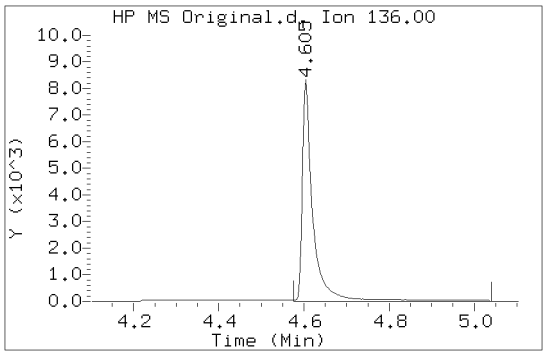


Naphthalene-d8 (1146-65-2)

Reason Code:

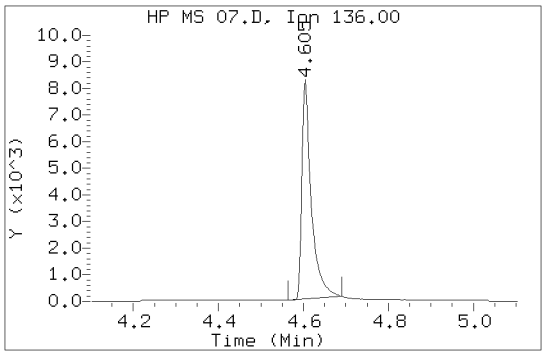
BEFORE

MASS
136
AREA
14786
HEIGHT
8332
30-Jan-2023
14:02
ALSHS
Server



AFTER

MASS
136
AREA
12491
HEIGHT
8236
01-Feb-2023
16:30
ALSHS
Ser



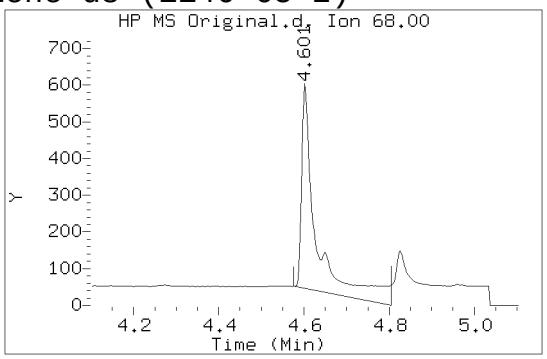
Data File : \\NAHSTWS005\Target\chem\SV6.i\230130.b\07.D
Inj Date : 30-JAN-2023 13:46
InstruID : SV6.i
LabSampID : LCSD1-188515

Naphthalene-d8 (1146-65-2)

Reason Code:

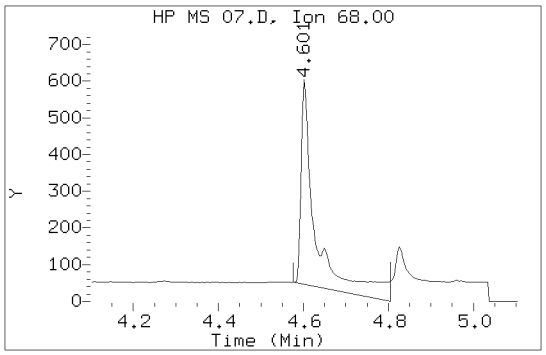
BEFORE

MASS
68
AREA
1308
HEIGHT
557
30-Jan-2023
14:02
ALSHS
Server



AFTER

MASS
68
AREA
1308
HEIGHT
557
01-Feb-2023
16:30
ALSHS
Ser

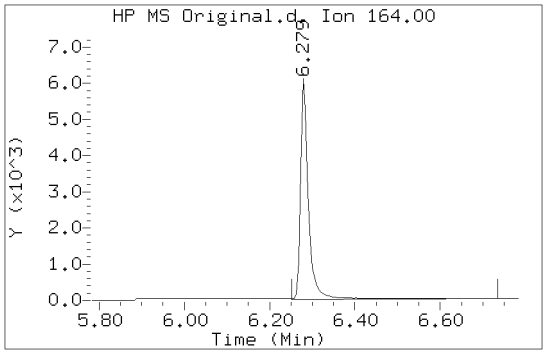


Acenaphthene-d10 (15067-26-2)

Reason Code:

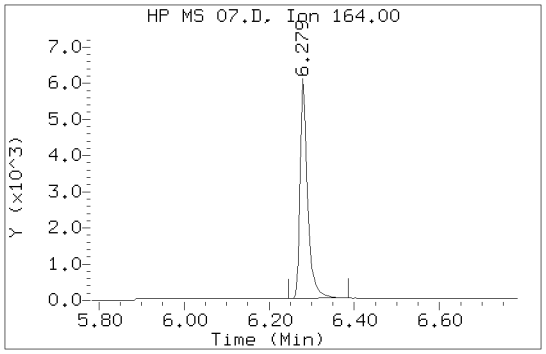
BEFORE

MASS
164
AREA
7941
HEIGHT
6102
30-Jan-2023
14:02
ALSHS
Server



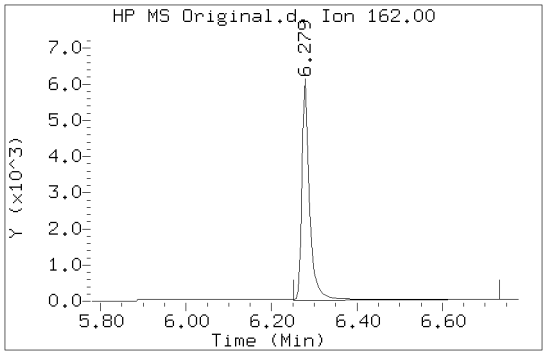
AFTER

MASS
164
AREA
7406
HEIGHT
6072
01-Feb-2023
16:30
ALSHS
Ser



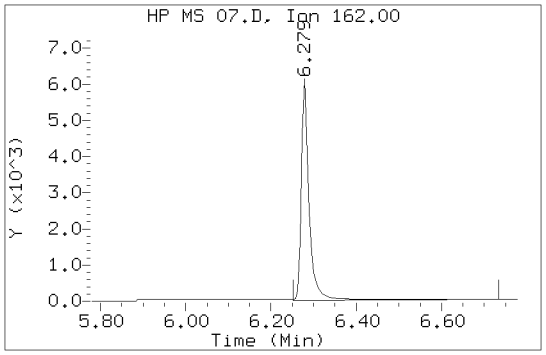
BEFORE

MASS
162
AREA
7901
HEIGHT
6129
30-Jan-2023
14:02
ALSHS
Server



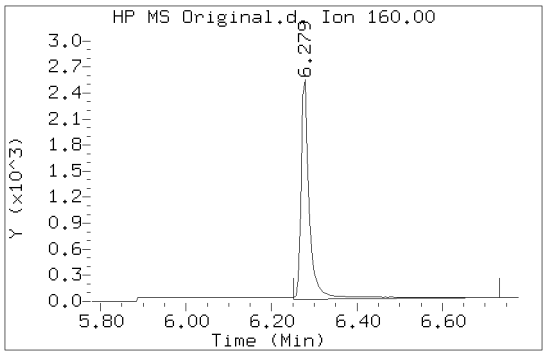
AFTER

MASS
162
AREA
7901
HEIGHT
6129
01-Feb-2023
16:30
ALSHS
Ser



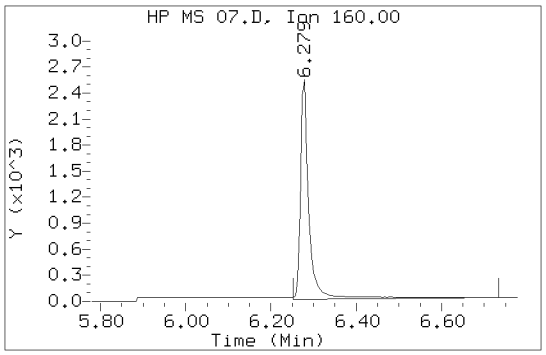
BEFORE

MASS
160
AREA
3620
HEIGHT
2531
30-Jan-2023
14:02
ALSHS
Server



AFTER

MASS
160
AREA
3620
HEIGHT
2531
01-Feb-2023
16:30
ALSHS
Ser



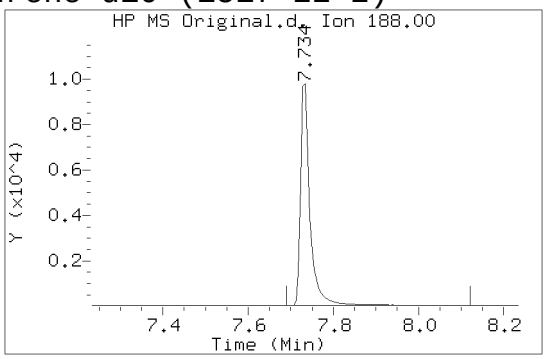
Data File : \\NAHSTWS005\Target\chem\SV6.i\230130.b\07.D
Inj Date : 30-JAN-2023 13:46
InstruID : SV6.i
LabSampID : LCSD1-188515

Phenanthrene-d10 (1517-22-2)

Reason Code:

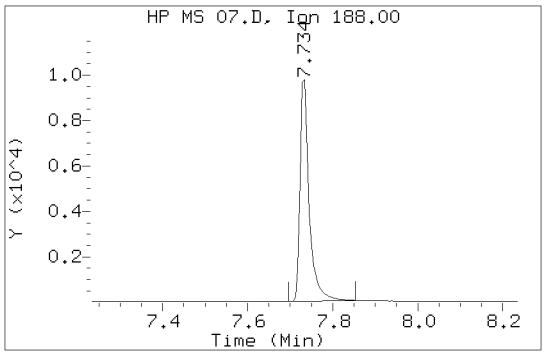
BEFORE

MASS
188
AREA
14820
HEIGHT
9756
30-Jan-2023
14:02
ALSHS
Server



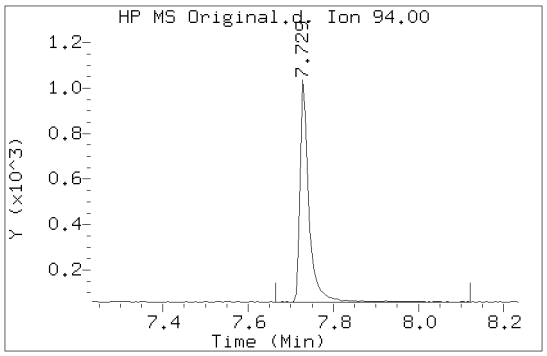
AFTER

MASS
188
AREA
14420
HEIGHT
9746
01-Feb-2023
16:30
ALSHS
Ser



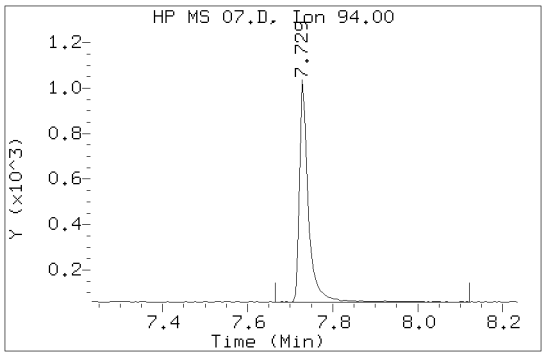
BEFORE

MASS
94
AREA
1405
HEIGHT
976
30-Jan-2023
14:02
ALSHS
Server



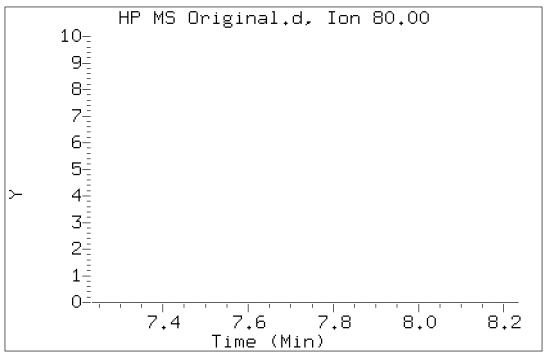
AFTER

MASS
94
AREA
1405
HEIGHT
976
01-Feb-2023
16:30
ALSHS
Ser



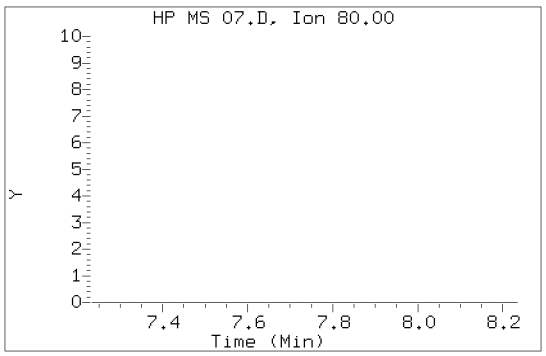
BEFORE

MASS
80
AREA
0
HEIGHT
0
30-Jan-2023
14:02
ALSHS
Server



AFTER

MASS
80
AREA
0
HEIGHT
0
01-Feb-2023
16:30
ALSHS
Ser

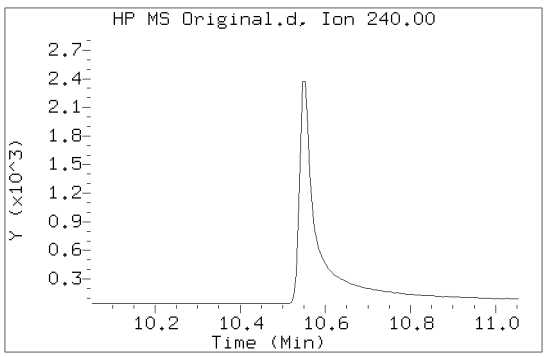


Chrysene-d12 (1719-03-5)

Reason Code:

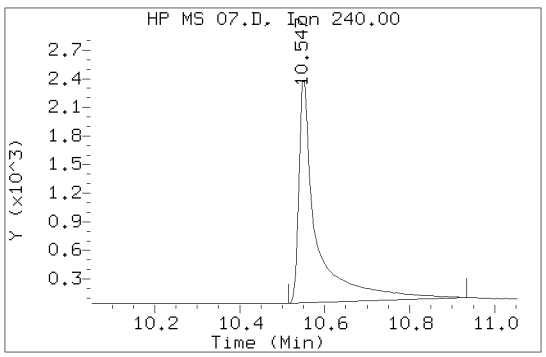
BEFORE

MASS
240
AREA
0
HEIGHT
0
30-Jan-2023
14:02
ALSHS
Server



AFTER

MASS
240
AREA
6811
HEIGHT
2317
01-Feb-2023
16:30
ALSHS
Ser



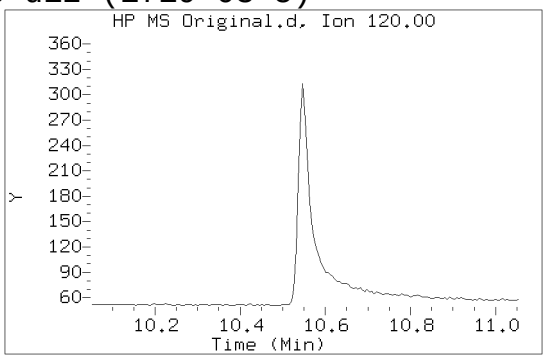
Data File : \\NAHSTWS005\Target\chem\SV6.i\230130.b\07.D
Inj Date : 30-JAN-2023 13:46
InstruID : SV6.i
LabSampID : LCSD1-188515

Chrysene-d12 (1719-03-5)

Reason Code:

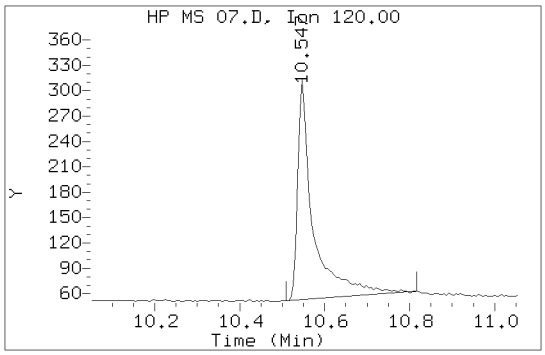
BEFORE

MASS
120
AREA
0
HEIGHT
0
30-Jan-2023
14:02
ALSHS
Server



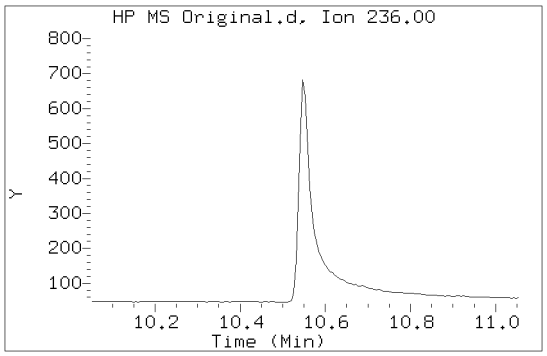
AFTER

MASS
120
AREA
652
HEIGHT
259
01-Feb-2023
16:30
ALSHS
Ser



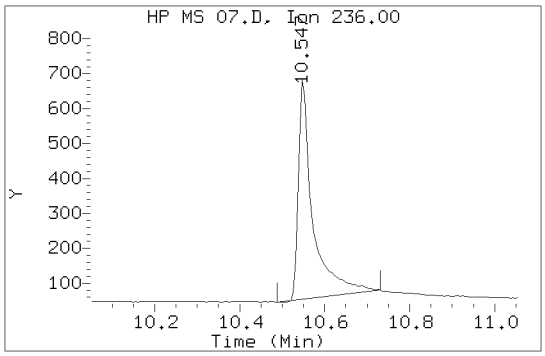
BEFORE

MASS
236
AREA
0
HEIGHT
0
30-Jan-2023
14:02
ALSHS
Server



AFTER

MASS
236
AREA
1473
HEIGHT
627
01-Feb-2023
16:30
ALSHS
Ser

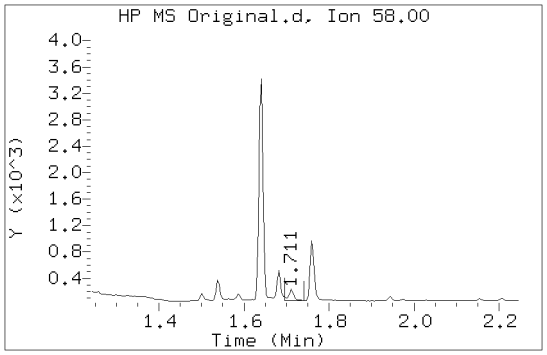


1,4-Dioxane ()

Reason Code:

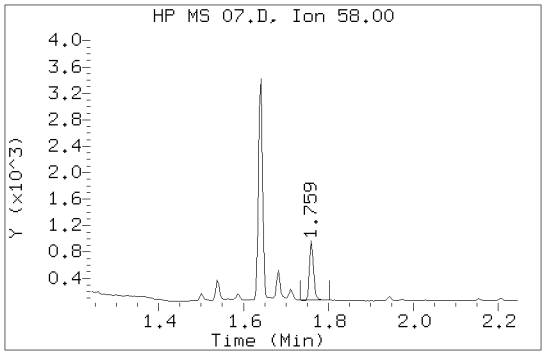
BEFORE

MASS
58
AREA
147
HEIGHT
171
30-Jan-2023
14:02
ALSHS
Server



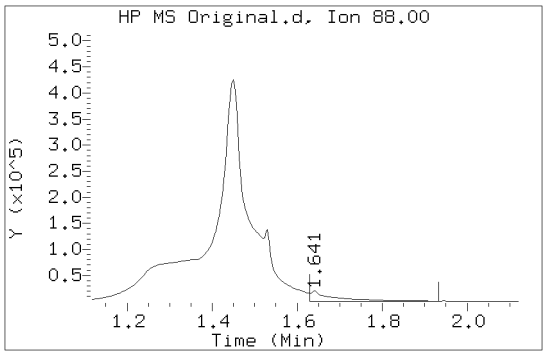
AFTER

MASS
58
AREA
589
HEIGHT
899
01-Feb-2023
16:30
ALSHS
Ser



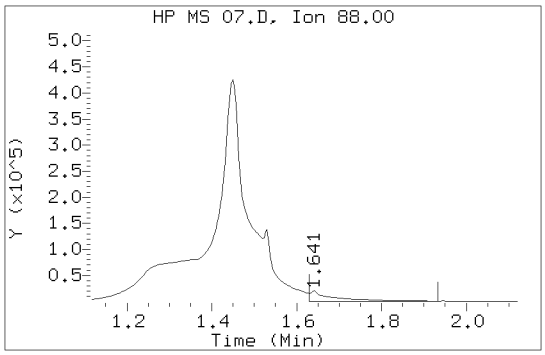
BEFORE

MASS
88
AREA
72618
HEIGHT
21003
30-Jan-2023
14:02
ALSHS
Server



AFTER

MASS
88
AREA
72618
HEIGHT
21003
01-Feb-2023
16:30
ALSHS
Ser



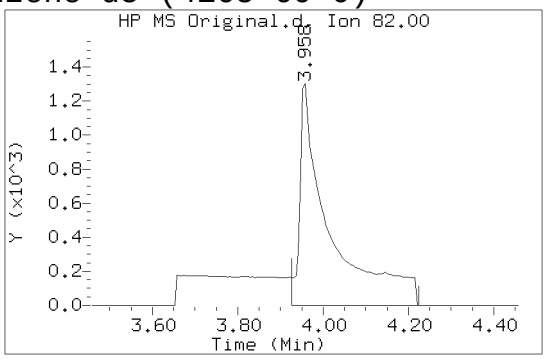
Data File : \\NAHSTWS005\Target\chem\SV6.i\230130.b\07.D
Inj Date : 30-JAN-2023 13:46
InstruID : SV6.i
LabSampID : LCSD1-188515

Nitrobenzene-d5 (4165-60-0)

Reason Code:

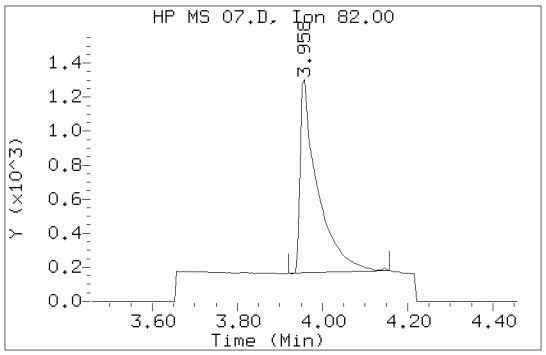
BEFORE

MASS
82
AREA
6228
HEIGHT
1302
30-Jan-2023
14:02
ALSHS
Server



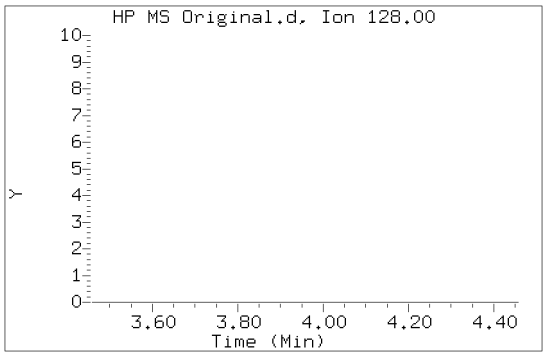
AFTER

MASS
82
AREA
3227
HEIGHT
1135
01-Feb-2023
16:30
ALSHS
Ser



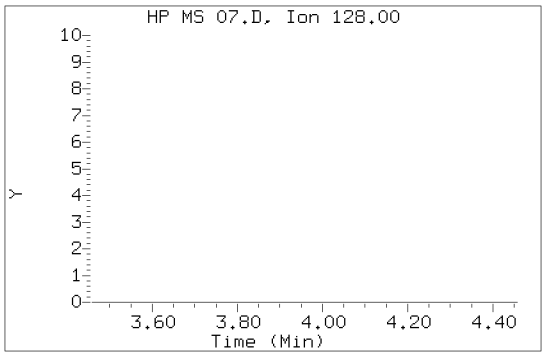
BEFORE

MASS
128
AREA
0
HEIGHT
0
30-Jan-2023
14:02
ALSHS
Server



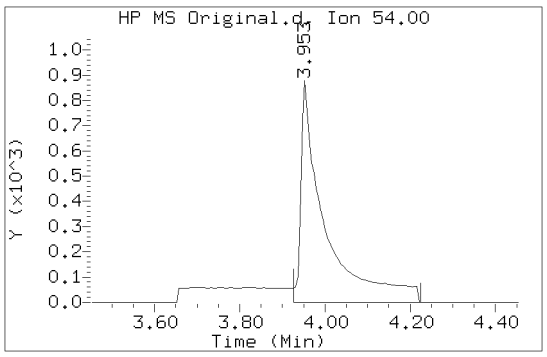
AFTER

MASS
128
AREA
0
HEIGHT
0
01-Feb-2023
16:30
ALSHS
Ser



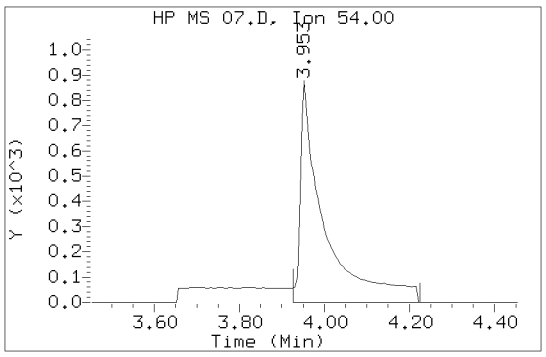
BEFORE

MASS
54
AREA
3383
HEIGHT
878
30-Jan-2023
14:02
ALSHS
Server



AFTER

MASS
54
AREA
3383
HEIGHT
878
01-Feb-2023
16:30
ALSHS
Ser

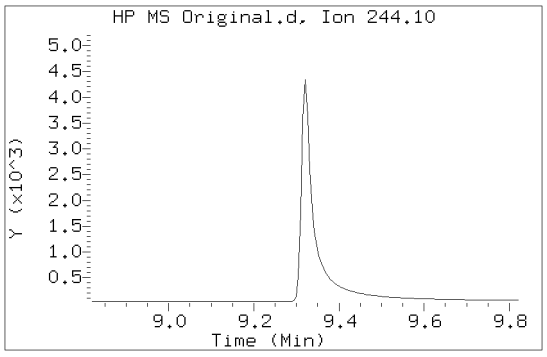


4-Terphenyl-d14 (1718-51-0)

Reason Code:

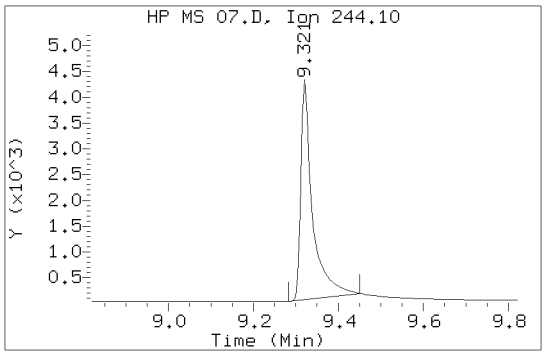
BEFORE

MASS
244.1
AREA
0
HEIGHT
0
30-Jan-2023
14:02
ALSHS
Server



AFTER

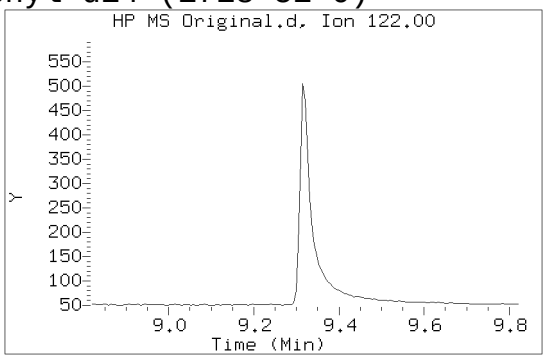
MASS
244.1
AREA
8045
HEIGHT
4261
01-Feb-2023
16:30
ALSHS
Ser



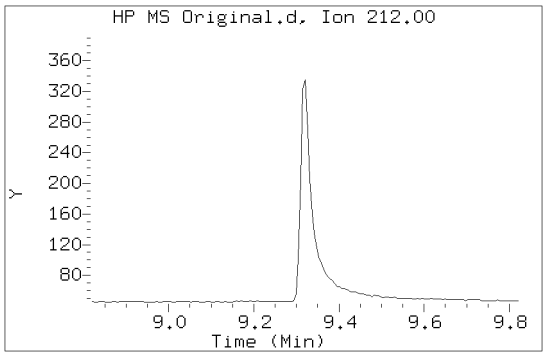
Data File : \\NAHSTWS005\Target\chem\SV6.i\230130.b\07.D
Inj Date : 30-JAN-2023 13:46
InstruID : SV6.i
LabSampID : LCSD1-188515

4-Terphenyl-d14 (1718-51-0)

BEFORE
MASS
122
AREA
0
HEIGHT
0
30-Jan-2023
14:02
ALSHS
Server

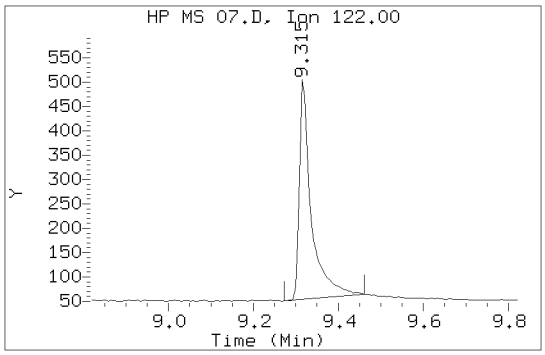


BEFORE
MASS
212
AREA
0
HEIGHT
0
30-Jan-2023
14:02
ALSHS
Server

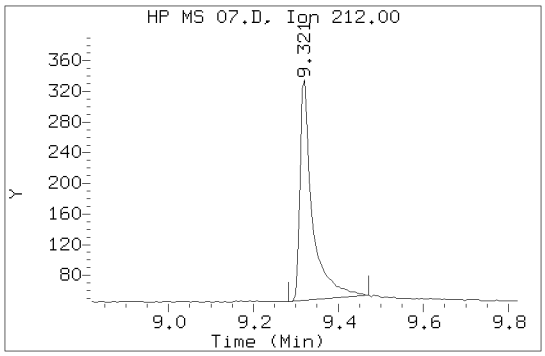


Reason Code:

AFTER
MASS
122
AREA
865
HEIGHT
450
01-Feb-2023
16:30
ALSHS
Ser

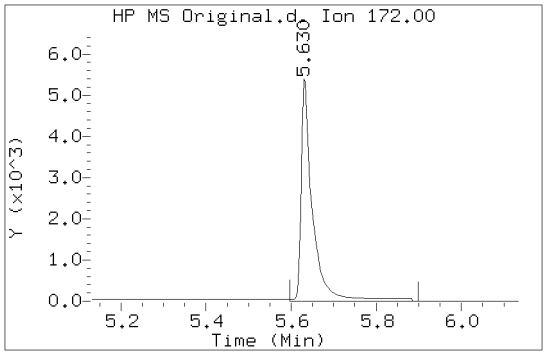


AFTER
MASS
212
AREA
578
HEIGHT
287
01-Feb-2023
16:30
ALSHS
Ser

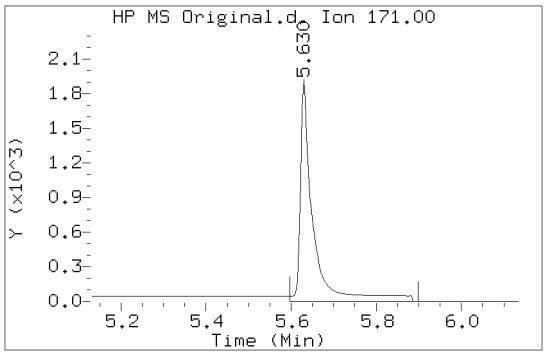


2-Fluorobiphenyl (321-60-8)

BEFORE
MASS
172
AREA
10304
HEIGHT
5398
30-Jan-2023
14:02
ALSHS
Server

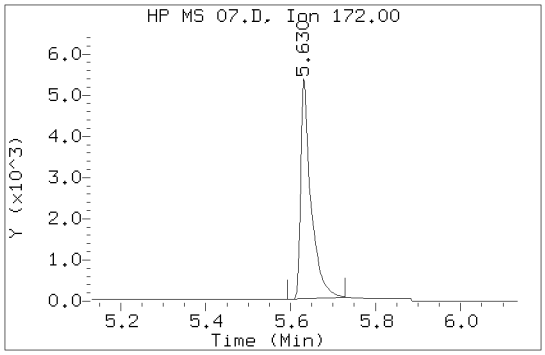


BEFORE
MASS
171
AREA
4025
HEIGHT
1922
30-Jan-2023
14:02
ALSHS
Server

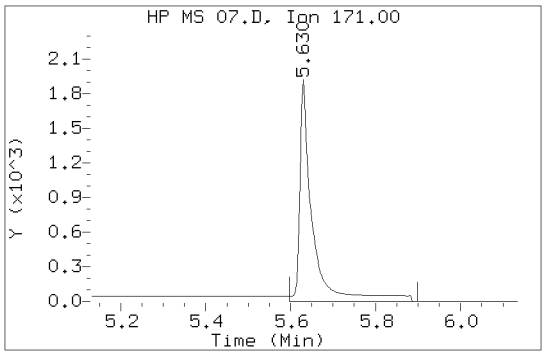


Reason Code:

AFTER
MASS
172
AREA
8959
HEIGHT
5334
01-Feb-2023
16:30
ALSHS
Ser



AFTER
MASS
171
AREA
4025
HEIGHT
1922
01-Feb-2023
16:30
ALSHS
Ser



ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230130.b\08.D
Lab Smp Id: HS23010632-01
Inj Date : 30-JAN-2023 14:03
Operator : LG Inst ID: SV6.i
Smp Info : HS23010632-01
Misc Info :
Comment :
Method : \\nahstws005\Target\chem\SV6.i\230130.b\DXSIM.m
Meth Date : 30-Jan-2023 12:38 marco.guti Quant Type: ISTD
Cal Date : 26-JAN-2023 19:09 Cal File: 25.D
Als bottle: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTWS005

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)
* 20 1,4-Dichlorobenzene-d4	152	3.485	3.485	(1.000)	2165	0.10000	(a)
* 45 Naphthalene-d8	136	4.605	4.604	(1.000)	7687	0.10000	(M)
$ 33 Nitrobenzene-d5	82	3.952	3.952	(0.858)	1835	0.08274	0.08274(M)
* 86 Acenaphthene-d10	164	6.278	6.284	(1.000)	4394	0.10000	
$ 69 2-Fluorobiphenyl	172	5.633	5.633	(0.897)	5147	0.08925	0.08925(M)
* 126 Phenanthrene-d10	188	7.734	7.734	(1.000)	8204	0.10000	
* 182 Chrysene-d12	240	10.552	10.558	(1.000)	3229	0.10000	(M)
$ 158 4-Terphenyl-d14	244	9.320	9.326	(0.883)	4642	0.08366	0.08366(M)
* 198 Perylene-d12	264	12.609	12.615	(1.000)	3254	0.10000	
1 1,4-Dioxane	58	1.725	1.710	(0.495)	155	0.01963	0.01963(M)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

01181898

Data File: \\NAHSTWS005\Target\chem\SV6.i\230130.b\08.D

Page 1

Date : 30-JAN-2023 14:03

Client ID:

Instrument: SV6.i

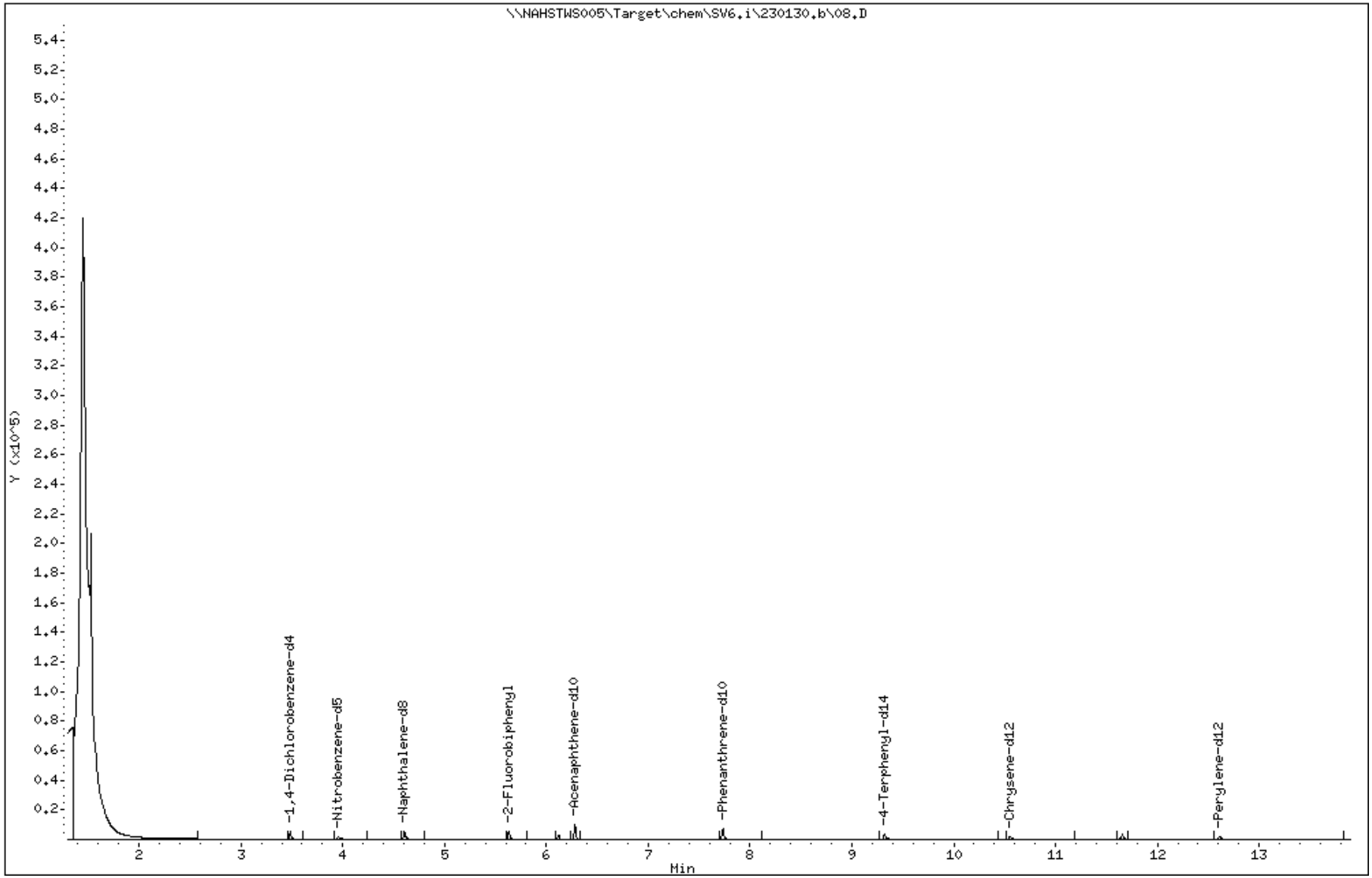
Sample Info: HS23010632-01

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28



Data File: \\NAHSTWS005\Target\chem\SV6.i\230130.b\08.D

Date : 30-JAN-2023 14:03

Client ID:

Instrument: SV6.i

Sample Info: HS23010632-01

Purge Volume: 1000.0

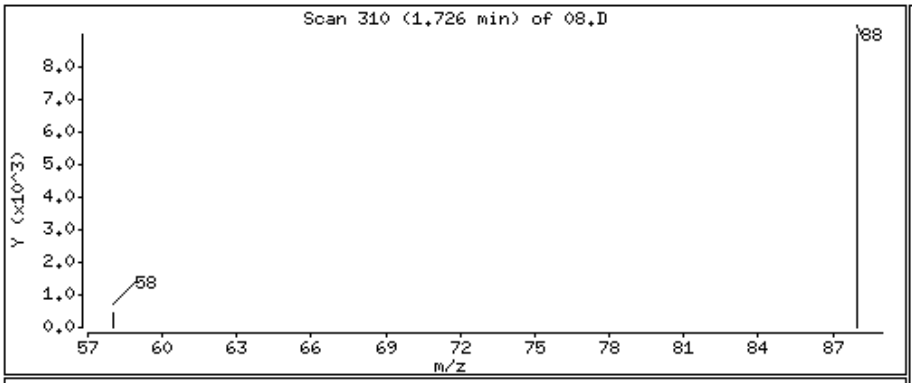
Operator: LG

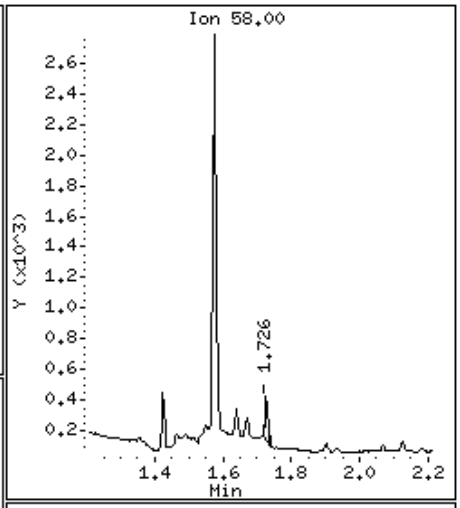
Column phase: RTX-5SIL MS

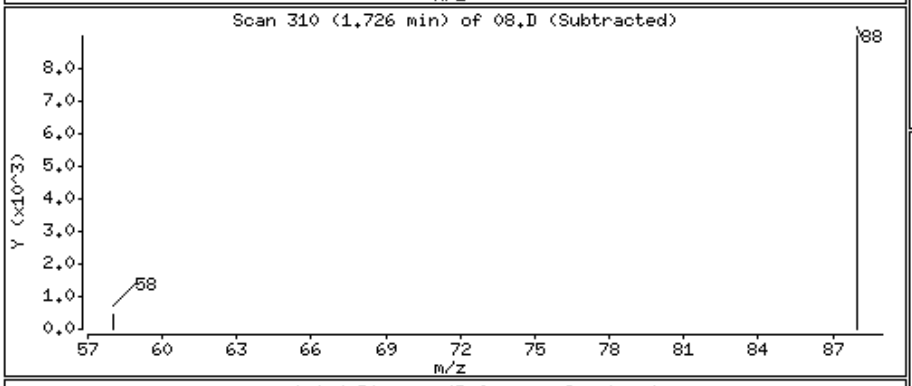
Column diameter: 0.28

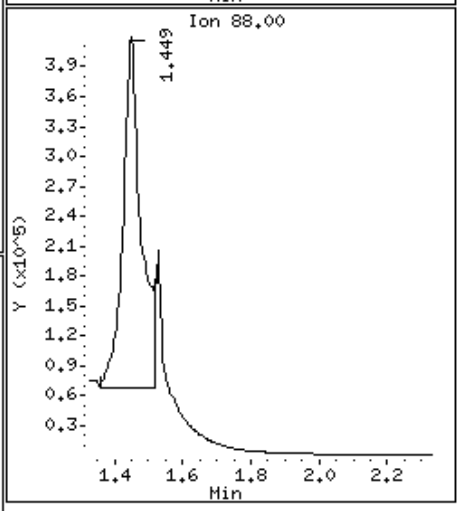
1 1,4-Dioxane

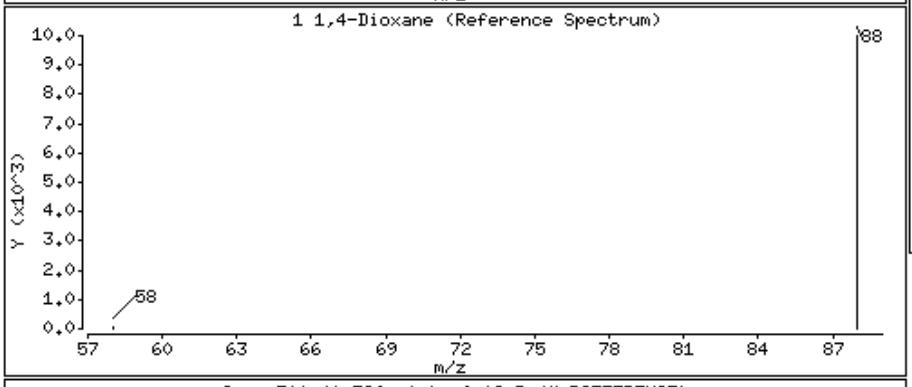
Concentration: 0.01963 ug/L

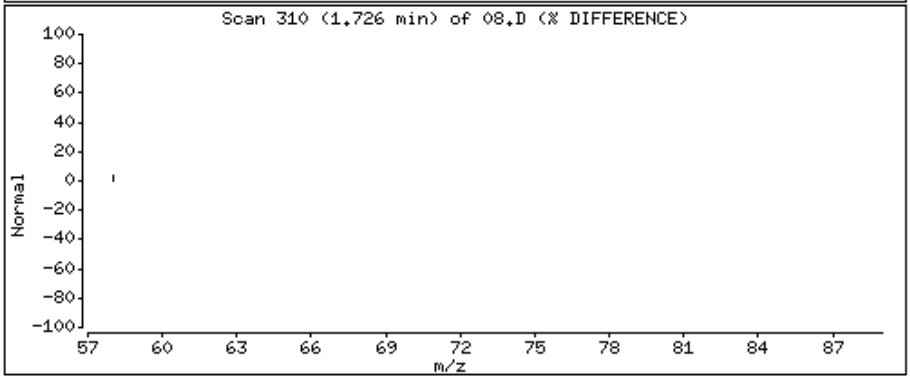












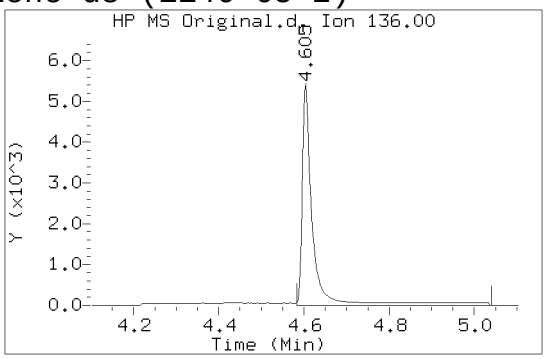
Data File : \\NAHSTWS005\Target\chem\SV6.i\230130.b\08.D
Inj Date : 30-JAN-2023 14:03
InstruID : SV6.i
LabSampID : HS23010632-01

Naphthalene-d8 (1146-65-2)

Reason Code:

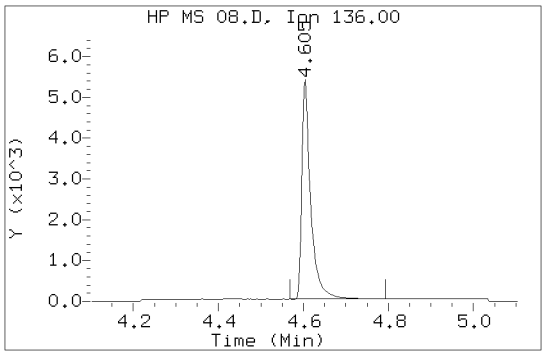
BEFORE

MASS
136
AREA
9274
HEIGHT
5434
30-Jan-2023
14:19
ALSHS
Server



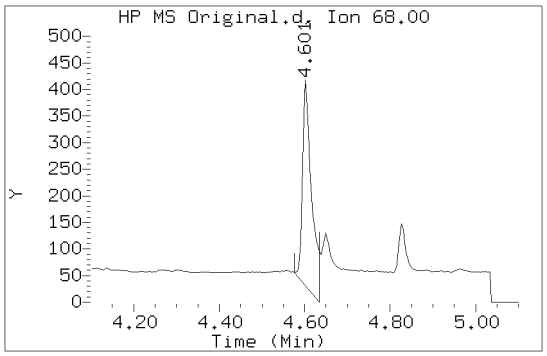
AFTER

MASS
136
AREA
7687
HEIGHT
5378
30-Jan-2023
17:02



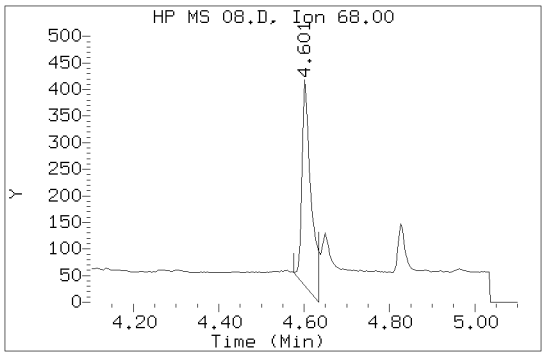
BEFORE

MASS
68
AREA
583
HEIGHT
386
30-Jan-2023
14:19
ALSHS
Server



AFTER

MASS
68
AREA
583
HEIGHT
386
30-Jan-2023
17:02

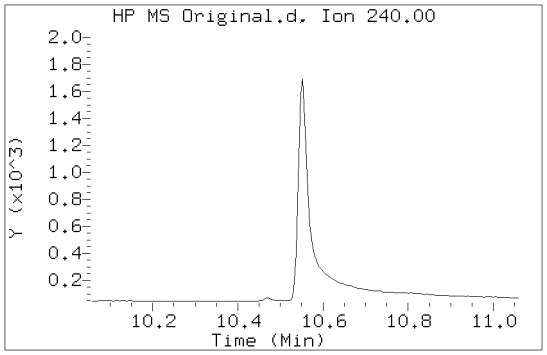


Chrysene-d12 (1719-03-5)

Reason Code:

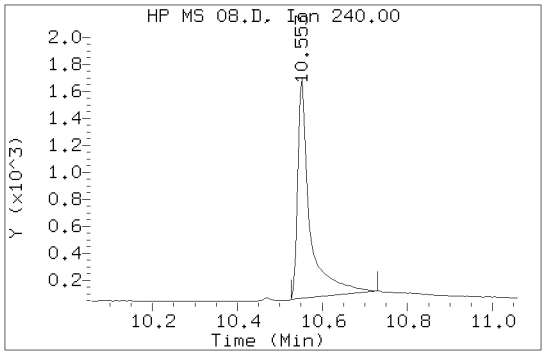
BEFORE

MASS
240
AREA
0
HEIGHT
0
30-Jan-2023
14:19
ALSHS
Server



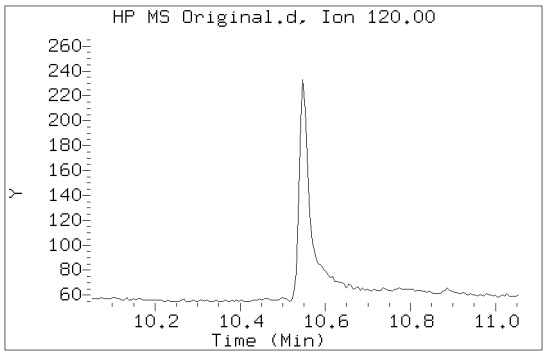
AFTER

MASS
240
AREA
3229
HEIGHT
1624
30-Jan-2023
17:02



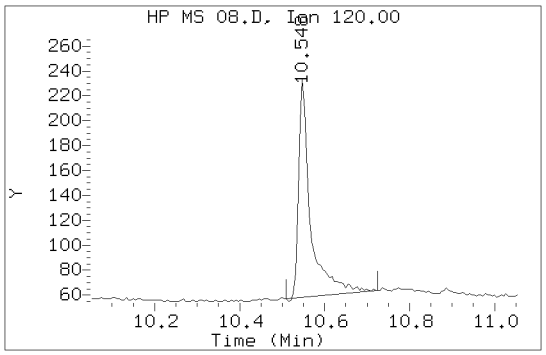
BEFORE

MASS
120
AREA
0
HEIGHT
0
30-Jan-2023
14:19
ALSHS
Server



AFTER

MASS
120
AREA
338
HEIGHT
174
30-Jan-2023
17:02



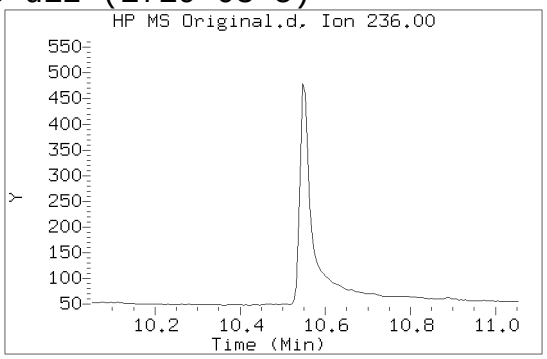
Data File : \\NAHSTWS005\Target\chem\SV6.i\230130.b\08.D
Inj Date : 30-JAN-2023 14:03
InstruID : SV6.i
LabSampID : HS23010632-01

Chrysene-d12 (1719-03-5)

Reason Code:

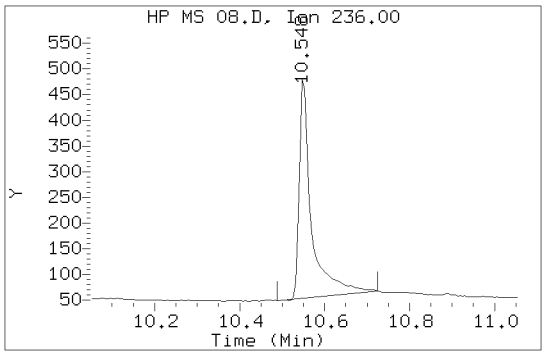
BEFORE

MASS
236
AREA
0
HEIGHT
0
30-Jan-2023
14:19
ALSHS
Server



AFTER

MASS
236
AREA
846
HEIGHT
425
30-Jan-2023
17:02

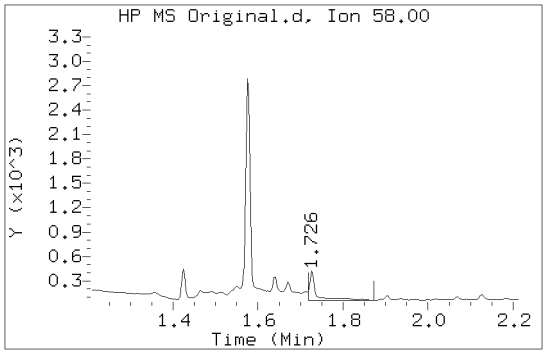


1,4-Dioxane ()

Reason Code:

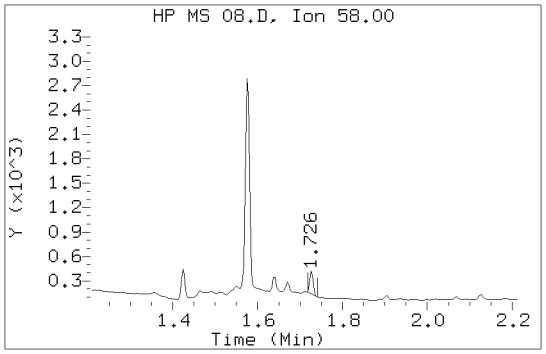
BEFORE

MASS
58
AREA
398
HEIGHT
364
30-Jan-2023
14:19
ALSHS
Server



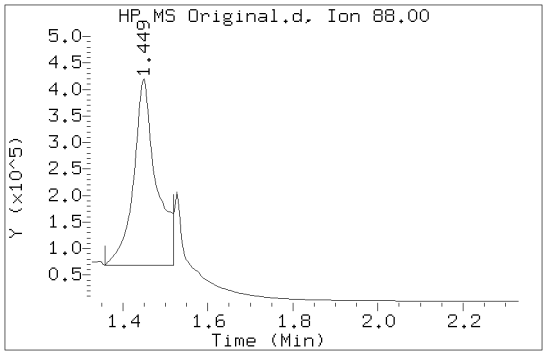
AFTER

MASS
58
AREA
155
HEIGHT
284
30-Jan-2023
17:02



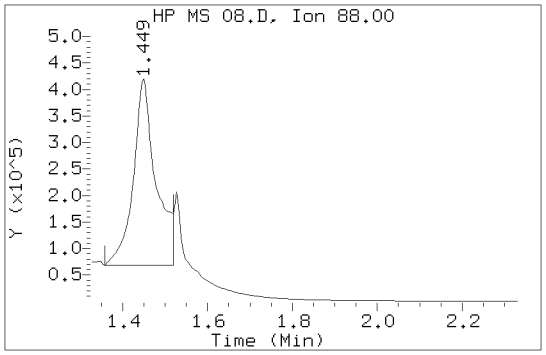
BEFORE

MASS
88
AREA
1307903
HEIGHT
351424
30-Jan-2023
14:19
ALSHS
Server



AFTER

MASS
88
AREA
1307903
HEIGHT
351424
30-Jan-2023
17:02

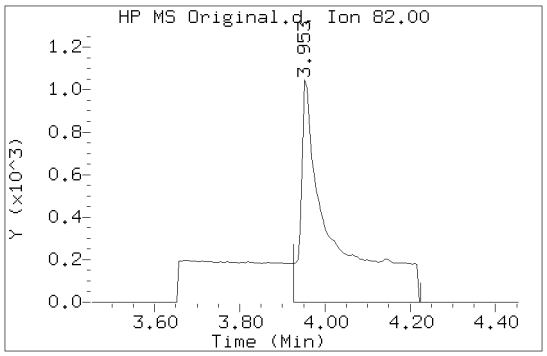


Nitrobenzene-d5 (4165-60-0)

Reason Code:

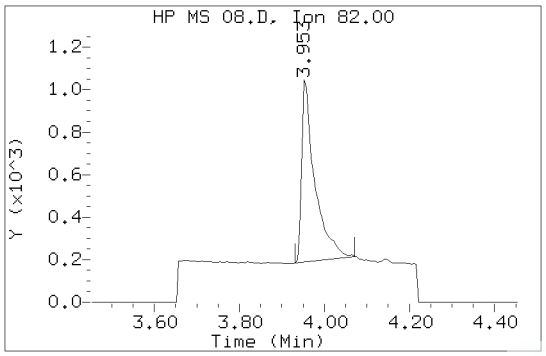
BEFORE

MASS
82
AREA
5253
HEIGHT
1046
30-Jan-2023
14:19
ALSHS
Server



AFTER

MASS
82
AREA
1835
HEIGHT
858
30-Jan-2023
17:02

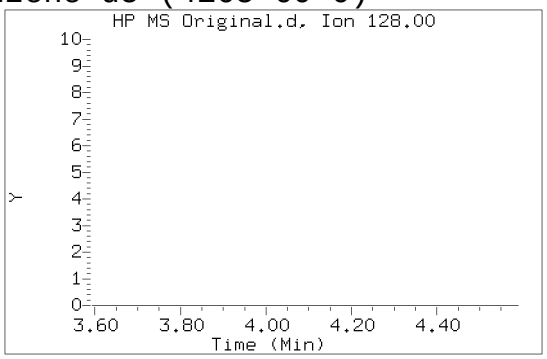


Data File : \\NAHSTWS005\Target\chem\SV6.i\230130.b\08.D
Inj Date : 30-JAN-2023 14:03
InstruID : SV6.i
LabSampID : HS23010632-01

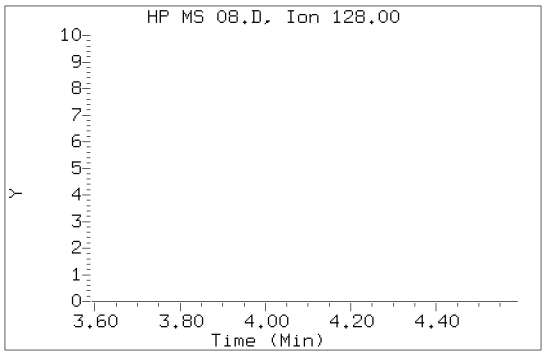
Nitrobenzene-d5 (4165-60-0)

Reason Code:

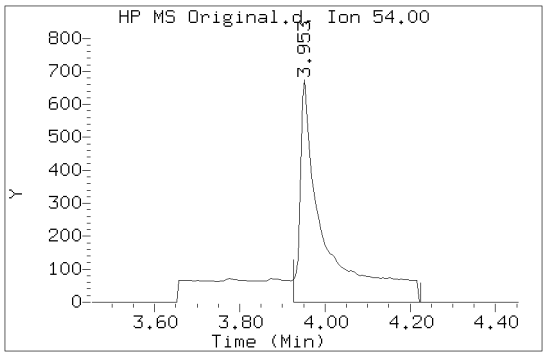
BEFORE
MASS
128
AREA
0
HEIGHT
0
30-Jan-2023
14:19
ALSHS
Server



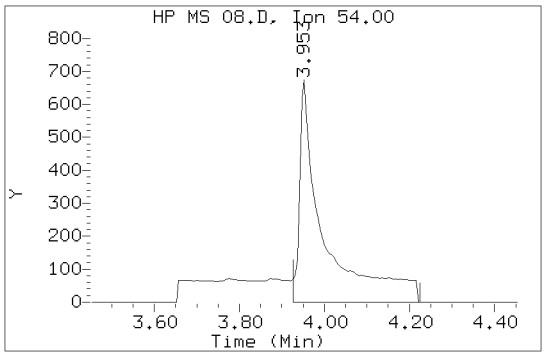
AFTER
MASS
128
AREA
0
HEIGHT
0
30-Jan-2023
17:02



BEFORE
MASS
54
AREA
2633
HEIGHT
674
30-Jan-2023
14:19
ALSHS
Server



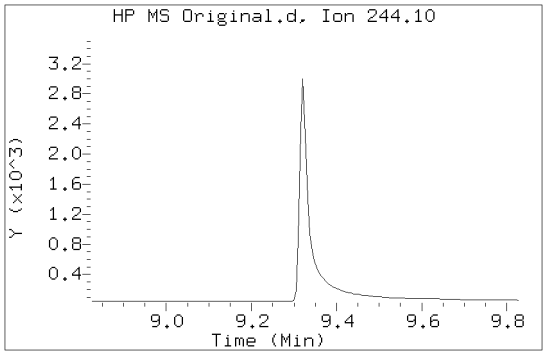
AFTER
MASS
54
AREA
2633
HEIGHT
674
30-Jan-2023
17:02



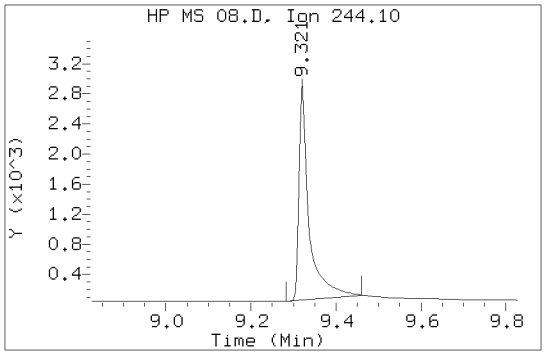
4-Terphenyl-d14 (1718-51-0)

Reason Code:

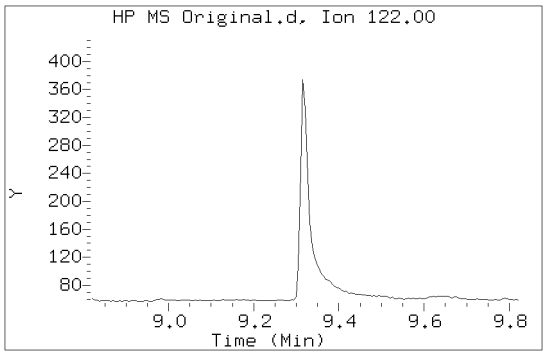
BEFORE
MASS
244.1
AREA
0
HEIGHT
0
30-Jan-2023
14:19
ALSHS
Server



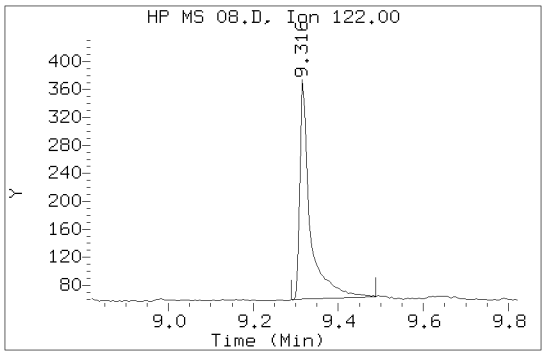
AFTER
MASS
244.1
AREA
4642
HEIGHT
2936
30-Jan-2023
17:02



BEFORE
MASS
122
AREA
0
HEIGHT
0
30-Jan-2023
14:19
ALSHS
Server



AFTER
MASS
122
AREA
521
HEIGHT
313
30-Jan-2023
17:02



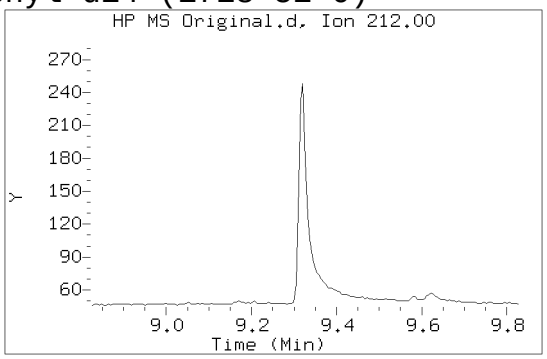
Data File : \\NAHSTWS005\Target\chem\SV6.i\230130.b\08.D
Inj Date : 30-JAN-2023 14:03
InstruID : SV6.i
LabSampID : HS23010632-01

4-Terphenyl-d14 (1718-51-0)

Reason Code:

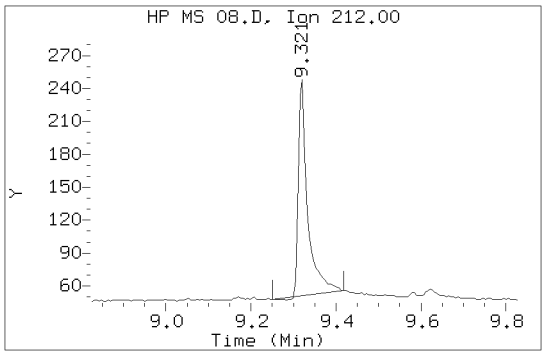
BEFORE

MASS
212
AREA
0
HEIGHT
0
30-Jan-2023
14:19
ALSHS
Server



AFTER

MASS
212
AREA
292
HEIGHT
196
30-Jan-2023
17:02

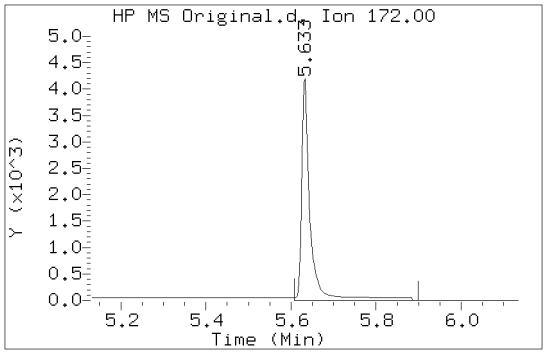


2-Fluorobiphenyl (321-60-8)

Reason Code:

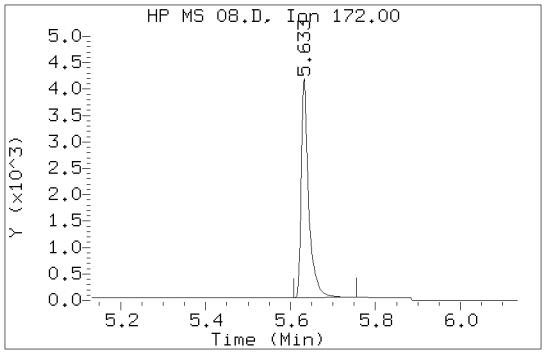
BEFORE

MASS
172
AREA
6116
HEIGHT
4197
30-Jan-2023
14:19
ALSHS
Server



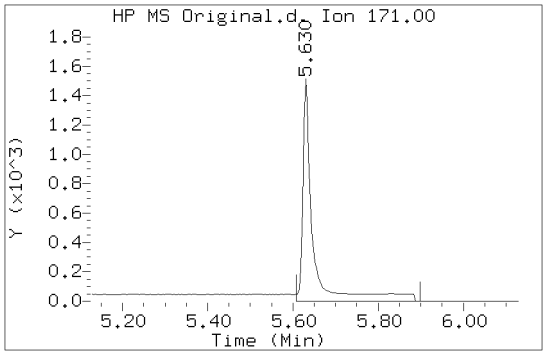
AFTER

MASS
172
AREA
5147
HEIGHT
4146
30-Jan-2023
17:02



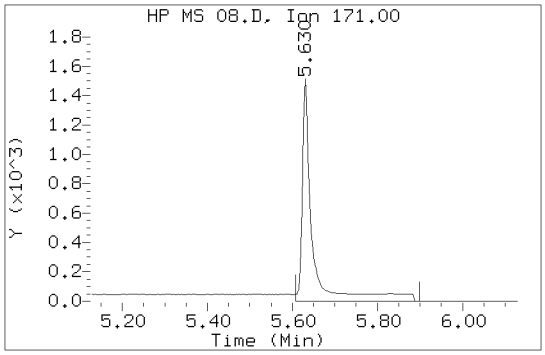
BEFORE

MASS
171
AREA
2589
HEIGHT
1514
30-Jan-2023
14:19
ALSHS
Server



AFTER

MASS
171
AREA
2589
HEIGHT
1514
30-Jan-2023
17:02



Data File: \\NAHSTWS005\Target\chem\SV6.i\230130.b\11.D Page 1
Report Date: 30-Jan-2023 17:37

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230130.b\11.D
Lab Smp Id: HS23010632-04
Inj Date : 30-JAN-2023 14:57
Operator : LG Inst ID: SV6.i
Smp Info : HS23010632-04
Misc Info :
Comment :
Method : \\nahstws005\Target\chem\SV6.i\230130.b\DXSIM.m
Meth Date : 30-Jan-2023 12:38 marco.guti Quant Type: ISTD
Cal Date : 26-JAN-2023 19:09 Cal File: 25.D
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTWS005

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)
* 20 1,4-Dichlorobenzene-d4	152	3.485	3.485	(1.000)	2042	0.10000	(aM)
* 45 Naphthalene-d8	136	4.604	4.604	(1.000)	7325	0.10000	(M)
$ 33 Nitrobenzene-d5	82	3.952	3.952	(0.858)	1848	0.08744	0.08744(M)
* 86 Acenaphthene-d10	164	6.278	6.284	(1.000)	4037	0.10000	(M)
$ 69 2-Fluorobiphenyl	172	5.629	5.633	(0.897)	5232	0.09874	0.09874(M)
* 126 Phenanthrene-d10	188	7.734	7.734	(1.000)	7974	0.10000	(M)
* 182 Chrysene-d12	240	10.552	10.558	(1.000)	3522	0.10000	(M)
$ 158 4-Terphenyl-d14	244	9.320	9.326	(0.883)	4966	0.08238	0.08238(M)
* 198 Perylene-d12	264	12.609	12.615	(1.000)	3031	0.10000	
1 1,4-Dioxane	58	1.721	1.710	(0.494)	206	0.02766	0.02766(M)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

01181905

Data File: \\NAHSTWS005\Target\chem\SV6.i\230130.b\11.D

Date : 30-JAN-2023 14:57

Client ID:

Instrument: SV6.i

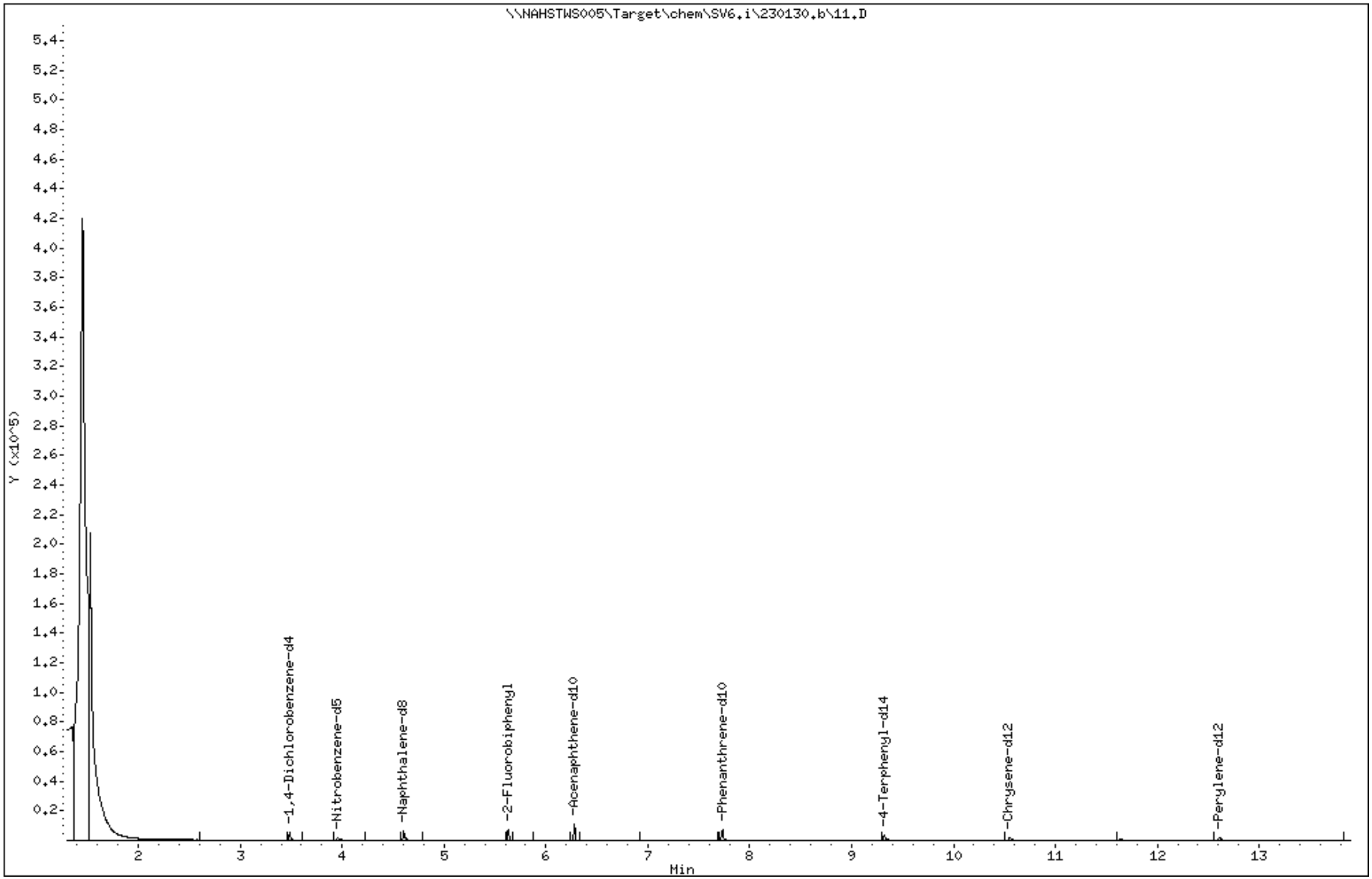
Sample Info: HS23010632-04

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28



Data File: \\NAHSTWS005\Target\chem\SV6.i\230130.b\11.D

Date : 30-JAN-2023 14:57

Client ID:

Instrument: SV6.i

Sample Info: HS23010632-04

Purge Volume: 1000.0

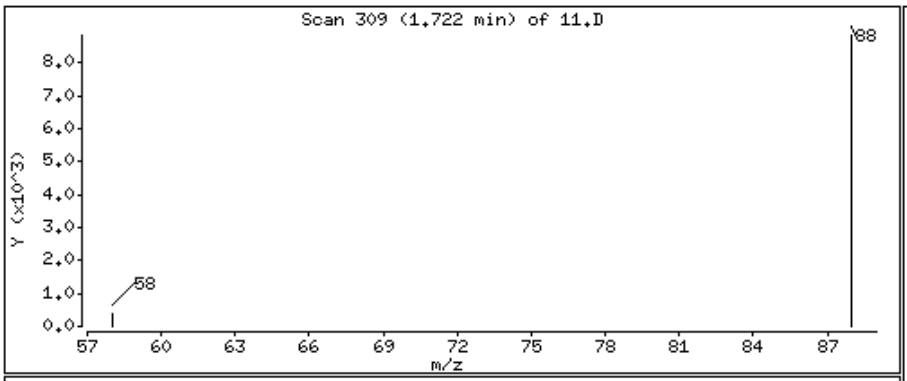
Operator: LG

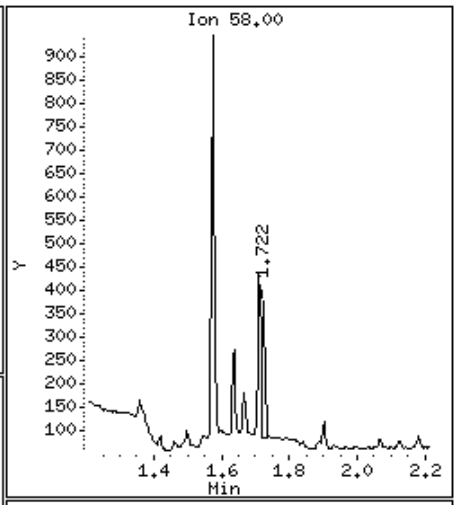
Column phase: RTX-5SIL MS

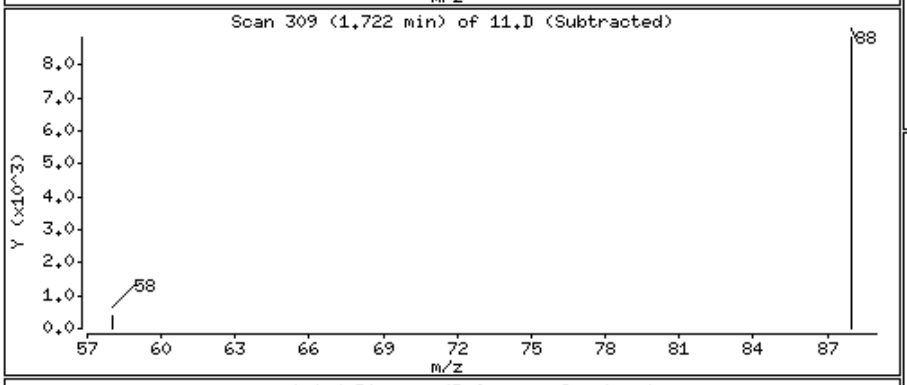
Column diameter: 0.28

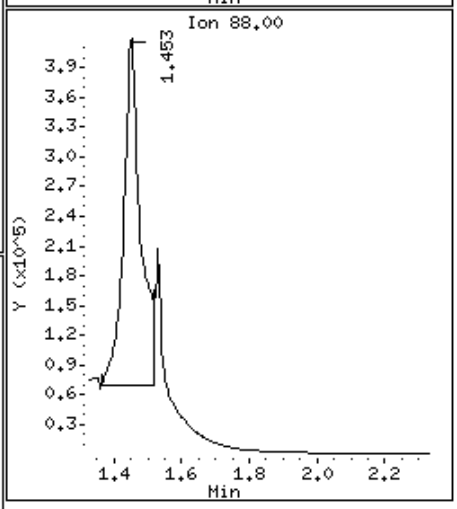
1 1,4-Dioxane

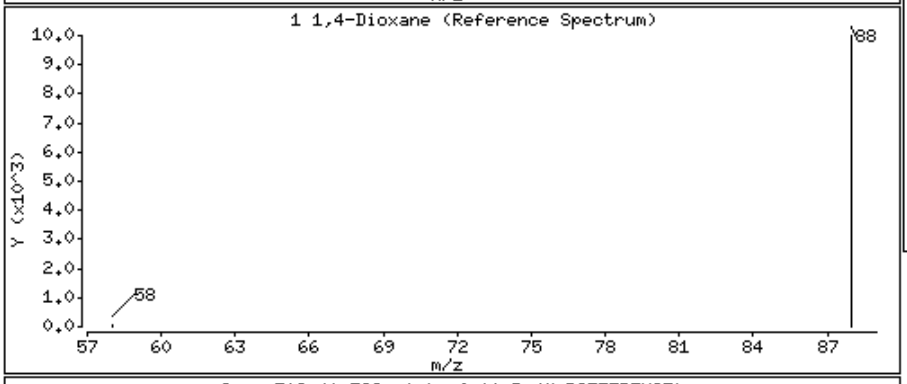
Concentration: 0.02766 ug/L

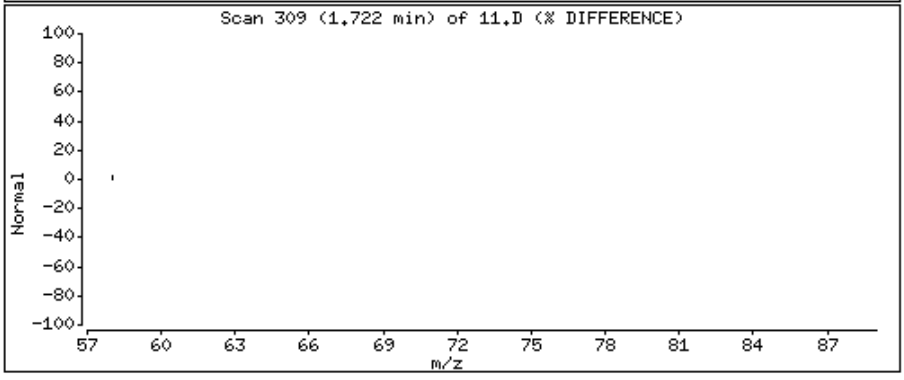












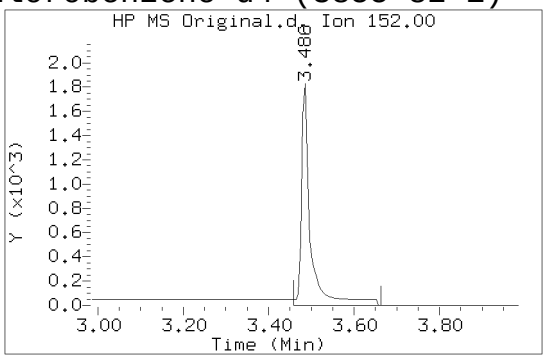
Data File : \\NAHSTWS005\Target\chem\SV6.i\230130.b\11.D
Inj Date : 30-JAN-2023 14:57
InstruID : SV6.i
LabSampID : HS23010632-04

1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

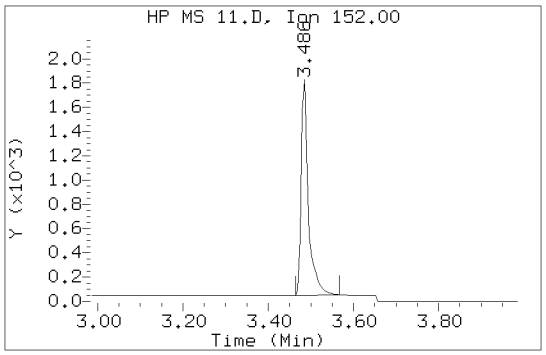
BEFORE

MASS
152
AREA
2649
HEIGHT
1828
30-Jan-2023
15:14
ALSHS
Server



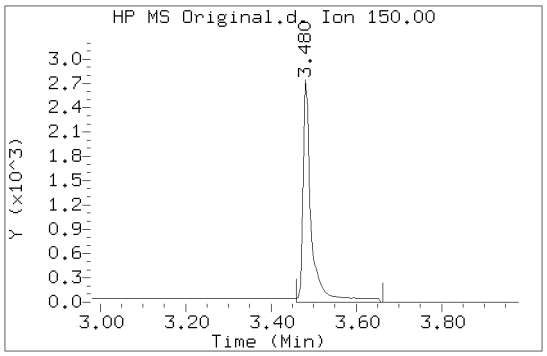
AFTER

MASS
152
AREA
2042
HEIGHT
1777
30-Jan-2023
17:37



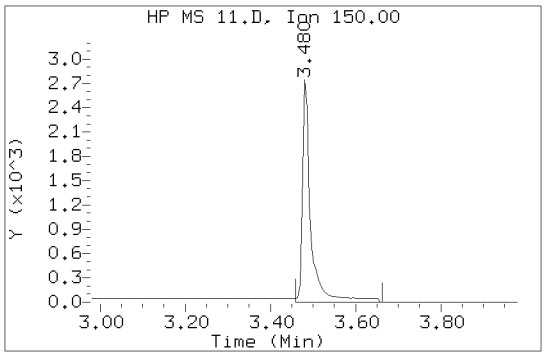
BEFORE

MASS
150
AREA
3716
HEIGHT
2743
30-Jan-2023
15:14
ALSHS
Server



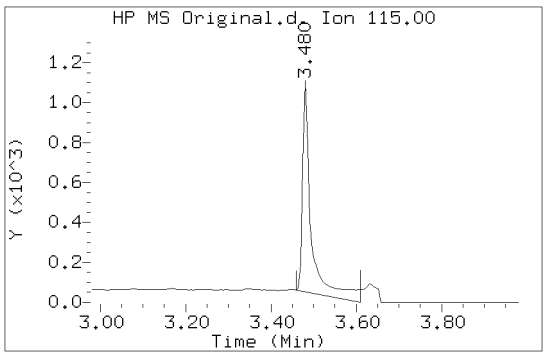
AFTER

MASS
150
AREA
3716
HEIGHT
2743
30-Jan-2023
17:37



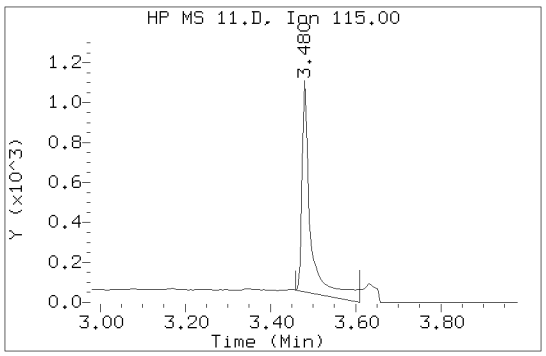
BEFORE

MASS
115
AREA
1463
HEIGHT
1057
30-Jan-2023
15:14
ALSHS
Server



AFTER

MASS
115
AREA
1463
HEIGHT
1057
30-Jan-2023
17:37

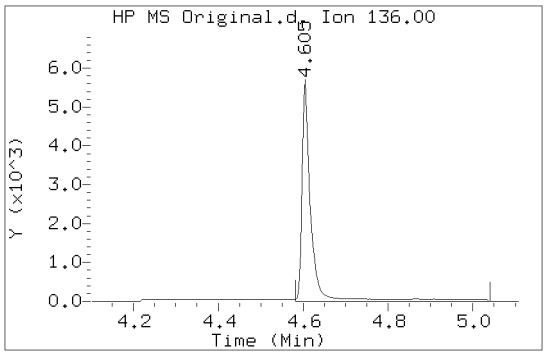


Naphthalene-d8 (1146-65-2)

Reason Code:

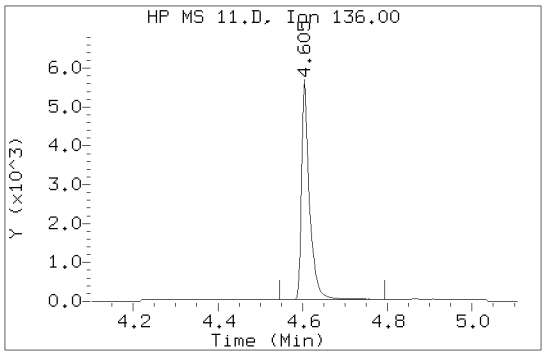
BEFORE

MASS
136
AREA
8826
HEIGHT
5703
30-Jan-2023
15:14
ALSHS
Server



AFTER

MASS
136
AREA
7325
HEIGHT
5650
30-Jan-2023
17:37



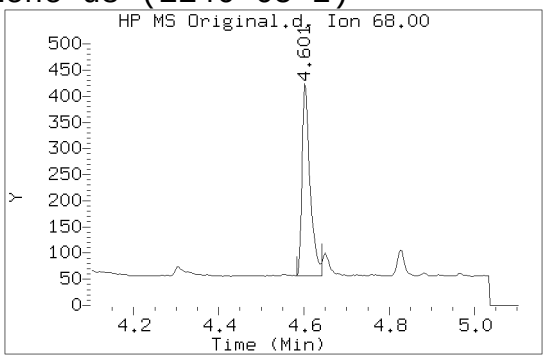
Data File : \\NAHSTWS005\Target\chem\SV6.i\230130.b\11.D
Inj Date : 30-JAN-2023 14:57
InstruID : SV6.i
LabSampID : HS23010632-04

Naphthalene-d8 (1146-65-2)

Reason Code:

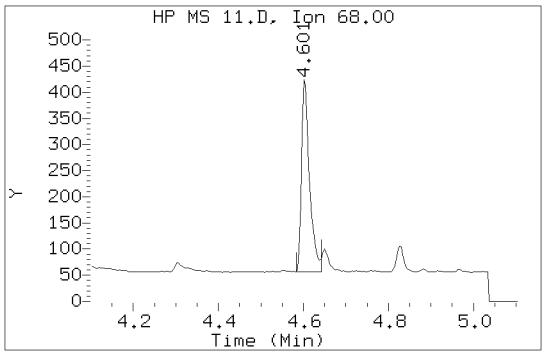
BEFORE

MASS
68
AREA
478
HEIGHT
368
30-Jan-2023
15:14
ALSHS
Server



AFTER

MASS
68
AREA
478
HEIGHT
368
30-Jan-2023
17:37

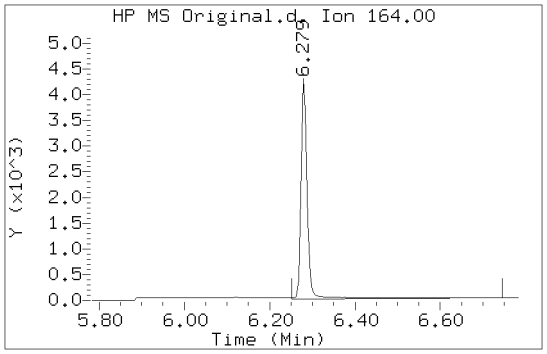


Acenaphthene-d10 (15067-26-2)

Reason Code:

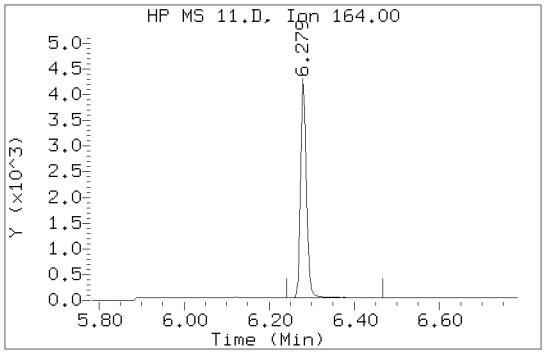
BEFORE

MASS
164
AREA
4516
HEIGHT
4287
30-Jan-2023
15:14
ALSHS
Server



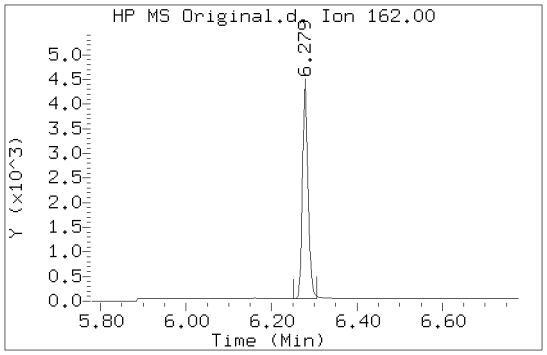
AFTER

MASS
164
AREA
4037
HEIGHT
4258
30-Jan-2023
17:37



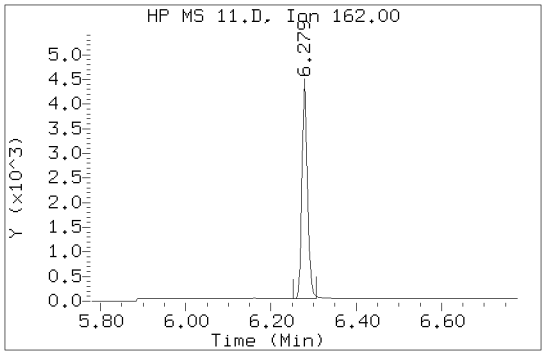
BEFORE

MASS
162
AREA
4007
HEIGHT
4462
30-Jan-2023
15:14
ALSHS
Server



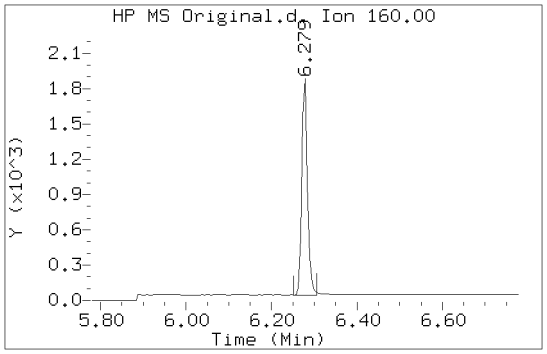
AFTER

MASS
162
AREA
4007
HEIGHT
4462
30-Jan-2023
17:37



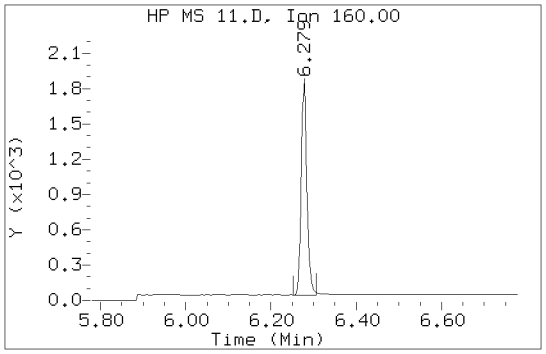
BEFORE

MASS
160
AREA
1717
HEIGHT
1839
30-Jan-2023
15:14
ALSHS
Server



AFTER

MASS
160
AREA
1717
HEIGHT
1839
30-Jan-2023
17:37



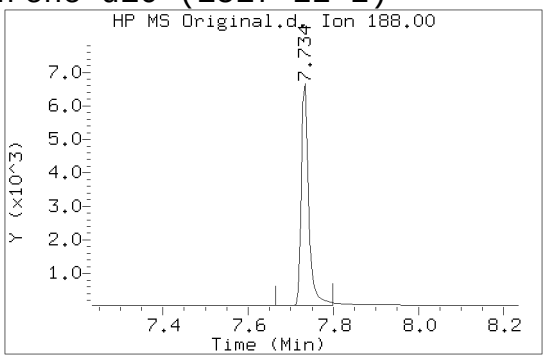
Data File : \\NAHSTWS005\Target\chem\SV6.i\230130.b\11.D
Inj Date : 30-JAN-2023 14:57
InstruID : SV6.i
LabSampID : HS23010632-04

Phenanthrene-d10 (1517-22-2)

Reason Code:

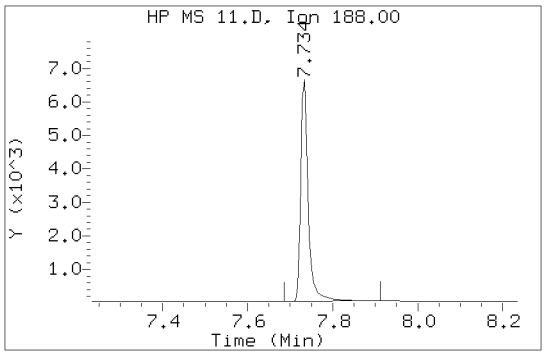
BEFORE

MASS
188
AREA
7872
HEIGHT
6615
30-Jan-2023
15:14
ALSHS
Server



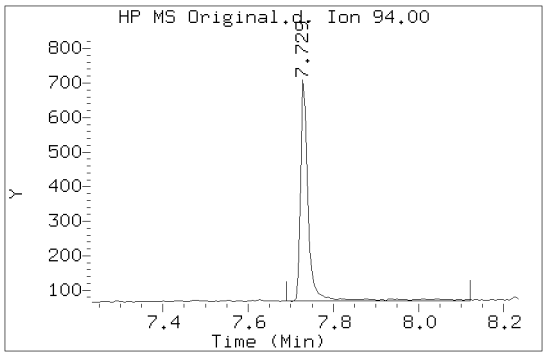
AFTER

MASS
188
AREA
7974
HEIGHT
6612
30-Jan-2023
17:37



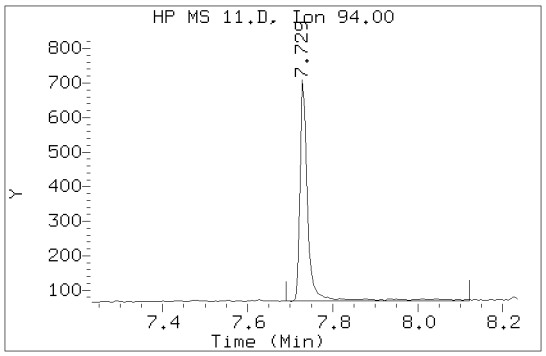
BEFORE

MASS
94
AREA
839
HEIGHT
640
30-Jan-2023
15:14
ALSHS
Server



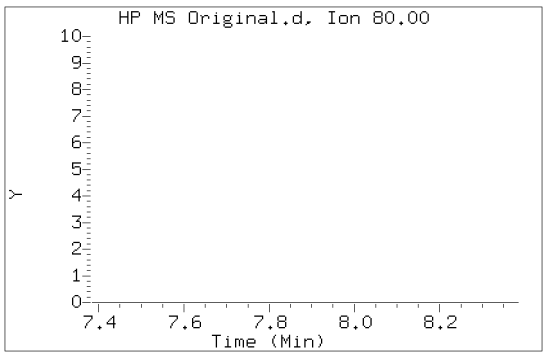
AFTER

MASS
94
AREA
839
HEIGHT
640
30-Jan-2023
17:37



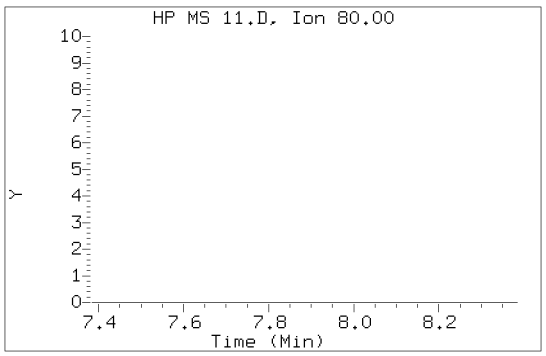
BEFORE

MASS
80
AREA
0
HEIGHT
0
30-Jan-2023
15:14
ALSHS
Server



AFTER

MASS
80
AREA
0
HEIGHT
0
30-Jan-2023
17:37

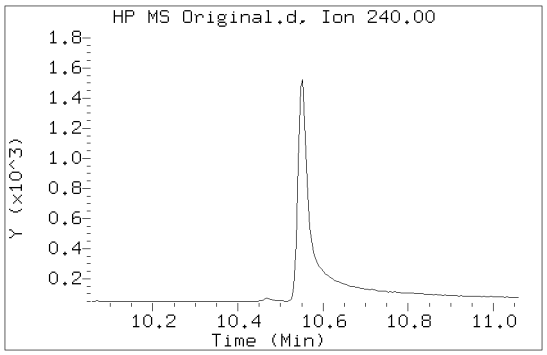


Chrysene-d12 (1719-03-5)

Reason Code:

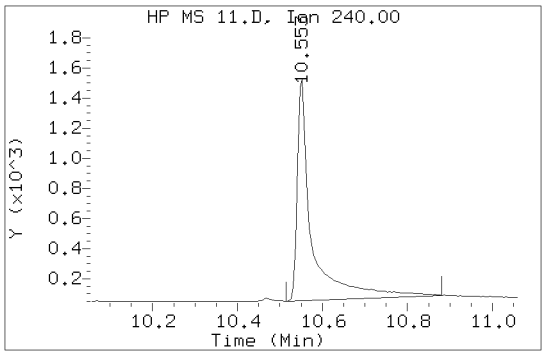
BEFORE

MASS
240
AREA
0
HEIGHT
0
30-Jan-2023
15:14
ALSHS
Server



AFTER

MASS
240
AREA
3522
HEIGHT
1467
30-Jan-2023
17:37



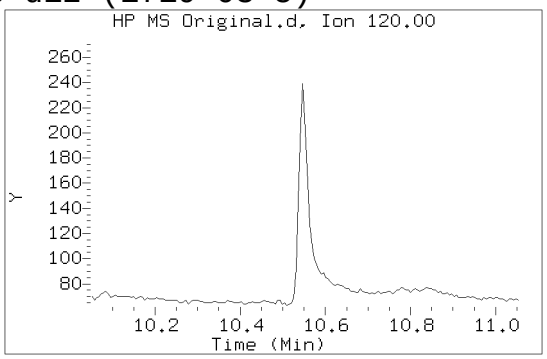
Data File : \\NAHSTWS005\Target\chem\SV6.i\230130.b\11.D
Inj Date : 30-JAN-2023 14:57
InstruID : SV6.i
LabSampID : HS23010632-04

Chrysene-d12 (1719-03-5)

Reason Code:

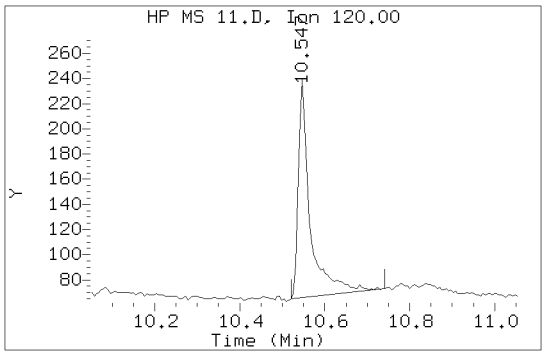
BEFORE

MASS
120
AREA
0
HEIGHT
0
30-Jan-2023
15:14
ALSHS
Server



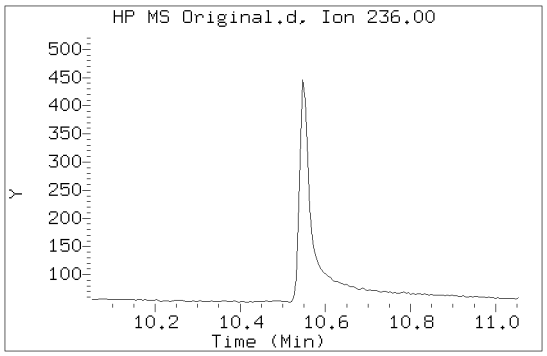
AFTER

MASS
120
AREA
332
HEIGHT
173
30-Jan-2023
17:37



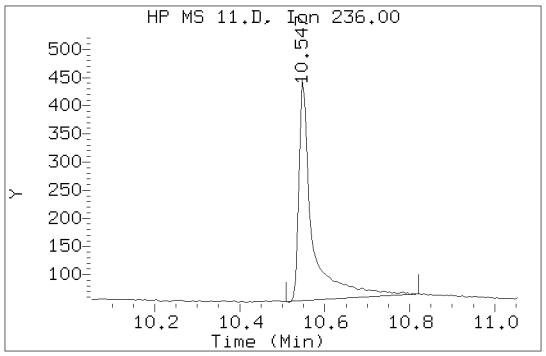
BEFORE

MASS
236
AREA
0
HEIGHT
0
30-Jan-2023
15:14
ALSHS
Server



AFTER

MASS
236
AREA
854
HEIGHT
392
30-Jan-2023
17:37

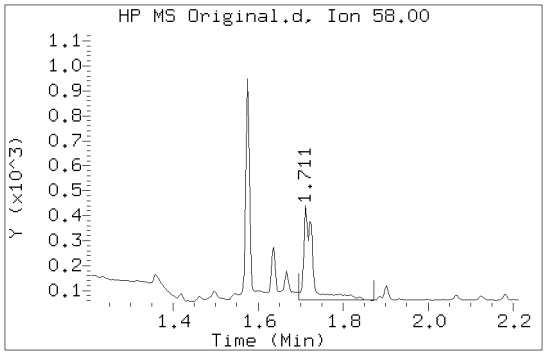


1,4-Dioxane ()

Reason Code:

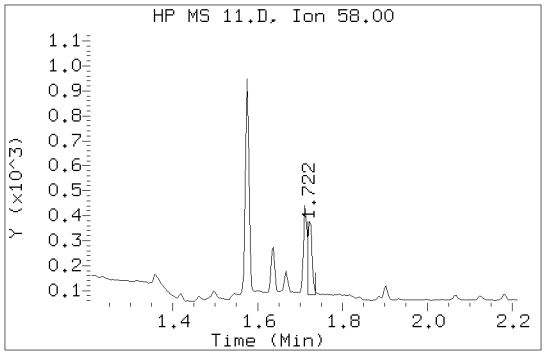
BEFORE

MASS
58
AREA
588
HEIGHT
379
30-Jan-2023
15:14
ALSHS
Server



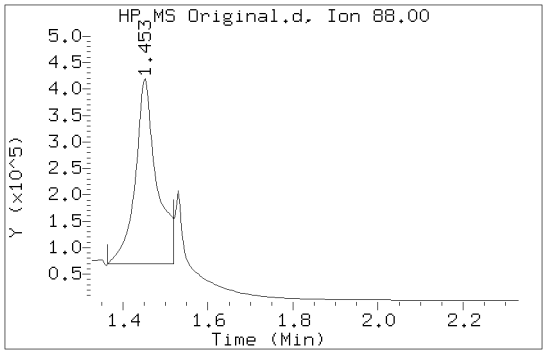
AFTER

MASS
58
AREA
206
HEIGHT
292
30-Jan-2023
17:37



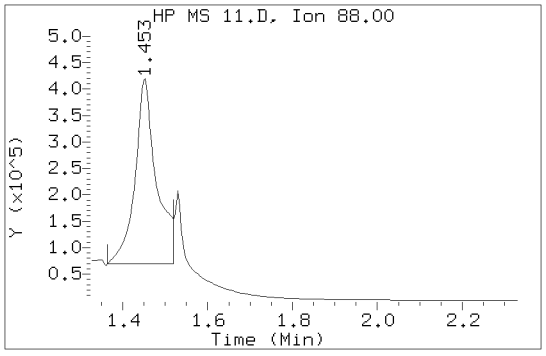
BEFORE

MASS
88
AREA
1235993
HEIGHT
350272
30-Jan-2023
15:14
ALSHS
Server



AFTER

MASS
88
AREA
1235993
HEIGHT
350272
30-Jan-2023
17:37



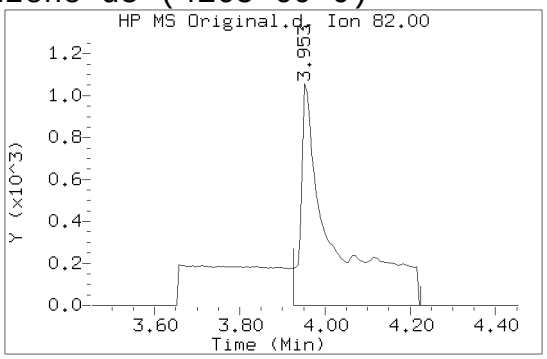
Data File : \\NAHSTWS005\Target\chem\SV6.i\230130.b\11.D
Inj Date : 30-JAN-2023 14:57
InstruID : SV6.i
LabSampID : HS23010632-04

Nitrobenzene-d5 (4165-60-0)

Reason Code:

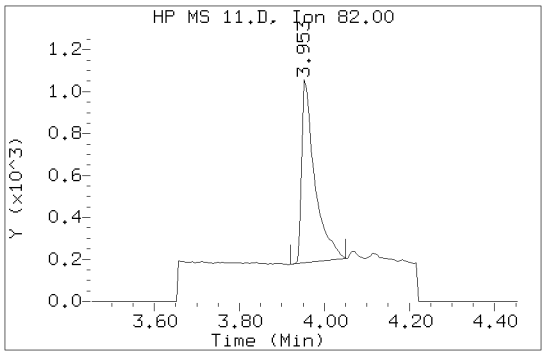
BEFORE

MASS
82
AREA
5361
HEIGHT
1057
30-Jan-2023
15:14
ALSHS
Server



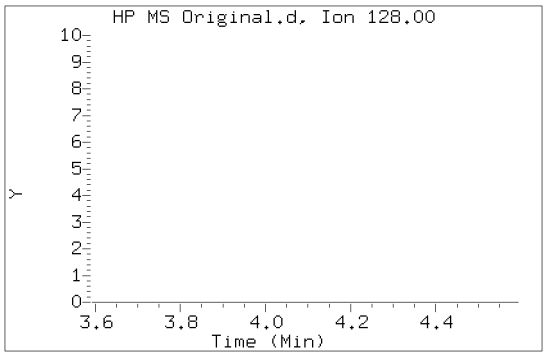
AFTER

MASS
82
AREA
1848
HEIGHT
872
30-Jan-2023
17:37



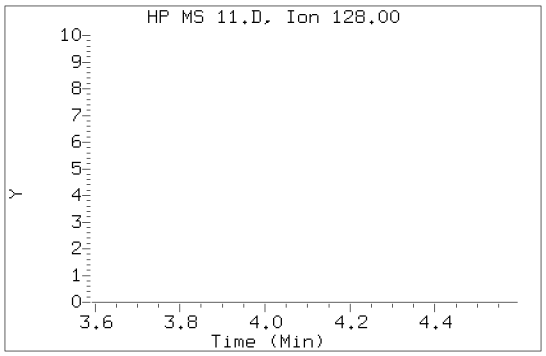
BEFORE

MASS
128
AREA
0
HEIGHT
0
30-Jan-2023
15:14
ALSHS
Server



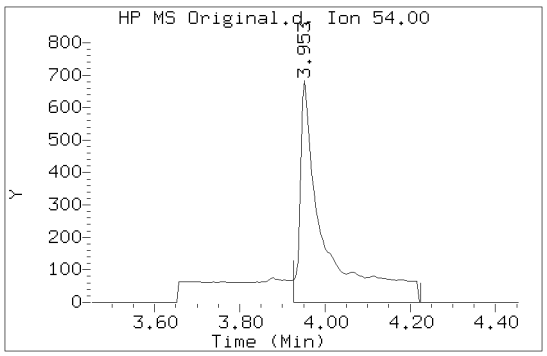
AFTER

MASS
128
AREA
0
HEIGHT
0
30-Jan-2023
17:37



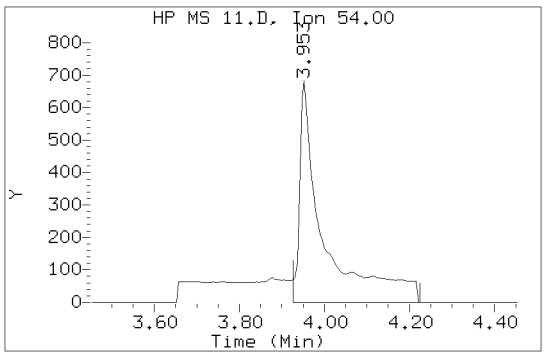
BEFORE

MASS
54
AREA
2625
HEIGHT
683
30-Jan-2023
15:14
ALSHS
Server



AFTER

MASS
54
AREA
2625
HEIGHT
683
30-Jan-2023
17:37

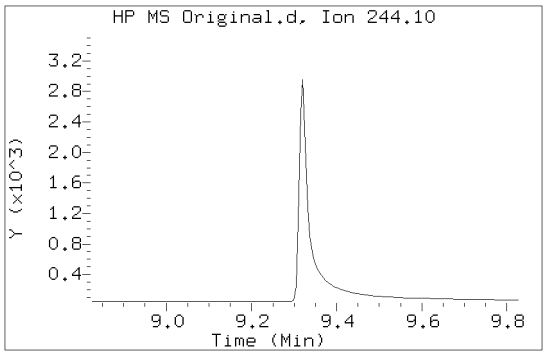


4-Terphenyl-d14 (1718-51-0)

Reason Code:

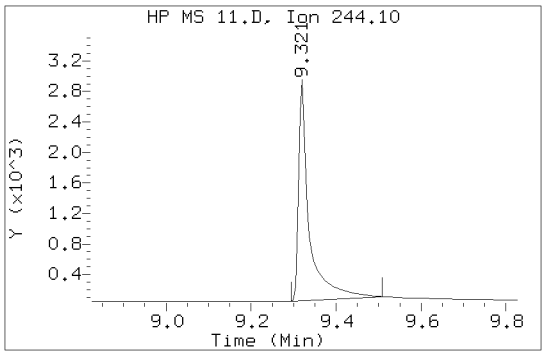
BEFORE

MASS
244.1
AREA
0
HEIGHT
0
30-Jan-2023
15:14
ALSHS
Server



AFTER

MASS
244.1
AREA
4966
HEIGHT
2895
30-Jan-2023
17:37

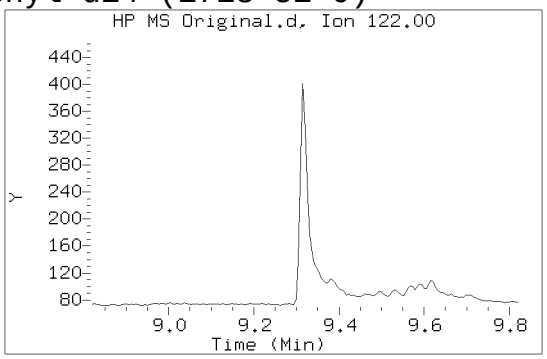


Data File : \\NAHSTWS005\Target\chem\SV6.i\230130.b\11.D
Inj Date : 30-JAN-2023 14:57
InstruID : SV6.i
LabSampID : HS23010632-04

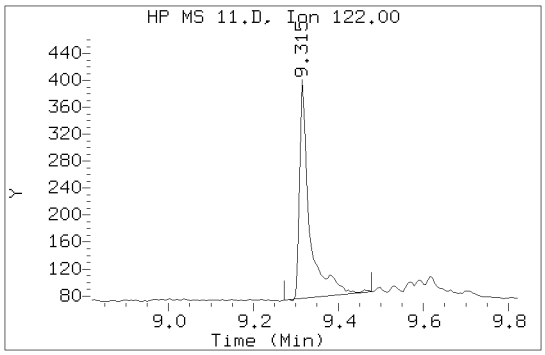
4-Terphenyl-d14 (1718-51-0)

Reason Code:

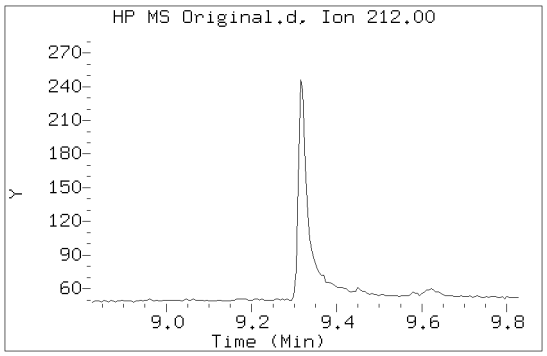
BEFORE
MASS
122
AREA
0
HEIGHT
0
30-Jan-2023
15:14
ALSHS
Server



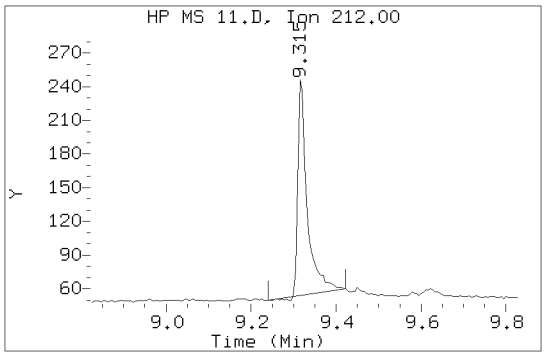
AFTER
MASS
122
AREA
521
HEIGHT
324
30-Jan-2023
17:37



BEFORE
MASS
212
AREA
0
HEIGHT
0
30-Jan-2023
15:14
ALSHS
Server



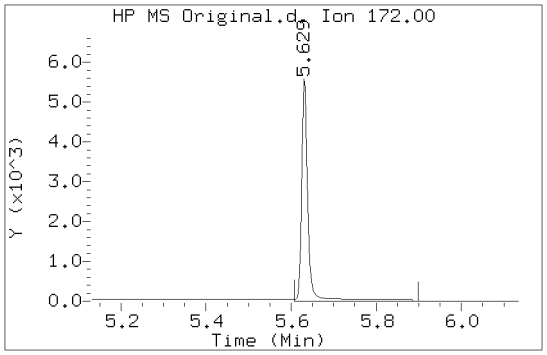
AFTER
MASS
212
AREA
290
HEIGHT
191
30-Jan-2023
17:37



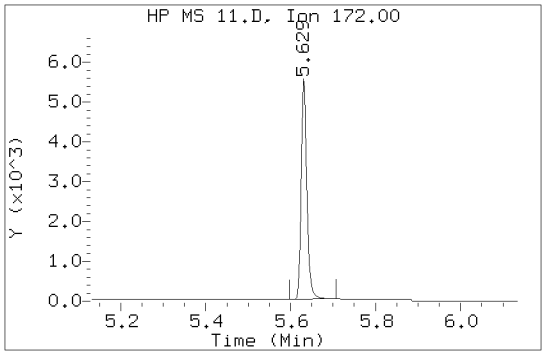
2-Fluorobiphenyl (321-60-8)

Reason Code:

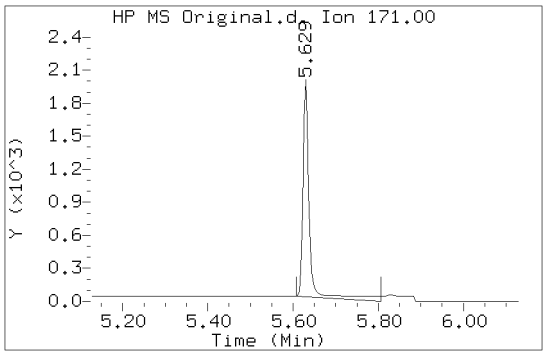
BEFORE
MASS
172
AREA
6189
HEIGHT
5584
30-Jan-2023
15:14
ALSHS
Server



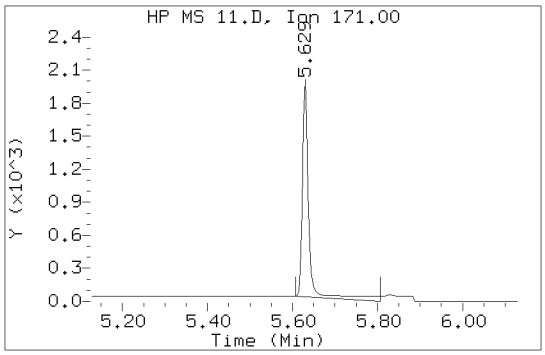
AFTER
MASS
172
AREA
5232
HEIGHT
5532
30-Jan-2023
17:37



BEFORE
MASS
171
AREA
2095
HEIGHT
1971
30-Jan-2023
15:14
ALSHS
Server



AFTER
MASS
171
AREA
2095
HEIGHT
1971
30-Jan-2023
17:37



ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230130.b\12.D
Lab Smp Id: HS23010632-05
Inj Date : 30-JAN-2023 15:15
Operator : LG Inst ID: SV6.i
Smp Info : HS23010632-05
Misc Info : ;;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\SV6.i\230130.b\DXSIM.m
Meth Date : 01-Feb-2023 15:44 Linh.Pham Quant Type: ISTD
Cal Date : 26-JAN-2023 19:09 Cal File: 25.D
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)
* 20 1,4-Dichlorobenzene-d4	152	3.491	3.491	(1.000)	3317	0.10000	(a)
* 45 Naphthalene-d8	136	4.604	4.604	(1.000)	11854	0.10000	(M)
$ 33 Nitrobenzene-d5	82	3.952	3.957	(0.858)	3041	0.08891	0.08891(M)
* 86 Acenaphthene-d10	164	6.278	6.284	(1.000)	6443	0.10000	
$ 69 2-Fluorobiphenyl	172	5.629	5.633	(0.897)	8278	0.09789	0.09789(M)
* 126 Phenanthrene-d10	188	7.728	7.734	(1.000)	12622	0.10000	
* 182 Chrysene-d12	240	10.547	10.552	(1.000)	5294	0.10000	(M)
$ 158 4-Terphenyl-d14	244	9.320	9.320	(0.884)	8262	0.08935	0.08935(M)
* 198 Perylene-d12	264	12.609	12.614	(1.000)	5795	0.10000	
1 1,4-Dioxane	58	1.755	1.744	(0.503)	1243	0.10273	0.1027(M)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

01181914

Data File: \\NAHSTWS005\Target\chem\SV6.i\230130.b\12.D

Date : 30-JAN-2023 15:15

Client ID:

Instrument: SV6.i

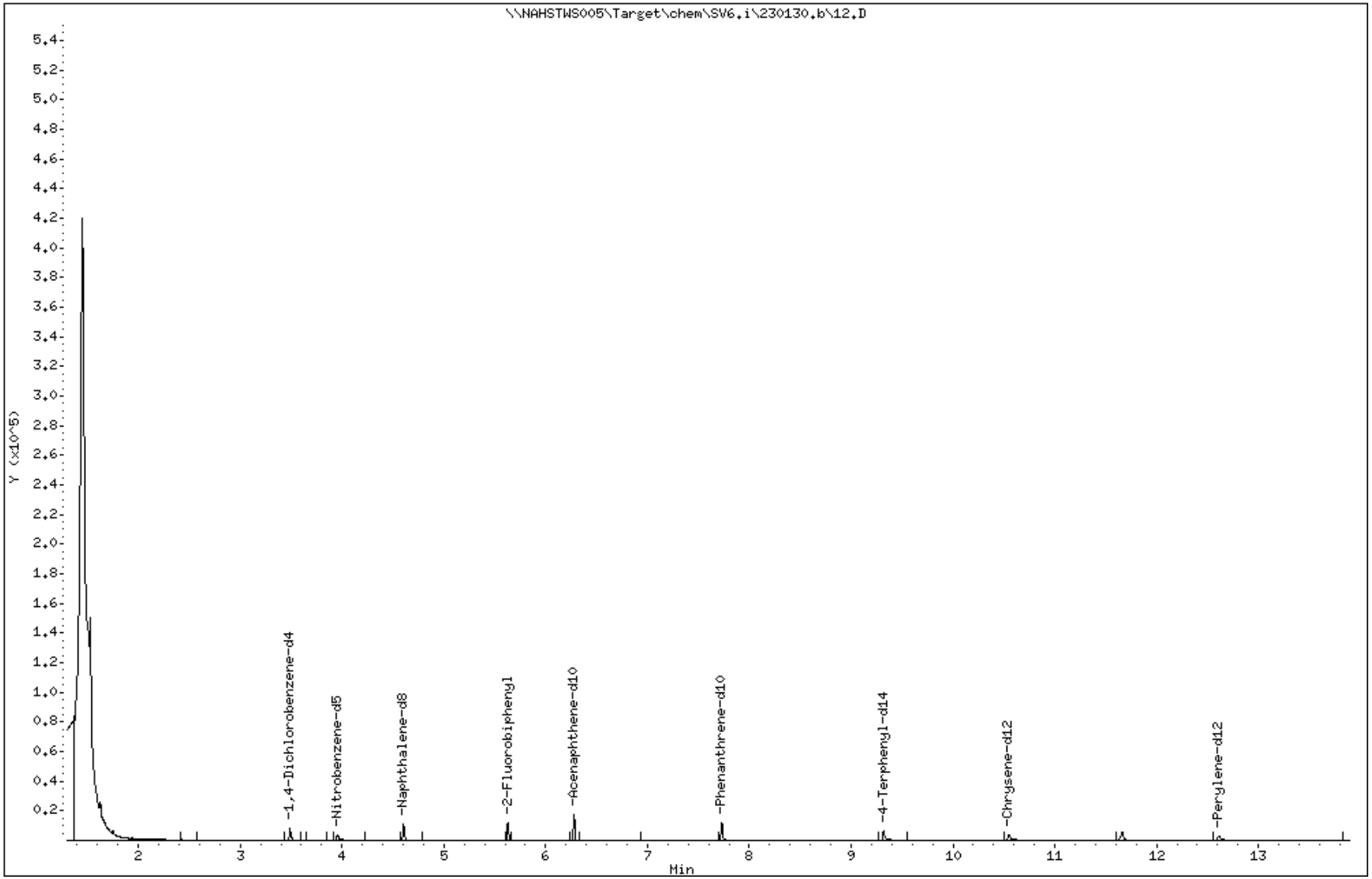
Sample Info: HS23010632-05

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28



Data File: \\NAHSTWS005\Target\chem\SV6.i\230130.b\12.D

Date : 30-JAN-2023 15:15

Client ID:

Instrument: SV6.i

Sample Info: HS23010632-05

Purge Volume: 1000.0

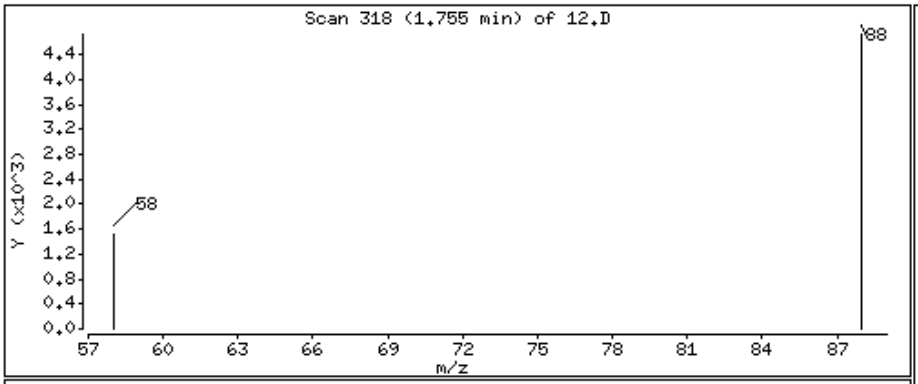
Operator: LG

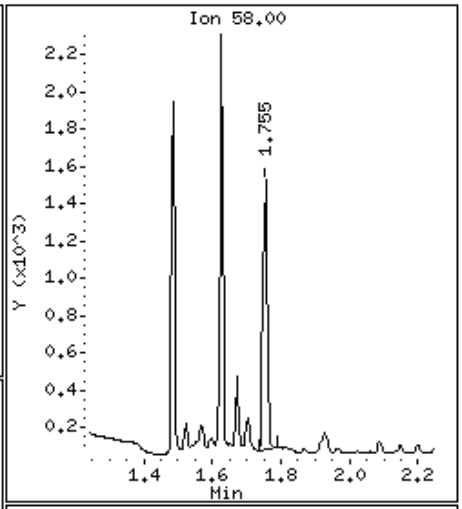
Column phase: RTX-5SIL MS

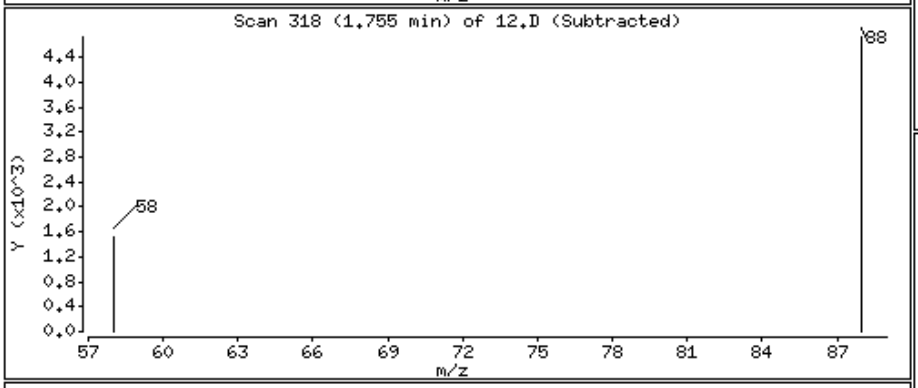
Column diameter: 0.28

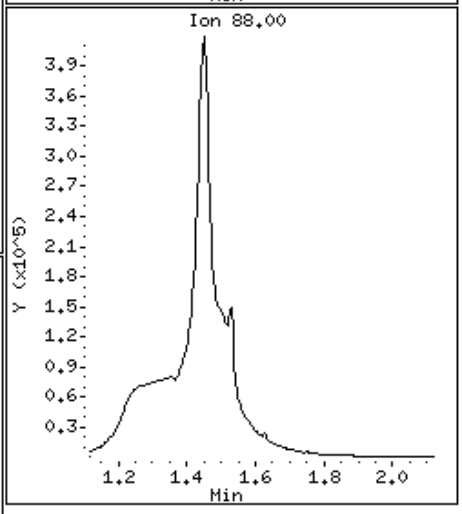
1 1,4-Dioxane

Concentration: 0.1027 ug/L









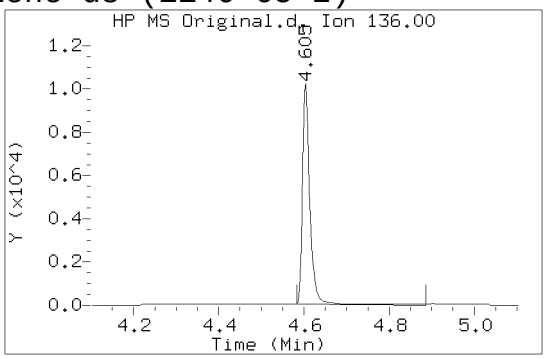
Data File : \\NAHSTWS005\Target\chem\SV6.i\230130.b\12.D
Inj Date : 30-JAN-2023 15:15
InstruID : SV6.i
LabSampID : HS23010632-05

Naphthalene-d8 (1146-65-2)

Reason Code:

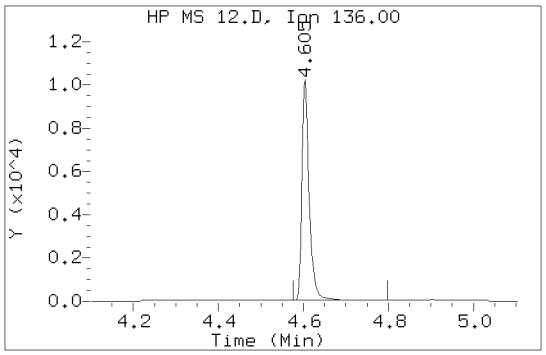
BEFORE

MASS
136
AREA
12351
HEIGHT
10189
30-Jan-2023
15:30
ALSHS
Server



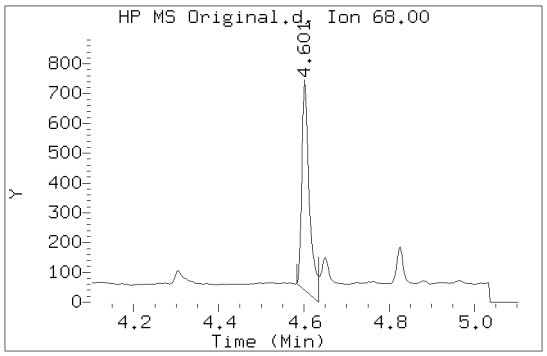
AFTER

MASS
136
AREA
11854
HEIGHT
10190
01-Feb-2023
16:30
ALSHS
Ser



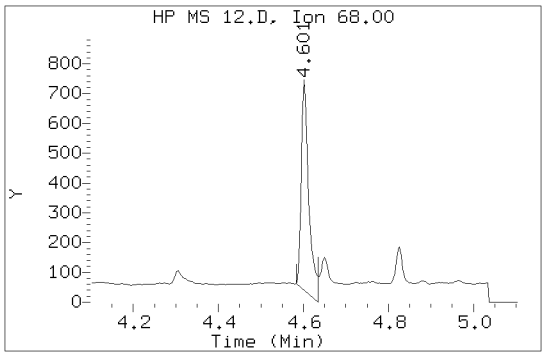
BEFORE

MASS
68
AREA
859
HEIGHT
706
30-Jan-2023
15:30
ALSHS
Server



AFTER

MASS
68
AREA
859
HEIGHT
706
01-Feb-2023
16:30
ALSHS
Ser

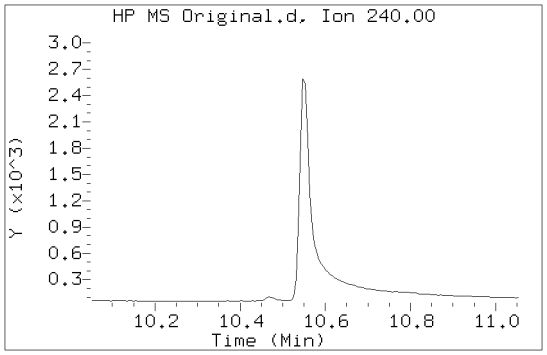


Chrysene-d12 (1719-03-5)

Reason Code:

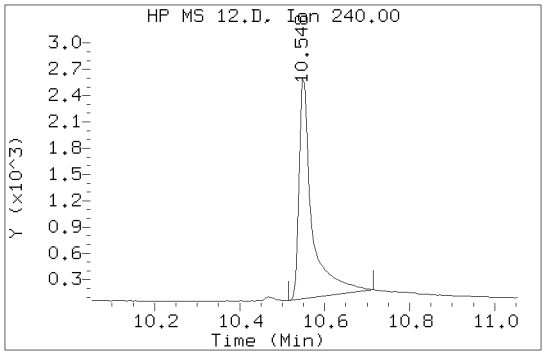
BEFORE

MASS
240
AREA
0
HEIGHT
0
30-Jan-2023
15:30
ALSHS
Server



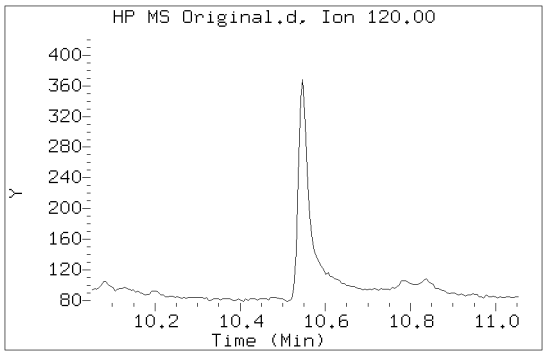
AFTER

MASS
240
AREA
5294
HEIGHT
2509
01-Feb-2023
16:30
ALSHS
Ser



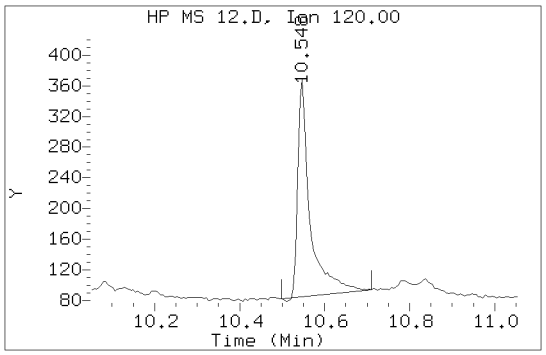
BEFORE

MASS
120
AREA
0
HEIGHT
0
30-Jan-2023
15:30
ALSHS
Server



AFTER

MASS
120
AREA
568
HEIGHT
283
01-Feb-2023
16:30
ALSHS
Ser



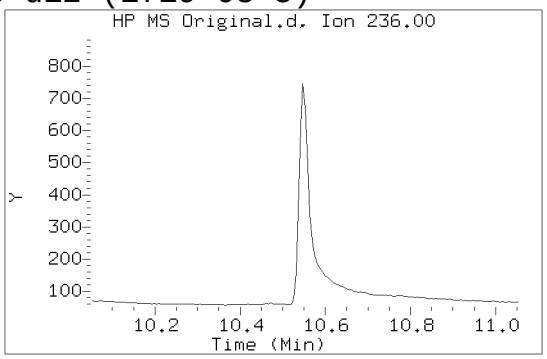
Data File : \\NAHSTWS005\Target\chem\SV6.i\230130.b\12.D
Inj Date : 30-JAN-2023 15:15
InstruID : SV6.i
LabSampID : HS23010632-05

Chrysene-d12 (1719-03-5)

Reason Code:

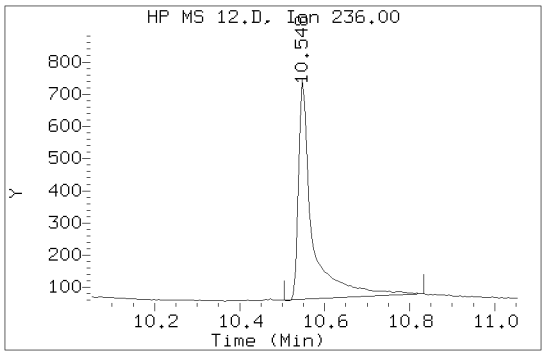
BEFORE

MASS
236
AREA
0
HEIGHT
0
30-Jan-2023
15:30
ALSHS
Server



AFTER

MASS
236
AREA
1548
HEIGHT
682
01-Feb-2023
16:30
ALSHS
Ser

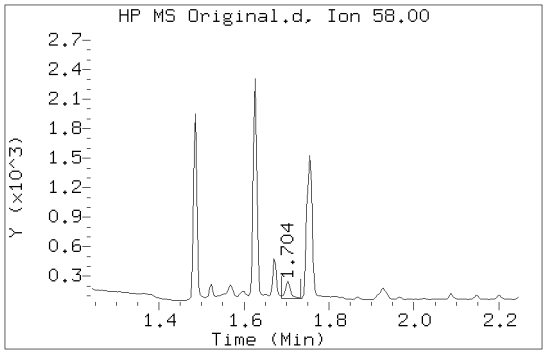


1,4-Dioxane ()

Reason Code:

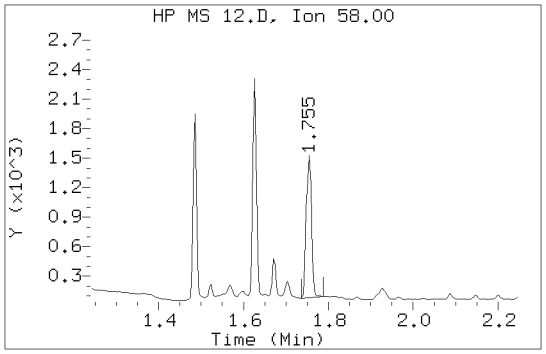
BEFORE

MASS
58
AREA
152
HEIGHT
178
30-Jan-2023
15:30
ALSHS
Server



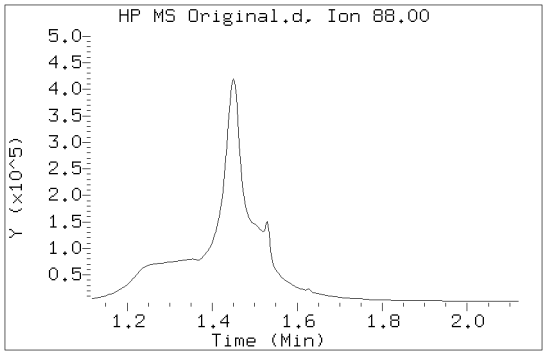
AFTER

MASS
58
AREA
1243
HEIGHT
1441
01-Feb-2023
16:30
ALSHS
Ser



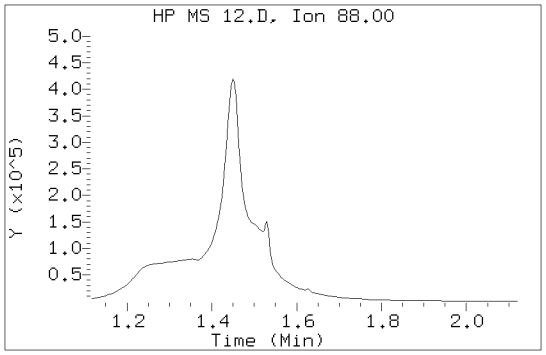
BEFORE

MASS
88
AREA
0
HEIGHT
0
30-Jan-2023
15:30
ALSHS
Server



AFTER

MASS
88
AREA
0
HEIGHT
0
01-Feb-2023
16:30
ALSHS
Ser

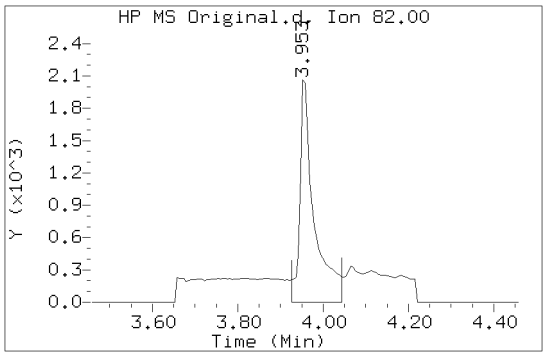


Nitrobenzene-d5 (4165-60-0)

Reason Code:

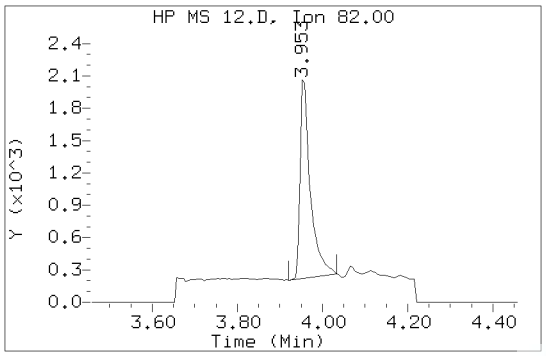
BEFORE

MASS
82
AREA
4782
HEIGHT
2063
30-Jan-2023
15:30
ALSHS
Server



AFTER

MASS
82
AREA
3041
HEIGHT
1843
01-Feb-2023
16:30
ALSHS
Ser



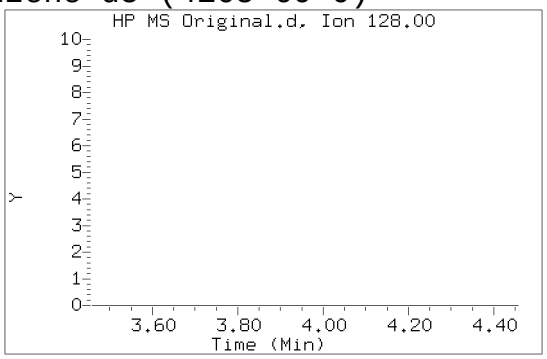
Data File : \\NAHSTWS005\Target\chem\SV6.i\230130.b\12.D
Inj Date : 30-JAN-2023 15:15
InstruID : SV6.i
LabSampID : HS23010632-05

Nitrobenzene-d5 (4165-60-0)

Reason Code:

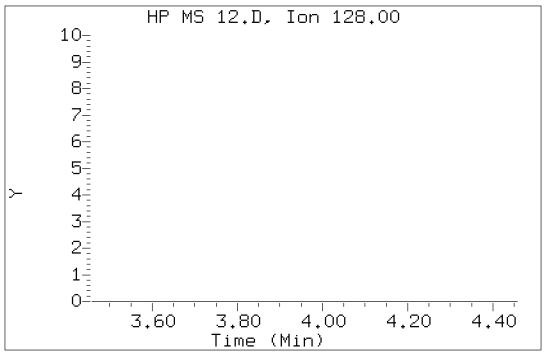
BEFORE

MASS
128
AREA
0
HEIGHT
0
30-Jan-2023
15:30
ALSHS
Server



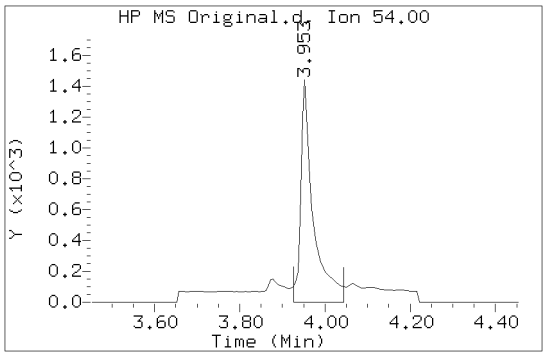
AFTER

MASS
128
AREA
0
HEIGHT
0
01-Feb-2023
16:30
ALSHS
Ser



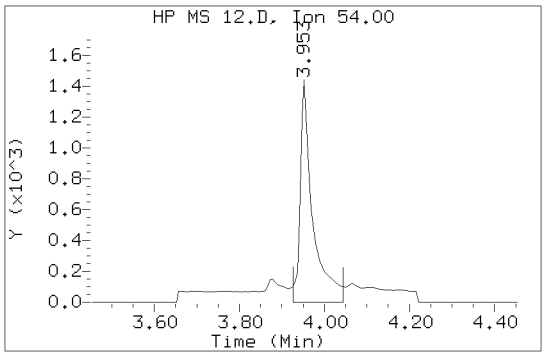
BEFORE

MASS
54
AREA
2924
HEIGHT
1441
30-Jan-2023
15:30
ALSHS
Server



AFTER

MASS
54
AREA
2924
HEIGHT
1441
01-Feb-2023
16:30
ALSHS
Ser

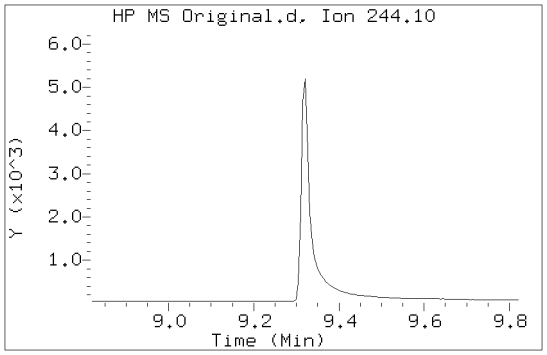


4-Terphenyl-d14 (1718-51-0)

Reason Code:

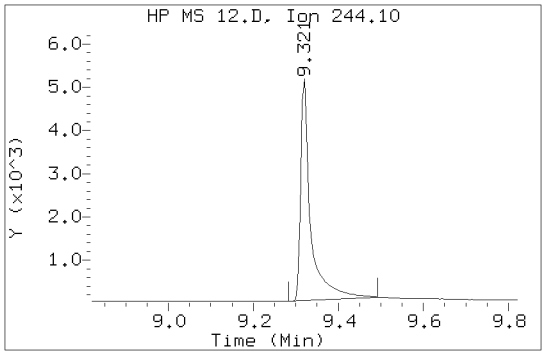
BEFORE

MASS
244.1
AREA
0
HEIGHT
0
30-Jan-2023
15:30
ALSHS
Server



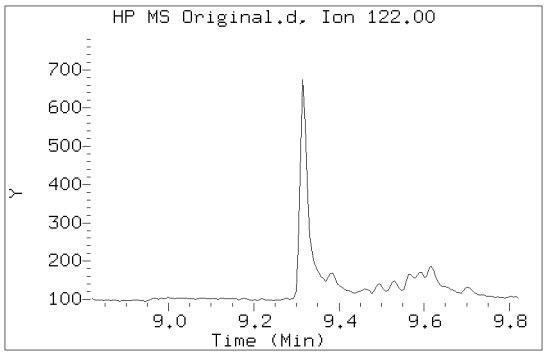
AFTER

MASS
244.1
AREA
8262
HEIGHT
5121
01-Feb-2023
16:30
ALSHS
Ser



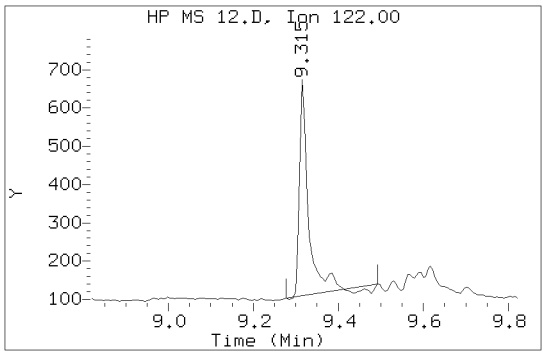
BEFORE

MASS
122
AREA
0
HEIGHT
0
30-Jan-2023
15:30
ALSHS
Server



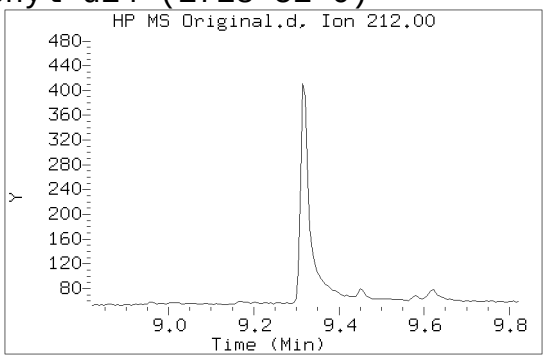
AFTER

MASS
122
AREA
773
HEIGHT
564
01-Feb-2023
16:30
ALSHS
Ser



Data File : \\NAHSTWS005\Target\chem\SV6.i\230130.b\12.D
Inj Date : 30-JAN-2023 15:15
InstruID : SV6.i
LabSampID : HS23010632-05

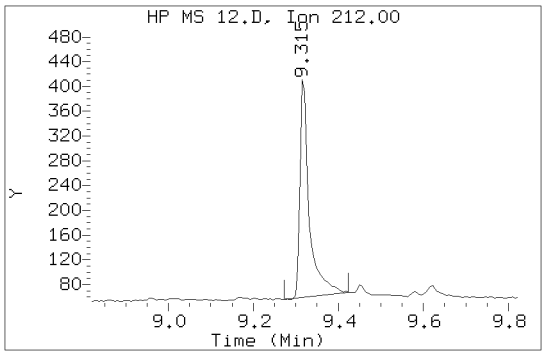
4-Terphenyl-d14 (1718-51-0)



BEFORE

MASS
212
AREA
0
HEIGHT
0
30-Jan-2023
15:30
ALSHS
Server

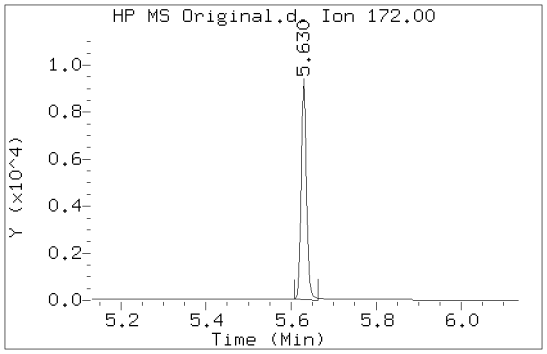
Reason Code:



AFTER

MASS
212
AREA
528
HEIGHT
351
01-Feb-2023
16:30
ALSHS
Ser

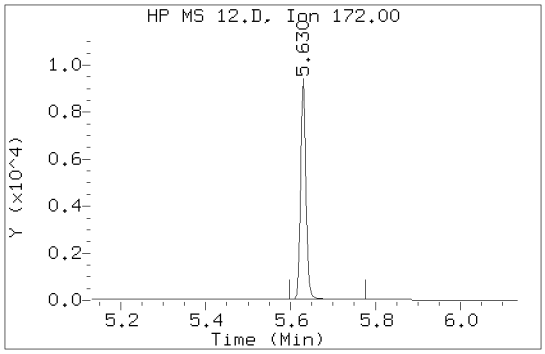
2-Fluorobiphenyl (321-60-8)



BEFORE

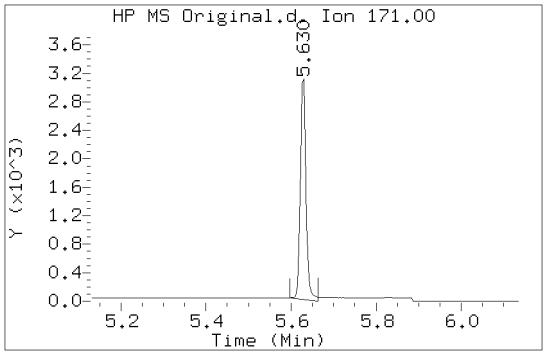
MASS
172
AREA
8312
HEIGHT
9393
30-Jan-2023
15:30
ALSHS
Server

Reason Code:



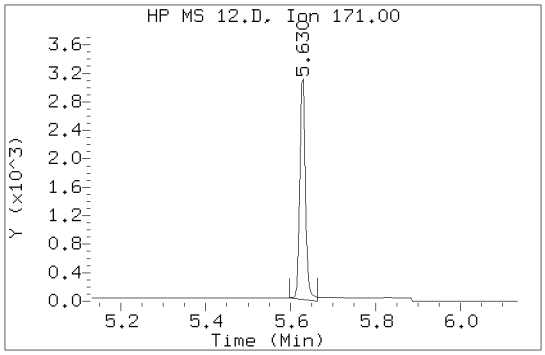
AFTER

MASS
172
AREA
8278
HEIGHT
9374
01-Feb-2023
16:30
ALSHS
Ser



BEFORE

MASS
171
AREA
2918
HEIGHT
3097
30-Jan-2023
15:30
ALSHS
Server



AFTER

MASS
171
AREA
2918
HEIGHT
3097
01-Feb-2023
16:30
ALSHS
Ser

Data File: \\NAHSTWS005\Target\chem\SV6.i\230130.b\13.D Page 1
Report Date: 30-Jan-2023 17:39

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230130.b\13.D
Lab Smp Id: HS23010632-06
Inj Date : 30-JAN-2023 15:33
Operator : LG Inst ID: SV6.i
Smp Info : HS23010632-06
Misc Info :
Comment :
Method : \\nahstws005\Target\chem\SV6.i\230130.b\DXSIM.m
Meth Date : 30-Jan-2023 12:38 marco.guti Quant Type: ISTD
Cal Date : 26-JAN-2023 19:09 Cal File: 25.D
Als bottle: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTWS005

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)
* 20 1,4-Dichlorobenzene-d4	152	3.485	3.485	(1.000)	2443	0.10000	(aM)
* 45 Naphthalene-d8	136	4.604	4.604	(1.000)	8536	0.10000	(M)
$ 33 Nitrobenzene-d5	82	3.952	3.952	(0.858)	2225	0.09034	0.09034(M)
* 86 Acenaphthene-d10	164	6.278	6.284	(1.000)	4688	0.10000	(M)
$ 69 2-Fluorobiphenyl	172	5.629	5.633	(0.897)	6101	0.09915	0.09915(M)
* 126 Phenanthrene-d10	188	7.733	7.734	(1.000)	9231	0.10000	
* 182 Chrysene-d12	240	10.552	10.558	(1.000)	3568	0.10000	(M)
$ 158 4-Terphenyl-d14	244	9.320	9.326	(0.883)	5722	0.09134	0.09134(M)
* 198 Perylene-d12	264	12.609	12.615	(1.000)	3439	0.10000	
1 1,4-Dioxane	58	1.732	1.710	(0.497)	92	0.01032	0.01032(MH)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

01181921

Data File: \\NAHSTWS005\Target\chem\SV6.i\230130.b\13.D

Date : 30-JAN-2023 15:33

Client ID:

Instrument: SV6.i

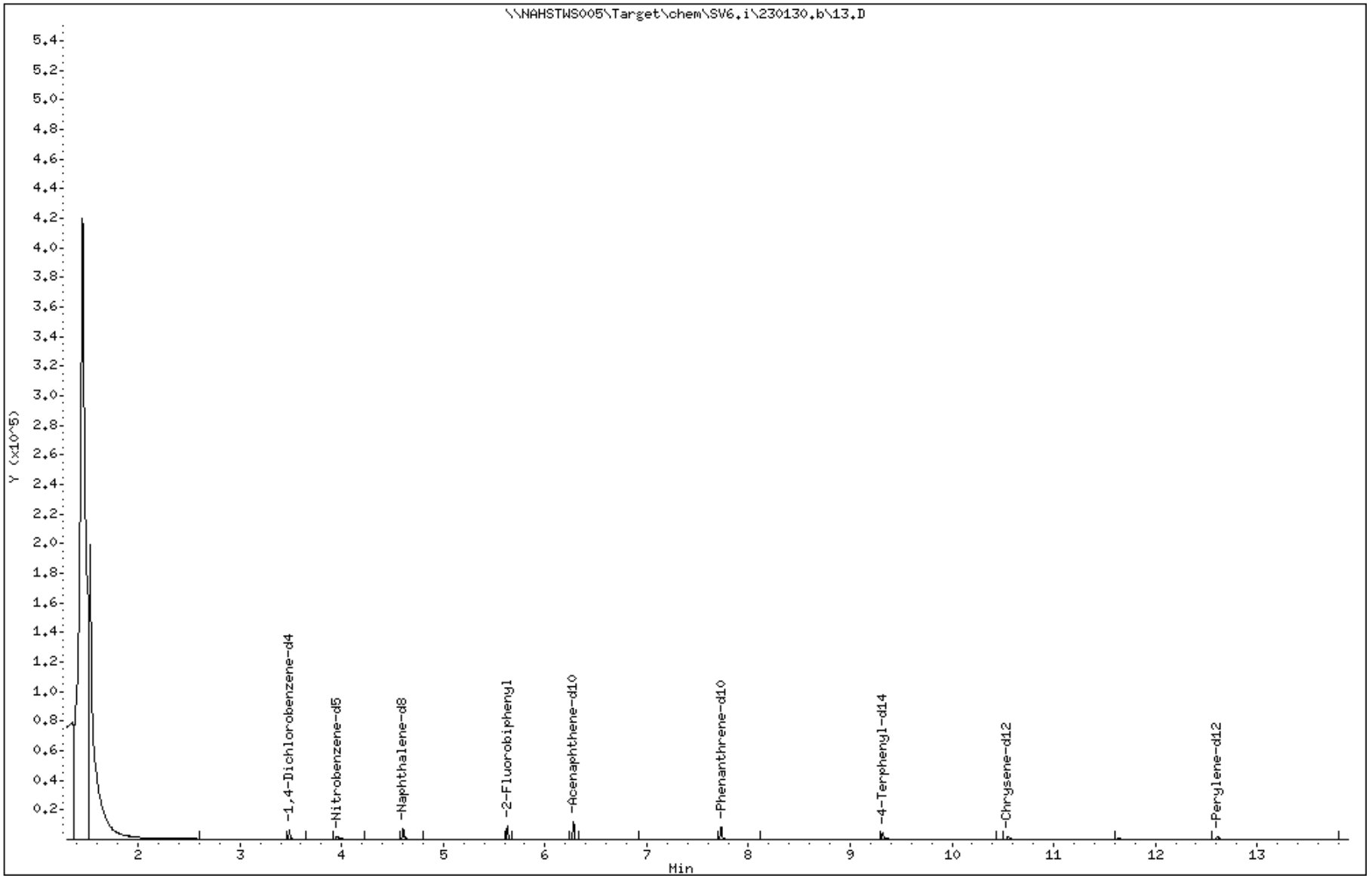
Sample Info: HS23010632-06

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28



Data File: \\NAHSTWS005\Target\chem\SV6.i\230130.b\13.D

Date : 30-JAN-2023 15:33

Client ID:

Instrument: SV6.i

Sample Info: HS23010632-06

Purge Volume: 1000.0

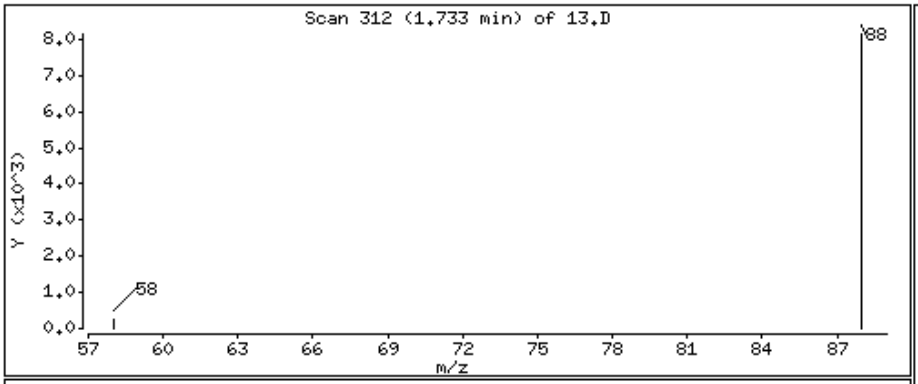
Operator: LG

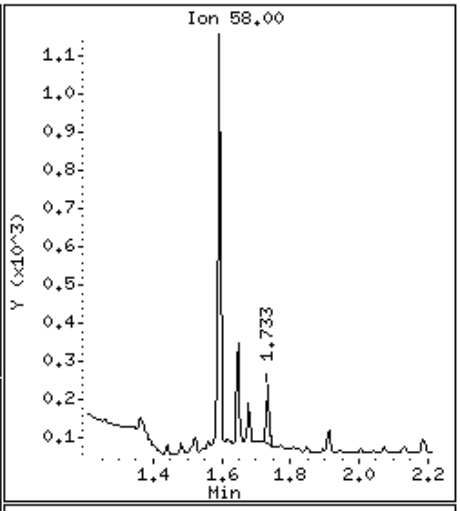
Column phase: RTX-5SIL MS

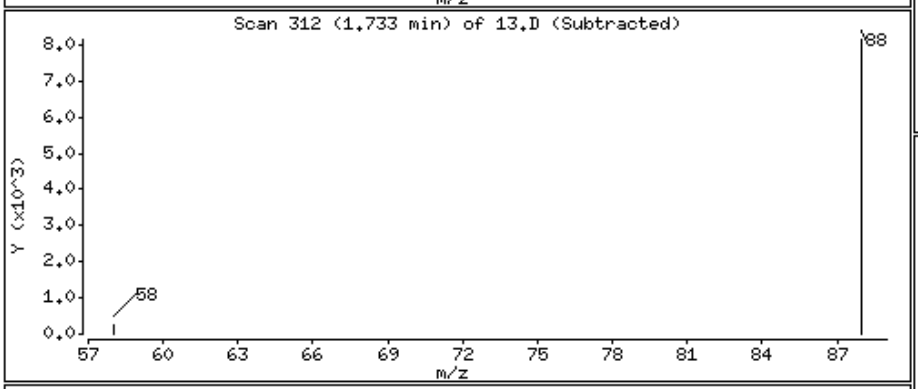
Column diameter: 0.28

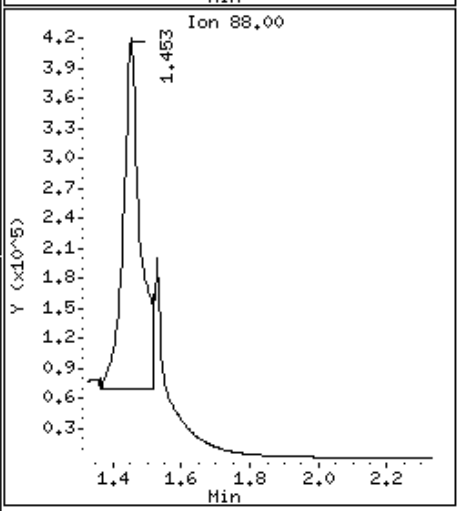
1 1,4-Dioxane

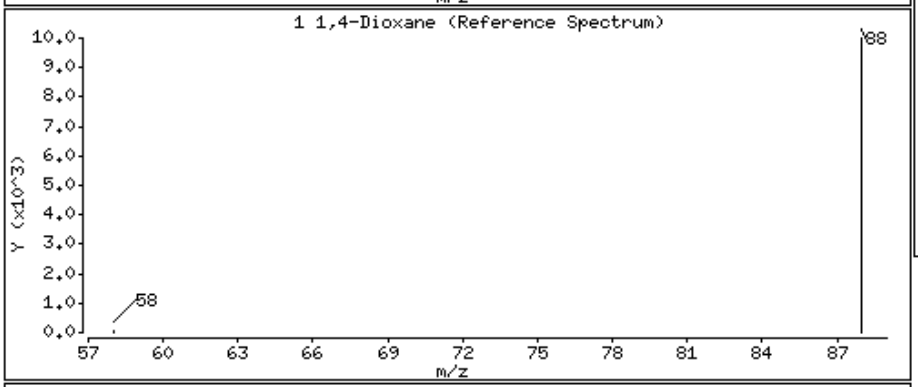
Concentration: 0.01032 ug/L

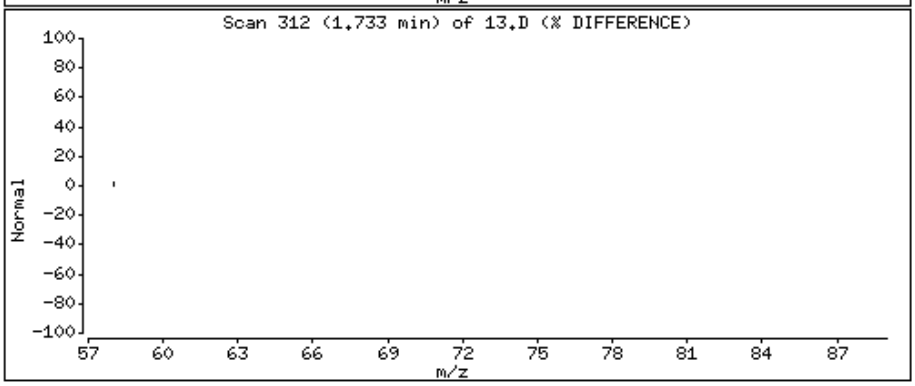












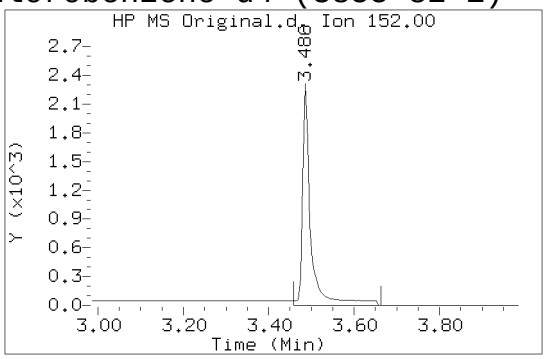
Data File : \\NAHSTWS005\Target\chem\SV6.i\230130.b\13.D
Inj Date : 30-JAN-2023 15:33
InstruID : SV6.i
LabSampID : HS23010632-06

1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

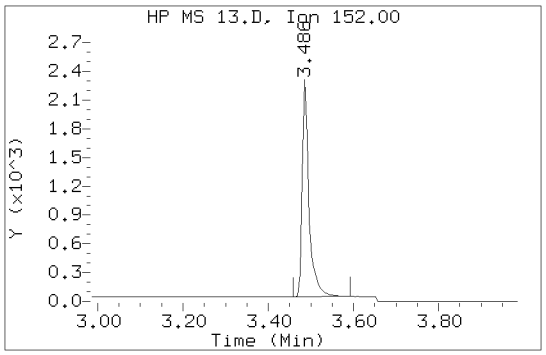
BEFORE

MASS
152
AREA
3030
HEIGHT
2313
30-Jan-2023
15:47
ALSHS
Server



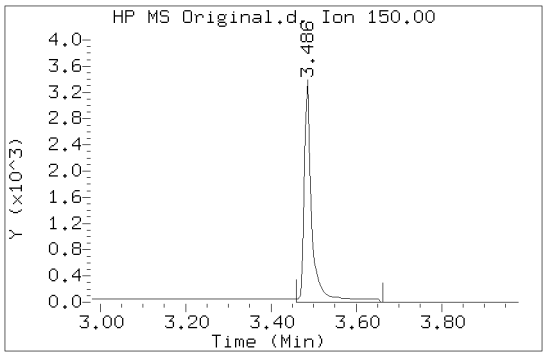
AFTER

MASS
152
AREA
2443
HEIGHT
2265
30-Jan-2023
17:39



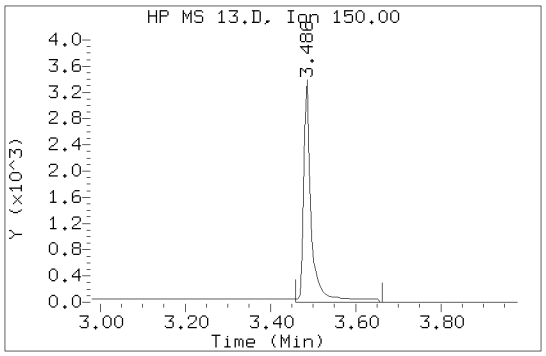
BEFORE

MASS
150
AREA
4276
HEIGHT
3390
30-Jan-2023
15:47
ALSHS
Server



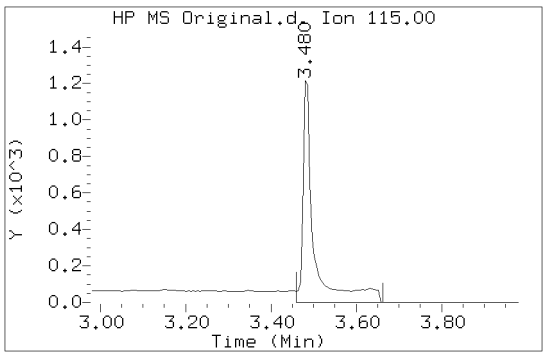
AFTER

MASS
150
AREA
4276
HEIGHT
3390
30-Jan-2023
17:39



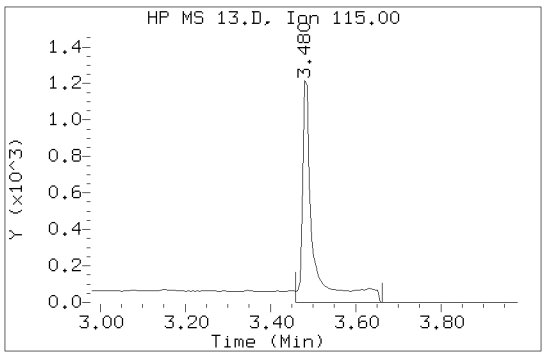
BEFORE

MASS
115
AREA
2129
HEIGHT
1215
30-Jan-2023
15:47
ALSHS
Server



AFTER

MASS
115
AREA
2129
HEIGHT
1215
30-Jan-2023
17:39

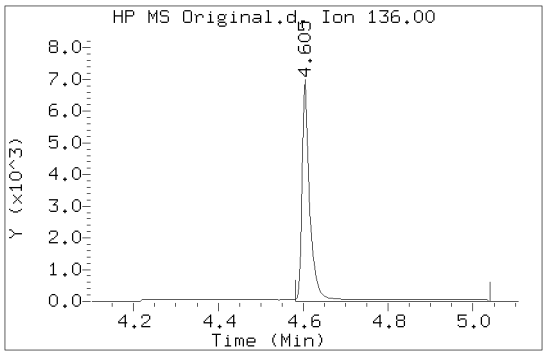


Naphthalene-d8 (1146-65-2)

Reason Code:

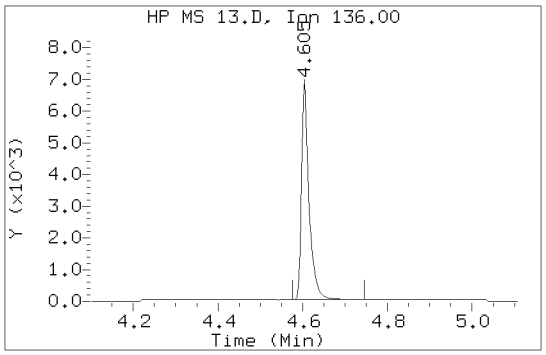
BEFORE

MASS
136
AREA
10056
HEIGHT
6993
30-Jan-2023
15:47
ALSHS
Server



AFTER

MASS
136
AREA
8536
HEIGHT
6940
30-Jan-2023
17:39

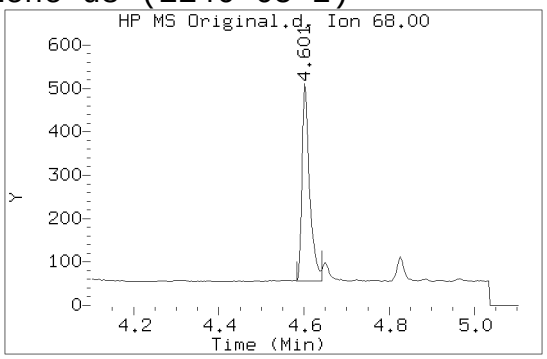


Data File : \\NAHSTWS005\Target\chem\SV6.i\230130.b\13.D
Inj Date : 30-JAN-2023 15:33
InstruID : SV6.i
LabSampID : HS23010632-06

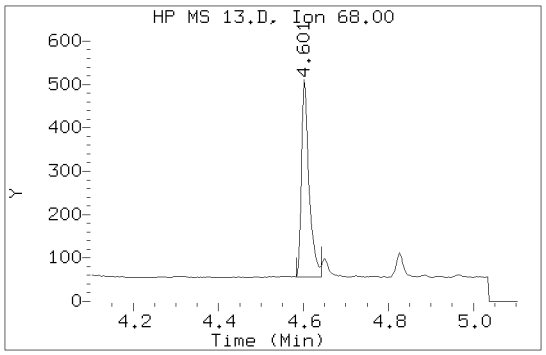
Naphthalene-d8 (1146-65-2)

Reason Code:

BEFORE
MASS
68
AREA
557
HEIGHT
455
30-Jan-2023
15:47
ALSHS
Server



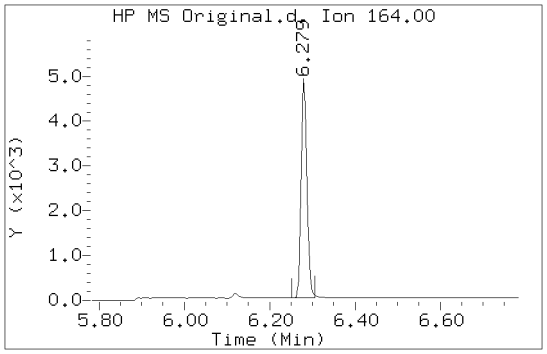
AFTER
MASS
68
AREA
557
HEIGHT
455
30-Jan-2023
17:39



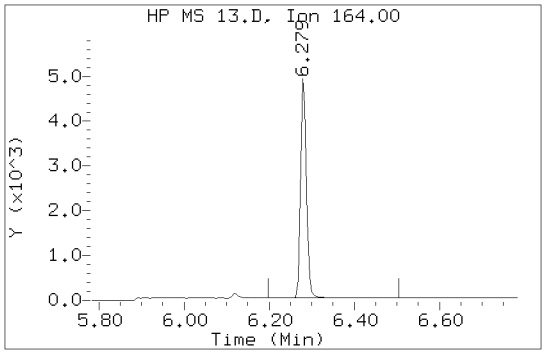
Acenaphthene-d10 (15067-26-2)

Reason Code:

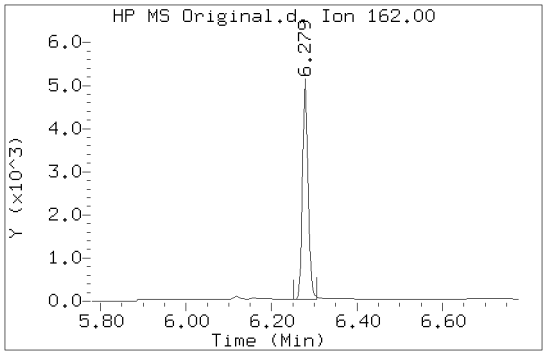
BEFORE
MASS
164
AREA
4633
HEIGHT
4898
30-Jan-2023
15:47
ALSHS
Server



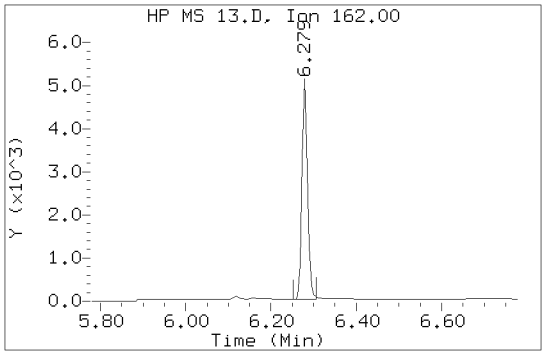
AFTER
MASS
164
AREA
4688
HEIGHT
4897
30-Jan-2023
17:39



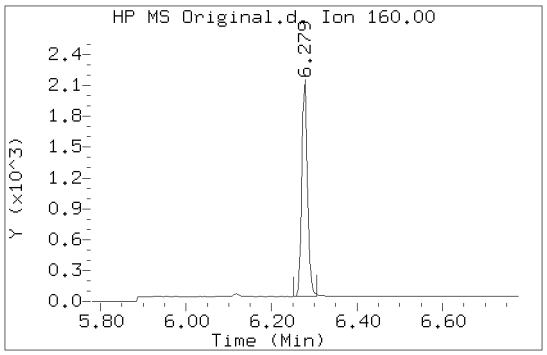
BEFORE
MASS
162
AREA
4637
HEIGHT
5103
30-Jan-2023
15:47
ALSHS
Server



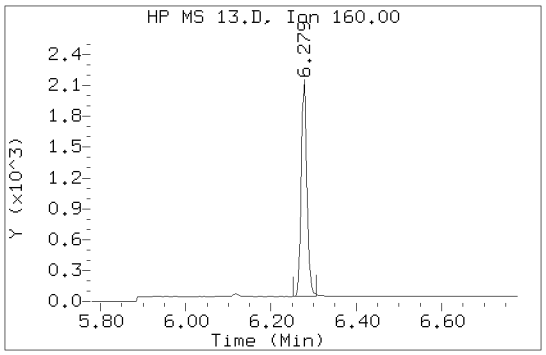
AFTER
MASS
162
AREA
4637
HEIGHT
5103
30-Jan-2023
17:39



BEFORE
MASS
160
AREA
1988
HEIGHT
2109
30-Jan-2023
15:47
ALSHS
Server



AFTER
MASS
160
AREA
1988
HEIGHT
2109
30-Jan-2023
17:39

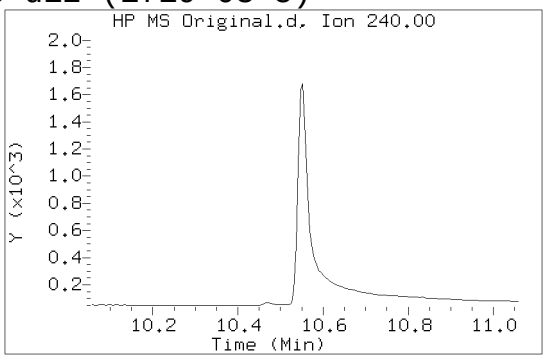


Data File : \\NAHSTWS005\Target\chem\SV6.i\230130.b\13.D
Inj Date : 30-JAN-2023 15:33
InstruID : SV6.i
LabSampID : HS23010632-06

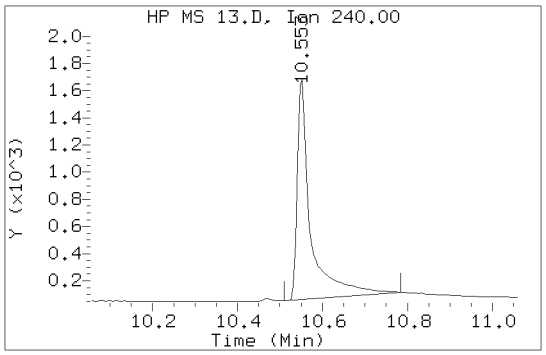
Chrysene-d12 (1719-03-5)

Reason Code:

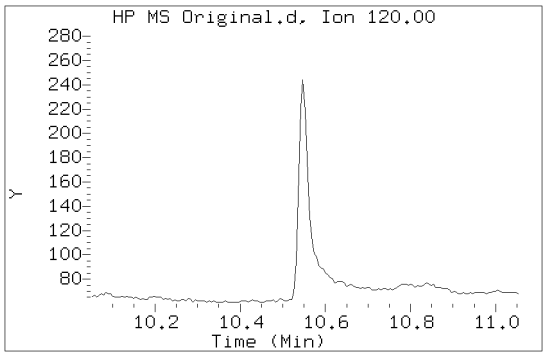
BEFORE
MASS
240
AREA
0
HEIGHT
0
30-Jan-2023
15:47
ALSHS
Server



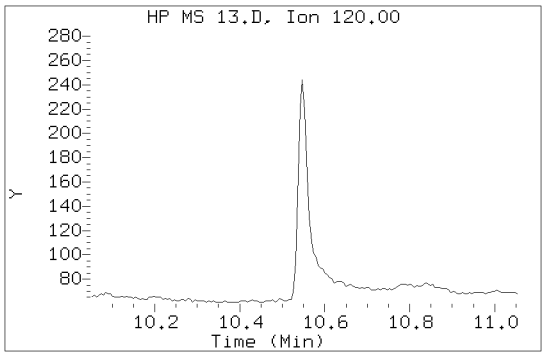
AFTER
MASS
240
AREA
3568
HEIGHT
1619
30-Jan-2023
17:39



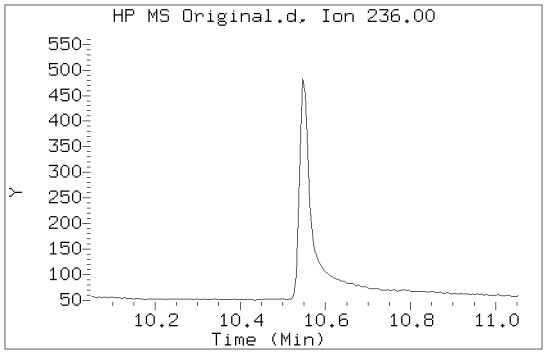
BEFORE
MASS
120
AREA
0
HEIGHT
0
30-Jan-2023
15:47
ALSHS
Server



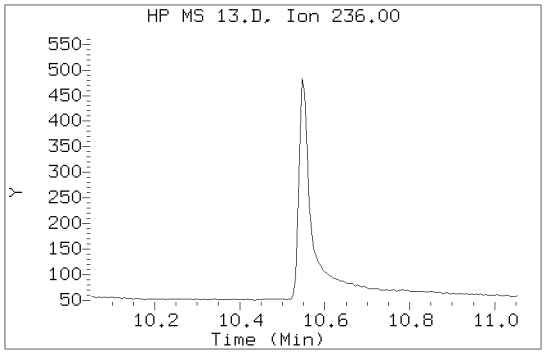
AFTER
MASS
120
AREA
0
HEIGHT
0
30-Jan-2023
17:39



BEFORE
MASS
236
AREA
0
HEIGHT
0
30-Jan-2023
15:47
ALSHS
Server



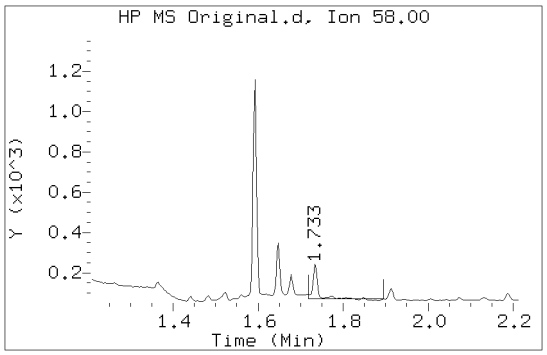
AFTER
MASS
236
AREA
0
HEIGHT
0
30-Jan-2023
17:39



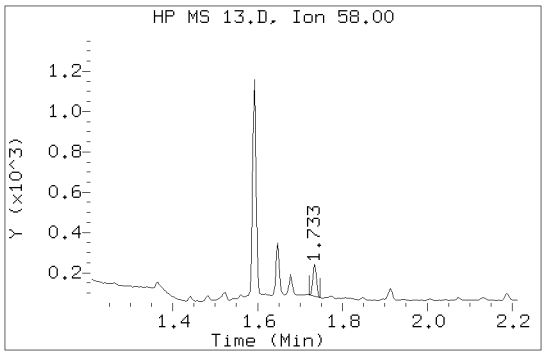
1,4-Dioxane ()

Reason Code:

BEFORE
MASS
58
AREA
126
HEIGHT
171
30-Jan-2023
15:47
ALSHS
Server



AFTER
MASS
58
AREA
92
HEIGHT
157
30-Jan-2023
17:39



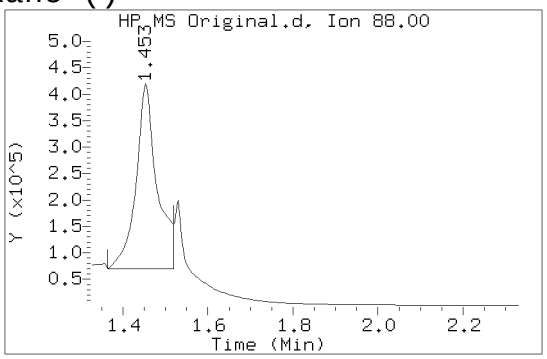
Data File : \\NAHSTWS005\Target\chem\SV6.i\230130.b\13.D
Inj Date : 30-JAN-2023 15:33
InstruID : SV6.i
LabSampID : HS23010632-06

1,4-Dioxane ()

Reason Code:

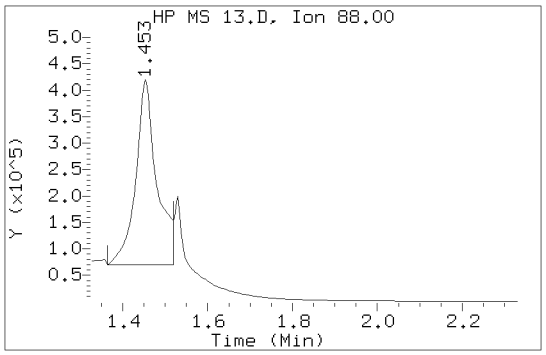
BEFORE

MASS
88
AREA
1215606
HEIGHT
350464
30-Jan-2023
15:47
ALSHS
Server



AFTER

MASS
88
AREA
1215606
HEIGHT
350464
30-Jan-2023
17:39

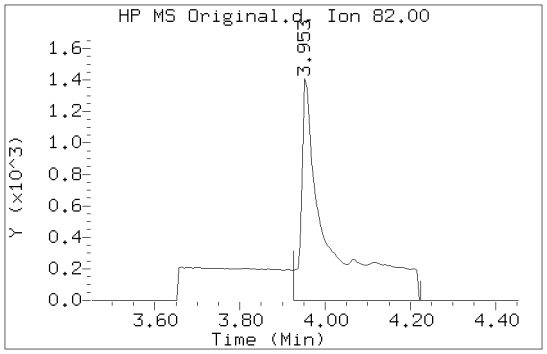


Nitrobenzene-d5 (4165-60-0)

Reason Code:

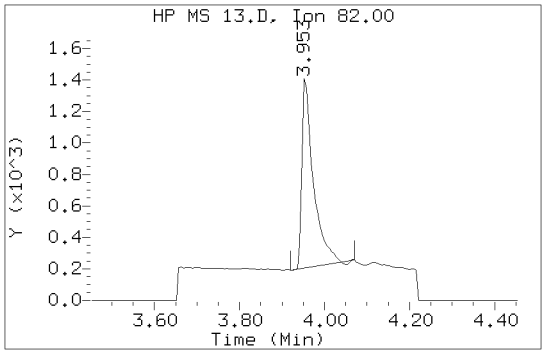
BEFORE

MASS
82
AREA
6132
HEIGHT
1408
30-Jan-2023
15:47
ALSHS
Server



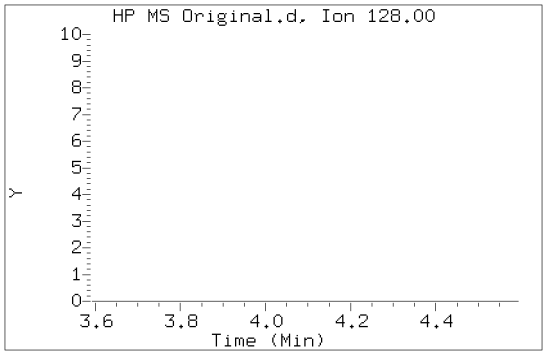
AFTER

MASS
82
AREA
2225
HEIGHT
1201
30-Jan-2023
17:39



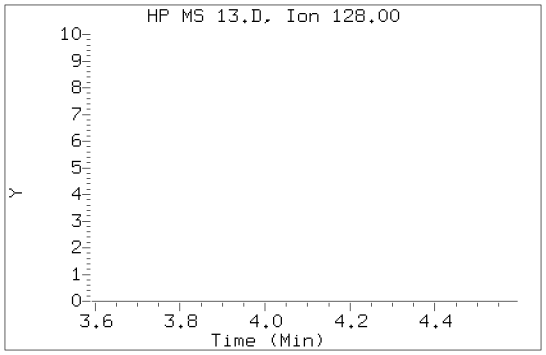
BEFORE

MASS
128
AREA
0
HEIGHT
0
30-Jan-2023
15:47
ALSHS
Server



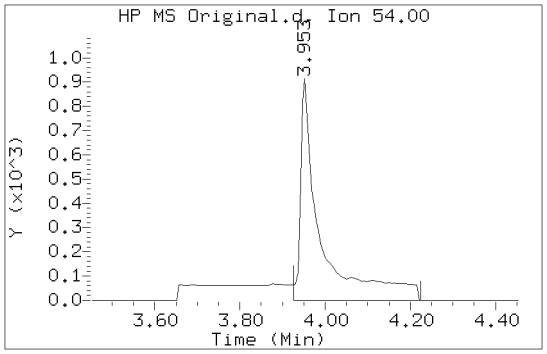
AFTER

MASS
128
AREA
0
HEIGHT
0
30-Jan-2023
17:39



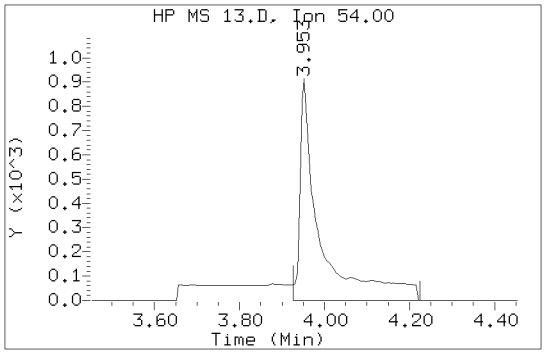
BEFORE

MASS
54
AREA
2942
HEIGHT
914
30-Jan-2023
15:47
ALSHS
Server



AFTER

MASS
54
AREA
2942
HEIGHT
914
30-Jan-2023
17:39

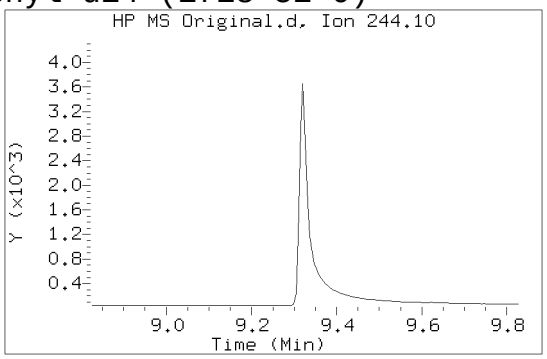


Data File : \\NAHSTWS005\Target\chem\SV6.i\230130.b\13.D
Inj Date : 30-JAN-2023 15:33
InstruID : SV6.i
LabSampID : HS23010632-06

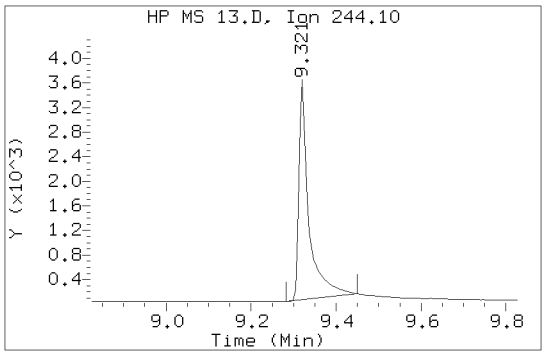
4-Terphenyl-d14 (1718-51-0)

Reason Code:

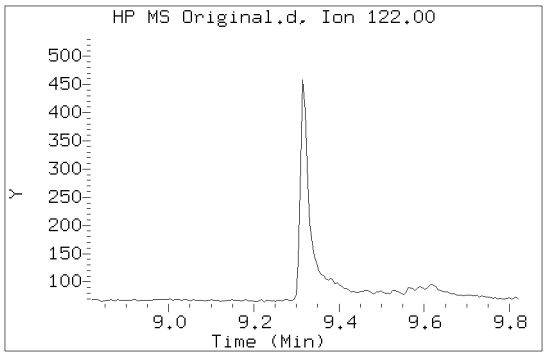
BEFORE
MASS
244.1
AREA
0
HEIGHT
0
30-Jan-2023
15:47
ALSHS
Server



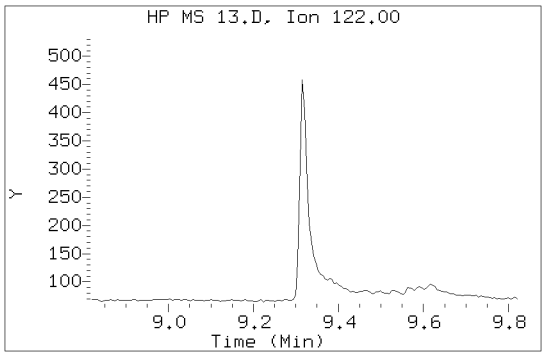
AFTER
MASS
244.1
AREA
5722
HEIGHT
3576
30-Jan-2023
17:39



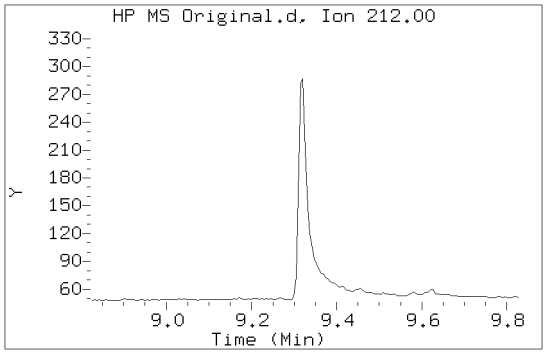
BEFORE
MASS
122
AREA
0
HEIGHT
0
30-Jan-2023
15:47
ALSHS
Server



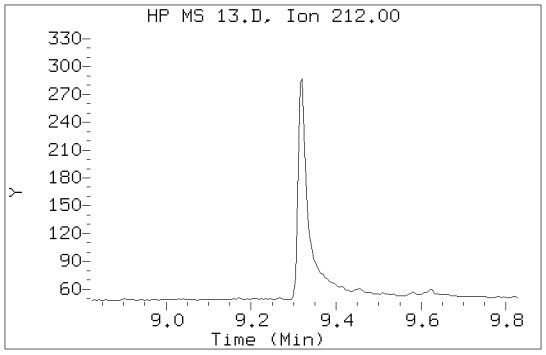
AFTER
MASS
122
AREA
0
HEIGHT
0
30-Jan-2023
17:39



BEFORE
MASS
212
AREA
0
HEIGHT
0
30-Jan-2023
15:47
ALSHS
Server



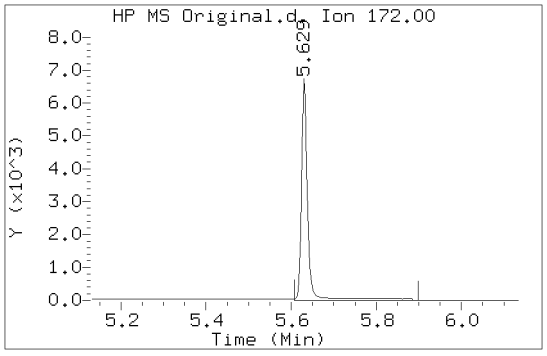
AFTER
MASS
212
AREA
0
HEIGHT
0
30-Jan-2023
17:39



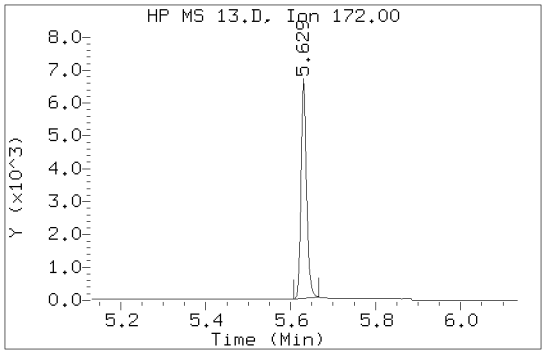
2-Fluorobiphenyl (321-60-8)

Reason Code:

BEFORE
MASS
172
AREA
7168
HEIGHT
6740
30-Jan-2023
15:47
ALSHS
Server



AFTER
MASS
172
AREA
6101
HEIGHT
6674
30-Jan-2023
17:39



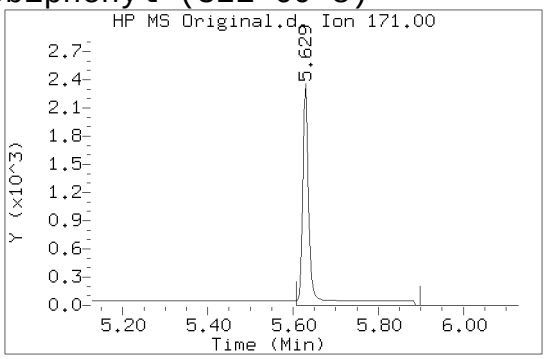
Data File : \\NAHSTWS005\Target\chem\SV6.i\230130.b\13.D
Inj Date : 30-JAN-2023 15:33
InstruID : SV6.i
LabSampID : HS23010632-06

2-Fluorobiphenyl (321-60-8)

Reason Code:

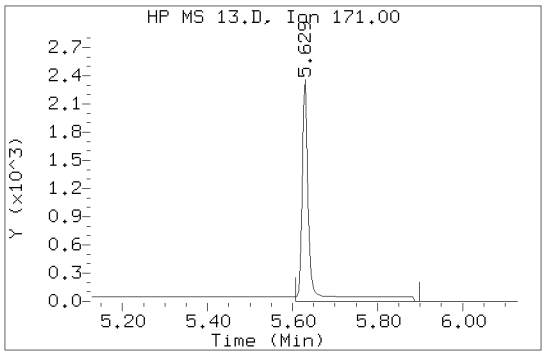
BEFORE

MASS
171
AREA
2966
HEIGHT
2358
30-Jan-2023
15:47
ALSHS
Server



AFTER

MASS
171
AREA
2966
HEIGHT
2358
30-Jan-2023
17:39



Data File: \\NAHSTWS005\Target\chem\SV6.i\230130.b\17.D Page 1
Report Date: 30-Jan-2023 17:32

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230130.b\17.D
Lab Smp Id: HS23010632-02
Inj Date : 30-JAN-2023 16:44
Operator : LG Inst ID: SV6.i
Smp Info : HS23010632-02X10
Misc Info : ;;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\SV6.i\230130.b\DXSIM.m
Meth Date : 30-Jan-2023 12:38 marco.guti Quant Type: ISTD
Cal Date : 26-JAN-2023 19:09 Cal File: 25.D
Als bottle: 16
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7095

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	10.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)
* 20 1,4-Dichlorobenzene-d4	152	3.485	3.485	(1.000)	2638	0.10000	(aM)
* 45 Naphthalene-d8	136	4.604	4.604	(1.000)	9222	0.10000	(M)
$ 33 Nitrobenzene-d5	82	3.957	3.952	(0.860)	244	0.00917	0.09170(M)
* 86 Acenaphthene-d10	164	6.283	6.284	(1.000)	5546	0.10000	(M)
$ 69 2-Fluorobiphenyl	172	5.633	5.633	(0.896)	617	0.00848	0.08476(M)
* 126 Phenanthrene-d10	188	7.733	7.734	(1.000)	11289	0.10000	
* 182 Chrysene-d12	240	10.552	10.558	(1.000)	4668	0.10000	(M)
$ 158 4-Terphenyl-d14	244	9.320	9.326	(0.883)	568	0.02144	0.2144(RM)
* 198 Perylene-d12	264	12.609	12.615	(1.000)	3400	0.10000	
1 1,4-Dioxane	58	1.732	1.710	(0.497)	1337	0.13894	1.389(M)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

01181930

Data File: \\NAHSTWS005\Target\chem\SV6.i\230130.b\17.D

Date : 30-JAN-2023 16:44

Client ID:

Instrument: SV6.i

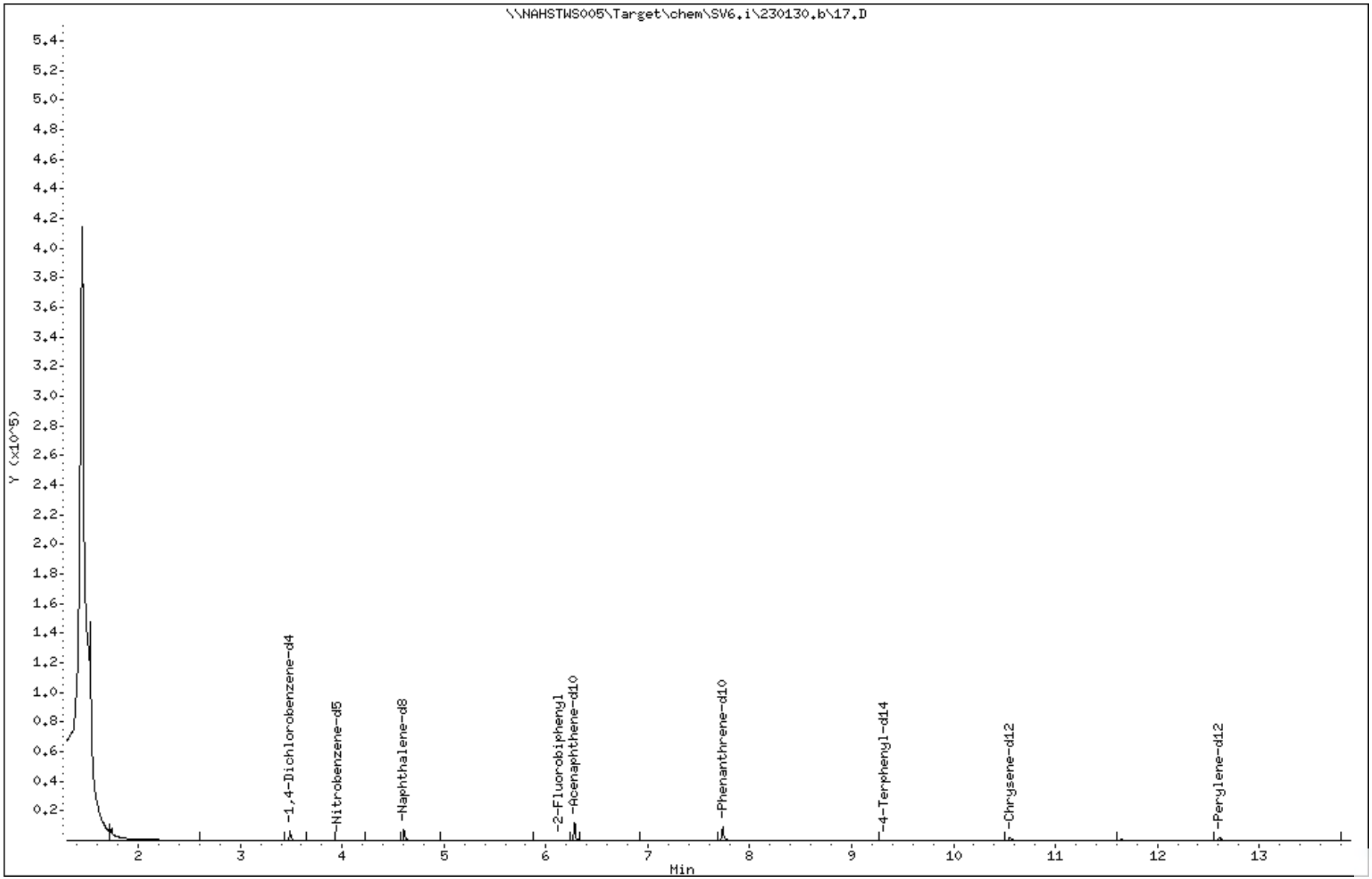
Sample Info: HS23010632-02X10

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28



Data File: \\NAHSTWS005\Target\chem\SV6.i\230130.b\17.D

Date : 30-JAN-2023 16:44

Client ID:

Instrument: SV6.i

Sample Info: HS23010632-02X10

Purge Volume: 1000.0

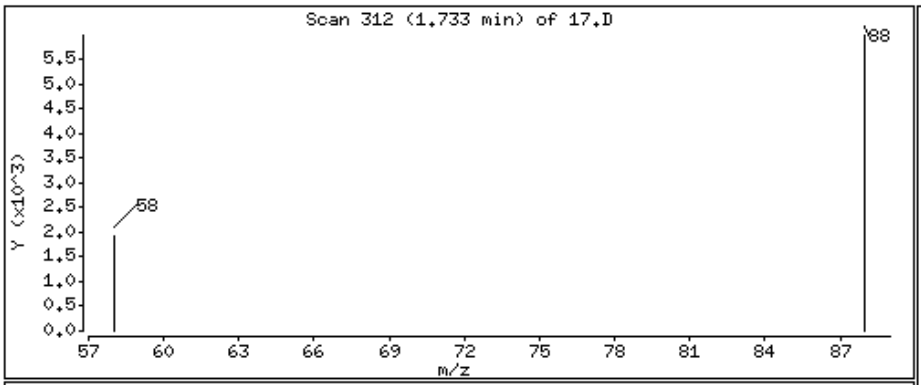
Operator: LG

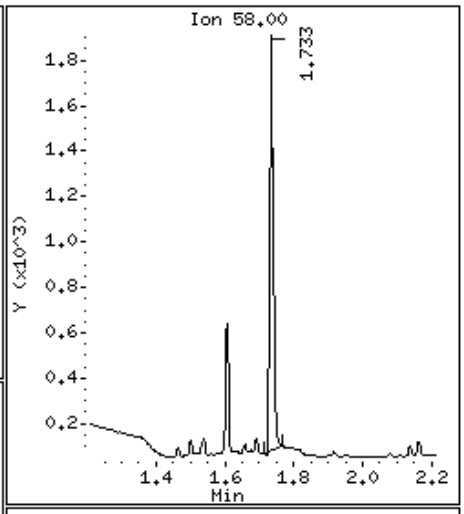
Column phase: RTX-5SIL MS

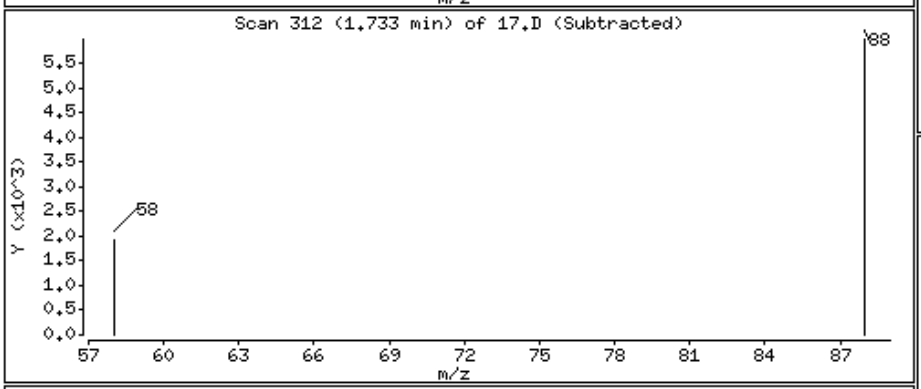
Column diameter: 0.28

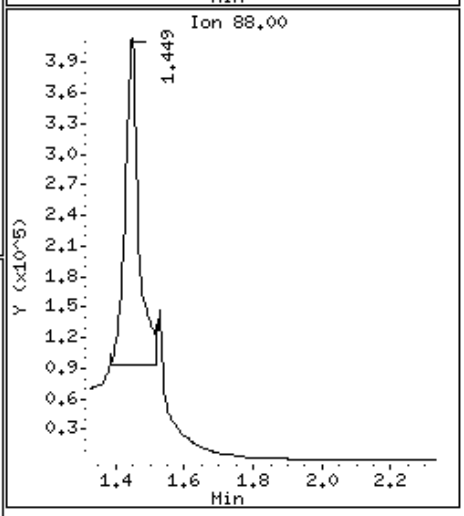
1 1,4-Dioxane

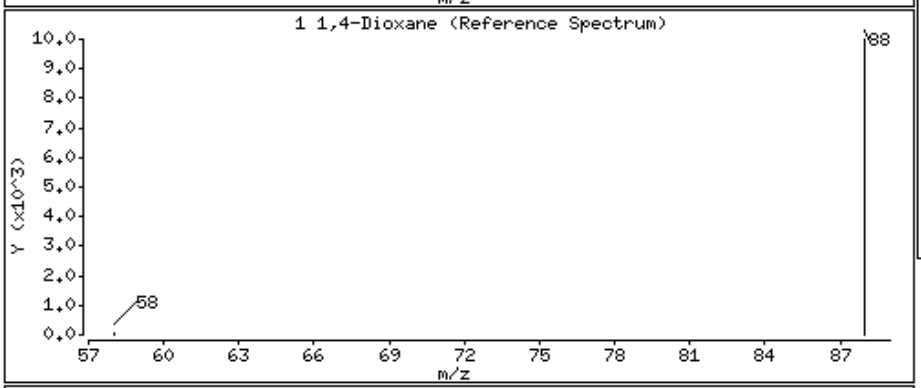
Concentration: 1.389 ug/L

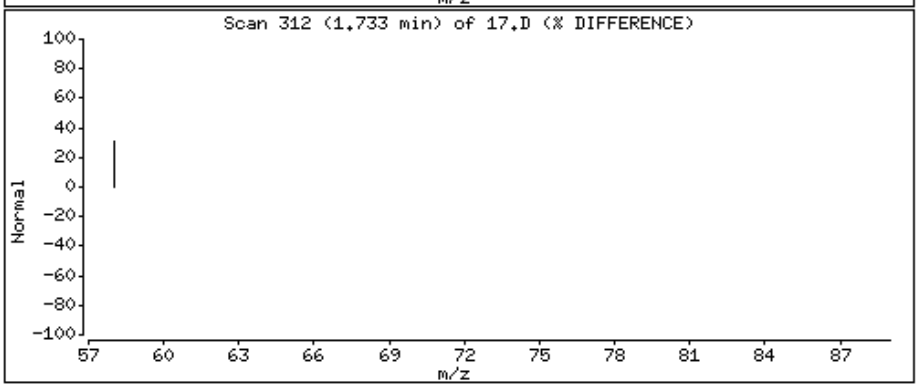












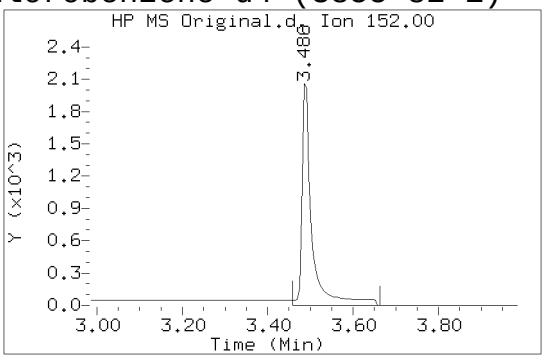
Data File : \\NAHSTWS005\Target\chem\SV6.i\230130.b\17.D
Inj Date : 30-JAN-2023 16:44
InstruID : SV6.i
LabSampID : HS23010632-02

1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

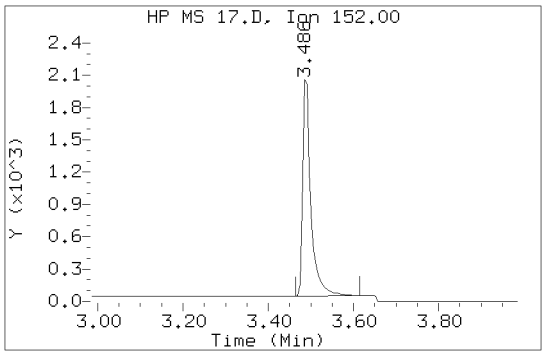
BEFORE

MASS
152
AREA
3236
HEIGHT
2058
30-Jan-2023
17:00
ALSHS
Server



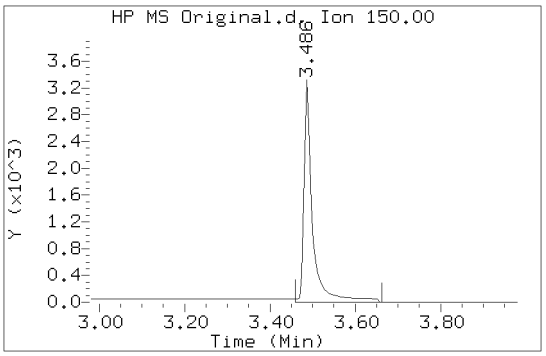
AFTER

MASS
152
AREA
2638
HEIGHT
2010
30-Jan-2023
17:32



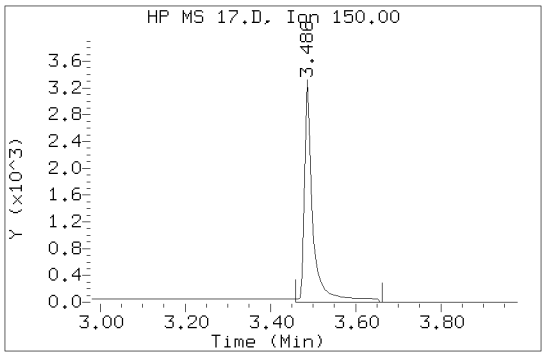
BEFORE

MASS
150
AREA
4585
HEIGHT
3320
30-Jan-2023
17:00
ALSHS
Server



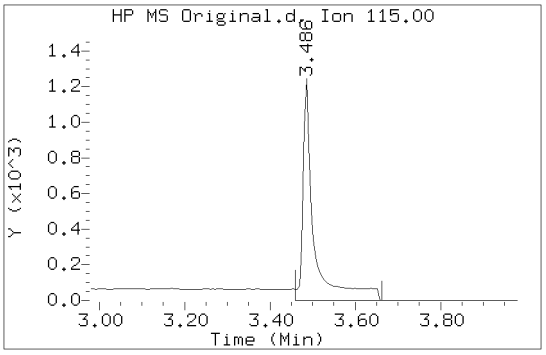
AFTER

MASS
150
AREA
4585
HEIGHT
3320
30-Jan-2023
17:32



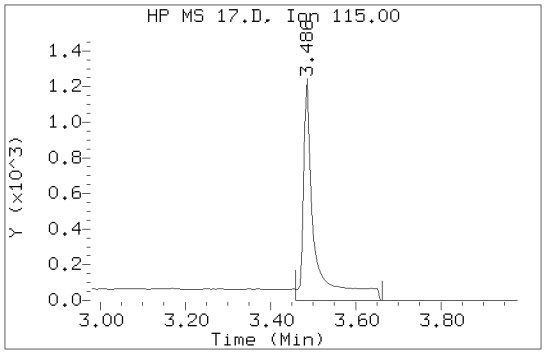
BEFORE

MASS
115
AREA
2224
HEIGHT
1244
30-Jan-2023
17:00
ALSHS
Server



AFTER

MASS
115
AREA
2224
HEIGHT
1244
30-Jan-2023
17:32

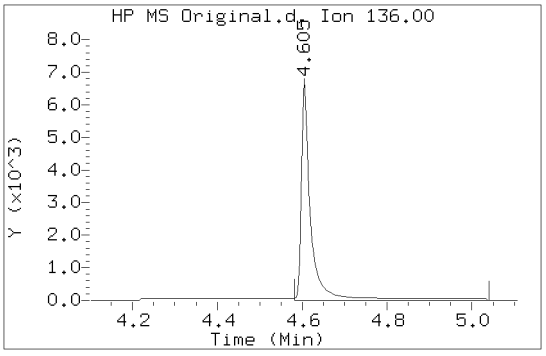


Naphthalene-d8 (1146-65-2)

Reason Code:

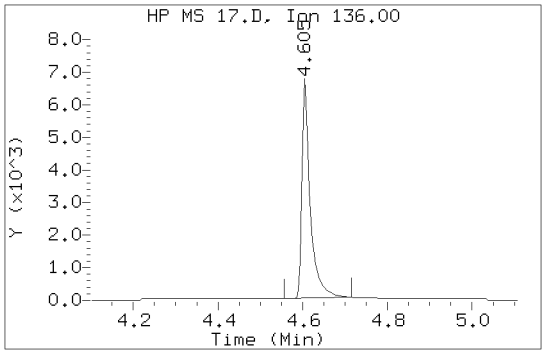
BEFORE

MASS
136
AREA
11023
HEIGHT
6803
30-Jan-2023
17:00
ALSHS
Server



AFTER

MASS
136
AREA
9222
HEIGHT
6737
30-Jan-2023
17:32

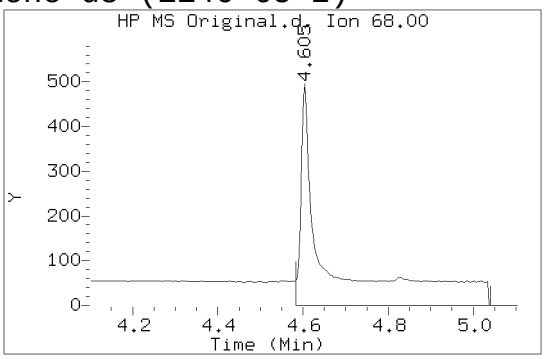


Data File : \\NAHSTWS005\Target\chem\SV6.i\230130.b\17.D
Inj Date : 30-JAN-2023 16:44
InstruID : SV6.i
LabSampID : HS23010632-02

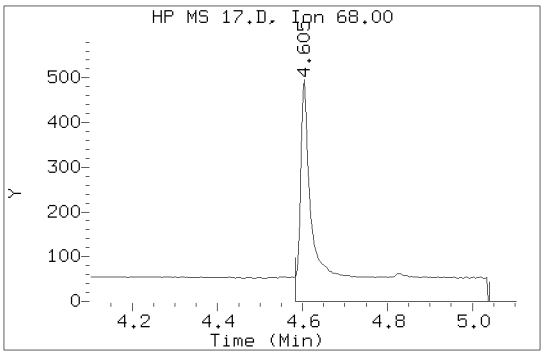
Naphthalene-d8 (1146-65-2)

Reason Code:

BEFORE
MASS
68
AREA
2102
HEIGHT
496
30-Jan-2023
17:00
ALSHS
Server



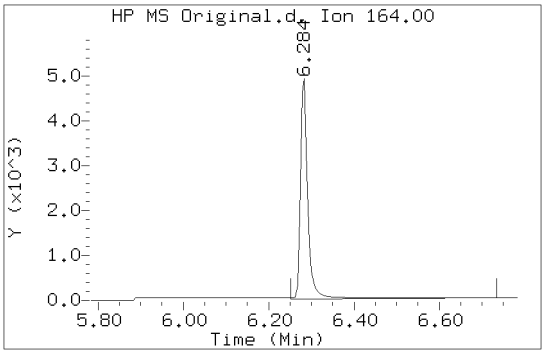
AFTER
MASS
68
AREA
2102
HEIGHT
496
30-Jan-2023
17:32



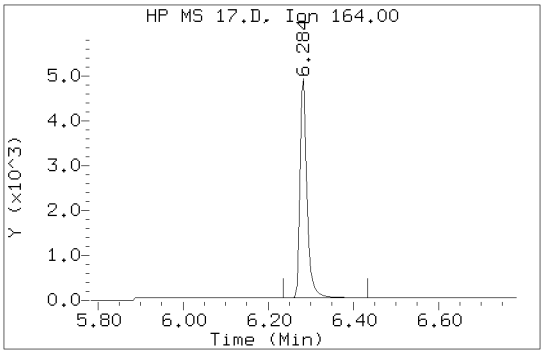
Acenaphthene-d10 (15067-26-2)

Reason Code:

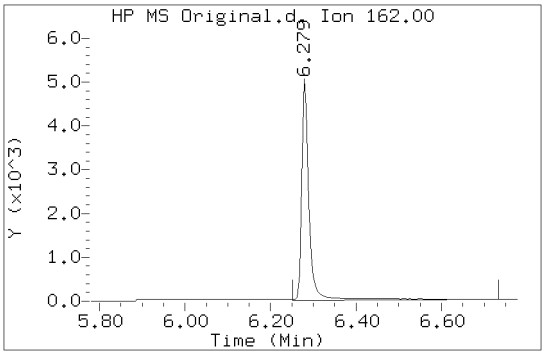
BEFORE
MASS
164
AREA
6058
HEIGHT
4910
30-Jan-2023
17:00
ALSHS
Server



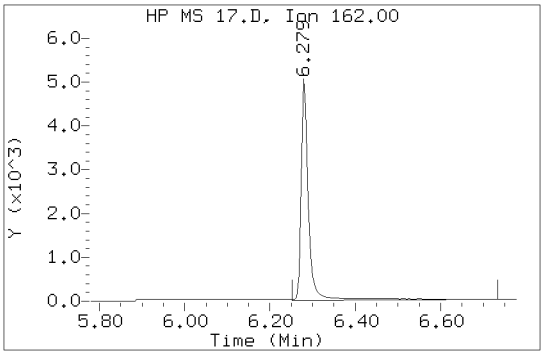
AFTER
MASS
164
AREA
5546
HEIGHT
4881
30-Jan-2023
17:32



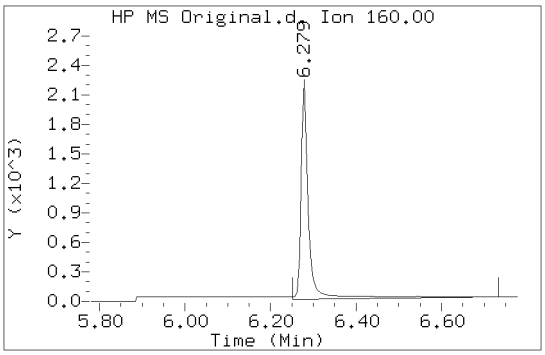
BEFORE
MASS
162
AREA
6048
HEIGHT
5049
30-Jan-2023
17:00
ALSHS
Server



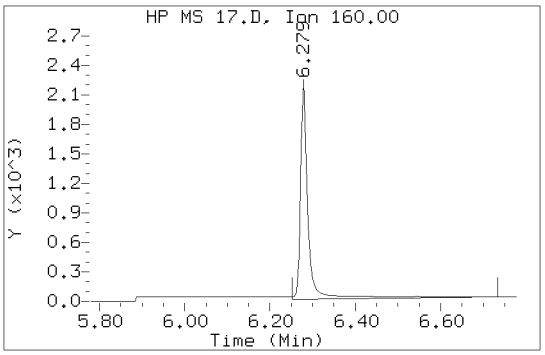
AFTER
MASS
162
AREA
6048
HEIGHT
5049
30-Jan-2023
17:32



BEFORE
MASS
160
AREA
2794
HEIGHT
2232
30-Jan-2023
17:00
ALSHS
Server



AFTER
MASS
160
AREA
2794
HEIGHT
2232
30-Jan-2023
17:32

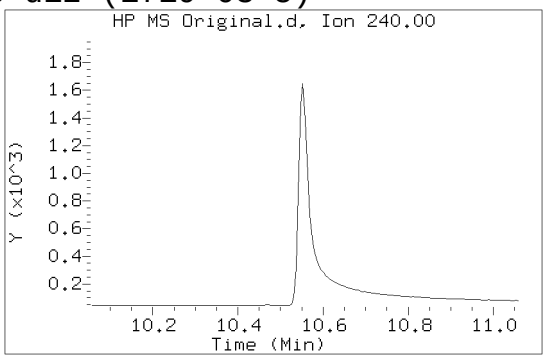


Data File : \\NAHSTWS005\Target\chem\SV6.i\230130.b\17.D
Inj Date : 30-JAN-2023 16:44
InstruID : SV6.i
LabSampID : HS23010632-02

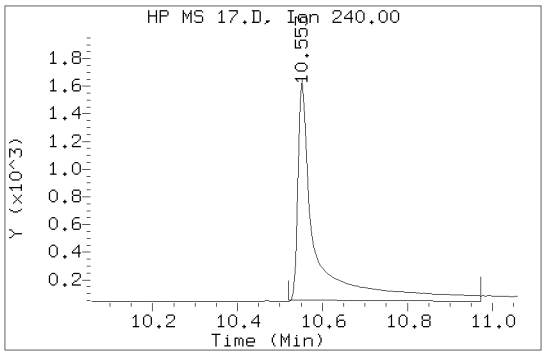
Chrysene-d12 (1719-03-5)

Reason Code:

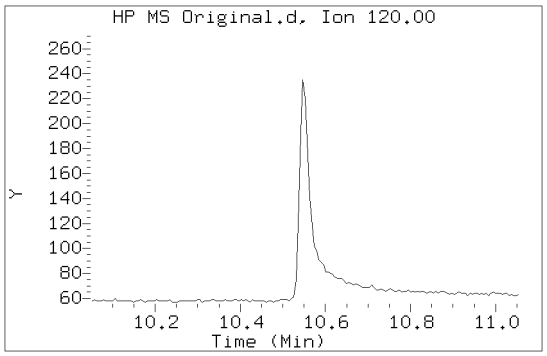
BEFORE
MASS
240
AREA
0
HEIGHT
0
30-Jan-2023
17:00
ALSHS
Server



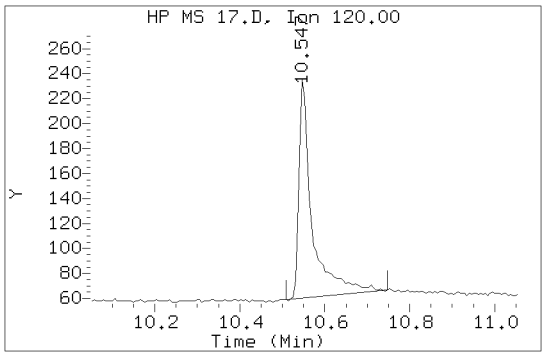
AFTER
MASS
240
AREA
4668
HEIGHT
1594
30-Jan-2023
17:32



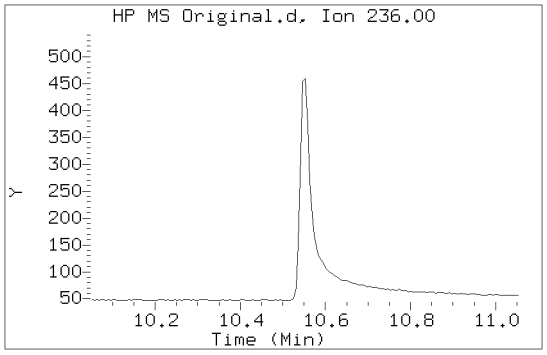
BEFORE
MASS
120
AREA
0
HEIGHT
0
30-Jan-2023
17:00
ALSHS
Server



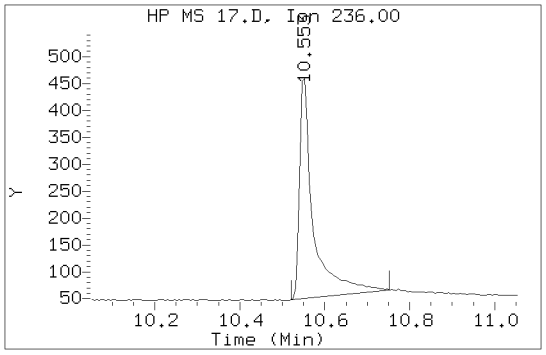
AFTER
MASS
120
AREA
376
HEIGHT
174
30-Jan-2023
17:32



BEFORE
MASS
236
AREA
0
HEIGHT
0
30-Jan-2023
17:00
ALSHS
Server



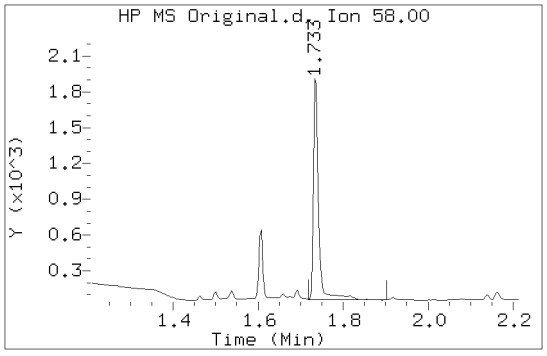
AFTER
MASS
236
AREA
928
HEIGHT
408
30-Jan-2023
17:32



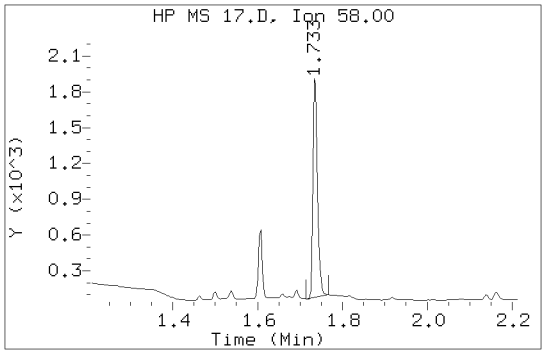
1,4-Dioxane ()

Reason Code:

BEFORE
MASS
58
AREA
1514
HEIGHT
1850
30-Jan-2023
17:00
ALSHS
Server



AFTER
MASS
58
AREA
1337
HEIGHT
1831
30-Jan-2023
17:32



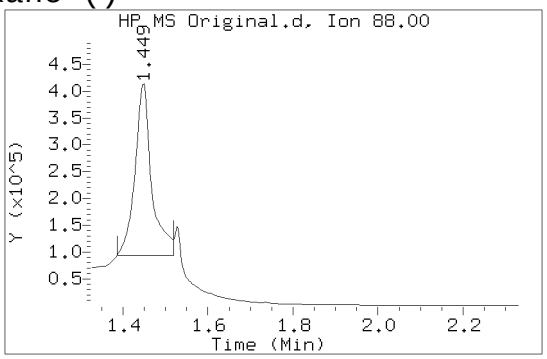
Data File : \\NAHSTWS005\Target\chem\SV6.i\230130.b\17.D
Inj Date : 30-JAN-2023 16:44
InstruID : SV6.i
LabSampID : HS23010632-02

1,4-Dioxane ()

Reason Code:

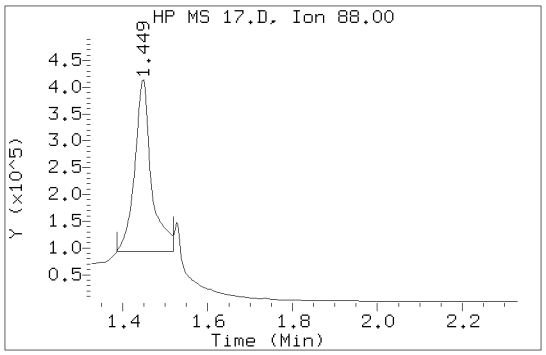
BEFORE

MASS
88
AREA
873258
HEIGHT
320008
30-Jan-2023
17:00
ALSHS
Server



AFTER

MASS
88
AREA
873258
HEIGHT
320008
30-Jan-2023
17:32

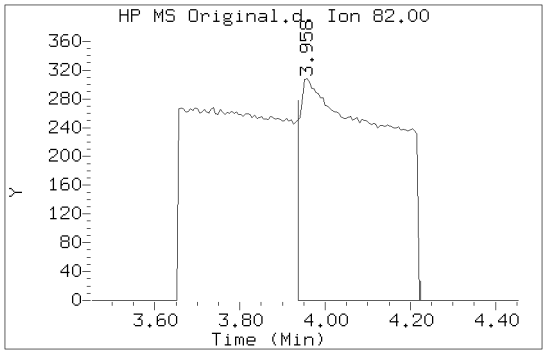


Nitrobenzene-d5 (4165-60-0)

Reason Code:

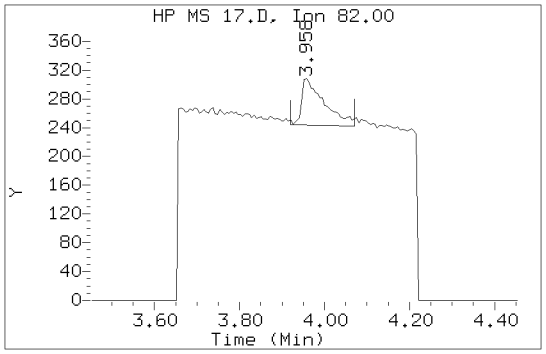
BEFORE

MASS
82
AREA
4353
HEIGHT
308
30-Jan-2023
17:00
ALSHS
Server



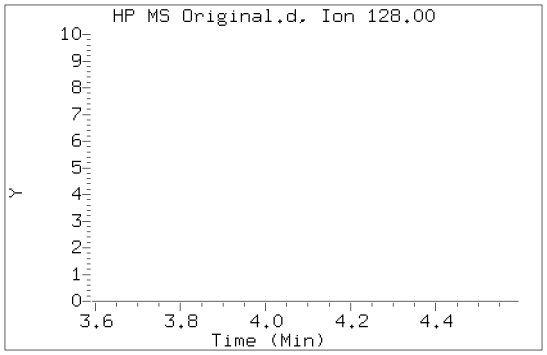
AFTER

MASS
82
AREA
244
HEIGHT
64
30-Jan-2023
17:32



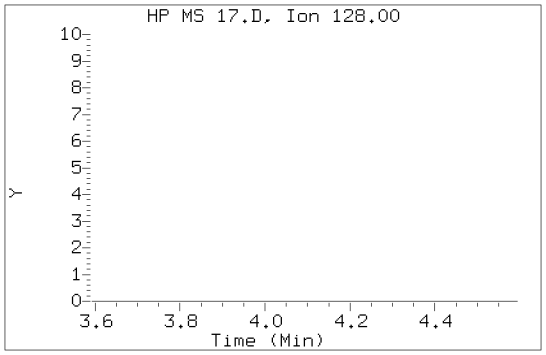
BEFORE

MASS
128
AREA
0
HEIGHT
0
30-Jan-2023
17:00
ALSHS
Server



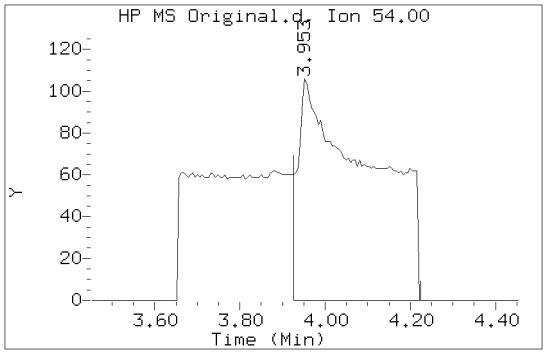
AFTER

MASS
128
AREA
0
HEIGHT
0
30-Jan-2023
17:32



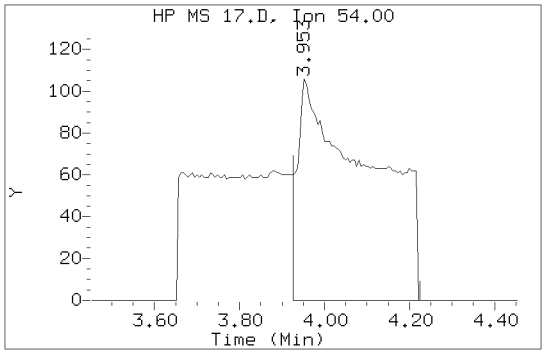
BEFORE

MASS
54
AREA
1239
HEIGHT
106
30-Jan-2023
17:00
ALSHS
Server



AFTER

MASS
54
AREA
1239
HEIGHT
106
30-Jan-2023
17:32

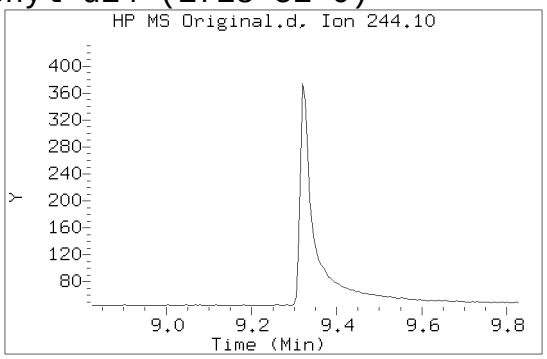


Data File : \\NAHSTWS005\Target\chem\SV6.i\230130.b\17.D
Inj Date : 30-JAN-2023 16:44
InstruID : SV6.i
LabSampID : HS23010632-02

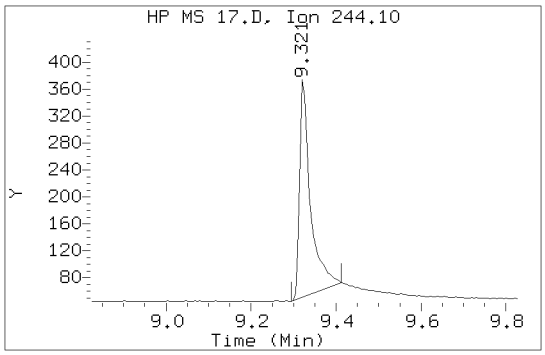
4-Terphenyl-d14 (1718-51-0)

Reason Code:

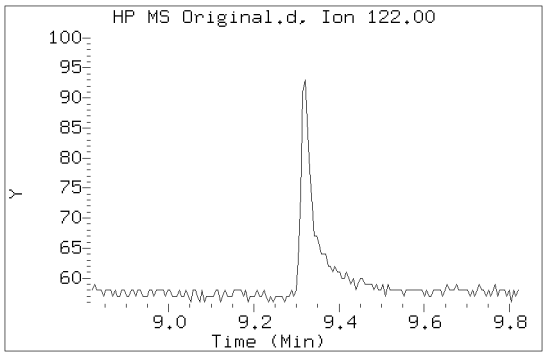
BEFORE
MASS
244.1
AREA
0
HEIGHT
0
30-Jan-2023
17:00
ALSHS
Server



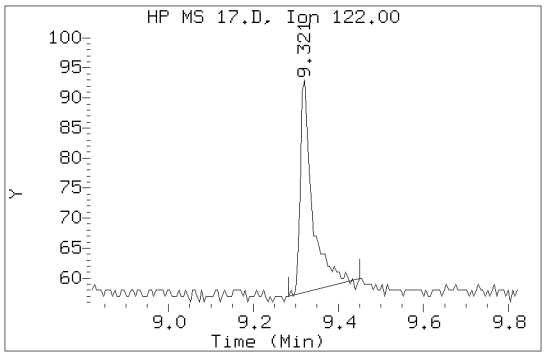
AFTER
MASS
244.1
AREA
568
HEIGHT
322
30-Jan-2023
17:32



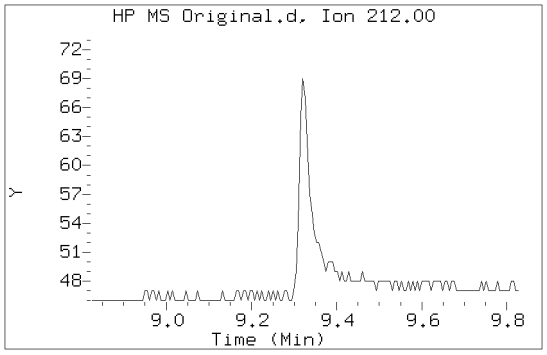
BEFORE
MASS
122
AREA
0
HEIGHT
0
30-Jan-2023
17:00
ALSHS
Server



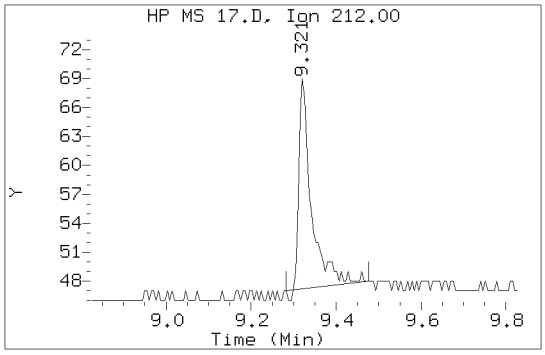
AFTER
MASS
122
AREA
68
HEIGHT
35
30-Jan-2023
17:32



BEFORE
MASS
212
AREA
0
HEIGHT
0
30-Jan-2023
17:00
ALSHS
Server



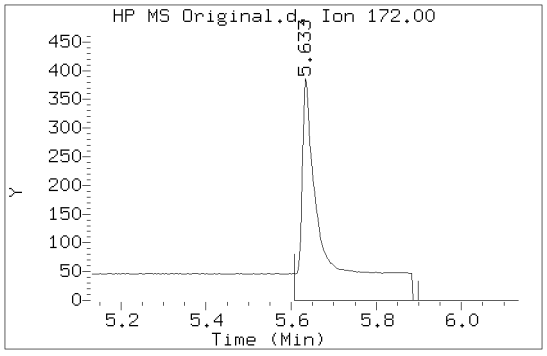
AFTER
MASS
212
AREA
43
HEIGHT
21
30-Jan-2023
17:32



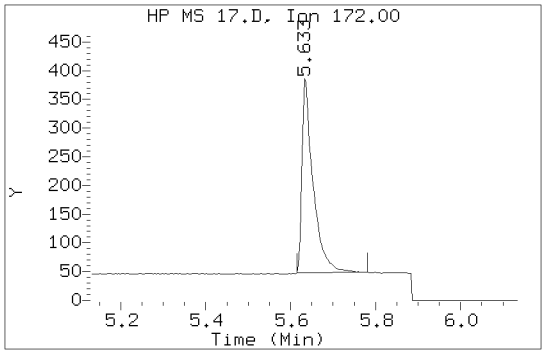
2-Fluorobiphenyl (321-60-8)

Reason Code:

BEFORE
MASS
172
AREA
1443
HEIGHT
386
30-Jan-2023
17:00
ALSHS
Server



AFTER
MASS
172
AREA
617
HEIGHT
337
30-Jan-2023
17:32



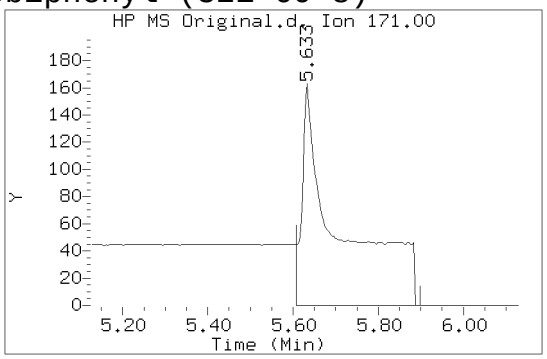
Data File : \\NAHSTWS005\Target\chem\SV6.i\230130.b\17.D
Inj Date : 30-JAN-2023 16:44
InstruID : SV6.i
LabSampID : HS23010632-02

2-Fluorobiphenyl (321-60-8)

Reason Code:

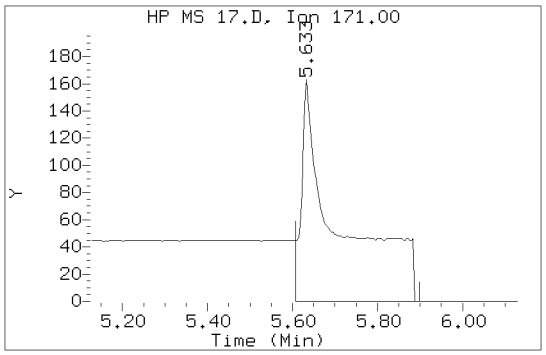
BEFORE

MASS
171
AREA
990
HEIGHT
163
30-Jan-2023
17:00
ALSHS
Server



AFTER

MASS
171
AREA
990
HEIGHT
163
30-Jan-2023
17:32



Data File: \\NAHSTWS005\Target\chem\SV6.i\230130.b\18.D Page 1
Report Date: 30-Jan-2023 17:34

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230130.b\18.D
Lab Smp Id: HS23010632-03
Inj Date : 30-JAN-2023 17:10
Operator : LG Inst ID: SV6.i
Smp Info : HS23010632-03X10
Misc Info : ;;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\SV6.i\230130.b\DXSIM.m
Meth Date : 30-Jan-2023 12:38 marco.guti Quant Type: ISTD
Cal Date : 26-JAN-2023 19:09 Cal File: 25.D
Als bottle: 17
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7095

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	10.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)
* 20 1,4-Dichlorobenzene-d4	152	3.485	3.485	(1.000)	1579	0.10000	(aM)
* 45 Naphthalene-d8	136	4.604	4.604	(1.000)	5963	0.10000	(M)
$ 33 Nitrobenzene-d5	82	3.952	3.952	(0.858)	118	0.00686	0.06858(M)
* 86 Acenaphthene-d10	164	6.284	6.284	(1.000)	3330	0.10000	(M)
$ 69 2-Fluorobiphenyl	172	5.636	5.633	(0.897)	427	0.00977	0.09770(M)
* 126 Phenanthrene-d10	188	7.739	7.734	(1.000)	6563	0.10000	
* 182 Chrysene-d12	240	10.558	10.558	(1.000)	2700	0.10000	(M)
$ 158 4-Terphenyl-d14	244	9.326	9.326	(0.000)	244	0.01993	0.1993(RM)
* 198 Perylene-d12	264	12.615	12.615	(1.000)	2267	0.10000	(M)
1 1,4-Dioxane	58	1.714	1.710	(0.492)	701	0.12170	1.217(M)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

01181939

Data File: \\NAHSTWS005\Target\chem\SV6.i\230130.b\18.D

Date : 30-JAN-2023 17:10

Client ID:

Instrument: SV6.i

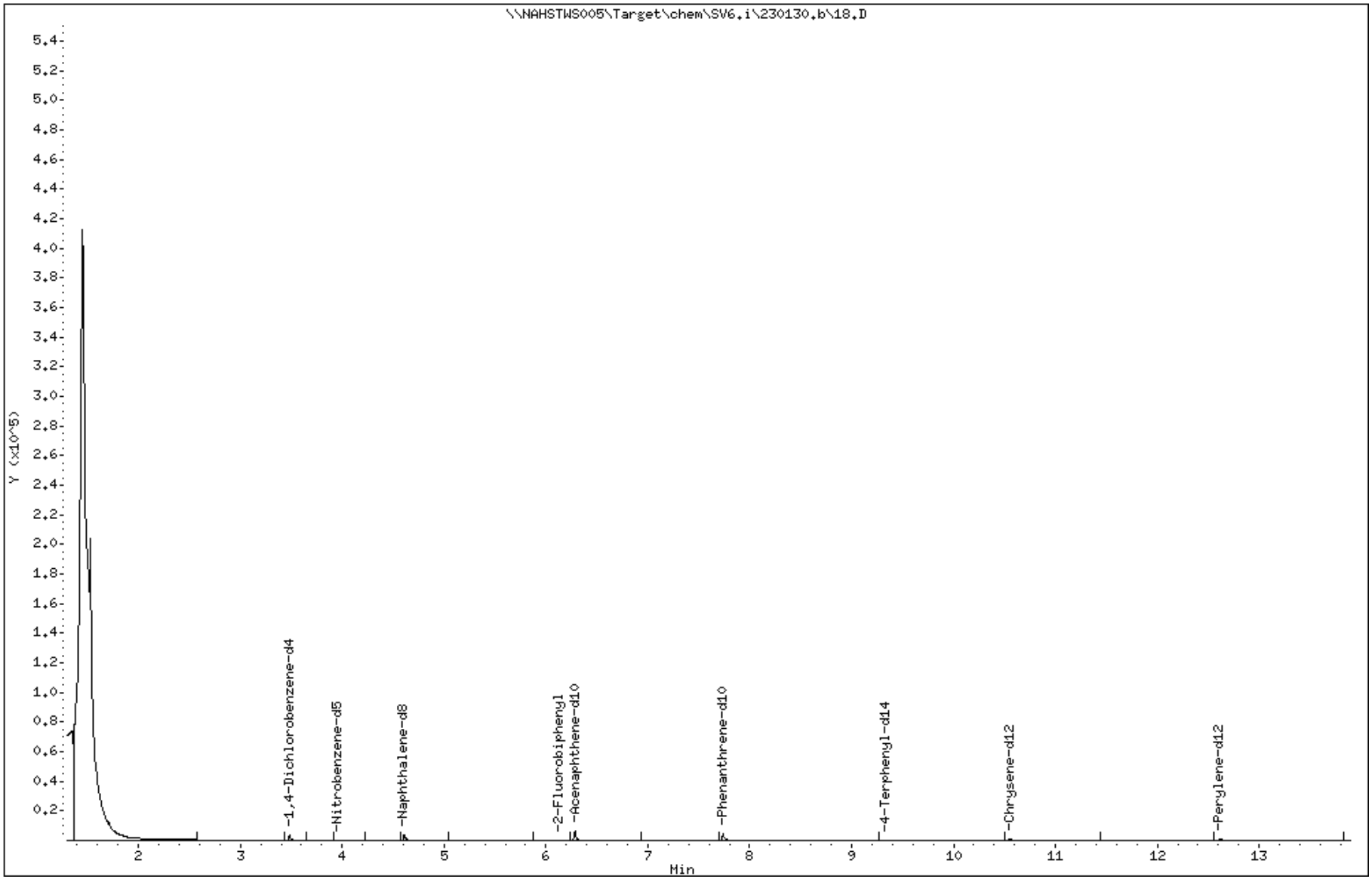
Sample Info: HS23010632-03X10

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28



Data File: \\NAHSTWS005\Target\chem\SV6.i\230130.b\18.D

Date : 30-JAN-2023 17:10

Client ID:

Instrument: SV6.i

Sample Info: HS23010632-03X10

Purge Volume: 1000.0

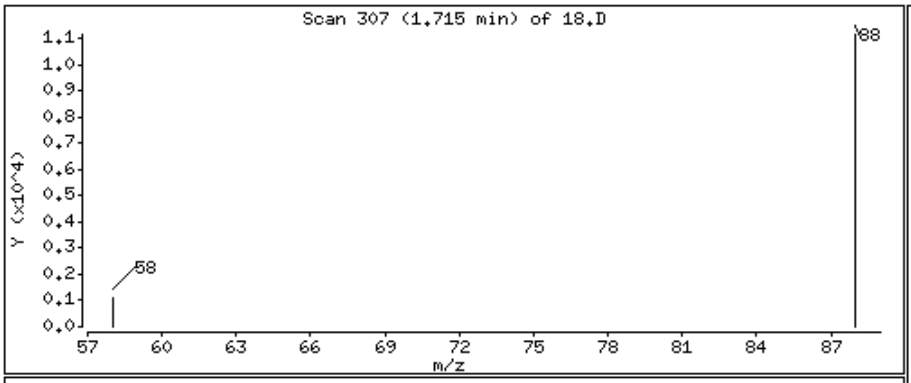
Operator: LG

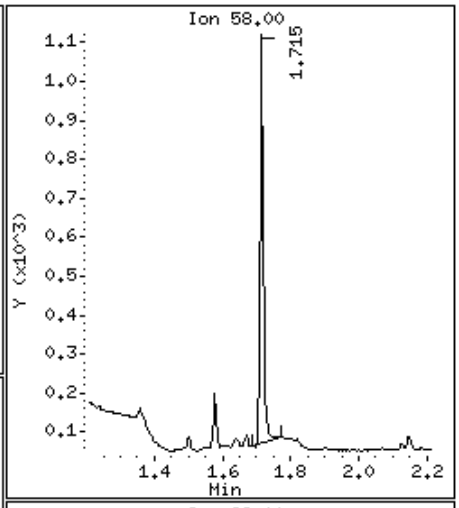
Column phase: RTX-5SIL MS

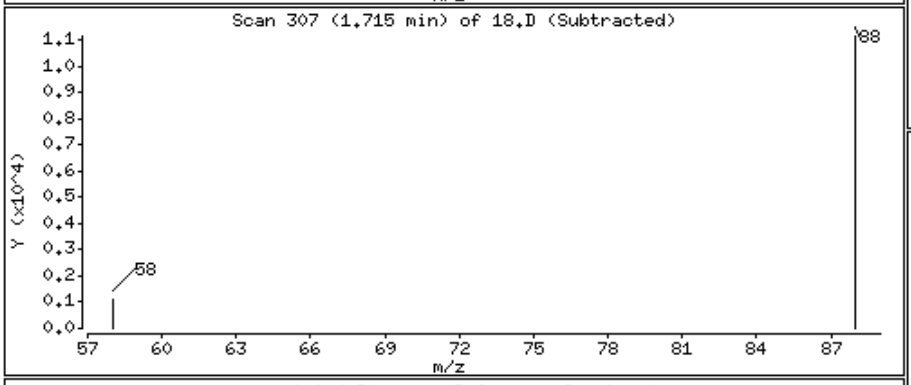
Column diameter: 0.28

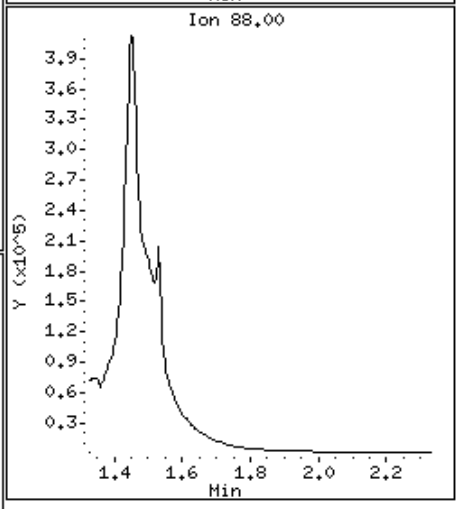
1 1,4-Dioxane

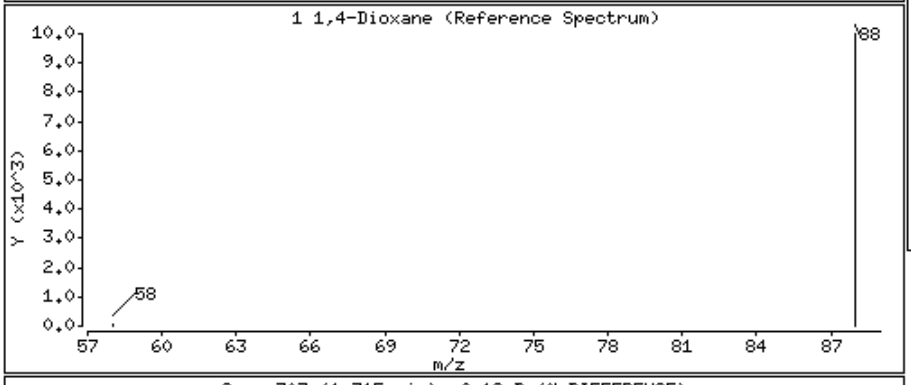
Concentration: 1.217 ug/L

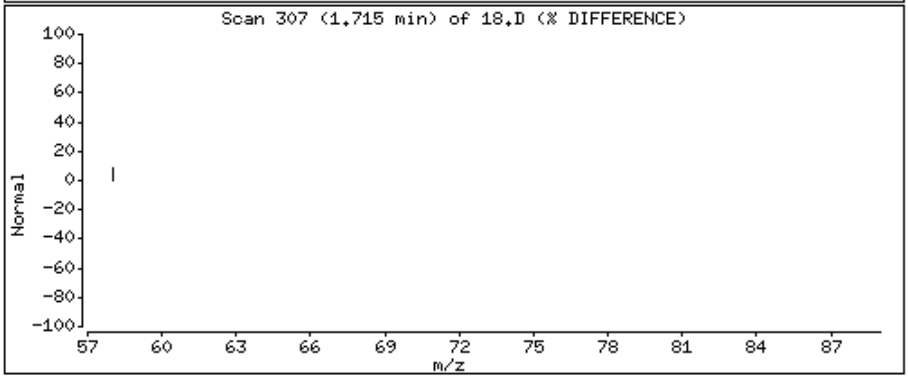












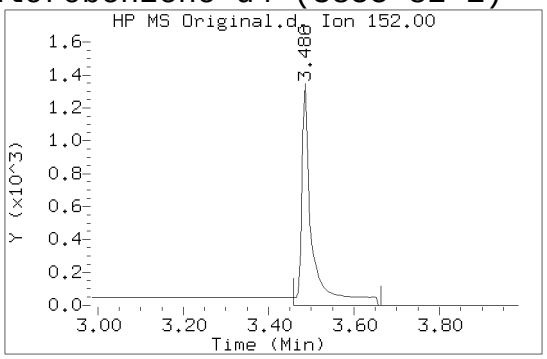
Data File : \\NAHSTWS005\Target\chem\SV6.i\230130.b\18.D
Inj Date : 30-JAN-2023 17:10
InstruID : SV6.i
LabSampID : HS23010632-03

1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

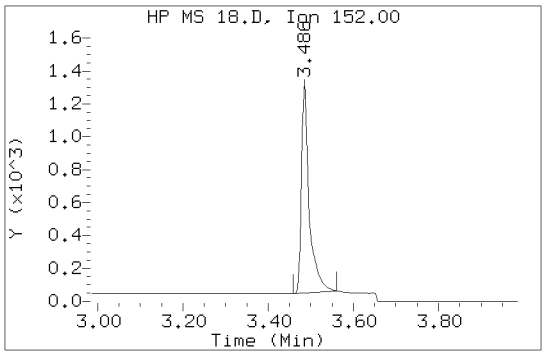
BEFORE

MASS
152
AREA
2217
HEIGHT
1347
30-Jan-2023
17:24
ALSHS
Server



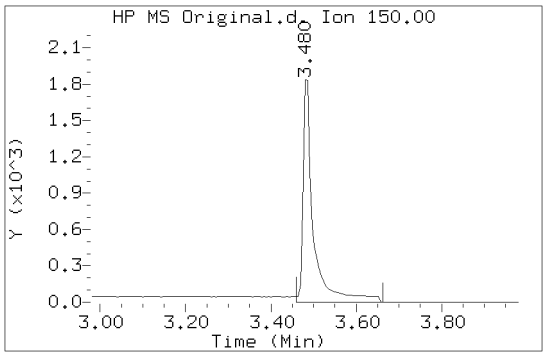
AFTER

MASS
152
AREA
1579
HEIGHT
1296
30-Jan-2023
17:33



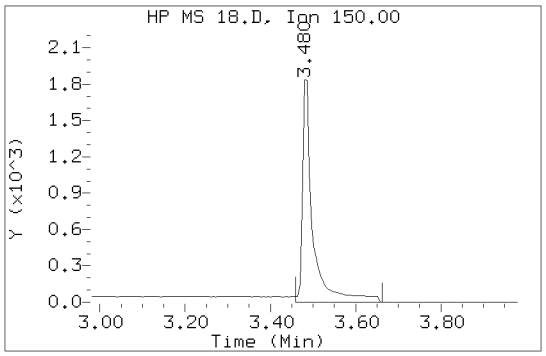
BEFORE

MASS
150
AREA
3056
HEIGHT
1835
30-Jan-2023
17:24
ALSHS
Server



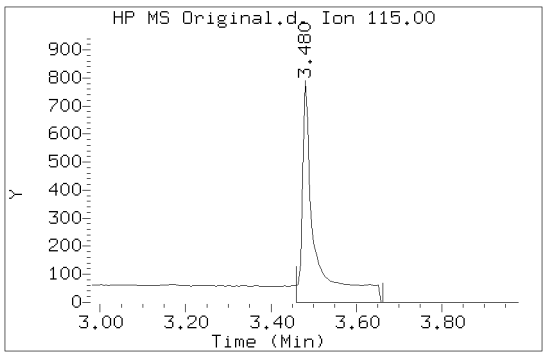
AFTER

MASS
150
AREA
3056
HEIGHT
1835
30-Jan-2023
17:33



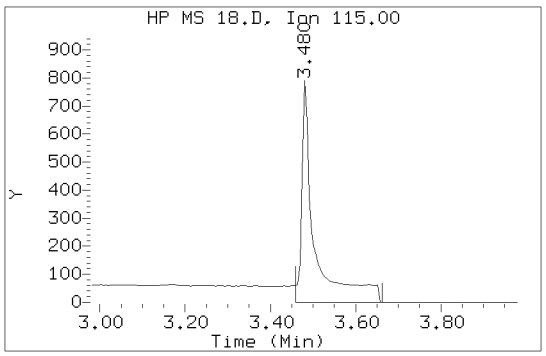
BEFORE

MASS
115
AREA
1633
HEIGHT
790
30-Jan-2023
17:24
ALSHS
Server



AFTER

MASS
115
AREA
1633
HEIGHT
790
30-Jan-2023
17:33

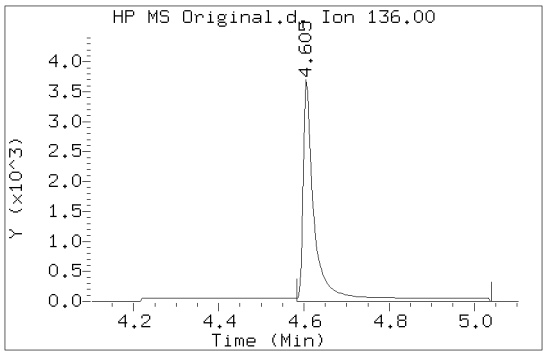


Naphthalene-d8 (1146-65-2)

Reason Code:

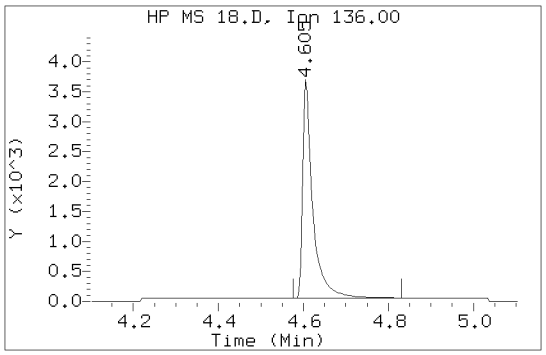
BEFORE

MASS
136
AREA
7431
HEIGHT
3701
30-Jan-2023
17:24
ALSHS
Server



AFTER

MASS
136
AREA
5963
HEIGHT
3649
30-Jan-2023
17:33

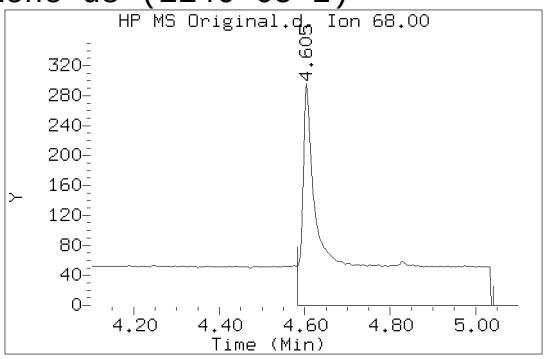


Data File : \\NAHSTWS005\Target\chem\SV6.i\230130.b\18.D
Inj Date : 30-JAN-2023 17:10
InstruID : SV6.i
LabSampID : HS23010632-03

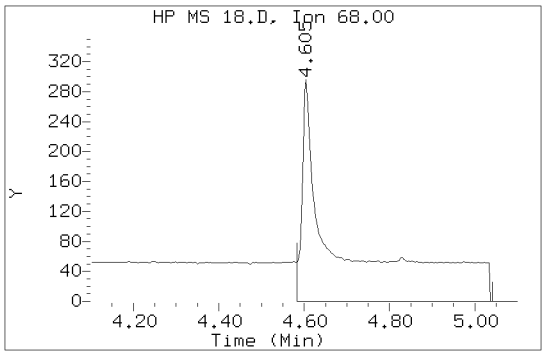
Naphthalene-d8 (1146-65-2)

Reason Code:

BEFORE
MASS
68
AREA
1820
HEIGHT
296
30-Jan-2023
17:24
ALSHS
Server



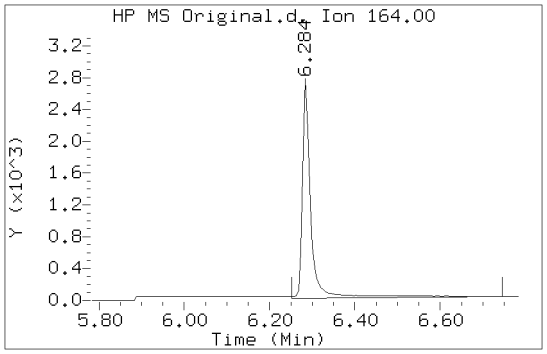
AFTER
MASS
68
AREA
1820
HEIGHT
296
30-Jan-2023
17:33



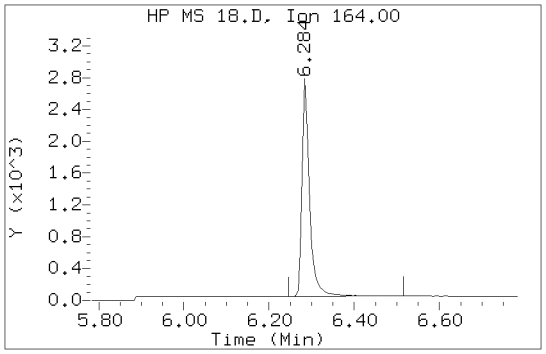
Acenaphthene-d10 (15067-26-2)

Reason Code:

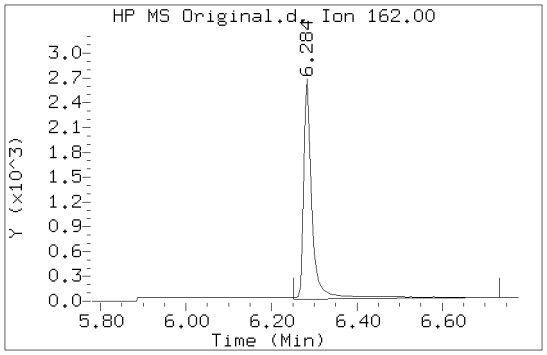
BEFORE
MASS
164
AREA
3822
HEIGHT
2764
30-Jan-2023
17:24
ALSHS
Server



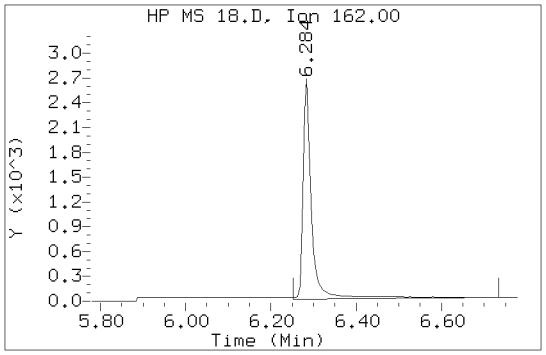
AFTER
MASS
164
AREA
3330
HEIGHT
2735
30-Jan-2023
17:33



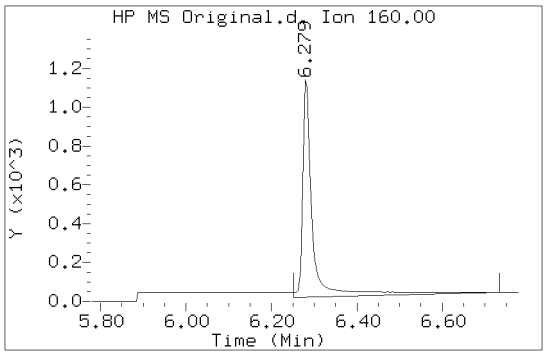
BEFORE
MASS
162
AREA
3751
HEIGHT
2666
30-Jan-2023
17:24
ALSHS
Server



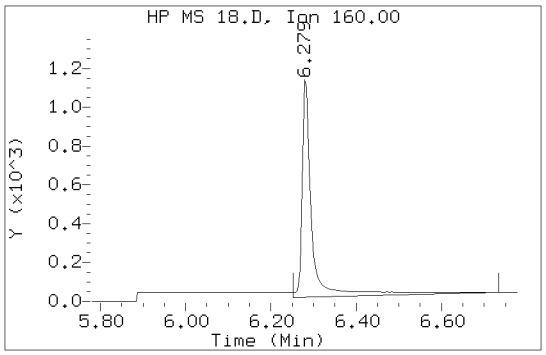
AFTER
MASS
162
AREA
3751
HEIGHT
2666
30-Jan-2023
17:33



BEFORE
MASS
160
AREA
1832
HEIGHT
1120
30-Jan-2023
17:24
ALSHS
Server



AFTER
MASS
160
AREA
1832
HEIGHT
1120
30-Jan-2023
17:33



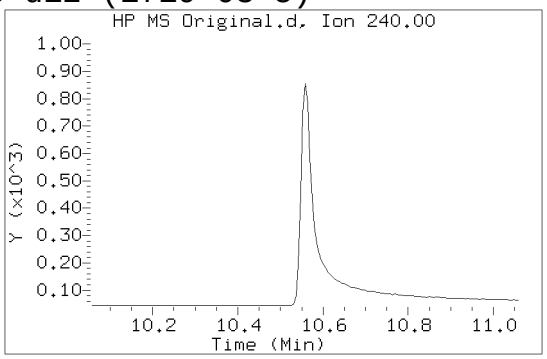
Data File : \\NAHSTWS005\Target\chem\SV6.i\230130.b\18.D
Inj Date : 30-JAN-2023 17:10
InstruID : SV6.i
LabSampID : HS23010632-03

Chrysene-d12 (1719-03-5)

Reason Code:

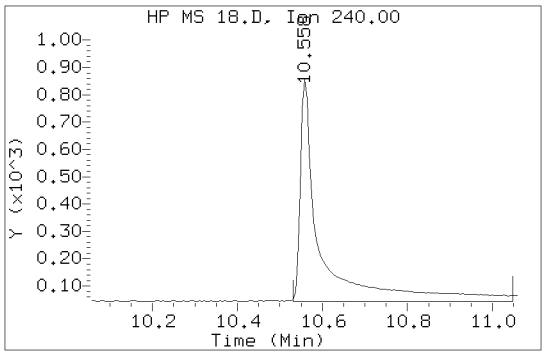
BEFORE

MASS
240
AREA
0
HEIGHT
0
30-Jan-2023
17:24
ALSHS
Server



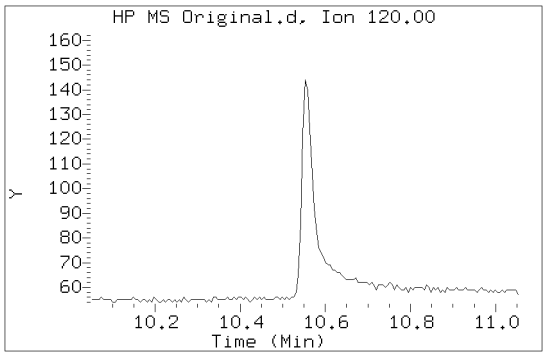
AFTER

MASS
240
AREA
2700
HEIGHT
811
30-Jan-2023
17:33



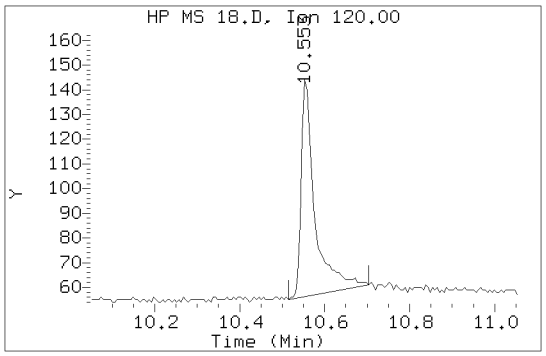
BEFORE

MASS
120
AREA
0
HEIGHT
0
30-Jan-2023
17:24
ALSHS
Server



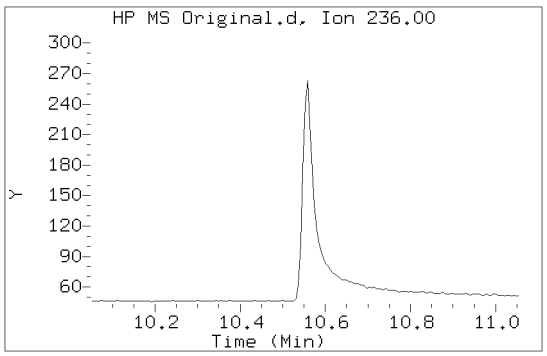
AFTER

MASS
120
AREA
196
HEIGHT
87
30-Jan-2023
17:33



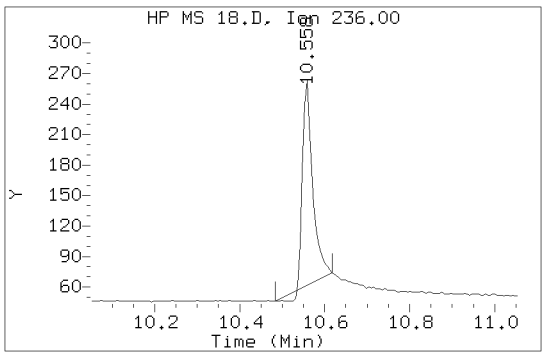
BEFORE

MASS
236
AREA
0
HEIGHT
0
30-Jan-2023
17:24
ALSHS
Server



AFTER

MASS
236
AREA
323
HEIGHT
201
30-Jan-2023
17:33

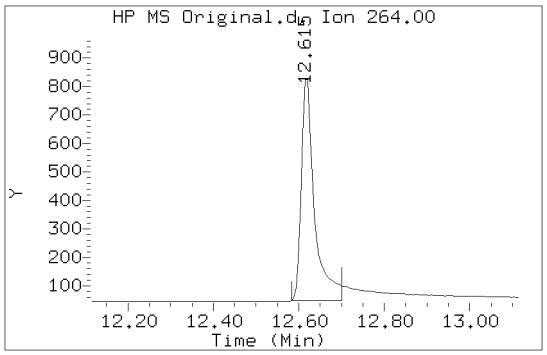


Perylene-d12 (1520-96-3)

Reason Code:

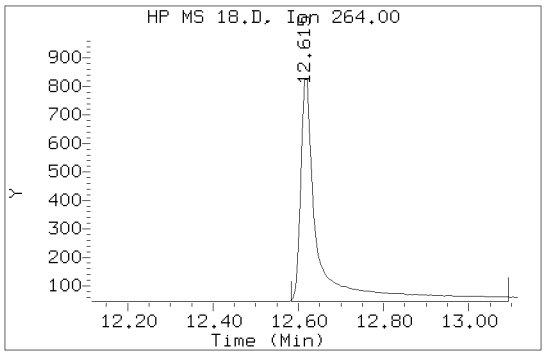
BEFORE

MASS
264
AREA
1669
HEIGHT
776
30-Jan-2023
17:24
ALSHS
Server



AFTER

MASS
264
AREA
2267
HEIGHT
778
30-Jan-2023
17:33



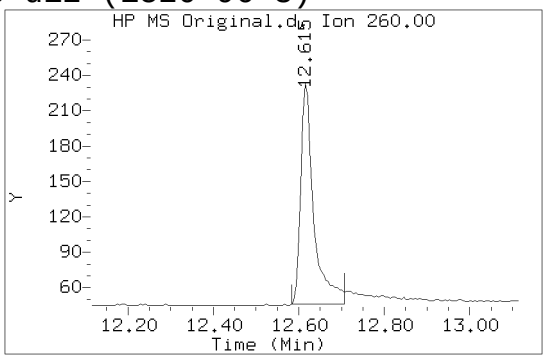
Data File : \\NAHSTWS005\Target\chem\SV6.i\230130.b\18.D
Inj Date : 30-JAN-2023 17:10
InstruID : SV6.i
LabSampID : HS23010632-03

Perylene-d12 (1520-96-3)

Reason Code:

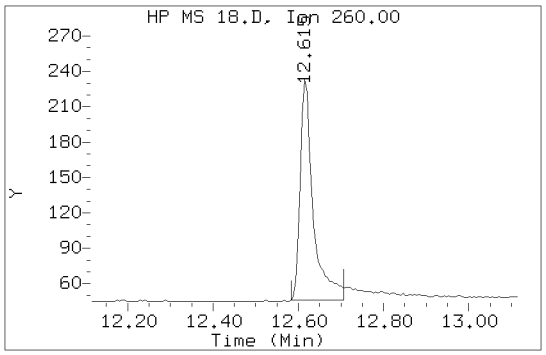
BEFORE

MASS
260
AREA
396
HEIGHT
187
30-Jan-2023
17:24
ALSHS
Server



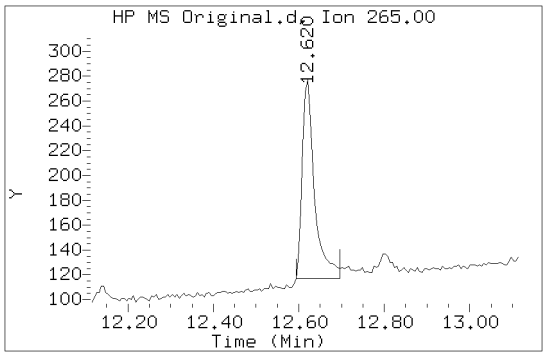
AFTER

MASS
260
AREA
396
HEIGHT
187
30-Jan-2023
17:33



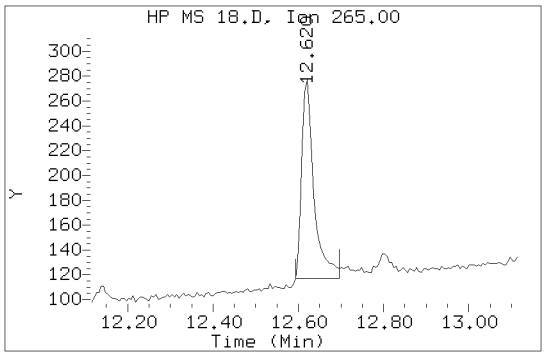
BEFORE

MASS
265
AREA
320
HEIGHT
160
30-Jan-2023
17:24
ALSHS
Server



AFTER

MASS
265
AREA
320
HEIGHT
160
30-Jan-2023
17:33

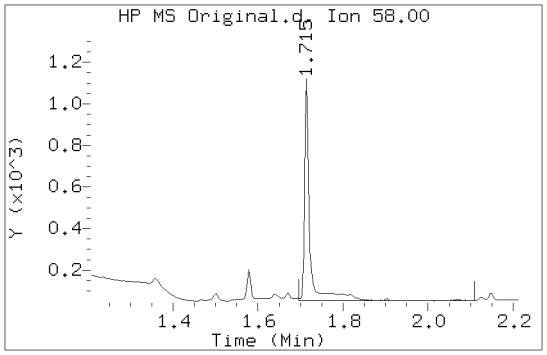


1,4-Dioxane ()

Reason Code:

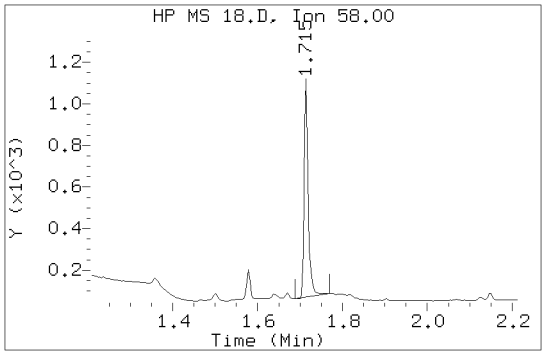
BEFORE

MASS
58
AREA
904
HEIGHT
1065
30-Jan-2023
17:24
ALSHS
Server



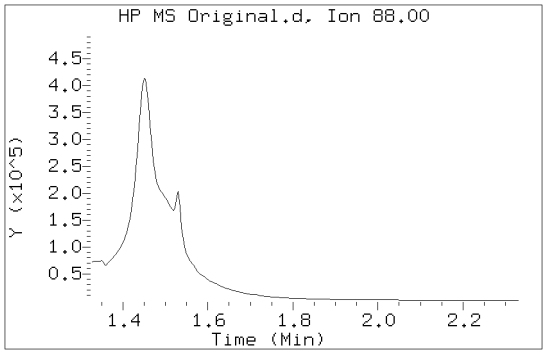
AFTER

MASS
58
AREA
701
HEIGHT
1048
30-Jan-2023
17:33



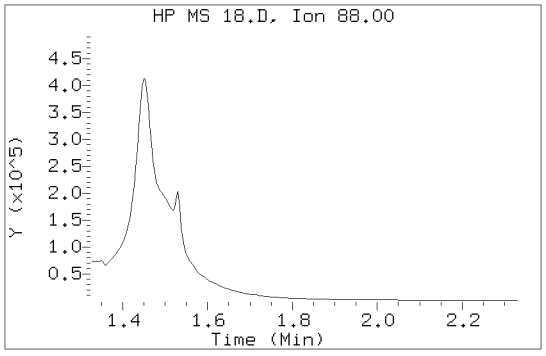
BEFORE

MASS
88
AREA
0
HEIGHT
0
30-Jan-2023
17:24
ALSHS
Server



AFTER

MASS
88
AREA
0
HEIGHT
0
30-Jan-2023
17:33



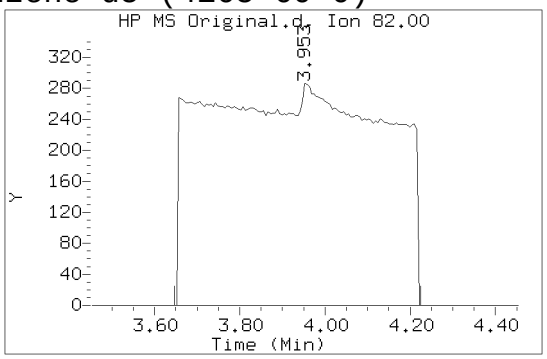
Data File : \\NAHSTWS005\Target\chem\SV6.i\230130.b\18.D
Inj Date : 30-JAN-2023 17:10
InstruID : SV6.i
LabSampID : HS23010632-03

Nitrobenzene-d5 (4165-60-0)

Reason Code:

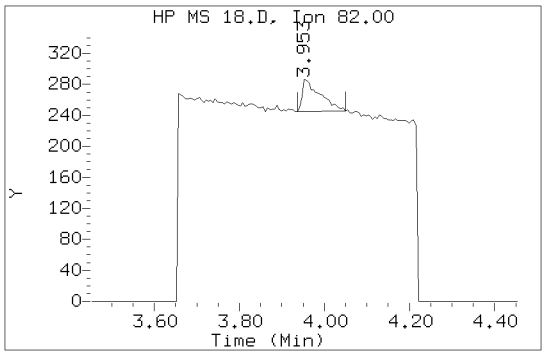
BEFORE

MASS
82
AREA
8460
HEIGHT
286
30-Jan-2023
17:24
ALSHS
Server



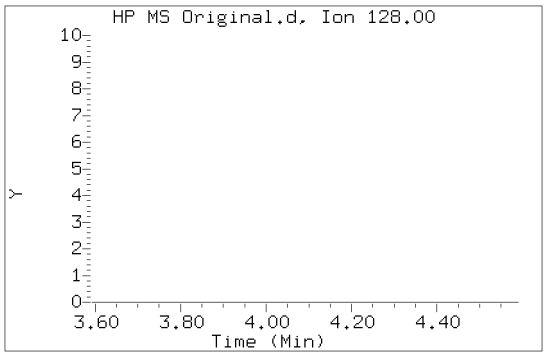
AFTER

MASS
82
AREA
118
HEIGHT
40
30-Jan-2023
17:33



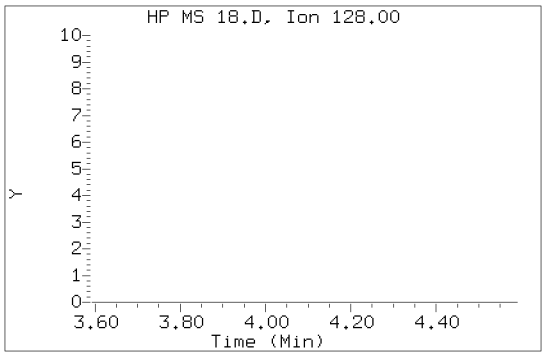
BEFORE

MASS
128
AREA
0
HEIGHT
0
30-Jan-2023
17:24
ALSHS
Server



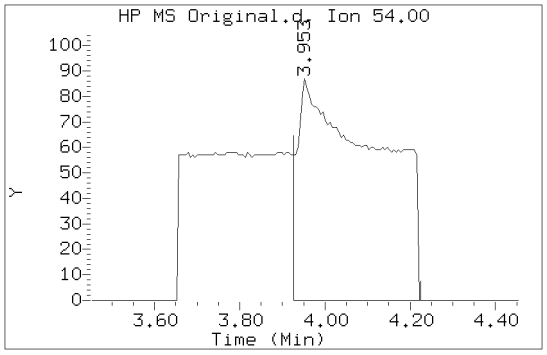
AFTER

MASS
128
AREA
0
HEIGHT
0
30-Jan-2023
17:33



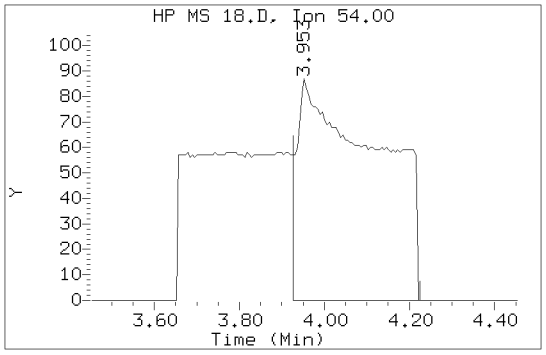
BEFORE

MASS
54
AREA
1135
HEIGHT
87
30-Jan-2023
17:24
ALSHS
Server



AFTER

MASS
54
AREA
1135
HEIGHT
87
30-Jan-2023
17:33

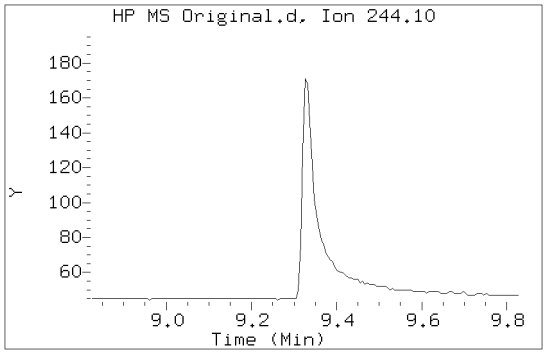


4-Terphenyl-d14 (1718-51-0)

Reason Code:

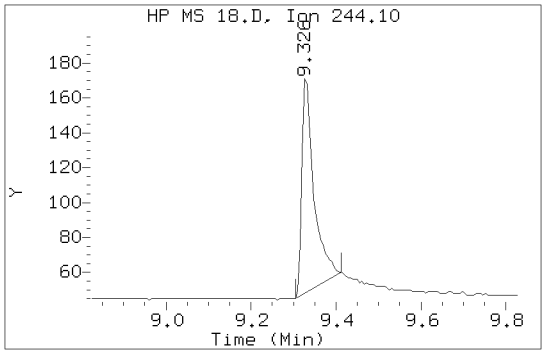
BEFORE

MASS
244.1
AREA
0
HEIGHT
0
30-Jan-2023
17:24
ALSHS
Server



AFTER

MASS
244.1
AREA
244
HEIGHT
123
30-Jan-2023
17:33

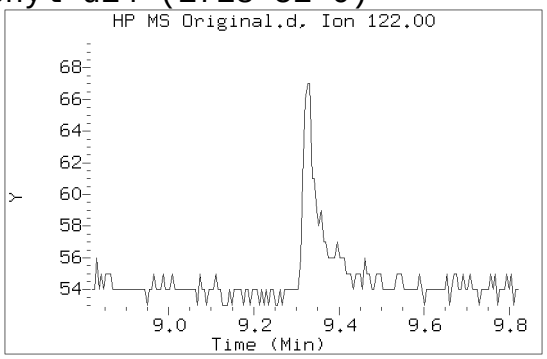


Data File : \\NAHSTWS005\Target\chem\SV6.i\230130.b\18.D
Inj Date : 30-JAN-2023 17:10
InstruID : SV6.i
LabSampID : HS23010632-03

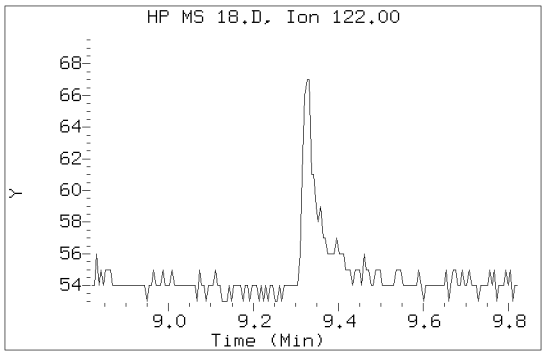
4-Terphenyl-d14 (1718-51-0)

Reason Code:

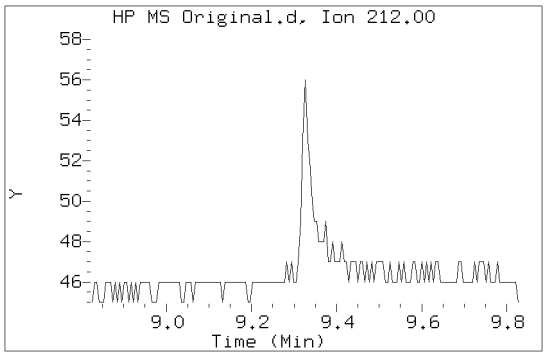
BEFORE
MASS
122
AREA
0
HEIGHT
0
30-Jan-2023
17:24
ALSHS
Server



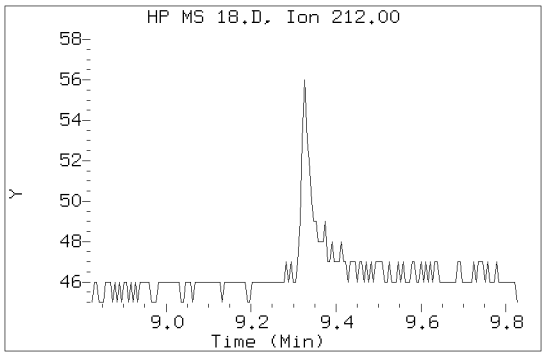
AFTER
MASS
122
AREA
0
HEIGHT
0
30-Jan-2023
17:33



BEFORE
MASS
212
AREA
0
HEIGHT
0
30-Jan-2023
17:24
ALSHS
Server



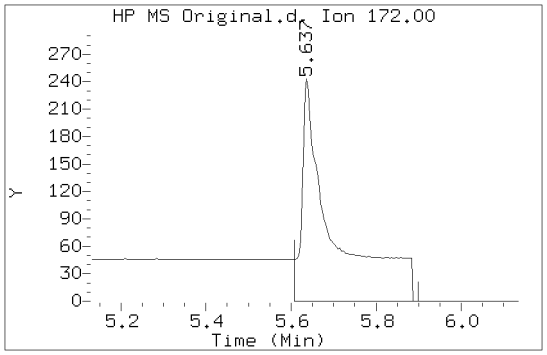
AFTER
MASS
212
AREA
0
HEIGHT
0
30-Jan-2023
17:33



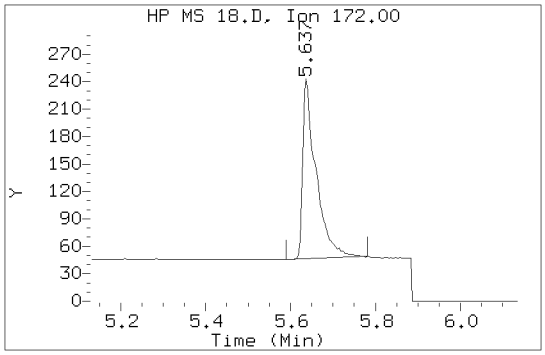
2-Fluorobiphenyl (321-60-8)

Reason Code:

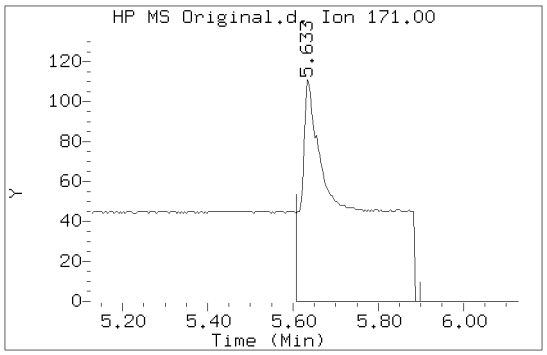
BEFORE
MASS
172
AREA
1241
HEIGHT
243
30-Jan-2023
17:24
ALSHS
Server



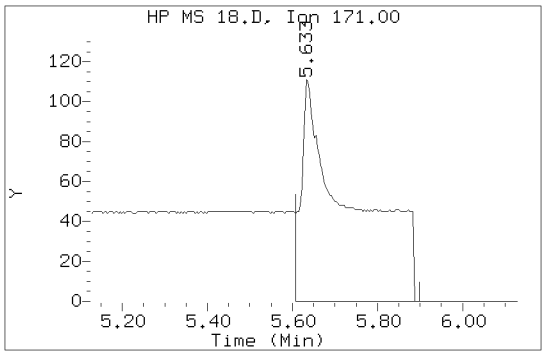
AFTER
MASS
172
AREA
427
HEIGHT
196
30-Jan-2023
17:33



BEFORE
MASS
171
AREA
918
HEIGHT
111
30-Jan-2023
17:24
ALSHS
Server



AFTER
MASS
171
AREA
918
HEIGHT
111
30-Jan-2023
17:33



ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230130.b\19.D
Lab Smp Id: 14DX-CCV_END Client Smp ID: 14DX-CCV_END
Inj Date : 30-JAN-2023 17:28
Operator : LG Inst ID: SV6.i
Smp Info : 14DX-0.08
Misc Info : ;;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\SV6.i\230130.b\DXSIM.m
Meth Date : 01-Feb-2023 15:44 Linh.Pham Quant Type: ISTD
Cal Date : 26-JAN-2023 19:09 Cal File: 25.D
Als bottle: 18 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)
* 20 1,4-Dichlorobenzene-d4	152	3.491	3.491	(1.000)	3702	0.10000	(a)
* 45 Naphthalene-d8	136	4.604	4.604	(1.000)	12771	0.10000	
$ 33 Nitrobenzene-d5	82	3.957	3.957	(0.860)	2675	0.08000	0.07260(QM)
* 86 Acenaphthene-d10	164	6.284	6.284	(1.000)	6844	0.10000	
$ 69 2-Fluorobiphenyl	172	5.633	5.633	(0.896)	7729	0.08000	0.08604
* 126 Phenanthrene-d10	188	7.734	7.734	(1.000)	12650	0.10000	
* 182 Chrysene-d12	240	10.552	10.552	(1.000)	4033	0.10000	(M)
$ 158 4-Terphenyl-d14	244	9.320	9.320	(0.883)	5142	0.08000	0.07611(M)
* 198 Perylene-d12	264	12.614	12.614	(1.000)	3783	0.10000	
1 1,4-Dioxane	58	1.744	1.744	(0.500)	814	0.08000	0.06028(QM)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

01181948

Data File: \\NAHSTWS005\Target\chem\SV6.i\230130.b\19.D

Date : 30-JAN-2023 17:28

Client ID: 14DX-CCV_END

Instrument: SV6.i

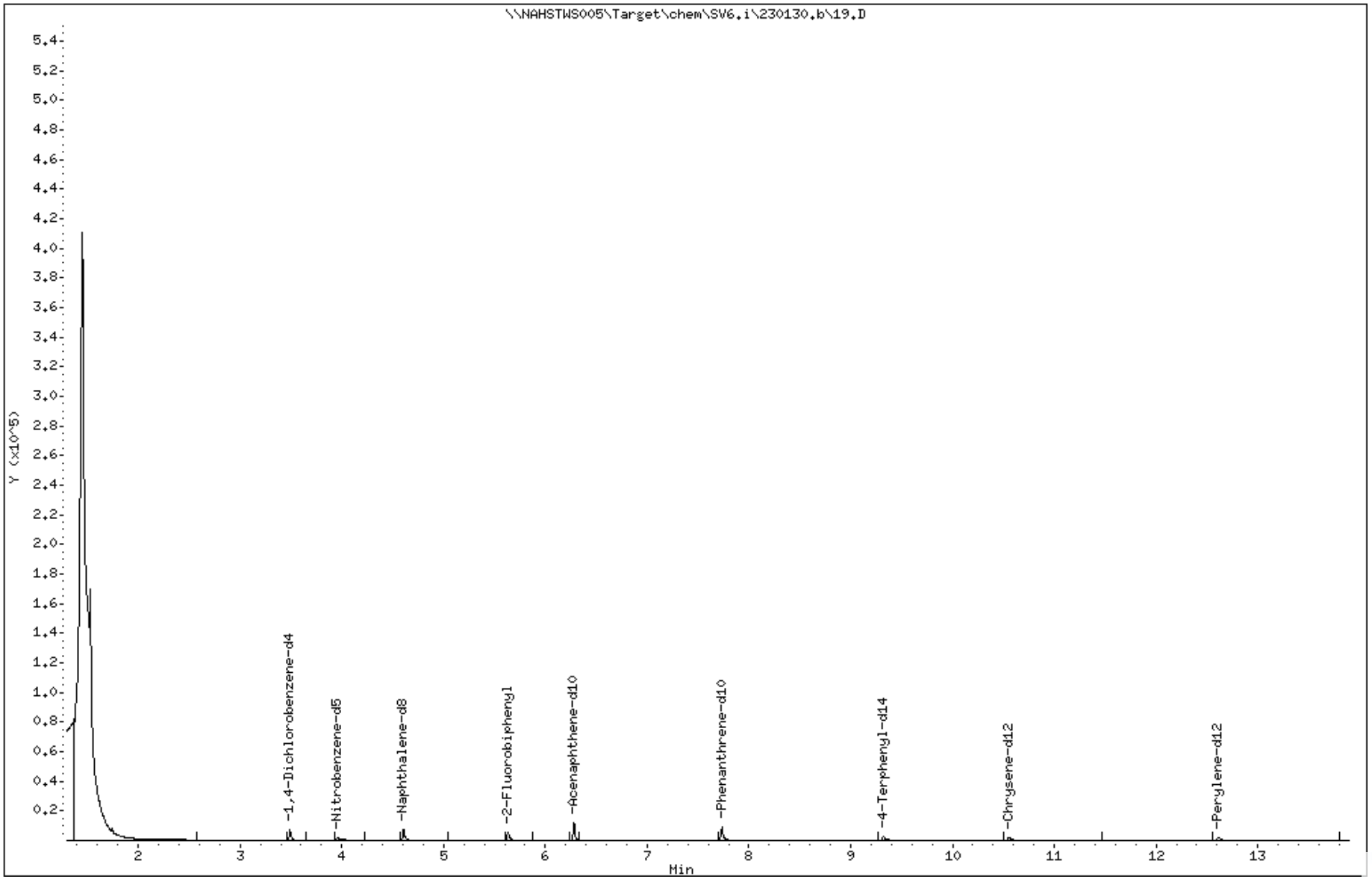
Sample Info: 14DX-0.08

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28



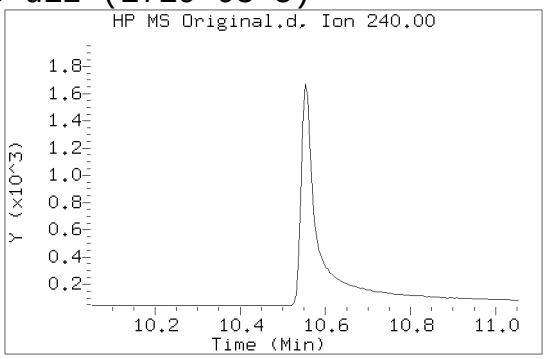
Data File : \\NAHSTWS005\Target\chem\SV6.i\230130.b\19.D
Inj Date : 30-JAN-2023 17:28
InstruID : SV6.i
LabSampID : 14DX-CCV_END

Chrysene-d12 (1719-03-5)

Reason Code:

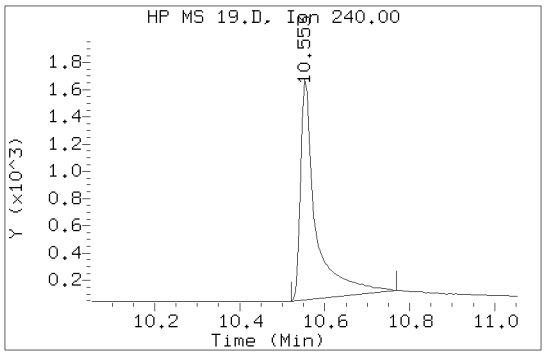
BEFORE

MASS
240
AREA
0
HEIGHT
0
30-Jan-2023
17:44
ALSHS
Server



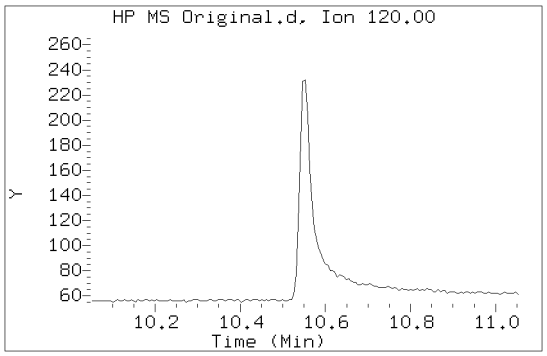
AFTER

MASS
240
AREA
4033
HEIGHT
1615
01-Feb-2023
15:47
ALSHS
Ser



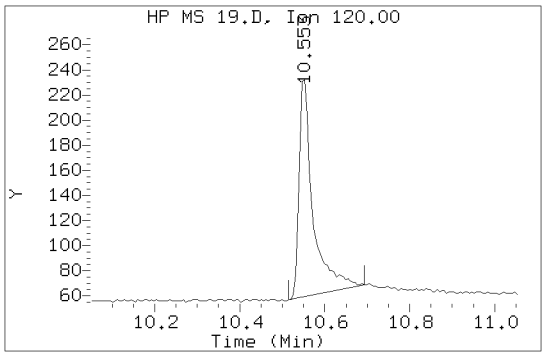
BEFORE

MASS
120
AREA
0
HEIGHT
0
30-Jan-2023
17:44
ALSHS
Server



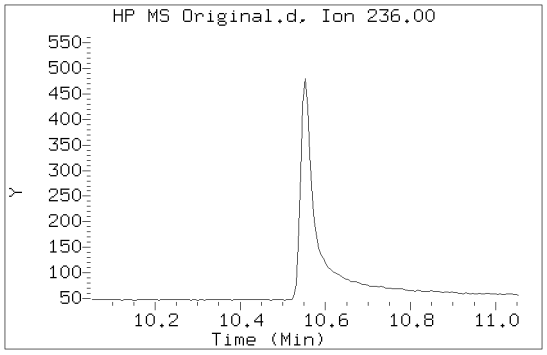
AFTER

MASS
120
AREA
392
HEIGHT
172
01-Feb-2023
15:47
ALSHS
Ser



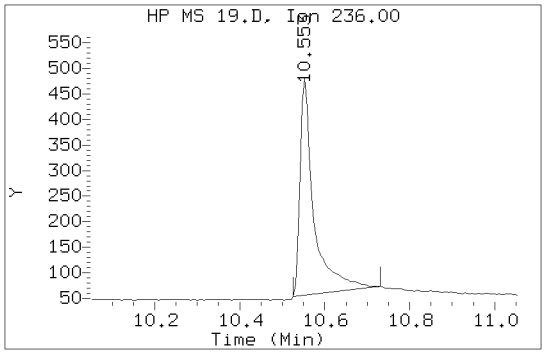
BEFORE

MASS
236
AREA
0
HEIGHT
0
30-Jan-2023
17:44
ALSHS
Server



AFTER

MASS
236
AREA
961
HEIGHT
424
01-Feb-2023
15:47
ALSHS
Ser

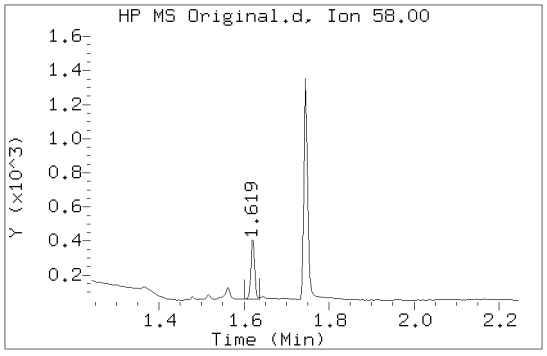


1,4-Dioxane ()

Reason Code:

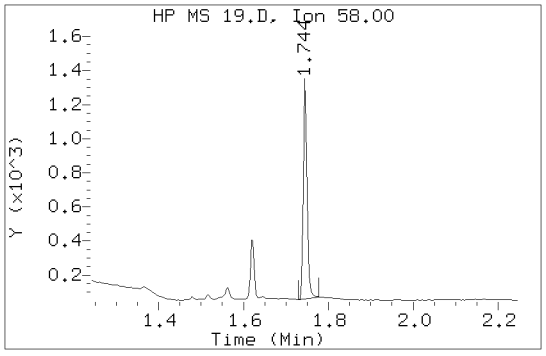
BEFORE

MASS
58
AREA
224
HEIGHT
346
30-Jan-2023
17:44
ALSHS
Server



AFTER

MASS
58
AREA
814
HEIGHT
1290
01-Feb-2023
15:47
ALSHS
Ser



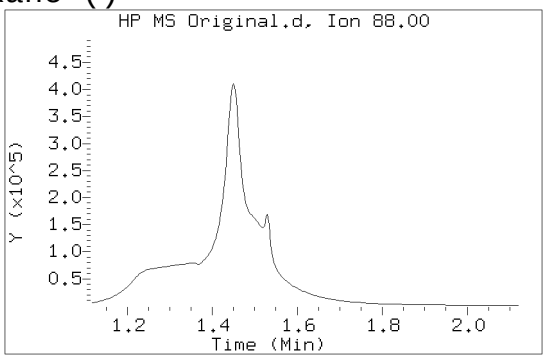
Data File : \\NAHSTWS005\Target\chem\SV6.i\230130.b\19.D
Inj Date : 30-JAN-2023 17:28
InstruID : SV6.i
LabSampID : 14DX-CCV_END

1,4-Dioxane ()

Reason Code:

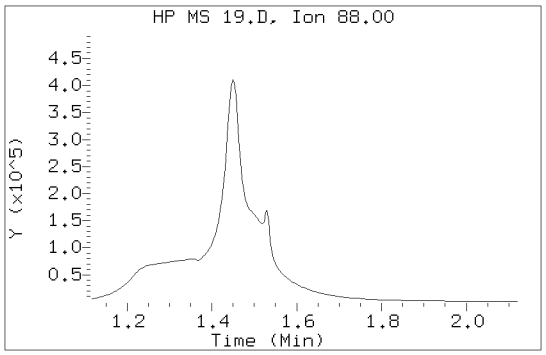
BEFORE

MASS
88
AREA
0
HEIGHT
0
30-Jan-2023
17:44
ALSHS
Server



AFTER

MASS
88
AREA
0
HEIGHT
0
01-Feb-2023
15:47
ALSHS
Ser

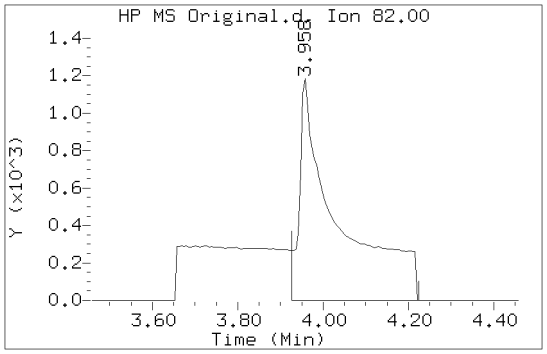


Nitrobenzene-d5 (4165-60-0)

Reason Code:

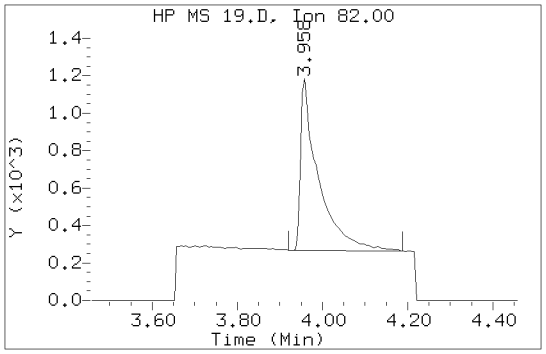
BEFORE

MASS
82
AREA
7312
HEIGHT
1184
30-Jan-2023
17:44
ALSHS
Server



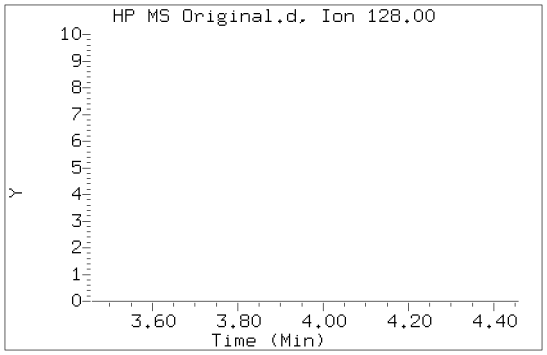
AFTER

MASS
82
AREA
2675
HEIGHT
917
01-Feb-2023
15:47
ALSHS
Ser



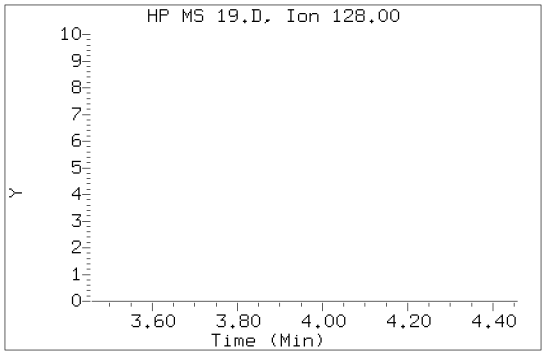
BEFORE

MASS
128
AREA
0
HEIGHT
0
30-Jan-2023
17:44
ALSHS
Server



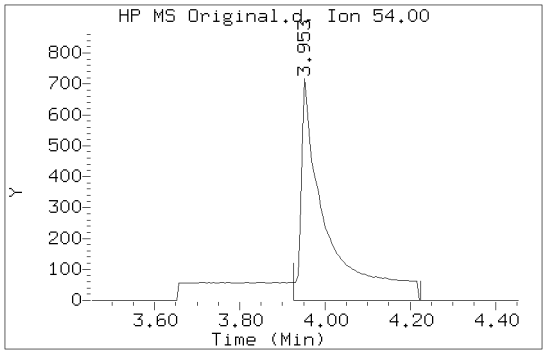
AFTER

MASS
128
AREA
0
HEIGHT
0
01-Feb-2023
15:47
ALSHS
Ser



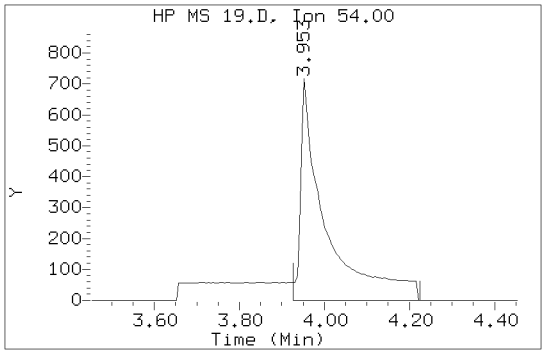
BEFORE

MASS
54
AREA
2884
HEIGHT
717
30-Jan-2023
17:44
ALSHS
Server



AFTER

MASS
54
AREA
2884
HEIGHT
717
01-Feb-2023
15:47
ALSHS
Ser

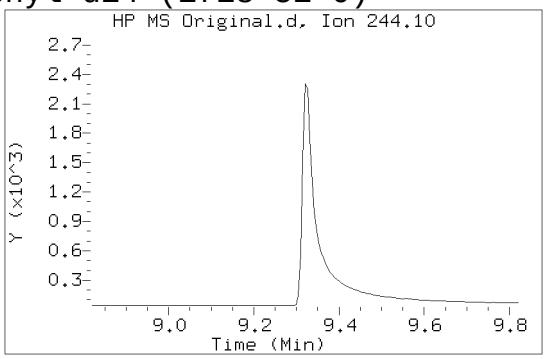


Data File : \\NAHSTWS005\Target\chem\SV6.i\230130.b\19.D
Inj Date : 30-JAN-2023 17:28
InstruID : SV6.i
LabSampID : 14DX-CCV_END

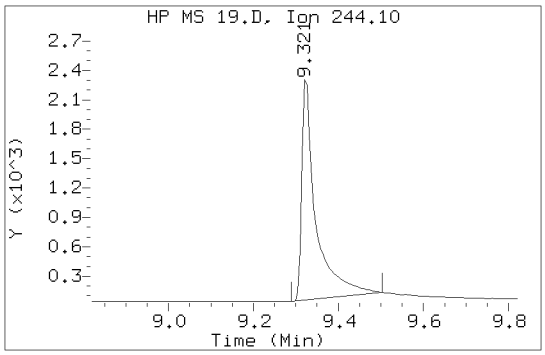
4-Terphenyl-d14 (1718-51-0)

Reason Code:

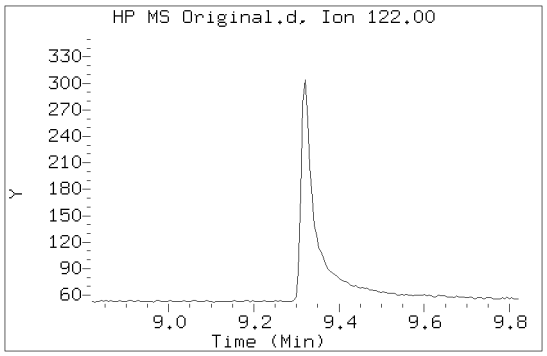
BEFORE
MASS
244.1
AREA
0
HEIGHT
0
30-Jan-2023
17:44
ALSHS
Server



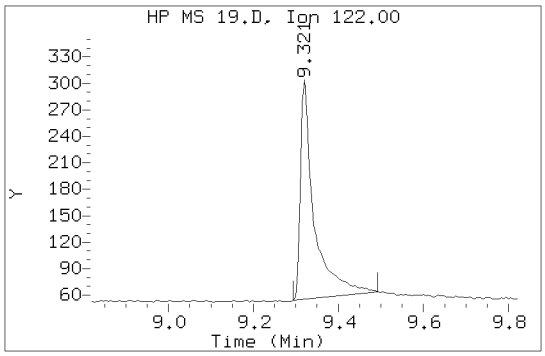
AFTER
MASS
244.1
AREA
5142
HEIGHT
2246
01-Feb-2023
15:47
ALSHS
Ser



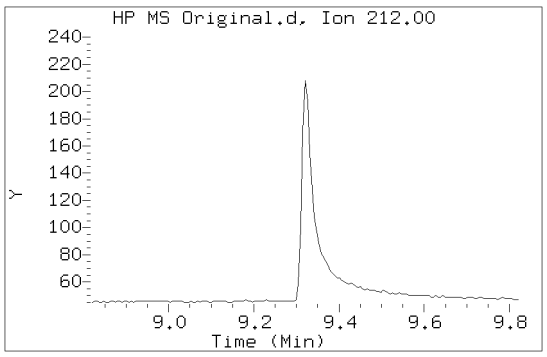
BEFORE
MASS
122
AREA
0
HEIGHT
0
30-Jan-2023
17:44
ALSHS
Server



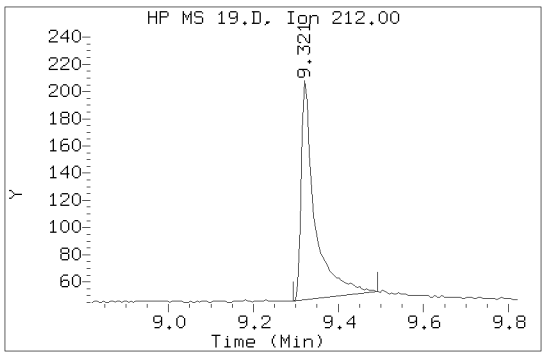
AFTER
MASS
122
AREA
553
HEIGHT
248
01-Feb-2023
15:47
ALSHS
Ser



BEFORE
MASS
212
AREA
0
HEIGHT
0
30-Jan-2023
17:44
ALSHS
Server



AFTER
MASS
212
AREA
357
HEIGHT
161
01-Feb-2023
15:47
ALSHS
Ser



01181952

right solutions.
right partner.

Raw Data SV-6 427063

Semi-Volatiles by by EPA 8270SIM

Workorder

HS23010632

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 18 24

02/01/2023

ALS Environmental–Houston Laboratory

10450 Stancliff Road, Suite 210, Houston, TX 77099

Phone (281) 530-5656 Fax (281) 530-5887

www.alsglobal.com

Data File: \\nahstws005\Target\chem\SV6.i\230126.b\01.D Page 1
Report Date: 26-Jan-2023 10:45

ALS Laboratory Group

Data file : \\nahstws005\Target\chem\SV6.i\230126.b\01.D
Lab Smp Id: DFTPP Client Smp ID: DFTPP
Inj Date : 26-JAN-2023 10:28
Operator : smith Inst ID: SV6.i
Smp Info : DFTPP;DFTPP;3;;DFTPP
Misc Info :
Comment :
Method : \\nahstws005\Target\chem\SV6.i\230126.b\DFTPP.m
Meth Date : 27-Sep-2022 15:32 Linh.Pham Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 1 QC Sample: DFTPP
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14 Sample Matrix: None
Processing Host: NAHSTW7053

RT	EXP RT	DLT RT	MASS	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
1 dftpp						CAS #: 5074-71-5		
5.512	6.357	-0.845	198	193536			0.00- 100.00	100.00
5.512	6.357	-0.845	51	129216			10.00- 80.00	66.77
5.512	6.357	-0.845	68	1295			0.00- 2.00	1.46
5.512	6.357	-0.845	69	89000			0.00- 0.00	45.99
5.512	6.357	-0.845	70	442			0.00- 2.00	0.50
5.512	6.357	-0.845	127	99984			10.00- 80.00	51.66
5.512	6.357	-0.845	197	1243			0.00- 2.00	0.64
5.512	6.357	-0.845	199	13064			5.00- 9.00	6.75
5.512	6.357	-0.845	275	43248			10.00- 60.00	22.35
5.512	6.357	-0.845	365	5595			1.00- 100.00	2.89
5.512	6.357	-0.845	441	18955			0.01- 99.99	71.90
5.512	6.357	-0.845	442	127856			50.00- 150.00	66.06
5.512	6.357	-0.845	443	26364			15.00- 24.00	20.62

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	66.77
68	Less than 2.00% of mass 69	0.67 (1.46)
69	Mass 69 relative abundance	45.99
70	Less than 2.00% of mass 69	0.23 (0.50)
127	10.00 - 80.00% of mass 198	51.66
197	Less than 2.00% of mass 198	0.64
199	5.00 - 9.00% of mass 198	6.75
275	10.00 - 60.00% of mass 198	22.35
365	1.00 - 100.00% of mass 198	2.89
441	Present, but less than mass 443	9.79
442	50.00 - 150.00% of mass 198	66.06
443	15.00 - 24.00% of mass 442	13.62 (20.62)

Data File: 01.D
Spectrum: Average Spectrum: 5.507 to 5.513 min. (SUB)
Location of Maximum: 198.00
Number of points: 290

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	217	119.00	229	192.00	2286	275.00	43248
37.00	514	120.00	376	193.00	2572	276.00	5775
38.00	1355	121.00	179	194.00	592	277.00	3723
39.00	8934	122.00	1920	195.00	298	278.00	656
40.00	412	123.00	2801	196.00	5470	279.00	78
41.00	185	124.00	1231	197.00	1243	282.00	81
44.00	120	125.00	1201	198.00	193536	283.00	451
45.00	317	126.00	425	199.00	13064	284.00	151
47.00	16	127.00	99984	200.00	968	285.00	595
48.00	34	128.00	7552	201.00	759	289.00	103
49.00	524	129.00	37992	203.00	1495	290.00	117
50.00	32504	130.00	3182	204.00	7454	292.00	119
51.00	129216	131.00	656	205.00	11707	293.00	847
52.00	6384	132.00	349	206.00	49064	294.00	141
53.00	300	133.00	185	207.00	6667	295.00	152
55.00	505	134.00	959	208.00	1729	296.00	12631
56.00	3218	135.00	3285	209.00	569	297.00	1881
57.00	8074	136.00	1288	210.00	823	298.00	84
58.00	366	137.00	1637	211.00	2069	301.00	93
59.00	160	138.00	313	212.00	111	302.00	145
60.00	93	139.00	94	215.00	452	303.00	1444
61.00	1093	140.00	374	216.00	1121	304.00	374
62.00	1414	141.00	4740	217.00	13752	308.00	182
63.00	4094	142.00	1585	218.00	1740	310.00	122
64.00	617	143.00	1133	219.00	136	313.00	96
65.00	1764	144.00	318	221.00	8835	314.00	596
68.00	1295	145.00	268	222.00	1698	315.00	1450
69.00	89000	146.00	897	223.00	3084	316.00	747
70.00	442	147.00	2321	224.00	28120	317.00	100
73.00	734	148.00	6303	225.00	7126	321.00	402
74.00	9210	149.00	1351	226.00	705	322.00	114
75.00	14469	150.00	311	227.00	11425	323.00	3809
76.00	5296	151.00	788	228.00	1723	324.00	667
77.00	109104	152.00	130	229.00	2473	327.00	745
78.00	7193	153.00	1484	230.00	306	328.00	397
79.00	5737	154.00	1179	231.00	1030	332.00	213
80.00	4513	155.00	2909	232.00	122	333.00	360
81.00	6984	156.00	4204	233.00	200	334.00	2281
82.00	1737	157.00	875	234.00	792	335.00	664
83.00	1608	158.00	888	235.00	804	341.00	420
84.00	100	159.00	574	236.00	604	342.00	94
85.00	1106	160.00	1418	237.00	980	346.00	876
86.00	1911	161.00	2169	239.00	463	347.00	90
87.00	861	162.00	610	240.00	349	352.00	1204
88.00	416	163.00	130	241.00	678	353.00	726

89.00	111	164.00	264	242.00	1520	354.00	1096
91.00	1346	165.00	1722	243.00	1675	355.00	167
92.00	1546	166.00	1430	244.00	21280	365.00	5595
93.00	10758	167.00	11430	245.00	2833	366.00	846
94.00	730	168.00	5437	246.00	4112	371.00	204
95.00	254	169.00	910	247.00	793	372.00	1924
96.00	578	170.00	314	248.00	155	373.00	483
97.00	185	171.00	347	249.00	677	383.00	611
98.00	8469	172.00	876	250.00	96	384.00	89
99.00	6391	173.00	1222	251.00	119	390.00	303
100.00	554	174.00	2109	252.00	140	391.00	101
101.00	3920	175.00	4009	253.00	539	392.00	78
102.00	95	176.00	942	254.00	897	402.00	723
103.00	1112	177.00	1540	255.00	101648	403.00	979
104.00	2172	178.00	586	256.00	15149	404.00	375
105.00	2141	179.00	6883	257.00	1243	421.00	1045
106.00	701	180.00	5020	258.00	6329	422.00	904
107.00	29928	181.00	2480	259.00	1058	423.00	6439
108.00	4427	182.00	418	260.00	95	424.00	1320
109.00	761	183.00	203	261.00	118	425.00	81
110.00	50136	184.00	508	264.00	117	439.00	85
111.00	8075	185.00	3541	265.00	2500	441.00	18952
112.00	1093	186.00	26968	266.00	460	442.00	127856
113.00	321	187.00	7777	270.00	85	443.00	26360
115.00	85	188.00	712	271.00	285	444.00	2474
116.00	1538	189.00	1516	272.00	355	445.00	113
117.00	28128	190.00	294	273.00	3179		
118.00	1966	191.00	810	274.00	7971		

Data File: \\NAHSTWS005\Target\chem\SV6.i\230126.b\01.D

Date : 26-JAN-2023 10:28

Client ID: DFTPP

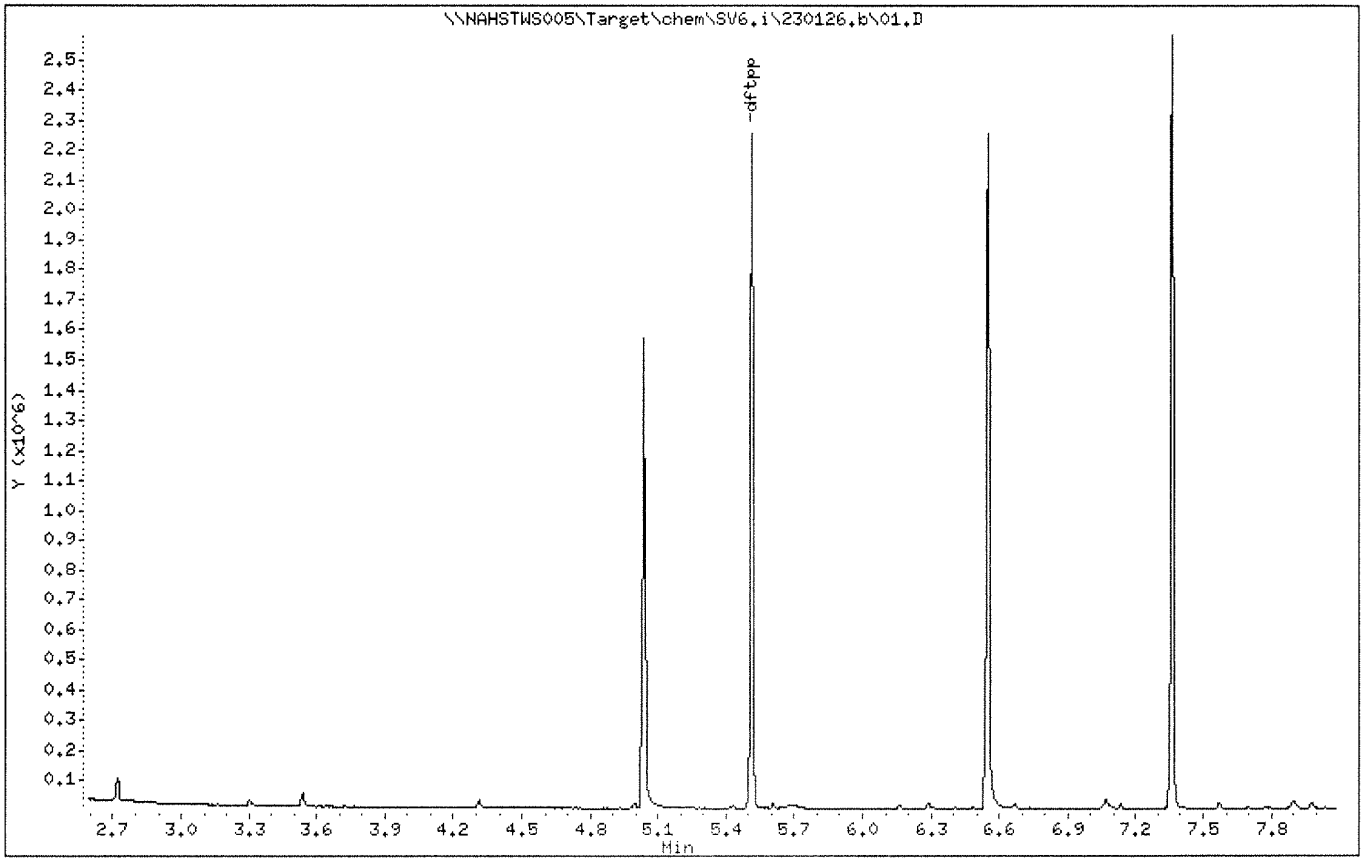
Instrument: SV6.i

Sample Info: DFTPP;DFTPP;3;;DFTPP

Operator: smith

Column phase: DB-5MS

Column diameter: 0.25



Data File: \\NAHSTWS005\Target\chem\SV6.i\230126.b\01.D

Date : 26-JAN-2023 10:28

Client ID: DFTPP

Instrument: SV6.i

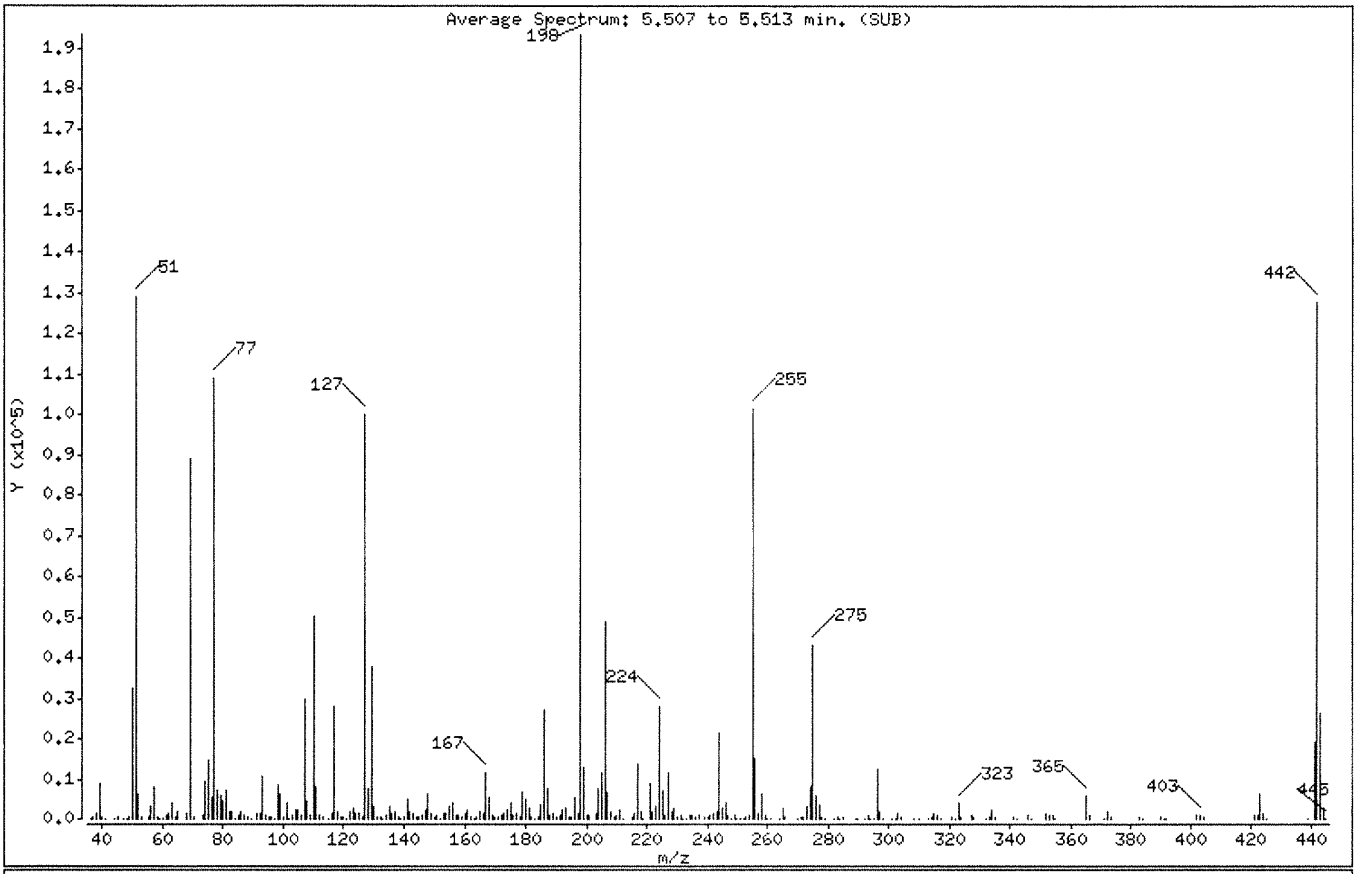
Sample Info: DFTPP;DFTPP;3;;DFTPP

Operator: smith

Column phase: DB-5MS

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	66.77
68	Less than 2.00% of mass 69	0.67 (1.46)
69	Mass 69 relative abundance	45.99
70	Less than 2.00% of mass 69	0.23 (0.50)
127	10.00 - 80.00% of mass 198	51.66
197	Less than 2.00% of mass 198	0.64
199	5.00 - 9.00% of mass 198	6.75
275	10.00 - 60.00% of mass 198	22.35
365	1.00 - 100.00% of mass 198	2.89
441	Present, but less than mass 443	9.79
442	50.00 - 150.00% of mass 198	66.06
443	15.00 - 24.00% of mass 442	13.62 (20.62)

Data File: \\NAHSTWS005\Target\chem\SV6.i\230126.b\01.D Page 3

Date : 26-JAN-2023 10:28

Client ID: DFTPP Instrument: SV6.i

Sample Info: DFTPP;DFTPP;3;;DFTPP

Operator: smith

Column phase: DB-5MS Column diameter: 0.25

Data File: 01.D
Spectrum: Average Spectrum: 5.507 to 5.513 min. (SUB)
Location of Maximum: 198.00
Number of points: 290

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	217	119.00	229	192.00	2286	275.00	43248
37.00	514	120.00	376	193.00	2572	276.00	5775
38.00	1355	121.00	179	194.00	592	277.00	3723
39.00	8934	122.00	1920	195.00	298	278.00	656
40.00	412	123.00	2801	196.00	5470	279.00	78
41.00	185	124.00	1231	197.00	1243	282.00	81
44.00	120	125.00	1201	198.00	193536	283.00	451
45.00	317	126.00	425	199.00	13064	284.00	151
47.00	16	127.00	99984	200.00	968	285.00	595
48.00	34	128.00	7552	201.00	759	289.00	103
49.00	524	129.00	37992	203.00	1495	290.00	117
50.00	32504	130.00	3182	204.00	7454	292.00	119
51.00	129216	131.00	656	205.00	11707	293.00	847
52.00	6384	132.00	349	206.00	49064	294.00	141
53.00	300	133.00	185	207.00	6667	295.00	152
55.00	505	134.00	959	208.00	1729	296.00	12631
56.00	3218	135.00	3285	209.00	569	297.00	1881
57.00	8074	136.00	1288	210.00	823	298.00	84
58.00	366	137.00	1637	211.00	2069	301.00	93
59.00	160	138.00	313	212.00	111	302.00	145
60.00	93	139.00	94	215.00	452	303.00	1444
61.00	1093	140.00	374	216.00	1121	304.00	374
62.00	1414	141.00	4740	217.00	13752	308.00	182
63.00	4094	142.00	1585	218.00	1740	310.00	122
64.00	617	143.00	1133	219.00	136	313.00	96
65.00	1764	144.00	318	221.00	8835	314.00	596
68.00	1295	145.00	268	222.00	1698	315.00	1450
69.00	89000	146.00	897	223.00	3084	316.00	747
70.00	442	147.00	2321	224.00	28120	317.00	100
73.00	734	148.00	6303	225.00	7126	321.00	402
74.00	9210	149.00	1351	226.00	705	322.00	114
75.00	14469	150.00	311	227.00	11425	323.00	3809
76.00	5296	151.00	788	228.00	1723	324.00	667
77.00	109104	152.00	130	229.00	2473	327.00	745
78.00	7193	153.00	1484	230.00	306	328.00	397

Data File: \\NAHSTWS005\Target\chem\SV6.i\230126.b\01.D Page 4

Date : 26-JAN-2023 10:28

Client ID: DFTPP Instrument: SV6.i

Sample Info: DFTPP;DFTPP;3;;DFTPP

Operator: smith

Column phase: DB-5MS Column diameter: 0.25

Data File: 01.D
Spectrum: Average Spectrum: 5.507 to 5.513 min. (SUB)
Location of Maximum: 198.00
Number of points: 290

m/z	Y	m/z	Y	m/z	Y	m/z	Y
79.00	5737	154.00	1179	231.00	1030	332.00	213
80.00	4513	155.00	2909	232.00	122	333.00	360
81.00	6984	156.00	4204	233.00	200	334.00	2281
82.00	1737	157.00	875	234.00	792	335.00	664
83.00	1608	158.00	888	235.00	804	341.00	420
84.00	100	159.00	574	236.00	604	342.00	94
85.00	1106	160.00	1418	237.00	980	346.00	876
86.00	1911	161.00	2169	239.00	463	347.00	90
87.00	861	162.00	610	240.00	349	352.00	1204
88.00	416	163.00	130	241.00	678	353.00	726
89.00	111	164.00	264	242.00	1520	354.00	1096
91.00	1346	165.00	1722	243.00	1675	355.00	167
92.00	1546	166.00	1430	244.00	21280	365.00	5595
93.00	10758	167.00	11430	245.00	2833	366.00	846
94.00	730	168.00	5437	246.00	4112	371.00	204
95.00	254	169.00	910	247.00	793	372.00	1924
96.00	578	170.00	314	248.00	155	373.00	483
97.00	185	171.00	347	249.00	677	383.00	611
98.00	8469	172.00	876	250.00	96	384.00	89
99.00	6391	173.00	1222	251.00	119	390.00	303
100.00	554	174.00	2109	252.00	140	391.00	101
101.00	3920	175.00	4009	253.00	539	392.00	78
102.00	95	176.00	942	254.00	897	402.00	723
103.00	1112	177.00	1540	255.00	101648	403.00	979
104.00	2172	178.00	586	256.00	15149	404.00	375
105.00	2141	179.00	6883	257.00	1243	421.00	1045
106.00	701	180.00	5020	258.00	6329	422.00	904
107.00	29928	181.00	2480	259.00	1058	423.00	6439
108.00	4427	182.00	418	260.00	95	424.00	1320
109.00	761	183.00	203	261.00	118	425.00	81
110.00	50136	184.00	508	264.00	117	439.00	85
111.00	8075	185.00	3541	265.00	2500	441.00	18952
112.00	1093	186.00	26968	266.00	460	442.00	127856
113.00	321	187.00	7777	270.00	85	443.00	26360
115.00	85	188.00	712	271.00	285	444.00	2474

Data File: \\NAHSTWS005\Target\chem\SV6.i\230126.b\01.D

Date : 26-JAN-2023 10:28

Client ID: DFTPP Instrument: SV6.i

Sample Info: DFTPP;DFTPP;3;;DFTPP

Operator: smith

Column phase: DB-5MS Column diameter: 0.25

Data File: 01.D
Spectrum: Average Spectrum: 5.507 to 5.513 min. (SUB)
Location of Maximum: 198.00
Number of points: 290

m/z	Y	m/z	Y	m/z	Y	m/z	Y
116.00	1538	189.00	1516	272.00	355	445.00	113
117.00	28128	190.00	294	273.00	3179		
118.00	1966	191.00	810	274.00	7971		

Data File : \\nahstws005\Target\chem\SV6.i\230126.b\01.D
Inj Date : 26-JAN-2023 10:28
InstruID : SV6.i
LabSampID : DFTPP

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\SV6.i\230126.b\18.D Page 1
Report Date: 27-Jan-2023 11:55

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230126.b\18.D
Lab Smp Id: 1 4-DX-0.01 Client Smp ID: 1 4-DX-0.01
Inj Date : 26-JAN-2023 17:04
Operator : LG Inst ID: SV6.i
Smp Info : 1 4-DX-0.01;1 4-DX-0.01
Misc Info : ;;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\SV6.i\230126.b\DXSIM.m
Meth Date : 27-Jan-2023 11:55 SV6.i Quant Type: ISTD
Cal Date : 26-JAN-2023 19:09 Cal File: 25.D
Als bottle: 17 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7095

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)
* 20 1,4-Dichlorobenzene-d4	152	3.625	3.625	(1.000)	5528	0.10000	(aM)
* 45 Naphthalene-d8	136	4.743	4.743	(1.000)	19696	0.10000	(M)
$ 33 Nitrobenzene-d5	82	4.097	4.097	(0.864)	510	0.01000	0.008974(QM)
* 86 Acenaphthene-d10	164	6.424	6.424	(1.000)	10608	0.10000	(M)
$ 69 2-Fluorobiphenyl	172	5.775	5.775	(0.899)	1424	0.01000	0.01023(QM)
* 126 Phenanthrene-d10	188	7.879	7.879	(1.000)	20838	0.10000	
* 182 Chrysene-d12	240	10.746	10.746	(1.000)	9014	0.10000	(M)
$ 158 4-Terphenyl-d14	244	9.482	9.482	(0.882)	1097	0.01000	0.02144(M)
* 198 Perylene-d12	264	12.851	12.851	(1.000)	8255	0.10000	
1 1,4-Dioxane	58	1.865	1.865	(0.515)	256	0.01000	0.01270(QM)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

01181964

Data File: \\NAHSTWS005\Target\chem\SV6.i\230126.b\18.D

Date : 26-JAN-2023 17:04

Client ID: 1 4-DX-0.01

Instrument: SV6.i

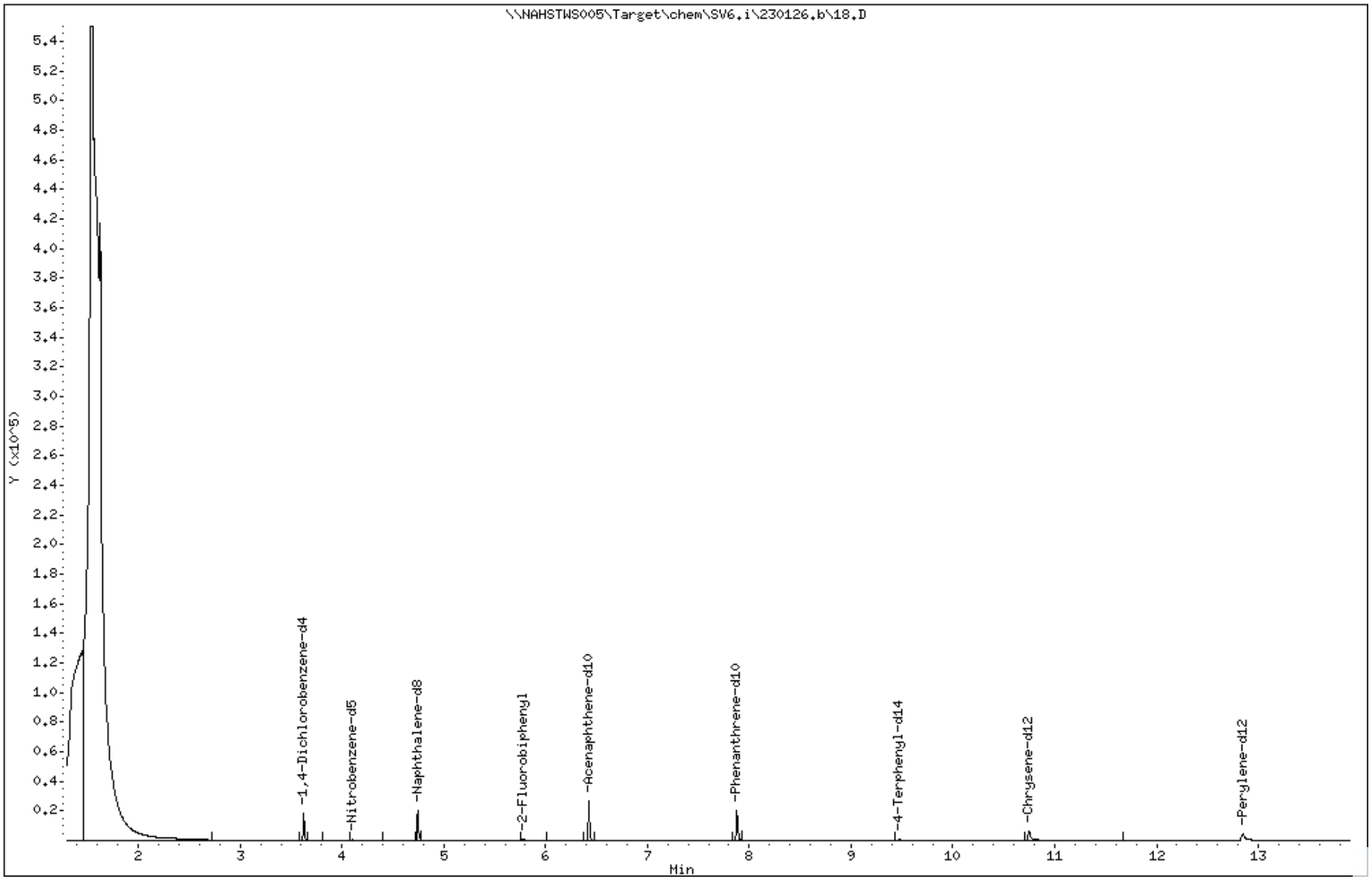
Sample Info: 1 4-DX-0.01;1 4-DX-0.01

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28

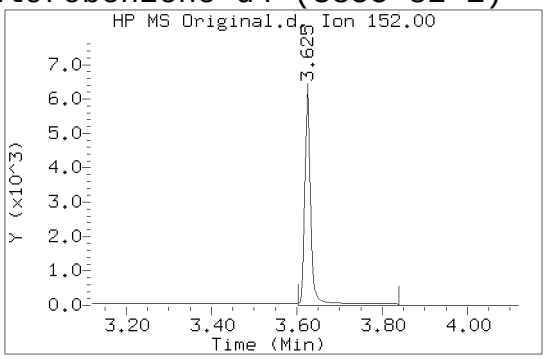


Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\18.D
Inj Date : 26-JAN-2023 17:04
InstruID : SV6.i
LabSampID : 1 4-DX-0.01

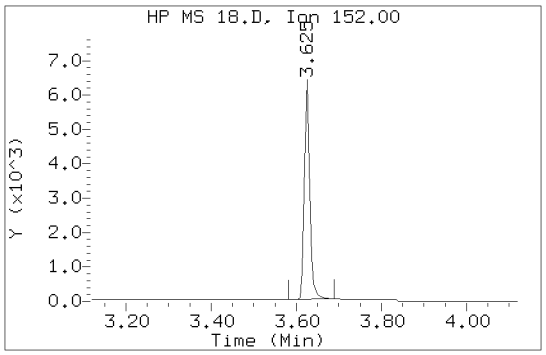
1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

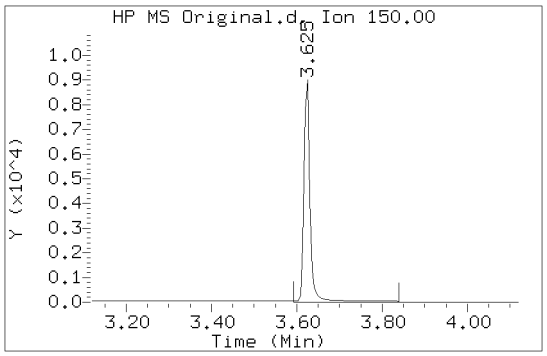
BEFORE
MASS
152
AREA
6387
HEIGHT
6448
26-Jan-2023
17:20
ALSHS
Server



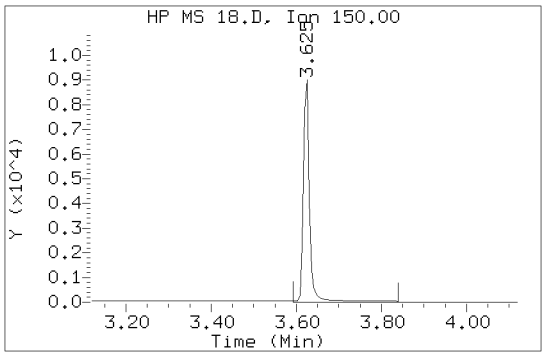
AFTER
MASS
152
AREA
5528
HEIGHT
6387
27-Jan-2023
11:55



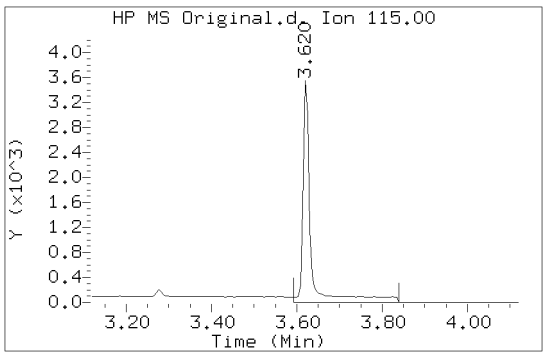
BEFORE
MASS
150
AREA
9160
HEIGHT
9004
26-Jan-2023
17:20
ALSHS
Server



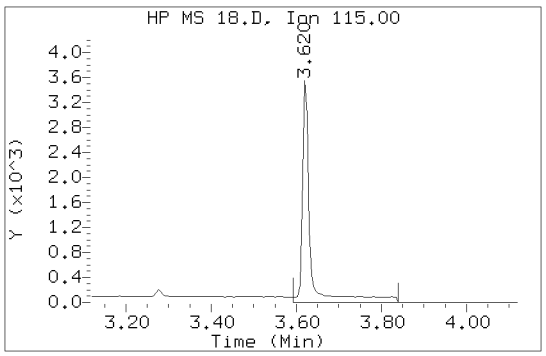
AFTER
MASS
150
AREA
9160
HEIGHT
9004
27-Jan-2023
11:55



BEFORE
MASS
115
AREA
4488
HEIGHT
3548
26-Jan-2023
17:20
ALSHS
Server



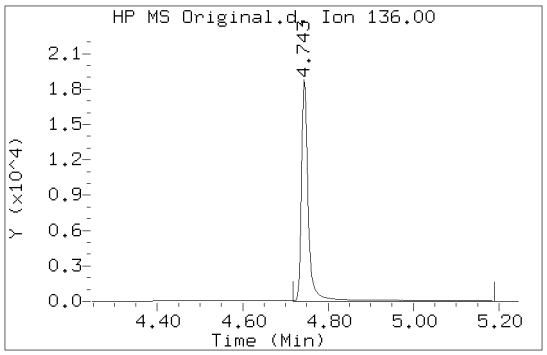
AFTER
MASS
115
AREA
4488
HEIGHT
3548
27-Jan-2023
11:55



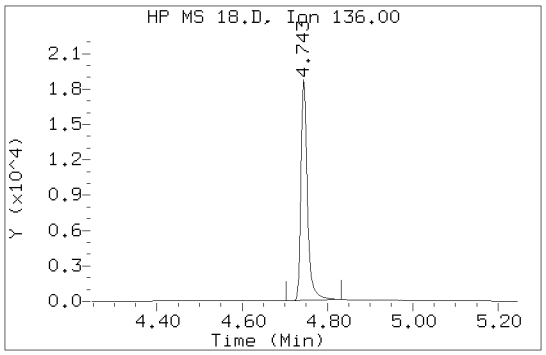
Naphthalene-d8 (1146-65-2)

Reason Code:

BEFORE
MASS
136
AREA
22286
HEIGHT
18792
26-Jan-2023
17:20
ALSHS
Server



AFTER
MASS
136
AREA
19696
HEIGHT
18700
27-Jan-2023
11:55



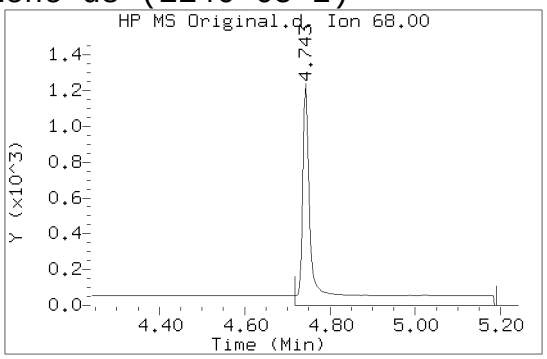
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\18.D
Inj Date : 26-JAN-2023 17:04
InstruID : SV6.i
LabSampID : 1 4-DX-0.01

Naphthalene-d8 (1146-65-2)

Reason Code:

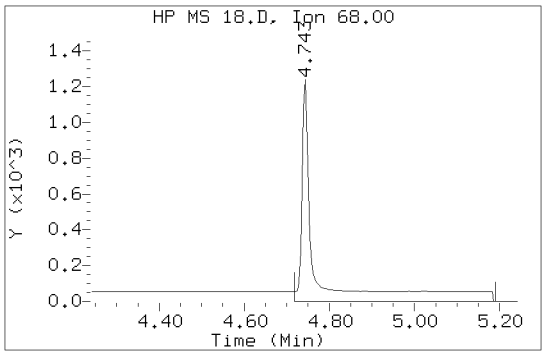
BEFORE

MASS
68
AREA
2767
HEIGHT
1239
26-Jan-2023
17:20
ALSHS
Server



AFTER

MASS
68
AREA
2767
HEIGHT
1239
27-Jan-2023
11:55

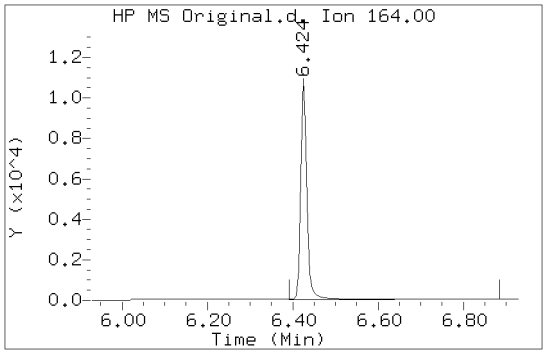


Acenaphthene-d10 (15067-26-2)

Reason Code:

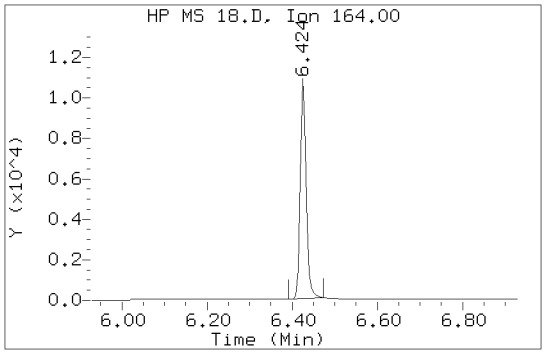
BEFORE

MASS
164
AREA
11469
HEIGHT
10928
26-Jan-2023
17:20
ALSHS
Server



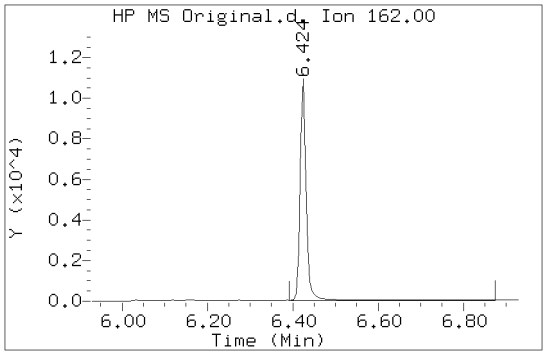
AFTER

MASS
164
AREA
10608
HEIGHT
10870
27-Jan-2023
11:55



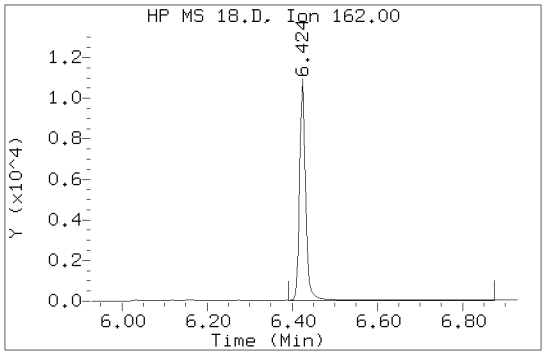
BEFORE

MASS
162
AREA
11331
HEIGHT
10930
26-Jan-2023
17:20
ALSHS
Server



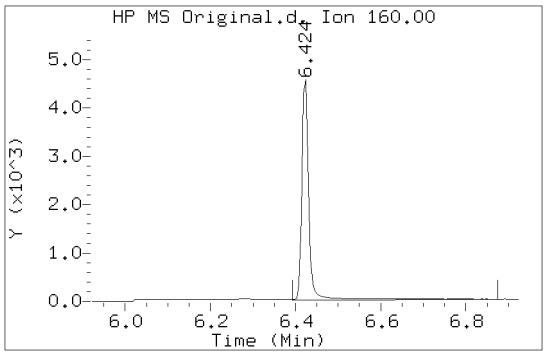
AFTER

MASS
162
AREA
11331
HEIGHT
10930
27-Jan-2023
11:55



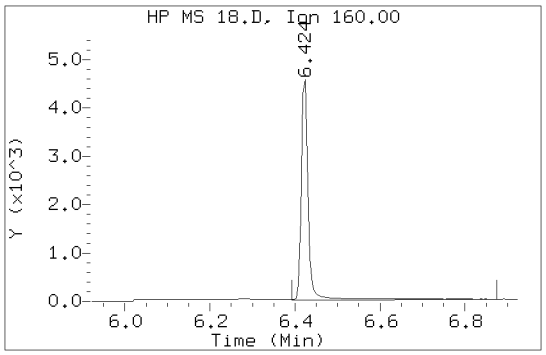
BEFORE

MASS
160
AREA
5258
HEIGHT
4564
26-Jan-2023
17:20
ALSHS
Server



AFTER

MASS
160
AREA
5258
HEIGHT
4564
27-Jan-2023
11:55

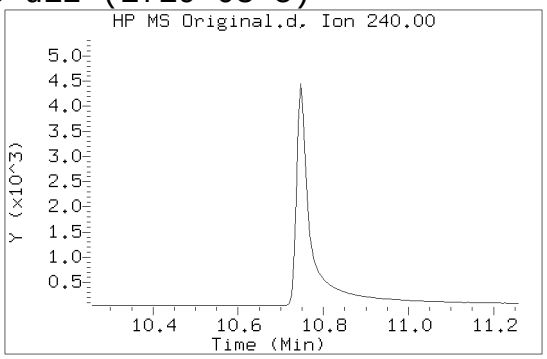


Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\18.D
Inj Date : 26-JAN-2023 17:04
InstruID : SV6.i
LabSampID : 1 4-DX-0.01

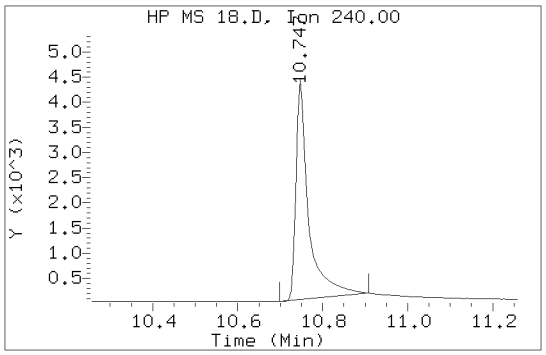
Chrysene-d12 (1719-03-5)

Reason Code:

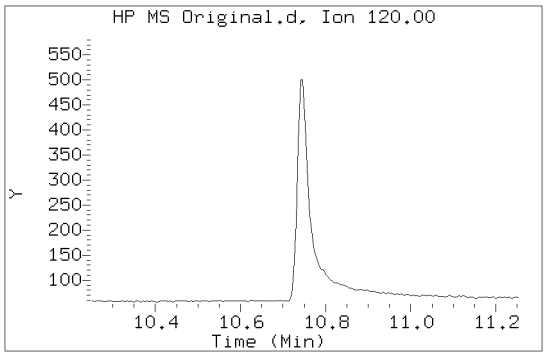
BEFORE
MASS
240
AREA
0
HEIGHT
0
26-Jan-2023
17:20
ALSHS
Server



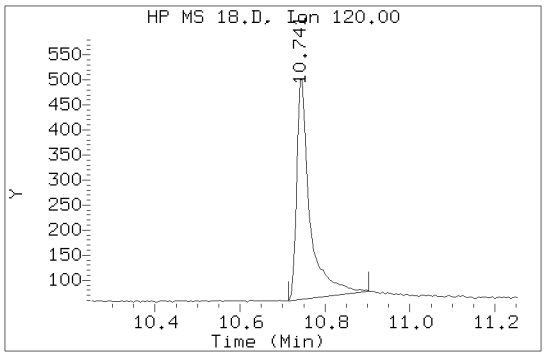
AFTER
MASS
240
AREA
9014
HEIGHT
4367
27-Jan-2023
11:55



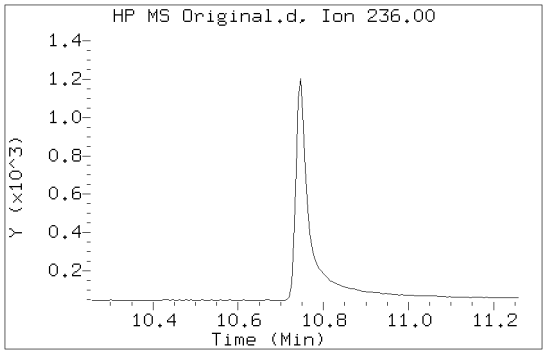
BEFORE
MASS
120
AREA
0
HEIGHT
0
26-Jan-2023
17:20
ALSHS
Server



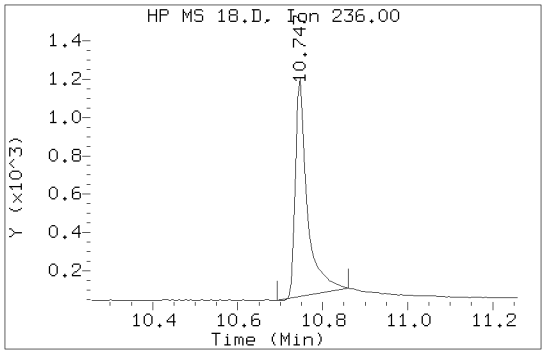
AFTER
MASS
120
AREA
950
HEIGHT
438
27-Jan-2023
11:55



BEFORE
MASS
236
AREA
0
HEIGHT
0
26-Jan-2023
17:20
ALSHS
Server



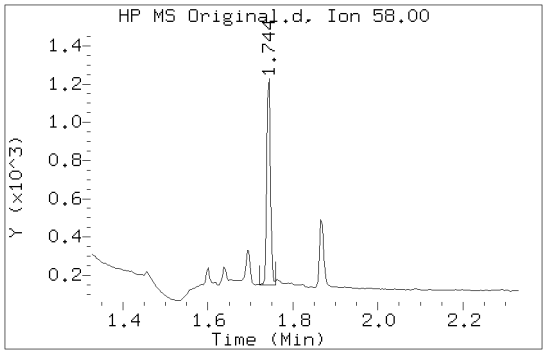
AFTER
MASS
236
AREA
2221
HEIGHT
1136
27-Jan-2023
11:55



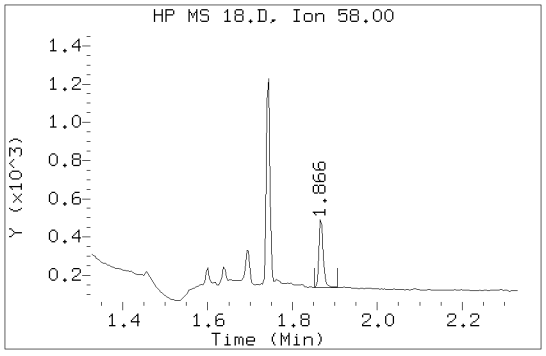
1,4-Dioxane ()

Reason Code:

BEFORE
MASS
58
AREA
659
HEIGHT
1077
26-Jan-2023
17:20
ALSHS
Server



AFTER
MASS
58
AREA
256
HEIGHT
354
27-Jan-2023
11:55

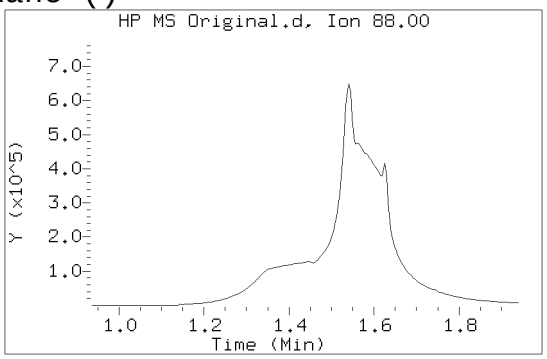


Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\18.D
Inj Date : 26-JAN-2023 17:04
InstruID : SV6.i
LabSampID : 1 4-DX-0.01

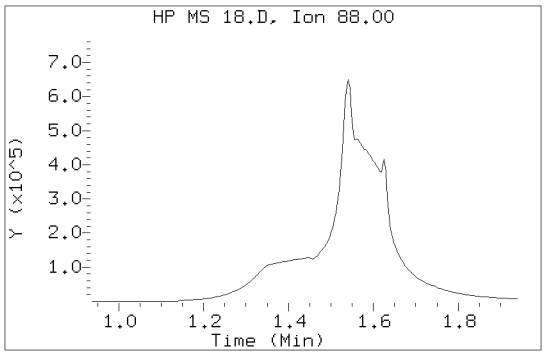
1,4-Dioxane ()

Reason Code:

BEFORE
MASS
88
AREA
0
HEIGHT
0
26-Jan-2023
17:20
ALSHS
Server



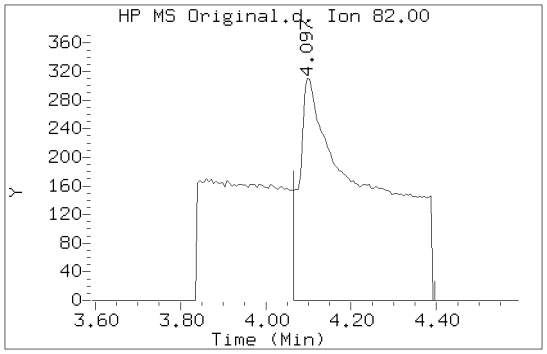
AFTER
MASS
88
AREA
0
HEIGHT
0
27-Jan-2023
11:55



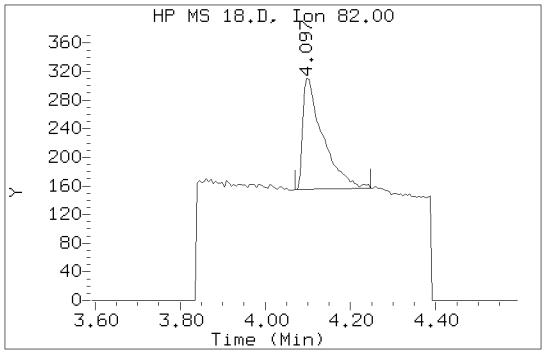
Nitrobenzene-d5 (4165-60-0)

Reason Code:

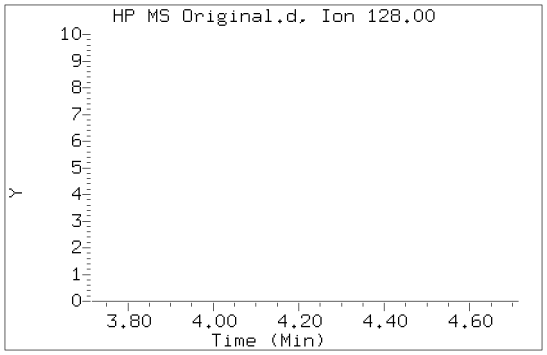
BEFORE
MASS
82
AREA
3499
HEIGHT
310
26-Jan-2023
17:20
ALSHS
Server



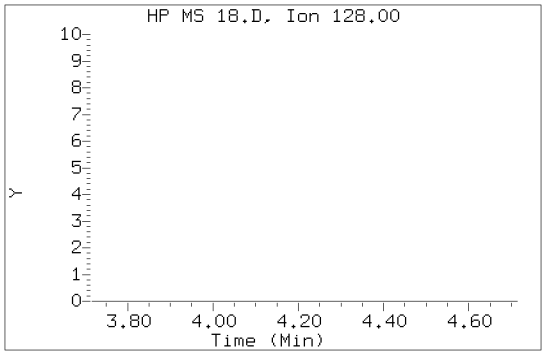
AFTER
MASS
82
AREA
510
HEIGHT
154
27-Jan-2023
11:55



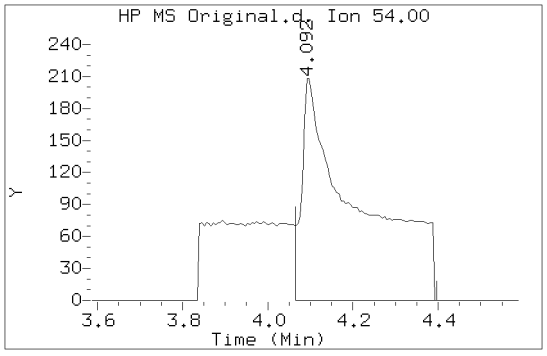
BEFORE
MASS
128
AREA
0
HEIGHT
0
26-Jan-2023
17:20
ALSHS
Server



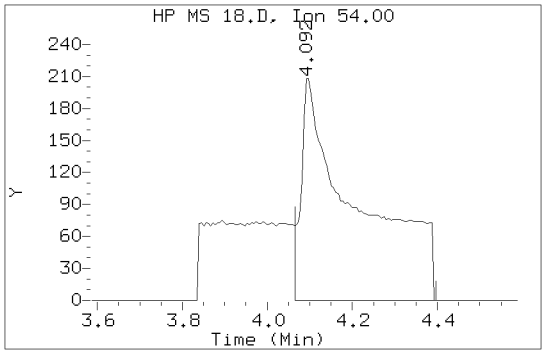
AFTER
MASS
128
AREA
0
HEIGHT
0
27-Jan-2023
11:55



BEFORE
MASS
54
AREA
1900
HEIGHT
208
26-Jan-2023
17:20
ALSHS
Server



AFTER
MASS
54
AREA
1900
HEIGHT
208
27-Jan-2023
11:55



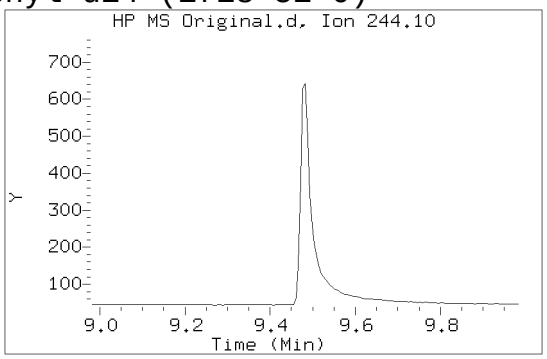
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\18.D
Inj Date : 26-JAN-2023 17:04
InstruID : SV6.i
LabSampID : 1 4-DX-0.01

4-Terphenyl-d14 (1718-51-0)

Reason Code:

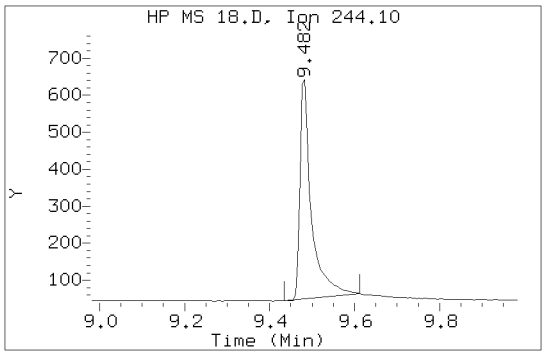
BEFORE

MASS
244.1
AREA
0
HEIGHT
0
26-Jan-2023
17:20
ALSHS
Server



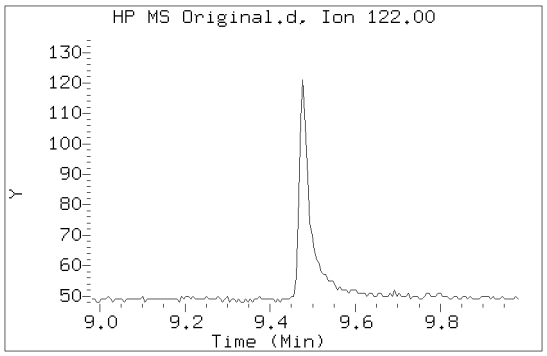
AFTER

MASS
244.1
AREA
1097
HEIGHT
592
27-Jan-2023
11:55



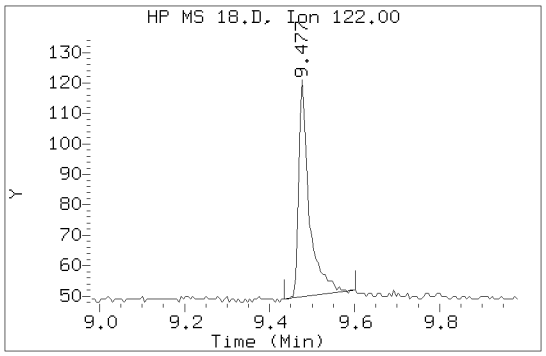
BEFORE

MASS
122
AREA
0
HEIGHT
0
26-Jan-2023
17:20
ALSHS
Server



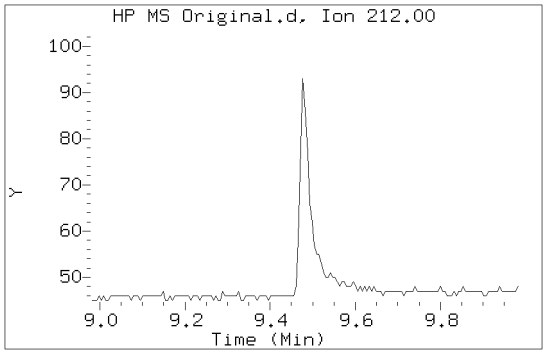
AFTER

MASS
122
AREA
121
HEIGHT
71
27-Jan-2023
11:55



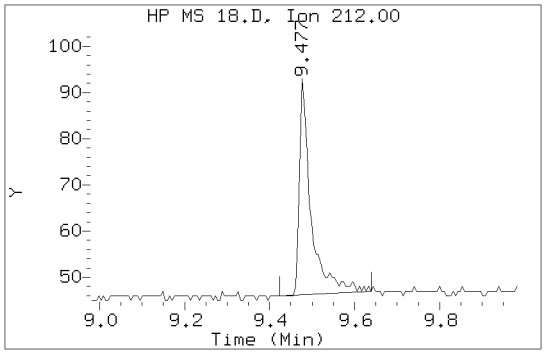
BEFORE

MASS
212
AREA
0
HEIGHT
0
26-Jan-2023
17:20
ALSHS
Server



AFTER

MASS
212
AREA
88
HEIGHT
46
27-Jan-2023
11:55

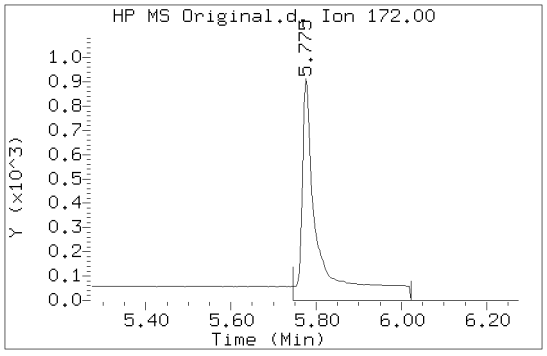


2-Fluorobiphenyl (321-60-8)

Reason Code:

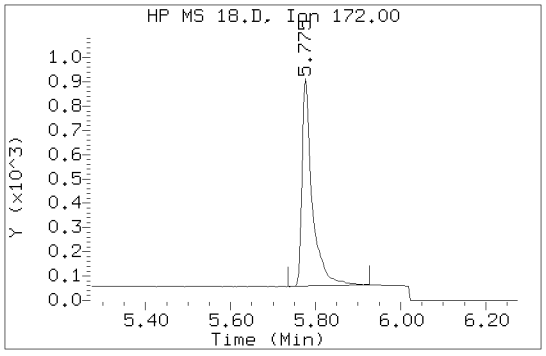
BEFORE

MASS
172
AREA
2433
HEIGHT
913
26-Jan-2023
17:20
ALSHS
Server



AFTER

MASS
172
AREA
1424
HEIGHT
854
27-Jan-2023
11:55



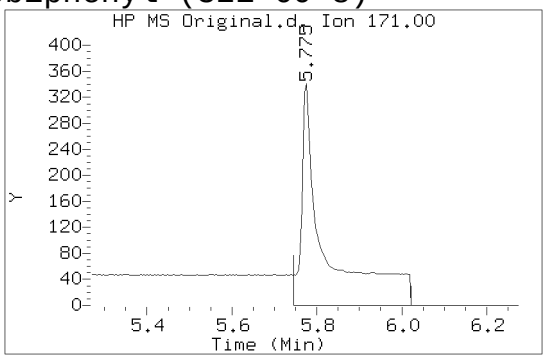
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\18.D
Inj Date : 26-JAN-2023 17:04
InstruID : SV6.i
LabSampID : 1 4-DX-0.01

2-Fluorobiphenyl (321-60-8)

Reason Code:

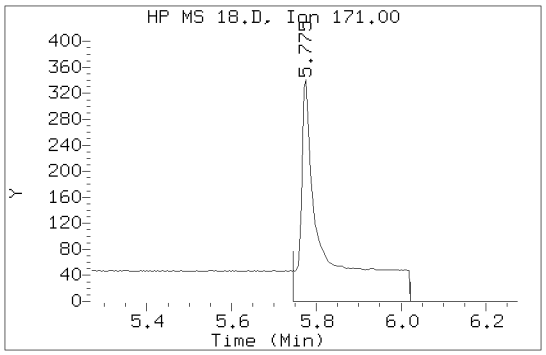
BEFORE

MASS
171
AREA
1276
HEIGHT
341
26-Jan-2023
17:20
ALSHS
Server



AFTER

MASS
171
AREA
1276
HEIGHT
341
27-Jan-2023
11:55



Data File: \\NAHSTWS005\Target\chem\SV6.i\230126.b\19.D Page 1
Report Date: 27-Jan-2023 11:55

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230126.b\19.D
Lab Smp Id: 1 4-DX-0.03 Client Smp ID: 1 4-DX-0.03
Inj Date : 26-JAN-2023 17:22
Operator : LG Inst ID: SV6.i
Smp Info : 1 4-DX-0.03;1 4-DX-0.03
Misc Info : ;;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\SV6.i\230126.b\DXSIM.m
Meth Date : 27-Jan-2023 11:55 SV6.i Quant Type: ISTD
Cal Date : 26-JAN-2023 17:04 Cal File: 18.D
Als bottle: 18 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7095

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)
* 20 1,4-Dichlorobenzene-d4	152	3.625	3.625	(1.000)	4353	0.10000	(aM)
* 45 Naphthalene-d8	136	4.746	4.746	(1.000)	15379	0.10000	(M)
$ 33 Nitrobenzene-d5	82	4.097	4.097	(0.863)	1295	0.03000	0.02918(QM)
* 86 Acenaphthene-d10	164	6.424	6.424	(1.000)	8264	0.10000	(M)
$ 69 2-Fluorobiphenyl	172	5.775	5.775	(0.899)	3097	0.03000	0.02855(M)
* 126 Phenanthrene-d10	188	7.879	7.879	(1.000)	15308	0.10000	(M)
* 182 Chrysene-d12	240	10.752	10.752	(1.000)	5688	0.10000	(M)
$ 158 4-Terphenyl-d14	244	9.482	9.482	(0.882)	2568	0.03000	0.03727(M)
* 198 Perylene-d12	264	12.851	12.851	(1.000)	5361	0.10000	
1 1,4-Dioxane	58	1.847	1.847	(0.510)	502	0.03000	0.03161(M)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

01181972

Data File: \\NAHSTWS005\Target\chem\SV6.i\230126.b\19.D

Date : 26-JAN-2023 17:22

Client ID: 1 4-DX-0.03

Instrument: SV6.i

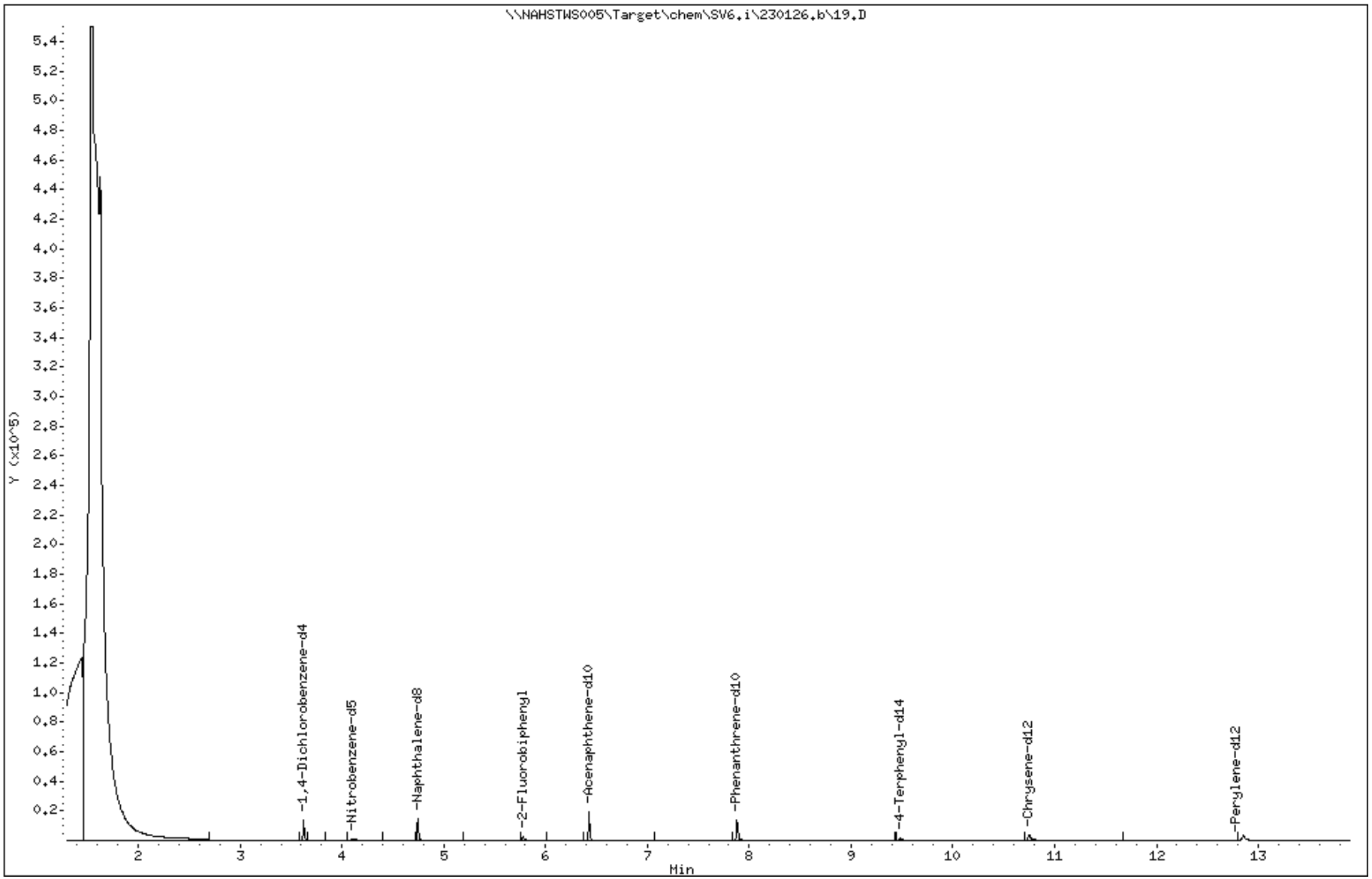
Sample Info: 1 4-DX-0.03;1 4-DX-0.03

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28

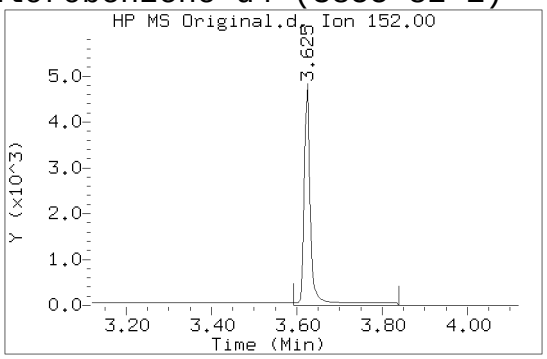


Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\19.D
Inj Date : 26-JAN-2023 17:22
InstruID : SV6.i
LabSampID : 1 4-DX-0.03

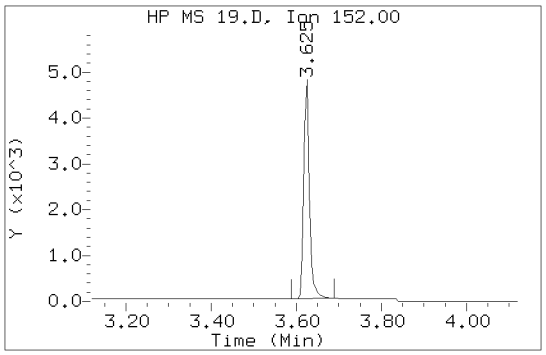
1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

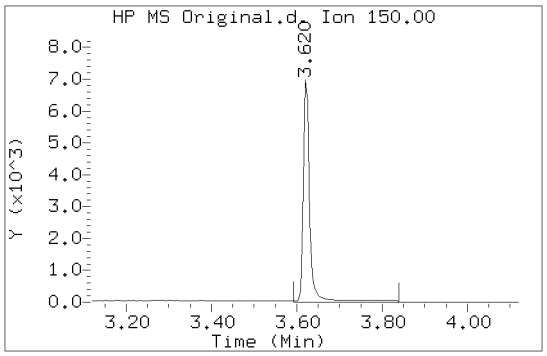
BEFORE
MASS
152
AREA
5196
HEIGHT
4837
26-Jan-2023
17:37
ALSHS
Server



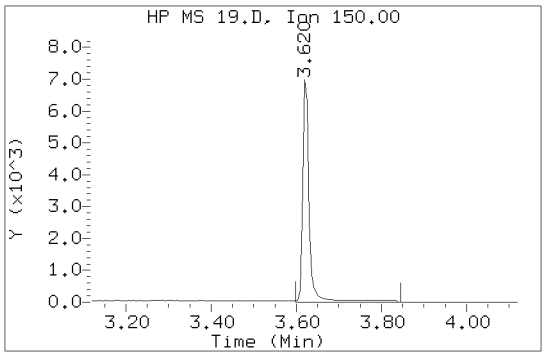
AFTER
MASS
152
AREA
4353
HEIGHT
4780
27-Jan-2023
11:55



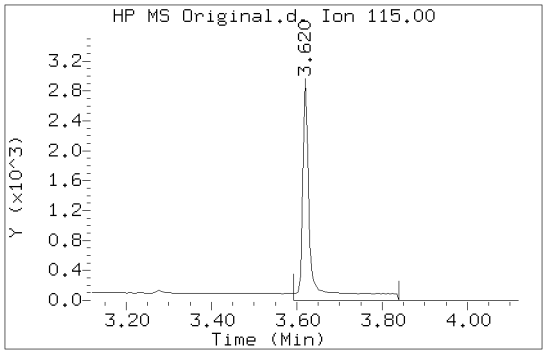
BEFORE
MASS
150
AREA
7408
HEIGHT
6977
26-Jan-2023
17:37
ALSHS
Server



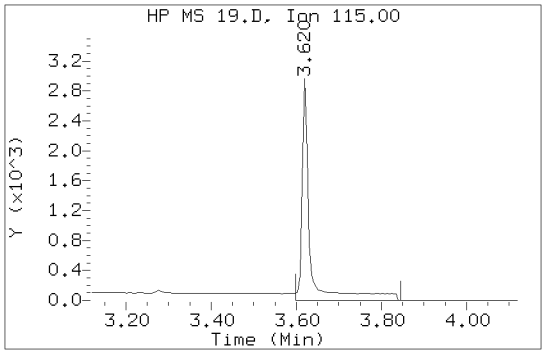
AFTER
MASS
150
AREA
7392
HEIGHT
6977
27-Jan-2023
11:55



BEFORE
MASS
115
AREA
3884
HEIGHT
2965
26-Jan-2023
17:37
ALSHS
Server



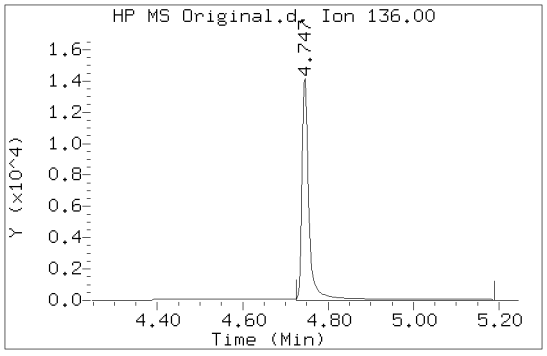
AFTER
MASS
115
AREA
3855
HEIGHT
2965
27-Jan-2023
11:55



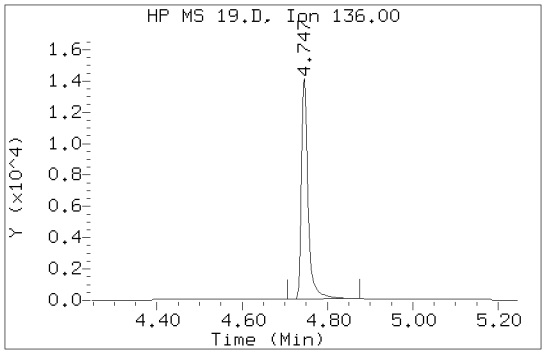
Naphthalene-d8 (1146-65-2)

Reason Code:

BEFORE
MASS
136
AREA
17657
HEIGHT
14146
26-Jan-2023
17:37
ALSHS
Server



AFTER
MASS
136
AREA
15379
HEIGHT
14070
27-Jan-2023
11:55



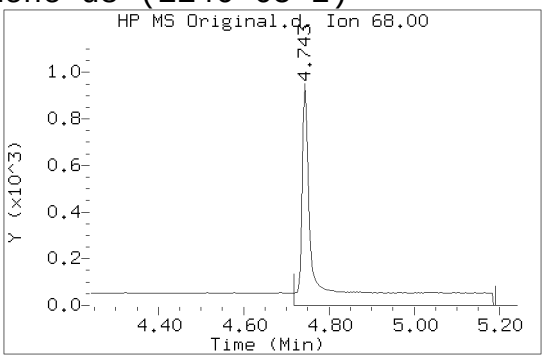
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\19.D
Inj Date : 26-JAN-2023 17:22
InstruID : SV6.i
LabSampID : 1 4-DX-0.03

Naphthalene-d8 (1146-65-2)

Reason Code:

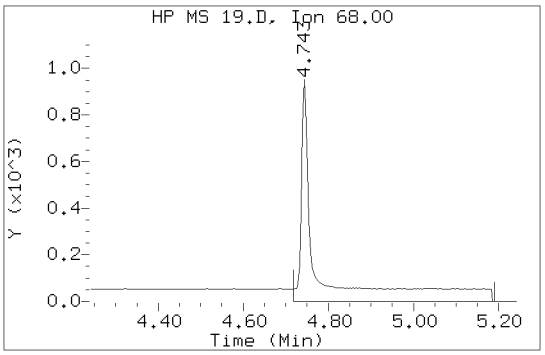
BEFORE

MASS
68
AREA
2456
HEIGHT
951
26-Jan-2023
17:37
ALSHS
Server



AFTER

MASS
68
AREA
2456
HEIGHT
951
27-Jan-2023
11:55

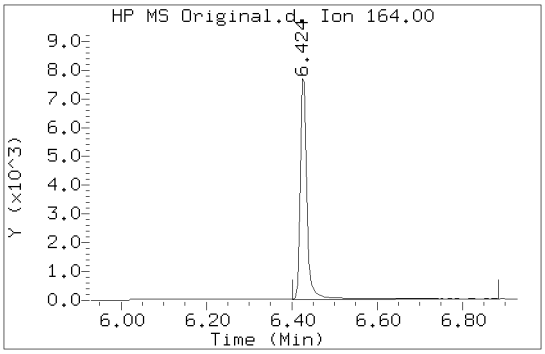


Acenaphthene-d10 (15067-26-2)

Reason Code:

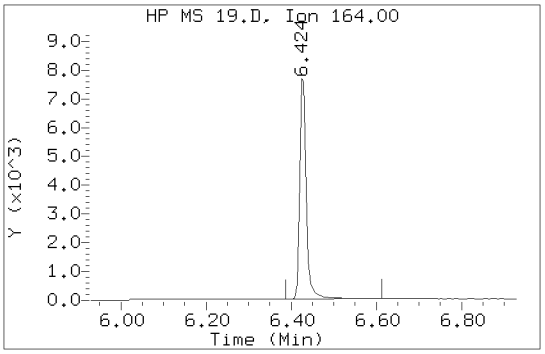
BEFORE

MASS
164
AREA
8776
HEIGHT
7674
26-Jan-2023
17:37
ALSHS
Server



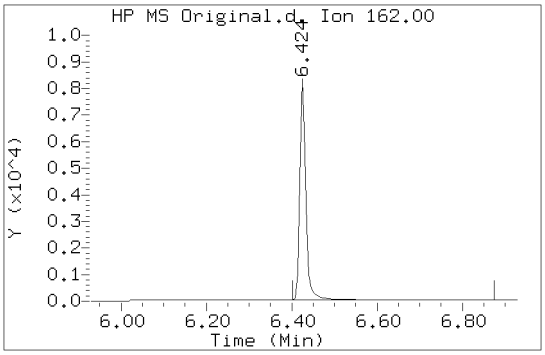
AFTER

MASS
164
AREA
8264
HEIGHT
7645
27-Jan-2023
11:55



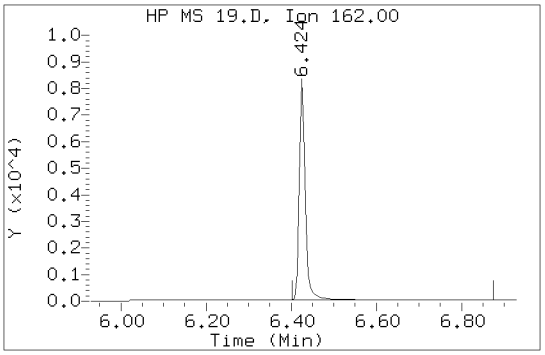
BEFORE

MASS
162
AREA
8262
HEIGHT
8311
26-Jan-2023
17:37
ALSHS
Server



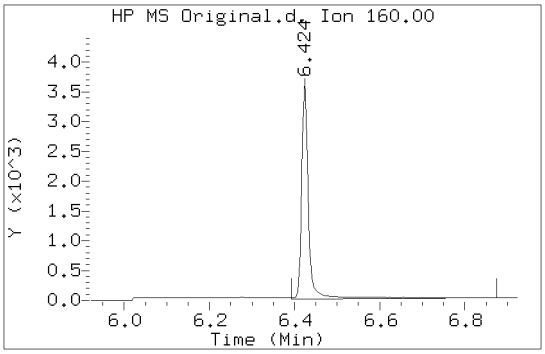
AFTER

MASS
162
AREA
8262
HEIGHT
8311
27-Jan-2023
11:55



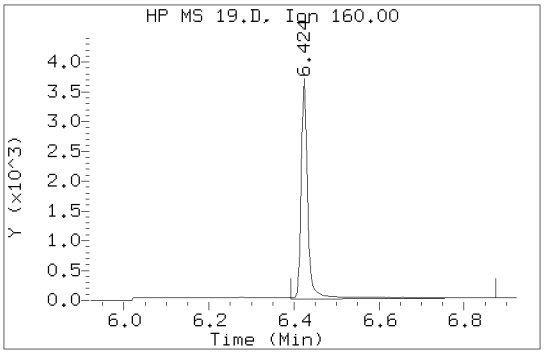
BEFORE

MASS
160
AREA
4094
HEIGHT
3698
26-Jan-2023
17:37
ALSHS
Server



AFTER

MASS
160
AREA
4094
HEIGHT
3698
27-Jan-2023
11:55



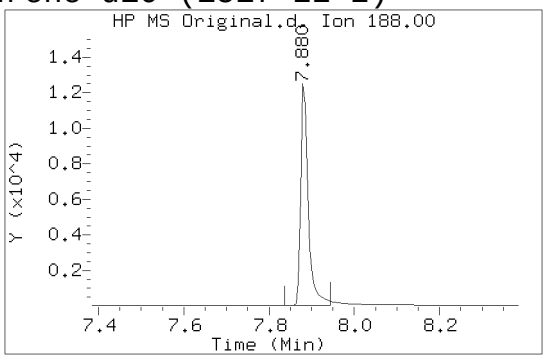
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\19.D
Inj Date : 26-JAN-2023 17:22
InstruID : SV6.i
LabSampID : 1 4-DX-0.03

Phenanthrene-d10 (1517-22-2)

Reason Code:

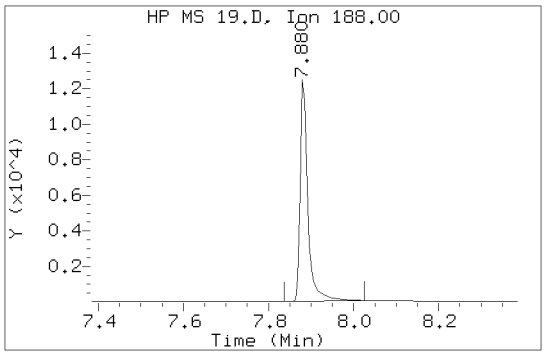
BEFORE

MASS
188
AREA
15125
HEIGHT
12466
26-Jan-2023
17:37
ALSHS
Server



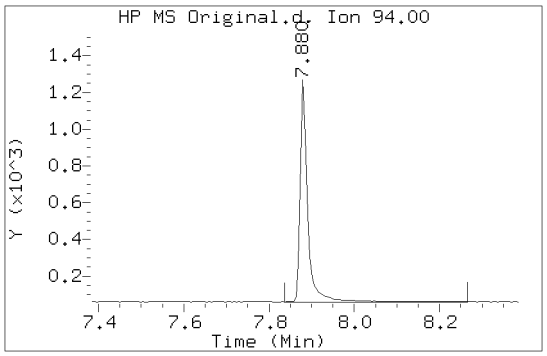
AFTER

MASS
188
AREA
15308
HEIGHT
12454
27-Jan-2023
11:55



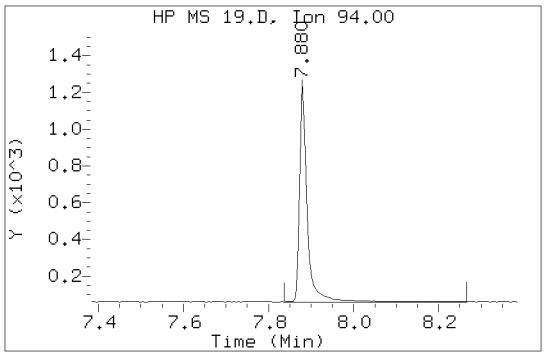
BEFORE

MASS
94
AREA
1509
HEIGHT
1209
26-Jan-2023
17:37
ALSHS
Server



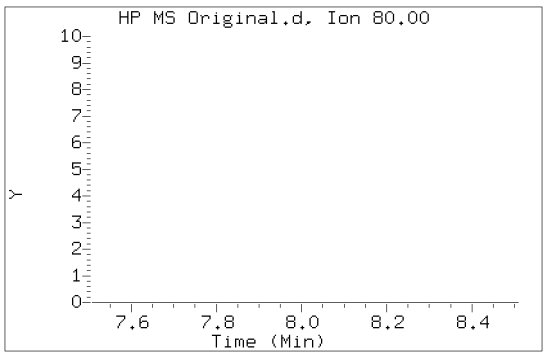
AFTER

MASS
94
AREA
1509
HEIGHT
1209
27-Jan-2023
11:55



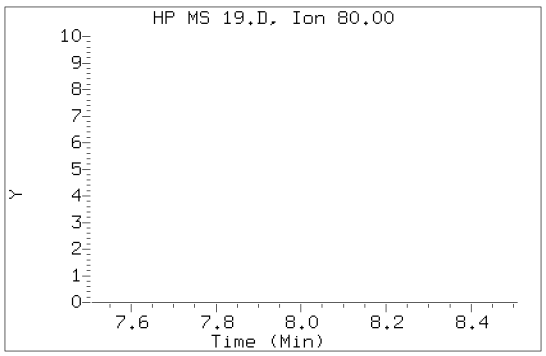
BEFORE

MASS
80
AREA
0
HEIGHT
0
26-Jan-2023
17:37
ALSHS
Server



AFTER

MASS
80
AREA
0
HEIGHT
0
27-Jan-2023
11:55

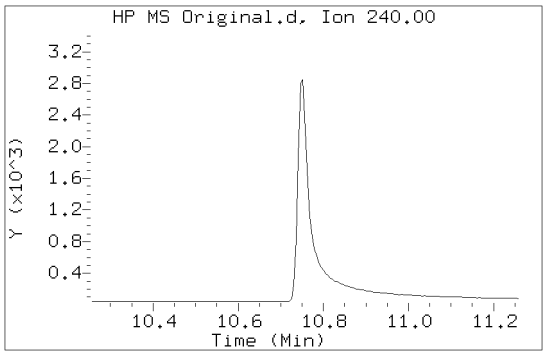


Chrysene-d12 (1719-03-5)

Reason Code:

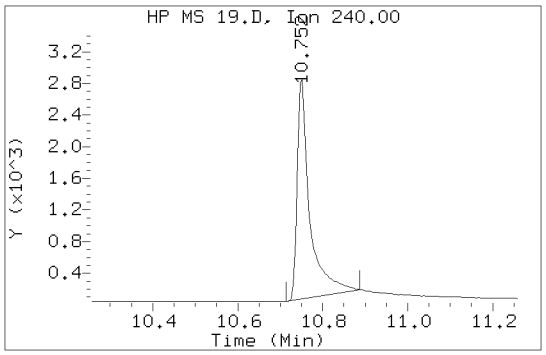
BEFORE

MASS
240
AREA
0
HEIGHT
0
26-Jan-2023
17:37
ALSHS
Server



AFTER

MASS
240
AREA
5688
HEIGHT
2769
27-Jan-2023
11:55



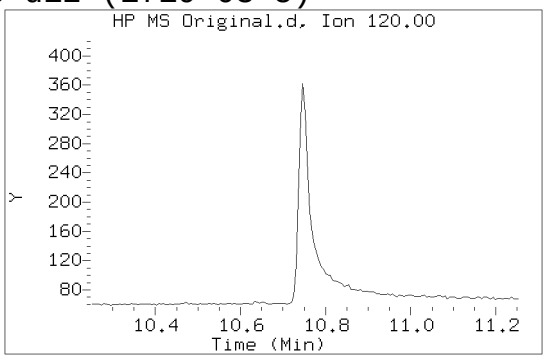
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\19.D
Inj Date : 26-JAN-2023 17:22
InstruID : SV6.i
LabSampID : 1 4-DX-0.03

Chrysene-d12 (1719-03-5)

Reason Code:

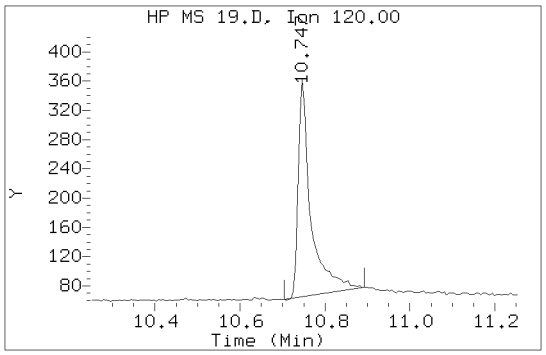
BEFORE

MASS
120
AREA
0
HEIGHT
0
26-Jan-2023
17:37
ALSHS
Server



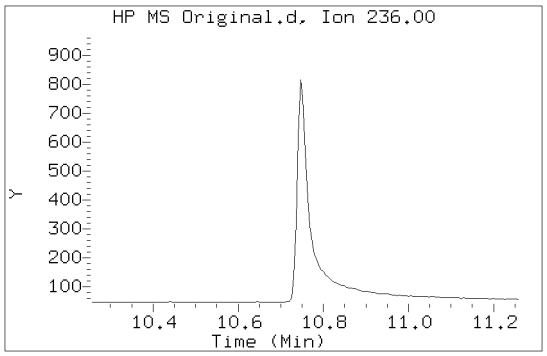
AFTER

MASS
120
AREA
608
HEIGHT
296
27-Jan-2023
11:55



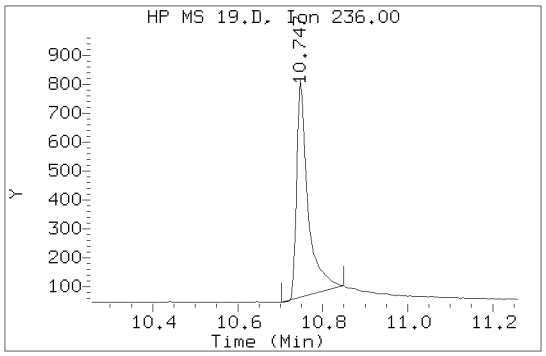
BEFORE

MASS
236
AREA
0
HEIGHT
0
26-Jan-2023
17:37
ALSHS
Server



AFTER

MASS
236
AREA
1382
HEIGHT
752
27-Jan-2023
11:55

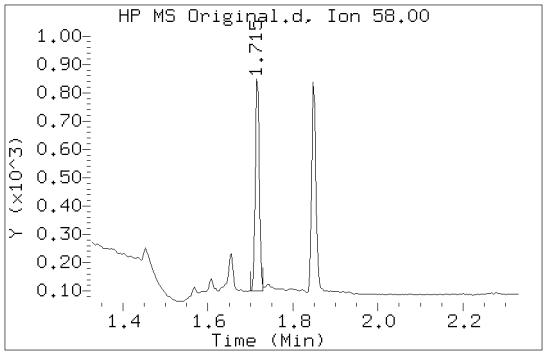


1,4-Dioxane ()

Reason Code:

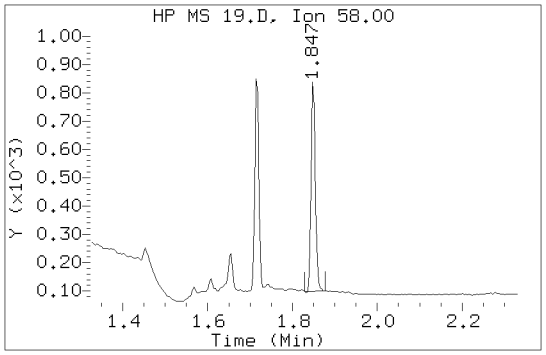
BEFORE

MASS
58
AREA
485
HEIGHT
748
26-Jan-2023
17:37
ALSHS
Server



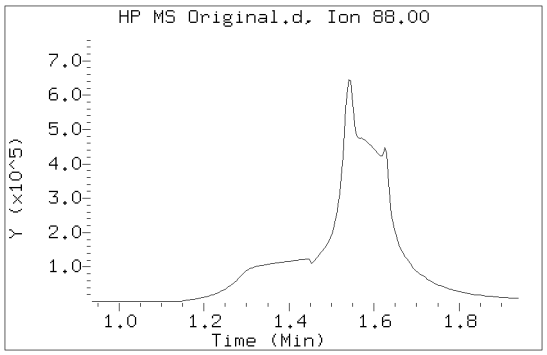
AFTER

MASS
58
AREA
502
HEIGHT
737
27-Jan-2023
11:55



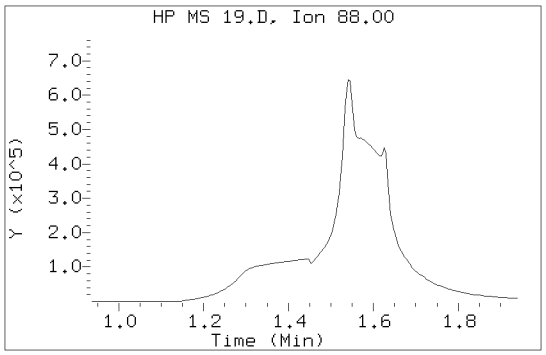
BEFORE

MASS
88
AREA
0
HEIGHT
0
26-Jan-2023
17:37
ALSHS
Server



AFTER

MASS
88
AREA
0
HEIGHT
0
27-Jan-2023
11:55

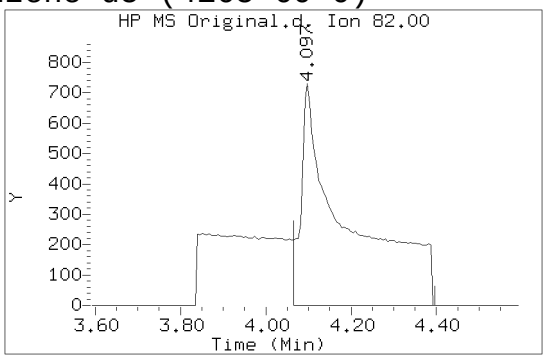


Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\19.D
Inj Date : 26-JAN-2023 17:22
InstruID : SV6.i
LabSampID : 1 4-DX-0.03

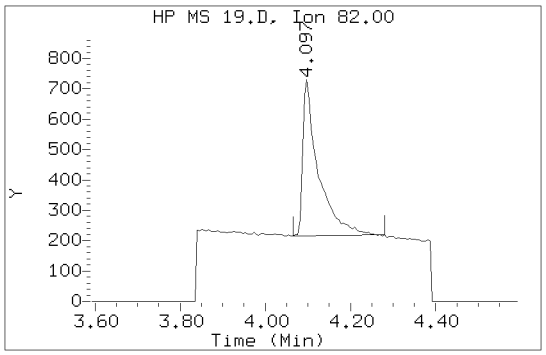
Nitrobenzene-d5 (4165-60-0)

Reason Code:

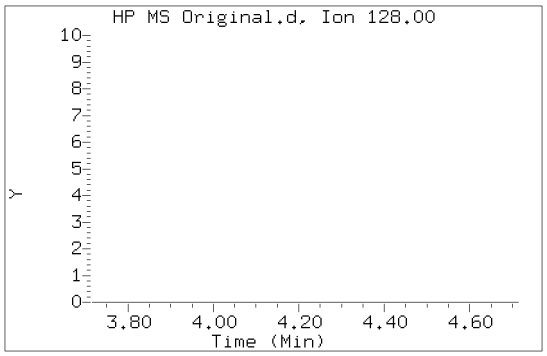
BEFORE
MASS
82
AREA
5467
HEIGHT
730
26-Jan-2023
17:37
ALSHS
Server



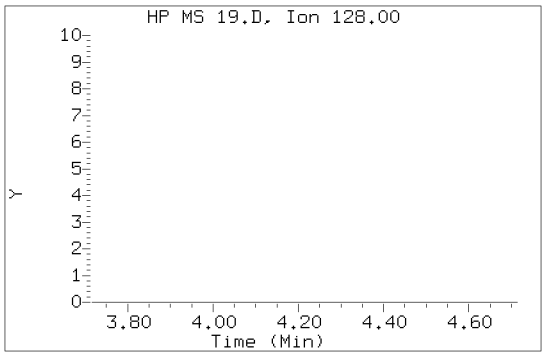
AFTER
MASS
82
AREA
1295
HEIGHT
513
27-Jan-2023
11:55



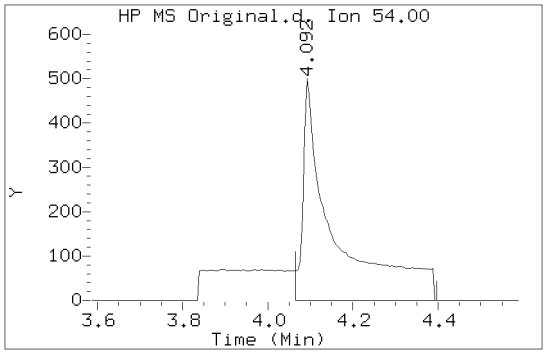
BEFORE
MASS
128
AREA
0
HEIGHT
0
26-Jan-2023
17:37
ALSHS
Server



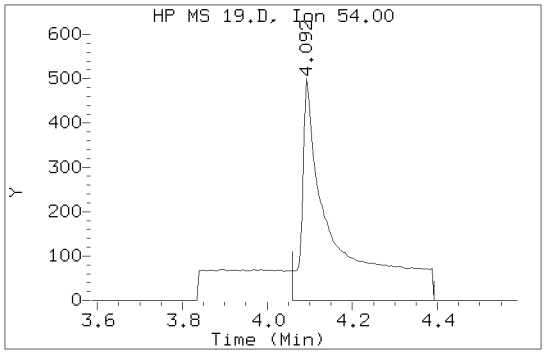
AFTER
MASS
128
AREA
0
HEIGHT
0
27-Jan-2023
11:55



BEFORE
MASS
54
AREA
2509
HEIGHT
500
26-Jan-2023
17:37
ALSHS
Server



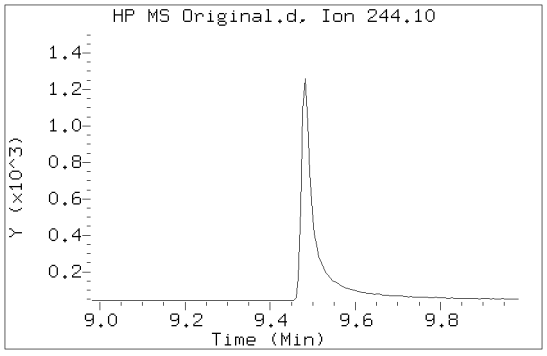
AFTER
MASS
54
AREA
2544
HEIGHT
500
27-Jan-2023
11:55



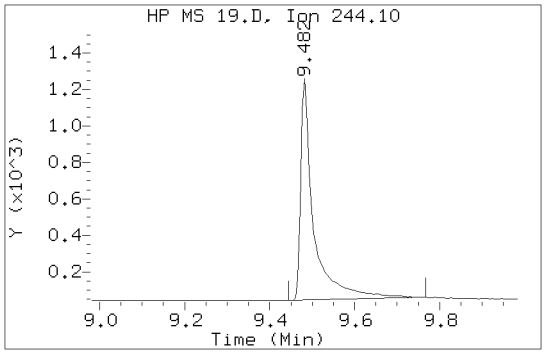
4-Terphenyl-d14 (1718-51-0)

Reason Code:

BEFORE
MASS
244.1
AREA
0
HEIGHT
0
26-Jan-2023
17:37
ALSHS
Server



AFTER
MASS
244.1
AREA
2568
HEIGHT
1213
27-Jan-2023
11:55

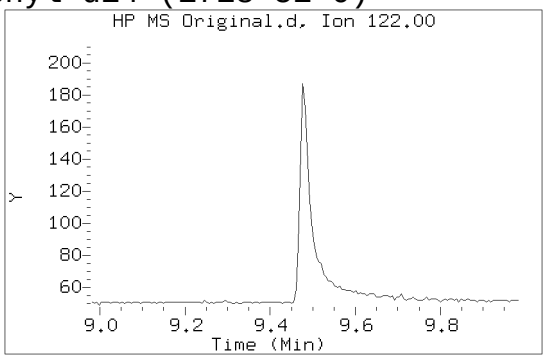


Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\19.D
Inj Date : 26-JAN-2023 17:22
InstruID : SV6.i
LabSampID : 1 4-DX-0.03

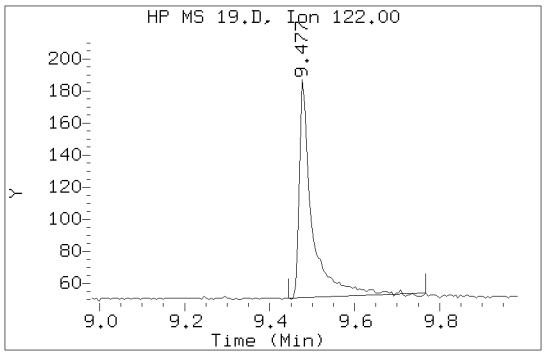
4-Terphenyl-d14 (1718-51-0)

Reason Code:

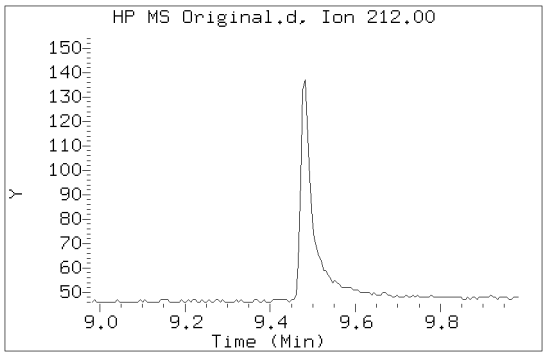
BEFORE
MASS
122
AREA
0
HEIGHT
0
26-Jan-2023
17:37
ALSHS
Server



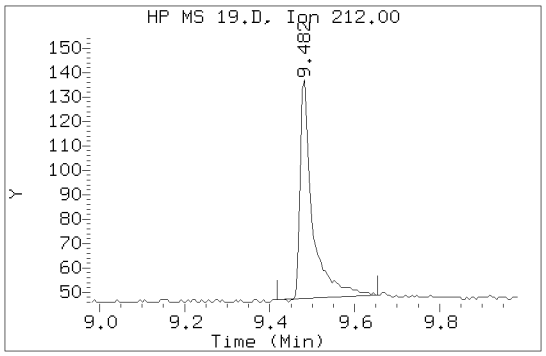
AFTER
MASS
122
AREA
277
HEIGHT
135
27-Jan-2023
11:55



BEFORE
MASS
212
AREA
0
HEIGHT
0
26-Jan-2023
17:37
ALSHS
Server



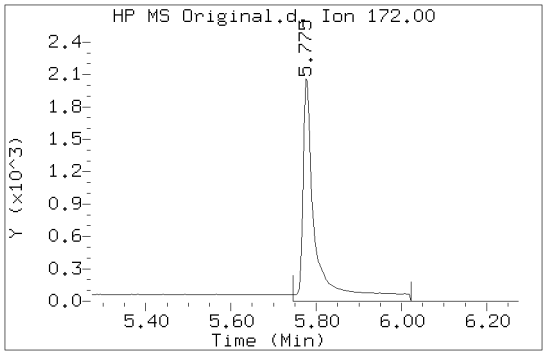
AFTER
MASS
212
AREA
180
HEIGHT
89
27-Jan-2023
11:55



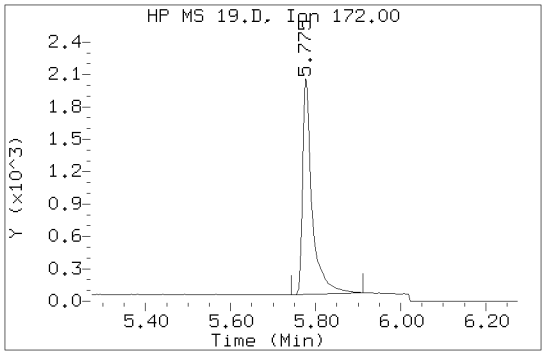
2-Fluorobiphenyl (321-60-8)

Reason Code:

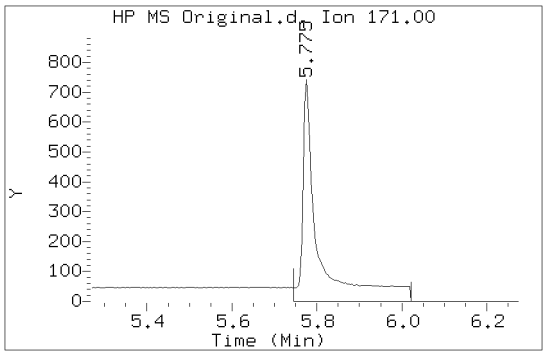
BEFORE
MASS
172
AREA
4259
HEIGHT
2059
26-Jan-2023
17:37
ALSHS
Server



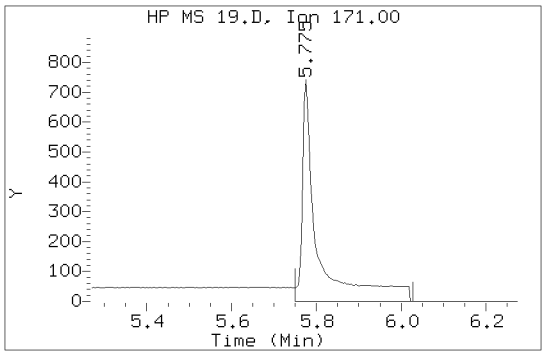
AFTER
MASS
172
AREA
3097
HEIGHT
1996
27-Jan-2023
11:55



BEFORE
MASS
171
AREA
1881
HEIGHT
742
26-Jan-2023
17:37
ALSHS
Server



AFTER
MASS
171
AREA
1882
HEIGHT
742
27-Jan-2023
11:55



Data File: \\NAHSTWS005\Target\chem\SV6.i\230126.b\20.D Page 1
Report Date: 27-Jan-2023 11:55

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230126.b\20.D
Lab Smp Id: 1 4-DX-0.05 Client Smp ID: 1 4-DX-0.05
Inj Date : 26-JAN-2023 17:40
Operator : LG Inst ID: SV6.i
Smp Info : 1 4-DX-0.05;1 4-DX-0.05
Misc Info : ;;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\SV6.i\230126.b\DXSIM.m
Meth Date : 27-Jan-2023 11:55 SV6.i Quant Type: ISTD
Cal Date : 26-JAN-2023 17:22 Cal File: 19.D
Als bottle: 19 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7095

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)
* 20 1,4-Dichlorobenzene-d4	152	3.625	3.625	(1.000)	6207	0.10000	(aM)
* 45 Naphthalene-d8	136	4.743	4.743	(1.000)	21643	0.10000	(M)
$ 33 Nitrobenzene-d5	82	4.097	4.097	(0.864)	3292	0.05000	0.05272(QM)
* 86 Acenaphthene-d10	164	6.424	6.424	(1.000)	12005	0.10000	(M)
$ 69 2-Fluorobiphenyl	172	5.775	5.775	(0.899)	7569	0.05000	0.04804(M)
* 126 Phenanthrene-d10	188	7.879	7.879	(1.000)	22930	0.10000	(M)
* 182 Chrysene-d12	240	10.746	10.746	(1.000)	10096	0.10000	(M)
$ 158 4-Terphenyl-d14	244	9.476	9.476	(0.882)	5479	0.05000	0.04162(M)
* 198 Perylene-d12	264	12.851	12.851	(1.000)	8682	0.10000	
1 1,4-Dioxane	58	1.873	1.873	(0.517)	1266	0.05000	0.05591(M)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

01181980

Data File: \\NAHSTWS005\Target\chem\SV6.i\230126.b\20.D

Date : 26-JAN-2023 17:40

Client ID: 1 4-DX-0.05

Instrument: SV6.i

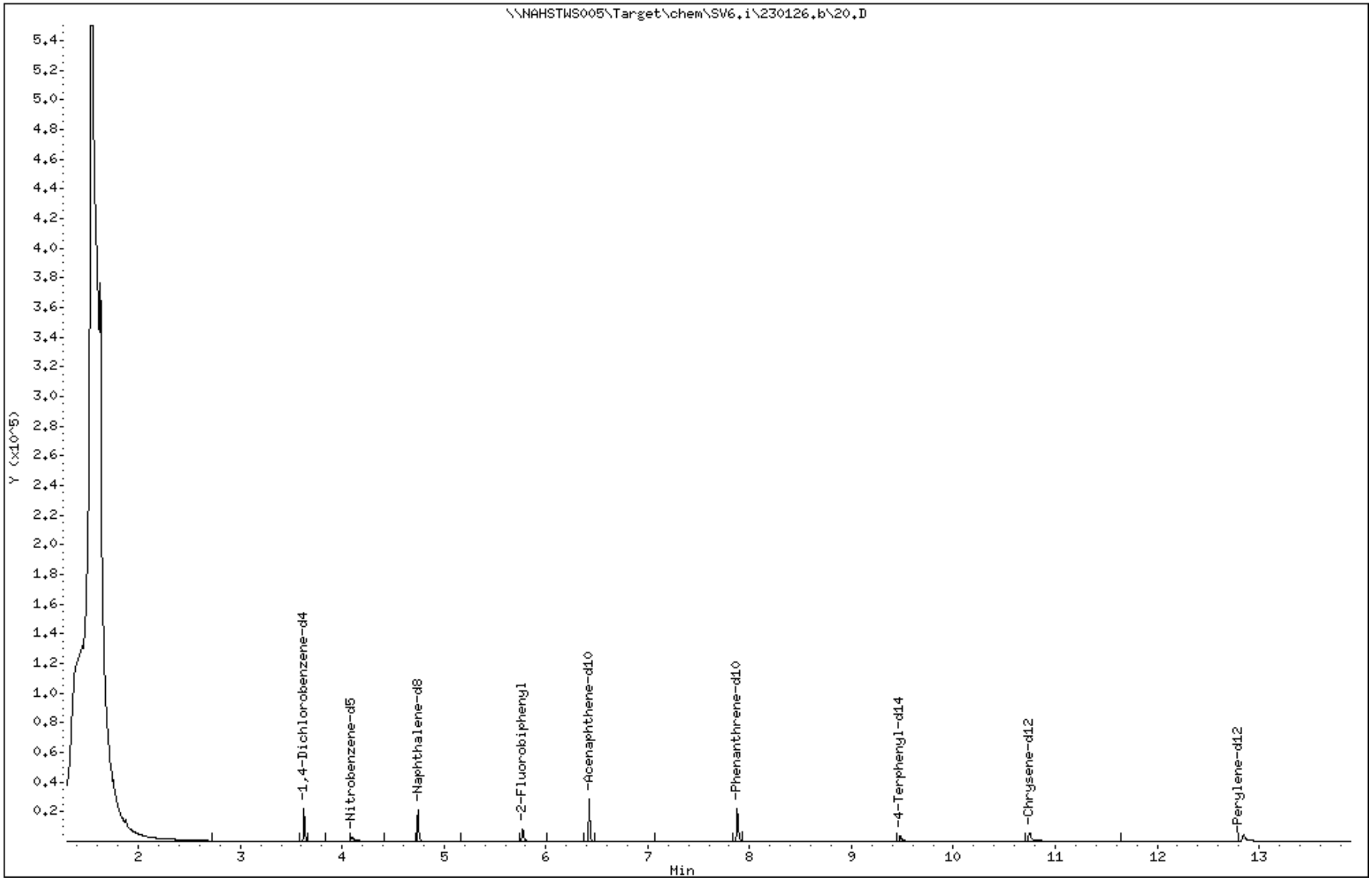
Sample Info: 1 4-DX-0.05;1 4-DX-0.05

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28

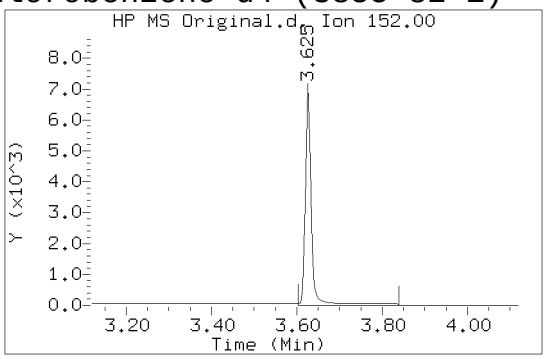


Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\20.D
Inj Date : 26-JAN-2023 17:40
InstruID : SV6.i
LabSampID : 1 4-DX-0.05

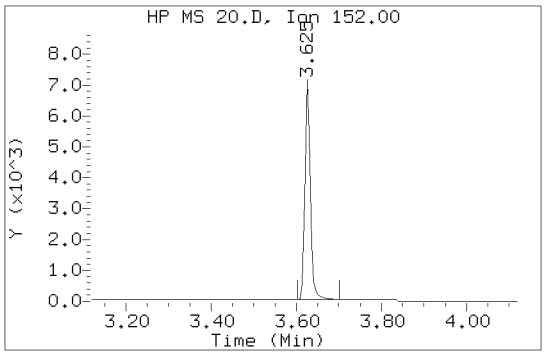
1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

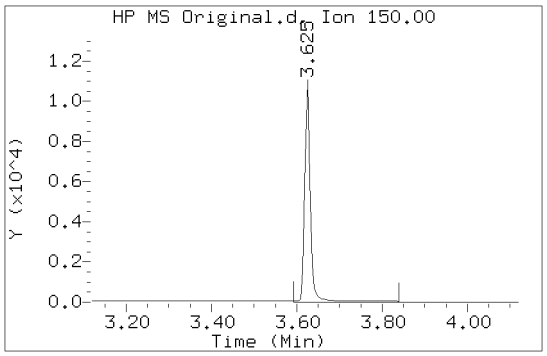
BEFORE
MASS
152
AREA
7036
HEIGHT
7174
26-Jan-2023
17:55
ALSHS
Server



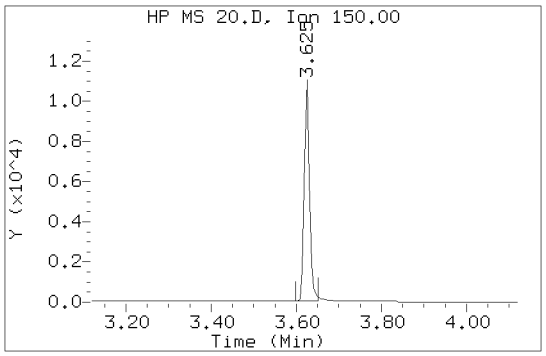
AFTER
MASS
152
AREA
6207
HEIGHT
7117
27-Jan-2023
11:55



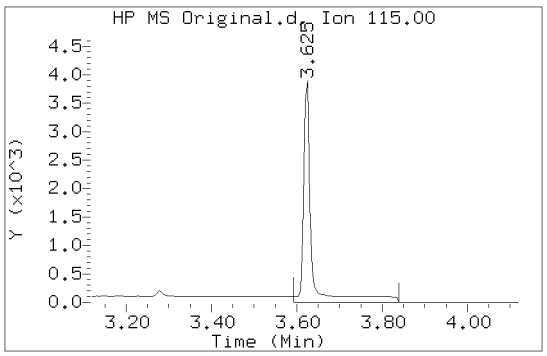
BEFORE
MASS
150
AREA
10220
HEIGHT
11063
26-Jan-2023
17:55
ALSHS
Server



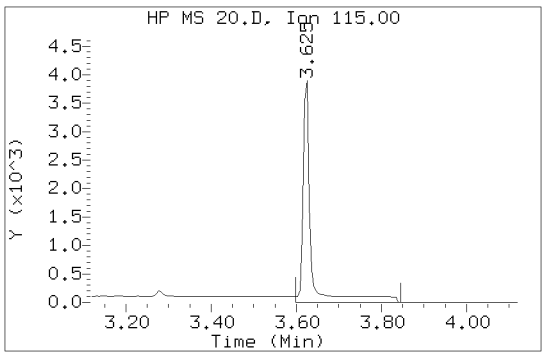
AFTER
MASS
150
AREA
9269
HEIGHT
11013
27-Jan-2023
11:55



BEFORE
MASS
115
AREA
5002
HEIGHT
3896
26-Jan-2023
17:55
ALSHS
Server



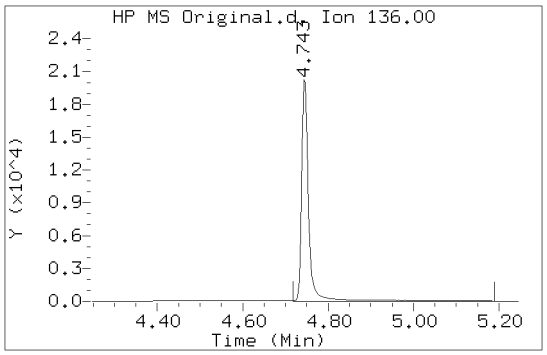
AFTER
MASS
115
AREA
4971
HEIGHT
3896
27-Jan-2023
11:55



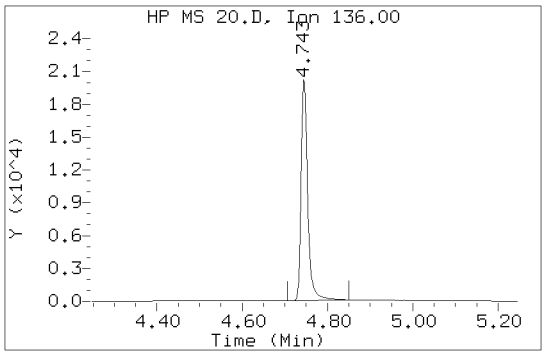
Naphthalene-d8 (1146-65-2)

Reason Code:

BEFORE
MASS
136
AREA
24227
HEIGHT
20256
26-Jan-2023
17:55
ALSHS
Server



AFTER
MASS
136
AREA
21643
HEIGHT
20170
27-Jan-2023
11:55



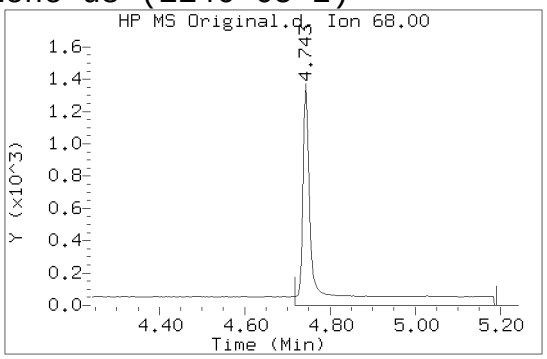
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\20.D
Inj Date : 26-JAN-2023 17:40
InstruID : SV6.i
LabSampID : 1 4-DX-0.05

Naphthalene-d8 (1146-65-2)

Reason Code:

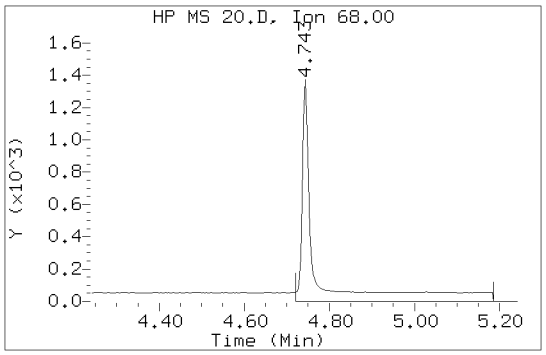
BEFORE

MASS
68
AREA
2898
HEIGHT
1372
26-Jan-2023
17:55
ALSHS
Server



AFTER

MASS
68
AREA
2886
HEIGHT
1372
27-Jan-2023
11:55

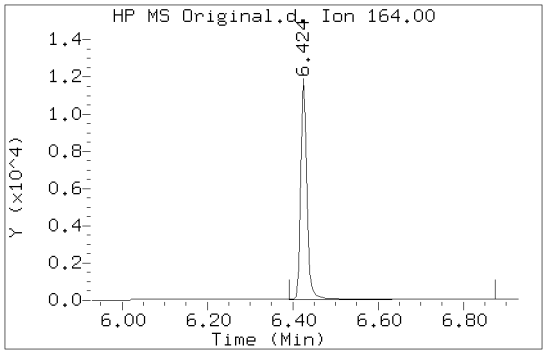


Acenaphthene-d10 (15067-26-2)

Reason Code:

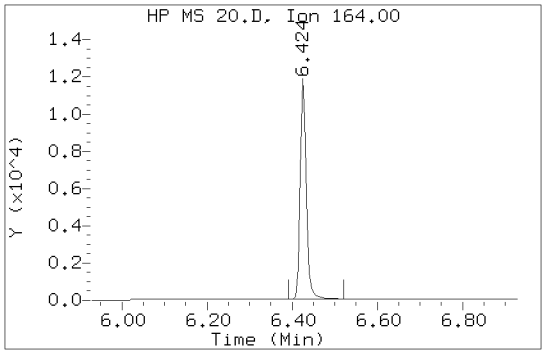
BEFORE

MASS
164
AREA
12674
HEIGHT
11880
26-Jan-2023
17:55
ALSHS
Server



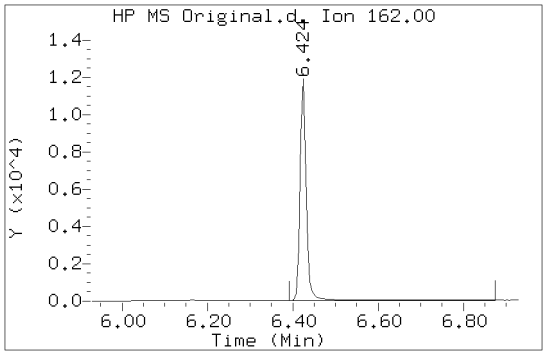
AFTER

MASS
164
AREA
12005
HEIGHT
11845
27-Jan-2023
11:55



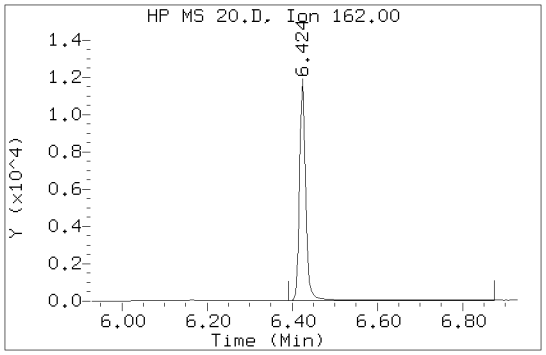
BEFORE

MASS
162
AREA
12561
HEIGHT
11898
26-Jan-2023
17:55
ALSHS
Server



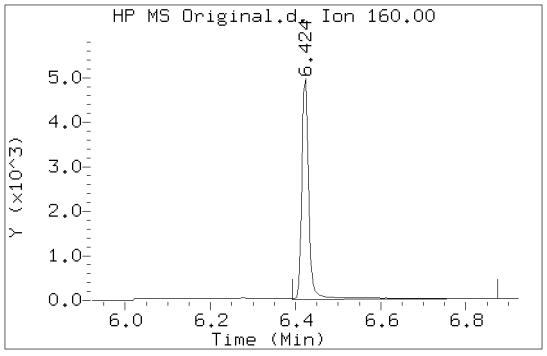
AFTER

MASS
162
AREA
12561
HEIGHT
11898
27-Jan-2023
11:55



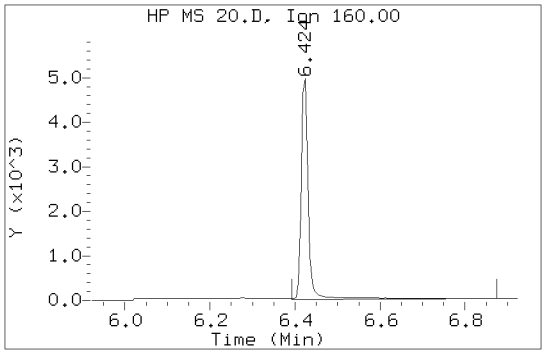
BEFORE

MASS
160
AREA
5755
HEIGHT
4956
26-Jan-2023
17:55
ALSHS
Server



AFTER

MASS
160
AREA
5755
HEIGHT
4956
27-Jan-2023
11:55



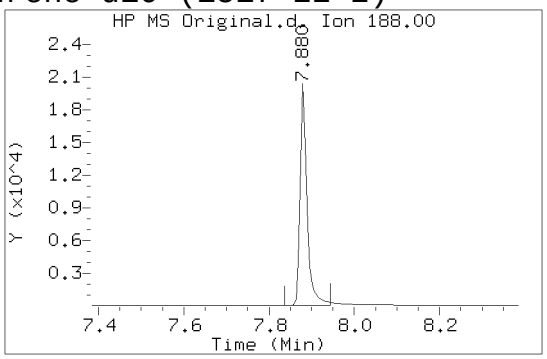
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\20.D
Inj Date : 26-JAN-2023 17:40
InstruID : SV6.i
LabSampID : 1 4-DX-0.05

Phenanthrene-d10 (1517-22-2)

Reason Code:

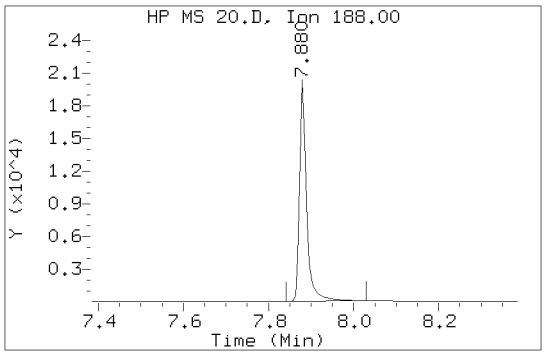
BEFORE

MASS
188
AREA
22670
HEIGHT
20338
26-Jan-2023
17:55
ALSHS
Server



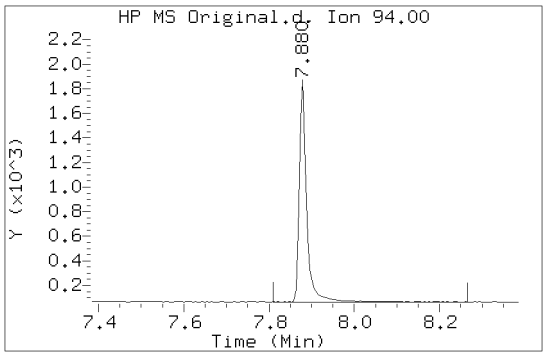
AFTER

MASS
188
AREA
22930
HEIGHT
20327
27-Jan-2023
11:55



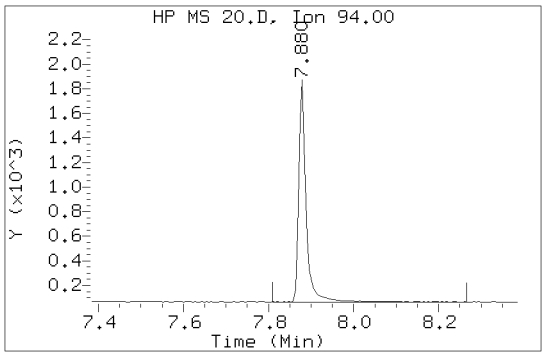
BEFORE

MASS
94
AREA
2147
HEIGHT
1806
26-Jan-2023
17:55
ALSHS
Server



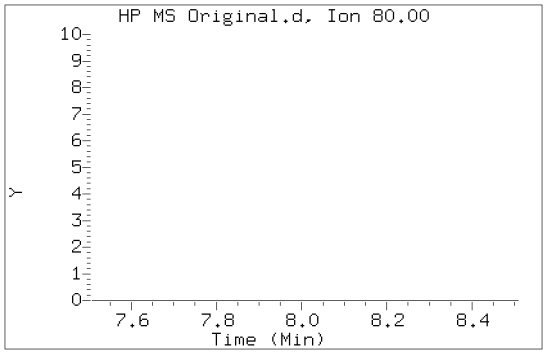
AFTER

MASS
94
AREA
2147
HEIGHT
1806
27-Jan-2023
11:55



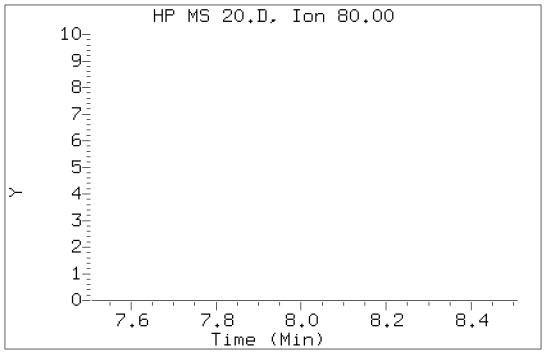
BEFORE

MASS
80
AREA
0
HEIGHT
0
26-Jan-2023
17:55
ALSHS
Server



AFTER

MASS
80
AREA
0
HEIGHT
0
27-Jan-2023
11:55

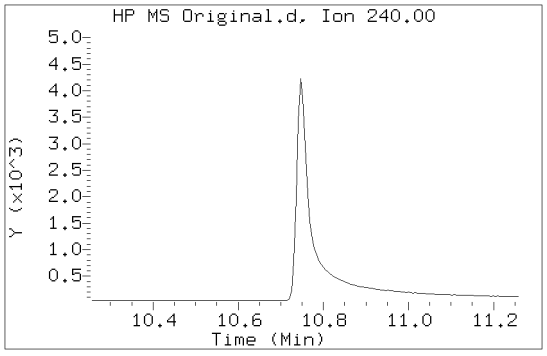


Chrysene-d12 (1719-03-5)

Reason Code:

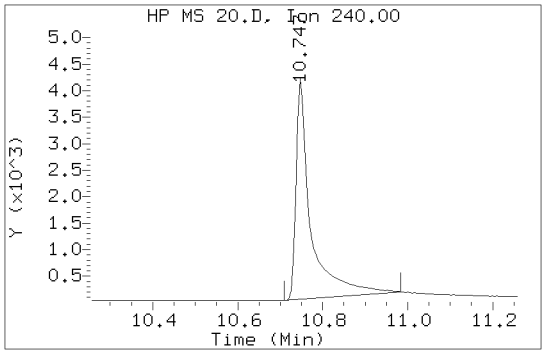
BEFORE

MASS
240
AREA
0
HEIGHT
0
26-Jan-2023
17:55
ALSHS
Server



AFTER

MASS
240
AREA
10096
HEIGHT
4158
27-Jan-2023
11:55

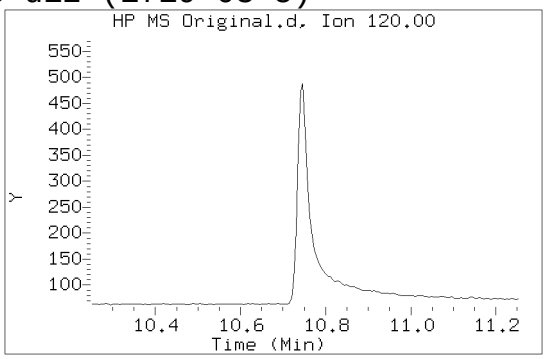


Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\20.D
Inj Date : 26-JAN-2023 17:40
InstruID : SV6.i
LabSampID : 1 4-DX-0.05

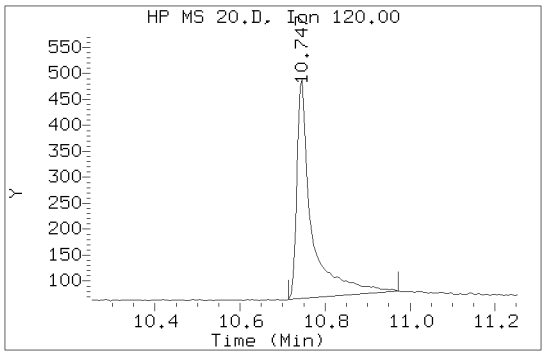
Chrysene-d12 (1719-03-5)

Reason Code:

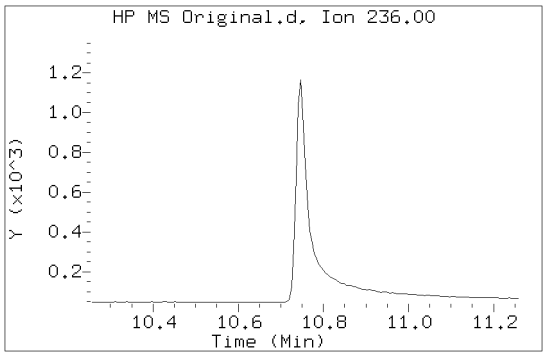
BEFORE
MASS
120
AREA
0
HEIGHT
0
26-Jan-2023
17:55
ALSHS
Server



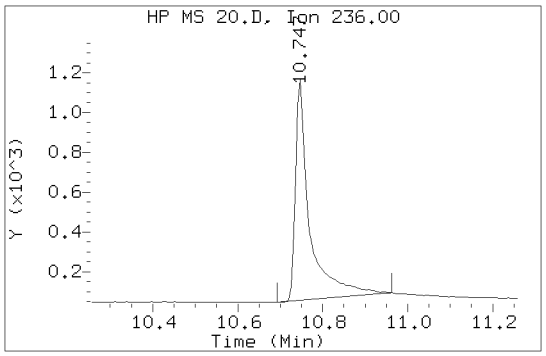
AFTER
MASS
120
AREA
1018
HEIGHT
420
27-Jan-2023
11:55



BEFORE
MASS
236
AREA
0
HEIGHT
0
26-Jan-2023
17:55
ALSHS
Server



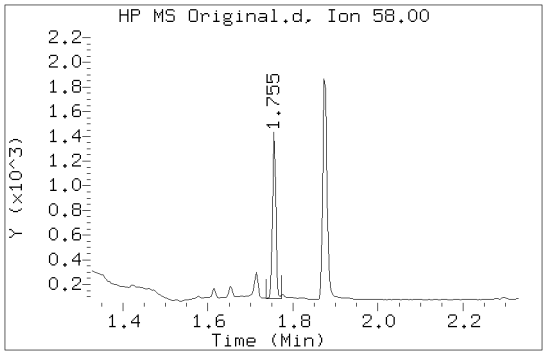
AFTER
MASS
236
AREA
2566
HEIGHT
1106
27-Jan-2023
11:55



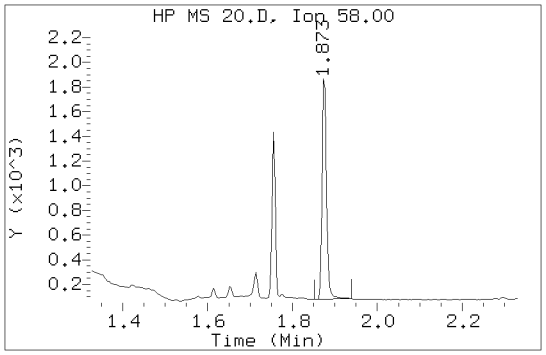
1,4-Dioxane ()

Reason Code:

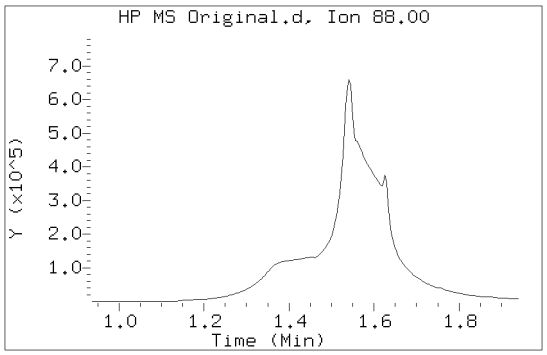
BEFORE
MASS
58
AREA
732
HEIGHT
1346
26-Jan-2023
17:55
ALSHS
Server



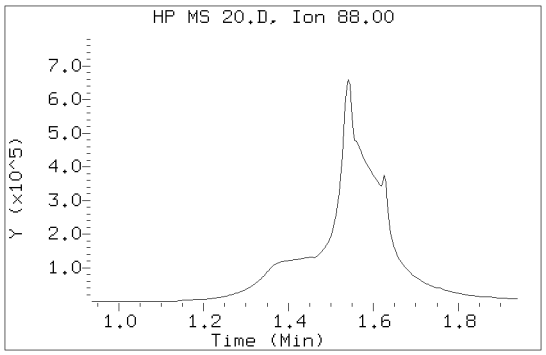
AFTER
MASS
58
AREA
1266
HEIGHT
1783
27-Jan-2023
11:55



BEFORE
MASS
88
AREA
0
HEIGHT
0
26-Jan-2023
17:55
ALSHS
Server



AFTER
MASS
88
AREA
0
HEIGHT
0
27-Jan-2023
11:55



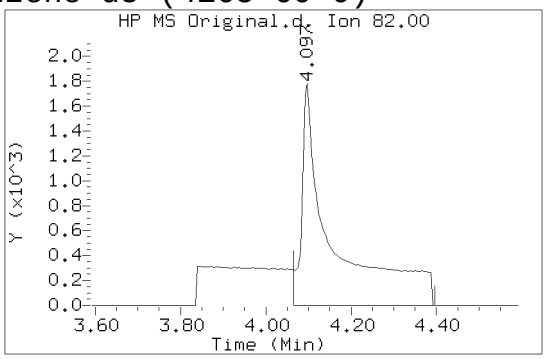
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\20.D
Inj Date : 26-JAN-2023 17:40
InstruID : SV6.i
LabSampID : 1 4-DX-0.05

Nitrobenzene-d5 (4165-60-0)

Reason Code:

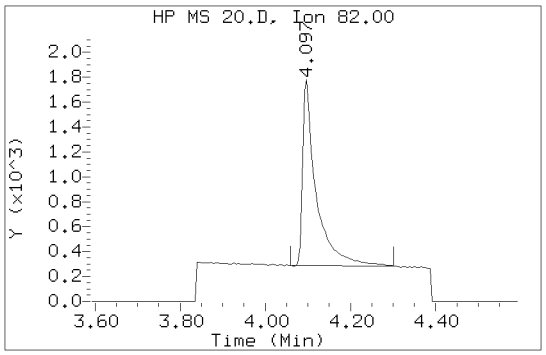
BEFORE

MASS
82
AREA
8797
HEIGHT
1780
26-Jan-2023
17:55
ALSHS
Server



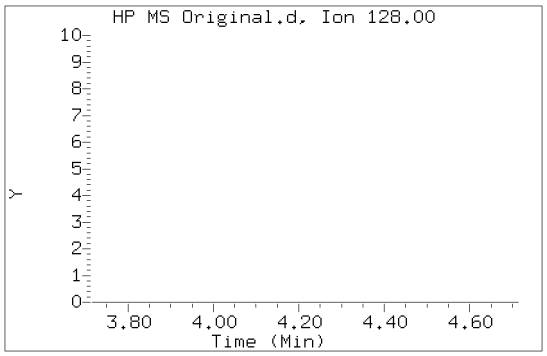
AFTER

MASS
82
AREA
3292
HEIGHT
1493
27-Jan-2023
11:55



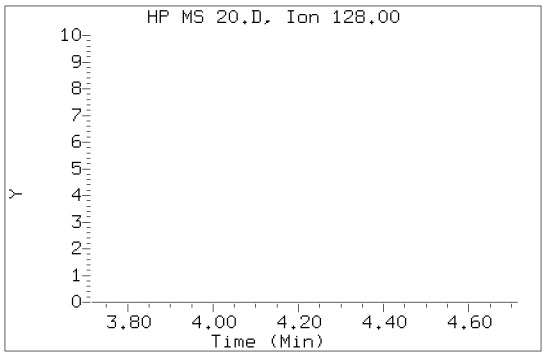
BEFORE

MASS
128
AREA
0
HEIGHT
0
26-Jan-2023
17:55
ALSHS
Server



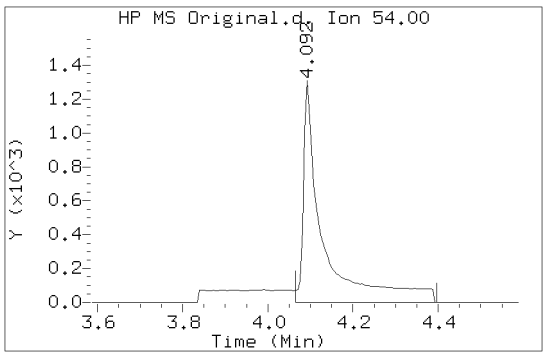
AFTER

MASS
128
AREA
0
HEIGHT
0
27-Jan-2023
11:55



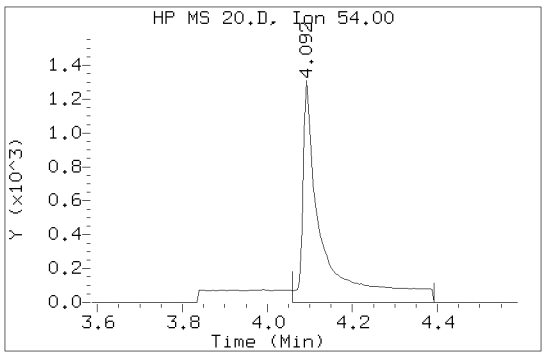
BEFORE

MASS
54
AREA
4158
HEIGHT
1309
26-Jan-2023
17:55
ALSHS
Server



AFTER

MASS
54
AREA
4202
HEIGHT
1309
27-Jan-2023
11:55

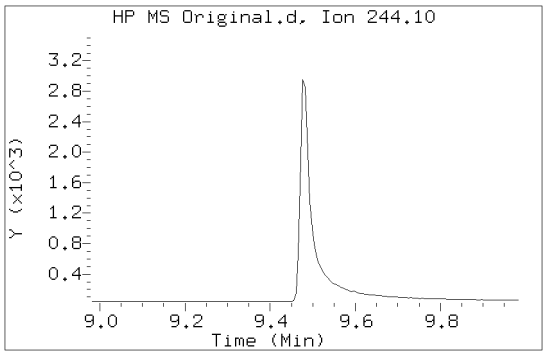


4-Terphenyl-d14 (1718-51-0)

Reason Code:

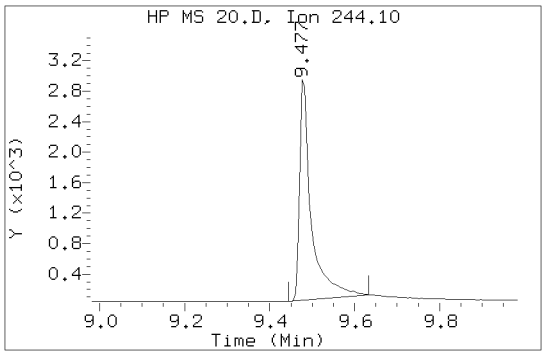
BEFORE

MASS
244.1
AREA
0
HEIGHT
0
26-Jan-2023
17:55
ALSHS
Server



AFTER

MASS
244.1
AREA
5479
HEIGHT
2890
27-Jan-2023
11:55

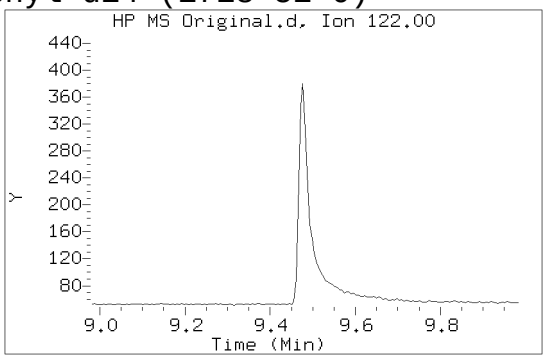


Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\20.D
Inj Date : 26-JAN-2023 17:40
InstruID : SV6.i
LabSampID : 1 4-DX-0.05

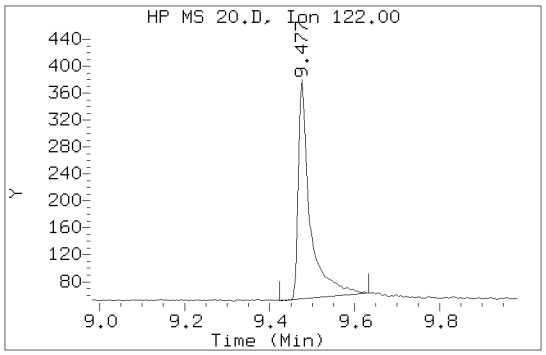
4-Terphenyl-d14 (1718-51-0)

Reason Code:

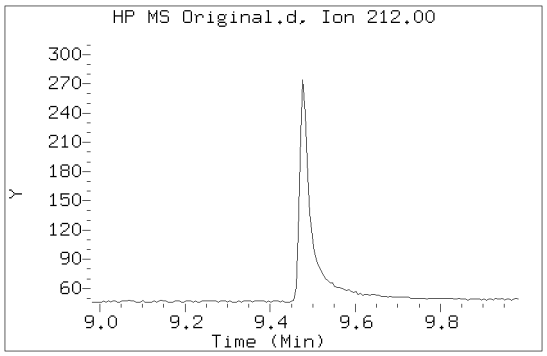
BEFORE
MASS
122
AREA
0
HEIGHT
0
26-Jan-2023
17:55
ALSHS
Server



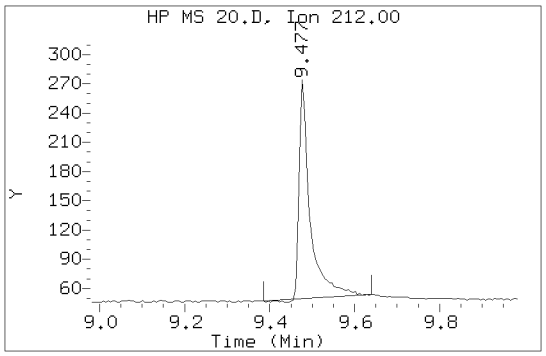
AFTER
MASS
122
AREA
621
HEIGHT
325
27-Jan-2023
11:55



BEFORE
MASS
212
AREA
0
HEIGHT
0
26-Jan-2023
17:55
ALSHS
Server



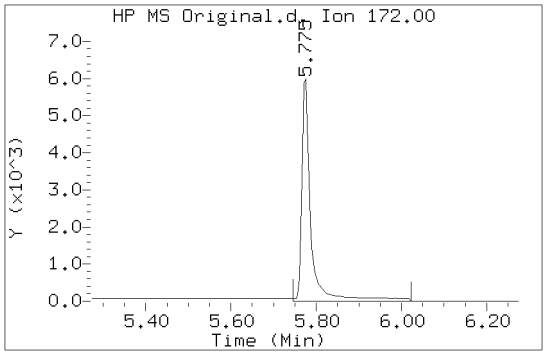
AFTER
MASS
212
AREA
394
HEIGHT
224
27-Jan-2023
11:55



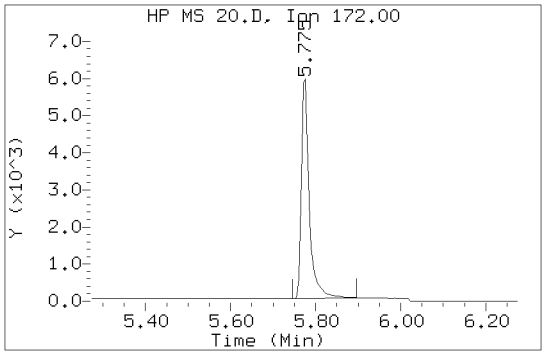
2-Fluorobiphenyl (321-60-8)

Reason Code:

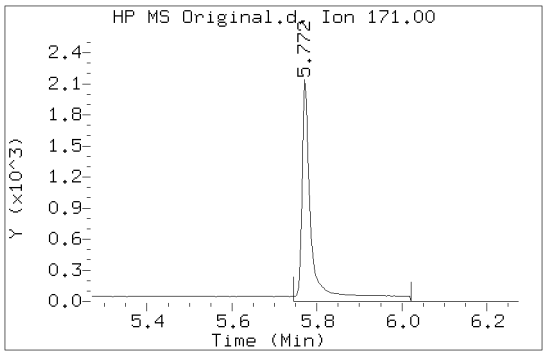
BEFORE
MASS
172
AREA
8878
HEIGHT
5991
26-Jan-2023
17:55
ALSHS
Server



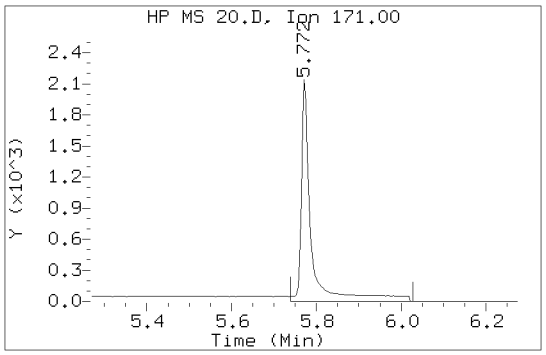
AFTER
MASS
172
AREA
7569
HEIGHT
5923
27-Jan-2023
11:55



BEFORE
MASS
171
AREA
3461
HEIGHT
2140
26-Jan-2023
17:55
ALSHS
Server



AFTER
MASS
171
AREA
3502
HEIGHT
2140
27-Jan-2023
11:55



ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230126.b\21.D
Lab Smp Id: 1 4-DX-0.08 Client Smp ID: 1 4-DX-0.08
Inj Date : 26-JAN-2023 17:58
Operator : LG Inst ID: SV6.i
Smp Info : 1 4-DX-0.08;1 4-DX-0.08
Misc Info : ;;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\SV6.i\230126.b\DXSIM.m
Meth Date : 27-Jan-2023 11:55 SV6.i Quant Type: ISTD
Cal Date : 26-JAN-2023 17:40 Cal File: 20.D
Als bottle: 20 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7095

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)
* 20 1,4-Dichlorobenzene-d4	152	3.619	3.619	(1.000)	4575	0.10000	(aM)
* 45 Naphthalene-d8	136	4.747	4.747	(1.000)	15544	0.10000	(M)
$ 33 Nitrobenzene-d5	82	4.092	4.092	(0.862)	3532	0.08000	0.07875(M)
* 86 Acenaphthene-d10	164	6.429	6.429	(1.000)	8772	0.10000	(M)
$ 69 2-Fluorobiphenyl	172	5.775	5.775	(0.898)	9154	0.08000	0.07951(M)
* 126 Phenanthrene-d10	188	7.885	7.885	(1.000)	17186	0.10000	(M)
* 182 Chrysene-d12	240	10.752	10.752	(1.000)	6062	0.10000	(M)
$ 158 4-Terphenyl-d14	244	9.482	9.482	(0.882)	7348	0.08000	0.07318(M)
* 198 Perylene-d12	264	12.852	12.852	(1.000)	5003	0.10000	
1 1,4-Dioxane	58	1.843	1.843	(0.509)	1216	0.08000	0.07286(QM)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

01181988

Data File: \\NAHSTWS005\Target\chem\SV6.i\230126.b\21.D

Page 1

Date : 26-JAN-2023 17:58

Client ID: 1 4-DX-0.08

Instrument: SV6.i

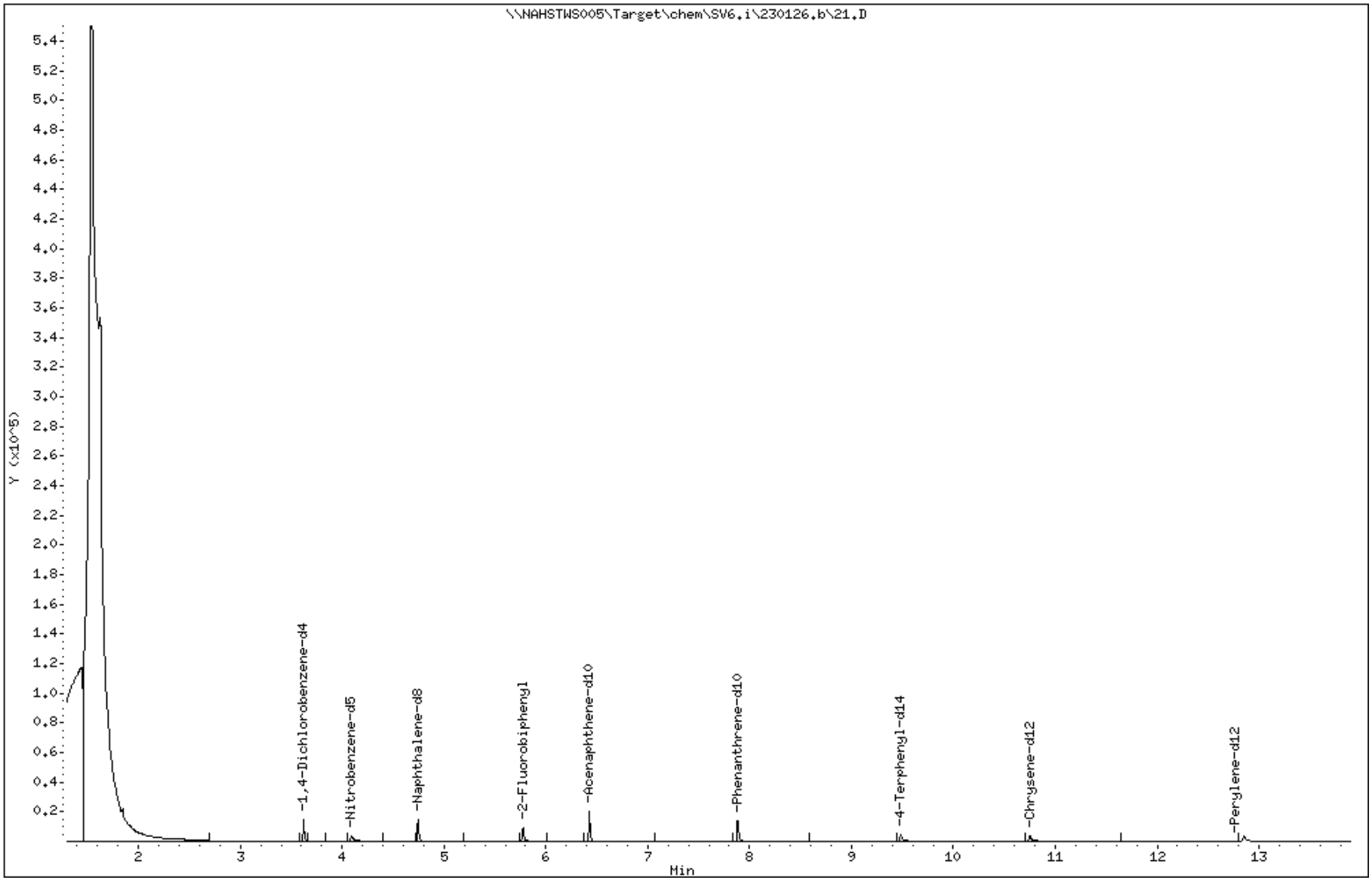
Sample Info: 1 4-DX-0.08;1 4-DX-0.08

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28



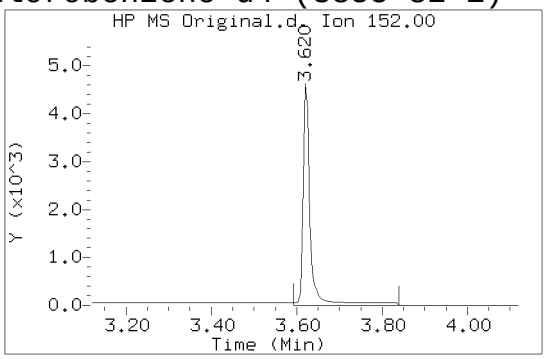
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\21.D
Inj Date : 26-JAN-2023 17:58
InstruID : SV6.i
LabSampID : 1 4-DX-0.08

1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

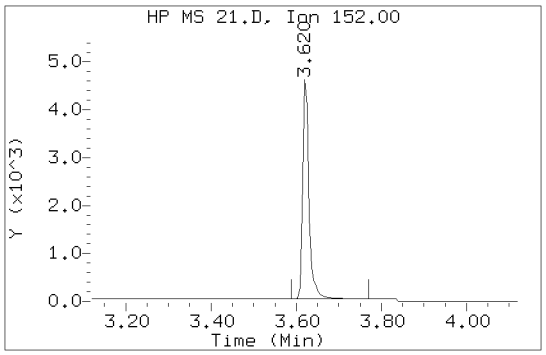
BEFORE

MASS
152
AREA
5358
HEIGHT
4629
26-Jan-2023
18:12
ALSHS
Server



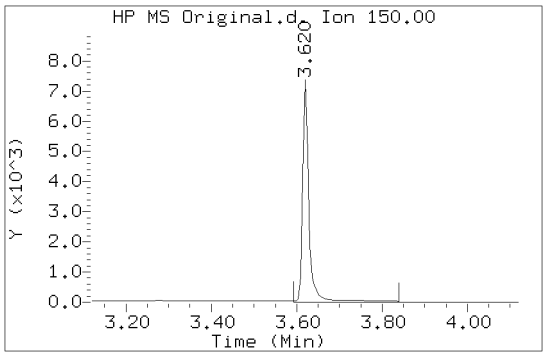
AFTER

MASS
152
AREA
4575
HEIGHT
4577
27-Jan-2023
11:55



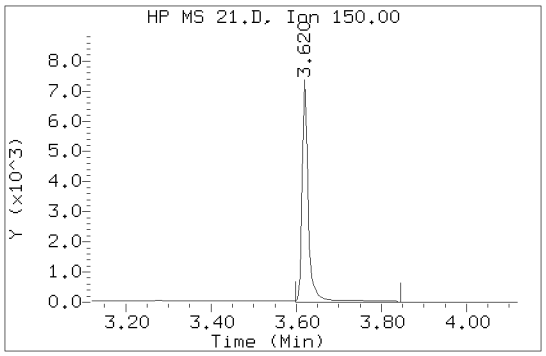
BEFORE

MASS
150
AREA
7614
HEIGHT
7372
26-Jan-2023
18:12
ALSHS
Server



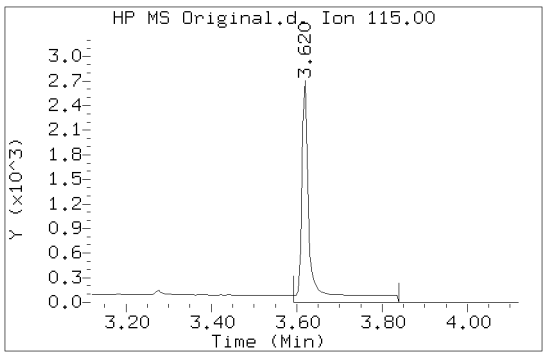
AFTER

MASS
150
AREA
7598
HEIGHT
7372
27-Jan-2023
11:55



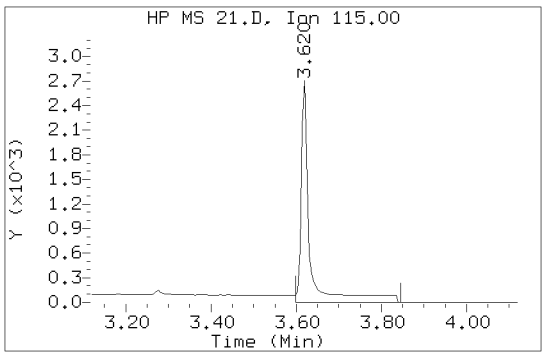
BEFORE

MASS
115
AREA
3820
HEIGHT
2704
26-Jan-2023
18:12
ALSHS
Server



AFTER

MASS
115
AREA
3792
HEIGHT
2704
27-Jan-2023
11:55

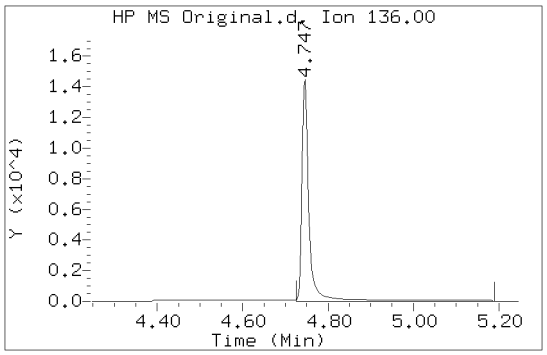


Naphthalene-d8 (1146-65-2)

Reason Code:

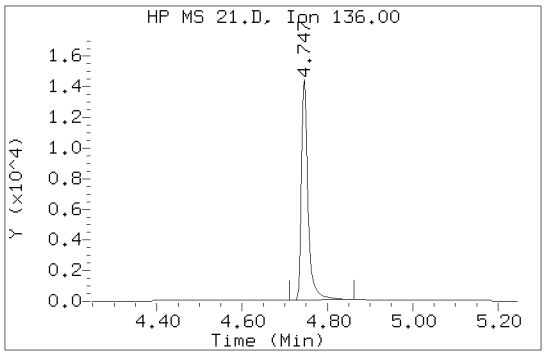
BEFORE

MASS
136
AREA
17931
HEIGHT
14466
26-Jan-2023
18:12
ALSHS
Server



AFTER

MASS
136
AREA
15544
HEIGHT
14387
27-Jan-2023
11:55



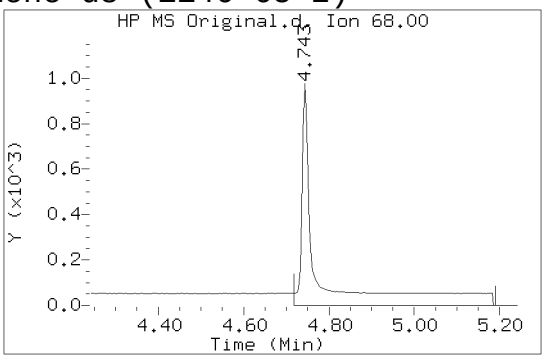
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\21.D
Inj Date : 26-JAN-2023 17:58
InstruID : SV6.i
LabSampID : 1 4-DX-0.08

Naphthalene-d8 (1146-65-2)

Reason Code:

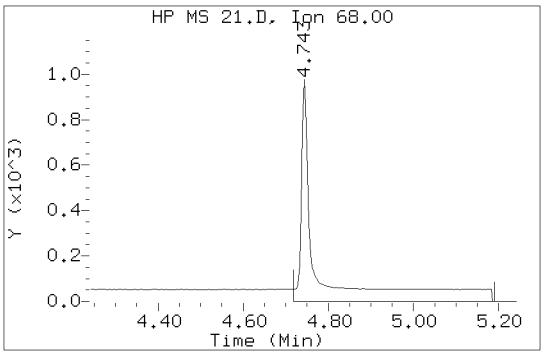
BEFORE

MASS
68
AREA
2481
HEIGHT
976
26-Jan-2023
18:12
ALSHS
Server



AFTER

MASS
68
AREA
2481
HEIGHT
976
27-Jan-2023
11:55

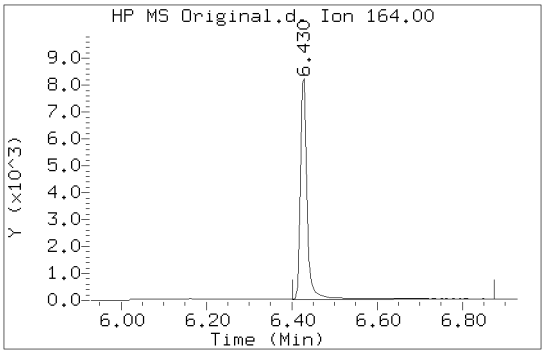


Acenaphthene-d10 (15067-26-2)

Reason Code:

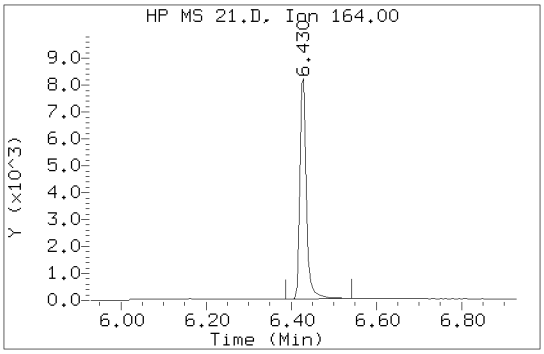
BEFORE

MASS
164
AREA
9409
HEIGHT
8212
26-Jan-2023
18:12
ALSHS
Server



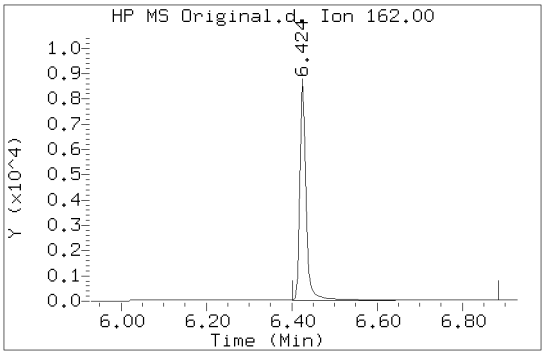
AFTER

MASS
164
AREA
8772
HEIGHT
8177
27-Jan-2023
11:55



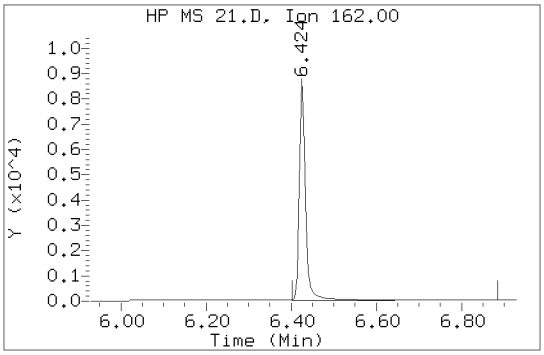
BEFORE

MASS
162
AREA
9264
HEIGHT
8767
26-Jan-2023
18:12
ALSHS
Server



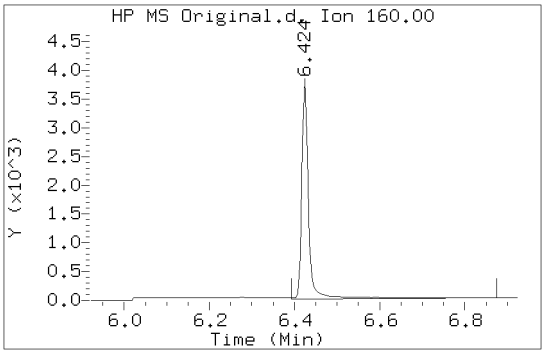
AFTER

MASS
162
AREA
9264
HEIGHT
8767
27-Jan-2023
11:55



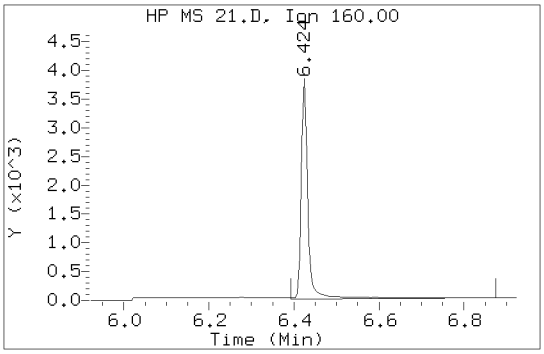
BEFORE

MASS
160
AREA
4244
HEIGHT
3833
26-Jan-2023
18:12
ALSHS
Server



AFTER

MASS
160
AREA
4244
HEIGHT
3833
27-Jan-2023
11:55

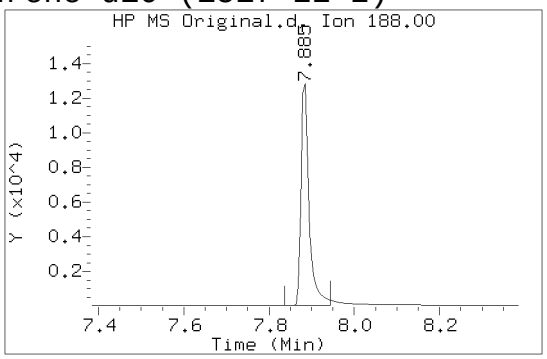


Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\21.D
Inj Date : 26-JAN-2023 17:58
InstruID : SV6.i
LabSampID : 1 4-DX-0.08

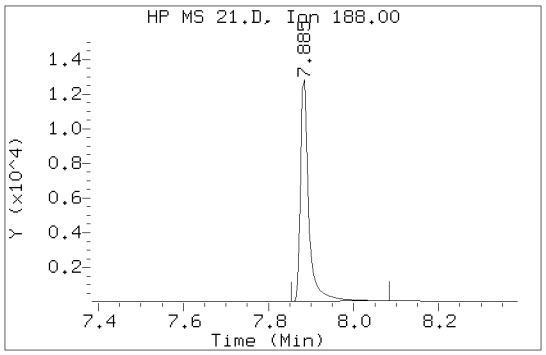
Phenanthrene-d10 (1517-22-2)

Reason Code:

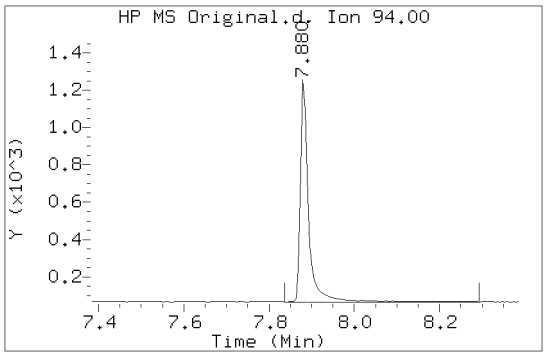
BEFORE
MASS
188
AREA
16671
HEIGHT
12786
26-Jan-2023
18:12
ALSHS
Server



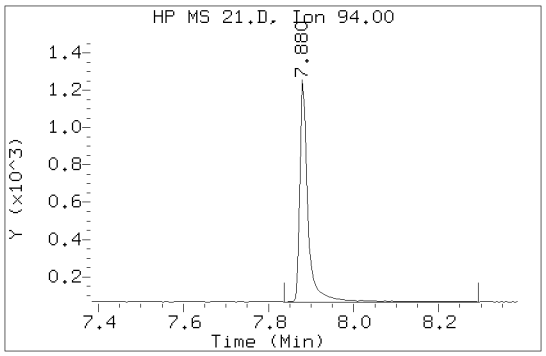
AFTER
MASS
188
AREA
17186
HEIGHT
12781
27-Jan-2023
11:55



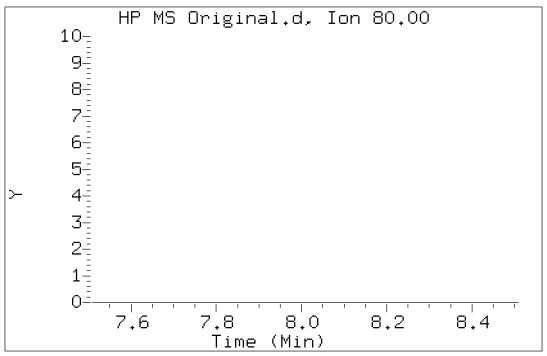
BEFORE
MASS
94
AREA
1592
HEIGHT
1191
26-Jan-2023
18:12
ALSHS
Server



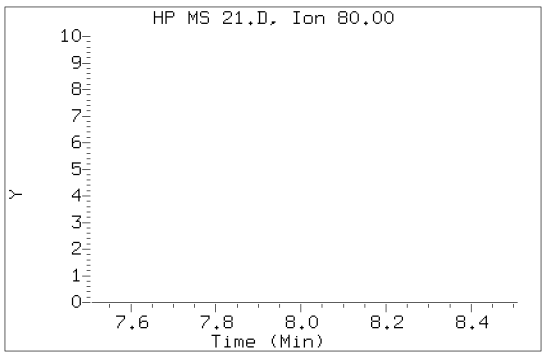
AFTER
MASS
94
AREA
1592
HEIGHT
1191
27-Jan-2023
11:55



BEFORE
MASS
80
AREA
0
HEIGHT
0
26-Jan-2023
18:12
ALSHS
Server



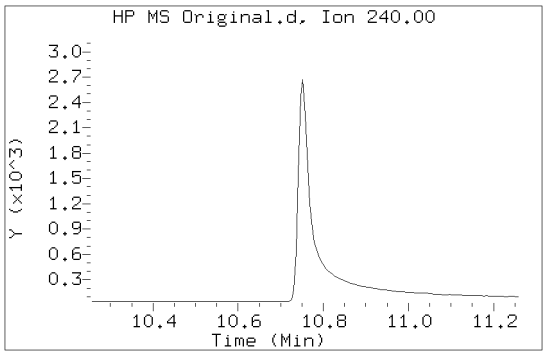
AFTER
MASS
80
AREA
0
HEIGHT
0
27-Jan-2023
11:55



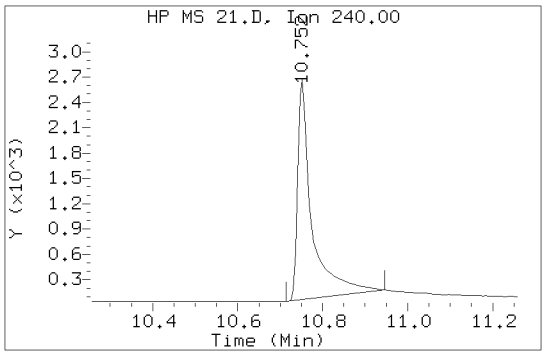
Chrysene-d12 (1719-03-5)

Reason Code:

BEFORE
MASS
240
AREA
0
HEIGHT
0
26-Jan-2023
18:12
ALSHS
Server



AFTER
MASS
240
AREA
6062
HEIGHT
2601
27-Jan-2023
11:55



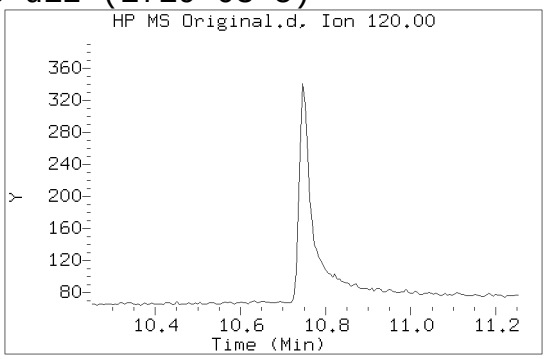
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\21.D
Inj Date : 26-JAN-2023 17:58
InstruID : SV6.i
LabSampID : 1 4-DX-0.08

Chrysene-d12 (1719-03-5)

Reason Code:

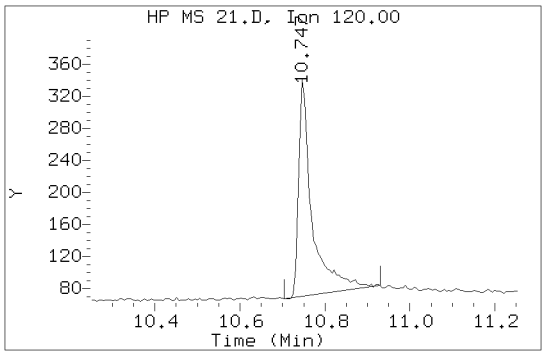
BEFORE

MASS
120
AREA
0
HEIGHT
0
26-Jan-2023
18:12
ALSHS
Server



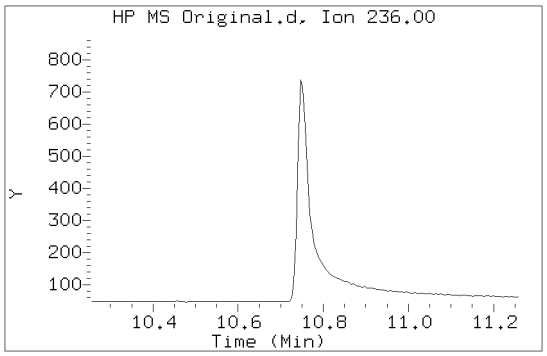
AFTER

MASS
120
AREA
595
HEIGHT
270
27-Jan-2023
11:55



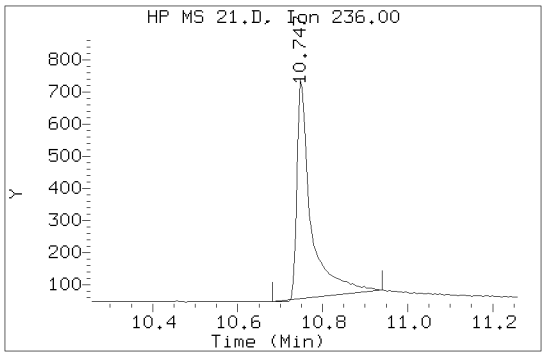
BEFORE

MASS
236
AREA
0
HEIGHT
0
26-Jan-2023
18:12
ALSHS
Server



AFTER

MASS
236
AREA
1567
HEIGHT
680
27-Jan-2023
11:55

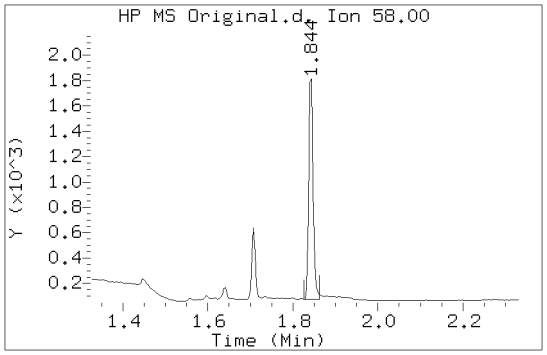


1,4-Dioxane ()

Reason Code:

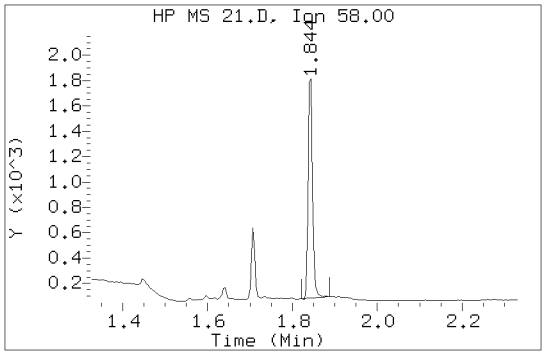
BEFORE

MASS
58
AREA
1228
HEIGHT
1738
26-Jan-2023
18:12
ALSHS
Server



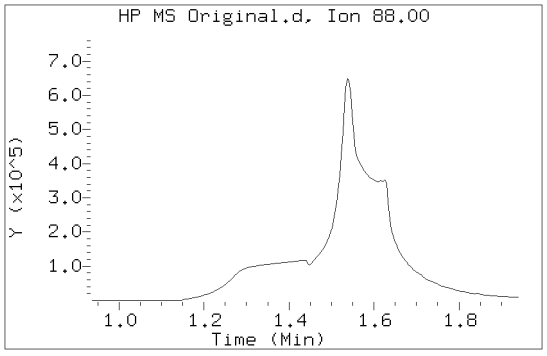
AFTER

MASS
58
AREA
1216
HEIGHT
1728
27-Jan-2023
11:55



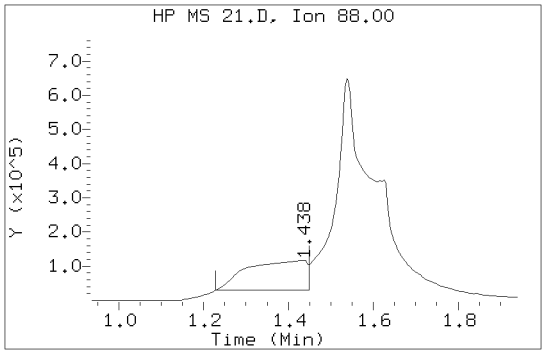
BEFORE

MASS
88
AREA
0
HEIGHT
0
26-Jan-2023
18:12
ALSHS
Server



AFTER

MASS
88
AREA
856918
HEIGHT
87976
27-Jan-2023
11:55

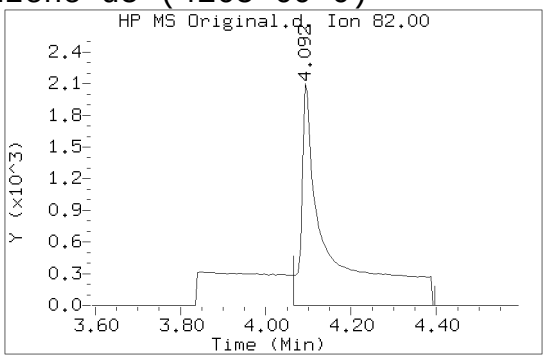


Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\21.D
Inj Date : 26-JAN-2023 17:58
InstruID : SV6.i
LabSampID : 1 4-DX-0.08

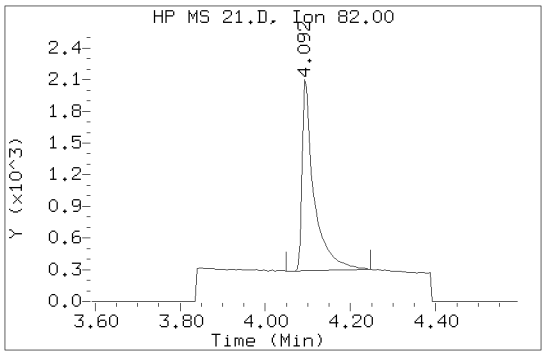
Nitrobenzene-d5 (4165-60-0)

Reason Code:

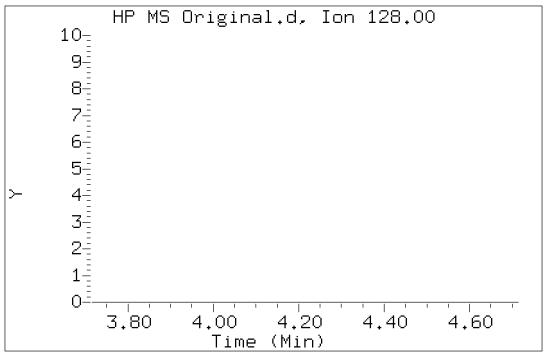
BEFORE
MASS
82
AREA
9169
HEIGHT
2100
26-Jan-2023
18:12
ALSHS
Server



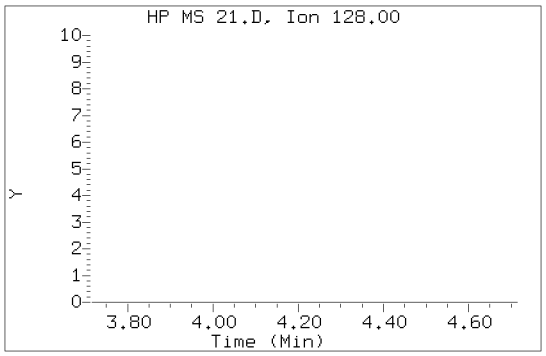
AFTER
MASS
82
AREA
3532
HEIGHT
1809
27-Jan-2023
11:55



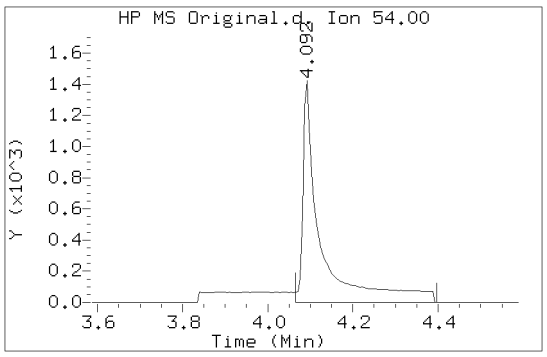
BEFORE
MASS
128
AREA
0
HEIGHT
0
26-Jan-2023
18:12
ALSHS
Server



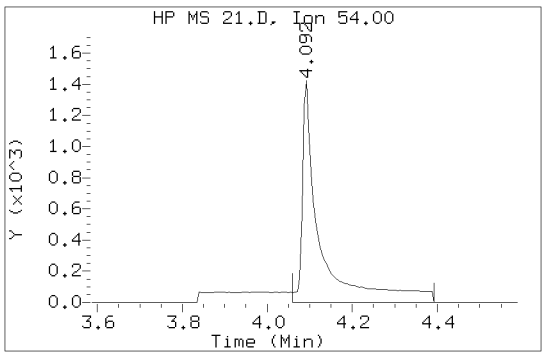
AFTER
MASS
128
AREA
0
HEIGHT
0
27-Jan-2023
11:55



BEFORE
MASS
54
AREA
4059
HEIGHT
1423
26-Jan-2023
18:12
ALSHS
Server



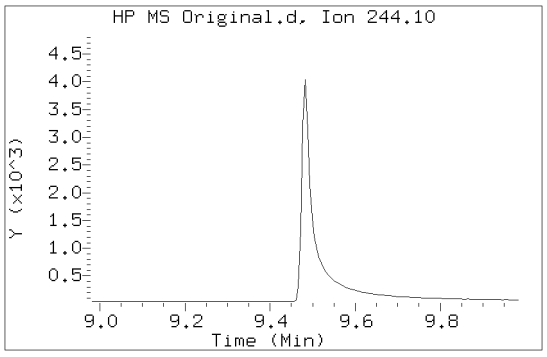
AFTER
MASS
54
AREA
4100
HEIGHT
1423
27-Jan-2023
11:55



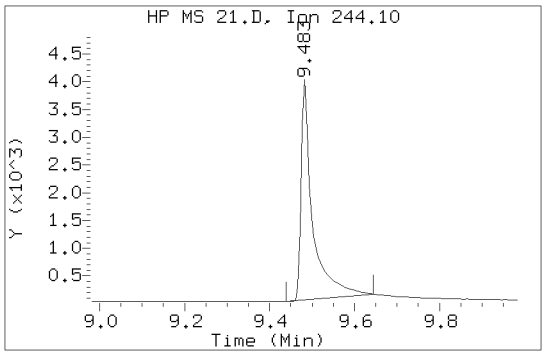
4-Terphenyl-d14 (1718-51-0)

Reason Code:

BEFORE
MASS
244.1
AREA
0
HEIGHT
0
26-Jan-2023
18:12
ALSHS
Server



AFTER
MASS
244.1
AREA
7348
HEIGHT
3964
27-Jan-2023
11:55



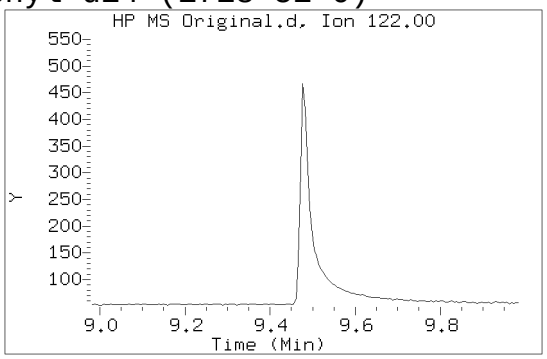
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\21.D
Inj Date : 26-JAN-2023 17:58
InstruID : SV6.i
LabSampID : 1 4-DX-0.08

4-Terphenyl-d14 (1718-51-0)

Reason Code:

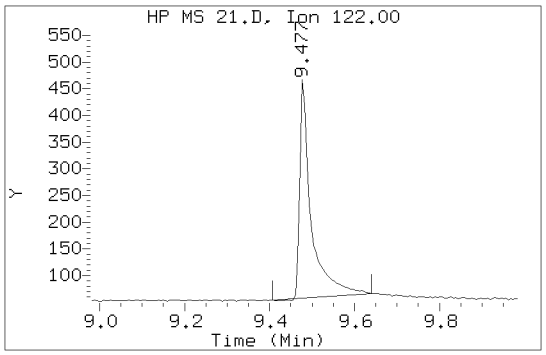
BEFORE

MASS
122
AREA
0
HEIGHT
0
26-Jan-2023
18:12
ALSHS
Server



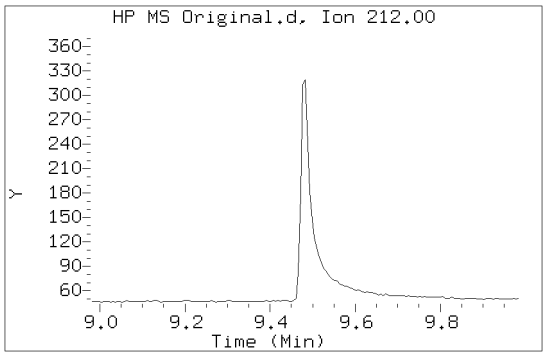
AFTER

MASS
122
AREA
760
HEIGHT
409
27-Jan-2023
11:55



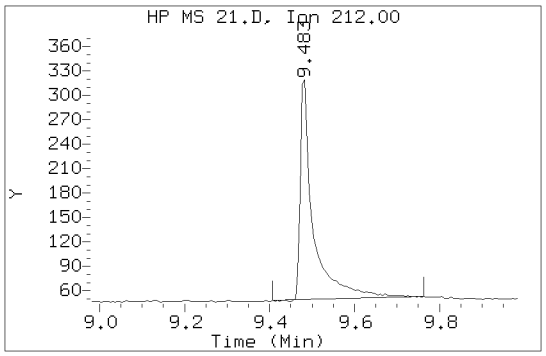
BEFORE

MASS
212
AREA
0
HEIGHT
0
26-Jan-2023
18:12
ALSHS
Server



AFTER

MASS
212
AREA
569
HEIGHT
269
27-Jan-2023
11:55

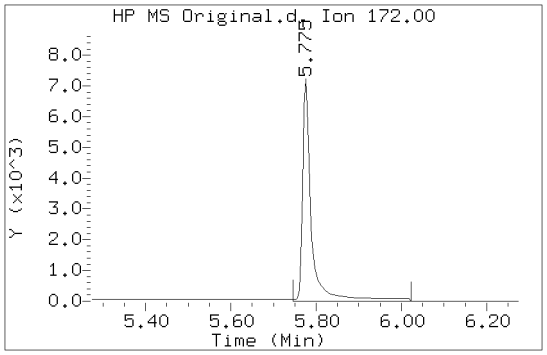


2-Fluorobiphenyl (321-60-8)

Reason Code:

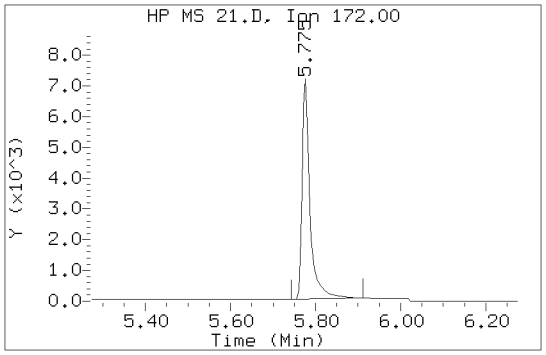
BEFORE

MASS
172
AREA
10503
HEIGHT
7226
26-Jan-2023
18:12
ALSHS
Server



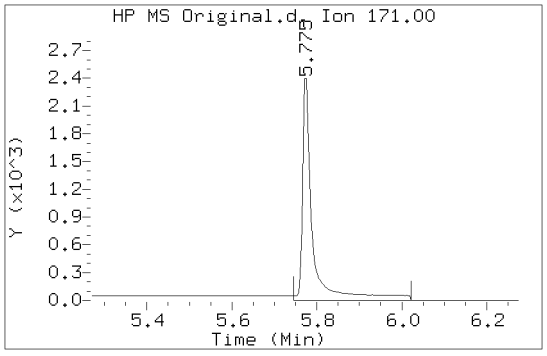
AFTER

MASS
172
AREA
9154
HEIGHT
7158
27-Jan-2023
11:55



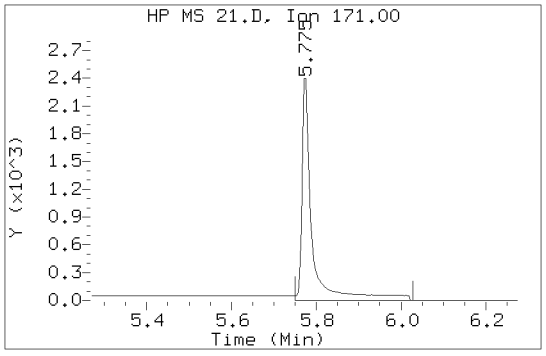
BEFORE

MASS
171
AREA
4003
HEIGHT
2395
26-Jan-2023
18:12
ALSHS
Server



AFTER

MASS
171
AREA
4016
HEIGHT
2395
27-Jan-2023
11:55



Data File: \\NAHSTWS005\Target\chem\SV6.i\230126.b\22.D Page 1
Report Date: 27-Jan-2023 11:55

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230126.b\22.D
Lab Smp Id: 1 4-DX-0.1 Client Smp ID: 1 4-DX-0.1
Inj Date : 26-JAN-2023 18:16
Operator : LG Inst ID: SV6.i
Smp Info : 1 4-DX-0.1;1 4-DX-0.1
Misc Info : ;;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\SV6.i\230126.b\DXSIM.m
Meth Date : 27-Jan-2023 11:55 SV6.i Quant Type: ISTD
Cal Date : 26-JAN-2023 17:58 Cal File: 21.D
Als bottle: 21 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7095

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)
* 20 1,4-Dichlorobenzene-d4	152	3.619	3.619	(1.000)	4328	0.10000	(aM)
* 45 Naphthalene-d8	136	4.746	4.746	(1.000)	14841	0.10000	(M)
$ 33 Nitrobenzene-d5	82	4.092	4.092	(0.862)	4162	0.10000	0.09720(M)
* 86 Acenaphthene-d10	164	6.429	6.429	(1.000)	8212	0.10000	(M)
$ 69 2-Fluorobiphenyl	172	5.775	5.775	(0.898)	10723	0.10000	0.09949(M)
* 126 Phenanthrene-d10	188	7.884	7.884	(1.000)	15031	0.10000	(M)
* 182 Chrysene-d12	240	10.752	10.752	(1.000)	5170	0.10000	(M)
$ 158 4-Terphenyl-d14	244	9.482	9.482	(0.882)	8150	0.10000	0.09008(M)
* 198 Perylene-d12	264	12.857	12.857	(1.000)	4432	0.10000	
1 1,4-Dioxane	58	1.836	1.836	(0.507)	1401	0.10000	0.08874(QM)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

01181996

Data File: \\NAHSTWS005\Target\chem\SV6.i\230126.b\22.D

Date : 26-JAN-2023 18:16

Client ID: 1 4-DX-0.1

Instrument: SV6.i

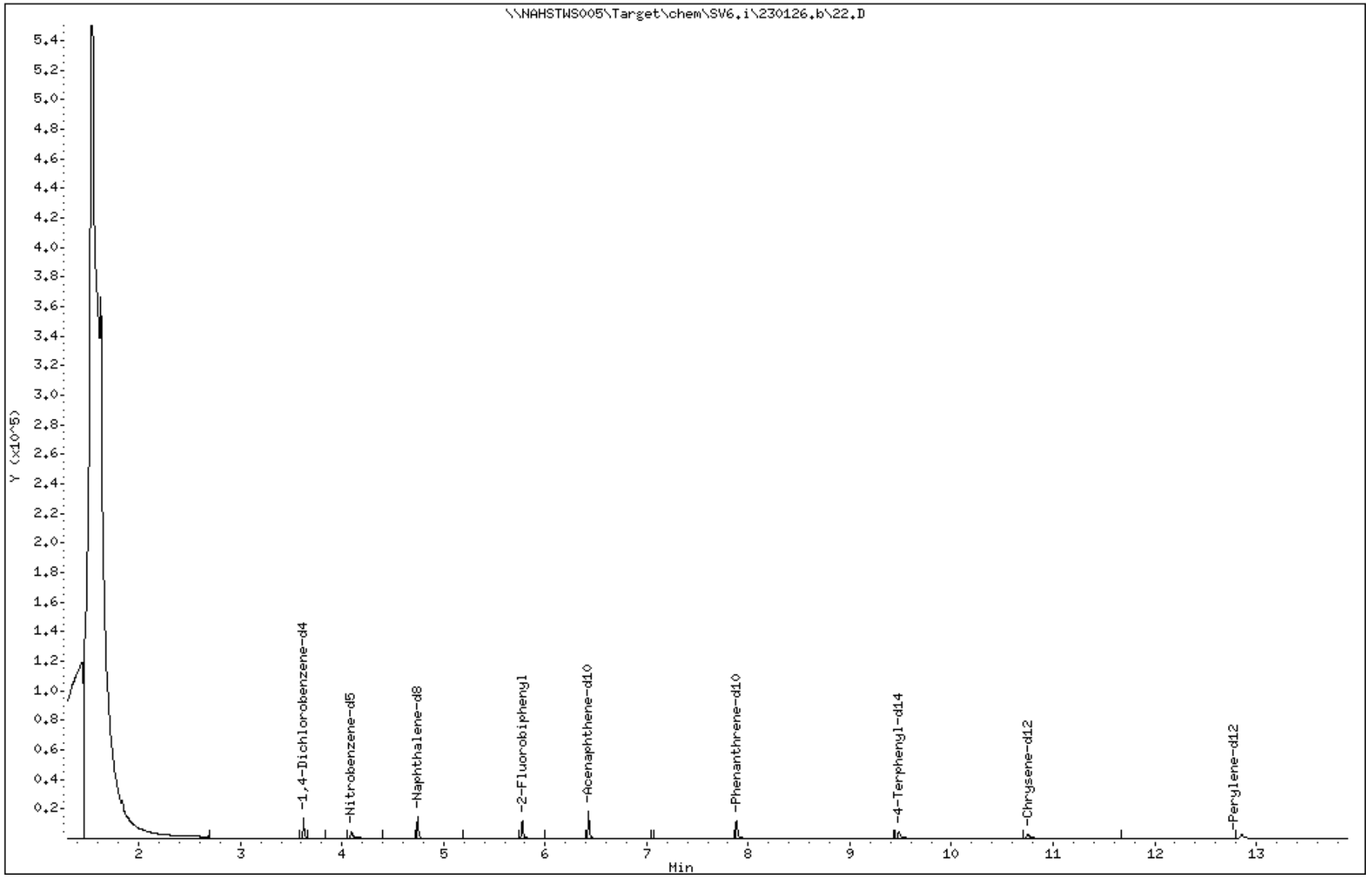
Sample Info: 1 4-DX-0.1;1 4-DX-0.1

Purge Volume: 1000.0

Operator: LC

Column phase: RTX-5SIL MS

Column diameter: 0.28



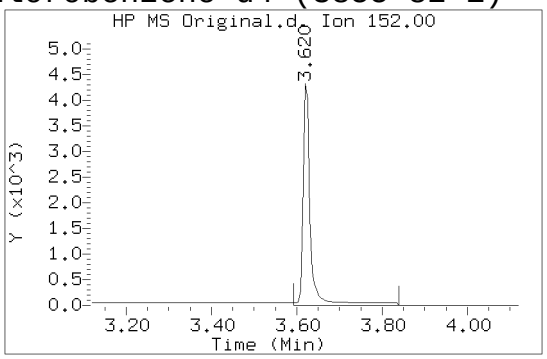
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\22.D
Inj Date : 26-JAN-2023 18:16
InstruID : SV6.i
LabSampID : 1 4-DX-0.1

1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

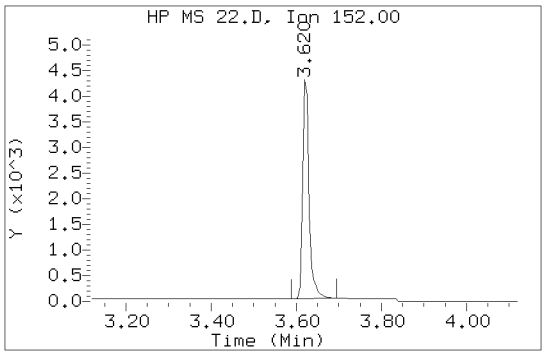
BEFORE

MASS
152
AREA
5152
HEIGHT
4327
26-Jan-2023
18:32
ALSHS
Server



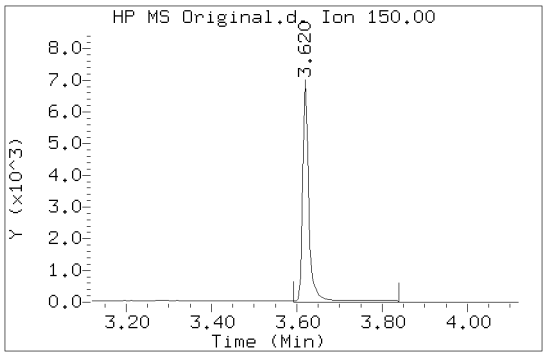
AFTER

MASS
152
AREA
4328
HEIGHT
4273
27-Jan-2023
11:55



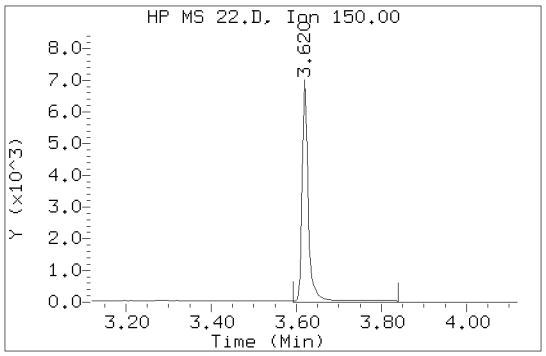
BEFORE

MASS
150
AREA
7314
HEIGHT
7012
26-Jan-2023
18:32
ALSHS
Server



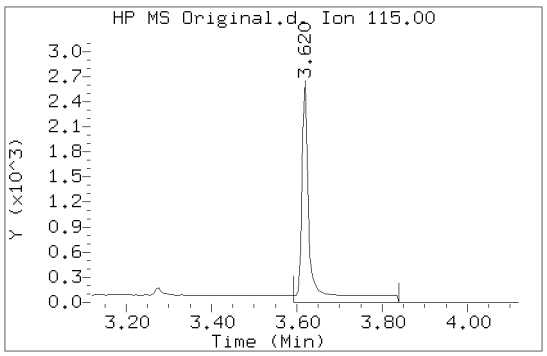
AFTER

MASS
150
AREA
7314
HEIGHT
7012
27-Jan-2023
11:55



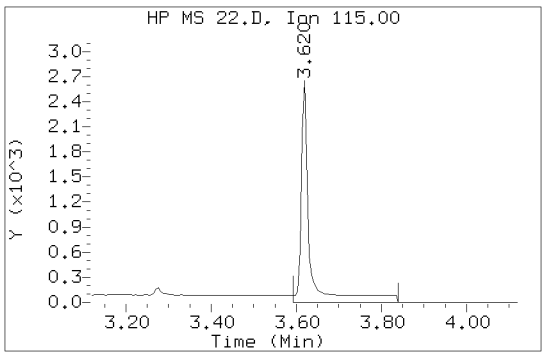
BEFORE

MASS
115
AREA
3675
HEIGHT
2651
26-Jan-2023
18:32
ALSHS
Server



AFTER

MASS
115
AREA
3675
HEIGHT
2651
27-Jan-2023
11:55

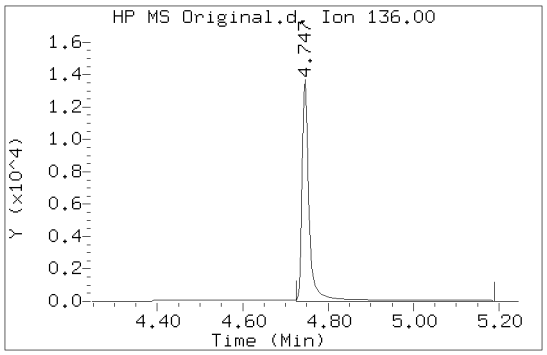


Naphthalene-d8 (1146-65-2)

Reason Code:

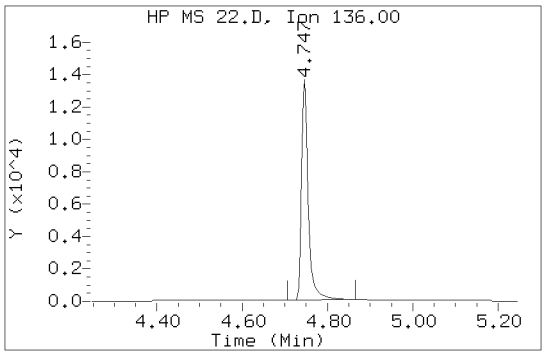
BEFORE

MASS
136
AREA
17167
HEIGHT
13688
26-Jan-2023
18:32
ALSHS
Server



AFTER

MASS
136
AREA
14841
HEIGHT
13609
27-Jan-2023
11:55



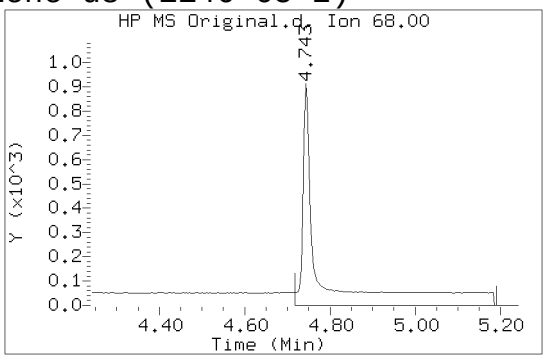
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\22.D
Inj Date : 26-JAN-2023 18:16
InstruID : SV6.i
LabSampID : 1 4-DX-0.1

Naphthalene-d8 (1146-65-2)

Reason Code:

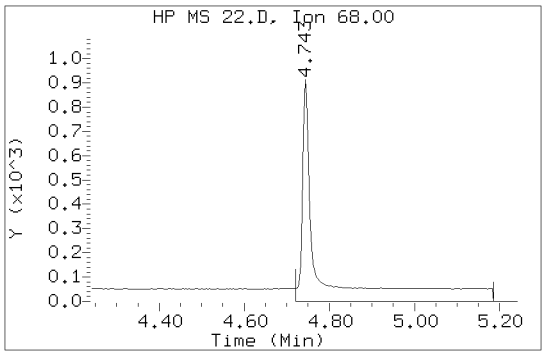
BEFORE

MASS
68
AREA
2417
HEIGHT
913
26-Jan-2023
18:32
ALSHS
Server



AFTER

MASS
68
AREA
2405
HEIGHT
913
27-Jan-2023
11:55

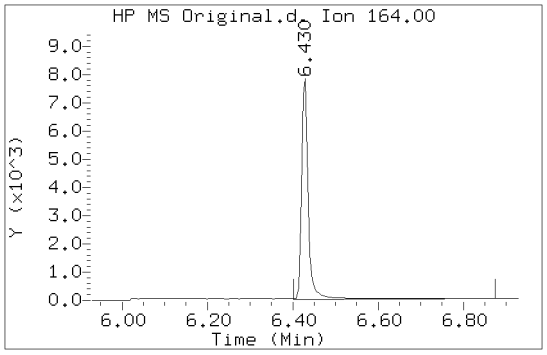


Acenaphthene-d10 (15067-26-2)

Reason Code:

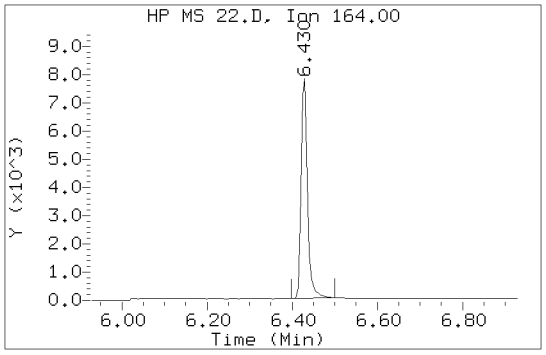
BEFORE

MASS
164
AREA
8927
HEIGHT
7829
26-Jan-2023
18:32
ALSHS
Server



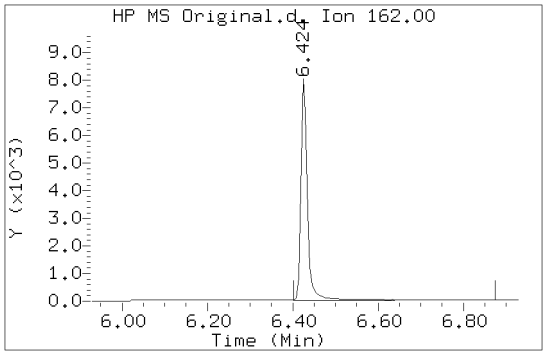
AFTER

MASS
164
AREA
8212
HEIGHT
7787
27-Jan-2023
11:55



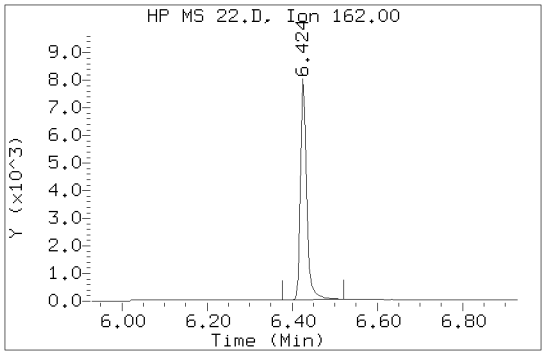
BEFORE

MASS
162
AREA
8833
HEIGHT
8026
26-Jan-2023
18:32
ALSHS
Server



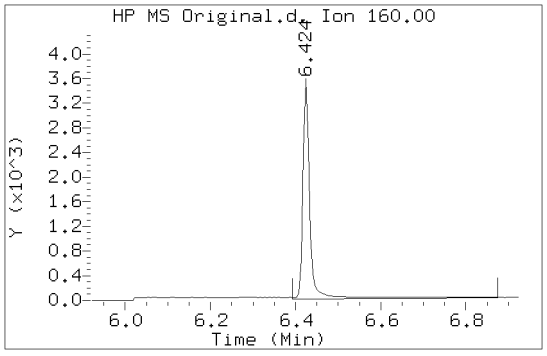
AFTER

MASS
162
AREA
8207
HEIGHT
7991
27-Jan-2023
11:55



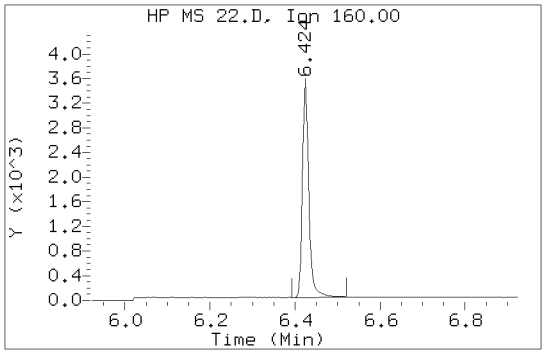
BEFORE

MASS
160
AREA
4049
HEIGHT
3576
26-Jan-2023
18:32
ALSHS
Server



AFTER

MASS
160
AREA
3560
HEIGHT
3549
27-Jan-2023
11:55



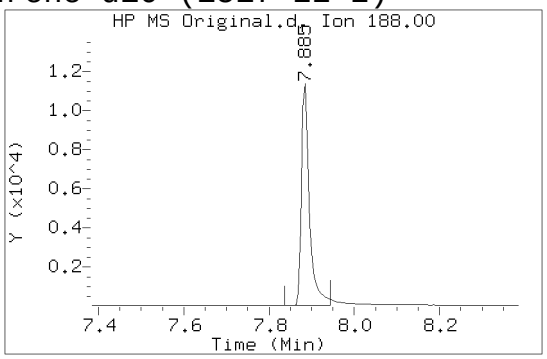
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\22.D
Inj Date : 26-JAN-2023 18:16
InstruID : SV6.i
LabSampID : 1 4-DX-0.1

Phenanthrene-d10 (1517-22-2)

Reason Code:

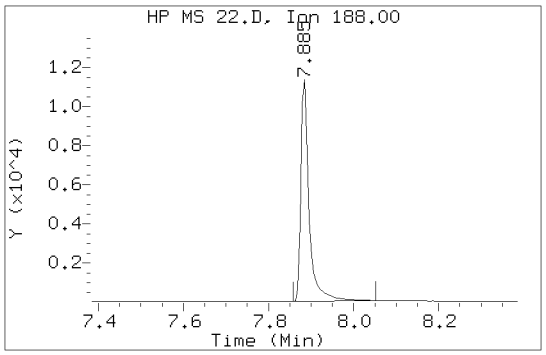
BEFORE

MASS
188
AREA
14633
HEIGHT
11338
26-Jan-2023
18:32
ALSHS
Server



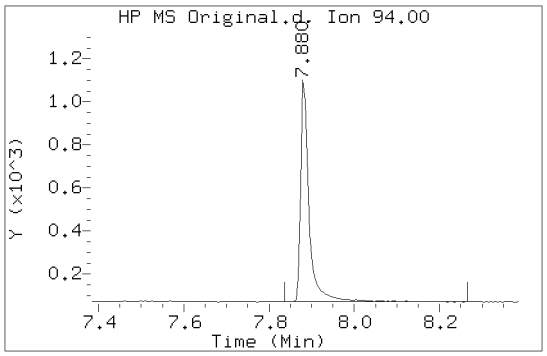
AFTER

MASS
188
AREA
15031
HEIGHT
11331
27-Jan-2023
11:55



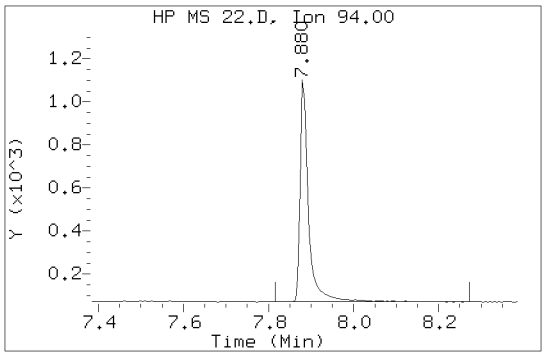
BEFORE

MASS
94
AREA
1412
HEIGHT
1030
26-Jan-2023
18:32
ALSHS
Server



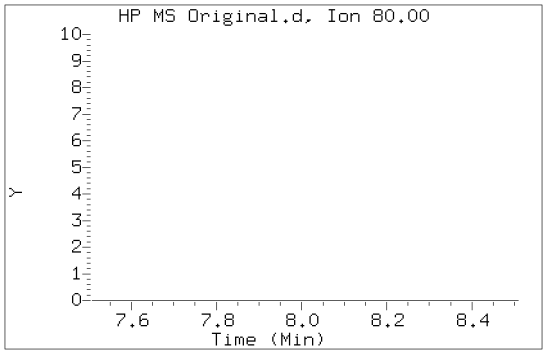
AFTER

MASS
94
AREA
1413
HEIGHT
1030
27-Jan-2023
11:55



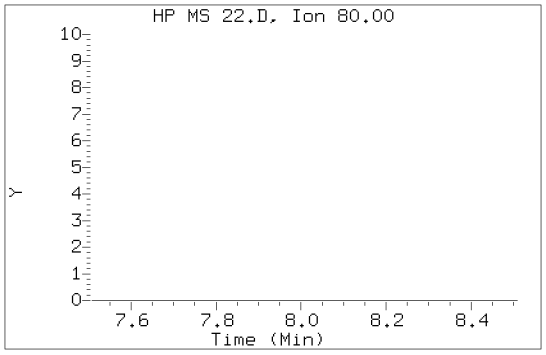
BEFORE

MASS
80
AREA
0
HEIGHT
0
26-Jan-2023
18:32
ALSHS
Server



AFTER

MASS
80
AREA
0
HEIGHT
0
27-Jan-2023
11:55

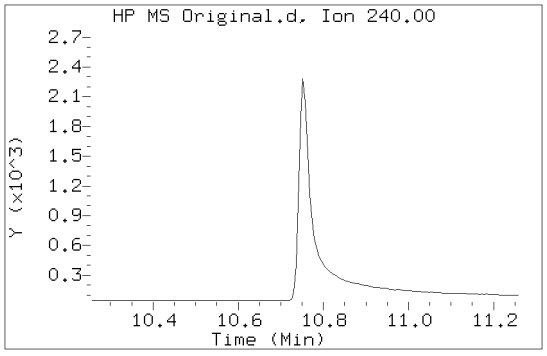


Chrysene-d12 (1719-03-5)

Reason Code:

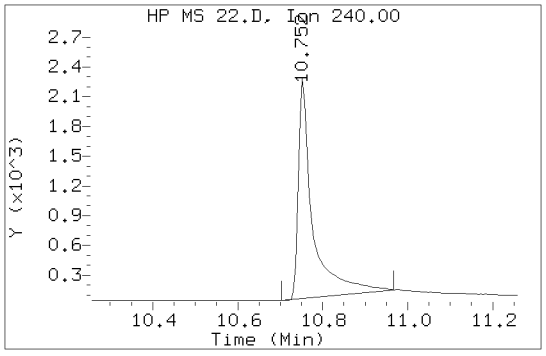
BEFORE

MASS
240
AREA
0
HEIGHT
0
26-Jan-2023
18:32
ALSHS
Server



AFTER

MASS
240
AREA
5170
HEIGHT
2215
27-Jan-2023
11:55

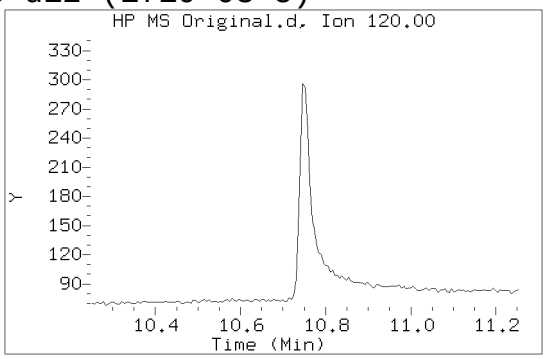


Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\22.D
Inj Date : 26-JAN-2023 18:16
InstruID : SV6.i
LabSampID : 1 4-DX-0.1

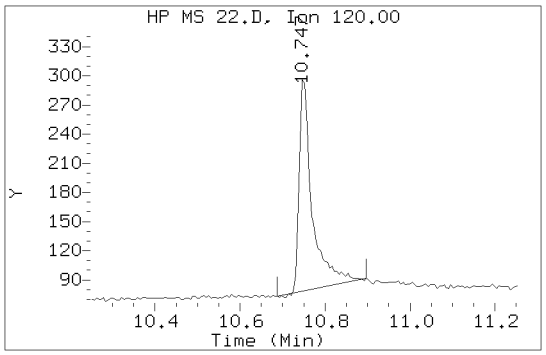
Chrysene-d12 (1719-03-5)

Reason Code:

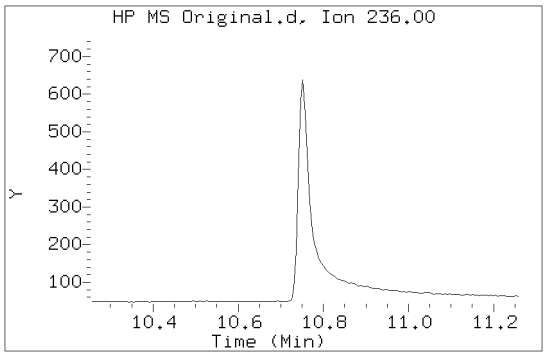
BEFORE
MASS
120
AREA
0
HEIGHT
0
26-Jan-2023
18:32
ALSHS
Server



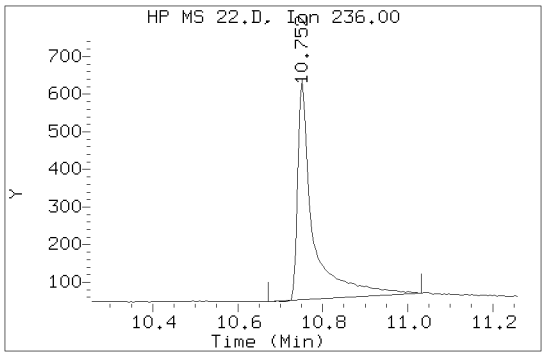
AFTER
MASS
120
AREA
457
HEIGHT
217
27-Jan-2023
11:55



BEFORE
MASS
236
AREA
0
HEIGHT
0
26-Jan-2023
18:32
ALSHS
Server



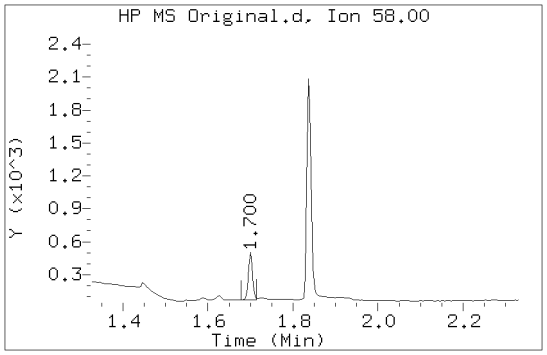
AFTER
MASS
236
AREA
1462
HEIGHT
584
27-Jan-2023
11:55



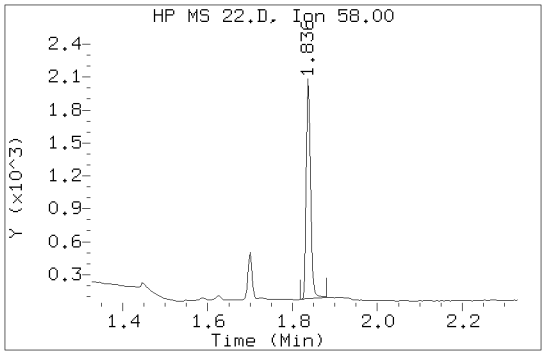
1,4-Dioxane ()

Reason Code:

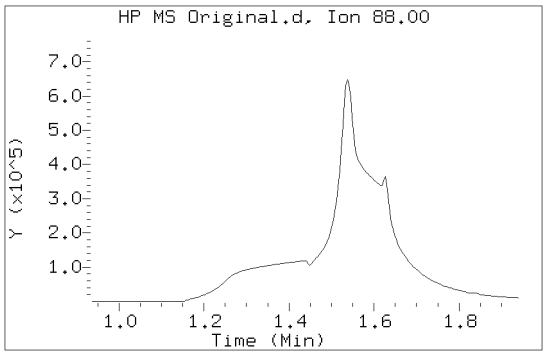
BEFORE
MASS
58
AREA
298
HEIGHT
432
26-Jan-2023
18:32
ALSHS
Server



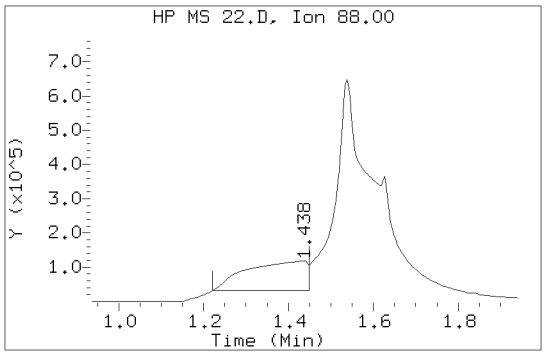
AFTER
MASS
58
AREA
1401
HEIGHT
2002
27-Jan-2023
11:55



BEFORE
MASS
88
AREA
0
HEIGHT
0
26-Jan-2023
18:32
ALSHS
Server



AFTER
MASS
88
AREA
862672
HEIGHT
87864
27-Jan-2023
11:55



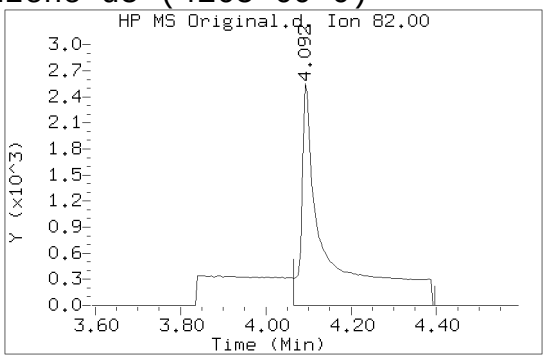
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\22.D
Inj Date : 26-JAN-2023 18:16
InstruID : SV6.i
LabSampID : 1 4-DX-0.1

Nitrobenzene-d5 (4165-60-0)

Reason Code:

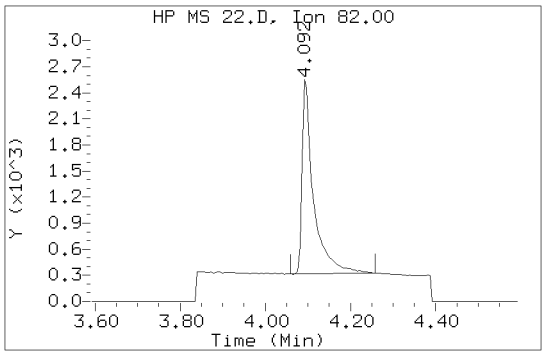
BEFORE

MASS
82
AREA
10301
HEIGHT
2551
26-Jan-2023
18:32
ALSHS
Server



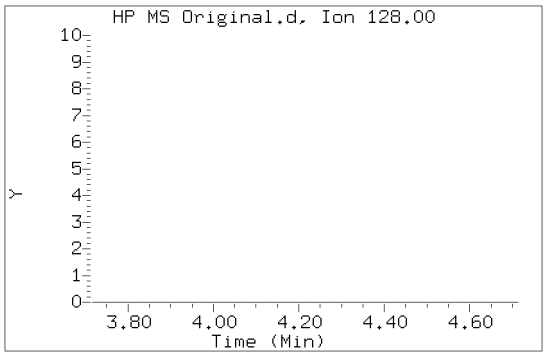
AFTER

MASS
82
AREA
4162
HEIGHT
2234
27-Jan-2023
11:55



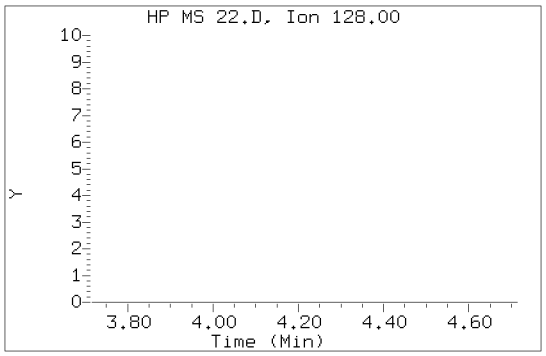
BEFORE

MASS
128
AREA
0
HEIGHT
0
26-Jan-2023
18:32
ALSHS
Server



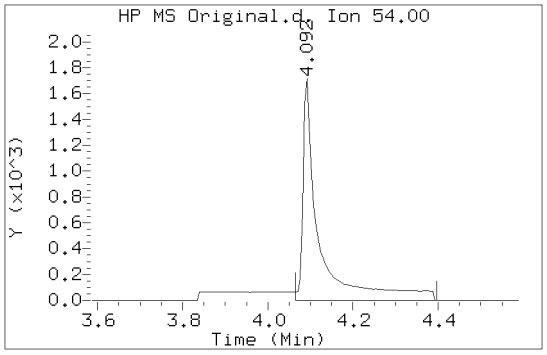
AFTER

MASS
128
AREA
0
HEIGHT
0
27-Jan-2023
11:55



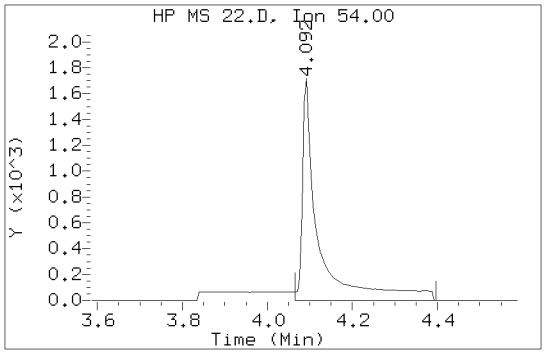
BEFORE

MASS
54
AREA
4483
HEIGHT
1715
26-Jan-2023
18:32
ALSHS
Server



AFTER

MASS
54
AREA
4483
HEIGHT
1715
27-Jan-2023
11:55

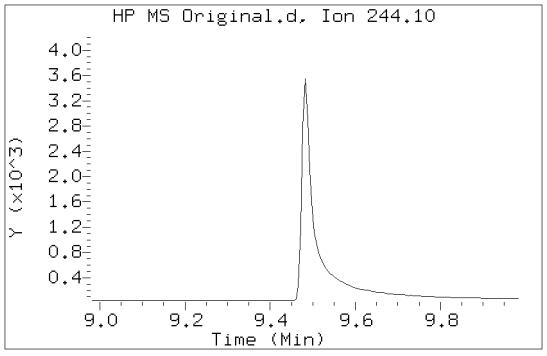


4-Terphenyl-d14 (1718-51-0)

Reason Code:

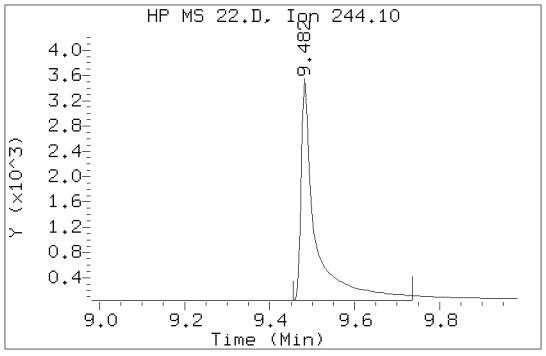
BEFORE

MASS
244.1
AREA
0
HEIGHT
0
26-Jan-2023
18:32
ALSHS
Server



AFTER

MASS
244.1
AREA
8150
HEIGHT
3504
27-Jan-2023
11:55

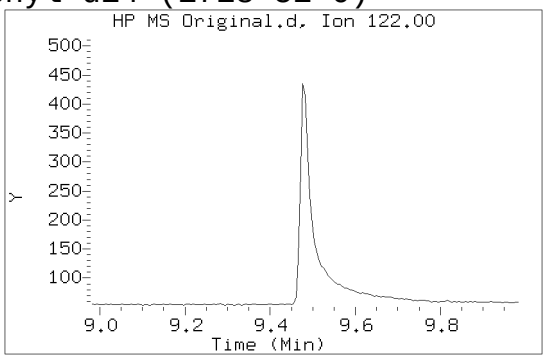


Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\22.D
Inj Date : 26-JAN-2023 18:16
InstruID : SV6.i
LabSampID : 1 4-DX-0.1

4-Terphenyl-d14 (1718-51-0)

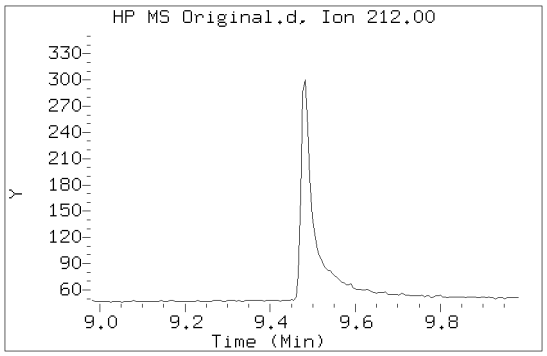
BEFORE

MASS
122
AREA
0
HEIGHT
0
26-Jan-2023
18:32
ALSHS
Server



BEFORE

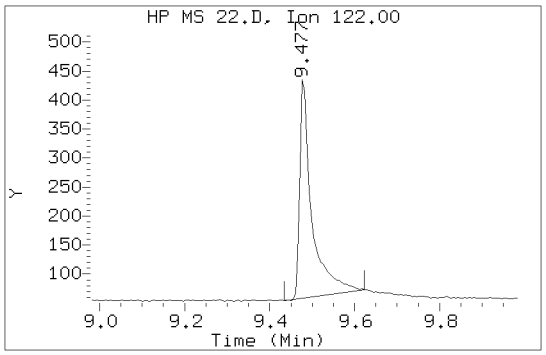
MASS
212
AREA
0
HEIGHT
0
26-Jan-2023
18:32
ALSHS
Server



Reason Code:

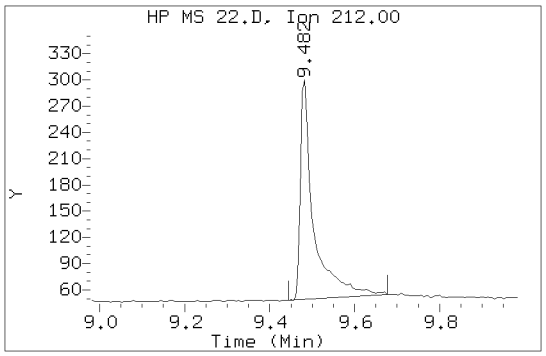
AFTER

MASS
122
AREA
740
HEIGHT
376
27-Jan-2023
11:55



AFTER

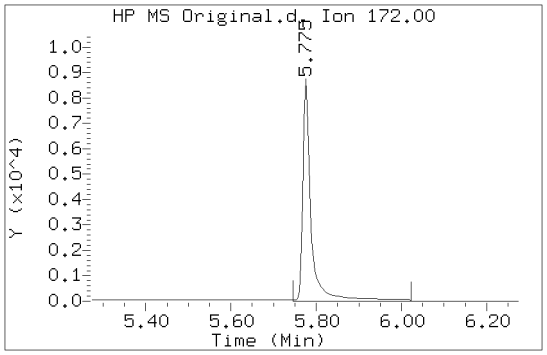
MASS
212
AREA
543
HEIGHT
250
27-Jan-2023
11:55



2-Fluorobiphenyl (321-60-8)

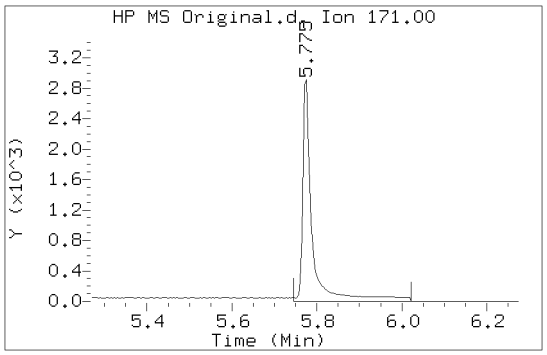
BEFORE

MASS
172
AREA
12027
HEIGHT
8749
26-Jan-2023
18:32
ALSHS
Server



BEFORE

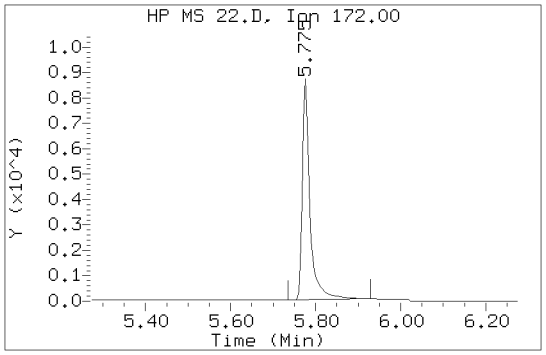
MASS
171
AREA
4538
HEIGHT
2913
26-Jan-2023
18:32
ALSHS
Server



Reason Code:

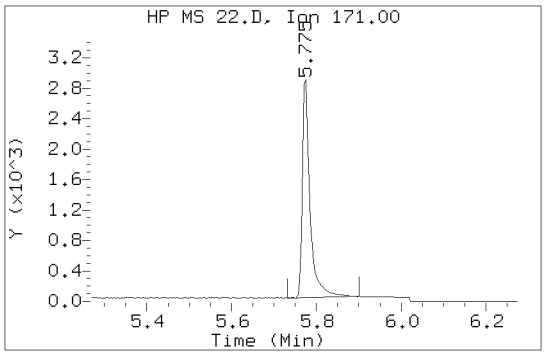
AFTER

MASS
172
AREA
10723
HEIGHT
8683
27-Jan-2023
11:55



AFTER

MASS
171
AREA
3612
HEIGHT
2862
27-Jan-2023
11:55



Data File: \\NAHSTWS005\Target\chem\SV6.i\230126.b\23.D Page 1
Report Date: 27-Jan-2023 11:55

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230126.b\23.D
Lab Smp Id: 1 4-DX-0.15 Client Smp ID: 1 4-DX-0.15
Inj Date : 26-JAN-2023 18:34
Operator : LG Inst ID: SV6.i
Smp Info : 1 4-DX-0.15;1 4-DX-0.15
Misc Info : ;;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\SV6.i\230126.b\DXSIM.m
Meth Date : 27-Jan-2023 11:55 SV6.i Quant Type: ISTD
Cal Date : 26-JAN-2023 18:16 Cal File: 22.D
Als bottle: 22 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7095

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)
* 20 1,4-Dichlorobenzene-d4	152	3.619	3.619	(1.000)	4099	0.10000	(aQM)
* 45 Naphthalene-d8	136	4.746	4.746	(1.000)	14161	0.10000	(M)
$ 33 Nitrobenzene-d5	82	4.092	4.092	(0.862)	6376	0.15000	0.1560(AM)
* 86 Acenaphthene-d10	164	6.429	6.429	(1.000)	7780	0.10000	(M)
$ 69 2-Fluorobiphenyl	172	5.775	5.775	(0.898)	15591	0.15000	0.1527(AM)
* 126 Phenanthrene-d10	188	7.884	7.884	(1.000)	15586	0.10000	
* 182 Chrysene-d12	240	10.752	10.752	(1.000)	4829	0.10000	(M)
$ 158 4-Terphenyl-d14	244	9.482	9.482	(0.882)	13832	0.15000	0.1483(M)
* 198 Perylene-d12	264	12.857	12.857	(1.000)	4032	0.10000	
1 1,4-Dioxane	58	1.836	1.836	(0.507)	2048	0.15000	0.1370(QM)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
exceeded maximum amount.
Q - Qualifier signal failed the ratio test.

M - Compound response manually integrated.

01182005

Data File: \\NAHSTWS005\Target\chem\SV6.i\230126.b\23.D

Date : 26-JAN-2023 18:34

Client ID: 1 4-DX-0.15

Instrument: SV6.i

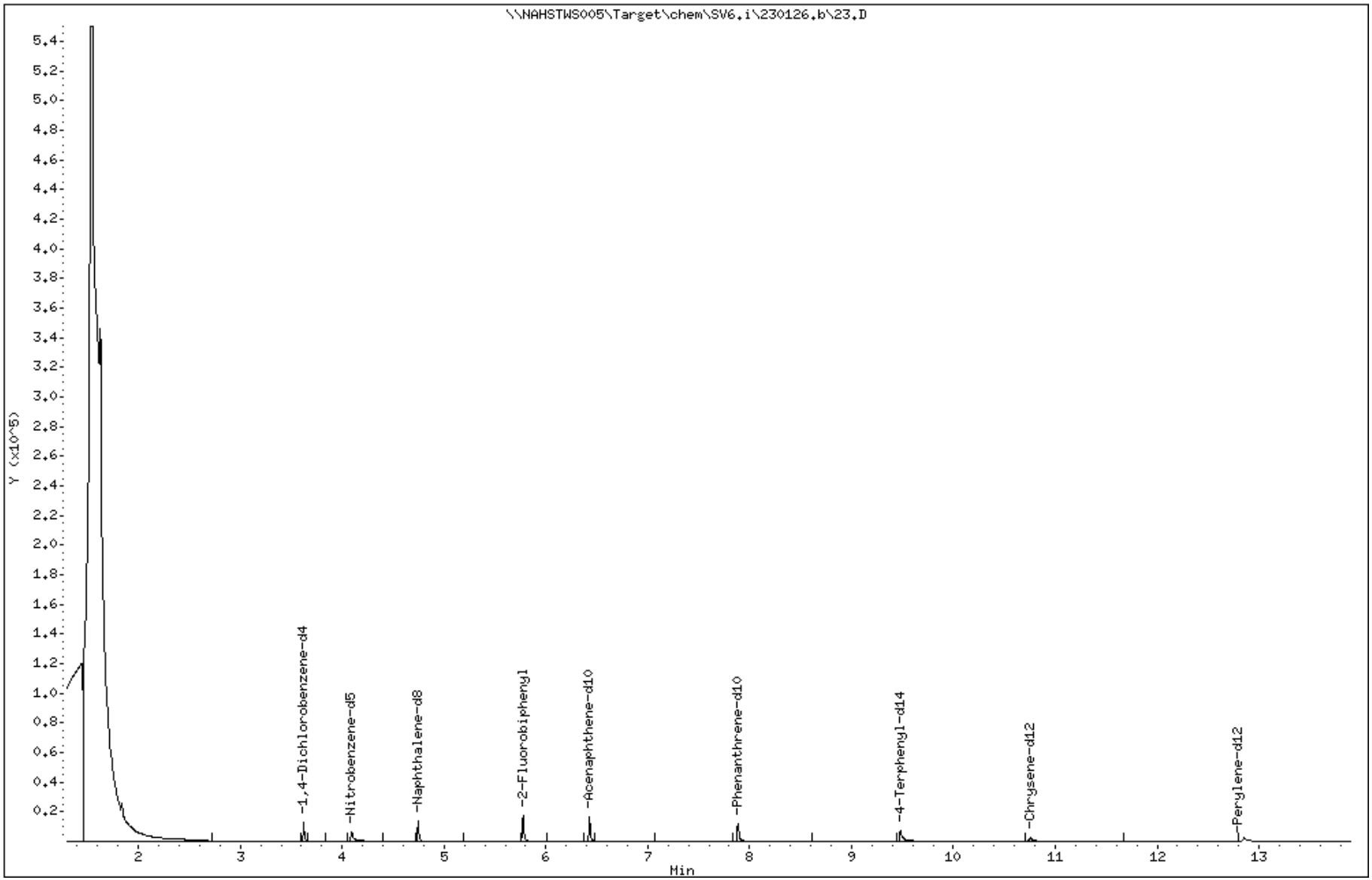
Sample Info: 1 4-DX-0.15;1 4-DX-0.15

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28

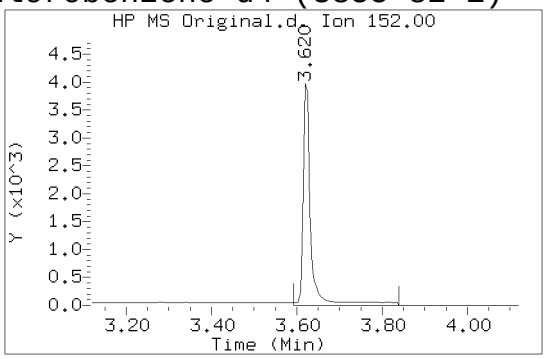


Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\23.D
Inj Date : 26-JAN-2023 18:34
InstruID : SV6.i
LabSampID : 1 4-DX-0.15

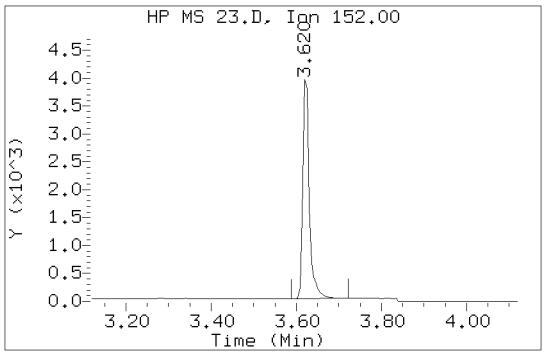
1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

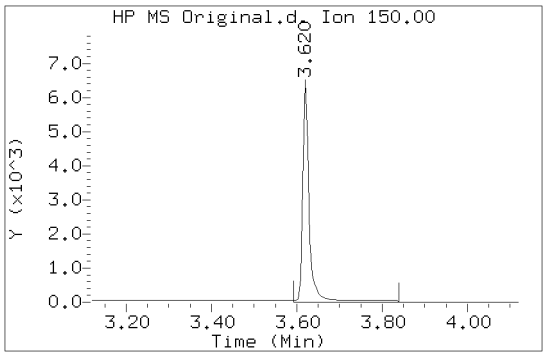
BEFORE
MASS
152
AREA
4880
HEIGHT
3972
26-Jan-2023
18:48
ALSHS
Server



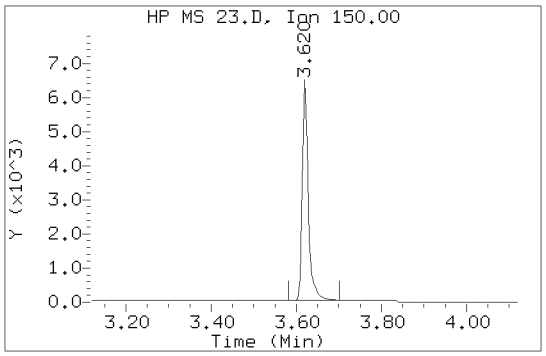
AFTER
MASS
152
AREA
4099
HEIGHT
3920
27-Jan-2023
11:55



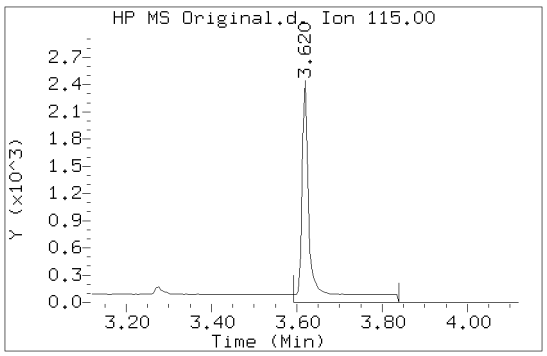
BEFORE
MASS
150
AREA
6931
HEIGHT
6517
26-Jan-2023
18:48
ALSHS
Server



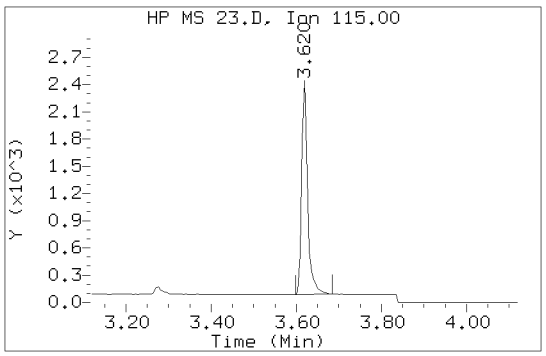
AFTER
MASS
150
AREA
6120
HEIGHT
6464
27-Jan-2023
11:55



BEFORE
MASS
115
AREA
3520
HEIGHT
2443
26-Jan-2023
18:48
ALSHS
Server



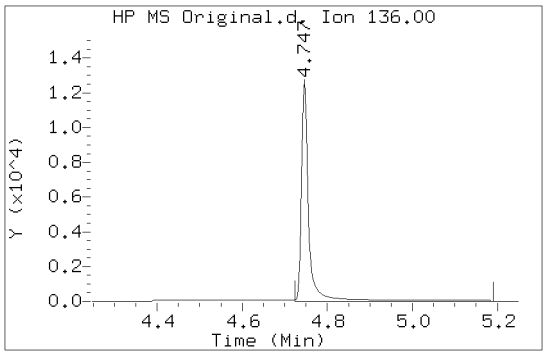
AFTER
MASS
115
AREA
2245
HEIGHT
2356
27-Jan-2023
11:55



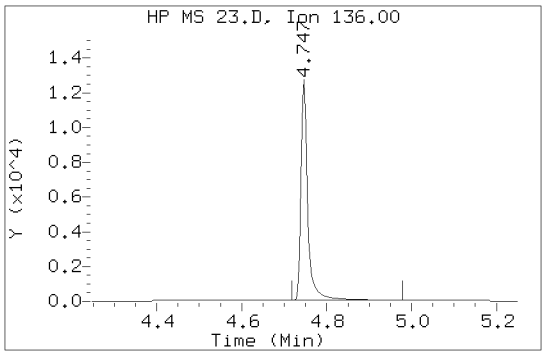
Naphthalene-d8 (1146-65-2)

Reason Code:

BEFORE
MASS
136
AREA
16171
HEIGHT
12754
26-Jan-2023
18:48
ALSHS
Server



AFTER
MASS
136
AREA
14161
HEIGHT
12688
27-Jan-2023
11:55



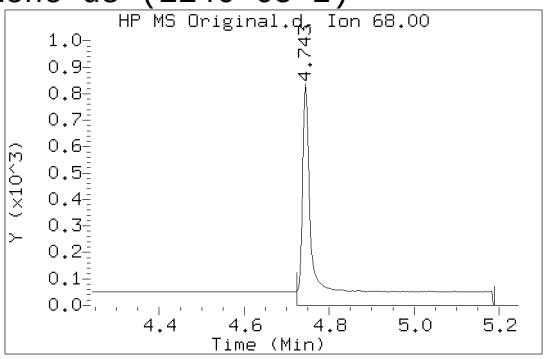
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\23.D
Inj Date : 26-JAN-2023 18:34
InstruID : SV6.i
LabSampID : 1 4-DX-0.15

Naphthalene-d8 (1146-65-2)

Reason Code:

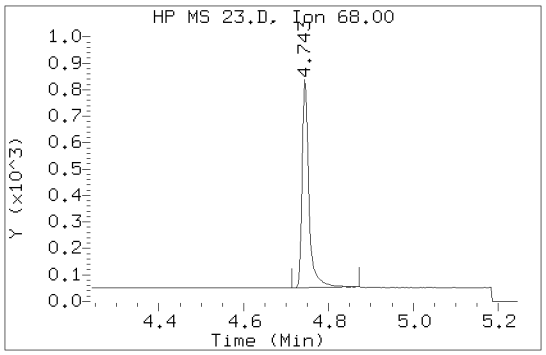
BEFORE

MASS
68
AREA
2330
HEIGHT
838
26-Jan-2023
18:48
ALSHS
Server



AFTER

MASS
68
AREA
874
HEIGHT
786
27-Jan-2023
11:55

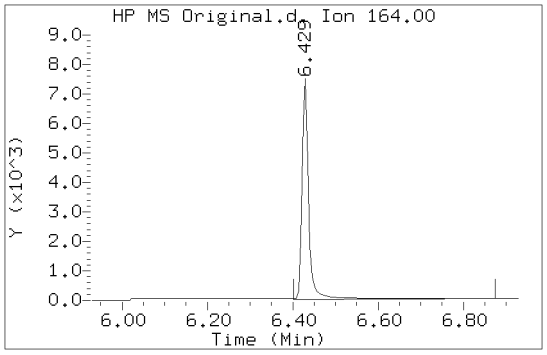


Acenaphthene-d10 (15067-26-2)

Reason Code:

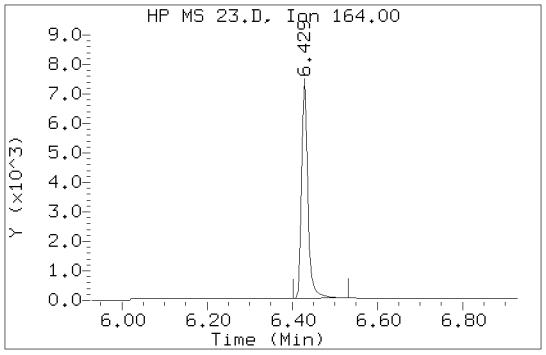
BEFORE

MASS
164
AREA
8455
HEIGHT
7488
26-Jan-2023
18:48
ALSHS
Server



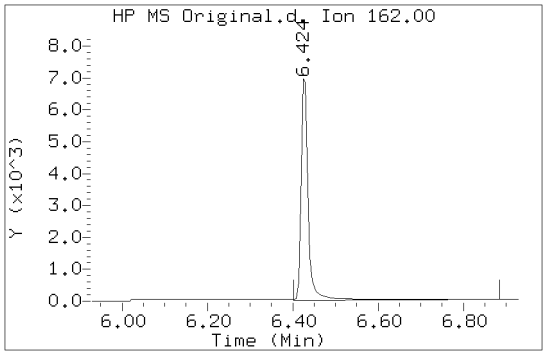
AFTER

MASS
164
AREA
7780
HEIGHT
7452
27-Jan-2023
11:55



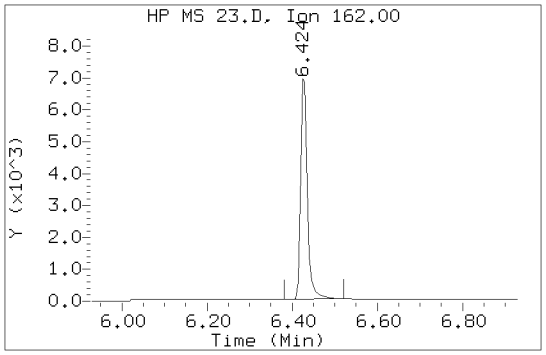
BEFORE

MASS
162
AREA
8373
HEIGHT
6943
26-Jan-2023
18:48
ALSHS
Server



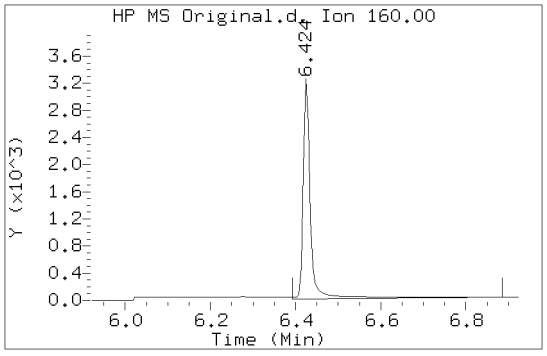
AFTER

MASS
162
AREA
7710
HEIGHT
6908
27-Jan-2023
11:55



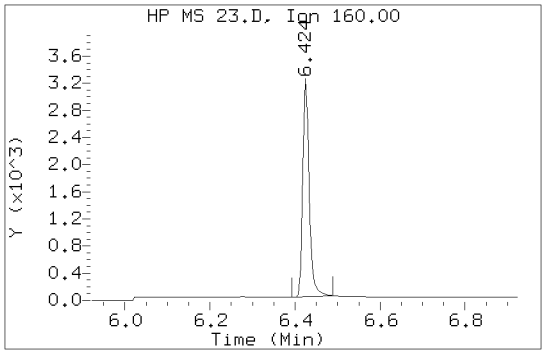
BEFORE

MASS
160
AREA
3831
HEIGHT
3245
26-Jan-2023
18:48
ALSHS
Server



AFTER

MASS
160
AREA
3286
HEIGHT
3212
27-Jan-2023
11:55

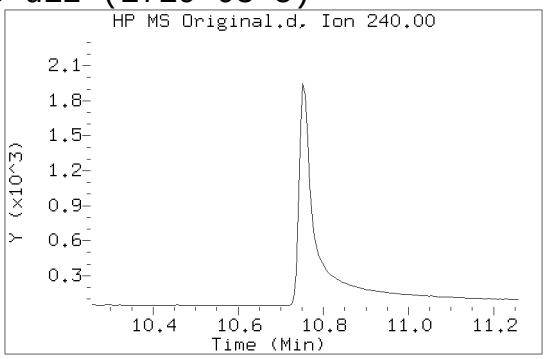


Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\23.D
Inj Date : 26-JAN-2023 18:34
InstruID : SV6.i
LabSampID : 1 4-DX-0.15

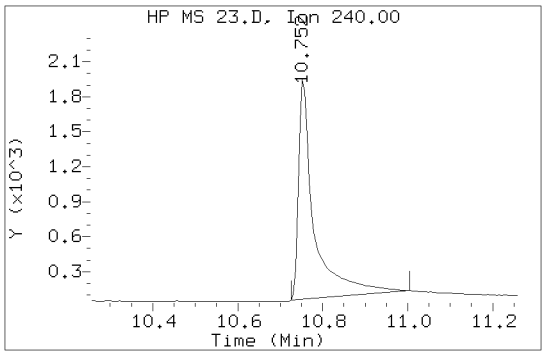
Chrysene-d12 (1719-03-5)

Reason Code:

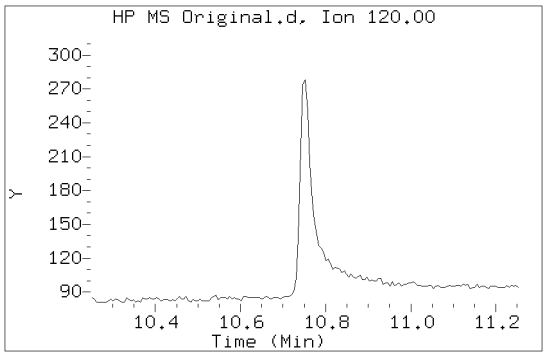
BEFORE
MASS
240
AREA
0
HEIGHT
0
26-Jan-2023
18:48
ALSHS
Server



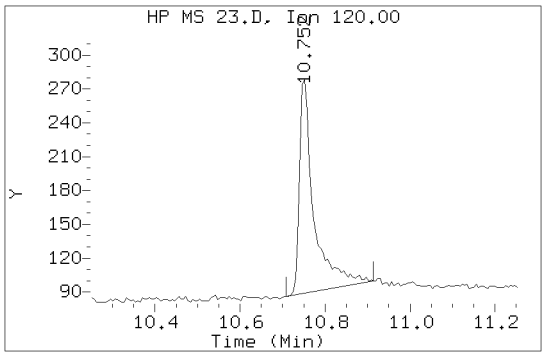
AFTER
MASS
240
AREA
4829
HEIGHT
1883
27-Jan-2023
11:55



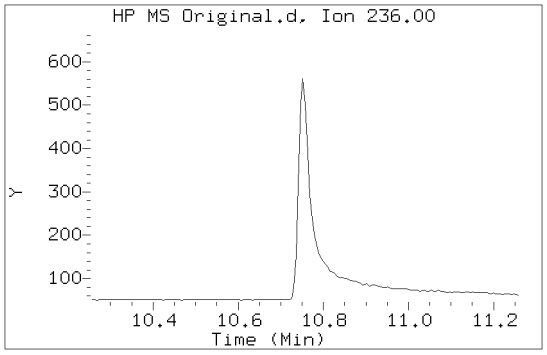
BEFORE
MASS
120
AREA
0
HEIGHT
0
26-Jan-2023
18:48
ALSHS
Server



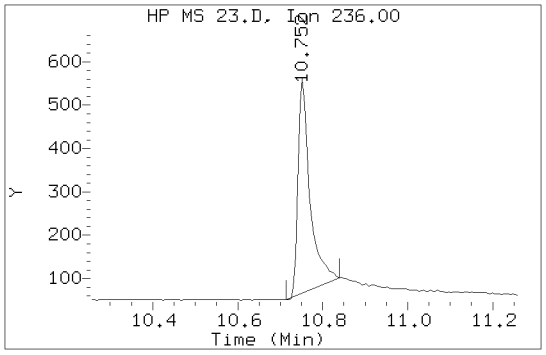
AFTER
MASS
120
AREA
446
HEIGHT
189
27-Jan-2023
11:55



BEFORE
MASS
236
AREA
0
HEIGHT
0
26-Jan-2023
18:48
ALSHS
Server



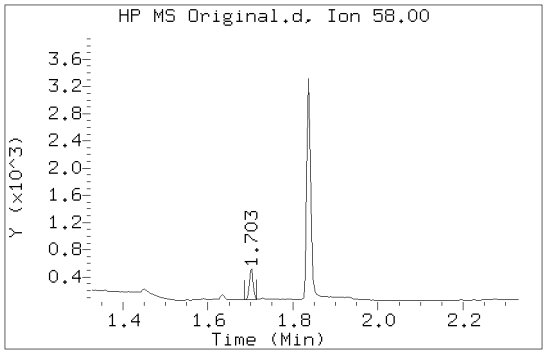
AFTER
MASS
236
AREA
965
HEIGHT
494
27-Jan-2023
11:55



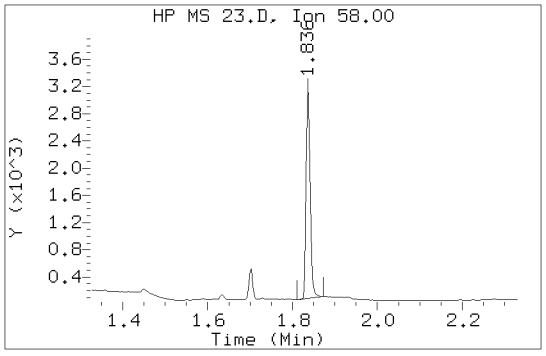
1,4-Dioxane ()

Reason Code:

BEFORE
MASS
58
AREA
291
HEIGHT
448
26-Jan-2023
18:48
ALSHS
Server



AFTER
MASS
58
AREA
2048
HEIGHT
3226
27-Jan-2023
11:55

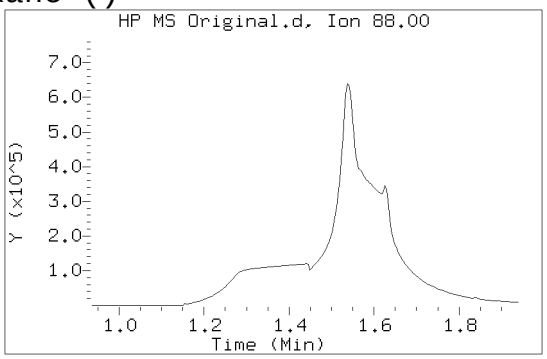


Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\23.D
Inj Date : 26-JAN-2023 18:34
InstruID : SV6.i
LabSampID : 1 4-DX-0.15

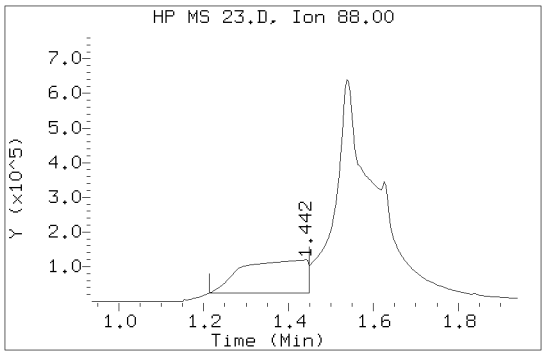
1,4-Dioxane ()

Reason Code:

BEFORE
MASS
88
AREA
0
HEIGHT
0
26-Jan-2023
18:48
ALSHS
Server



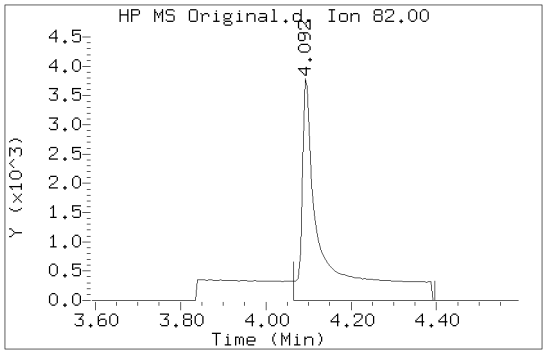
AFTER
MASS
88
AREA
1010072
HEIGHT
96120
27-Jan-2023
11:55



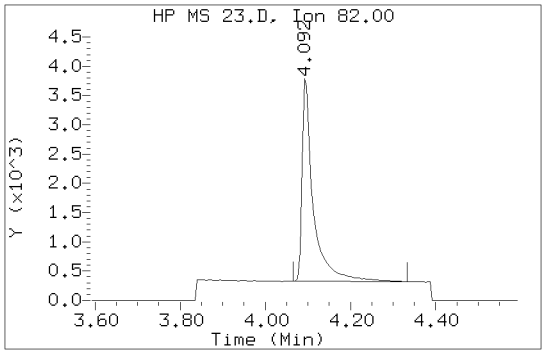
Nitrobenzene-d5 (4165-60-0)

Reason Code:

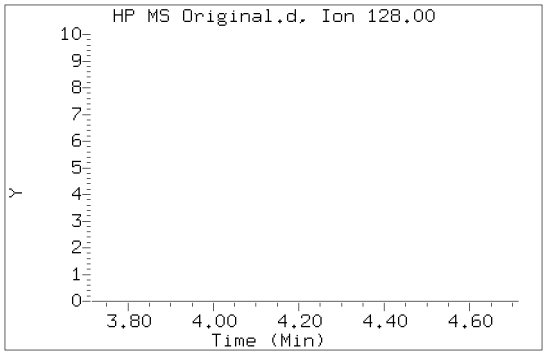
BEFORE
MASS
82
AREA
12644
HEIGHT
3788
26-Jan-2023
18:48
ALSHS
Server



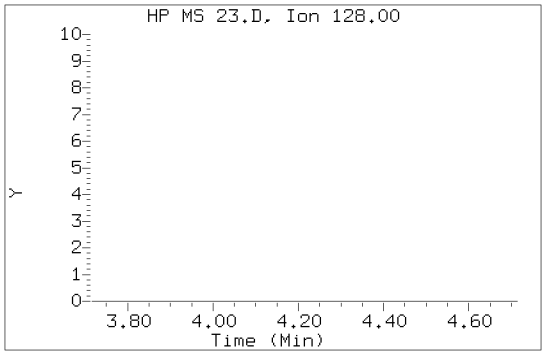
AFTER
MASS
82
AREA
6376
HEIGHT
3464
27-Jan-2023
11:55



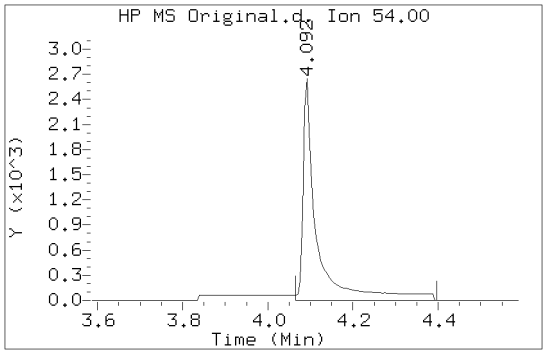
BEFORE
MASS
128
AREA
0
HEIGHT
0
26-Jan-2023
18:48
ALSHS
Server



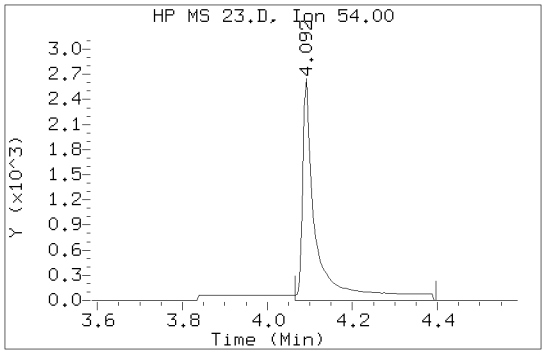
AFTER
MASS
128
AREA
0
HEIGHT
0
27-Jan-2023
11:55



BEFORE
MASS
54
AREA
5958
HEIGHT
2647
26-Jan-2023
18:48
ALSHS
Server



AFTER
MASS
54
AREA
5958
HEIGHT
2647
27-Jan-2023
11:55

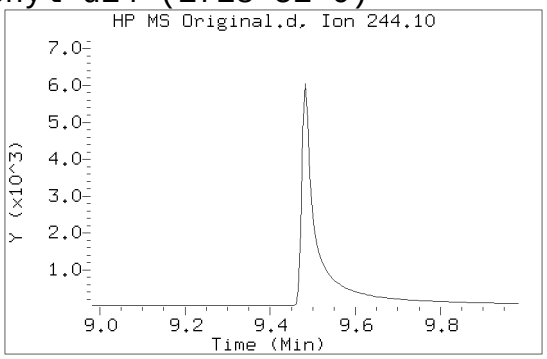


Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\23.D
Inj Date : 26-JAN-2023 18:34
InstruID : SV6.i
LabSampID : 1 4-DX-0.15

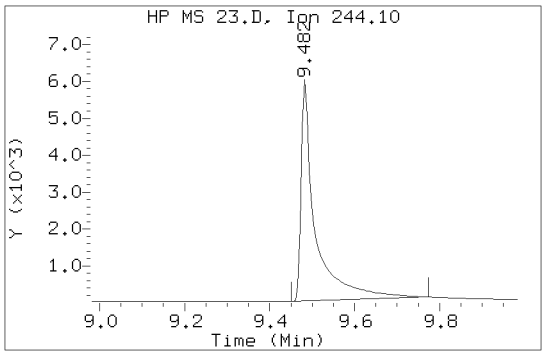
4-Terphenyl-d14 (1718-51-0)

Reason Code:

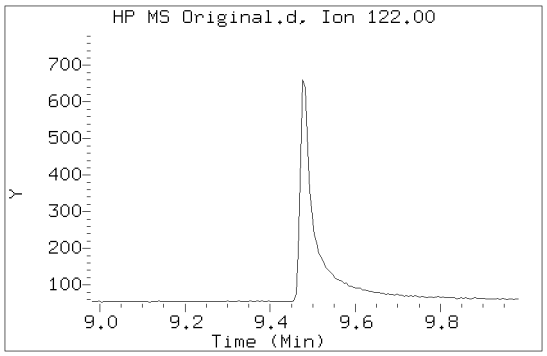
BEFORE
MASS
244.1
AREA
0
HEIGHT
0
26-Jan-2023
18:48
ALSHS
Server



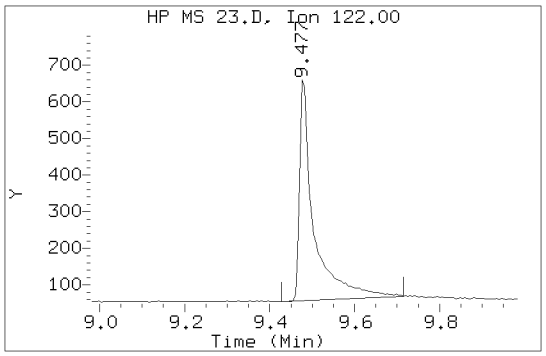
AFTER
MASS
244.1
AREA
13832
HEIGHT
5991
27-Jan-2023
11:55



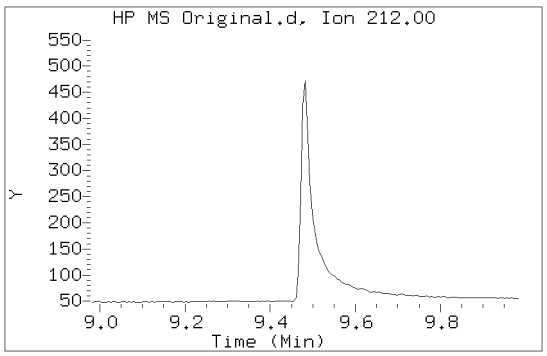
BEFORE
MASS
122
AREA
0
HEIGHT
0
26-Jan-2023
18:48
ALSHS
Server



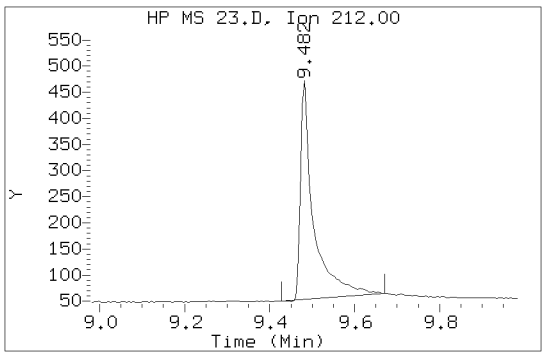
AFTER
MASS
122
AREA
1402
HEIGHT
602
27-Jan-2023
11:55



BEFORE
MASS
212
AREA
0
HEIGHT
0
26-Jan-2023
18:48
ALSHS
Server



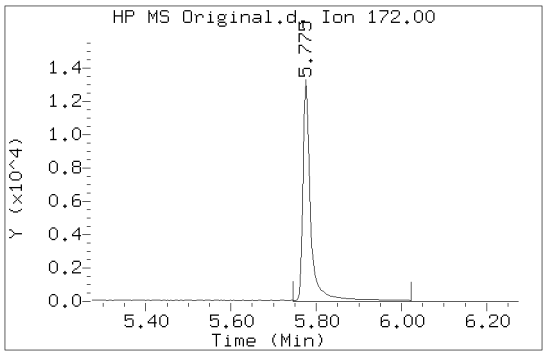
AFTER
MASS
212
AREA
891
HEIGHT
418
27-Jan-2023
11:55



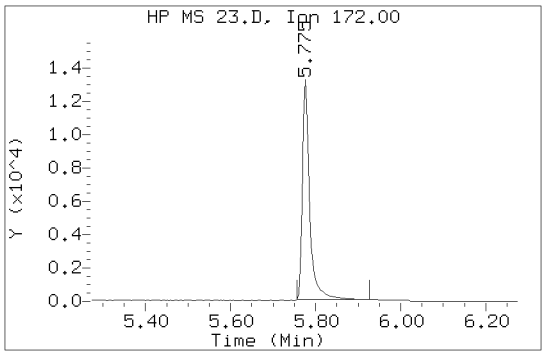
2-Fluorobiphenyl (321-60-8)

Reason Code:

BEFORE
MASS
172
AREA
17229
HEIGHT
13310
26-Jan-2023
18:48
ALSHS
Server



AFTER
MASS
172
AREA
15591
HEIGHT
13200
27-Jan-2023
11:55



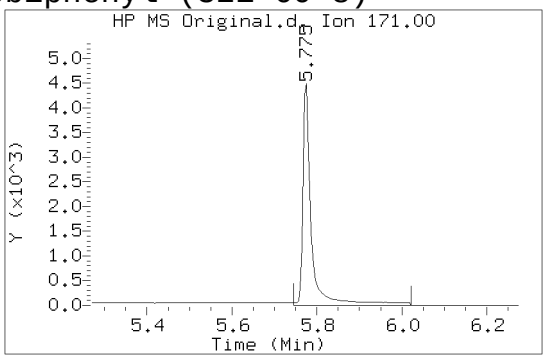
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\23.D
Inj Date : 26-JAN-2023 18:34
InstruID : SV6.i
LabSampID : 1 4-DX-0.15

2-Fluorobiphenyl (321-60-8)

Reason Code:

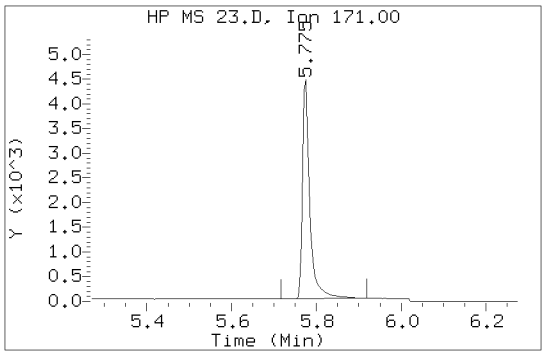
BEFORE

MASS
171
AREA
6311
HEIGHT
4491
26-Jan-2023
18:48
ALSHS
Server



AFTER

MASS
171
AREA
5369
HEIGHT
4439
27-Jan-2023
11:55



Data File: \\NAHSTWS005\Target\chem\SV6.i\230126.b\24.D Page 1
Report Date: 27-Jan-2023 11:55

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230126.b\24.D
Lab Smp Id: 1 4-DX-0.2 Client Smp ID: 1 4-DX-0.2
Inj Date : 26-JAN-2023 18:51
Operator : LG Inst ID: SV6.i
Smp Info : 1 4-DX-0.2;1 4-DX-0.2
Misc Info : ;;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\SV6.i\230126.b\DXSIM.m
Meth Date : 27-Jan-2023 11:55 SV6.i Quant Type: ISTD
Cal Date : 26-JAN-2023 18:34 Cal File: 23.D
Als bottle: 23 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7095

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)
* 20 1,4-Dichlorobenzene-d4	152	3.625	3.625	(1.000)	5356	0.10000	(aM)
* 45 Naphthalene-d8	136	4.747	4.747	(1.000)	18077	0.10000	(M)
$ 33 Nitrobenzene-d5	82	4.092	4.092	(0.862)	11045	0.20000	0.2118(AM)
* 86 Acenaphthene-d10	164	6.429	6.429	(1.000)	10240	0.10000	(M)
$ 69 2-Fluorobiphenyl	172	5.775	5.775	(0.898)	27466	0.20000	0.2044(AM)
* 126 Phenanthrene-d10	188	7.885	7.885	(1.000)	19448	0.10000	(M)
* 182 Chrysene-d12	240	10.752	10.752	(1.000)	5776	0.10000	(M)
$ 158 4-Terphenyl-d14	244	9.482	9.482	(0.882)	24628	0.20000	0.2089(AM)
* 198 Perylene-d12	264	12.857	12.857	(1.000)	5116	0.10000	
1 1,4-Dioxane	58	1.854	1.854	(0.512)	3683	0.20000	0.1885(QM)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
exceeded maximum amount.
Q - Qualifier signal failed the ratio test.

M - Compound response manually integrated.

01182014

Data File: \\NAHSTWS005\Target\chem\SV6.i\230126.b\24.D

Date : 26-JAN-2023 18:51

Client ID: 1 4-DX-0.2

Instrument: SV6.i

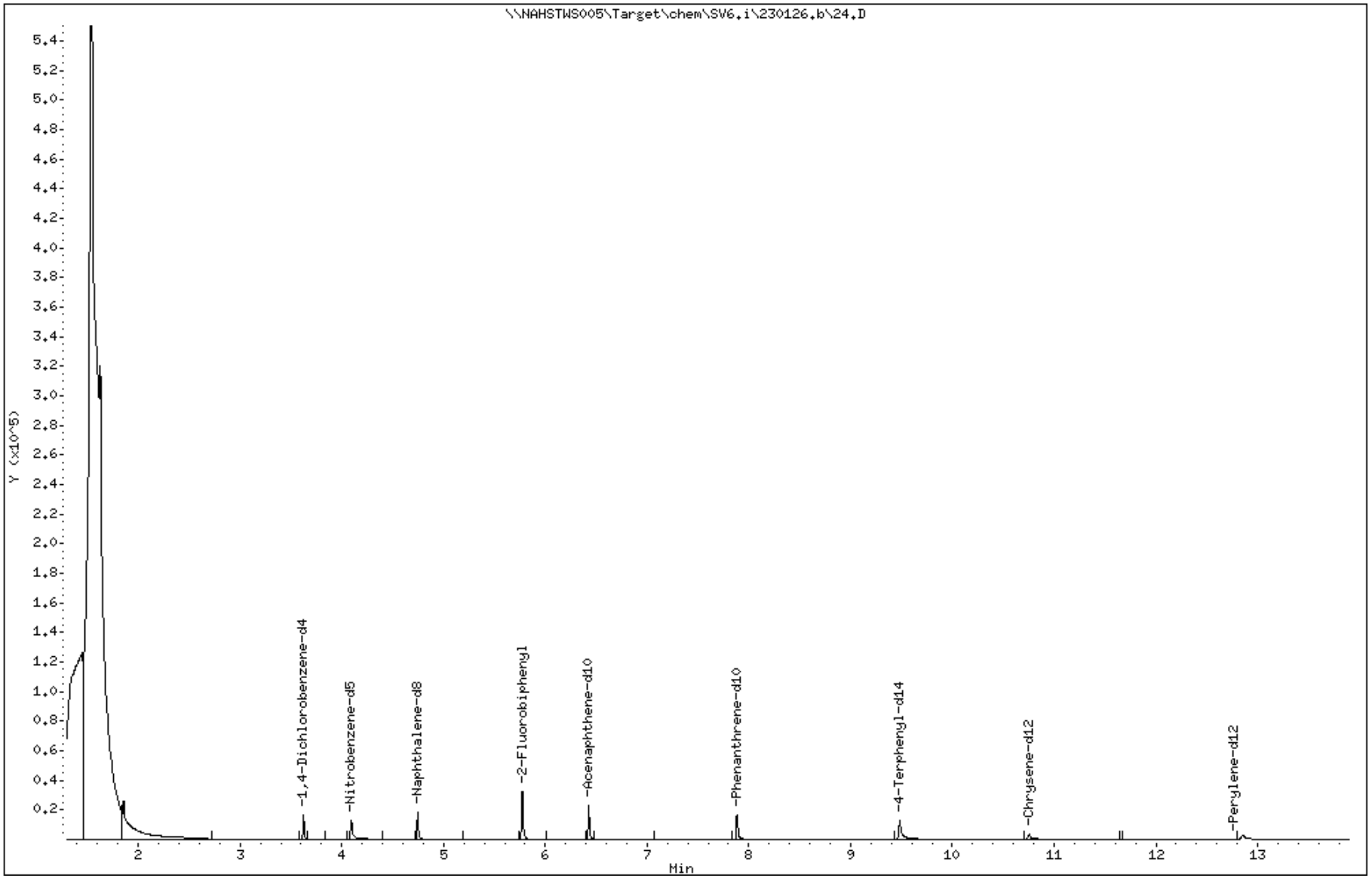
Sample Info: 1 4-DX-0.2;1 4-DX-0.2

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28



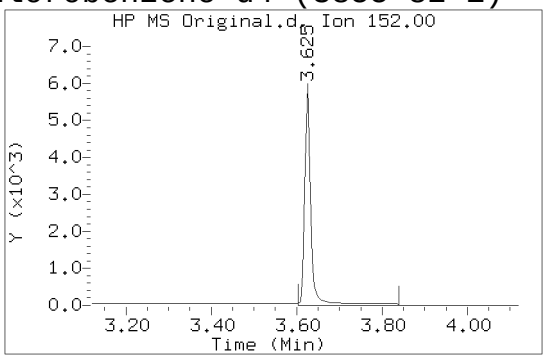
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\24.D
Inj Date : 26-JAN-2023 18:51
InstruID : SV6.i
LabSampID : 1 4-DX-0.2

1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

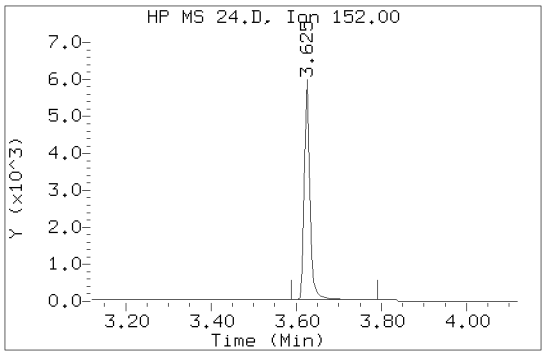
BEFORE

MASS
152
AREA
6088
HEIGHT
5993
26-Jan-2023
19:06
ALSHS
Server



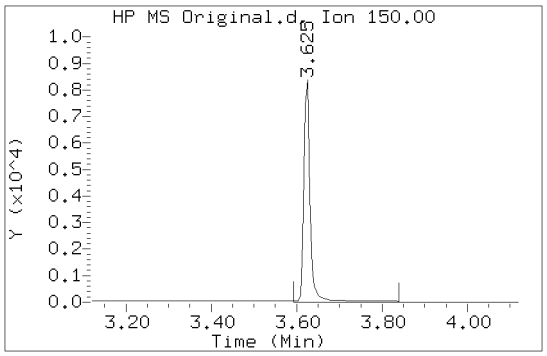
AFTER

MASS
152
AREA
5356
HEIGHT
5942
27-Jan-2023
11:55



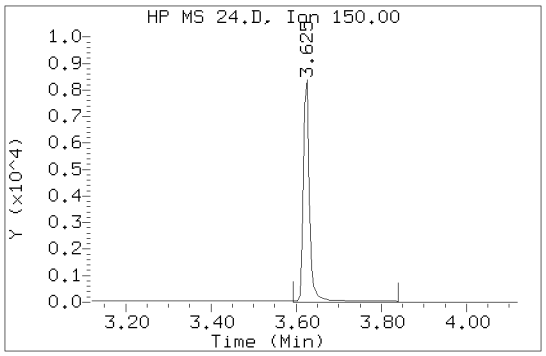
BEFORE

MASS
150
AREA
8795
HEIGHT
8381
26-Jan-2023
19:06
ALSHS
Server



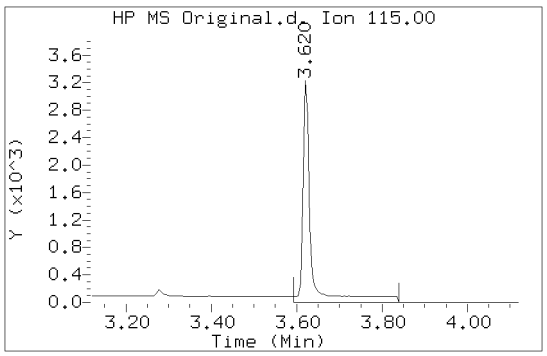
AFTER

MASS
150
AREA
8795
HEIGHT
8381
27-Jan-2023
11:55



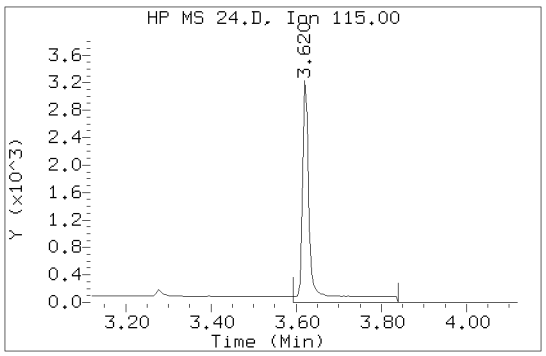
BEFORE

MASS
115
AREA
4214
HEIGHT
3230
26-Jan-2023
19:06
ALSHS
Server



AFTER

MASS
115
AREA
4214
HEIGHT
3230
27-Jan-2023
11:55

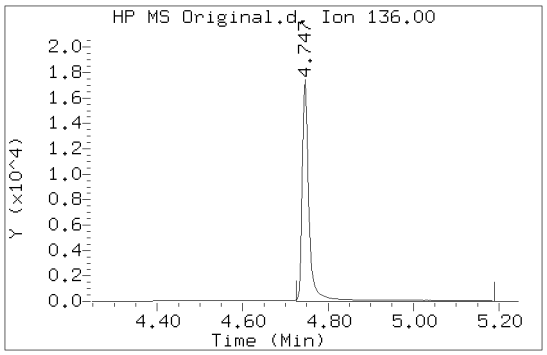


Naphthalene-d8 (1146-65-2)

Reason Code:

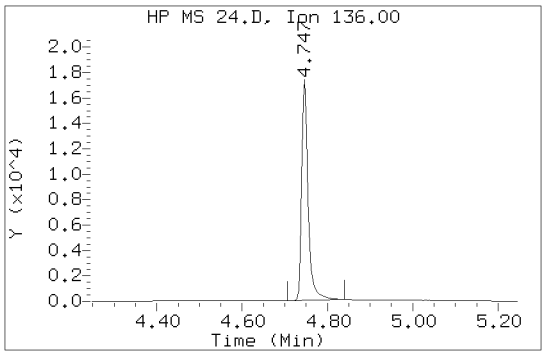
BEFORE

MASS
136
AREA
20575
HEIGHT
17440
26-Jan-2023
19:06
ALSHS
Server



AFTER

MASS
136
AREA
18077
HEIGHT
17352
27-Jan-2023
11:55



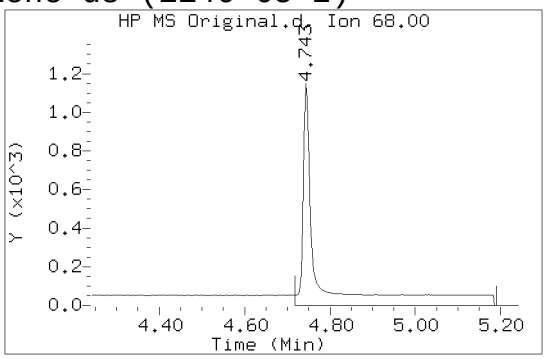
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\24.D
Inj Date : 26-JAN-2023 18:51
InstruID : SV6.i
LabSampID : 1 4-DX-0.2

Naphthalene-d8 (1146-65-2)

Reason Code:

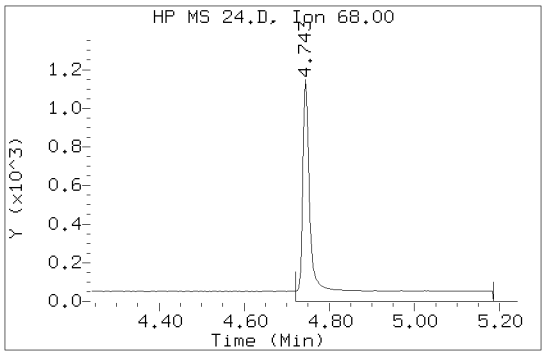
BEFORE

MASS
68
AREA
2661
HEIGHT
1148
26-Jan-2023
19:06
ALSHS
Server



AFTER

MASS
68
AREA
2649
HEIGHT
1148
27-Jan-2023
11:55

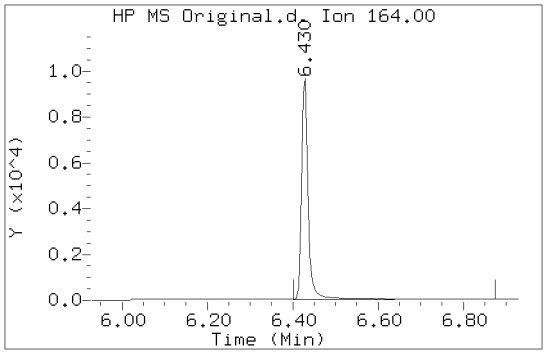


Acenaphthene-d10 (15067-26-2)

Reason Code:

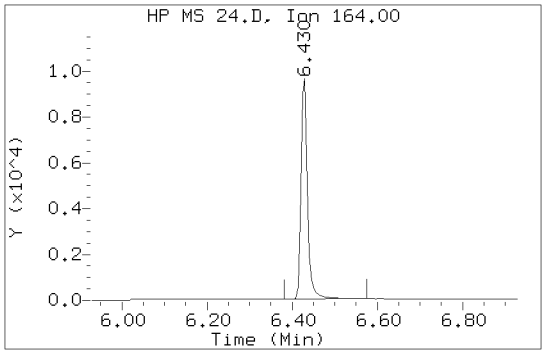
BEFORE

MASS
164
AREA
10835
HEIGHT
9644
26-Jan-2023
19:06
ALSHS
Server



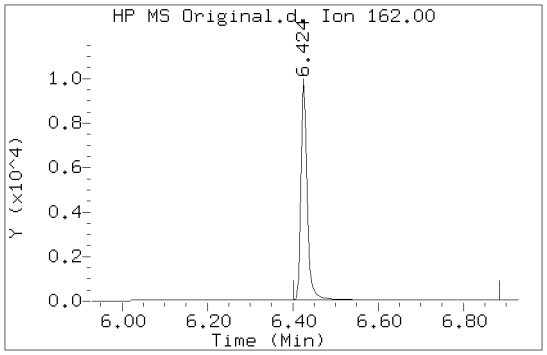
AFTER

MASS
164
AREA
10240
HEIGHT
9610
27-Jan-2023
11:55



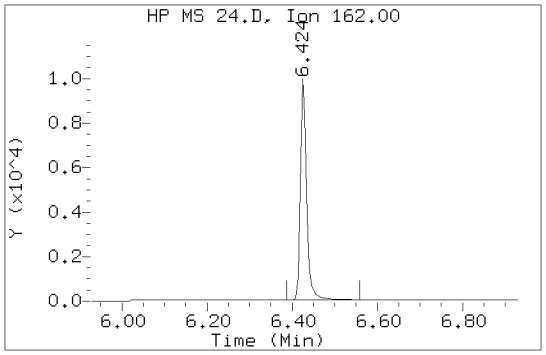
BEFORE

MASS
162
AREA
10270
HEIGHT
9933
26-Jan-2023
19:06
ALSHS
Server



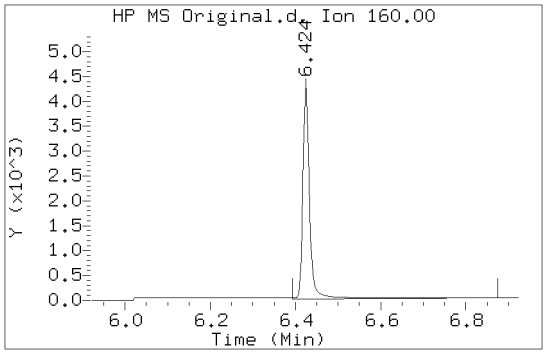
AFTER

MASS
162
AREA
10161
HEIGHT
9932
27-Jan-2023
11:55



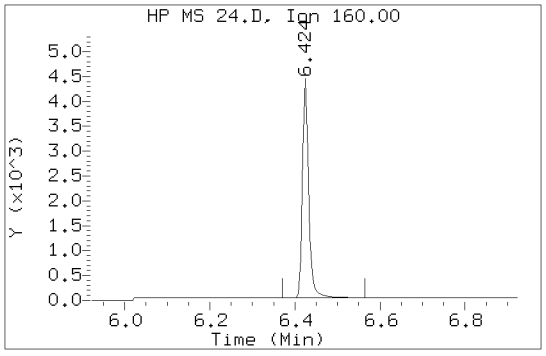
BEFORE

MASS
160
AREA
4853
HEIGHT
4435
26-Jan-2023
19:06
ALSHS
Server



AFTER

MASS
160
AREA
4390
HEIGHT
4408
27-Jan-2023
11:55



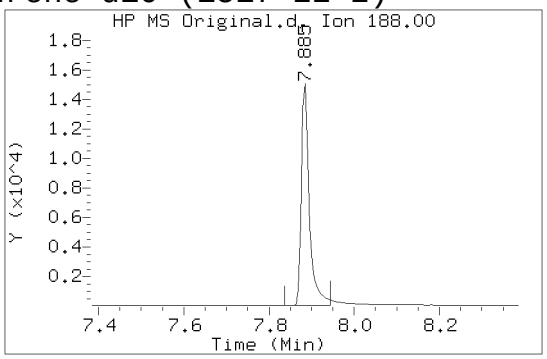
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\24.D
Inj Date : 26-JAN-2023 18:51
InstruID : SV6.i
LabSampID : 1 4-DX-0.2

Phenanthrene-d10 (1517-22-2)

Reason Code:

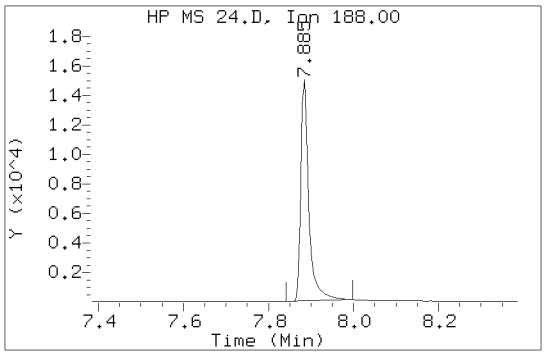
BEFORE

MASS
188
AREA
19386
HEIGHT
15029
26-Jan-2023
19:06
ALSHS
Server



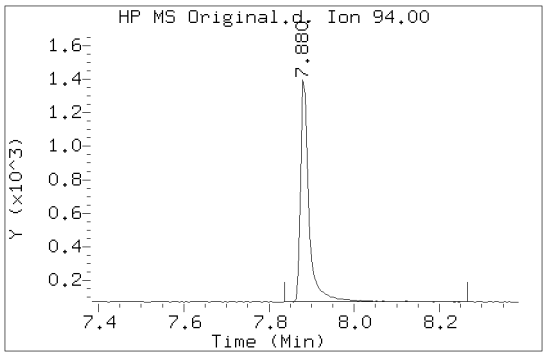
AFTER

MASS
188
AREA
19448
HEIGHT
14998
27-Jan-2023
11:55



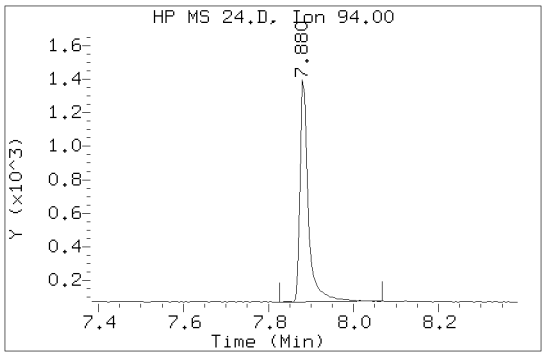
BEFORE

MASS
94
AREA
1839
HEIGHT
1327
26-Jan-2023
19:06
ALSHS
Server



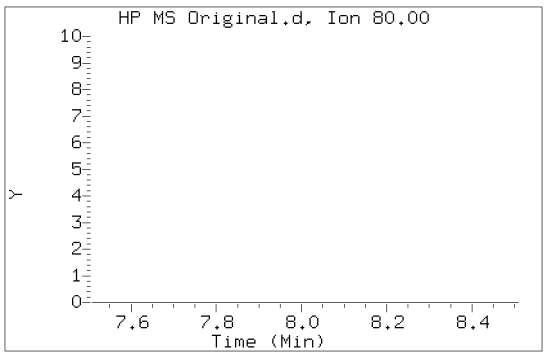
AFTER

MASS
94
AREA
1800
HEIGHT
1326
27-Jan-2023
11:55



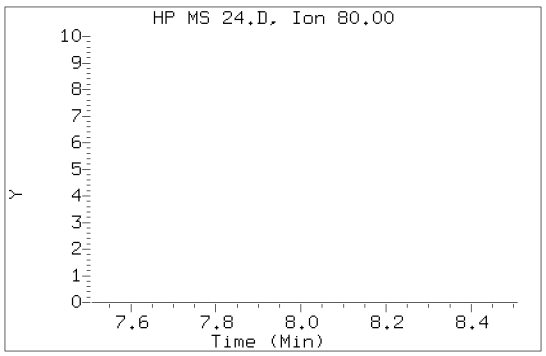
BEFORE

MASS
80
AREA
0
HEIGHT
0
26-Jan-2023
19:06
ALSHS
Server



AFTER

MASS
80
AREA
0
HEIGHT
0
27-Jan-2023
11:55

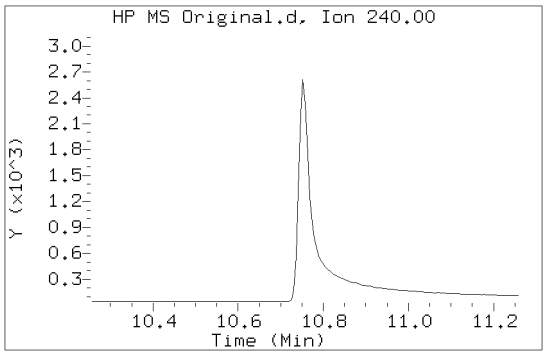


Chrysene-d12 (1719-03-5)

Reason Code:

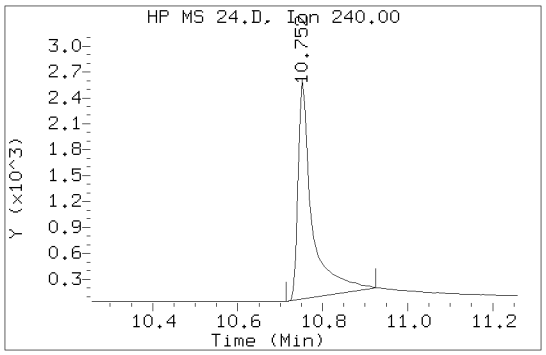
BEFORE

MASS
240
AREA
0
HEIGHT
0
26-Jan-2023
19:06
ALSHS
Server



AFTER

MASS
240
AREA
5776
HEIGHT
2533
27-Jan-2023
11:55

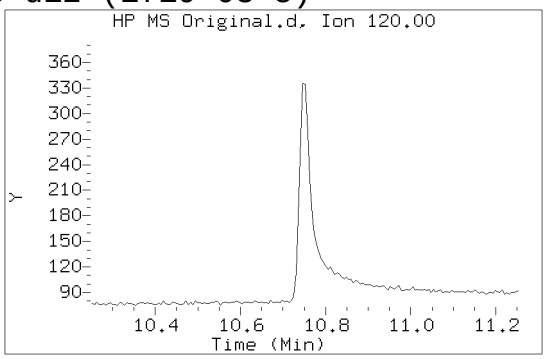


Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\24.D
Inj Date : 26-JAN-2023 18:51
InstruID : SV6.i
LabSampID : 1 4-DX-0.2

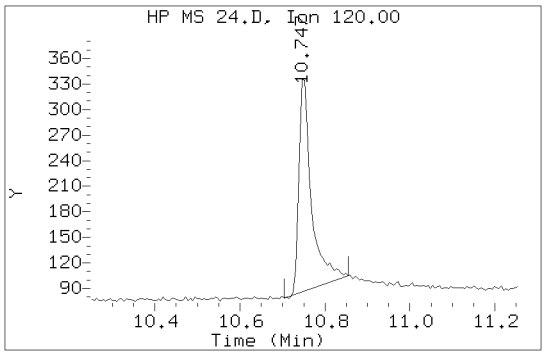
Chrysene-d12 (1719-03-5)

Reason Code:

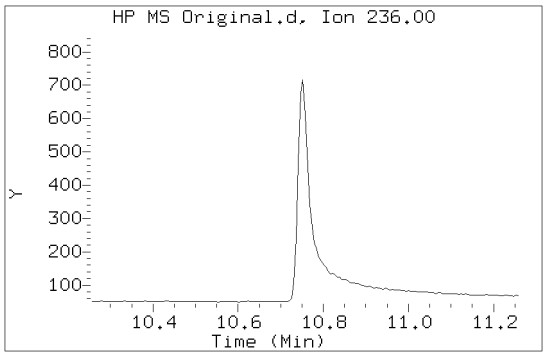
BEFORE
MASS
120
AREA
0
HEIGHT
0
26-Jan-2023
19:06
ALSHS
Server



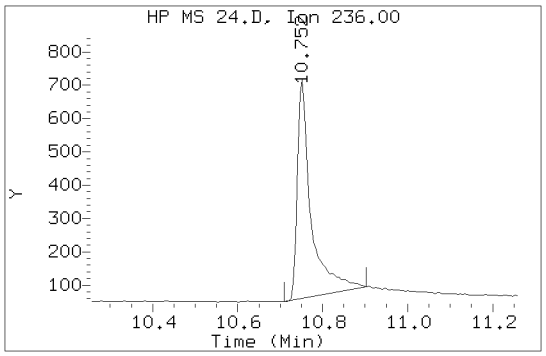
AFTER
MASS
120
AREA
511
HEIGHT
248
27-Jan-2023
11:55



BEFORE
MASS
236
AREA
0
HEIGHT
0
26-Jan-2023
19:06
ALSHS
Server



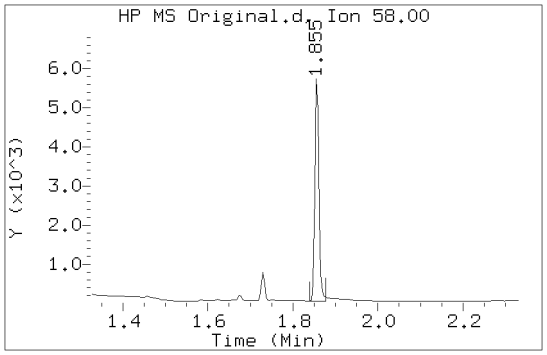
AFTER
MASS
236
AREA
1471
HEIGHT
655
27-Jan-2023
11:55



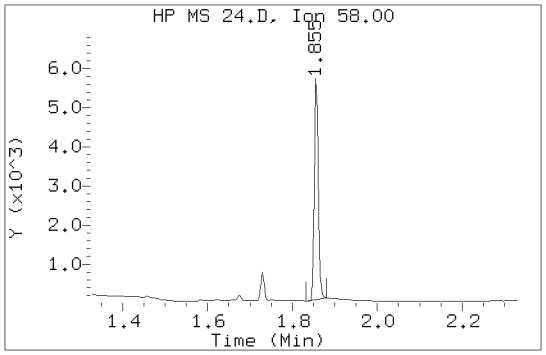
1,4-Dioxane ()

Reason Code:

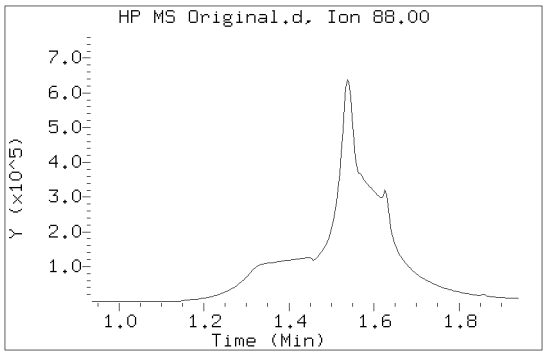
BEFORE
MASS
58
AREA
3790
HEIGHT
5675
26-Jan-2023
19:06
ALSHS
Server



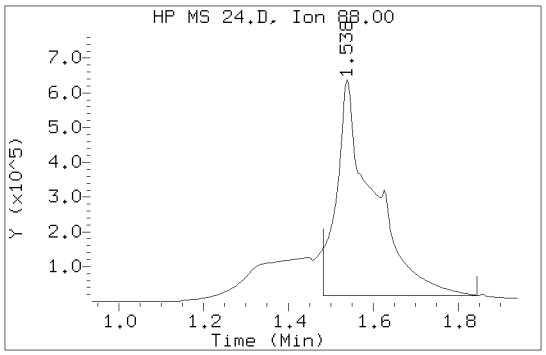
AFTER
MASS
58
AREA
3683
HEIGHT
5638
27-Jan-2023
11:55



BEFORE
MASS
88
AREA
0
HEIGHT
0
26-Jan-2023
19:06
ALSHS
Server



AFTER
MASS
88
AREA
3747570
HEIGHT
620736
27-Jan-2023
11:55



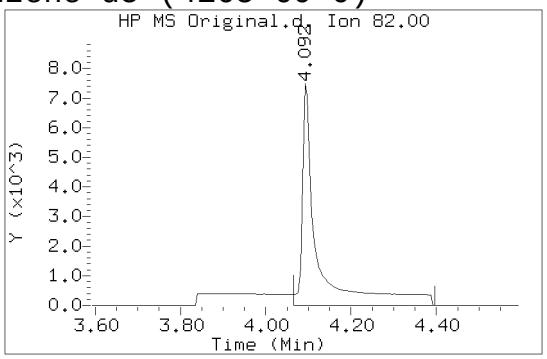
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\24.D
Inj Date : 26-JAN-2023 18:51
InstruID : SV6.i
LabSampID : 1 4-DX-0.2

Nitrobenzene-d5 (4165-60-0)

Reason Code:

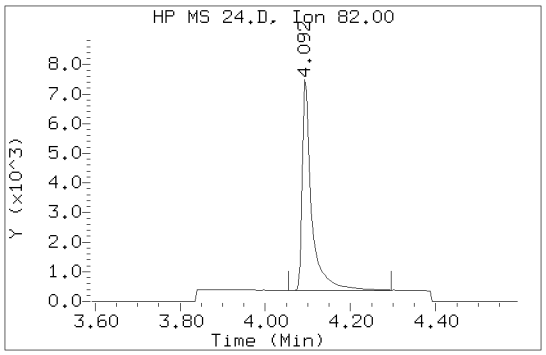
BEFORE

MASS
82
AREA
18228
HEIGHT
7484
26-Jan-2023
19:06
ALSHS
Server



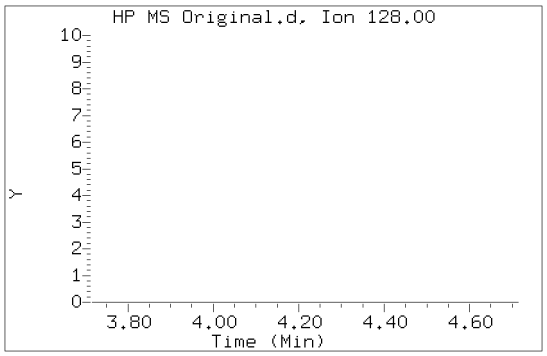
AFTER

MASS
82
AREA
11045
HEIGHT
7114
27-Jan-2023
11:55



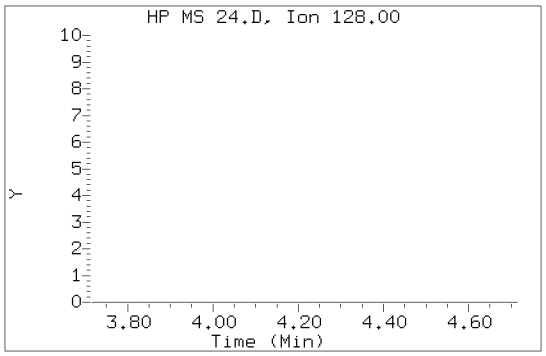
BEFORE

MASS
128
AREA
0
HEIGHT
0
26-Jan-2023
19:06
ALSHS
Server



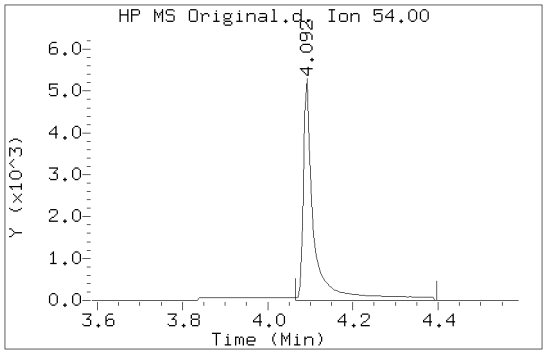
AFTER

MASS
128
AREA
0
HEIGHT
0
27-Jan-2023
11:55



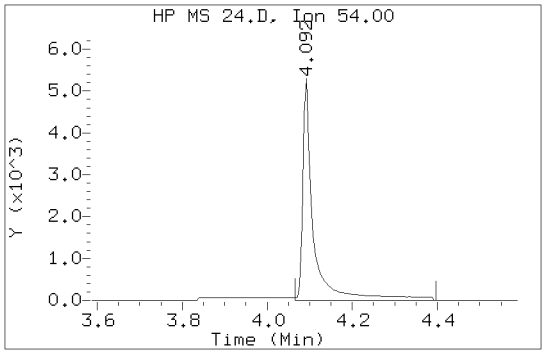
BEFORE

MASS
54
AREA
9366
HEIGHT
5295
26-Jan-2023
19:06
ALSHS
Server



AFTER

MASS
54
AREA
9366
HEIGHT
5295
27-Jan-2023
11:55

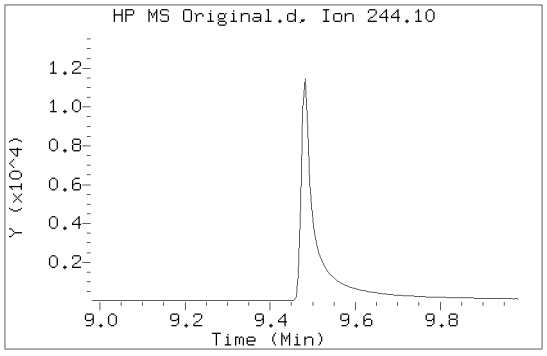


4-Terphenyl-d14 (1718-51-0)

Reason Code:

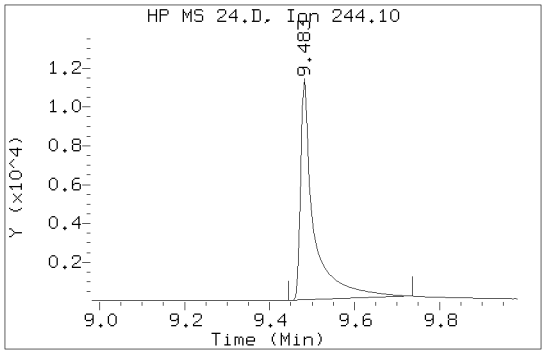
BEFORE

MASS
244.1
AREA
0
HEIGHT
0
26-Jan-2023
19:06
ALSHS
Server



AFTER

MASS
244.1
AREA
24628
HEIGHT
11383
27-Jan-2023
11:55



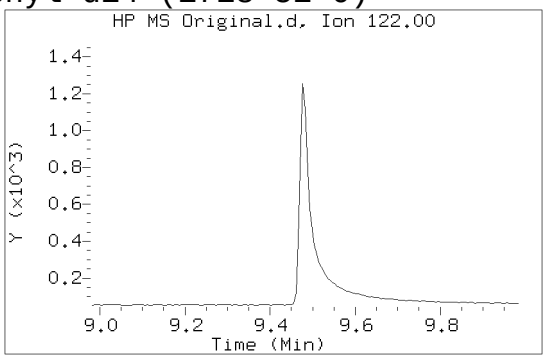
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\24.D
Inj Date : 26-JAN-2023 18:51
InstruID : SV6.i
LabSampID : 1 4-DX-0.2

4-Terphenyl-d14 (1718-51-0)

Reason Code:

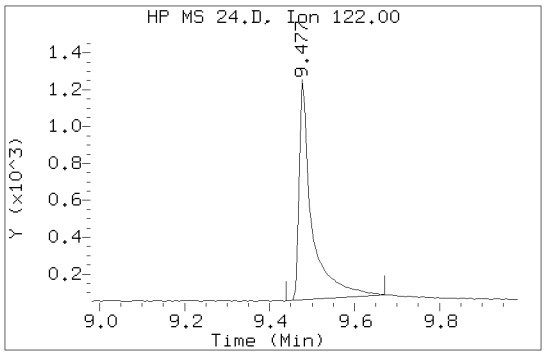
BEFORE

MASS
122
AREA
0
HEIGHT
0
26-Jan-2023
19:06
ALSHS
Server



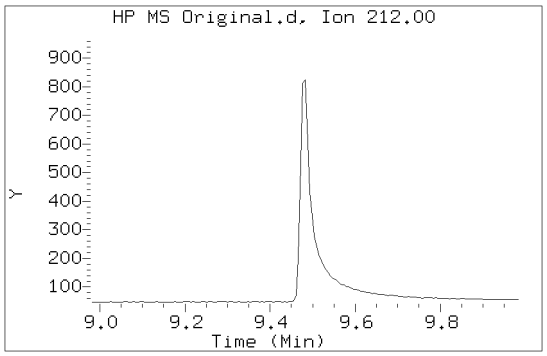
AFTER

MASS
122
AREA
2466
HEIGHT
1193
27-Jan-2023
11:55



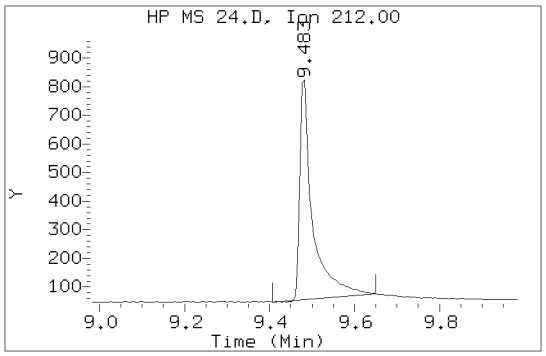
BEFORE

MASS
212
AREA
0
HEIGHT
0
26-Jan-2023
19:06
ALSHS
Server



AFTER

MASS
212
AREA
1594
HEIGHT
767
27-Jan-2023
11:55

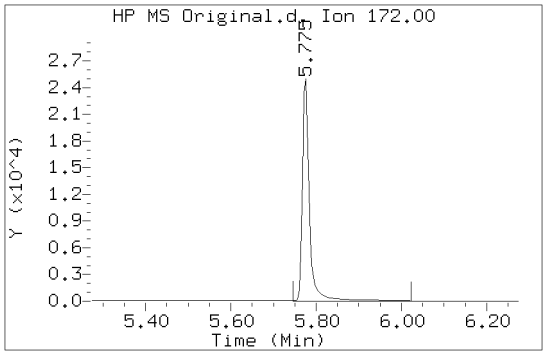


2-Fluorobiphenyl (321-60-8)

Reason Code:

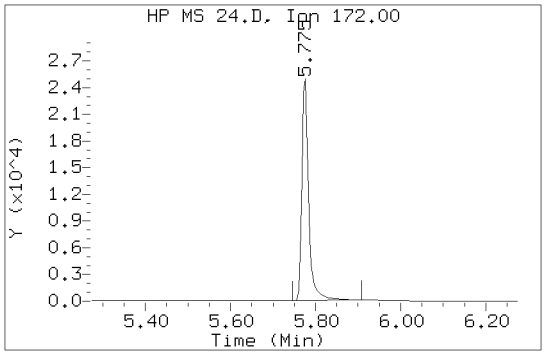
BEFORE

MASS
172
AREA
29099
HEIGHT
24976
26-Jan-2023
19:06
ALSHS
Server



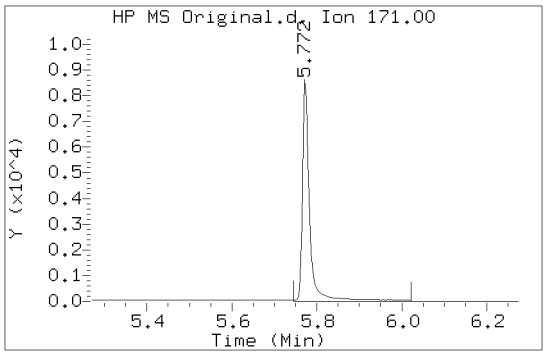
AFTER

MASS
172
AREA
27466
HEIGHT
24904
27-Jan-2023
11:55



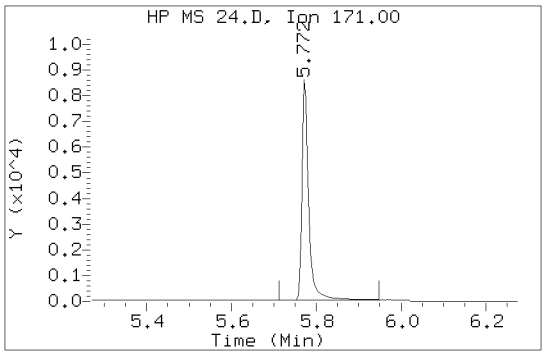
BEFORE

MASS
171
AREA
10346
HEIGHT
8624
26-Jan-2023
19:06
ALSHS
Server



AFTER

MASS
171
AREA
9413
HEIGHT
8573
27-Jan-2023
11:55



ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230126.b\25.D
Lab Smp Id: 1 4-DX-0.5 Client Smp ID: 1 4-DX-0.5
Inj Date : 26-JAN-2023 19:09
Operator : LG Inst ID: SV6.i
Smp Info : 1 4-DX-0.5;1 4-DX-0.5
Misc Info : ;;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\SV6.i\230126.b\DXSIM.m
Meth Date : 27-Jan-2023 11:56 SV6.i Quant Type: ISTD
Cal Date : 26-JAN-2023 18:51 Cal File: 24.D
Als bottle: 24 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7095

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)
* 20 1,4-Dichlorobenzene-d4	152	3.619	3.619	(1.000)	3987	0.10000	(aM)
* 45 Naphthalene-d8	136	4.746	4.746	(1.000)	13771	0.10000	(M)
$ 33 Nitrobenzene-d5	82	4.092	4.092	(0.862)	20261	0.50000	0.5099(AM)
* 86 Acenaphthene-d10	164	6.429	6.429	(1.000)	7556	0.10000	(M)
$ 69 2-Fluorobiphenyl	172	5.775	5.775	(0.898)	51391	0.50000	0.5182(AM)
* 126 Phenanthrene-d10	188	7.884	7.884	(1.000)	15367	0.10000	
* 182 Chrysene-d12	240	10.757	10.757	(1.000)	3979	0.10000	(M)
$ 158 4-Terphenyl-d14	244	9.482	9.482	(0.881)	48596	0.50000	0.4992(AM)
* 198 Perylene-d12	264	12.862	12.862	(1.000)	3426	0.10000	
1 1,4-Dioxane	58	1.828	1.828	(0.505)	6578	0.50000	0.4523(QM)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
exceeded maximum amount.
Q - Qualifier signal failed the ratio test.

M - Compound response manually integrated.

01182023

Data File: \\NAHSTWS005\Target\chem\SV6.i\230126.b\25.D

Date : 26-JAN-2023 19:09

Client ID: 1 4-DX-0.5

Instrument: SV6.i

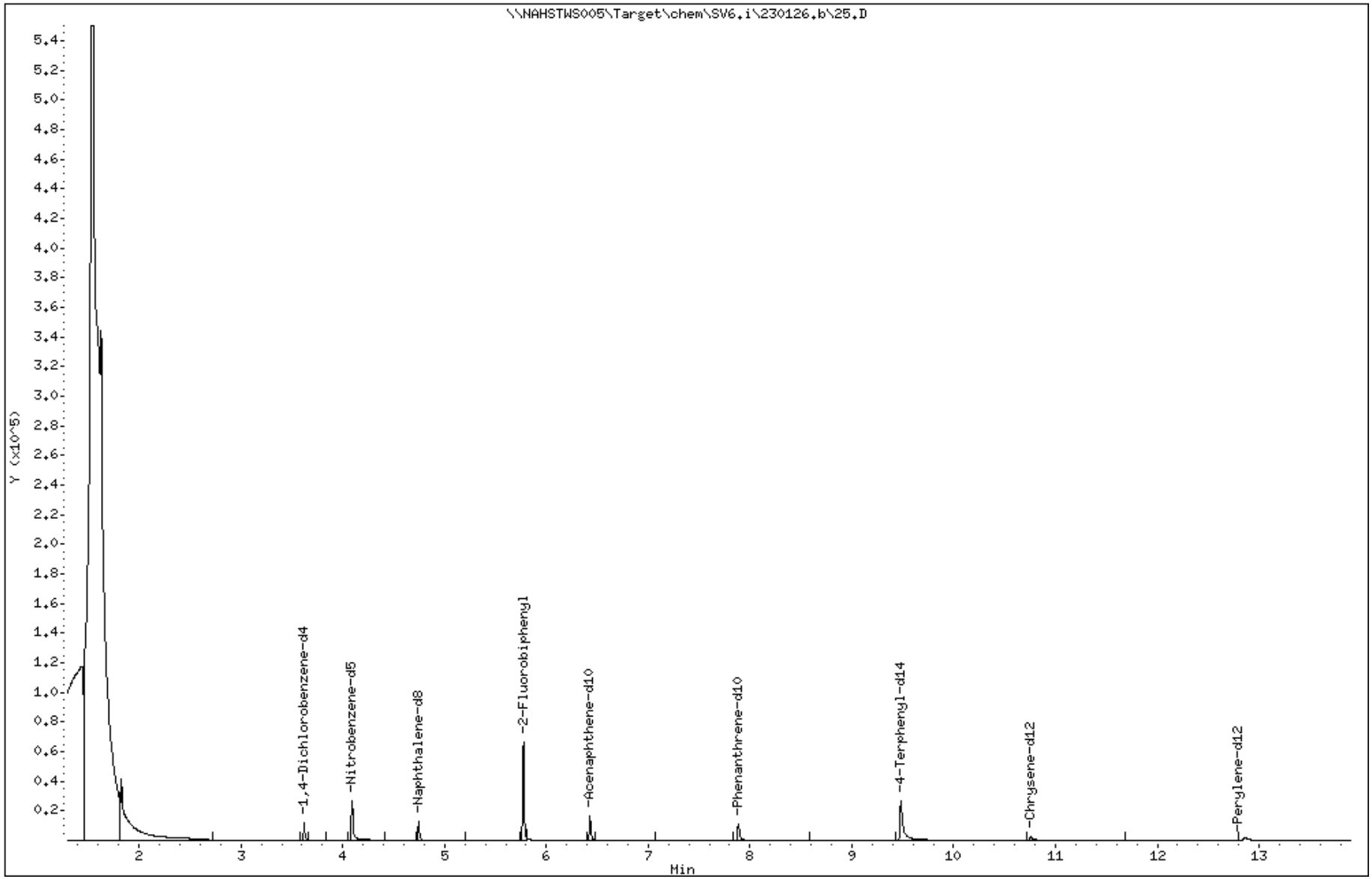
Sample Info: 1 4-DX-0.5;1 4-DX-0.5

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28

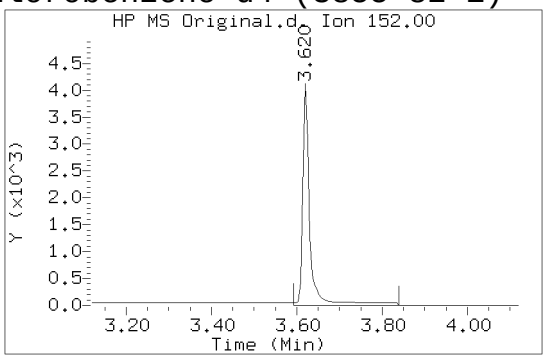


Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\25.D
Inj Date : 26-JAN-2023 19:09
InstruID : SV6.i
LabSampID : 1 4-DX-0.5

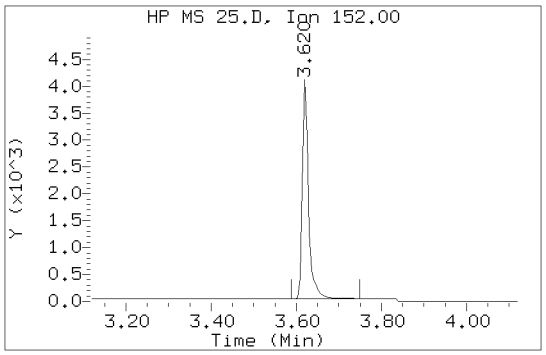
1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

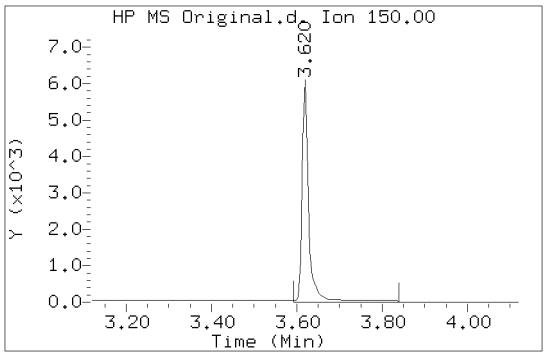
BEFORE
MASS
152
AREA
4746
HEIGHT
4125
26-Jan-2023
19:25
ALSHS
Server



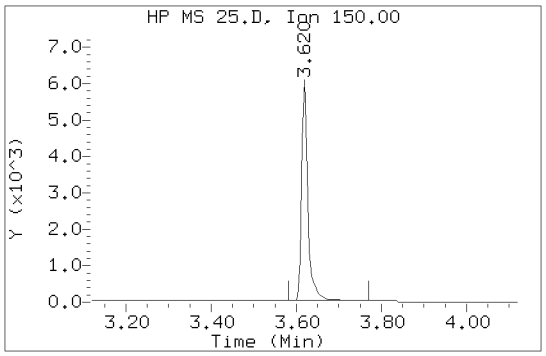
AFTER
MASS
152
AREA
3987
HEIGHT
4075
27-Jan-2023
11:55



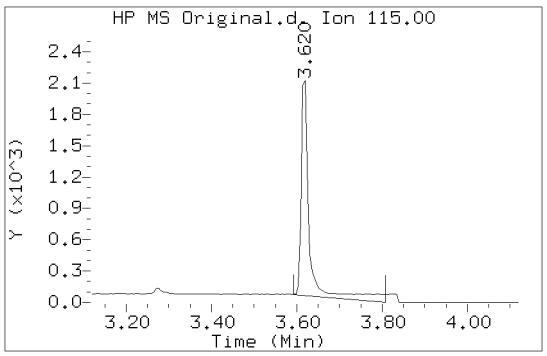
BEFORE
MASS
150
AREA
6719
HEIGHT
6101
26-Jan-2023
19:25
ALSHS
Server



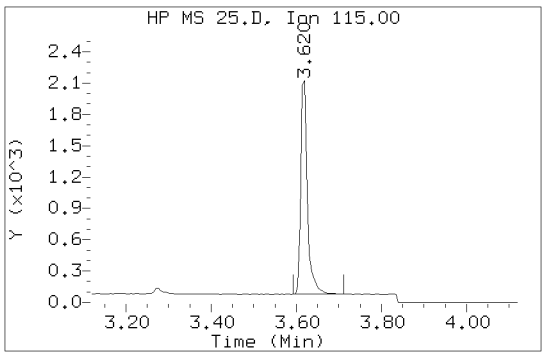
AFTER
MASS
150
AREA
5981
HEIGHT
6052
27-Jan-2023
11:55



BEFORE
MASS
115
AREA
2721
HEIGHT
2057
26-Jan-2023
19:25
ALSHS
Server



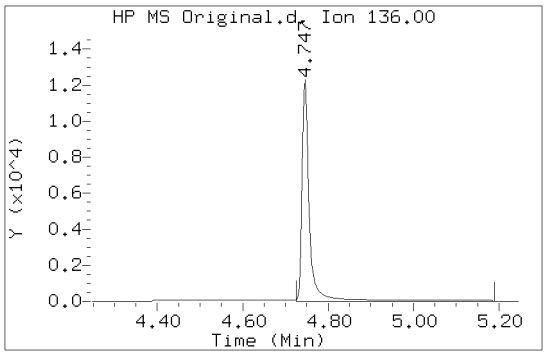
AFTER
MASS
115
AREA
2196
HEIGHT
2045
27-Jan-2023
11:55



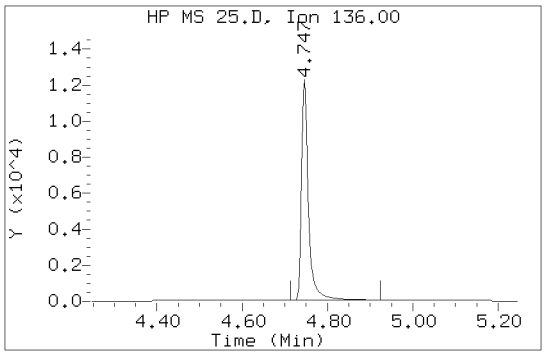
Naphthalene-d8 (1146-65-2)

Reason Code:

BEFORE
MASS
136
AREA
15738
HEIGHT
12301
26-Jan-2023
19:25
ALSHS
Server



AFTER
MASS
136
AREA
13771
HEIGHT
12236
27-Jan-2023
11:55



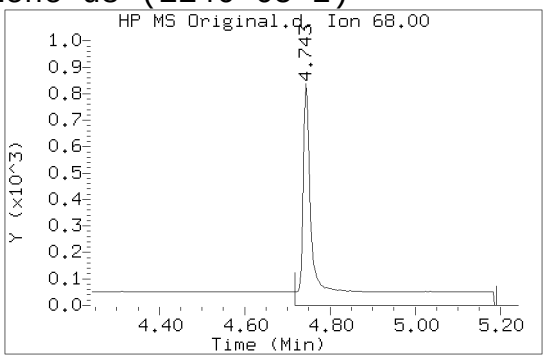
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\25.D
Inj Date : 26-JAN-2023 19:09
InstruID : SV6.i
LabSampID : 1 4-DX-0.5

Naphthalene-d8 (1146-65-2)

Reason Code:

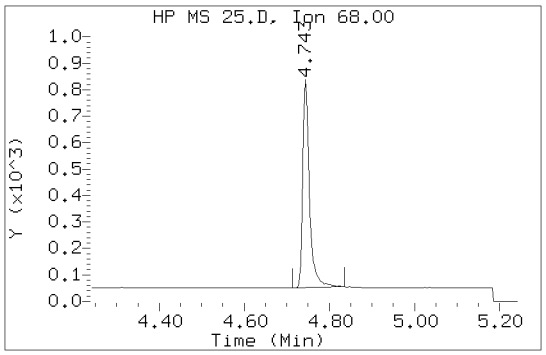
BEFORE

MASS
68
AREA
2324
HEIGHT
838
26-Jan-2023
19:25
ALSHS
Server



AFTER

MASS
68
AREA
859
HEIGHT
785
27-Jan-2023
11:55

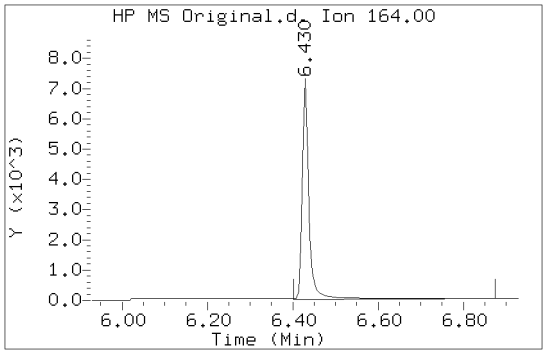


Acenaphthene-d10 (15067-26-2)

Reason Code:

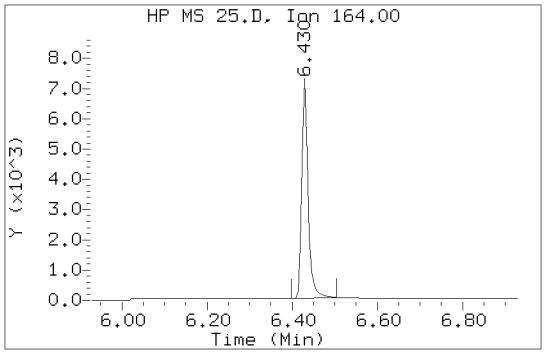
BEFORE

MASS
164
AREA
8287
HEIGHT
7297
26-Jan-2023
19:25
ALSHS
Server



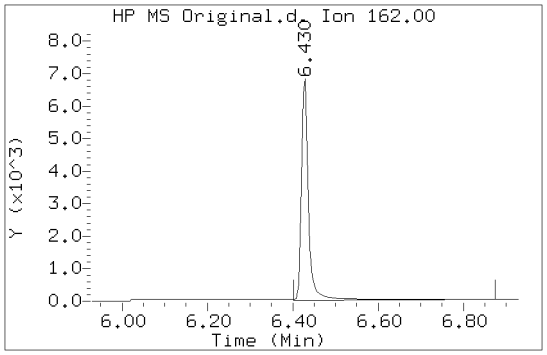
AFTER

MASS
164
AREA
7556
HEIGHT
7256
27-Jan-2023
11:55



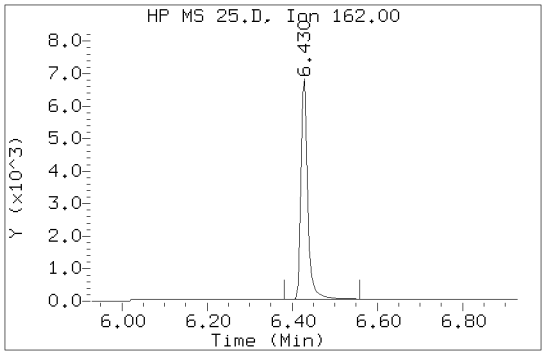
BEFORE

MASS
162
AREA
8184
HEIGHT
6810
26-Jan-2023
19:25
ALSHS
Server



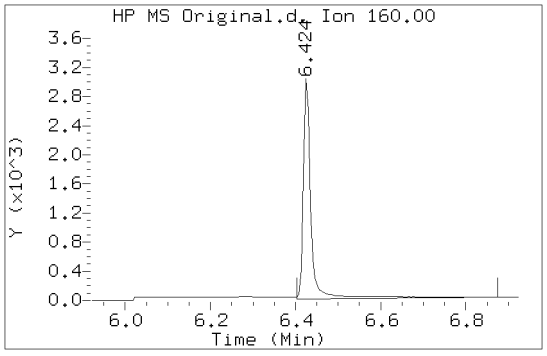
AFTER

MASS
162
AREA
7631
HEIGHT
6780
27-Jan-2023
11:55



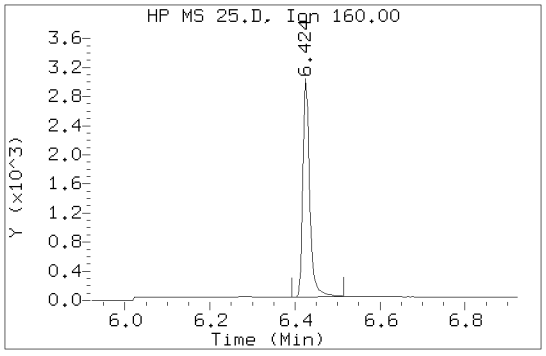
BEFORE

MASS
160
AREA
3710
HEIGHT
3023
26-Jan-2023
19:25
ALSHS
Server



AFTER

MASS
160
AREA
3264
HEIGHT
2996
27-Jan-2023
11:55

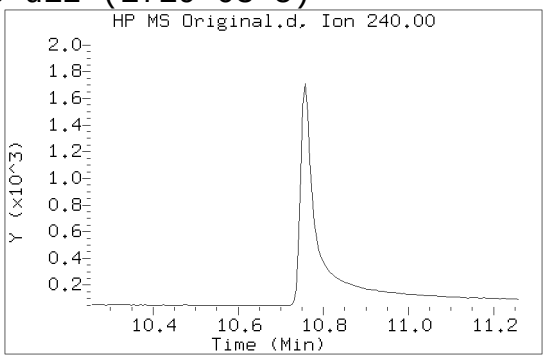


Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\25.D
Inj Date : 26-JAN-2023 19:09
InstruID : SV6.i
LabSampID : 1 4-DX-0.5

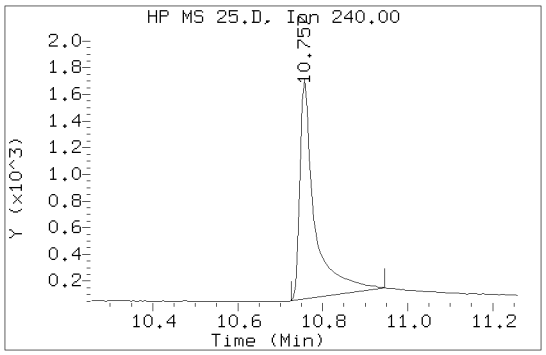
Chrysene-d12 (1719-03-5)

Reason Code:

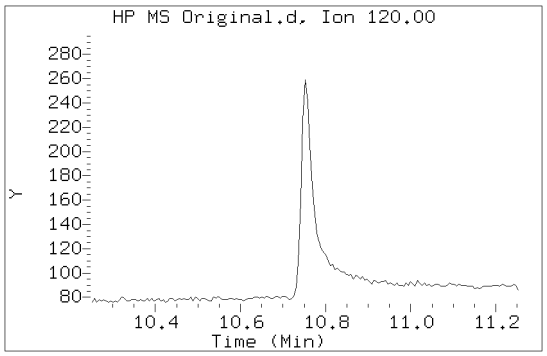
BEFORE
MASS
240
AREA
0
HEIGHT
0
26-Jan-2023
19:25
ALSHS
Server



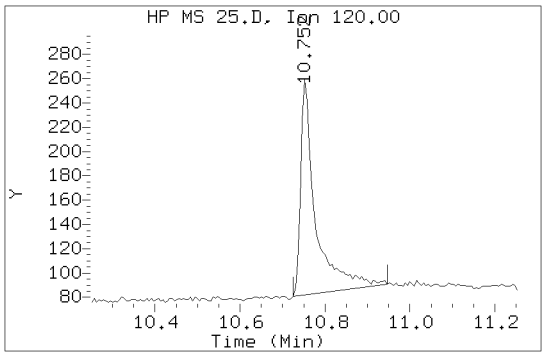
AFTER
MASS
240
AREA
3979
HEIGHT
1644
27-Jan-2023
11:55



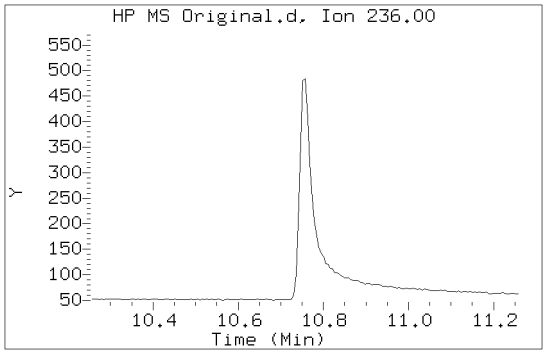
BEFORE
MASS
120
AREA
0
HEIGHT
0
26-Jan-2023
19:25
ALSHS
Server



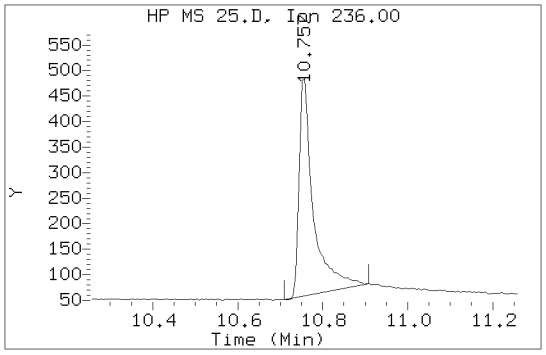
AFTER
MASS
120
AREA
428
HEIGHT
176
27-Jan-2023
11:55



BEFORE
MASS
236
AREA
0
HEIGHT
0
26-Jan-2023
19:25
ALSHS
Server



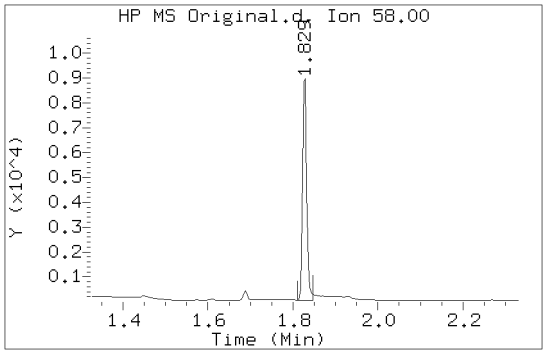
AFTER
MASS
236
AREA
988
HEIGHT
425
27-Jan-2023
11:55



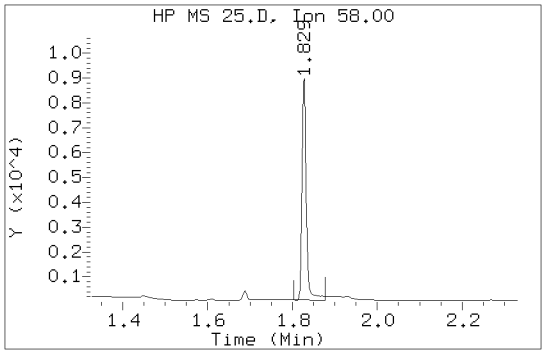
1,4-Dioxane ()

Reason Code:

BEFORE
MASS
58
AREA
6279
HEIGHT
8907
26-Jan-2023
19:25
ALSHS
Server



AFTER
MASS
58
AREA
6578
HEIGHT
8904
27-Jan-2023
11:55



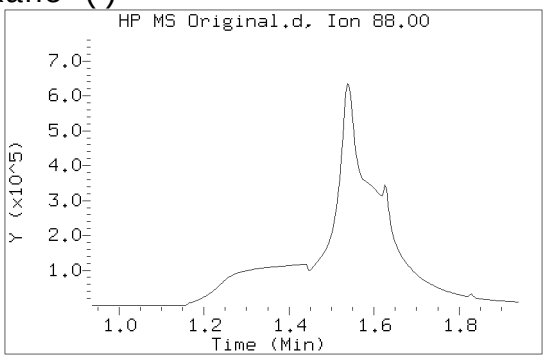
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\25.D
Inj Date : 26-JAN-2023 19:09
InstruID : SV6.i
LabSampID : 1 4-DX-0.5

1,4-Dioxane ()

Reason Code:

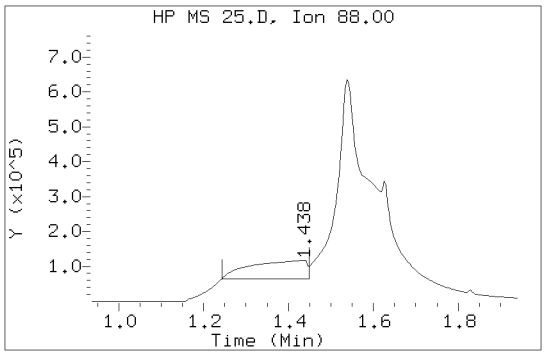
BEFORE

MASS
88
AREA
0
HEIGHT
0
26-Jan-2023
19:25
ALSHS
Server



AFTER

MASS
88
AREA
479995
HEIGHT
52208
27-Jan-2023
11:55

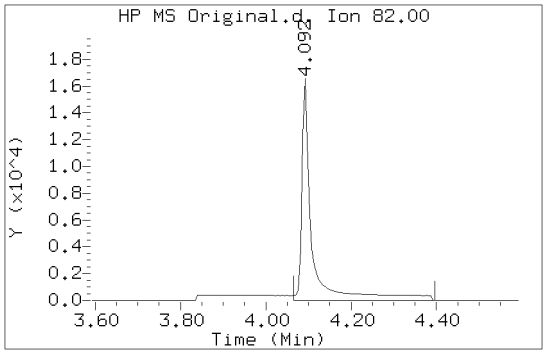


Nitrobenzene-d5 (4165-60-0)

Reason Code:

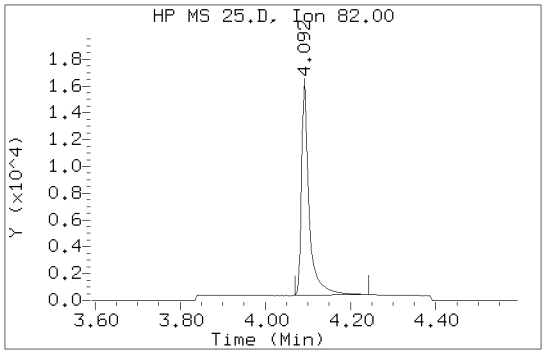
BEFORE

MASS
82
AREA
27706
HEIGHT
16544
26-Jan-2023
19:25
ALSHS
Server



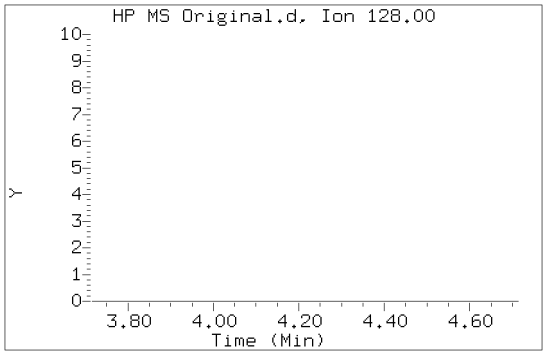
AFTER

MASS
82
AREA
20261
HEIGHT
16172
27-Jan-2023
11:55



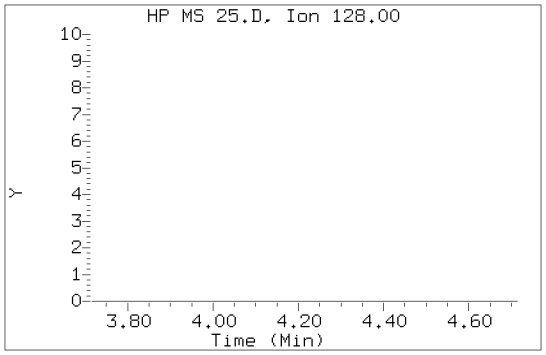
BEFORE

MASS
128
AREA
0
HEIGHT
0
26-Jan-2023
19:25
ALSHS
Server



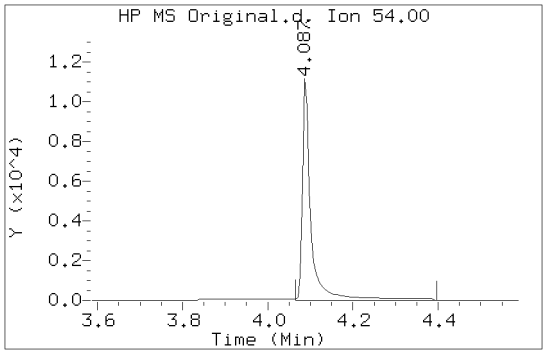
AFTER

MASS
128
AREA
0
HEIGHT
0
27-Jan-2023
11:55



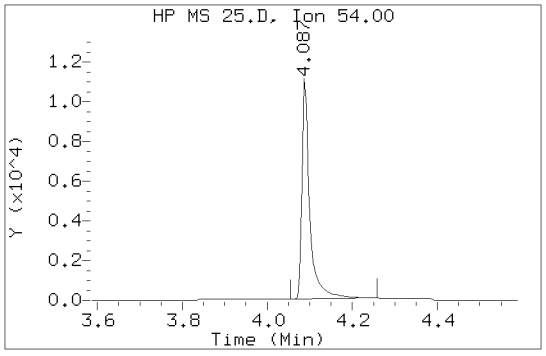
BEFORE

MASS
54
AREA
16018
HEIGHT
11163
26-Jan-2023
19:25
ALSHS
Server



AFTER

MASS
54
AREA
14306
HEIGHT
11091
27-Jan-2023
11:55



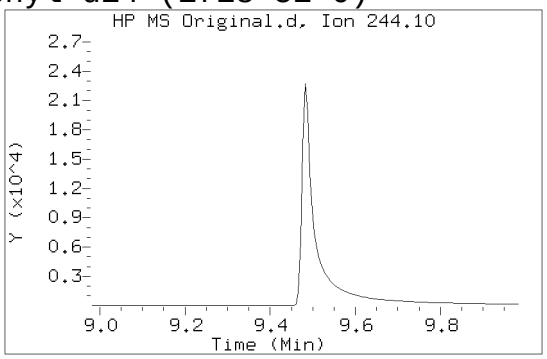
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\25.D
Inj Date : 26-JAN-2023 19:09
InstruID : SV6.i
LabSampID : 1 4-DX-0.5

4-Terphenyl-d14 (1718-51-0)

Reason Code:

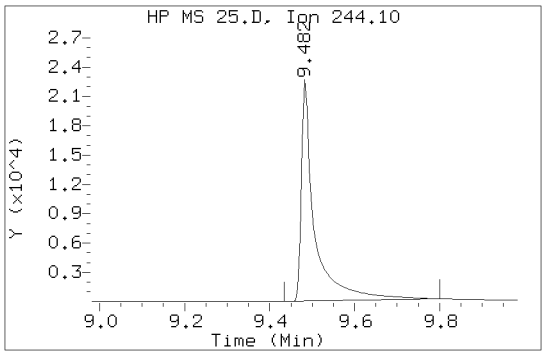
BEFORE

MASS
244.1
AREA
0
HEIGHT
0
26-Jan-2023
19:25
ALSHS
Server



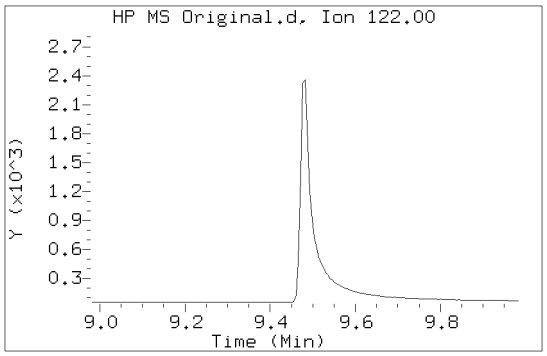
AFTER

MASS
244.1
AREA
48596
HEIGHT
22641
27-Jan-2023
11:55



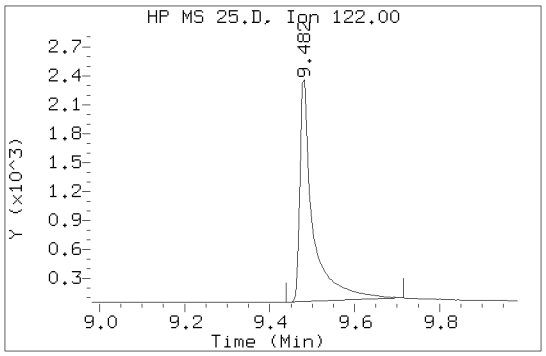
BEFORE

MASS
122
AREA
0
HEIGHT
0
26-Jan-2023
19:25
ALSHS
Server



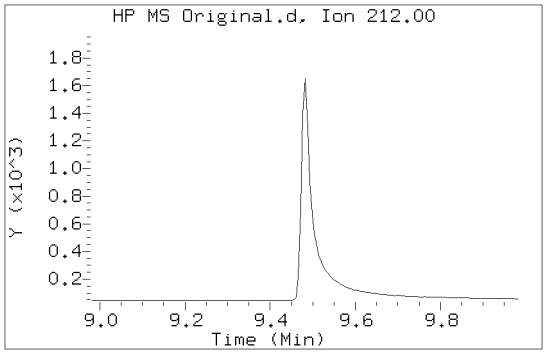
AFTER

MASS
122
AREA
4888
HEIGHT
2294
27-Jan-2023
11:55



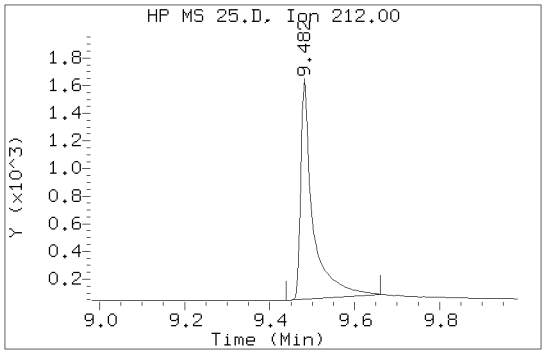
BEFORE

MASS
212
AREA
0
HEIGHT
0
26-Jan-2023
19:25
ALSHS
Server



AFTER

MASS
212
AREA
3128
HEIGHT
1592
27-Jan-2023
11:55

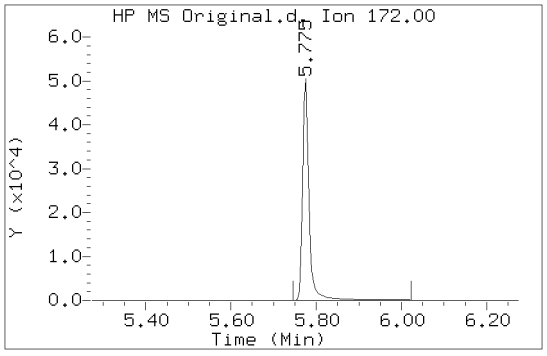


2-Fluorobiphenyl (321-60-8)

Reason Code:

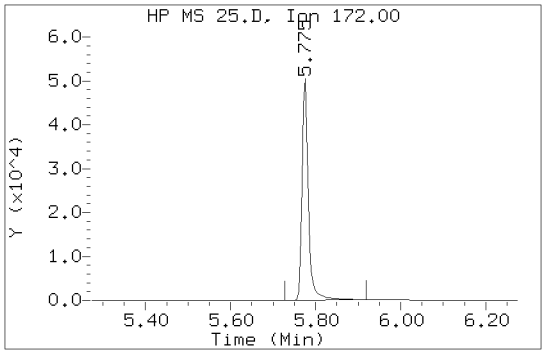
BEFORE

MASS
172
AREA
53226
HEIGHT
50504
26-Jan-2023
19:25
ALSHS
Server



AFTER

MASS
172
AREA
51391
HEIGHT
50425
27-Jan-2023
11:55



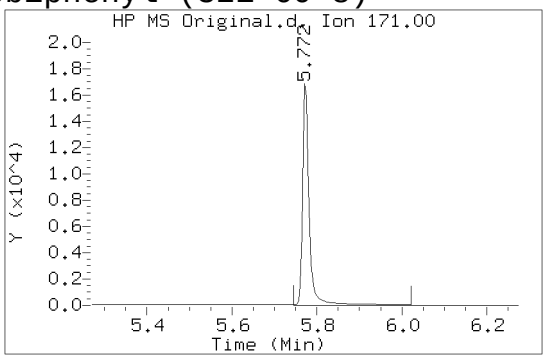
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\25.D
Inj Date : 26-JAN-2023 19:09
InstruID : SV6.i
LabSampID : 1 4-DX-0.5

2-Fluorobiphenyl (321-60-8)

Reason Code:

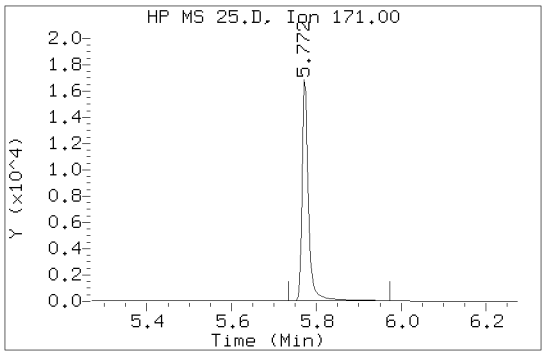
BEFORE

MASS
171
AREA
18570
HEIGHT
16864
26-Jan-2023
19:25
ALSHS
Server



AFTER

MASS
171
AREA
17611
HEIGHT
16814
27-Jan-2023
11:55



Data File: \\NAHSTWS005\Target\chem\SV6.i\230126.b\26.D Page 1
Report Date: 01-Feb-2023 16:40

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230126.b\26.D
Lab Smp Id: 1 4-DX-ICV Client Smp ID: 1 4-DX-ICV
Inj Date : 26-JAN-2023 19:27
Operator : LG Inst ID: SV6.i
Smp Info : 1 4-DX-ICV;1 4-DX-ICV;3;;METHSPIKE
Misc Info : not used
Comment :
Method : \\NAHSTWS005\Target\chem\SV6.i\230126.b\DXSIM.m
Meth Date : 01-Feb-2023 16:17 Linh.Pham Quant Type: ISTD
Cal Date : 26-JAN-2023 19:09 Cal File: 25.D
Als bottle: 25 QC Sample: METHSPIKE
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)
* 20 1,4-Dichlorobenzene-d4	152	3.619	3.620	(1.000)	2394	0.10000	(aM)
* 45 Naphthalene-d8	136	4.747	4.747	(1.000)	7860	0.10000	(M)
$ 33 Nitrobenzene-d5	82	4.092	4.091	(0.862)	1632	0.07196	0.07196(M)
* 86 Acenaphthene-d10	164	6.429	6.430	(1.000)	4607	0.10000	(QM)
$ 69 2-Fluorobiphenyl	172	5.779	5.775	(0.899)	4787	0.07917	0.07917(M)
* 126 Phenanthrene-d10	188	7.890	7.885	(1.000)	7915	0.10000	(M)
* 182 Chrysene-d12	240	10.762	10.757	(1.000)	1871	0.10000	(M)
$ 158 4-Terphenyl-d14	244	9.487	9.482	(0.882)	2907	0.08903	0.08903(M)
* 198 Perylene-d12	264	12.862	12.863	(1.000)	1224	0.10000	
1 1,4-Dioxane	58	1.799	1.829	(0.497)	304	0.03481	0.03481(M)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

01182031

Data File: \\NAHSTWS005\Target\chem\SV6.i\230126.b\26.D

Date : 26-JAN-2023 19:27

Client ID: 1 4-DX-ICV

Instrument: SV6.i

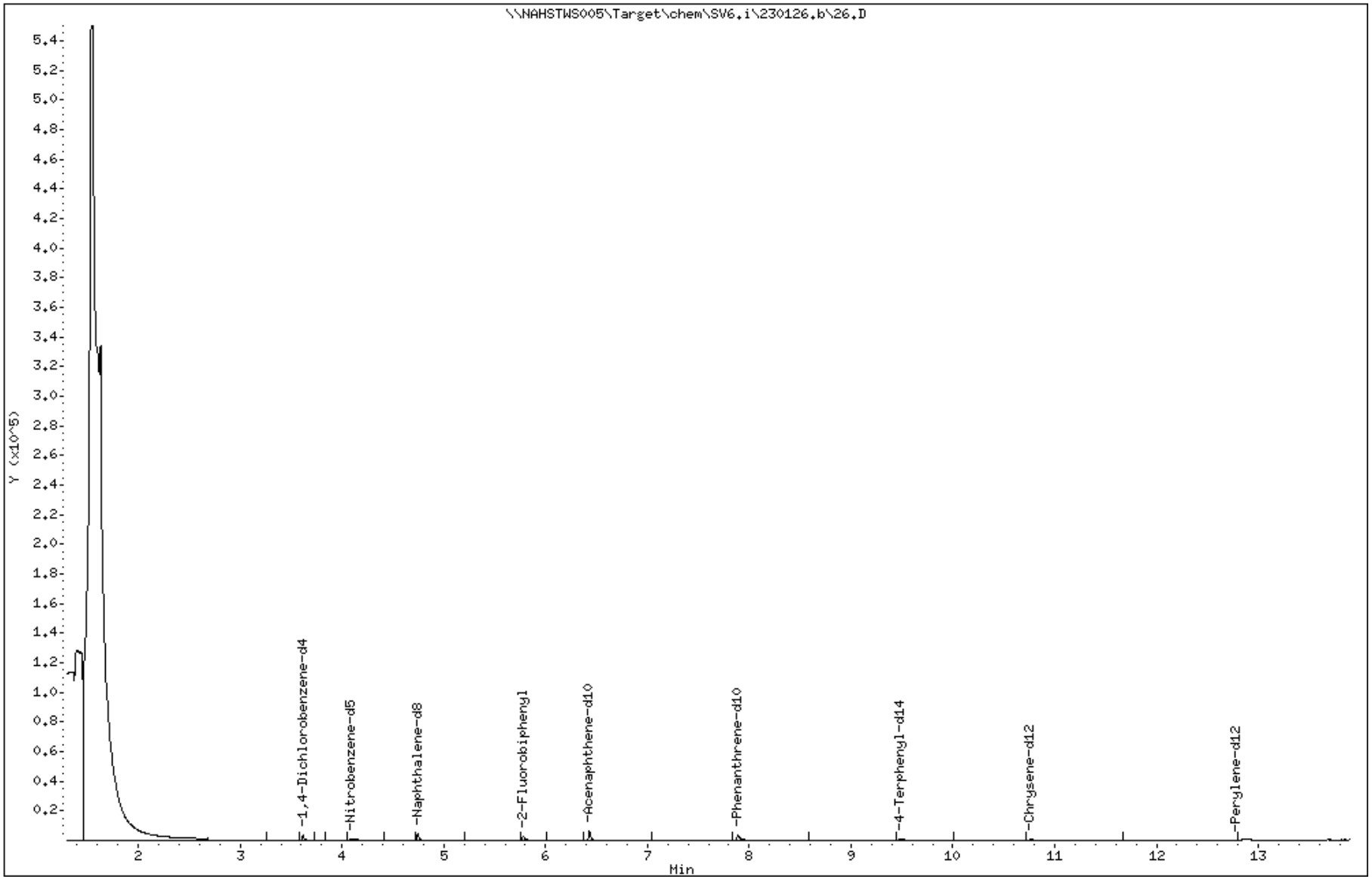
Sample Info: 1 4-DX-ICV;1 4-DX-ICV;3;;METHSPIKE

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28



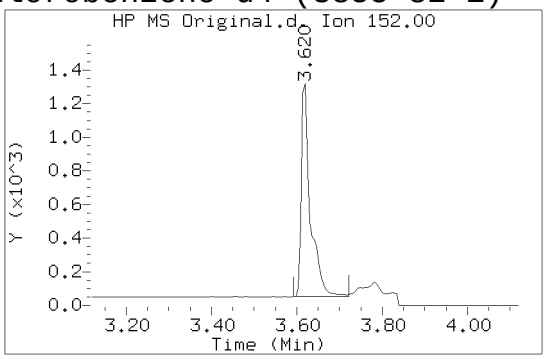
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\26.D
Inj Date : 26-JAN-2023 19:27
InstruID : SV6.i
LabSampID : 1 4-DX-ICV

1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

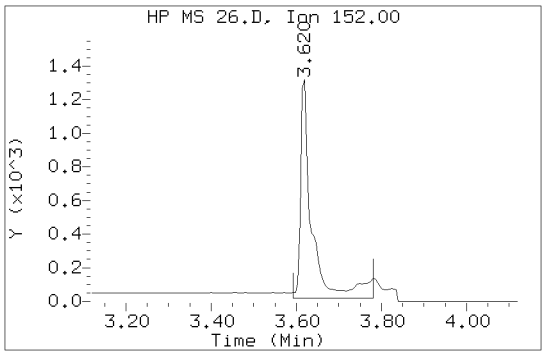
BEFORE

MASS
152
AREA
1846
HEIGHT
1267
26-Jan-2023
19:42
ALSHS
Server



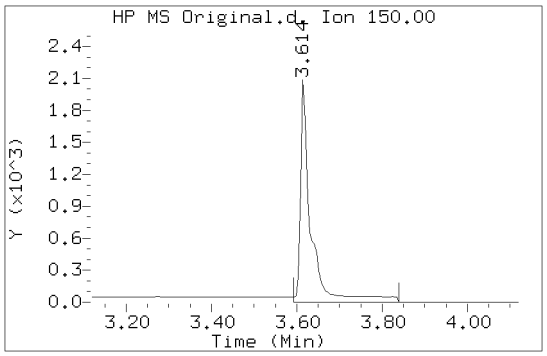
AFTER

MASS
152
AREA
2394
HEIGHT
1299
01-Feb-2023
16:40
ALSHS
Ser



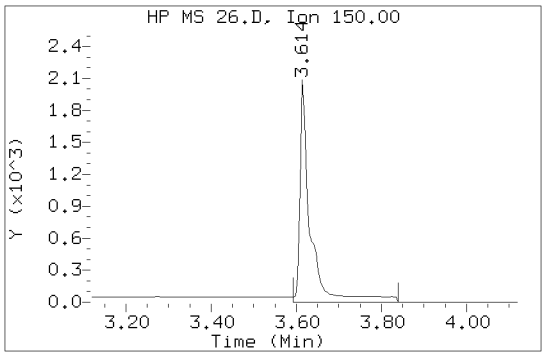
BEFORE

MASS
150
AREA
3511
HEIGHT
2086
26-Jan-2023
19:42
ALSHS
Server



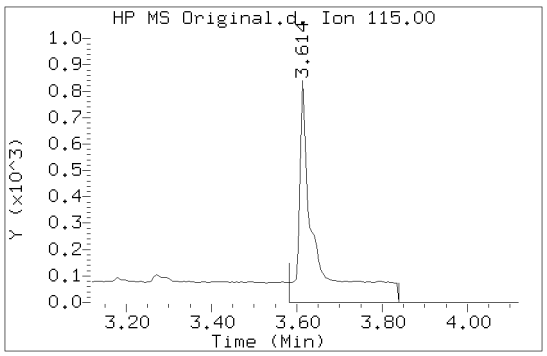
AFTER

MASS
150
AREA
3511
HEIGHT
2086
01-Feb-2023
16:40
ALSHS
Ser



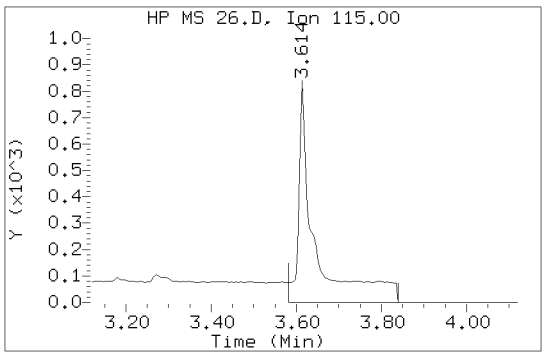
BEFORE

MASS
115
AREA
2199
HEIGHT
840
26-Jan-2023
19:42
ALSHS
Server



AFTER

MASS
115
AREA
2199
HEIGHT
840
01-Feb-2023
16:40
ALSHS
Ser

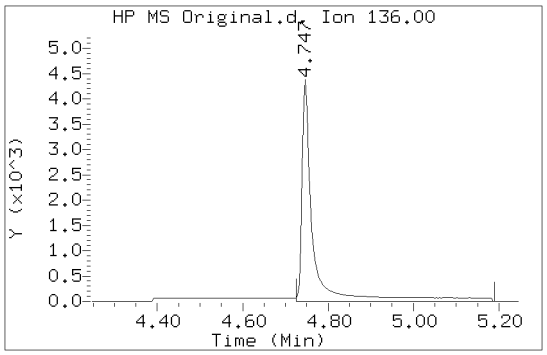


Naphthalene-d8 (1146-65-2)

Reason Code:

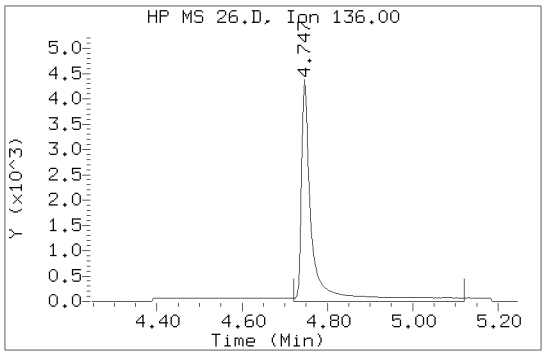
BEFORE

MASS
136
AREA
8101
HEIGHT
4379
26-Jan-2023
19:42
ALSHS
Server



AFTER

MASS
136
AREA
7860
HEIGHT
4379
01-Feb-2023
16:40
ALSHS
Ser



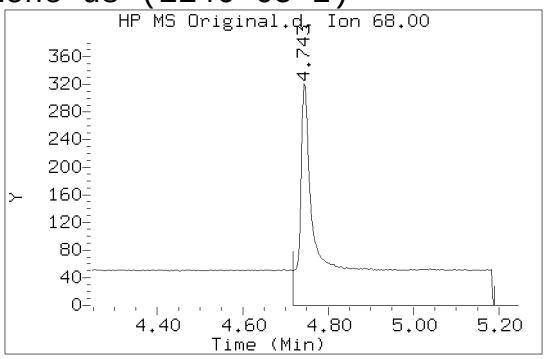
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\26.D
Inj Date : 26-JAN-2023 19:27
InstruID : SV6.i
LabSampID : 1 4-DX-ICV

Naphthalene-d8 (1146-65-2)

Reason Code:

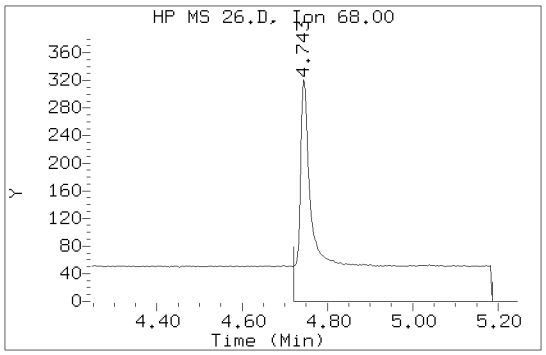
BEFORE

MASS
68
AREA
1835
HEIGHT
321
26-Jan-2023
19:42
ALSHS
Server



AFTER

MASS
68
AREA
1824
HEIGHT
321
01-Feb-2023
16:40
ALSHS
Ser

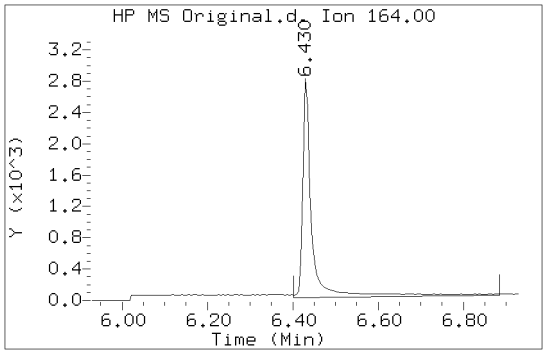


Acenaphthene-d10 (15067-26-2)

Reason Code:

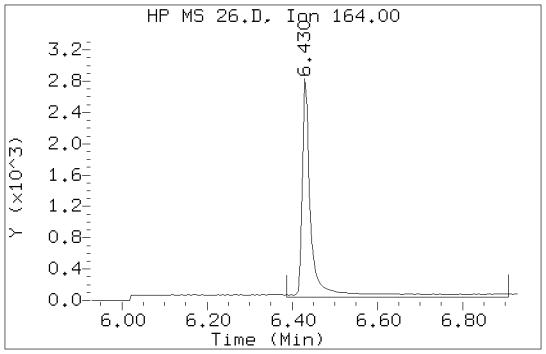
BEFORE

MASS
164
AREA
4223
HEIGHT
2796
26-Jan-2023
19:42
ALSHS
Server



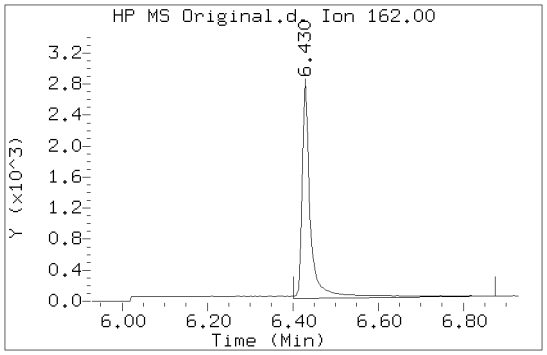
AFTER

MASS
164
AREA
4607
HEIGHT
2791
01-Feb-2023
16:40
ALSHS
Ser



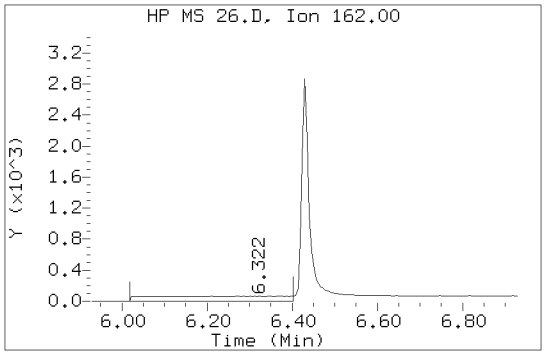
BEFORE

MASS
162
AREA
4065
HEIGHT
2834
26-Jan-2023
19:42
ALSHS
Server



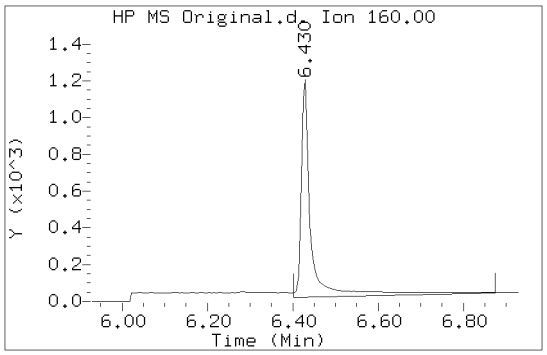
AFTER

MASS
162
AREA
1418
HEIGHT
65
01-Feb-2023
16:40
ALSHS
Ser



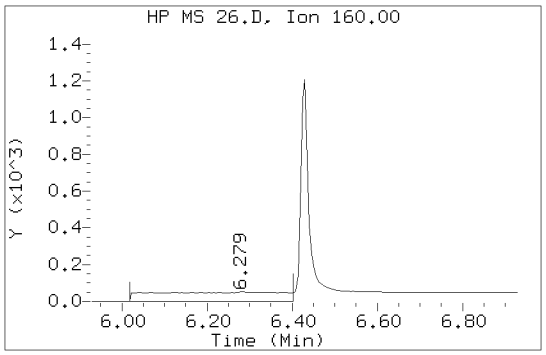
BEFORE

MASS
160
AREA
1922
HEIGHT
1183
26-Jan-2023
19:42
ALSHS
Server



AFTER

MASS
160
AREA
1101
HEIGHT
52
01-Feb-2023
16:40
ALSHS
Ser



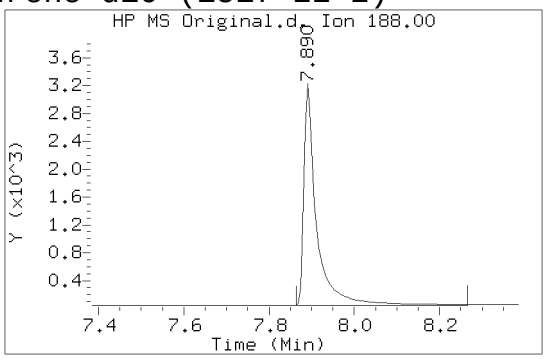
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\26.D
Inj Date : 26-JAN-2023 19:27
InstruID : SV6.i
LabSampID : 1 4-DX-ICV

Phenanthrene-d10 (1517-22-2)

Reason Code:

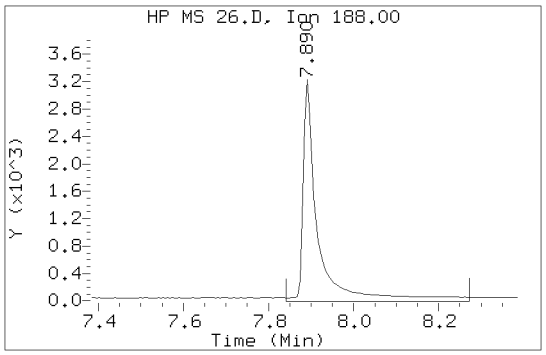
BEFORE

MASS
188
AREA
6555
HEIGHT
3181
26-Jan-2023
19:42
ALSHS
Server



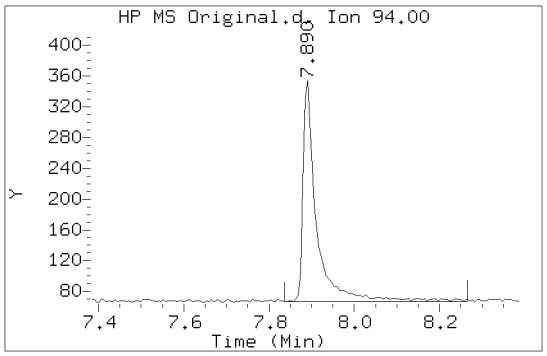
AFTER

MASS
188
AREA
7915
HEIGHT
3233
01-Feb-2023
16:40
ALSHS
Ser



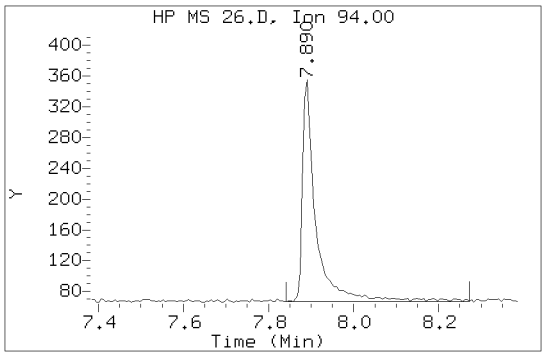
BEFORE

MASS
94
AREA
632
HEIGHT
288
26-Jan-2023
19:42
ALSHS
Server



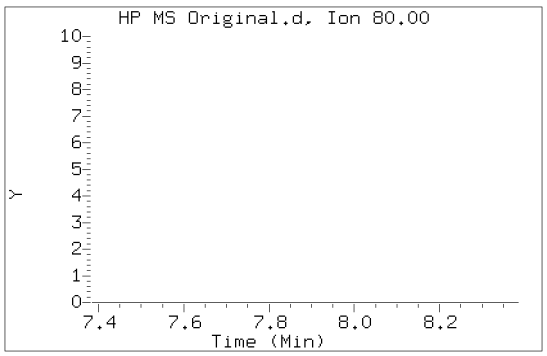
AFTER

MASS
94
AREA
632
HEIGHT
288
01-Feb-2023
16:40
ALSHS
Ser



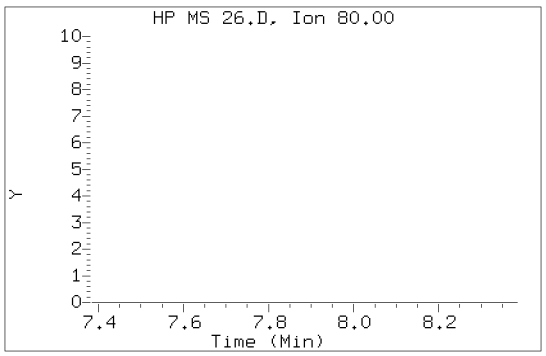
BEFORE

MASS
80
AREA
0
HEIGHT
0
26-Jan-2023
19:42
ALSHS
Server



AFTER

MASS
80
AREA
0
HEIGHT
0
01-Feb-2023
16:40
ALSHS
Ser

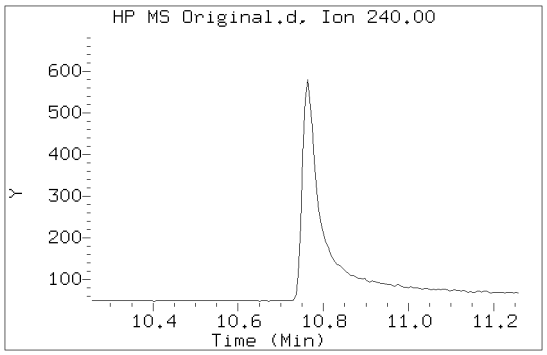


Chrysene-d12 (1719-03-5)

Reason Code:

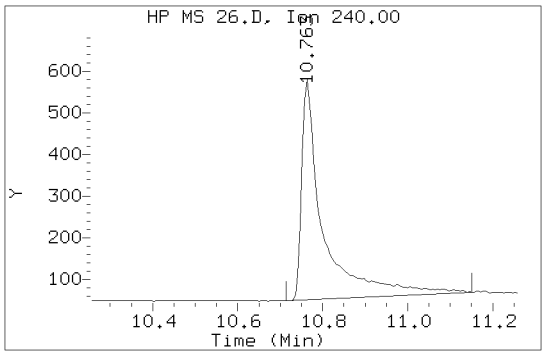
BEFORE

MASS
240
AREA
0
HEIGHT
0
26-Jan-2023
19:42
ALSHS
Server



AFTER

MASS
240
AREA
1871
HEIGHT
529
01-Feb-2023
16:40
ALSHS
Ser



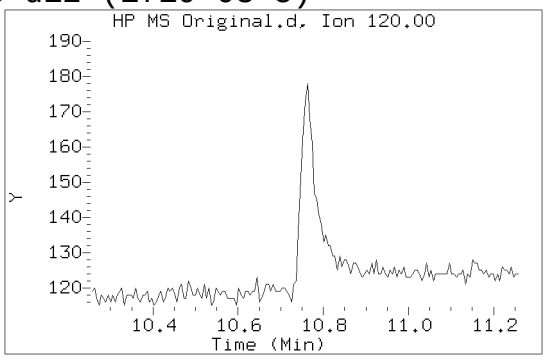
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\26.D
Inj Date : 26-JAN-2023 19:27
InstruID : SV6.i
LabSampID : 1 4-DX-ICV

Chrysene-d12 (1719-03-5)

Reason Code:

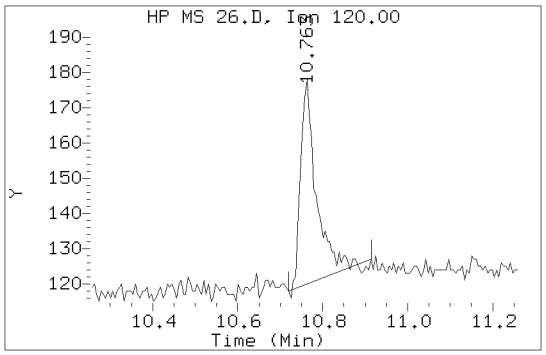
BEFORE

MASS
120
AREA
0
HEIGHT
0
26-Jan-2023
19:42
ALSHS
Server



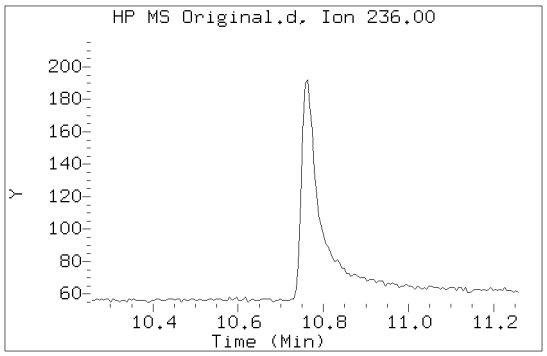
AFTER

MASS
120
AREA
144
HEIGHT
57
01-Feb-2023
16:40
ALSHS
Ser



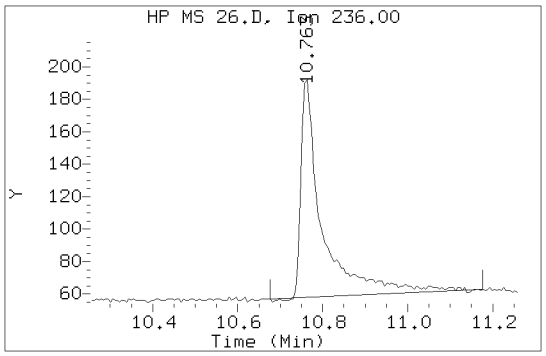
BEFORE

MASS
236
AREA
0
HEIGHT
0
26-Jan-2023
19:42
ALSHS
Server



AFTER

MASS
236
AREA
459
HEIGHT
133
01-Feb-2023
16:40
ALSHS
Ser

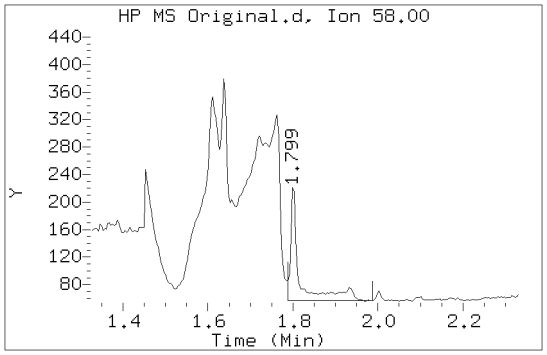


1,4-Dioxane ()

Reason Code:

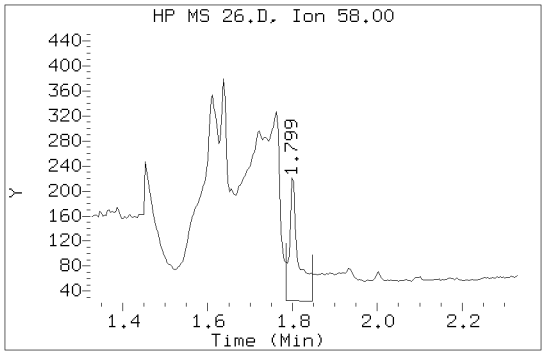
BEFORE

MASS
58
AREA
236
HEIGHT
164
26-Jan-2023
19:42
ALSHS
Server



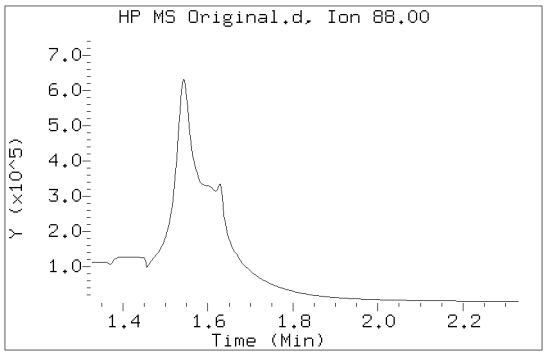
AFTER

MASS
58
AREA
304
HEIGHT
196
01-Feb-2023
16:40
ALSHS
Ser



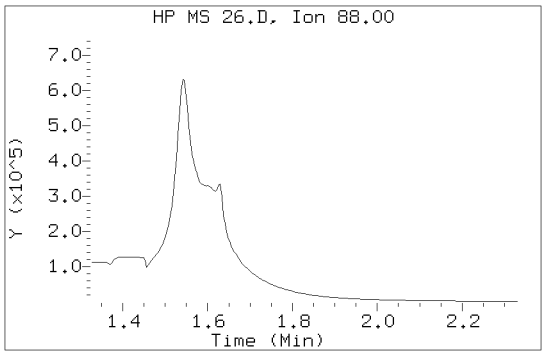
BEFORE

MASS
88
AREA
0
HEIGHT
0
26-Jan-2023
19:42
ALSHS
Server



AFTER

MASS
88
AREA
0
HEIGHT
0
01-Feb-2023
16:40
ALSHS
Ser



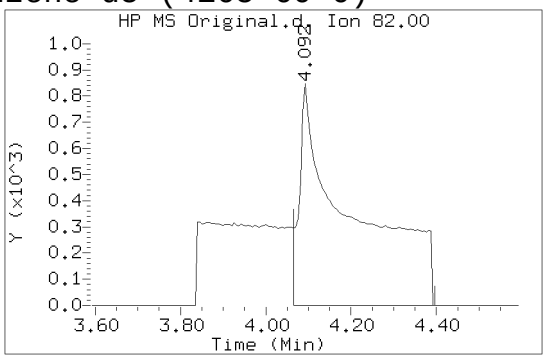
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\26.D
Inj Date : 26-JAN-2023 19:27
InstruID : SV6.i
LabSampID : 1 4-DX-ICV

Nitrobenzene-d5 (4165-60-0)

Reason Code:

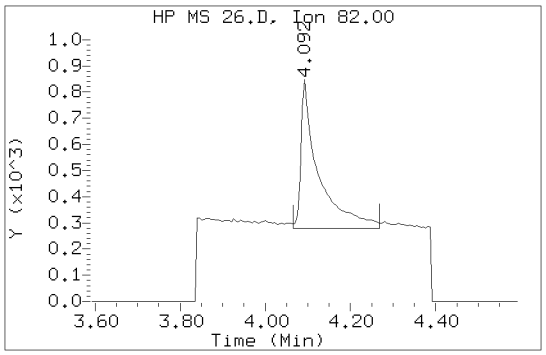
BEFORE

MASS
82
AREA
7163
HEIGHT
847
26-Jan-2023
19:42
ALSHS
Server



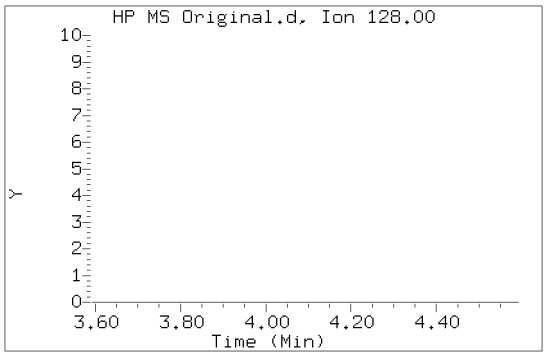
AFTER

MASS
82
AREA
1632
HEIGHT
568
01-Feb-2023
16:40
ALSHS
Ser



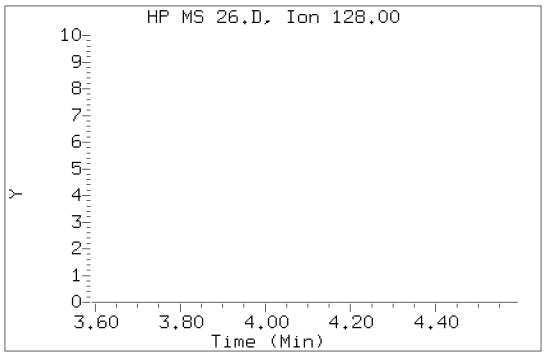
BEFORE

MASS
128
AREA
0
HEIGHT
0
26-Jan-2023
19:42
ALSHS
Server



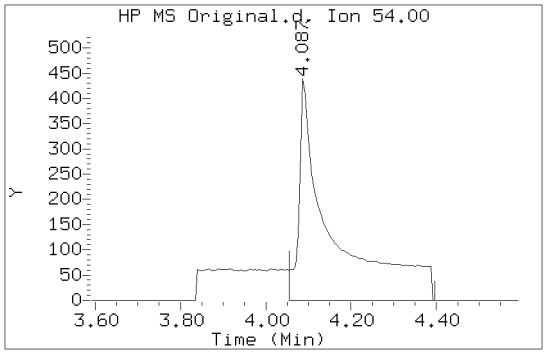
AFTER

MASS
128
AREA
0
HEIGHT
0
01-Feb-2023
16:40
ALSHS
Ser



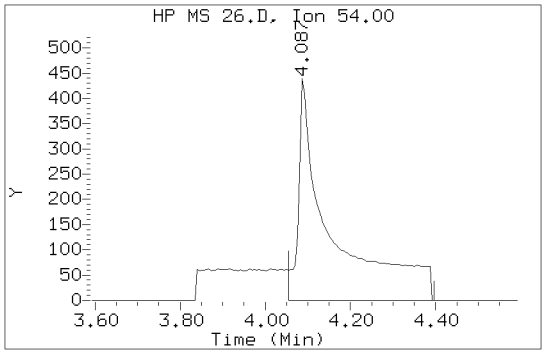
BEFORE

MASS
54
AREA
2316
HEIGHT
439
26-Jan-2023
19:42
ALSHS
Server



AFTER

MASS
54
AREA
2316
HEIGHT
439
01-Feb-2023
16:40
ALSHS
Ser

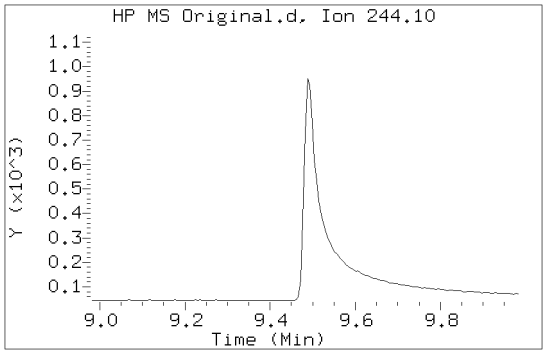


4-Terphenyl-d14 (1718-51-0)

Reason Code:

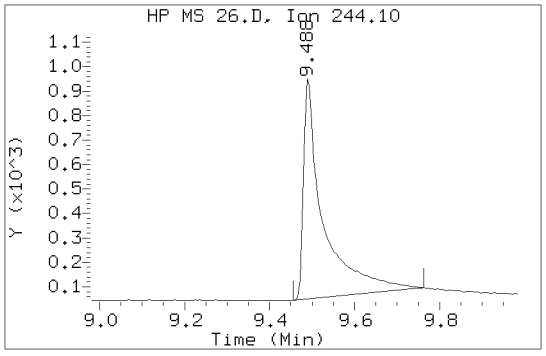
BEFORE

MASS
244.1
AREA
0
HEIGHT
0
26-Jan-2023
19:42
ALSHS
Server



AFTER

MASS
244.1
AREA
2907
HEIGHT
899
01-Feb-2023
16:40
ALSHS
Ser



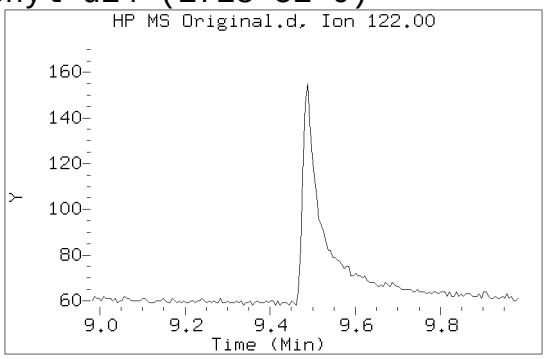
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\26.D
Inj Date : 26-JAN-2023 19:27
InstruID : SV6.i
LabSampID : 1 4-DX-ICV

4-Terphenyl-d14 (1718-51-0)

Reason Code:

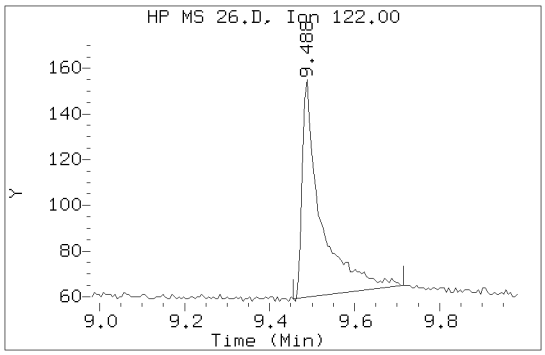
BEFORE

MASS
122
AREA
0
HEIGHT
0
26-Jan-2023
19:42
ALSHS
Server



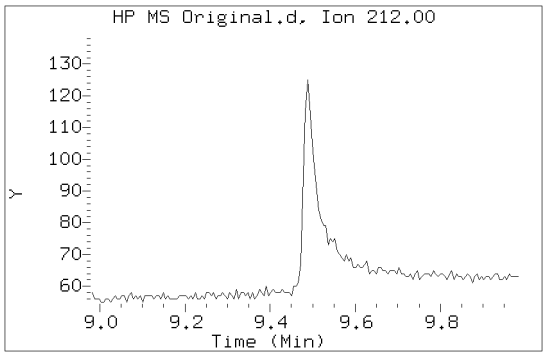
AFTER

MASS
122
AREA
290
HEIGHT
95
01-Feb-2023
16:40
ALSHS
Ser



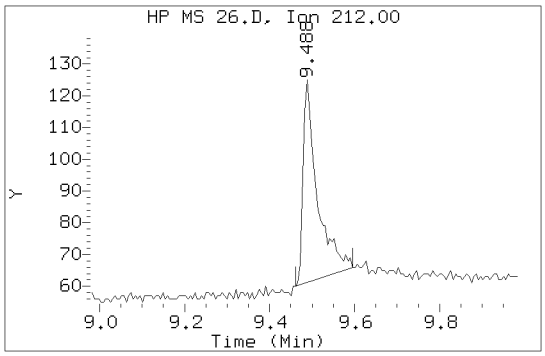
BEFORE

MASS
212
AREA
0
HEIGHT
0
26-Jan-2023
19:42
ALSHS
Server



AFTER

MASS
212
AREA
148
HEIGHT
63
01-Feb-2023
16:40
ALSHS
Ser

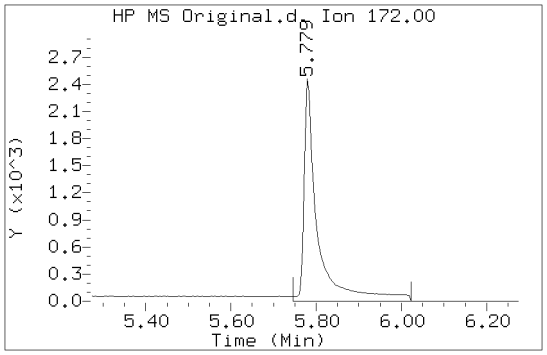


2-Fluorobiphenyl (321-60-8)

Reason Code:

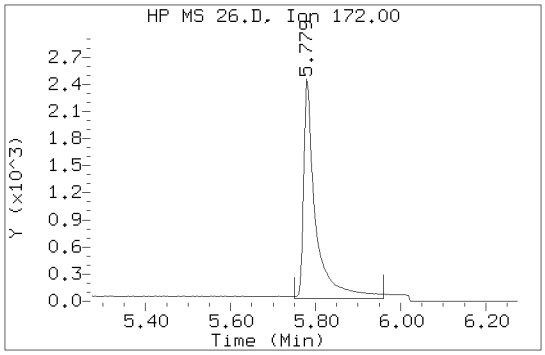
BEFORE

MASS
172
AREA
5421
HEIGHT
2461
26-Jan-2023
19:42
ALSHS
Server



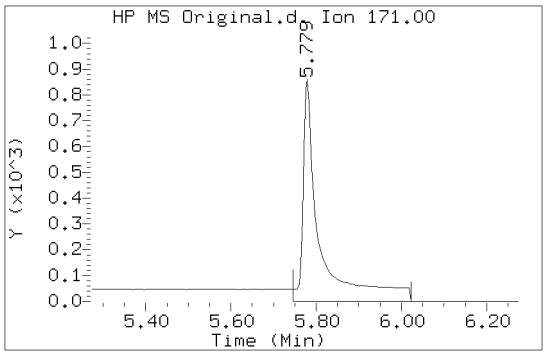
AFTER

MASS
172
AREA
4787
HEIGHT
2431
01-Feb-2023
16:40
ALSHS
Ser



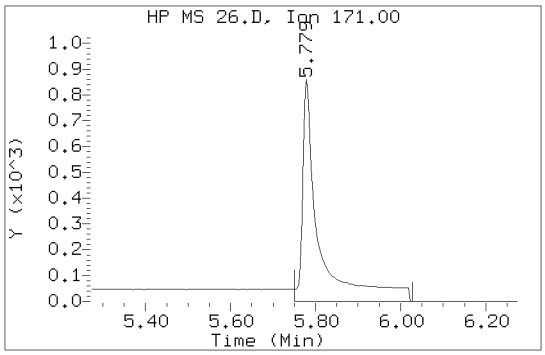
BEFORE

MASS
171
AREA
2318
HEIGHT
859
26-Jan-2023
19:42
ALSHS
Server



AFTER

MASS
171
AREA
2322
HEIGHT
859
01-Feb-2023
16:40
ALSHS
Ser



HS23010632 - ME - HG_W_DODICP_W_DOD

ALS WO# HS23010632

ALS Houston, US Date: 26-Jan-23

FORM 13 - ANALYSIS RUN LOG

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23010632
Start Date: 23-Jan-2023 End Date: 23-Jan-2023

Run ID:HG04_426314
Instrument:HG04
Method:SW7470A

Sample No.	D/F	Time	FileID	Analytes
ICCV 1	1	23-Jan-2023 13:39	HG04_426314 Raw Data_7083900	HG
ICV	1	23-Jan-2023 13:40	_7083901	HG
ICB	1	23-Jan-2023 13:42	_7083902	HG
CRA	1	23-Jan-2023 13:44	_7083903	HG
CCV 2	1	23-Jan-2023 13:47	_7083904	HG
CCB 1	1	23-Jan-2023 13:49	_7083905	HG
CCV 3	1	23-Jan-2023 14:16	_7084726	HG
CCB 2	1	23-Jan-2023 14:17	_7084727	HG
CCV 4	1	23-Jan-2023 14:39	_7084739	HG
CCB 3	1	23-Jan-2023 14:41	_7084740	HG
MBLK-188715	1	23-Jan-2023 14:49	_7084755	HG
LCS-188715	1	23-Jan-2023 14:53	_7084756	HG
ZZZZZZMS	1	23-Jan-2023 15:04	_7084763	HG
ZZZZZZMSD	1	23-Jan-2023 15:06	_7084764	HG
CCV 5	1	23-Jan-2023 15:22	_7084765	HG
CCB 4	1	23-Jan-2023 15:24	_7084766	HG
126_011123	1	23-Jan-2023 15:39	_7084772	HG
CCV 6	1	23-Jan-2023 15:46	_7084777	HG
CCB 5	1	23-Jan-2023 15:48	_7084778	HG
CCV 7	1	23-Jan-2023 16:10	_7084789	HG
CCB 6	1	23-Jan-2023 16:12	_7084790	HG
CCV 8	1	23-Jan-2023 16:34	_7084801	HG
CCB 7	1	23-Jan-2023 16:36	_7084802	HG
CCV 9	1	23-Jan-2023 16:59	_7084812	HG
CCB 8	1	23-Jan-2023 17:01	_7084813	HG
CCV 10	1	23-Jan-2023 17:22	_7084824	HG
CCB 9	1	23-Jan-2023 17:24	_7084825	HG
CCV 11	1	23-Jan-2023 17:34	_7084830	HG
CCB 10	1	23-Jan-2023 17:36	_7084831	HG
CCV 12	1	23-Jan-2023 18:04	_7084833	HG
CCB 11	1	23-Jan-2023 18:06	_7084834	HG

ALS Houston, US

Date: 26-Jan-23

FORM 13 - ANALYSIS RUN LOG

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23010632
Start Date: 24-Jan-2023 End Date: 24-Jan-2023

Run ID:ICPMS07_426363
Instrument:ICPMS07
Method:

Sample No.	D/F	Time	FileID	Analytes
ICPMS07_426363_Tune	1	24-Jan-2023 00:00	ICPMS07_426363_Tune_1	
CAL BLK	1	24-Jan-2023 14:06	011CALB.d_7085584	AG AL AS BA BE CA CD CO CR CU FE K MG MN NA NI PB SB SE TL V ZN
2/10/200	1	24-Jan-2023 14:08	012CALS.d_7085585	AG AL AS BA BE CA CD CO CR CU FE K MG MN NA NI PB SB SE TL V ZN
5/25/500	1	24-Jan-2023 14:10	013CALS.d_7085586	AG AL AS BA BE CA CD CO CR CU FE K MG MN NA NI PB SB SE TL V ZN
10/50/100	1	24-Jan-2023 14:12	014CALS.d_7085587	AG AL AS BA BE CA CD CO CR CU FE K MG MN NA NI PB SB SE TL V ZN
100/500/10K	1	24-Jan-2023 14:13	015CALS.d_7085588	AG AL AS BA BE CA CD CO CR CU FE K MG MN NA NI PB SB SE TL V ZN
200/1000/20K	1	24-Jan-2023 14:15	016CALS.d_7085589	AG AL AS BA BE CA CD CO CR CU FE K MG MN NA NI PB SB SE TL V ZN
ICV	1	24-Jan-2023 14:21	019_ICV.d_7085592	AG AL AS BA BE CA CD CO CR CU FE K MG MN NA NI PB SB SE TL V ZN
LLICV2	1	24-Jan-2023 14:23	020LCV2.d_7085593	AG AL AS BA BE CA CD CO CR CU FE K MG MN NA NI PB SB SE TL V ZN
LLICV5	1	24-Jan-2023 14:25	021LCV5.d_7085594	AG AL AS BA BE CA CD CO CR CU FE K MG MN NA NI PB SB SE TL V ZN
ICB	1	24-Jan-2023 14:27	022_ICB.d_7085595	AG AL AS BA BE CA CD CO CR CU FE K MG MN NA NI PB SB SE TL V ZN
ICSA	1	24-Jan-2023 14:30	024ICSA.d_7085623	AG AL AS BA BE CA CD CO CR CU FE K MG MN NA NI PB SB SE TL V ZN
ICSAB	1	24-Jan-2023 14:32	025ICSB.d_7085624	AG AL AS BA BE CA CD CO CR CU FE K MG MN NA NI PB SB SE TL V ZN
CCB 1	1	24-Jan-2023 14:41	029_CCB.d_7085722	AG AL AS BA BE CA CD CO CR CU FE K MG MN NA NI PB SB SE TL V ZN
CCV 1	1	24-Jan-2023 14:43	030_CCV.d_7085723	AG AL AS BA BE CA CD CO CR CU FE K MG MN NA NI PB SB SE TL V ZN
MBLK-188726	1	24-Jan-2023 14:45	031SMPL.d_7085724	AG AL AS BA BE CA CD CO CR CU FE K MG MN NA NI PB SB SE TL V ZN
LCS-188726	1	24-Jan-2023 14:47	032SMPL.d_7085725	AG AL AS BA BE CA CD CO CR CU FE K MG MN NA NI PB SB SE TL V ZN
ZZZZZZSD	5	24-Jan-2023 14:51	034SMPL.d_7085727	AG AL AS BE CD CO CU PB SB SE TL V ZN
ZZZZZZMS	1	24-Jan-2023 14:53	035SMPL.d_7085728	AG AL AS BA BE CA CD CO CR CU FE K MG MN NA NI PB SB SE TL V ZN
ZZZZZZMSD	1	24-Jan-2023 14:55	036SMPL.d_7085729	AG AL AS BA BE CA CD CO CR CU FE K MG MN NA NI PB SB SE TL V ZN
ZZZZZZPDS	1	24-Jan-2023 14:57	037SMPL.d_7085730	AG AL AS BE CA CD CO CU FE K MN NI PB SB SE TL V ZN
CCV 2	1	24-Jan-2023 15:06	041_CCV.d_7085734	AG AL AS BA BE CA CD CO CR CU FE K MG MN NA NI PB SB SE TL V ZN
CCB 2	1	24-Jan-2023 15:08	042_CCB.d_7085735	AG AL AS BA BE CA CD CO CR CU FE K MG MN NA NI PB SB SE TL V ZN
126_011123	1	24-Jan-2023 15:25	051SMPL.d_7085791	AG AL AS BE CD CO CR CU FE K MN NI PB SB SE TL V ZN
CCV 3	1	24-Jan-2023 15:31	053_CCV.d_7085793	AG AL AS BA BE CA CD CO CR CU FE K MG MN NA NI PB SB SE TL V ZN
CCB 3	1	24-Jan-2023 15:33	054_CCB.d_7085794	AG AL AS BA BE CA CD CO CR CU FE K MG MN NA NI PB SB SE TL V ZN
ZZZZZZSD	50	24-Jan-2023 16:01	059SMPL.d_7085955	BA CR MG NA
ZZZZZZPDS	10	24-Jan-2023 16:03	060SMPL.d_7085956	BA CR MG NA
CCV 4	1	24-Jan-2023 16:06	062_CCV.d_7085958	AG AL AS BA BE CA CD CO CR CU FE K MG MN NA NI PB SB SE TL V ZN
CCB 4	1	24-Jan-2023 16:08	063_CCB.d_7085959	AG AL AS BA BE CA CD CO CR CU FE K MG MN NA NI PB SB SE TL V ZN
126_011123	100	24-Jan-2023 16:23	071SMPL.d_7085967	BA CA MG NA
CCV 5	1	24-Jan-2023 16:27	073_CCV.d_7086003	AG AL AS BA BE CA CD CO CR CU FE K MG MN NA NI PB SB SE TL V ZN
CCB 5	1	24-Jan-2023 16:29	074_CCB.d_7086004	AG AL AS BA BE CA CD CO CR CU FE K MG MN NA NI PB SB SE TL V ZN

ALS Houston, US

Date: 26-Jan-23

Form 2 - Initial and Continuing Calibration Verification

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23010632

Run ID: HG04_426314
Instrument: HG04
Method: SW7470A

ICCV1	Date: 23-Jan-2023 13:39		Seq: 7083900	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Mercury	5	4.98	100	90-110	

ICV	Date: 23-Jan-2023 13:40		Seq: 7083901	ICV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Mercury	5	4.92	98	90-110	

CCV2	Date: 23-Jan-2023 13:47		Seq: 7083904	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Mercury	5	5.18	104	90-110	

CCV3	Date: 23-Jan-2023 14:16		Seq: 7084726	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Mercury	5	5.03	101	90-110	

CCV4	Date: 23-Jan-2023 14:39		Seq: 7084739	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Mercury	5	5.14	103	90-110	

CCV5	Date: 23-Jan-2023 15:22		Seq: 7084765	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Mercury	5	4.96	99	90-110	

CCV6	Date: 23-Jan-2023 15:46		Seq: 7084777	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Mercury	5	4.89	98	90-110	

CCV7	Date: 23-Jan-2023 16:10		Seq: 7084789	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Mercury	5	4.85	97	90-110	

CCV8	Date: 23-Jan-2023 16:34		Seq: 7084801	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Mercury	5	4.82	96	90-110	

CCV9	Date: 23-Jan-2023 16:59		Seq: 7084812	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Mercury	5	5.19	104	90-110	

CCV10	Date: 23-Jan-2023 17:22		Seq: 7084824	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Mercury	5	4.9	98	90-110	

CCV11	Date: 23-Jan-2023 17:34		Seq: 7084830	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Mercury	5	4.95	99	90-110	

CCV12	Date: 23-Jan-2023 18:04		Seq: 7084833	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Mercury	5	4.94	99	90-110	

ALS Houston, US Date: 26-Jan-23

Form 2 - Initial and Continuing Calibration Verification

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23010632

Run ID: ICPMS07_426363
Instrument: ICPMS07
Method: SW6020A

ICV Date: 24-Jan-2023 14:21 Seq: 7085592 ICV Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Aluminum	100	98.535	99	90-110	
Antimony	100	97.774	98	90-110	
Arsenic	100	101.723	102	90-110	
Barium	100	99.88	100	90-110	
Beryllium	100	98.09	98	90-110	
Cadmium	100	98.914	99	90-110	
Calcium	10000	9554.129	96	90-110	
Chromium	100	96.893	97	90-110	
Cobalt	100	99.162	99	90-110	
Copper	100	97.026	97	90-110	
Iron	10000	9509.978	95	90-110	
Lead	100	93.21	93	90-110	
Magnesium	10000	9684.614	97	90-110	
Manganese	100	97.248	97	90-110	
Nickel	100	98.121	98	90-110	
Potassium	10000	9584.775	96	90-110	
Selenium	100	96.84	97	90-110	
Silver	100	97.351	97	90-110	
Sodium	10000	9465.967	95	90-110	
Thallium	100	101.422	101	90-110	
Vanadium	100	96.875	97	90-110	
Zinc	100	99.394	99	90-110	

CCV1 Date: 24-Jan-2023 14:43 Seq: 7085723 CCV Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Aluminum	100	101.611	102	90-110	
Antimony	100	99.551	100	90-110	
Arsenic	100	100.761	101	90-110	
Barium	100	100.235	100	90-110	
Beryllium	100	99.601	100	90-110	
Cadmium	100	101.257	101	90-110	
Calcium	10000	9874.683	99	90-110	
Chromium	100	99.334	99	90-110	
Cobalt	100	101.905	102	90-110	
Copper	100	99.727	100	90-110	
Iron	10000	9932.296	99	90-110	
Lead	100	94.839	95	90-110	
Magnesium	10000	9994.372	100	90-110	
Manganese	100	100.215	100	90-110	
Nickel	100	101.083	101	90-110	
Potassium	10000	9834.304	98	90-110	
Selenium	100	98.599	99	90-110	
Silver	100	98.387	98	90-110	
Sodium	10000	9926.038	99	90-110	
Thallium	100	100.599	101	90-110	
Vanadium	100	98.85	99	90-110	
Zinc	100	101.875	102	90-110	

CCV2 Date: 24-Jan-2023 15:06 Seq: 7085734 CCV Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Aluminum	100	101.084	101	90-110	
Antimony	100	98.568	99	90-110	
Arsenic	100	101.512	102	90-110	
Barium	100	100.436	100	90-110	
Beryllium	100	99.558	100	90-110	

ALS Houston, US Date: 26-Jan-23

Form 2 - Initial and Continuing Calibration Verification

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23010632

Run ID: ICPMS07_426363
Instrument: ICPMS07
Method: SW6020A

CCV2 Date: 24-Jan-2023 15:06 Seq: 7085734 CCV Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Cadmium	100	100.625	101	90-110	
Calcium	10000	9915.555	99	90-110	
Chromium	100	99.216	99	90-110	
Cobalt	100	101.074	101	90-110	
Copper	100	98.787	99	90-110	
Iron	10000	9903.728	99	90-110	
Lead	100	94.447	94	90-110	
Magnesium	10000	10129.45	101	90-110	
Manganese	100	100.182	100	90-110	
Nickel	100	99.866	100	90-110	
Potassium	10000	10072.55	101	90-110	
Selenium	100	97.533	98	90-110	
Silver	100	98.574	99	90-110	
Sodium	10000	9967.175	100	90-110	
Thallium	100	100.759	101	90-110	
Vanadium	100	99.19	99	90-110	
Zinc	100	103.312	103	90-110	

CCV3 Date: 24-Jan-2023 15:31 Seq: 7085793 CCV Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Aluminum	100	103.842	104	90-110	
Antimony	100	96.244	96	90-110	
Arsenic	100	100.172	100	90-110	
Barium	100	99.57	100	90-110	
Beryllium	100	101.389	101	90-110	
Cadmium	100	99.903	100	90-110	
Calcium	10000	10081.359	101	90-110	
Chromium	100	98.355	98	90-110	
Cobalt	100	99.811	100	90-110	
Copper	100	98.194	98	90-110	
Iron	10000	10011.928	100	90-110	
Lead	100	94.587	95	90-110	
Magnesium	10000	10328.836	103	90-110	
Manganese	100	100.031	100	90-110	
Nickel	100	99.77	100	90-110	
Potassium	10000	10414.667	104	90-110	
Selenium	100	101.912	102	90-110	
Silver	100	99.198	99	90-110	
Sodium	10000	10550.264	106	90-110	
Thallium	100	100.451	100	90-110	
Vanadium	100	99.535	100	90-110	
Zinc	100	102.119	102	90-110	

CCV4 Date: 24-Jan-2023 16:06 Seq: 7085958 CCV Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Aluminum	100	105.469	105	90-110	
Antimony	100	97.158	97	90-110	
Arsenic	100	99.676	100	90-110	
Barium	100	99.586	100	90-110	
Beryllium	100	98.499	99	90-110	
Cadmium	100	100.161	100	90-110	
Calcium	10000	9937.924	99	90-110	
Chromium	100	99.409	99	90-110	
Cobalt	100	100.54	101	90-110	
Copper	100	98.429	98	90-110	

ALS Houston, US Date: 26-Jan-23

Form 2 - Initial and Continuing Calibration Verification

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23010632

Run ID: ICPMS07_426363
Instrument: ICPMS07
Method: SW6020A

CCV4 Date: 24-Jan-2023 16:06 Seq: 7085958 CCV Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Iron	10000	10018.561	100	90-110	
Lead	100	95.952	96	90-110	
Magnesium	10000	10265.66	103	90-110	
Manganese	100	100.481	100	90-110	
Nickel	100	98.832	99	90-110	
Potassium	10000	10151.13	102	90-110	
Selenium	100	98.1	98	90-110	
Silver	100	98.311	98	90-110	
Sodium	10000	10252.316	103	90-110	
Thallium	100	101.821	102	90-110	
Vanadium	100	99.091	99	90-110	
Zinc	100	101.253	101	90-110	

CCV5 Date: 24-Jan-2023 16:27 Seq: 7086003 CCV Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Aluminum	100	94.53	95	90-110	
Antimony	100	94.257	94	90-110	
Arsenic	100	96.133	96	90-110	
Barium	100	96.722	97	90-110	
Beryllium	100	97.058	97	90-110	
Cadmium	100	96.333	96	90-110	
Calcium	10000	9690.849	97	90-110	
Chromium	100	96.503	97	90-110	
Cobalt	100	98.733	99	90-110	
Copper	100	95.793	96	90-110	
Iron	10000	9811.798	98	90-110	
Lead	100	91.996	92	90-110	
Magnesium	10000	10144.103	101	90-110	
Manganese	100	96.644	97	90-110	
Nickel	100	97.094	97	90-110	
Potassium	10000	9834.384	98	90-110	
Selenium	100	94.673	95	90-110	
Silver	100	94.484	95	90-110	
Sodium	10000	9897.395	99	90-110	
Thallium	100	98.163	98	90-110	
Vanadium	100	96.709	97	90-110	
Zinc	100	96.828	97	90-110	

ALS Houston, US

Date: 26-Jan-23

Form 3 - BLANKS

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23010632

Run ID: HG04_426314
Instrument: HG04
Method: SW7470A

ICB	Date: 23-Jan-2023 13:42		Seq: 7083902	ICB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Mercury	0.2	0.03	0.2	U	
CCB1	Date: 23-Jan-2023 13:49		Seq: 7083905	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Mercury	0.2	0.03	0.2	U	
CCB2	Date: 23-Jan-2023 14:17		Seq: 7084727	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Mercury	0.2	0.03	0.2	U	
CCB3	Date: 23-Jan-2023 14:41		Seq: 7084740	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Mercury	0.2	0.03	0.2	U	
MBLK-188715	Date: 23-Jan-2023 14:49		Seq: 7084755	MBLK	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Mercury	0.2	0.03	0.2	U	
CCB4	Date: 23-Jan-2023 15:24		Seq: 7084766	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Mercury	0.2	0.03	0.2	U	
CCB5	Date: 23-Jan-2023 15:48		Seq: 7084778	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Mercury	0.2	0.03	0.2	U	
CCB6	Date: 23-Jan-2023 16:12		Seq: 7084790	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Mercury	0.2	0.03	0.2	U	
CCB7	Date: 23-Jan-2023 16:36		Seq: 7084802	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Mercury	0.2	0.03	0.2	U	
CCB8	Date: 23-Jan-2023 17:01		Seq: 7084813	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Mercury	0.2	0.03	0.2	U	
CCB9	Date: 23-Jan-2023 17:24		Seq: 7084825	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Mercury	0.2	0.03	0.2	U	
CCB10	Date: 23-Jan-2023 17:36		Seq: 7084831	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Mercury	0.2	0.03	0.2	U	
CCB11	Date: 23-Jan-2023 18:06		Seq: 7084834	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Mercury	0.2	0.03	0.2	U	

ALS Houston, US Date: 26-Jan-23

Form 3 - BLANKS

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23010632

Run ID: ICPMS07_426363
Instrument: ICPMS07
Method: SW6020A

ICB	Date: 24-Jan-2023 14:27		Seq: 7085595	ICB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Aluminum	10	1.8	10	U	
Antimony	5	0.4	5	U	
Arsenic	5	0.4	5	U	
Barium	5	1.9	5	U	
Beryllium	2	0.2	2	U	
Cadmium	2	0.2	2	U	
Calcium	500	34	500	U	
Chromium	5	0.4	5	U	
Cobalt	5	0.1	5	U	
Copper	5	1	5	U	
Iron	200	12	200	U	
Lead	5	0.6	5	U	
Magnesium	200	10	200	U	
Manganese	5	0.7	5	U	
Nickel	5	0.6	5	U	
Potassium	200	18	200	U	
Selenium	5	1.1	5	U	
Silver	5	0.2	5	U	
Sodium	-25.98	14	200	J	
Thallium	2	0.2	2	U	
Vanadium	5	0.6	5	U	
Zinc	5	2	5	U	

CCB1	Date: 24-Jan-2023 14:41		Seq: 7085722	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Aluminum	10	1.8	10	U	
Antimony	2	0.4	2	U	
Arsenic	2	0.4	2	U	
Barium	4	1.9	4	U	
Beryllium	2	0.2	2	U	
Cadmium	2	0.2	2	U	
Calcium	500	34	500	U	
Chromium	4	0.4	4	U	
Cobalt	5	0.2	5	U	
Copper	2	1	2	U	
Iron	200	12	200	U	
Lead	2	0.6	2	U	
Magnesium	200	10	200	U	
Manganese	5	0.7	5	U	
Nickel	2	0.6	2	U	
Potassium	200	18	200	U	
Selenium	2	1.1	2	U	
Silver	2	0.2	2	U	
Sodium	200	14	200	U	
Thallium	2	0.2	2	U	
Vanadium	5	0.6	5	U	
Zinc	4	2	4	U	

MBLK-188726	Date: 24-Jan-2023 14:45		Seq: 7085724	MBLK	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Aluminum	10	1.8	10	U	
Antimony	5	0.4	5	U	
Arsenic	5	0.4	5	U	
Barium	5	1.9	5	U	
Beryllium	2	0.2	2	U	

ALS Houston, US

Date: 26-Jan-23

Form 3 - BLANKS

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23010632

Run ID: ICPMS07_426363
Instrument: ICPMS07
Method: SW6020A

MBLK-188726 Date: 24-Jan-2023 14:45 Seq: 7085724 MBLK Units: ug/L

Analyte	Result	MDL	Report Limit	Qual
Cadmium	2	0.2	2	U
Calcium	500	34	500	U
Chromium	5	0.4	5	U
Cobalt	5	0.1	5	U
Copper	5	1	5	U
Iron	200	12	200	U
Lead	5	0.6	5	U
Magnesium	200	10	200	U
Manganese	5	0.7	5	U
Nickel	5	0.6	5	U
Potassium	200	18	200	U
Selenium	5	1.1	5	U
Silver	5	0.2	5	U
Sodium	200	14	200	U
Thallium	2	0.2	2	U
Vanadium	5	0.6	5	U
Zinc	5	2	5	U

CCB2 Date: 24-Jan-2023 15:08 Seq: 7085735 CCB Units: ug/L

Analyte	Result	MDL	Report Limit	Qual
Aluminum	10	1.8	10	U
Antimony	2	0.4	2	U
Arsenic	2	0.4	2	U
Barium	4	1.9	4	U
Beryllium	2	0.2	2	U
Cadmium	2	0.2	2	U
Calcium	500	34	500	U
Chromium	4	0.4	4	U
Cobalt	5	0.2	5	U
Copper	2	1	2	U
Iron	200	12	200	U
Lead	2	0.6	2	U
Magnesium	200	10	200	U
Manganese	5	0.7	5	U
Nickel	2	0.6	2	U
Potassium	200	18	200	U
Selenium	2	1.1	2	U
Silver	2	0.2	2	U
Sodium	49.19	14	200	J
Thallium	2	0.2	2	U
Vanadium	5	0.6	5	U
Zinc	4	2	4	U

CCB3 Date: 24-Jan-2023 15:33 Seq: 7085794 CCB Units: ug/L

Analyte	Result	MDL	Report Limit	Qual
Aluminum	10	1.8	10	U
Antimony	2	0.4	2	U
Arsenic	2	0.4	2	U
Barium	4	1.9	4	U
Beryllium	2	0.2	2	U
Cadmium	2	0.2	2	U
Calcium	500	34	500	U
Chromium	4	0.4	4	U
Cobalt	5	0.2	5	U
Copper	2	1	2	U

ALS Houston, US

Date: 26-Jan-23

Form 3 - BLANKS

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23010632

Run ID: ICPMS07_426363
Instrument: ICPMS07
Method: SW6020A

CCB3	Date: 24-Jan-2023 15:33		Seq: 7085794	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Iron	200	12	200	U	
Lead	2	0.6	2	U	
Magnesium	200	10	200	U	
Manganese	5	0.7	5	U	
Nickel	2	0.6	2	U	
Potassium	24.24	18	200	J	
Selenium	2	1.1	2	U	
Silver	2	0.2	2	U	
Sodium	292.2	14	200		
Thallium	2	0.2	2	U	
Vanadium	5	0.6	5	U	
Zinc	4	2	4	U	

CCB4	Date: 24-Jan-2023 16:08		Seq: 7085959	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Aluminum	10	1.8	10	U	
Antimony	2	0.4	2	U	
Arsenic	2	0.4	2	U	
Barium	4	1.9	4	U	
Beryllium	2	0.2	2	U	
Cadmium	2	0.2	2	U	
Calcium	500	34	500	U	
Chromium	4	0.4	4	U	
Cobalt	5	0.2	5	U	
Copper	2	1	2	U	
Iron	200	12	200	U	
Lead	2	0.6	2	U	
Magnesium	200	10	200	U	
Manganese	5	0.7	5	U	
Nickel	2	0.6	2	U	
Potassium	200	18	200	U	
Selenium	2	1.1	2	U	
Silver	2	0.2	2	U	
Sodium	99.18	14	200	J	
Thallium	2	0.2	2	U	
Vanadium	5	0.6	5	U	
Zinc	4	2	4	U	

CCB5	Date: 24-Jan-2023 16:29		Seq: 7086004	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Aluminum	10	1.8	10	U	
Antimony	2	0.4	2	U	
Arsenic	2	0.4	2	U	
Barium	4	1.9	4	U	
Beryllium	2	0.2	2	U	
Cadmium	2	0.2	2	U	
Calcium	500	34	500	U	
Chromium	4	0.4	4	U	
Cobalt	5	0.2	5	U	
Copper	2	1	2	U	
Iron	200	12	200	U	
Lead	2	0.6	2	U	
Magnesium	200	10	200	U	
Manganese	5	0.7	5	U	
Nickel	2	0.6	2	U	

ALS Houston, US Date: 26-Jan-23

Form 3 - BLANKS

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23010632

Run ID: ICPMS07_426363
Instrument: ICPMS07
Method: SW6020A

CCB5 Date: 24-Jan-2023 16:29 Seq: 7086004 CCB Units: ug/L

Analyte	Result	MDL	Report Limit	Qual
Potassium	200	18	200	U
Selenium	2	1.1	2	U
Silver	2	0.2	2	U
Sodium	61.57	14	200	J
Thallium	2	0.2	2	U
Vanadium	5	0.6	5	U
Zinc	4	2	4	U

ALS Houston, US Date: 26-Jan-23

Form 4 - ICP Interference Check Sample

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23010632

Run ID:ICPMS07_426363
Instrument:ICPMS07
Method:SW6020A

ICSA	Date: 24-Jan-2023 14:30	Seq: 7085623	ICSA	Units: ug/L
Analyte	**True**	**Found**	**%R**	
Aluminum	100000	88320	88.3	
Antimony		0.155	0	
Arsenic		0.275	0	
Barium		1.168	0	
Beryllium		0.009	0	
Cadmium		0.74	0	
Calcium	100000	93470	93.5	
Chromium		0.723	0	
Cobalt		0.843	0	
Copper		0.615	0	
Iron	100000	95960	96.0	
Lead		0.742	0	
Magnesium	100000	96300	96.3	
Manganese		1.448	0	
Nickel		1.123	0	
Potassium	100000	96410	96.4	
Selenium		-0.557	0	
Silver		0.034	0	
Sodium	100000	96860	96.9	
Thallium		0.009	0	
Vanadium		-0.339	0	
Zinc		1.941	0	

ICSAB	Date: 24-Jan-2023 14:32	Seq: 7085624	ICSAB	Units: ug/L
Analyte	**True**	**Found**	**%R**	
Aluminum	100500	88040	87.6	
Antimony	100	93.95	93.9	
Arsenic	100	96.8	96.8	
Barium	100	100.7	101	
Beryllium	100	93.72	93.7	
Cadmium	100	96.51	96.5	
Calcium	110000	101500	92.3	
Chromium	100	93.62	93.6	
Cobalt	100	94.3	94.3	
Copper	100	91.06	91.1	
Iron	110000	104600	95.1	
Lead	100	93.61	93.6	
Magnesium	110000	104700	95.1	
Manganese	100	95.36	95.4	
Nickel	100	91.04	91.0	
Potassium	110000	105300	95.7	
Selenium	100	92.47	92.5	
Silver	100	93.35	93.4	
Sodium	110000	105400	95.8	
Thallium	100	91.61	91.6	
Vanadium	100	94.28	94.3	
Zinc	100	94.26	94.3	

ALS Houston, US Date: 26-Jan-23

Form 5A - Matrix Spike/Matrix Spike Duplicate Recovery

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23010632

Date Analyzed: 23-Jan-2023 15:06
Date Extracted: 23-Jan-2023 09:00
Units: ug/L

Matrix Spike: HS23010489-02MS
Client Sample ID:

Analysis Method: SW7470A

Analyte	Sample Result	MS Result	Spike Amount	% Rec	MSD Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Mercury	0.2000	4.990	5.000	99.8	5.250	5.000	105	82-119	5.08	20

ALS Houston, US

Date: 26-Jan-23

Form 5A - Matrix Spike/Matrix Spike Duplicate Recovery

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23010632

Date Analyzed: 24-Jan-2023 14:55
Date Extracted: 23-Jan-2023 13:00
Units: ug/L

Matrix Spike: HS23010489-02MS
Client Sample ID:

Analysis Method: SW6020A

Analyte	Sample Result	MS Result	Spike Amount	% Rec	MSD Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Aluminum	11.84	117.0	100.0	105	117.7	100.0	106	84-117	0.587	20
Antimony	0.4970	51.72	50.00	102	51.17	50.00	101	85-117	1.08	20
Arsenic	0.6200	54.10	50.00	107	53.71	50.00	106	84-116	0.716	20
Barium	829.0	886.8	50.00	116	915.0	50.00	172	86-114	3.12	20
Beryllium	2.000	53.11	50.00	106	53.76	50.00	108	83-121	1.22	20
Cadmium	2.000	50.22	50.00	100	51.08	50.00	102	87-115	1.70	20
Calcium	82060	88500	5000	129	89230	5000	143	87-118	0.815	20
Chromium	367.0	392.8	50.00	51.6	385.7	50.00	37.5	85-116	1.82	20
Cobalt	4.013	55.68	50.00	103	55.74	50.00	103	86-115	0.113	20
Copper	5.885	56.68	50.00	102	56.44	50.00	101	85-118	0.438	20
Iron	3281	8452	5000	103	8454	5000	103	87-118	0.0250	20
Lead	5.000	50.07	50.00	100	50.95	50.00	102	88-115	1.74	20
Magnesium	24810	30690	5000	118	30880	5000	121	83-118	0.589	20
Manganese	139.2	194.8	50.00	111	194.9	50.00	111	87-115	0.0313	20
Nickel	392.1	454.2	50.00	124	453.7	50.00	123	85-117	0.106	20
Potassium	1868	7043	5000	104	7117	5000	105	87-115	1.05	20
Selenium	5.000	50.85	50.00	103	50.74	50.00	103	80-120	0.217	20
Silver	5.000	48.35	50.00	96.7	48.97	50.00	97.9	85-116	1.27	20
Sodium	344300	361400	5000	342	365200	5000	418	85-117	1.04	20
Thallium	0.3670	41.94	50.00	83.2	44.06	50.00	87.4	82-116	4.92	20
Vanadium	1.265	53.34	50.00	104	53.28	50.00	104	86-115	0.116	20
Zinc	5.000	55.43	50.00	109	54.81	50.00	108	83-119	1.12	20

ALS Houston, US

Date: 26-Jan-23

Form 5B - Post Digest Sample Recovery

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23010632

Date Analyzed: 24-Jan-2023 14:57
Date Extracted: 23-Jan-2023 13:00
Units: ug/L

Lab Sample ID: HS23010489-02PDS
Client Sample ID:

Analysis Method: SW6020A

Analyte	Sample Result	PDS Result	Spike Amount	% Rec	% Rec Limits
Aluminum	11.84	114.8	100	103	80-120
Antimony	0.497	101.2	100	101	80-120
Arsenic	0.62	106	100	105	80-120
Beryllium	0	102.5	100	102	80-120
Cadmium	0	102.6	100	102	80-120
Calcium	82060	92630	10000	106	80-120
Cobalt	4.013	105.5	100	101	80-120
Copper	5.885	104.7	100	99	80-120
Iron	3281	13240	10000	100	80-120
Lead	0	98.84	100	99	80-120
Manganese	139.2	241.9	100	103	80-120
Nickel	392.1	500.2	100	108	80-120
Potassium	1868	11950	10000	101	80-120
Selenium	0	99.42	100	100	80-120
Silver	0	98.11	100	98	80-120
Thallium	0.367	97.99	100	98	80-120
Vanadium	1.265	103.4	100	102	80-120
Zinc	0	103.2	100	102	80-120
Barium	774.4	1778	1000	100	80-120
Chromium	361.7	1365	1000	100	80-120
Magnesium	26900	127200	100000	100	80-120
Sodium	359700	459800	100000	100	80-120

ALS Houston, US

Date: 26-Jan-23

Form 7 - Laboratory Control Sample

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23010632

Date Analyzed: 23-Jan-2023 14:53
Date Extracted: 23-Jan-2023 09:00
Units: ug/L

Lab Sample ID: LCS-188715
Analysis Method: SW7470A

Analyte	Spike Amount	LCS Result	% Rec	% Rec Limits
Mercury	5	5.21	104	82-119

ALS Houston, US Date: 26-Jan-23

Form 7 - Laboratory Control Sample

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23010632

Date Analyzed: 24-Jan-2023 14:47
Date Extracted: 23-Jan-2023 13:00
Units: ug/L

Lab Sample ID: LCS-188726 Analysis Method: SW6020A

Analyte	Spike Amount	LCS Result	% Rec	% Rec Limits
Aluminum	100	101.5	101	84-117
Antimony	50	48.13	96	85-117
Arsenic	50	49.72	99	84-116
Barium	50	48.25	97	86-114
Beryllium	50	49.6	99	83-121
Cadmium	50	49.25	99	87-115
Calcium	5000	4841	97	87-118
Chromium	50	48.61	97	85-116
Cobalt	50	49.72	99	86-115
Copper	50	50.74	101	85-118
Iron	5000	4883	98	87-118
Lead	50	46.7	93	88-115
Magnesium	5000	4941	99	83-118
Manganese	50	48.4	97	87-115
Nickel	50	48.83	98	85-117
Potassium	5000	4910	98	87-115
Selenium	50	49.16	98	80-120
Silver	50	47.66	95	85-116
Sodium	5000	4790	96	85-117
Thallium	50	41.55	83	82-116
Vanadium	50	47.85	96	86-115
Zinc	50	52.64	105	83-119

ALS Houston, US Date: 26-Jan-23

Form 8 - ICP Serial Dilutions

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23010632

Date Analyzed: 24-Jan-2023 14:51
Date Extracted: 23-Jan-2023 13:00
Units: ug/L

Lab Sample ID: HS23010489-02SD
Client Sample ID:

Analysis Method: SW6020A

Analyte	Sample Result	C	SD Result	C	RPD	Q
Aluminum	11.84		16.57	J	40	
Antimony	0.497	J	0	U	0	
Arsenic	0.62	J	0	U	0	
Beryllium	0	U	0	U	0	
Cadmium	0	U	1.402	J	692	
Cobalt	4.013	J	3.399	J	15	
Copper	5.885		6.298	J	7	
Lead	0	U	0	U	0	
Selenium	0	U	0	U	0	
Silver	0	U	0	U	0	
Thallium	0.367	J	0	U	0	
Vanadium	1.265	J	0	U	0	
Zinc	0	U	0	U	0	
Barium	774.4		781.9		1	
Chromium	361.7		357		1	
Magnesium	26900		26520		1	
Sodium	359700		364500		1	

Report Generated By Teledyne Leeman QuickTrace

Analyst: ALSHS.NoUser,

Worksheet file: C:\Users\Public\Documents\Teledyne CETAC\QuickTrace\Worksheets\012323AW.wszf

Creation Date: 1/23/2023 12:08:36 PM

Comment:

Results

Sample Name					Type	Date/Time	Conc (ppb)	µAbs	%RSD	Residual	Flags
Calibration Blank					STD	01/23/23 01:27:29 pm	0.000	60	13.23		
	Replicates	50.1	64.4	58.0	68.4						
Standard #1 (0.2 ppb)					STD	01/23/23 01:29:11 pm	0.200	1117	2.51	-3.97%	
	Replicates	1087.3	1111.2	1113.4	1154.8						
Standard #2 (0.5 ppb)					STD	01/23/23 01:30:54 pm	0.500	2877	2.88	2.46%	
	Replicates	2775.5	2861.2	2895.0	2975.6						
Standard #3 (2.0 ppb)					STD	01/23/23 01:32:36 pm	2.000	11367	2.30	2.86%	
	Replicates	11045.0	11287.9	11480.5	11653.7						
Standard #4 (5.0 ppb)					STD	01/23/23 01:34:19 pm	5.000	27420	2.67	-0.44%	
	Replicates	26571.6	27129.3	27712.5	28265.9						
Standard #5 (10.0 ppb)					STD	01/23/23 01:36:02 pm	10.000	54772	2.69	-0.45%	
	Replicates	53062.0	54197.2	55346.4	56483.0						

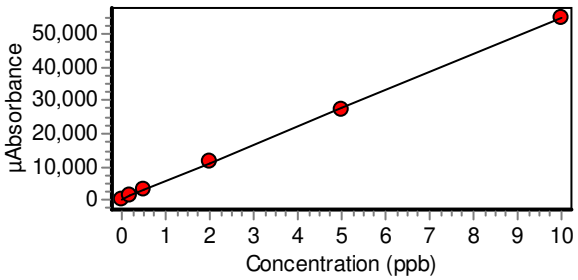
Calibration

Equation: Abs = 5495.794x + 61.215

R2: 0.99992 RSE: 3.18%

SEE: 212.4480

Flags:



ICCV					UNK	01/23/23 01:39:07 pm	4.980	27449	2.60		
	Replicates	26637.8	27149.2	27720.4	28287.2						
ICV					UNK	01/23/23 01:40:49 pm	4.920	27073	2.69		
	Replicates	26232.9	26783.0	27359.0	27918.0						
ICB					UNK	01/23/23 01:42:30 pm	-0.006	28	39.68		
	Replicates	20.8	38.9	13.9	39.9						
CRA					UNK	01/23/23 01:44:12 pm	0.206	1191	0.72		
	Replicates	1180.9	1197.6	1188.8	1198.0						
CCV					UNK	01/23/23 01:47:25 pm	5.180	28522	1.44		
	Replicates	27979.1	28451.2	28740.0	28916.0						
CCB					UNK	01/23/23 01:49:09 pm	-0.006	27	26.81		
	Replicates	21.5	18.1	38.5	30.1						
MBLK-188712					UNK	01/23/23 01:53:39 pm	-0.002	48	87.49		
	Replicates	30.0	53.6	56.2	50.4						

Sample Name					Type	Date/Time	Conc (ppb)	µAbs	%RSD	Residual	Flags
LCS-188712					UNK	01/23/23 02:00:26 pm	5.220	28734	0.45		
	Replicates	28560.5	28713.2	28810.8	28851.0						
MBLKT1-188712					UNK	01/23/23 02:02:08 pm	-0.009	14	30.69		
	Replicates	24.7	27.6	1.0	0.8						
MBLKT2-188712					UNK	01/23/23 02:03:50 pm	0.058	380	3.75		
	Replicates	369.3	377.4	397.2	376.6						
MBLKT3-188712					UNK	01/23/23 02:05:33 pm	-0.005	34	45.54		
	Replicates	35.1	21.8	30.4	50.8						
MBLKT4-188712					UNK	01/23/23 02:07:16 pm	-0.005	36	73.07		
	Replicates	34.2	48.6	10.0	50.2						
HS23010461-07					UNK	01/23/23 02:08:58 pm	-0.001	58	199.15		
	Replicates	59.0	62.1	62.3	49.1						
HS23010461-07MS					UNK	01/23/23 02:10:41 pm	5.510	30347	0.17		
	Replicates	30293.6	30317.1	30366.7	30411.9						
HS23010461-07MSD					UNK	01/23/23 02:12:23 pm	5.370	29575	0.30		
	Replicates	29463.5	29550.4	29628.6	29659.4						
HS23010461-15					UNK	01/23/23 02:14:04 pm	-0.012	-4	35.55		
	Replicates	7.4	19.8	-33.8	-10.6						
CCV					UNK	01/23/23 02:16:09 pm	5.030	27707	2.60		
	Replicates	26859.8	27428.6	28017.6	28522.0						
CCB					UNK	01/23/23 02:17:53 pm	-0.005	34	35.19		
	Replicates	23.9	32.4	47.0	32.4						
HS23010762-02					UNK	01/23/23 02:21:43 pm	-0.007	22	19.96		
	Replicates	27.0	21.9	28.5	11.3						
HS23010926-01					UNK	01/23/23 02:23:25 pm	0.005	88	47.18		
	Replicates	99.3	73.5	81.7	98.5						
HS23010927-01					UNK	01/23/23 02:25:07 pm	0.003	77	87.49		
	Replicates	85.1	58.1	75.5	88.3						
HS23010928-01					UNK	01/23/23 02:26:49 pm	0.003	78	42.40		
	Replicates	87.8	79.0	71.0	74.8						
MBLK-188714					UNK	01/23/23 02:28:31 pm	-0.007	24	24.98		
	Replicates	16.0	32.0	31.8	15.4						
LCS-188714					UNK	01/23/23 02:30:14 pm	5.210	28689	0.36		
	Replicates	28561.0	28661.5	28724.9	28807.9						
MBLKP1-188714					UNK	01/23/23 02:31:56 pm	-0.008	20	5.40		
	Replicates	18.7	22.3	17.1	20.5						
HS23010461-07					UNK	01/23/23 02:33:39 pm	0.017	152	16.18		
	Replicates	130.6	158.3	158.1	162.9						

Sample Name					Type	Date/Time	Conc (ppb)	µAbs	%RSD	Residual	Flags
HS23010461-15					UNK	01/23/23 02:35:22 pm	0.022	183	9.81		
	Replicates	187.6	180.6	196.8	168.4						
HS23010630-04					UNK	01/23/23 02:37:05 pm	0.018	162	15.89		
	Replicates	164.0	166.3	178.1	139.9						
CCV					UNK	01/23/23 02:39:57 pm	5.140	28291	2.05		
	Replicates	27556.5	28137.5	28586.7	28882.7						
CCB					UNK	01/23/23 02:41:41 pm	-0.006	29	19.92		
	Replicates	31.2	25.7	37.3	22.9						
HS23010630-04MS					UNK	01/23/23 02:45:44 pm	6.460	35565	0.20		
	Replicates	35461.6	35584.6	35627.2	35586.4						
HS23010630-04MSD					UNK	01/23/23 02:47:25 pm	5.820	32067	0.30		
	Replicates	31940.9	32049.7	32117.9	32158.9						
MBLK-188715					UNK	01/23/23 02:49:07 pm	-0.005	35	34.14		
	Replicates	26.0	35.4	30.6	47.0						
LCS-188715					UNK	01/23/23 02:53:00 pm	5.210	28709	0.44		
	Replicates	28560.0	28655.4	28780.8	28840.2						
HS23010411-01					UNK	01/23/23 02:54:42 pm	-0.011	0	22.72		
	Replicates	-19.3	12.5	6.3	2.3						
HS23010411-02					UNK	01/23/23 02:56:24 pm	-0.009	13	17.13		
	Replicates	1.9	20.6	13.0	17.6						
HS23010411-05					UNK	01/23/23 02:58:06 pm	-0.003	47	88.25		
	Replicates	44.4	63.0	33.0	48.2						
HS23010411-08					UNK	01/23/23 02:59:49 pm	0.015	143	26.59		
	Replicates	115.4	163.2	137.0	158.0						
HS23010411-09					UNK	01/23/23 03:01:31 pm	0.001	67	150.06		
	Replicates	65.4	55.6	76.2	71.4						
HS23010489-02					UNK	01/23/23 03:03:14 pm	-0.001	55	308.56		
	Replicates	29.0	58.2	72.8	60.6						
HS23010489-02MS					UNK	01/23/23 03:04:57 pm	4.990	27490	0.87		
	Replicates	27179.1	27478.4	27550.2	27753.2						
HS23010489-02MSD					UNK	01/23/23 03:06:40 pm	5.250	28935	0.48		
	Replicates	28757.9	28905.0	29000.6	29078.2						
CCV					UNK	01/23/23 03:22:24 pm	4.960	27324	2.71		
	Replicates	26471.7	27021.9	27617.3	28183.7						
CCB					UNK	01/23/23 03:24:08 pm	-0.008	19	24.23		
	Replicates	12.0	18.2	10.6	33.2						
HS23010630-04MS					UNK	01/23/23 03:29:03 pm	5.420	29846	0.40		
	Replicates	29682.0	29837.5	29913.9	29951.1						

Sample Name				Type	Date/Time	Conc (ppb)	µAbs	%RSD	Residual	Flags
HS23010489-04				UNK	01/23/23 03:30:45 pm	-0.006	28	37.36		
Replicates	43.4	14.9	31.9	21.9						
HS23010489-06				UNK	01/23/23 03:32:27 pm	-0.001	57	205.26		
Replicates	57.1	50.2	68.4	54.0						
HS23010489-07				UNK	01/23/23 03:34:09 pm	-0.003	44	41.80		
Replicates	46.5	34.8	52.0	41.2						
HS23010489-08				UNK	01/23/23 03:35:51 pm	-0.001	58	573.00		
Replicates	27.4	59.6	67.6	75.6						
HS23010489-09				UNK	01/23/23 03:37:33 pm	0.005	91	9.63		
Replicates	91.4	91.8	93.8	87.0						
HS23010632-01				UNK	01/23/23 03:39:15 pm	0.015	147	7.63		
Replicates	143.3	155.0	148.2	140.0						
MBLK-188719				UNK	01/23/23 03:40:58 pm	-0.010	9	12.41		
Replicates	16.5	4.2	2.6	11.6						
LCS-188719				UNK	01/23/23 03:42:40 pm	5.530	30462	2.16		
Replicates	29725.4	30183.6	30686.6	31253.8						
HS23010443-01				UNK	01/23/23 03:44:23 pm	0.021	177	10.95		
Replicates	164.8	172.9	175.1	194.7						
CCV				UNK	01/23/23 03:46:27 pm	4.890	26911	2.75		
Replicates	26053.0	26640.0	27172.2	27779.0						
CCB				UNK	01/23/23 03:48:11 pm	-0.003	45	18.15		
Replicates	41.5	45.2	43.8	48.6						
HS23010443-02				UNK	01/23/23 03:52:34 pm	0.013	136	31.41		
Replicates	107.5	148.5	126.3	159.9						
HS23010443-03				UNK	01/23/23 03:54:17 pm	-0.006	28	34.80		
Replicates	26.2	17.7	23.3	44.5						
HS23010443-04				UNK	01/23/23 03:55:59 pm	-0.008	18	26.11		
Replicates	24.2	1.9	16.7	27.5						
HS23010443-05				UNK	01/23/23 03:57:41 pm	-0.007	21	32.11		
Replicates	19.5	3.1	33.3	26.9						
HS23010443-06				UNK	01/23/23 03:59:23 pm	0.008	105	19.43		
Replicates	96.7	109.9	98.7	114.1						
HS23010443-07				UNK	01/23/23 04:01:05 pm	-0.006	30	31.91		
Replicates	44.6	28.1	27.3	21.9						
HS23010443-08				UNK	01/23/23 04:02:47 pm	0.011	123	18.37		
Replicates	120.6	120.6	113.0	139.8						
HS23010443-09				UNK	01/23/23 04:04:29 pm	-0.005	35	39.79		
Replicates	42.8	20.2	41.8	35.2						

Sample Name					Type	Date/Time	Conc (ppb)	µAbs	%RSD	Residual	Flags
HS23010461-10					UNK	01/23/23 04:06:12 pm	-0.006	26	54.11		
	Replicates	38.4	25.1	-1.5	40.3						
HS230101461-10MS					UNK	01/23/23 04:07:54 pm	6.950	38256	0.67		
	Replicates	38630.4	38211.8	38092.6	38089.8						
CCV					UNK	01/23/23 04:10:36 pm	4.850	26723	2.41		
	Replicates	25972.2	26494.3	26945.3	27479.1						
CCB					UNK	01/23/23 04:12:20 pm	-0.002	51	190.50		
	Replicates	33.3	72.5	38.5	61.5						
HS23010461-10MSD					UNK	01/23/23 04:16:42 pm	7.900	43485	1.89		
	Replicates	42534.1	43156.0	43825.2	44426.0						
HS23010692-02					UNK	01/23/23 04:18:25 pm	-0.006	29	45.45		
	Replicates	12.9	48.0	26.2	30.2						
HS23010692-03					UNK	01/23/23 04:20:07 pm	-0.004	40	53.13		
	Replicates	33.9	35.5	32.3	56.7						
HS23010692-04					UNK	01/23/23 04:21:50 pm	-0.003	45	60.58		
	Replicates	34.4	39.5	51.1	55.3						
HS23010692-05					UNK	01/23/23 04:23:33 pm	-0.004	39	30.45		
	Replicates	47.0	37.8	39.8	30.4						
HS23010692-06					UNK	01/23/23 04:25:15 pm	-0.007	22	36.21		
	Replicates	13.4	31.0	37.2	7.4						
HS23010692-07					UNK	01/23/23 04:26:57 pm	0.004	81	127.83		
	Replicates	74.2	53.0	113.2	82.6						
HS23010692-08					UNK	01/23/23 04:28:39 pm	-0.006	26	36.86		
	Replicates	30.8	7.1	36.1	30.5						
HS23010693-01					UNK	01/23/23 04:30:22 pm	-0.001	57	537.49		
	Replicates	34.1	53.2	47.8	91.4						
HS23010693-02					UNK	01/23/23 04:32:04 pm	-0.005	33	24.50		
	Replicates	24.3	31.1	38.5	38.7						
CCV					UNK	01/23/23 04:34:29 pm	4.820	26537	2.45		
	Replicates	25772.0	26313.6	26764.0	27298.6						
CCB					UNK	01/23/23 04:36:12 pm	-0.006	30	16.50		
	Replicates	22.4	30.2	34.8	31.0						
MBLK-188720					UNK	01/23/23 04:39:54 pm	0.005	89	60.13		
	Replicates	96.3	65.5	103.9	89.7						
LCS-188720					UNK	01/23/23 04:41:37 pm	5.670	31224	2.96		
	Replicates	30457.5	30548.8	31463.8	32426.8						
HS23010537-01					UNK	01/23/23 04:43:19 pm	0.001	67	184.96		
	Replicates	70.0	72.3	51.5	73.1						

Sample Name		Type	Date/Time	Conc (ppb)	µAbs	%RSD	Residual	Flags
HS23010537-02		UNK	01/23/23 04:45:02 pm	0.002	71	96.89		
Replicates	76.8	71.2	57.6	77.6				
HS23010537-03		UNK	01/23/23 04:46:45 pm	0.015	141	15.64		
Replicates	152.9	148.2	125.0	137.2				
HS23010537-04		UNK	01/23/23 04:48:28 pm	0.003	76	66.51		
Replicates	74.4	65.3	89.5	75.7				
HS23010537-05		UNK	01/23/23 04:50:10 pm	0.003	78	23.83		
Replicates	73.9	78.5	75.7	82.9				
HS23010537-05MS		UNK	01/23/23 04:51:53 pm	4.410	24322	2.53		
Replicates	23552.1	24141.0	24626.8	24966.8				
HS23010537-05MSD		UNK	01/23/23 04:53:35 pm	5.540	30504	2.11		
Replicates	29687.9	30335.0	30831.0	31162.4				
HS23010537-06		UNK	01/23/23 04:56:59 pm	-0.019	-42	26.31		
Replicates	-77.3	-38.7	-11.1	-40.9				
CCV		UNK	01/23/23 04:59:27 pm	5.190	28611	0.19		
Replicates	28538.5	28605.1	28634.7	28666.5				
CCB		UNK	01/23/23 05:01:11 pm	-0.005	34	30.20		
Replicates	44.1	37.3	30.5	25.5				
HS23010537-07		UNK	01/23/23 05:05:05 pm	-0.005	35	71.36		
Replicates	20.9	62.4	27.2	30.6				
HS23010537-08		UNK	01/23/23 05:06:48 pm	-0.008	18	28.62		
Replicates	11.8	4.9	32.9	22.9				
HS23010537-09		UNK	01/23/23 05:08:30 pm	-0.002	53	152.09		
Replicates	66.4	57.0	35.2	51.8				
HS23010537-10		UNK	01/23/23 05:10:12 pm	-0.007	25	22.53		
Replicates	14.2	28.2	33.4	25.4				
HS23010715-02		UNK	01/23/23 05:11:55 pm	-0.014	-16	11.30		
Replicates	-24.3	-18.2	-18.8	-3.8				
HS23010715-03		UNK	01/23/23 05:13:38 pm	-0.005	32	44.96		
Replicates	13.8	42.5	32.5	40.1				
HS23010715-04		UNK	01/23/23 05:15:20 pm	-0.007	22	50.36		
Replicates	2.7	11.9	24.1	48.5				
HS23010782-02		UNK	01/23/23 05:17:03 pm	-0.003	45	114.96		
Replicates	60.5	53.0	18.0	48.4				
HS23010782-04		UNK	01/23/23 05:18:46 pm	-0.018	-38	12.22		
Replicates	-32.2	-33.5	-30.3	-56.1				
HS23010782-06		UNK	01/23/23 05:20:28 pm	0.002	74	117.45		
Replicates	73.9	61.6	65.4	95.2				

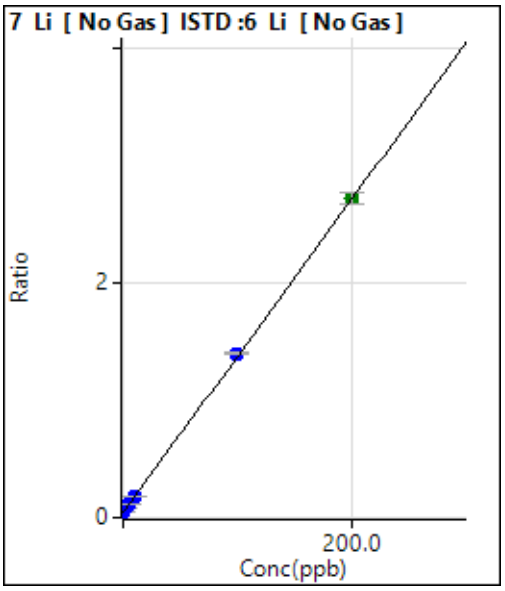
Sample Name	Type	Date/Time	Conc (ppb)	µAbs	%RSD	Residual	Flags
CCV	UNK	01/23/23 05:22:37 pm	4.900	26980	2.09		
Replicates	26287.6	26807.8	27223.8	27599.6			
CCB	UNK	01/23/23 05:24:21 pm	-0.003	43	92.06		
Replicates	24.6	32.4	50.4	62.6			
HS23010782-08	UNK	01/23/23 05:27:17 pm	-0.008	18	9.98		
Replicates	15.6	15.5	15.1	24.1			
HS23010782-10	UNK	01/23/23 05:28:59 pm	-0.002	49	237.74		
Replicates	59.3	45.8	13.2	79.6			
HS23010782-12	UNK	01/23/23 05:30:42 pm	0.001	65	50.11		
Replicates	66.1	63.4	68.0	64.0			
HS23010782-14	UNK	01/23/23 05:32:24 pm	-0.005	34	41.50		
Replicates	36.4	19.7	46.9	33.9			
CCV	UNK	01/23/23 05:34:34 pm	4.950	27240	2.30		
Replicates	26489.0	27052.2	27453.0	27965.4			
CCB	UNK	01/23/23 05:36:18 pm	-0.002	51	197.34		
Replicates	22.7	68.1	59.7	54.3			
HS23010537-05MS	UNK	01/23/23 06:01:47 pm	4.410	24287	2.29		
Replicates	23568.8	24154.6	24593.6	24830.8			
CCV	UNK	01/23/23 06:04:37 pm	4.940	27192	2.43		
Replicates	26420.9	26953.3	27434.1	27959.1			
CCB	UNK	01/23/23 06:06:21 pm	-0.004	38	16.27		
Replicates	36.3	33.0	40.4	41.2			

Calibration for 019_ICV.d

Batch Folder: D:\Agilent\ICPMH\1\DATA\012423D.b\
Analysis File: 012423D.batch.bin
DA Date-Time: 01/24/2023 19:36:14
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	011CALB.d	CAL BLK	01/24/2023 14:06:19
2	012CALS.d	2/10/200	01/24/2023 14:08:13
3	013CALS.d	5/25/500	01/24/2023 14:10:07
4	014CALS.d	10/50/100	01/24/2023 14:12:01
5	015CALS.d	100/500/10K	01/24/2023 14:13:55
6	016CALS.d	200/1000/20K	01/24/2023 14:15:47

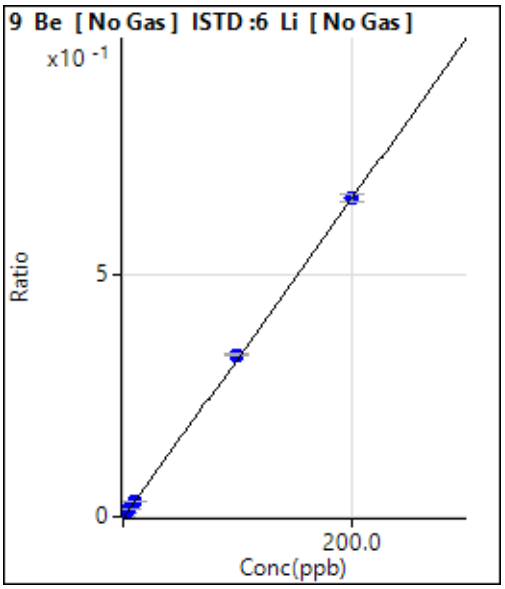
Calibration for 019_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	31104.43	0.0568	P	1.1	
2	☐	2.000	2.046	46344.58	0.0841	P	2.3	2.3
3	☐	5.000	4.830	66840.23	0.1213	P	1.2	-3.4
4	☐	10.000	9.774	102684.64	0.1874	P	0.2	-2.3
5	☐	100.000	100.745	752594.42	1.4028	P	0.8	0.7
6	☐	200.000	199.643	1449657.63	2.7241	A	3.9	-0.2

y = 0.0134 * x + 0.0568
R = 1.0000
DL = 0.1385 ppb
BEC = 4.251 ppb

Weight: <None>
Min Conc: <None>

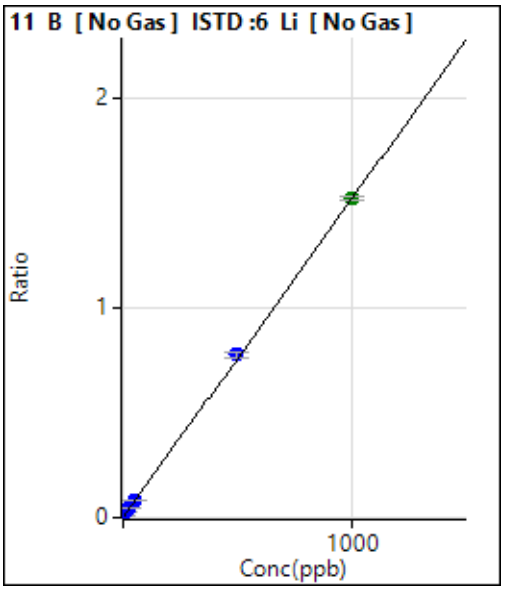


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	8.33	0.0000	P	68.9	
2	☐	2.000	1.954	3560.48	0.0065	P	6.5	-2.3
3	☐	5.000	4.860	8839.49	0.0160	P	2.0	-2.8
4	☐	10.000	9.950	17998.29	0.0328	P	0.7	-0.5
5	☐	100.000	100.994	178763.92	0.3332	P	1.2	1.0
6	☐	200.000	199.510	350337.32	0.6582	P	2.5	-0.2

y = 0.0033 * x + 1.5192E-005
R = 1.0000
DL = 0.009516 ppb
BEC = 0.004605 ppb

Weight: <None>
Min Conc: <None>

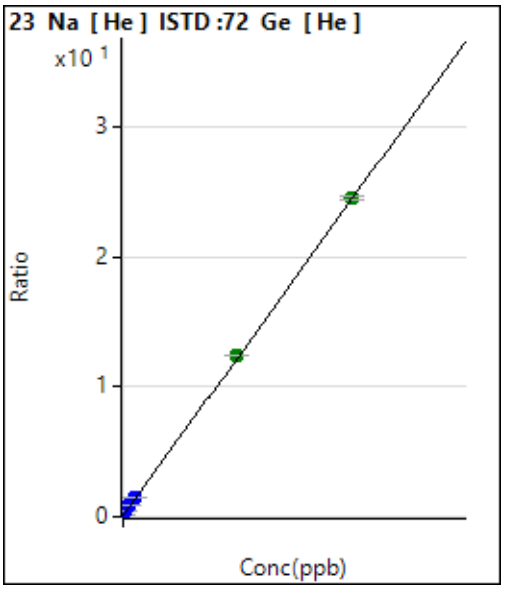
Calibration for 019_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	5140.98	0.0094	P	4.8	
2	☐	10.000	9.693	13269.70	0.0241	P	5.0	-3.1
3	☐	25.000	23.848	25092.48	0.0456	P	1.4	-4.6
4	☐	50.000	49.028	45885.01	0.0837	P	2.6	-1.9
5	☐	500.000	505.613	416414.24	0.7761	P	3.0	1.1
6	☐	1000.000	997.274	810065.72	1.5217	A	0.7	-0.3

y = 0.0015 * x + 0.0094
R = 1.0000
DL = 0.8907 ppb
BEC = 6.191 ppb

Weight: <None>
Min Conc: <None>

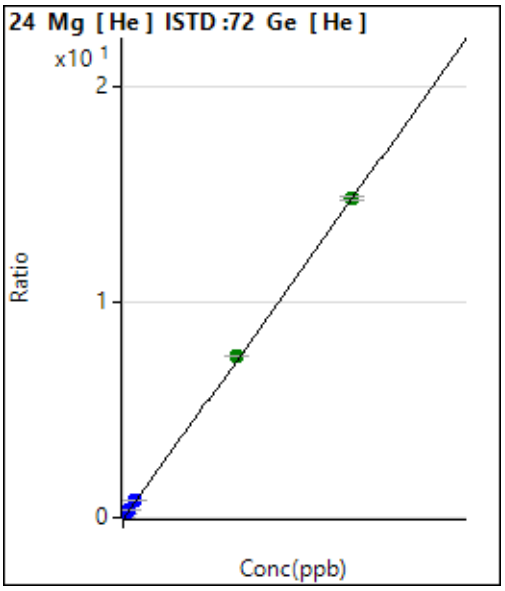


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	101027.18	0.2008	P	0.3	
2	☐	200.000	216.903	237864.85	0.4653	P	0.5	8.5
3	☐	500.000	520.274	423408.73	0.8352	P	0.4	4.1
4	☐	1000.000	1051.794	750565.64	1.4833	P	1.0	5.2
5	☐	10000.00	10020.17	6325838.45	12.4192	A	0.8	0.2
6	☐	20000.00	19986.64	12387284.4	24.5720	A	0.9	-0.1

y = 0.0012 * x + 0.2008
R = 1.0000
DL = 1.686 ppb
BEC = 164.7 ppb

Weight: <None>
Min Conc: <None>

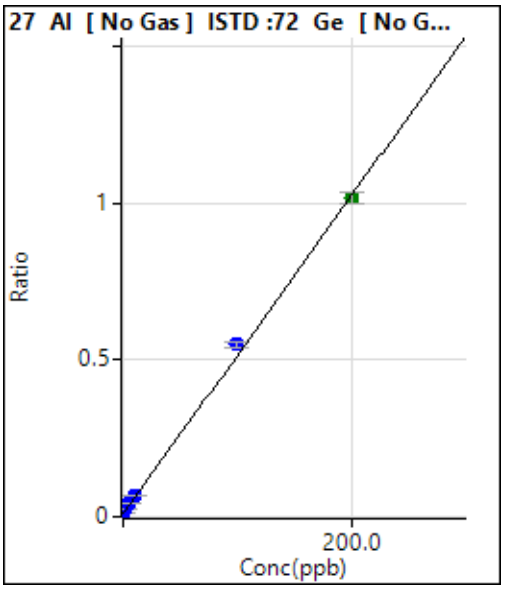
Calibration for 019_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	326.68	0.0006	P	9.6	
2	☐	200.000	217.755	83023.37	0.1624	P	0.5	8.9
3	☐	500.000	511.849	193071.45	0.3808	P	0.5	2.4
4	☐	1000.000	1036.521	389928.35	0.7706	P	1.0	3.7
5	☐	10000.00	10080.56	3814350.88	7.4884	A	0.5	0.8
6	☐	20000.00	19957.41	7473373.84	14.8248	A	1.1	-0.2

y = 7.4279E-004 * x + 6.4920E-004
R = 1.0000
DL = 0.2529 ppb
BEC = 0.874 ppb

Weight: <None>
Min Conc: <None>

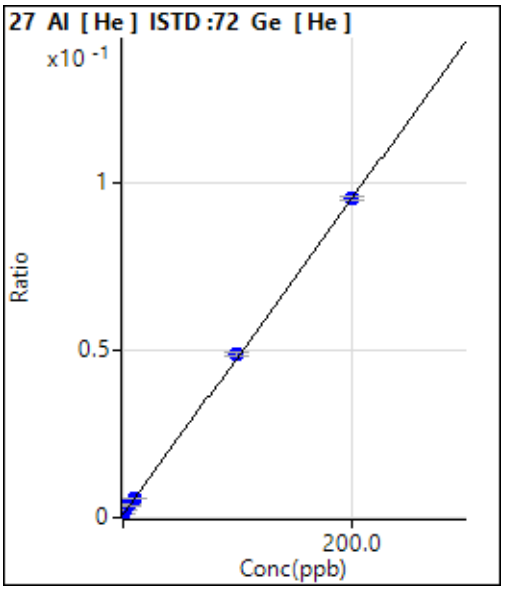


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	18893.14	0.0140	P	3.7	
2	☐	2.000	2.445	35726.35	0.0264	P	3.1	22.3
3	☐	5.000	5.257	54203.31	0.0407	P	2.5	5.1
4	☐	10.000	10.198	87270.42	0.0658	P	2.1	2.0
5	☐	100.000	105.292	725364.81	0.5483	P	2.6	5.3
6	☐	200.000	197.333	1334208.47	1.0154	A	3.5	-1.3

y = 0.0051 * x + 0.0140
R = 0.9995
DL = 0.3059 ppb
BEC = 2.764 ppb

Weight: <None>
Min Conc: <None>

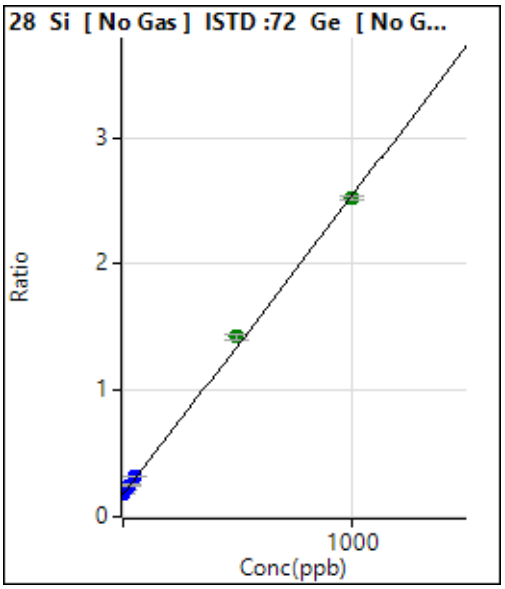
Calibration for 019_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	696.69	0.0014	P	2.0	
2	☐	2.000	1.930	1173.40	0.0023	P	11.6	-3.5
3	☐	5.000	4.994	1896.83	0.0037	P	8.0	-0.1
4	☐	10.000	9.140	2883.68	0.0057	P	4.5	-8.6
5	☐	100.000	101.167	25026.04	0.0491	P	2.4	1.2
6	☐	200.000	199.460	48156.97	0.0955	P	0.9	-0.3

y = 4.7194E-004 * x + 0.0014
R = 1.0000
DL = 0.1775 ppb
BEC = 2.934 ppb

Weight: <None>
Min Conc: <None>

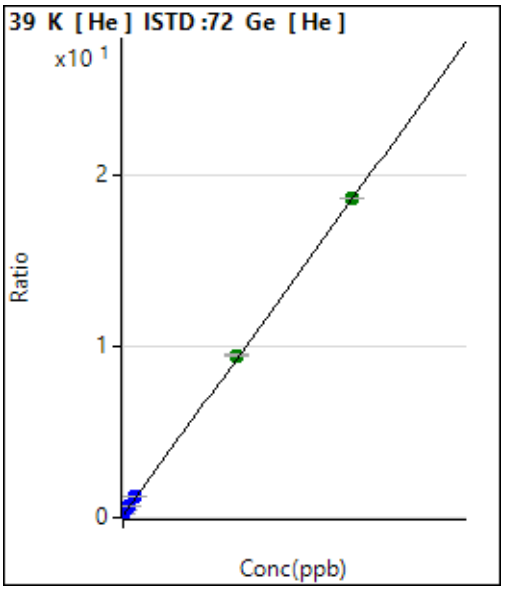


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	252884.69	0.1877	P	0.7	
2	☐	10.000	10.993	288803.26	0.2136	P	1.9	9.9
3	☐	25.000	26.339	332818.71	0.2499	P	2.3	5.4
4	☐	50.000	53.313	416085.50	0.3136	P	1.2	6.6
5	☐	500.000	522.670	1881129.09	1.4221	A	2.8	4.5
6	☐	1000.000	988.456	3314842.55	2.5222	A	1.7	-1.2

y = 0.0024 * x + 0.1877
R = 0.9996
DL = 1.628 ppb
BEC = 79.47 ppb

Weight: <None>
Min Conc: <None>

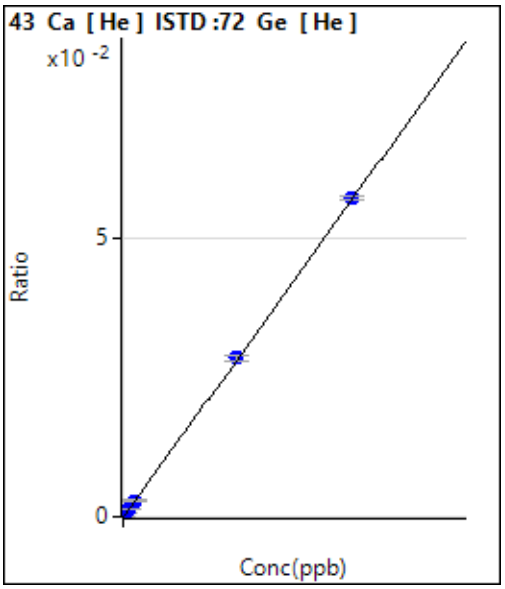
Calibration for 019_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	113414.31	0.2254	P	2.1	
2	☐	200.000	212.846	215784.80	0.4221	P	0.9	6.4
3	☐	500.000	515.152	355581.01	0.7014	P	0.3	3.0
4	☐	1000.000	1047.945	604002.63	1.1937	P	0.8	4.8
5	☐	10000.00	10017.69	4829149.31	9.4810	A	1.2	0.2
6	☐	20000.00	19988.25	9423842.57	18.6930	A	0.5	-0.1

y = 9.2392E-004 * x + 0.2254
R = 1.0000
DL = 15.02 ppb
BEC = 244 ppb

Weight: <None>
Min Conc: <None>

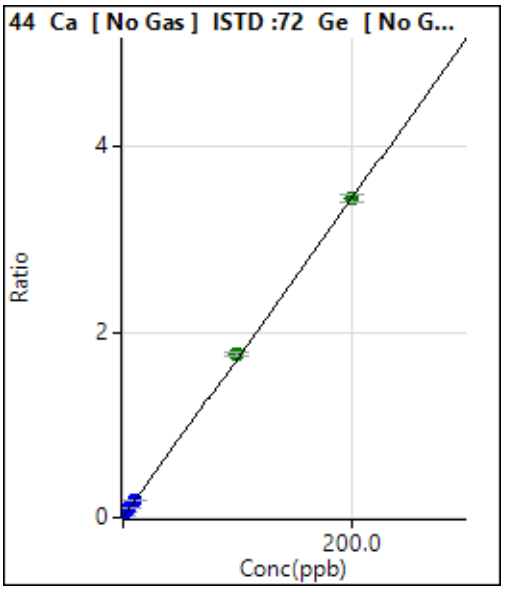


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	63.33	0.0001	P	64.7	
2	☐	200.000	172.748	316.68	0.0006	P	10.6	-13.6
3	☐	500.000	462.516	733.37	0.0014	P	9.8	-7.5
4	☐	1000.000	966.680	1460.11	0.0029	P	12.3	-3.3
5	☐	10000.00	9945.147	14514.66	0.0285	P	3.1	-0.5
6	☐	20000.00	20030.30	28873.84	0.0573	P	1.1	0.2

y = 2.8531E-006 * x + 1.2633E-004
R = 1.0000
DL = 86 ppb
BEC = 44.28 ppb

Weight: <None>
Min Conc: <None>

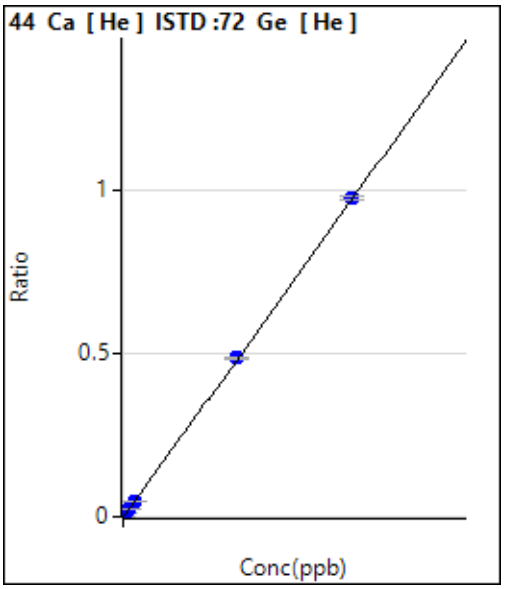
Calibration for 019_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	26672.93	0.0198	P	2.1	
2	☐	2.000	2.114	75875.20	0.0561	P	1.4	5.7
3	☐	5.000	5.017	141208.95	0.1060	P	2.4	0.3
4	☐	10.000	10.158	257908.17	0.1944	P	1.2	1.6
5	☐	100.000	101.605	2336336.16	1.7661	A	2.3	1.6
6	☐	200.000	199.188	4525142.74	3.4433	A	2.2	-0.4

y = 0.0172 * x + 0.0198
R = 1.0000
DL = 0.07133 ppb
BEC = 1.152 ppb

Weight: <None>
Min Conc: <None>

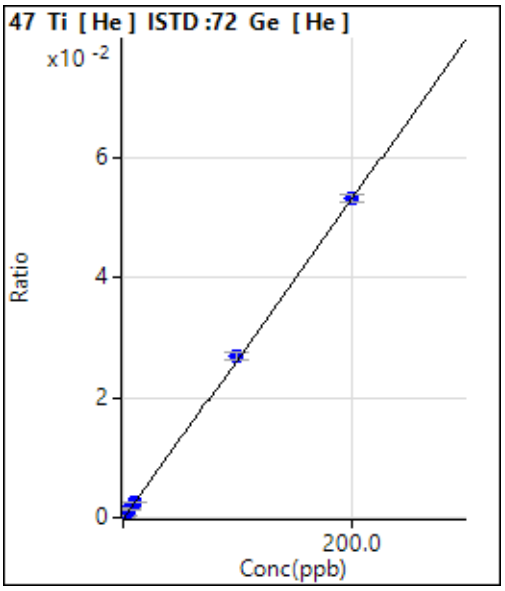


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	1010.06	0.0020	P	7.7	
2	☐	200.000	209.584	6251.54	0.0122	P	4.7	4.8
3	☐	500.000	482.069	12936.31	0.0255	P	3.5	-3.6
4	☐	1000.000	978.472	25166.59	0.0497	P	0.6	-2.2
5	☐	10000.00	9979.116	248931.21	0.4887	P	1.2	-0.2
6	☐	20000.00	20011.87	493067.73	0.9781	P	1.2	0.1

y = 4.8775E-005 * x + 0.0020
R = 1.0000
DL = 9.455 ppb
BEC = 41.16 ppb

Weight: <None>
Min Conc: <None>

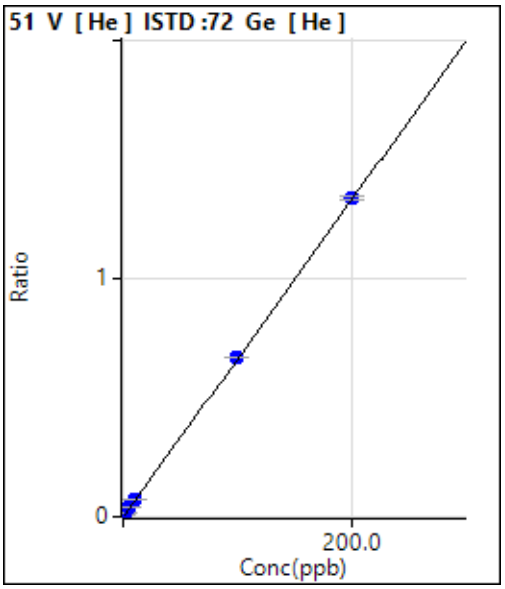
Calibration for 019_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	10.00	0.0000	P	99.6	
2	☐	2.000	1.661	236.68	0.0005	P	6.0	-17.0
3	☐	5.000	5.325	730.04	0.0014	P	9.4	6.5
4	☐	10.000	9.409	1280.09	0.0025	P	9.6	-5.9
5	☐	100.000	100.767	13700.39	0.0269	P	4.9	0.8
6	☐	200.000	199.642	26863.42	0.0533	P	2.8	-0.2

y = 2.6678E-004 * x + 1.9740E-005
R = 1.0000
DL = 0.2211 ppb
BEC = 0.07399 ppb

Weight: <None>
Min Conc: <None>

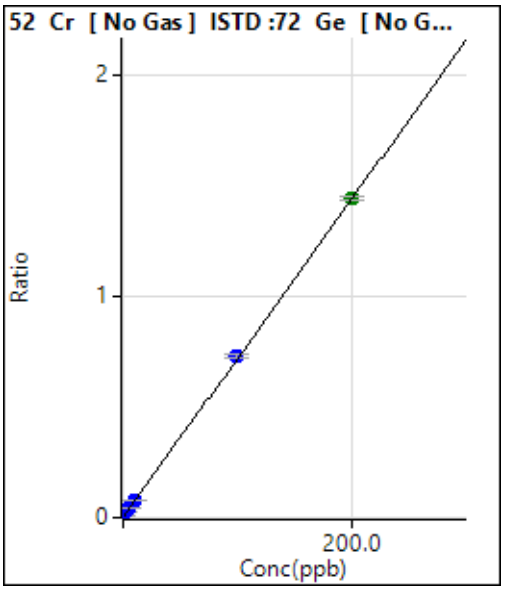


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	2430.23	0.0048	P	3.5	
2	☐	2.000	2.031	9391.03	0.0184	P	2.1	1.6
3	☐	5.000	4.885	18957.62	0.0374	P	2.5	-2.3
4	☐	10.000	9.933	35949.27	0.0710	P	0.6	-0.7
5	☐	100.000	99.588	340589.51	0.6687	P	0.9	-0.4
6	☐	200.000	200.212	675227.80	1.3394	P	1.0	0.1

y = 0.0067 * x + 0.0048
R = 1.0000
DL = 0.07567 ppb
BEC = 0.7246 ppb

Weight: <None>
Min Conc: <None>

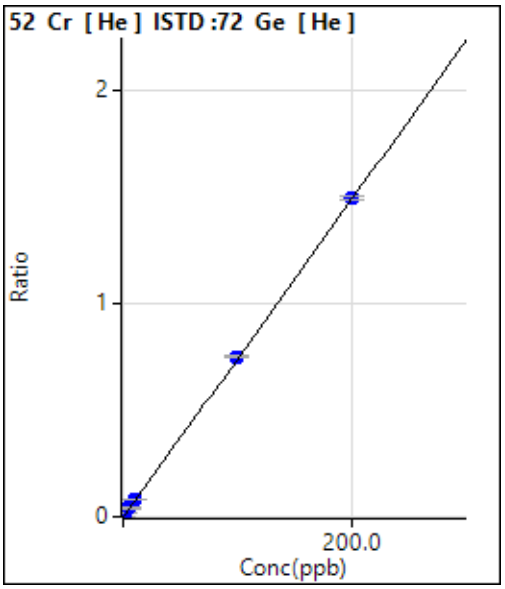
Calibration for 019_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	12552.63	0.0093	P	2.0	
2	☐	2.000	2.062	32579.22	0.0241	P	3.5	3.1
3	☐	5.000	4.811	58374.54	0.0438	P	0.9	-3.8
4	☐	10.000	10.115	108619.23	0.0819	P	1.1	1.2
5	☐	100.000	100.872	969396.60	0.7328	P	2.4	0.9
6	☐	200.000	199.562	1893367.73	1.4407	A	1.4	-0.2

y = 0.0072 * x + 0.0093
R = 1.0000
DL = 0.07667 ppb
BEC = 1.299 ppb

Weight: <None>
Min Conc: <None>

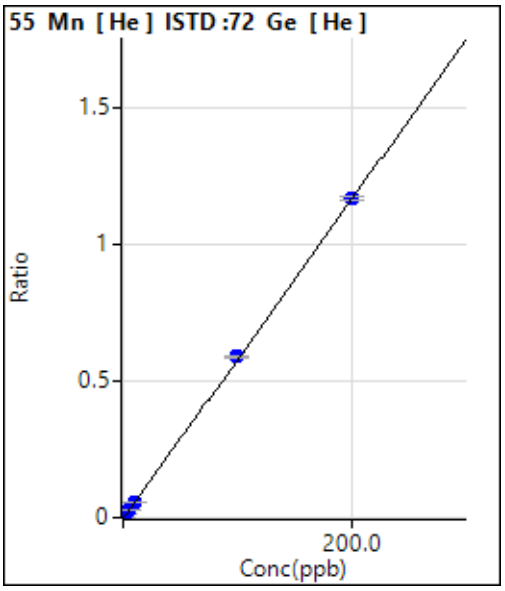


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	2046.86	0.0041	P	7.3	
2	☐	2.000	1.982	9650.25	0.0189	P	1.6	-0.9
3	☐	5.000	4.932	20742.71	0.0409	P	1.7	-1.4
4	☐	10.000	10.111	40286.17	0.0796	P	1.1	1.1
5	☐	100.000	100.072	382903.76	0.7518	P	0.9	0.1
6	☐	200.000	199.960	755225.48	1.4981	P	0.6	0.0

y = 0.0075 * x + 0.0041
R = 1.0000
DL = 0.1197 ppb
BEC = 0.5446 ppb

Weight: <None>
Min Conc: <None>

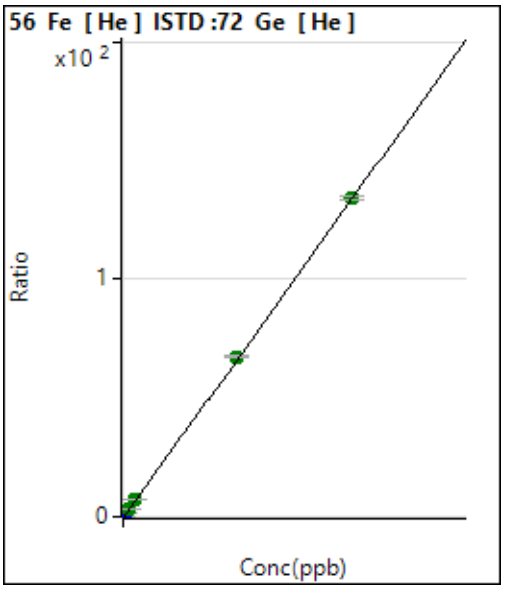
Calibration for 019_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	386.68	0.0008	P	20.8	
2	☐	2.000	2.146	6805.16	0.0133	P	6.1	7.3
3	☐	5.000	5.081	15442.34	0.0305	P	5.1	1.6
4	☐	10.000	9.973	29886.40	0.0591	P	2.3	-0.3
5	☐	100.000	100.561	299792.83	0.5886	P	0.8	0.6
6	☐	200.000	199.717	588910.94	1.1682	P	0.7	-0.1

y = 0.0058 * x + 7.6957E-004
R = 1.0000
DL = 0.08196 ppb
BEC = 0.1317 ppb

Weight: <None>
Min Conc: <None>

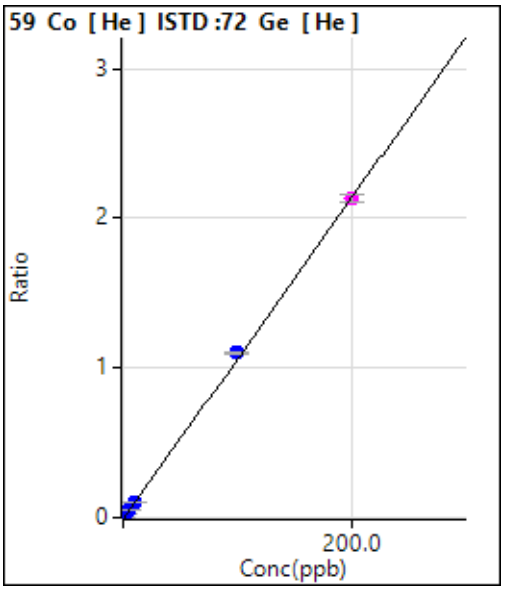


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	23173.30	0.0461	P	0.6	
2	☐	200.000	221.121	783381.50	1.5323	P	0.5	10.6
3	☐	500.000	527.093	1819521.95	3.5889	A	1.0	5.4
4	☐	1000.000	1029.517	3524658.70	6.9660	A	1.9	3.0
5	☐	10000.00	10017.98	34321280.3	67.3824	A	0.8	0.2
6	☐	20000.00	19988.64	67754672.3	134.400	A	1.1	-0.1

y = 0.0067 * x + 0.0461
R = 1.0000
DL = 0.1135 ppb
BEC = 6.852 ppb

Weight: <None>
Min Conc: <None>

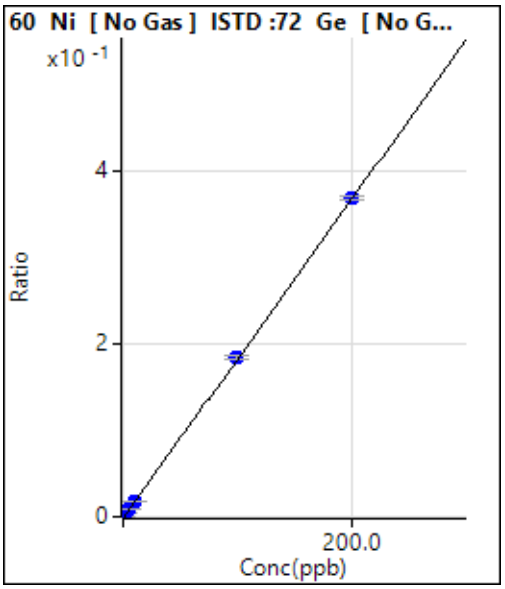
Calibration for 019_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	63.33	0.0001	P	32.4	
2	☐	2.000	2.115	11678.55	0.0228	P	3.6	5.7
3	☐	5.000	5.108	27878.83	0.0550	P	1.4	2.2
4	☐	10.000	10.104	54978.02	0.1086	P	0.1	1.0
5	☐	100.000	102.595	561311.49	1.1021	P	1.4	2.6
6	☐	200.000	198.694	1076189.38	2.1342	M	2.7	-0.7

y = 0.0107 * x + 1.2569E-004
R = 0.9999
DL = 0.01139 ppb
BEC = 0.0117 ppb

Weight: <None>
Min Conc: <None>

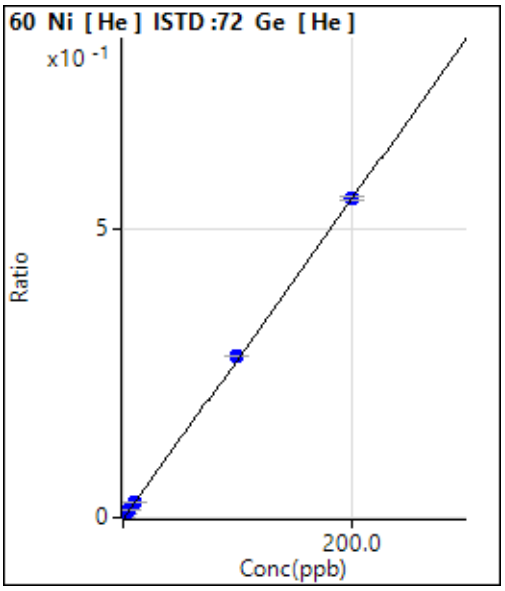


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	240.01	0.0002	P	6.1	
2	☐	2.000	2.031	5317.79	0.0039	P	3.5	1.5
3	☐	5.000	4.818	12105.57	0.0091	P	6.0	-3.6
4	☐	10.000	9.871	24465.64	0.0184	P	1.0	-1.3
5	☐	100.000	100.347	245792.80	0.1858	P	2.5	0.3
6	☐	200.000	199.837	486049.50	0.3698	P	1.3	-0.1

y = 0.0018 * x + 1.7804E-004
R = 1.0000
DL = 0.01762 ppb
BEC = 0.09625 ppb

Weight: <None>
Min Conc: <None>

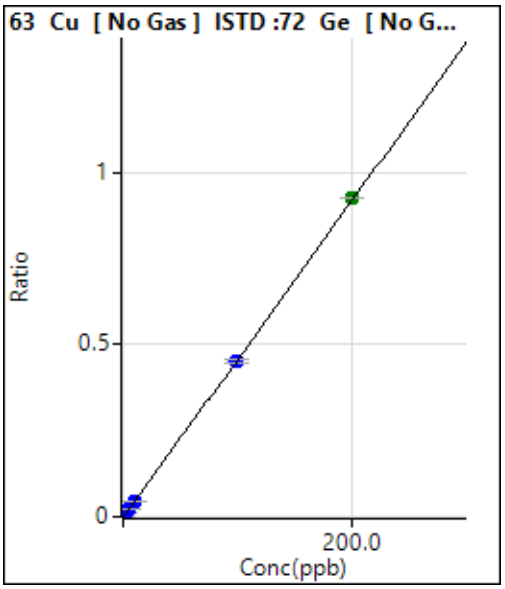
Calibration for 019_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	96.67	0.0002	P	16.8	
2	☐	2.000	2.155	3143.75	0.0062	P	7.1	7.8
3	☐	5.000	5.166	7338.77	0.0145	P	4.5	3.3
4	☐	10.000	9.902	13950.71	0.0276	P	0.7	-1.0
5	☐	100.000	100.886	142177.87	0.2791	P	0.6	0.9
6	☐	200.000	199.556	278239.97	0.5519	P	1.1	-0.2

y = 0.0028 * x + 1.9234E-004
R = 1.0000
DL = 0.03499 ppb
BEC = 0.06957 ppb

Weight: <None>
Min Conc: <None>

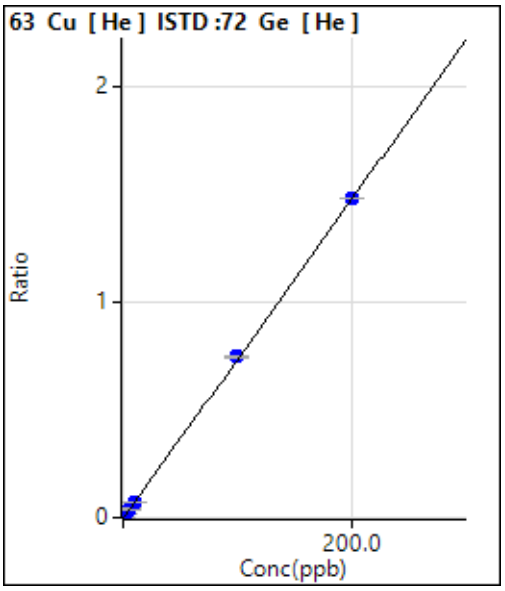


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	2620.30	0.0019	P	5.4	
2	☐	2.000	2.151	16006.39	0.0118	P	0.9	7.6
3	☐	5.000	4.837	32211.84	0.0242	P	2.8	-3.3
4	☐	10.000	9.683	61660.37	0.0465	P	1.8	-3.2
5	☐	100.000	98.164	599755.42	0.4534	P	2.5	-1.8
6	☐	200.000	200.937	1217164.67	0.9260	A	0.6	0.5

y = 0.0046 * x + 0.0019
R = 0.9999
DL = 0.06842 ppb
BEC = 0.4231 ppb

Weight: <None>
Min Conc: <None>

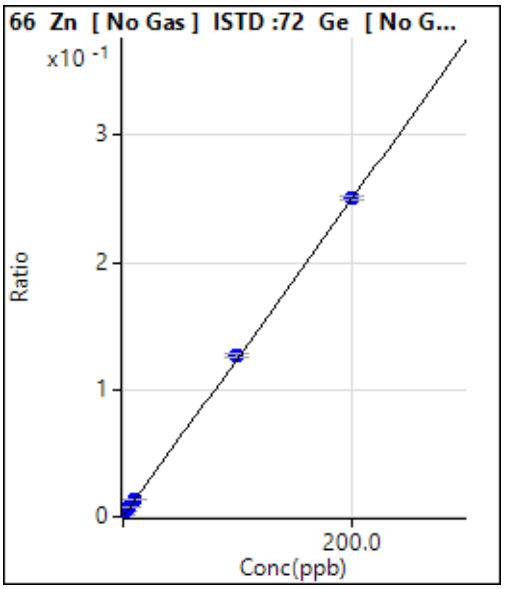
Calibration for 019_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	1530.11	0.0030	P	15.1	
2	☐	2.000	2.218	9943.81	0.0194	P	1.3	10.9
3	☐	5.000	4.879	19841.47	0.0391	P	5.2	-2.4
4	☐	10.000	9.755	38053.67	0.0752	P	1.2	-2.4
5	☐	100.000	100.621	380628.81	0.7473	P	1.3	0.6
6	☐	200.000	199.702	746230.43	1.4802	P	0.2	-0.1

y = 0.0074 * x + 0.0030
R = 1.0000
DL = 0.1864 ppb
BEC = 0.4116 ppb

Weight: <None>
Min Conc: <None>

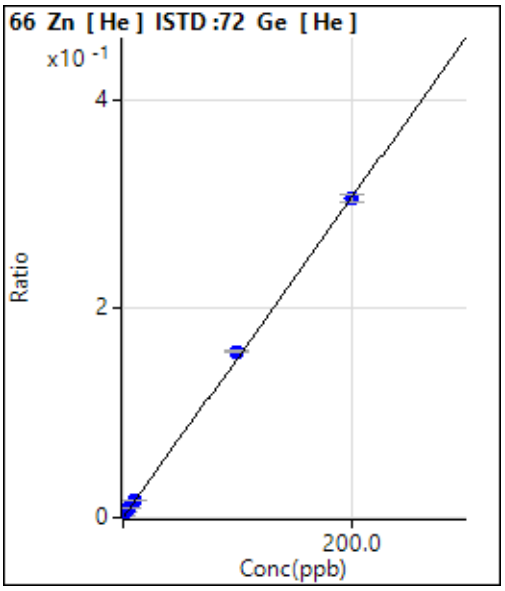


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	1673.47	0.0012	P	4.0	
2	☐	2.000	2.635	6124.87	0.0045	P	2.5	31.7
3	☐	5.000	5.358	10560.95	0.0079	P	2.9	7.2
4	☐	10.000	9.728	17758.56	0.0134	P	4.0	-2.7
5	☐	100.000	100.357	167340.06	0.1265	P	3.0	0.4
6	☐	200.000	199.820	329448.44	0.2507	P	0.8	-0.1

y = 0.0012 * x + 0.0012
R = 1.0000
DL = 0.1196 ppb
BEC = 0.9948 ppb

Weight: <None>
Min Conc: <None>

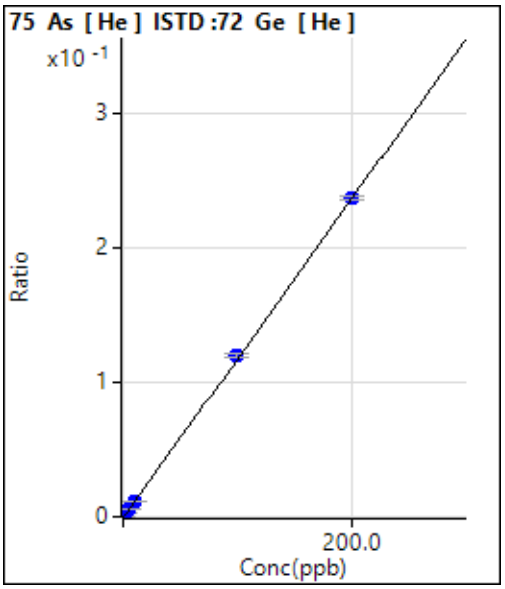
Calibration for 019_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	753.36	0.0015	P	20.6	
2	☐	2.000	2.907	3040.39	0.0059	P	4.9	45.3
3	☐	5.000	5.431	4974.33	0.0098	P	5.1	8.6
4	☐	10.000	10.196	8659.58	0.0171	P	4.0	2.0
5	☐	100.000	102.786	80934.13	0.1589	P	1.6	2.8
6	☐	200.000	198.577	154047.58	0.3056	P	2.0	-0.7

y = 0.0015 * x + 0.0015
R = 0.9999
DL = 0.603 ppb
BEC = 0.9769 ppb

Weight: <None>
Min Conc: <None>

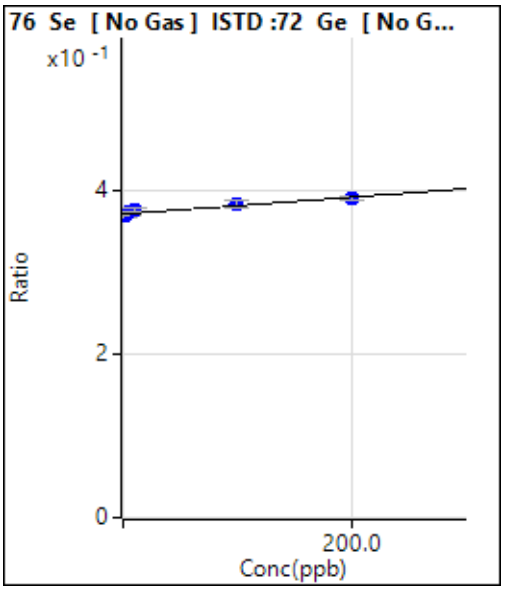


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	135.56	0.0003	P	14.6	
2	☐	2.000	2.168	1454.53	0.0028	P	0.3	8.4
3	☐	5.000	4.915	3097.04	0.0061	P	5.4	-1.7
4	☐	10.000	9.854	6060.27	0.0120	P	1.6	-1.5
5	☐	100.000	100.875	61180.07	0.1201	P	2.0	0.9
6	☐	200.000	199.570	119665.51	0.2374	P	1.3	-0.2

y = 0.0012 * x + 2.6946E-004
R = 1.0000
DL = 0.09919 ppb
BEC = 0.2268 ppb

Weight: <None>
Min Conc: <None>

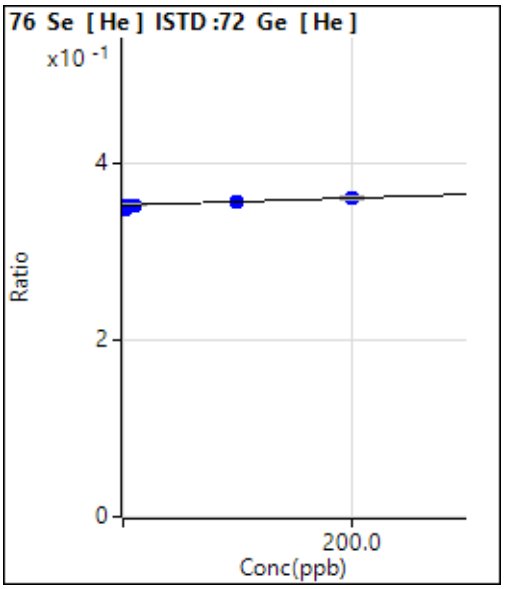
Calibration for 019_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	498864.16	0.3703	P	1.3	
2	☐	2.000	-9.219	499244.45	0.3693	P	1.6	-561.0
3	☐	5.000	31.939	497523.63	0.3736	P	2.4	538.8
4	☐	10.000	56.911	499087.15	0.3762	P	1.4	469.1
5	☐	100.000	122.857	506626.49	0.3830	P	2.4	22.9
6	☐	200.000	185.665	511875.65	0.3895	P	0.7	-7.2

y = 1.0343E-004 * x + 0.3703
R = 0.9554
DL = 140.6 ppb
BEC = 3580 ppb

Weight: <None>
Min Conc: <None>

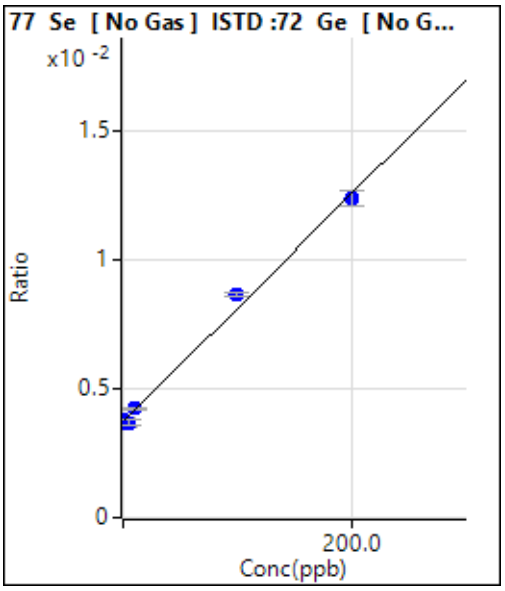


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	176999.69	0.3518	P	0.9	
2	☐	2.000	-91.861	177905.39	0.3480	P	0.4	-4693.0
3	☐	5.000	11.284	178584.32	0.3523	P	0.8	125.7
4	☐	10.000	0.566	178033.06	0.3518	P	0.6	-94.3
5	☐	100.000	102.971	181368.92	0.3561	P	0.4	3.0
6	☐	200.000	199.768	181524.07	0.3601	P	1.6	-0.1

y = 4.1506E-005 * x + 0.3518
R = 0.9315
DL = 217.1 ppb
BEC = 8476 ppb

Weight: <None>
Min Conc: <None>

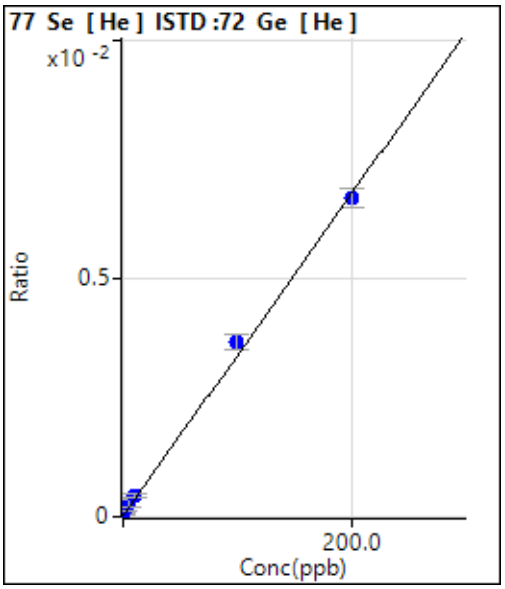
Calibration for 019_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	5147.74	0.0038	P	1.6	
2	☐	2.000	-3.573	4951.00	0.0037	P	7.2	-278.6
3	☐	5.000	-2.784	4927.64	0.0037	P	5.5	-155.7
4	☐	10.000	9.381	5617.94	0.0042	P	2.2	-6.2
5	☐	100.000	110.616	11505.10	0.0087	P	1.6	10.6
6	☐	200.000	194.973	16310.12	0.0124	P	4.3	-2.5

y = 4.4070E-005 * x + 0.0038
R = 0.9969
DL = 4.252 ppb
BEC = 86.7 ppb

Weight: <None>
Min Conc: <None>

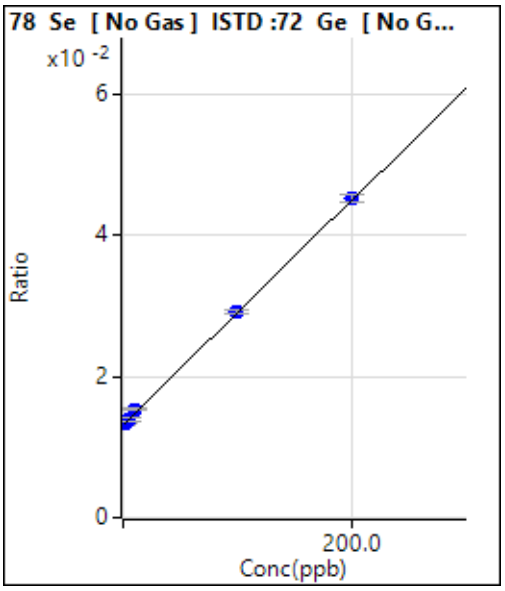


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	26.67	0.0001	P	43.4	
2	☐	2.000	3.057	80.00	0.0002	P	32.9	52.8
3	☐	5.000	6.974	146.67	0.0003	P	51.1	39.5
4	☐	10.000	11.274	220.01	0.0004	P	15.9	12.7
5	☐	100.000	107.186	1873.50	0.0037	P	8.9	7.2
6	☐	200.000	196.284	3373.82	0.0067	P	6.2	-1.9

y = 3.3839E-005 * x + 5.3015E-005
R = 0.9991
DL = 2.04 ppb
BEC = 1.567 ppb

Weight: <None>
Min Conc: <None>

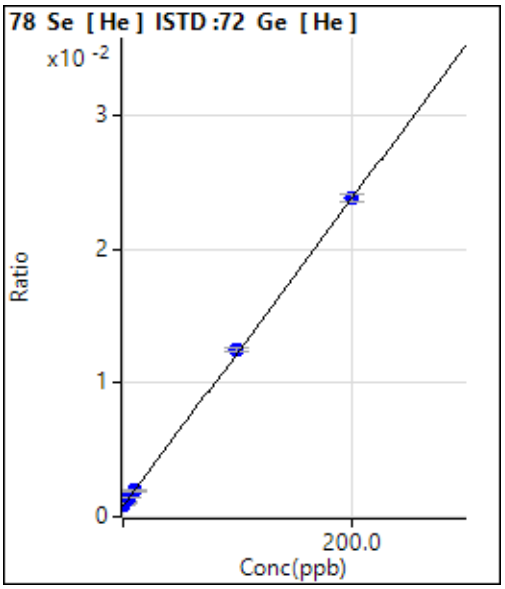
Calibration for 019_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	18172.48	0.0135	P	4.2	
2	☐	2.000	-0.165	18202.56	0.0135	P	2.3	-108.3
3	☐	5.000	3.068	18613.17	0.0140	P	3.9	-38.6
4	☐	10.000	11.468	20315.63	0.0153	P	1.6	14.7
5	☐	100.000	99.087	38635.60	0.0292	P	2.2	-0.9
6	☐	200.000	200.453	59504.80	0.0453	P	1.9	0.2

y = 1.5857E-004 * x + 0.0135
R = 0.9999
DL = 10.81 ppb
BEC = 85.09 ppb

Weight: <None>
Min Conc: <None>

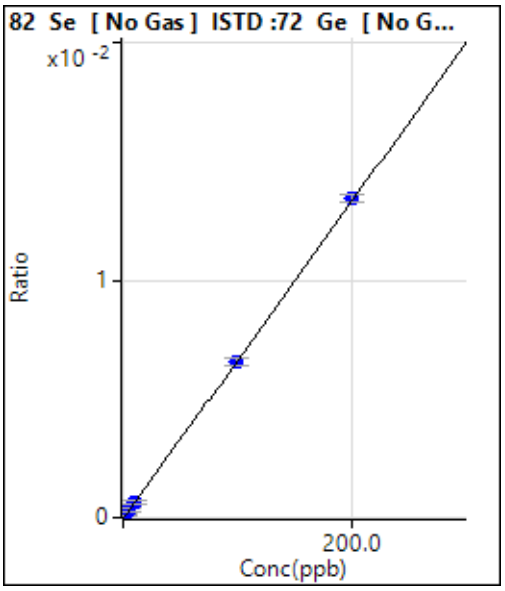


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	463.34	0.0009	P	5.5	
2	☐	2.000	1.514	560.01	0.0011	P	4.1	-24.3
3	☐	5.000	4.677	740.02	0.0015	P	4.8	-6.5
4	☐	10.000	8.950	987.37	0.0020	P	2.7	-10.5
5	☐	100.000	101.199	6403.54	0.0126	P	2.2	1.2
6	☐	200.000	199.466	12038.06	0.0239	P	1.9	-0.3

y = 1.1511E-004 * x + 9.2116E-004
R = 1.0000
DL = 1.316 ppb
BEC = 8.003 ppb

Weight: <None>
Min Conc: <None>

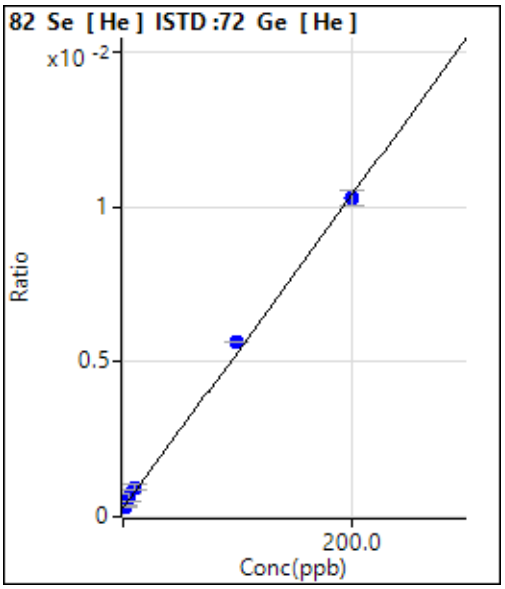
Calibration for 019_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	22.37	0.0000	P	654.	
2	☐	2.000	1.228	132.63	0.0001	P	73.7	-38.6
3	☐	5.000	4.840	449.38	0.0003	P	35.3	-3.2
4	☐	10.000	9.419	856.15	0.0006	P	21.1	-5.8
5	☐	100.000	98.007	8682.83	0.0066	P	3.9	-2.0
6	☐	200.000	201.037	17671.97	0.0134	P	2.5	0.5

y = 6.6815E-005 * x + 1.5742E-005
R = 0.9999
DL = 4.623 ppb
BEC = 0.2356 ppb

Weight: <None>
Min Conc: <None>

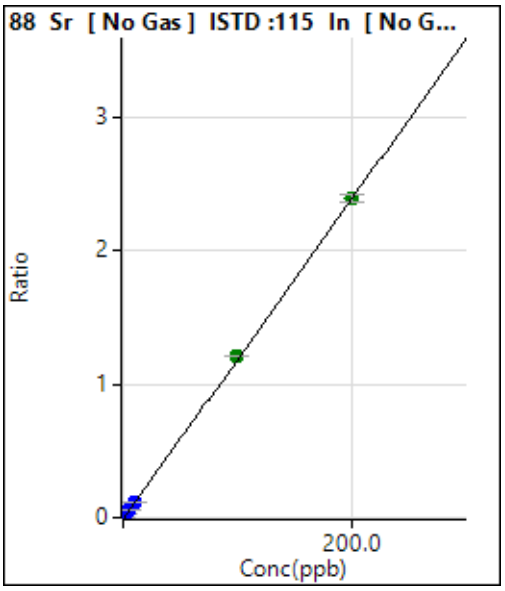


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	166.67	0.0003	P	21.6	
2	☐	2.000	0.155	173.33	0.0003	P	19.1	-92.3
3	☐	5.000	5.409	306.68	0.0006	P	37.8	8.2
4	☐	10.000	12.202	480.02	0.0009	P	16.5	22.0
5	☐	100.000	105.272	2880.36	0.0057	P	0.6	5.3
6	☐	200.000	197.262	5194.42	0.0103	P	4.4	-1.4

y = 5.0568E-005 * x + 3.3144E-004
R = 0.9994
DL = 4.238 ppb
BEC = 6.554 ppb

Weight: <None>
Min Conc: <None>

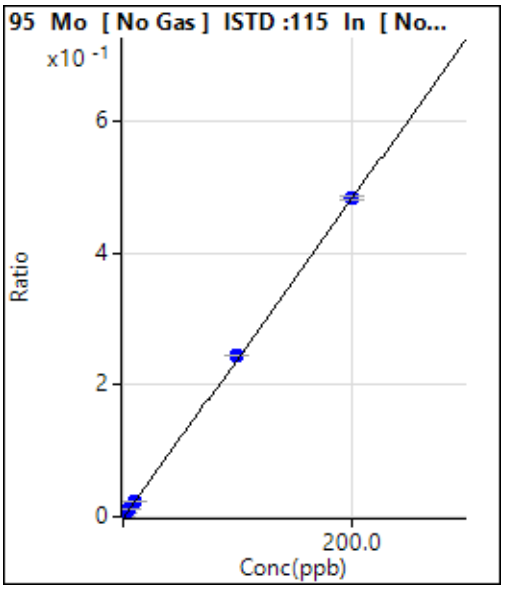
Calibration for 019_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	370.01	0.0003	P	10.3	
2	☐	2.000	2.036	28287.01	0.0247	P	1.1	1.8
3	☐	5.000	4.799	66344.93	0.0579	P	1.1	-4.0
4	☐	10.000	9.708	132876.70	0.1168	P	0.6	-2.9
5	☐	100.000	100.958	1372928.36	1.2114	A	1.1	1.0
6	☐	200.000	199.540	2708755.17	2.3939	A	2.5	-0.2

y = 0.0120 * x + 3.2664E-004
R = 1.0000
DL = 0.008434 ppb
BEC = 0.02723 ppb

Weight: <None>
Min Conc: <None>

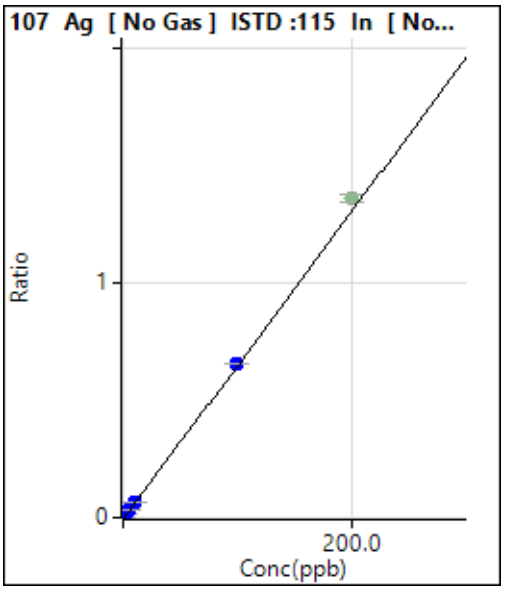


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	36.67	0.0000	P	69.1	
2	☐	2.000	2.044	5697.99	0.0050	P	4.5	2.2
3	☐	5.000	4.763	13270.14	0.0116	P	3.0	-4.7
4	☐	10.000	9.852	27208.18	0.0239	P	1.3	-1.5
5	☐	100.000	100.585	276340.74	0.2438	P	0.1	0.6
6	☐	200.000	199.720	547849.20	0.4841	P	1.3	-0.1

y = 0.0024 * x + 3.2451E-005
R = 1.0000
DL = 0.02775 ppb
BEC = 0.01339 ppb

Weight: <None>
Min Conc: <None>

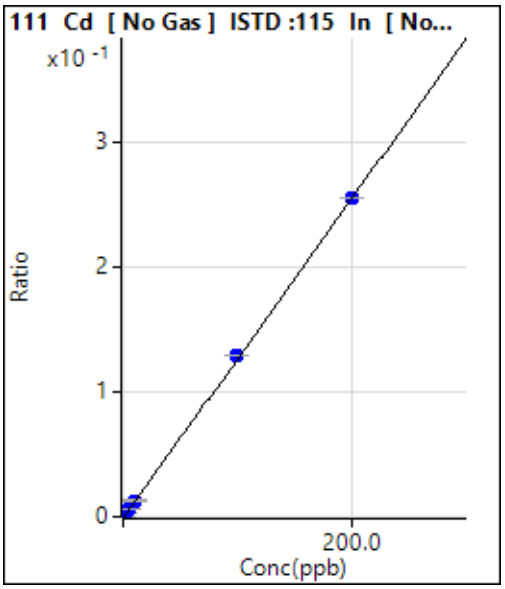
Calibration for 019_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	240.01	0.0002	P	26.4	
2	☐	2.000	2.005	15235.74	0.0133	P	2.6	0.3
3	☐	5.000	4.899	36968.82	0.0323	P	2.3	-2.0
4	☐	10.000	9.775	73001.98	0.0642	P	1.0	-2.3
5	☐	100.000	100.027	741818.82	0.6546	P	0.4	0.0
6	☑	200.000		1537311.64	1.3584	A	2.3	

y = 0.0065 * x + 2.1210E-004
R = 1.0000
DL = 0.02569 ppb
BEC = 0.03242 ppb

Weight: <None>
Min Conc: <None>

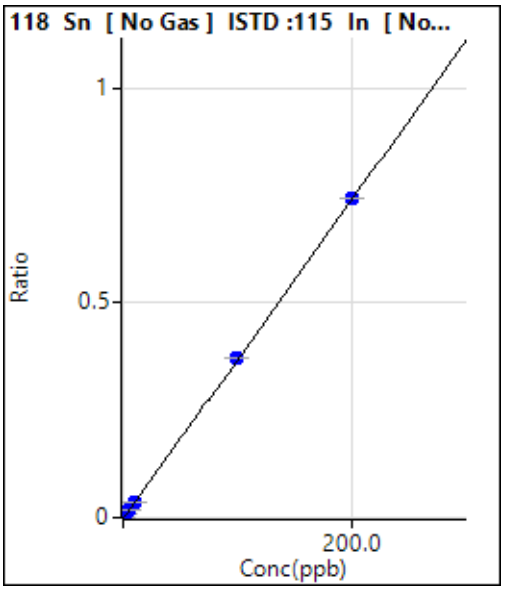


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	3.33	0.0000	P	173.	
2	☐	2.000	2.041	2993.73	0.0026	P	4.3	2.1
3	☐	5.000	4.872	7158.75	0.0062	P	1.9	-2.6
4	☐	10.000	10.088	14715.10	0.0129	P	3.6	0.9
5	☐	100.000	100.972	146656.78	0.1294	P	0.4	1.0
6	☐	200.000	199.513	289375.89	0.2557	P	0.6	-0.2

y = 0.0013 * x + 2.9290E-006
R = 1.0000
DL = 0.01188 ppb
BEC = 0.002285 ppb

Weight: <None>
Min Conc: <None>

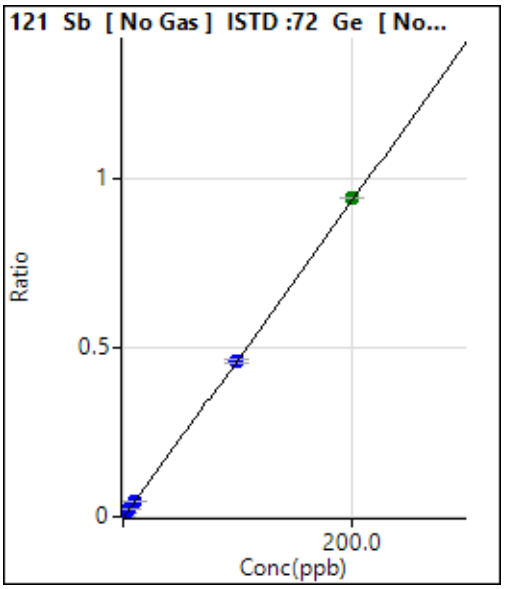
Calibration for 019_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	800.04	0.0007	P	8.2	
2	☐	2.000	1.978	9206.72	0.0081	P	5.0	-1.1
3	☐	5.000	4.823	21341.00	0.0186	P	1.7	-3.5
4	☐	10.000	9.829	42348.82	0.0372	P	2.6	-1.7
5	☐	100.000	99.911	421376.02	0.3718	P	0.7	-0.1
6	☐	200.000	200.058	841801.94	0.7438	P	0.5	0.0

y = 0.0037 * x + 7.0632E-004
R = 1.0000
DL = 0.04704 ppb
BEC = 0.1902 ppb

Weight: <None>
Min Conc: <None>

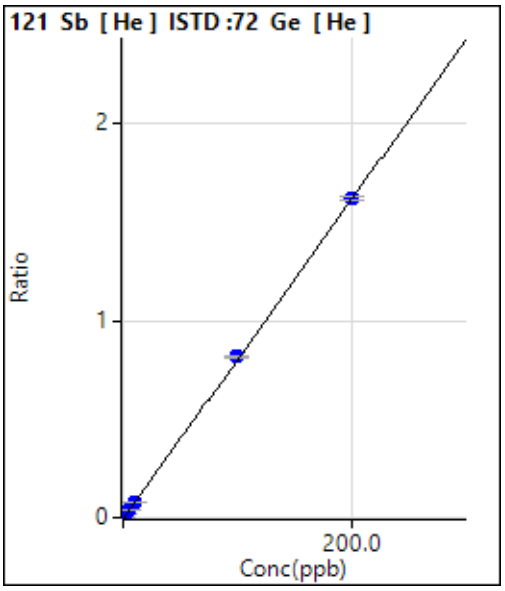


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	360.01	0.0003	P	34.2	
2	☐	2.000	2.016	13116.82	0.0097	P	2.8	0.8
3	☐	5.000	4.779	30158.48	0.0226	P	2.4	-4.4
4	☐	10.000	9.573	59803.39	0.0451	P	4.0	-4.3
5	☐	100.000	97.737	605591.85	0.4578	P	2.5	-2.3
6	☐	200.000	201.158	1237981.78	0.9419	A	0.5	0.6

y = 0.0047 * x + 2.6754E-004
R = 0.9999
DL = 0.05863 ppb
BEC = 0.05715 ppb

Weight: <None>
Min Conc: <None>

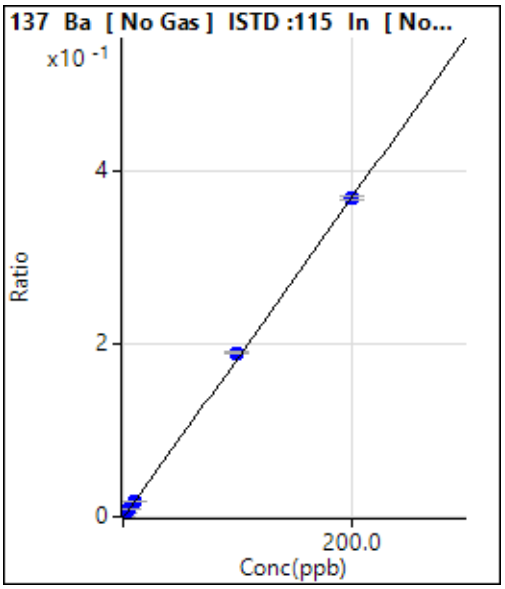
Calibration for 019_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	216.67	0.0004	P	13.1	
2	☐	2.000	1.988	8472.89	0.0166	P	3.1	-0.6
3	☐	5.000	4.958	20626.56	0.0407	P	3.0	-0.8
4	☐	10.000	10.051	41516.17	0.0821	P	2.2	0.5
5	☐	100.000	100.553	416132.53	0.8170	P	1.1	0.6
6	☐	200.000	199.722	817838.92	1.6223	P	1.1	-0.1

y = 0.0081 * x + 4.3025E-004
R = 1.0000
DL = 0.02075 ppb
BEC = 0.05298 ppb

Weight: <None>
Min Conc: <None>

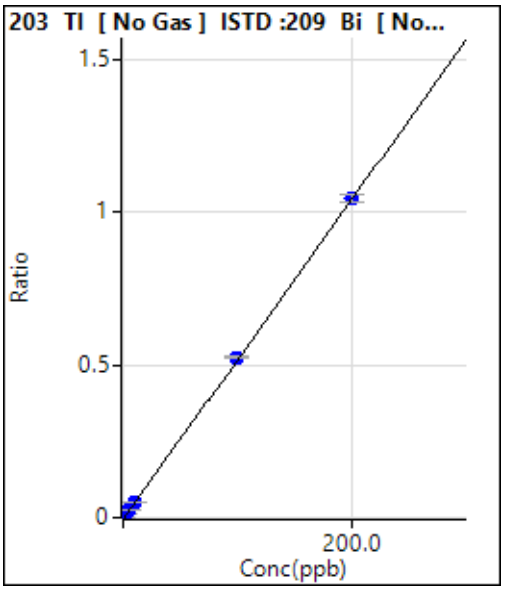


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	226.68	0.0002	P	17.4	
2	☐	2.000	2.073	4620.91	0.0040	P	1.8	3.7
3	☐	5.000	4.907	10654.58	0.0093	P	2.0	-1.9
4	☐	10.000	9.660	20603.38	0.0181	P	2.1	-3.4
5	☐	100.000	102.225	214940.52	0.1897	P	1.2	2.2
6	☐	200.000	198.906	417401.04	0.3689	P	1.5	-0.5

y = 0.0019 * x + 2.0033E-004
R = 0.9999
DL = 0.05652 ppb
BEC = 0.1081 ppb

Weight: <None>
Min Conc: <None>

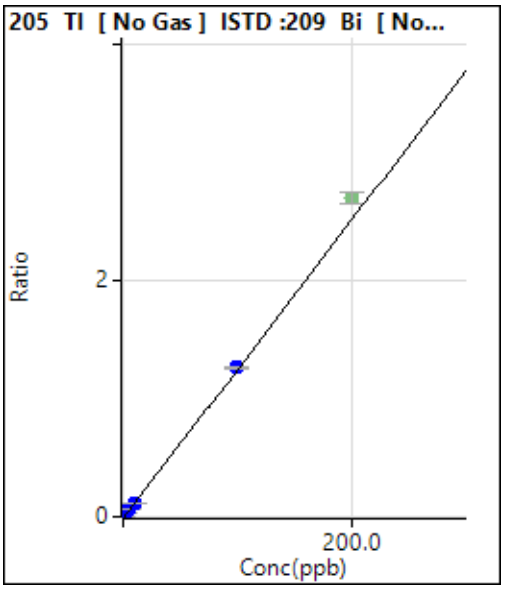
Calibration for 019_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	26.67	0.0000	P	22.0	
2	☐	2.000	1.939	9430.41	0.0102	P	1.2	-3.1
3	☐	5.000	4.656	22694.36	0.0243	P	3.1	-6.9
4	☐	10.000	9.564	46413.41	0.0500	P	0.6	-4.4
5	☐	100.000	100.314	483680.19	0.5240	P	1.4	0.3
6	☐	200.000	199.874	954064.60	1.0440	P	2.7	-0.1

y = 0.0052 * x + 2.8904E-005
R = 1.0000
DL = 0.003649 ppb
BEC = 0.005534 ppb

Weight: <None>
Min Conc: <None>

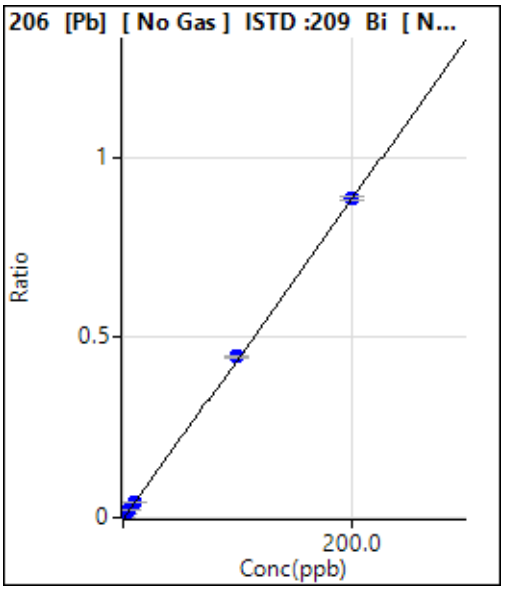


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	40.00	0.0000	P	65.7	
2	☐	2.000	1.984	23285.39	0.0251	P	0.8	-0.8
3	☐	5.000	4.621	54385.89	0.0583	P	1.1	-7.6
4	☐	10.000	9.516	111524.03	0.1201	P	0.3	-4.8
5	☐	100.000	100.068	1165429.62	1.2626	P	0.9	0.1
6	☑	200.000		2464196.48	2.6967	A	3.2	

y = 0.0126 * x + 4.3260E-005
R = 1.0000
DL = 0.006762 ppb
BEC = 0.003429 ppb

Weight: <None>
Min Conc: <None>

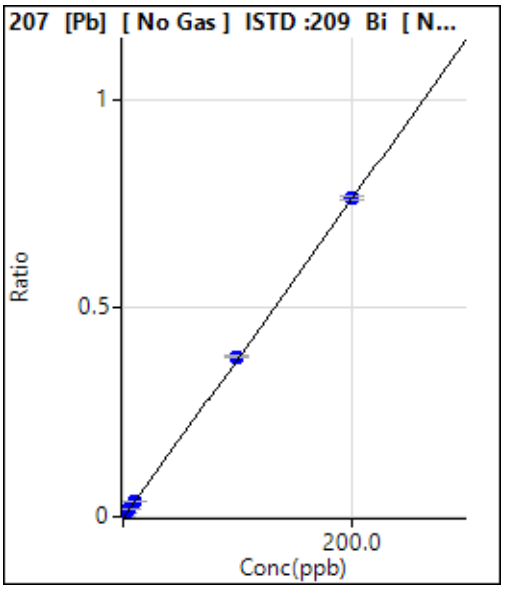
Calibration for 019_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	120.00	0.0001	P	25.1	
2	☐	2.000	2.053	8576.47	0.0092	P	3.1	2.6
3	☐	5.000	4.956	20617.43	0.0221	P	2.3	-0.9
4	☐	10.000	9.857	40723.72	0.0439	P	0.6	-1.4
5	☐	100.000	100.501	411637.27	0.4460	P	1.2	0.5
6	☐	200.000	199.757	809994.21	0.8863	P	1.5	-0.1

y = 0.0044 * x + 1.3000E-004
R = 1.0000
DL = 0.02203 ppb
BEC = 0.0293 ppb

Weight: <None>
Min Conc: <None>

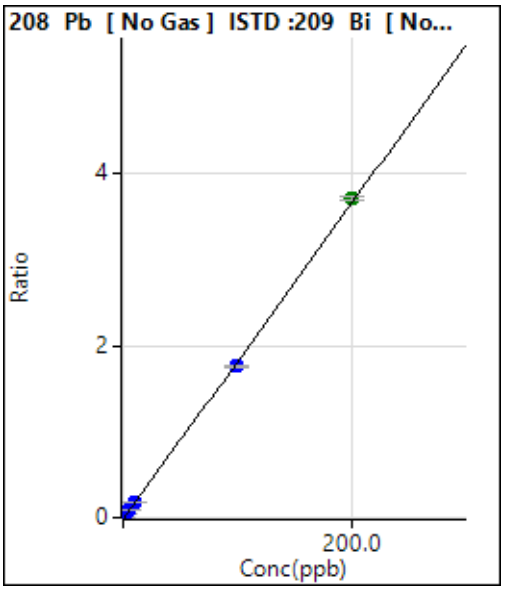


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	100.00	0.0001	P	9.7	
2	☐	2.000	1.945	7005.43	0.0075	P	3.5	-2.8
3	☐	5.000	4.915	17619.34	0.0189	P	2.9	-1.7
4	☐	10.000	9.654	34384.77	0.0370	P	2.8	-3.5
5	☐	100.000	100.203	353810.04	0.3833	P	0.8	0.2
6	☐	200.000	199.918	698869.83	0.7646	P	1.6	0.0

y = 0.0038 * x + 1.0831E-004
R = 1.0000
DL = 0.008206 ppb
BEC = 0.02832 ppb

Weight: <None>
Min Conc: <None>

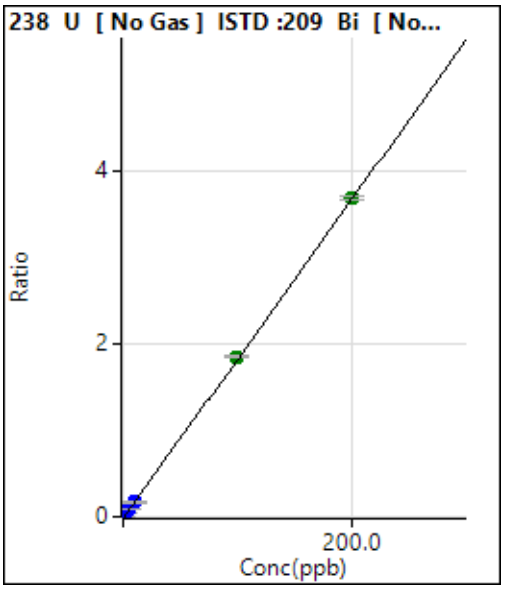
Calibration for 019_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	400.01	0.0004	P	13.1	
2	☐	2.000	1.961	33889.02	0.0365	P	1.2	-1.9
3	☐	5.000	4.707	81081.23	0.0870	P	1.0	-5.9
4	☐	10.000	9.258	158498.38	0.1707	P	1.4	-7.4
5	☐	100.000	95.848	1627348.73	1.7630	P	1.0	-4.2
6	☐	200.000	202.121	3397506.36	3.7173	A	0.7	1.1

y = 0.0184 * x + 4.3328E-004
R = 0.9997
DL = 0.009281 ppb
BEC = 0.02356 ppb

Weight: <None>
Min Conc: <None>

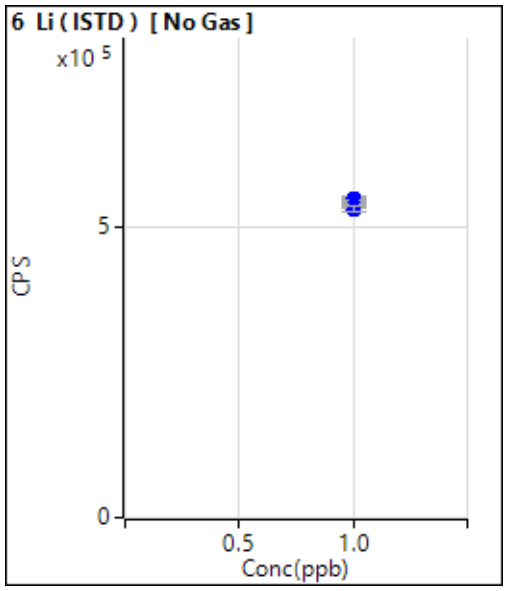


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	16.67	0.0000	P	69.5	
2	☐	2.000	1.884	32343.29	0.0348	P	2.5	-5.8
3	☐	5.000	4.430	76328.56	0.0819	P	0.1	-11.4
4	☐	10.000	9.070	155682.21	0.1677	P	1.6	-9.3
5	☐	100.000	100.115	1707878.20	1.8503	A	1.3	0.1
6	☐	200.000	200.005	3378897.66	3.6965	A	1.4	0.0

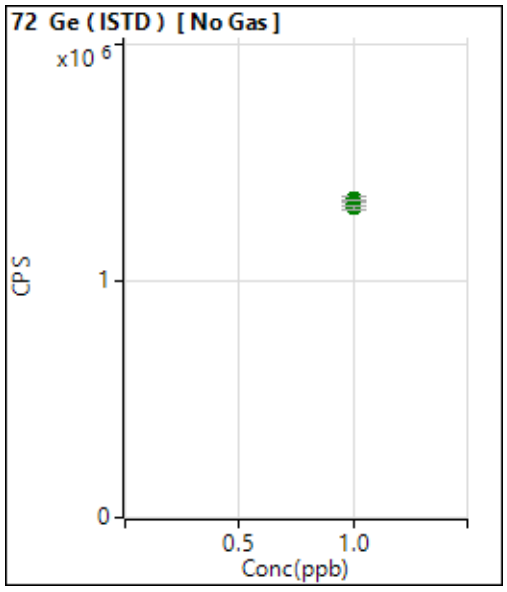
y = 0.0185 * x + 1.8071E-005
R = 1.0000
DL = 0.002038 ppb
BEC = 0.0009778 ppb

Weight: <None>
Min Conc: <None>

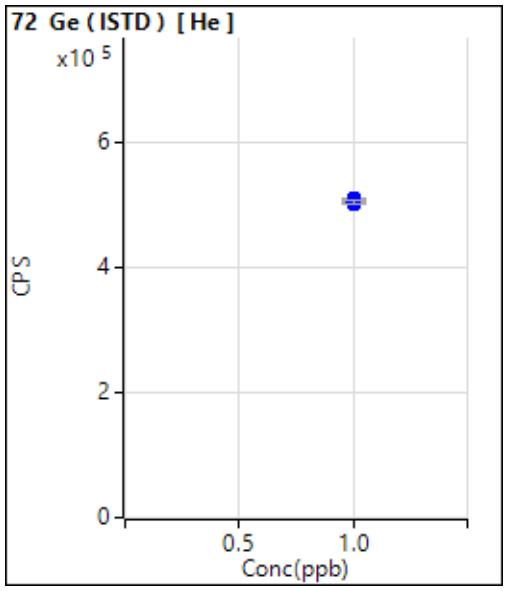
Calibration for 019_ICV.d



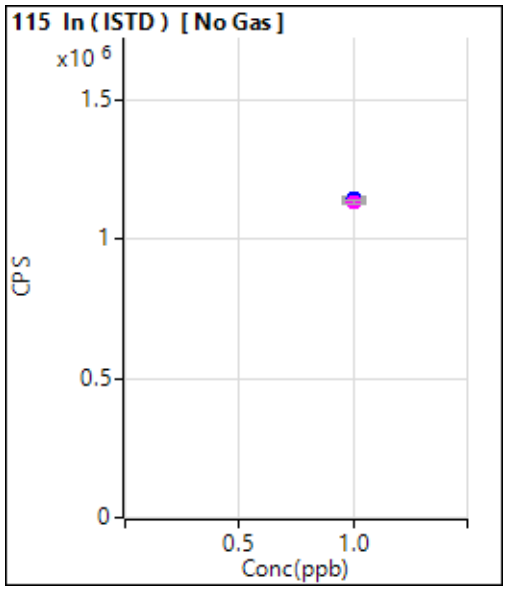
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	1.000		547647.74		P	0.7	
2	☐	1.000		550899.29		P	0.3	
3	☐	1.000		550867.94		P	0.7	
4	☐	1.000		547989.96		P	0.4	
5	☐	1.000		536527.93		P	1.2	
6	☐	1.000		532389.48		P	1.8	



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	1.000		1347492.79		A	1.8	
2	☐	1.000		1351994.51		A	1.6	
3	☐	1.000		1332261.70		A	2.3	
4	☐	1.000		1326901.80		A	0.9	
5	☐	1.000		1323377.77		A	2.5	
6	☐	1.000		1314337.95		A	1.2	

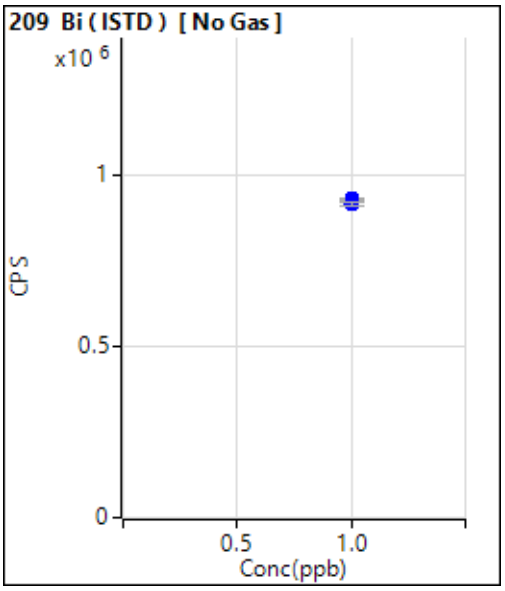


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	1.000		503154.39		P	1.0	
2	☐	1.000		511246.20		P	0.5	
3	☐	1.000		506967.77		P	0.7	
4	☐	1.000		506035.35		P	0.9	
5	☐	1.000		509385.16		P	1.3	
6	☐	1.000		504153.28		P	1.1	



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	1.000		1132392.01		P	0.7	
2	☐	1.000		1142937.34		P	0.4	
3	☐	1.000		1146084.05		P	1.2	
4	☐	1.000		1137911.71		P	0.5	
5	☐	1.000		1133308.89		P	0.9	
6	☐	1.000		1131770.30		M	1.6	

Calibration for 019_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	1.000		923104.13		P	0.4	
2	☐	1.000		928558.29		P	0.5	
3	☐	1.000		932153.21		P	0.6	
4	☐	1.000		928591.13		P	0.5	
5	☐	1.000		923040.17		P	0.4	
6	☐	1.000		914027.98		P	1.2	

Calibration Blank Report

Sample Table

Sample Name	CAL BLK
Data File Name	011CALB.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\012423D.b
Acq Date Time	2023-01-24T14:06:19-06:00
Sample Type	CalBlk
Level	1
Dilution	1
Comment	

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	7	1	No Gas	31104	0.00
Be	9	1	No Gas	8	831.38
V	51	2	He	2430	0.16
Cr	52	2	He	2047	0.34
Fe	56	2	He	23173	0.01
Se	78	2	He	463	1.00
As	75	2	He	136	10.63
Ca	44	2	He	1010	0.77
Na	23	2	He	101027	0.00
Mg	24	2	He	327	3.01
K	39	2	He	113414	0.00
Mn	55	2	He	387	5.11
Co	59	2	He	63	51.90
Ni	60	2	He	97	16.35
Cu	63	2	He	1530	0.92
Zn	66	2	He	753	2.83
Al	27	2	He	697	0.24
B	11	1	No Gas	5141	0.09
Al	27	1	No Gas	18893	0.02
Si	28	1	No Gas	252885	0.00
Ag	107	1	No Gas	240	10.84
Cd	111	1	No Gas	3	5196.15
Sr	88	1	No Gas	370	2.92
Mo	95	1	No Gas	37	187.19
Sn	118	1	No Gas	800	1.09
Sb	121	1	No Gas	360	9.26
Ba	137	1	No Gas	227	7.37
Tl	205	1	No Gas	40	165.36
Tl	203	1	No Gas	27	81.19
Pb	208	1	No Gas	400	3.31
U	238	1	No Gas	17	415.69
Ca	43	2	He	63	100.76
Sb	121	2	He	217	6.51
Ti	47	2	He	10	1000.00
Cu	63	1	No Gas	2620	0.14

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD

Calibration Blank Report

Li	6	1	No Gas	547648	0.71
Ge	72	2	He	503154	1.03
Ge	72	1	No Gas	1347493	1.78
In	115	1	No Gas	1132392	0.68

Calibration Blank Report

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Bi	209	1	No Gas	923104	0.39

Calibration Standard Report

Sample Table

Sample Name	2/10/200
Data File Name	012CALS.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\012423D.b
Acq Date Time	2023-01-24T14:08:13-06:00
Sample Type	CalStd
Level	2
Dilution	1
Comment	
ISTD Ref File Name	011CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	3560	0.19
V	51	2	He	9391	0.02
Cr	52	2	He	9650	0.01
Fe	56	2	He	783382	0.00
Se	78	2	He	560	0.68
As	75	2	He	1455	0.05
Ca	44	2	He	6252	0.07
Na	23	2	He	237865	0.00
Mg	24	2	He	83023	0.00
K	39	2	He	215785	0.00
Mn	55	2	He	6805	0.09
Co	59	2	He	11679	0.04
Ni	60	2	He	3144	0.21
Cu	63	2	He	9944	0.02
Zn	66	2	He	3040	0.16
Al	27	2	He	1173	0.98
B	11	1	No Gas	13270	0.04
Al	27	1	No Gas	35726	0.01
Si	28	1	No Gas	288803	0.00
Ag	107	1	No Gas	15236	0.02
Cd	111	1	No Gas	2994	0.16
Sr	88	1	No Gas	28287	0.00
Mo	95	1	No Gas	5698	0.07
Sn	118	1	No Gas	9207	0.05
Sb	121	1	No Gas	13117	0.01
Ba	137	1	No Gas	4621	0.05
Tl	205	1	No Gas	23285	0.00
Tl	203	1	No Gas	9430	0.01
Pb	208	1	No Gas	33889	0.00
U	238	1	No Gas	32343	0.01
Ca	43	2	He	317	3.50
Sb	121	2	He	8473	0.04
Cu	63	1	No Gas	16006	0.01

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	550899	0.29	547648	100.59	70	120	
Ge	72	2	He	511246	0.51	503154	101.61	70	120	
Ge	72	1	No Gas	1351995	1.58	1347493	100.33	70	120	

Calibration Standard Report

In	115	1	No Gas	1142937	0.35	1132392	100.93	70	120	
Bi	209	1	No Gas	928558	0.49	923104	100.59	70	120	

Calibration Standard Report

Sample Table

Sample Name	5/25/500
Data File Name	013CALS.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\012423D.b
Acq Date Time	2023-01-24T14:10:07-06:00
Sample Type	CalStd
Level	3
Dilution	1
Comment	
ISTD Ref File Name	011CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	8839	0.02
V	51	2	He	18958	0.01
Cr	52	2	He	20743	0.01
Fe	56	2	He	1819522	0.00
Se	78	2	He	740	0.70
As	75	2	He	3097	0.17
Ca	44	2	He	12936	0.02
Na	23	2	He	423409	0.00
Mg	24	2	He	193071	0.00
K	39	2	He	355581	0.00
Mn	55	2	He	15442	0.03
Co	59	2	He	27879	0.00
Ni	60	2	He	7339	0.06
Cu	63	2	He	19841	0.03
Zn	66	2	He	4974	0.09
Al	27	2	He	1897	0.42
B	11	1	No Gas	25092	0.01
Al	27	1	No Gas	54203	0.00
Si	28	1	No Gas	332819	0.00
Ag	107	1	No Gas	36969	0.00
Cd	111	1	No Gas	7159	0.01
Sr	88	1	No Gas	66345	0.00
Mo	95	1	No Gas	13270	0.03
Sn	118	1	No Gas	21341	0.01
Sb	121	1	No Gas	30158	0.01
Ba	137	1	No Gas	10655	0.03
Tl	205	1	No Gas	54386	0.00
Tl	203	1	No Gas	22694	0.01
Pb	208	1	No Gas	81081	0.00
U	238	1	No Gas	76329	0.00
Ca	43	2	He	733	1.42
Sb	121	2	He	20627	0.01
Cu	63	1	No Gas	32212	0.00

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	550868	0.68	547648	100.59	70	120	
Ge	72	2	He	506968	0.69	503154	100.76	70	120	
Ge	72	1	No Gas	1332262	2.31	1347493	98.87	70	120	

Calibration Standard Report

In	115	1	No Gas	1146084	1.19	1132392	101.21	70	120	
Bi	209	1	No Gas	932153	0.59	923104	100.98	70	120	

Calibration Standard Report

Sample Table

Sample Name	10/50/100
Data File Name	014CALS.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\012423D.b
Acq Date Time	2023-01-24T14:12:01-06:00
Sample Type	CalStd
Level	4
Dilution	1
Comment	
ISTD Ref File Name	011CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	17998	0.00
V	51	2	He	35949	0.00
Cr	52	2	He	40286	0.00
Fe	56	2	He	3524659	0.00
Se	78	2	He	987	0.24
As	75	2	He	6060	0.01
Ca	44	2	He	25167	0.01
Na	23	2	He	750566	0.00
Mg	24	2	He	389928	0.00
K	39	2	He	604003	0.00
Mn	55	2	He	29886	0.01
Co	59	2	He	54978	0.00
Ni	60	2	He	13951	0.01
Cu	63	2	He	38054	0.00
Zn	66	2	He	8660	0.05
Al	27	2	He	2884	0.16
B	11	1	No Gas	45885	0.01
Al	27	1	No Gas	87270	0.00
Si	28	1	No Gas	416086	0.00
Ag	107	1	No Gas	73002	0.00
Cd	111	1	No Gas	14715	0.03
Sr	88	1	No Gas	132877	0.00
Mo	95	1	No Gas	27208	0.00
Sn	118	1	No Gas	42349	0.01
Sb	121	1	No Gas	59803	0.01
Ba	137	1	No Gas	20603	0.01
Tl	205	1	No Gas	111524	0.00
Tl	203	1	No Gas	46413	0.00
Pb	208	1	No Gas	158498	0.00
U	238	1	No Gas	155682	0.00
Ca	43	2	He	1460	0.87
Sb	121	2	He	41516	0.00
Cu	63	1	No Gas	61660	0.00

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	547990	0.36	547648	100.06	70	120	
Ge	72	2	He	506035	0.92	503154	100.57	70	120	
Ge	72	1	No Gas	1326902	0.93	1347493	98.47	70	120	

Calibration Standard Report

In	115	1	No Gas	1137912	0.47	1132392	100.49	70	120	
Bi	209	1	No Gas	928591	0.47	923104	100.59	70	120	

Calibration Standard Report

Sample Table

Sample Name	100/500/10K
Data File Name	015CALS.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\012423D.b
Acq Date Time	2023-01-24T14:13:55-06:00
Sample Type	CalStd
Level	5
Dilution	1
Comment	
ISTD Ref File Name	011CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	178764	0.00
V	51	2	He	340590	0.00
Cr	52	2	He	382904	0.00
Fe	56	2	He	34321280	0.00
Se	78	2	He	6404	0.05
As	75	2	He	61180	0.00
Ca	44	2	He	248931	0.00
Na	23	2	He	6325838	0.00
Mg	24	2	He	3814351	0.00
K	39	2	He	4829149	0.00
Mn	55	2	He	299793	0.00
Co	59	2	He	561311	0.00
Ni	60	2	He	142178	0.00
Cu	63	2	He	380629	0.00
Zn	66	2	He	80934	0.00
Al	27	2	He	25026	0.01
B	11	1	No Gas	416414	0.00
Al	27	1	No Gas	725365	0.00
Si	28	1	No Gas	1881129	0.00
Ag	107	1	No Gas	741819	0.00
Cd	111	1	No Gas	146657	0.00
Sr	88	1	No Gas	1372928	0.00
Mo	95	1	No Gas	276341	0.00
Sn	118	1	No Gas	421376	0.00
Sb	121	1	No Gas	605592	0.00
Ba	137	1	No Gas	214941	0.00
Tl	205	1	No Gas	1165430	0.00
Tl	203	1	No Gas	483680	0.00
Pb	208	1	No Gas	1627349	0.00
U	238	1	No Gas	1707878	0.00
Ca	43	2	He	14515	0.01
Sb	121	2	He	416133	0.00
Cu	63	1	No Gas	599755	0.00

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	536528	1.21	547648	97.97	70	120	
Ge	72	2	He	509385	1.31	503154	101.24	70	120	
Ge	72	1	No Gas	1323378	2.54	1347493	98.21	70	120	

Calibration Standard Report

In	115	1	No Gas	1133309	0.85	1132392	100.08	70	120	
Bi	209	1	No Gas	923040	0.37	923104	99.99	70	120	

Calibration Standard Report

Sample Table

Sample Name	200/1000/20K
Data File Name	016CALS.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\012423D.b
Acq Date Time	2023-01-24T14:15:47-06:00
Sample Type	CalStd
Level	6
Dilution	1
Comment	
ISTD Ref File Name	011CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	350337	0.00
V	51	2	He	675228	0.00
Cr	52	2	He	755225	0.00
Fe	56	2	He	67754672	0.00
Se	78	2	He	12038	0.01
As	75	2	He	119666	0.00
Ca	44	2	He	493068	0.00
Na	23	2	He	12387284	0.00
Mg	24	2	He	7473374	0.00
K	39	2	He	9423843	0.00
Mn	55	2	He	588911	0.00
Co	59	2	He	1076189	0.00
Ni	60	2	He	278240	0.00
Cu	63	2	He	746230	0.00
Zn	66	2	He	154048	0.00
Al	27	2	He	48157	0.00
B	11	1	No Gas	810066	0.00
Al	27	1	No Gas	1334208	0.00
Si	28	1	No Gas	3314843	0.00
Ag	107	1	No Gas	1537312	0.00
Cd	111	1	No Gas	289376	0.00
Sr	88	1	No Gas	2708755	0.00
Mo	95	1	No Gas	547849	0.00
Sn	118	1	No Gas	841802	0.00
Sb	121	1	No Gas	1237982	0.00
Ba	137	1	No Gas	417401	0.00
Tl	205	1	No Gas	2464196	0.00
Tl	203	1	No Gas	954065	0.00
Pb	208	1	No Gas	3397506	0.00
U	238	1	No Gas	3378898	0.00
Ca	43	2	He	28874	0.00
Sb	121	2	He	817839	0.00
Cu	63	1	No Gas	1217165	0.00

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	532389	1.82	547648	97.21	70	120	
Ge	72	2	He	504153	1.10	503154	100.20	70	120	
Ge	72	1	No Gas	1314338	1.15	1347493	97.54	70	120	

Calibration Standard Report

In	115	1	No Gas	1131770	1.61	1132392	99.95	70	120	
Bi	209	1	No Gas	914028	1.24	923104	99.02	70	120	

Initial Calibration Verification (ICV) Report

Sample Table

Sample Name	ICV
Data File Name	019_ICV.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\012423D.b
Acq Date Time	2023-01-24T14:21:23-06:00
Sample Type	ICV
Dilution	1
Comment	
ISTD Ref File Name	011CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	1	No Gas	100.849	4.311	776179	3.72	100	100.8	90	110	
Be	9	1	No Gas	98.090	0.472	178916	0.79	100	98.1	90	110	
V	51	2	He	96.875	0.688	343676	0.37	100	96.9	90	110	
Cr	52	2	He	96.893	0.866	384570	0.57	100	96.9	90	110	
Fe	56	2	He	9509.978	1.426	33790453	1.04	10000	95.1	90	110	
Se	78	2	He	96.840	1.741	6375	1.18	100	96.8	90	110	
As	75	2	He	101.723	0.361	63986	0.30	100	101.7	90	110	
Ca	44	2	He	9554.129	1.327	247227	1.21	10000	95.5	90	110	
Na	23	2	He	9465.967	0.858	6203411	0.38	10000	94.7	90	110	
Mg	24	2	He	9684.614	0.513	3800420	0.42	10000	96.8	90	110	
K	39	2	He	9584.775	2.179	4796950	1.85	10000	95.8	90	110	
Mn	55	2	He	97.248	1.406	300685	1.06	100	97.2	90	110	
Co	59	2	He	99.162	1.551	562675	1.08	100	99.2	90	110	
Ni	60	2	He	98.121	1.015	143411	0.54	100	98.1	90	110	
Cu	63	2	He	97.026	1.568	380712	1.16	100	97.0	90	110	
Zn	66	2	He	99.394	1.174	81199	1.27	100	99.4	90	110	
Al	27	2	He	98.535	0.952	25297	0.86	100	98.5	90	110	
B	11	1	No Gas	490.942	2.225	416774	2.65	500	98.2	90	110	
Al	27	1	No Gas	97.328	1.094	703851	0.46	100	97.3	90	110	
Si	28	1	No Gas	503.427	2.482	1907696	1.65	500	100.7	90	110	
Ag	107	1	No Gas	94.482	0.418	742323	1.09	100	94.5	90	110	
Cd	111	1	No Gas	98.914	0.706	147710	0.50	100	98.9	90	110	
Sr	88	1	No Gas	99.659	1.521	1393241	0.88	100	99.7	90	110	
Mo	95	1	No Gas	96.542	0.710	272701	1.15	100	96.5	90	110	
Sn	118	1	No Gas	99.423	0.464	431131	0.70	100	99.4	90	110	
Sb	121	1	No Gas	94.690	1.177	614654	0.96	100	94.7	90	110	
Ba	137	1	No Gas	99.880	0.301	215936	0.65	100	99.9	90	110	
Tl	205	1	No Gas	96.154	0.455	1214840	0.35	100	96.2	90	110	
Tl	203	1	No Gas	102.061	0.513	506125	1.06	100	102.1	90	110	
Pb	208	1	No Gas	93.210	0.517	1627653	0.84	100	93.2	90	110	
U	238	1	No Gas	98.414	2.102	1726736	2.18	100	98.4	90	110	
Ca	43	2	He	9756.498	4.415	14771	4.35	10000	97.6	90	110	
Sb	121	2	He	97.774	1.329	419653	0.94	100	97.8	90	110	
Ti	47	2	He	99.014	1.304	13964	1.04	100	99.0	90	110	
Cu	63	1	No Gas	94.684	1.619	606098	0.81	100	94.7	90	110	
Se	82	1	No Gas	97.034	0.922	9006	0.06	100	97.0	90	110	

QC ISTD Table

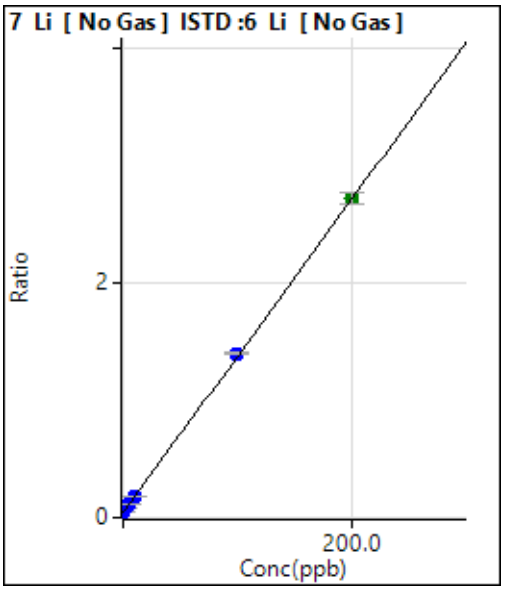
Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	552822	0.46	547648	100.94	70	120	
Ge	72	2	He	528262	0.47	503154	104.99	70	120	
Ge	72	1	No Gas	1385856	0.86	1347493	102.85	70	120	
In	115	1	No Gas	1165218	0.95	1132392	102.90	70	120	
Bi	209	1	No Gas	949345	0.65	923104	102.84	70	120	

Calibration for 019_ICV.d

Batch Folder: D:\Agilent\ICPMH\1\DATA\012423D.b\
Analysis File: 012423D.batch.bin
DA Date-Time: 01/24/2023 19:36:14
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	011CALB.d	CAL BLK	01/24/2023 14:06:19
2	012CALS.d	2/10/200	01/24/2023 14:08:13
3	013CALS.d	5/25/500	01/24/2023 14:10:07
4	014CALS.d	10/50/100	01/24/2023 14:12:01
5	015CALS.d	100/500/10K	01/24/2023 14:13:55
6	016CALS.d	200/1000/20K	01/24/2023 14:15:47

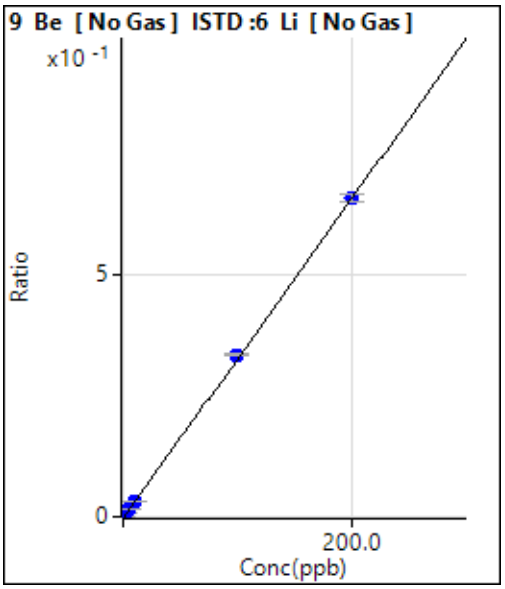
Calibration for 019_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	31104.43	0.0568	P	1.1	
2	☐	2.000	2.046	46344.58	0.0841	P	2.3	2.3
3	☐	5.000	4.830	66840.23	0.1213	P	1.2	-3.4
4	☐	10.000	9.774	102684.64	0.1874	P	0.2	-2.3
5	☐	100.000	100.745	752594.42	1.4028	P	0.8	0.7
6	☐	200.000	199.643	1449657.63	2.7241	A	3.9	-0.2

y = 0.0134 * x + 0.0568
R = 1.0000
DL = 0.1385 ppb
BEC = 4.251 ppb

Weight: <None>
Min Conc: <None>

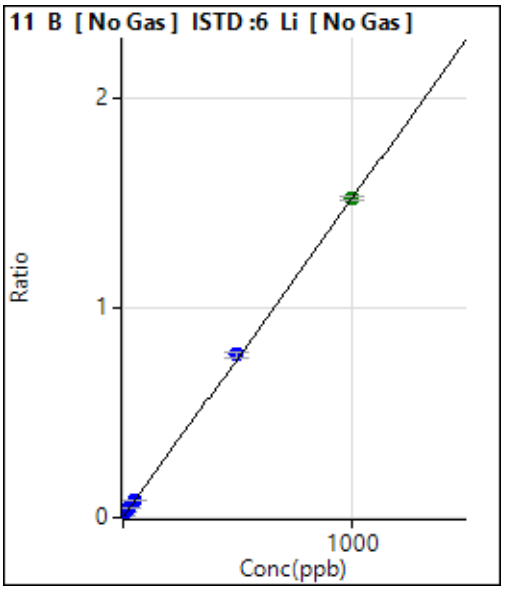


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	8.33	0.0000	P	68.9	
2	☐	2.000	1.954	3560.48	0.0065	P	6.5	-2.3
3	☐	5.000	4.860	8839.49	0.0160	P	2.0	-2.8
4	☐	10.000	9.950	17998.29	0.0328	P	0.7	-0.5
5	☐	100.000	100.994	178763.92	0.3332	P	1.2	1.0
6	☐	200.000	199.510	350337.32	0.6582	P	2.5	-0.2

y = 0.0033 * x + 1.5192E-005
R = 1.0000
DL = 0.009516 ppb
BEC = 0.004605 ppb

Weight: <None>
Min Conc: <None>

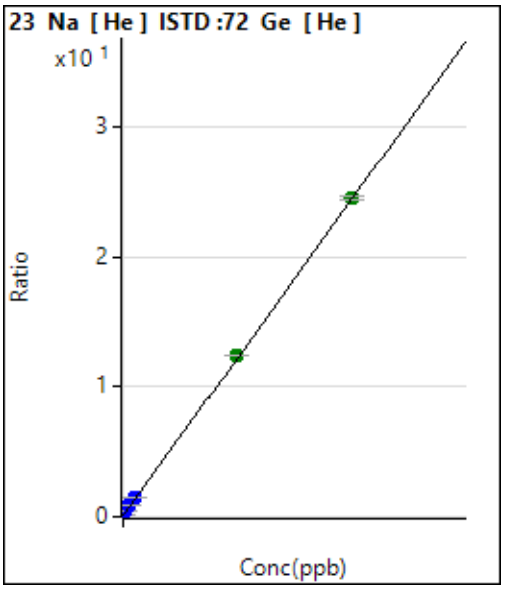
Calibration for 019_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	5140.98	0.0094	P	4.8	
2	☐	10.000	9.693	13269.70	0.0241	P	5.0	-3.1
3	☐	25.000	23.848	25092.48	0.0456	P	1.4	-4.6
4	☐	50.000	49.028	45885.01	0.0837	P	2.6	-1.9
5	☐	500.000	505.613	416414.24	0.7761	P	3.0	1.1
6	☐	1000.000	997.274	810065.72	1.5217	A	0.7	-0.3

y = 0.0015 * x + 0.0094
R = 1.0000
DL = 0.8907 ppb
BEC = 6.191 ppb

Weight: <None>
Min Conc: <None>

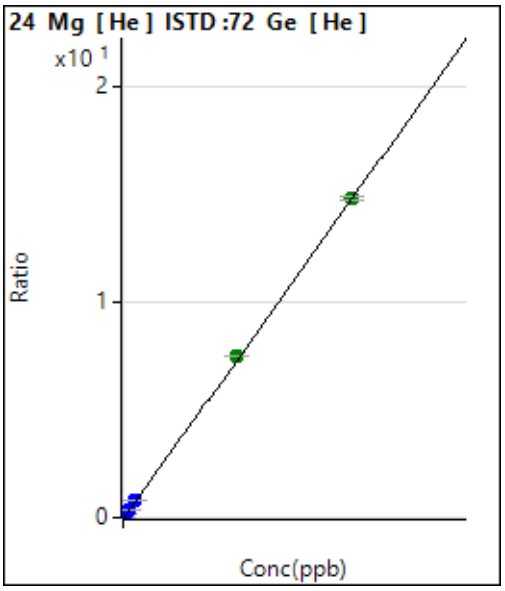


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	101027.18	0.2008	P	0.3	
2	☐	200.000	216.903	237864.85	0.4653	P	0.5	8.5
3	☐	500.000	520.274	423408.73	0.8352	P	0.4	4.1
4	☐	1000.000	1051.794	750565.64	1.4833	P	1.0	5.2
5	☐	10000.00	10020.17	6325838.45	12.4192	A	0.8	0.2
6	☐	20000.00	19986.64	12387284.4	24.5720	A	0.9	-0.1

y = 0.0012 * x + 0.2008
R = 1.0000
DL = 1.686 ppb
BEC = 164.7 ppb

Weight: <None>
Min Conc: <None>

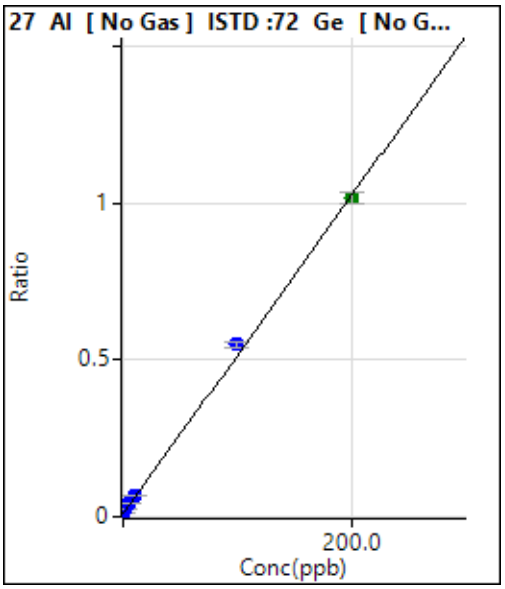
Calibration for 019_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	326.68	0.0006	P	9.6	
2	☐	200.000	217.755	83023.37	0.1624	P	0.5	8.9
3	☐	500.000	511.849	193071.45	0.3808	P	0.5	2.4
4	☐	1000.000	1036.521	389928.35	0.7706	P	1.0	3.7
5	☐	10000.00	10080.56	3814350.88	7.4884	A	0.5	0.8
6	☐	20000.00	19957.41	7473373.84	14.8248	A	1.1	-0.2

y = 7.4279E-004 * x + 6.4920E-004
R = 1.0000
DL = 0.2529 ppb
BEC = 0.874 ppb

Weight: <None>
Min Conc: <None>

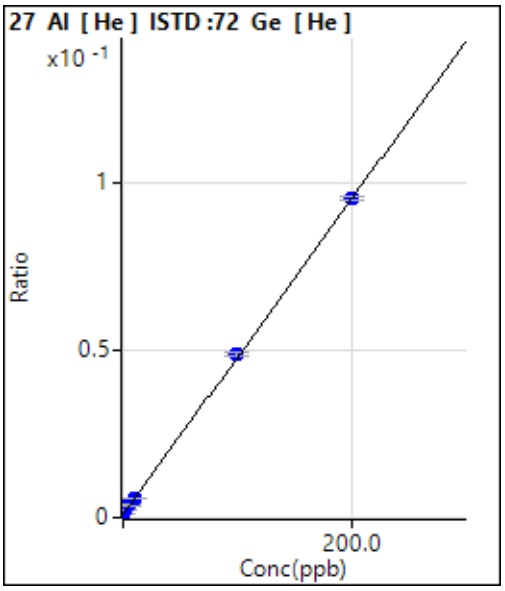


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	18893.14	0.0140	P	3.7	
2	☐	2.000	2.445	35726.35	0.0264	P	3.1	22.3
3	☐	5.000	5.257	54203.31	0.0407	P	2.5	5.1
4	☐	10.000	10.198	87270.42	0.0658	P	2.1	2.0
5	☐	100.000	105.292	725364.81	0.5483	P	2.6	5.3
6	☐	200.000	197.333	1334208.47	1.0154	A	3.5	-1.3

y = 0.0051 * x + 0.0140
R = 0.9995
DL = 0.3059 ppb
BEC = 2.764 ppb

Weight: <None>
Min Conc: <None>

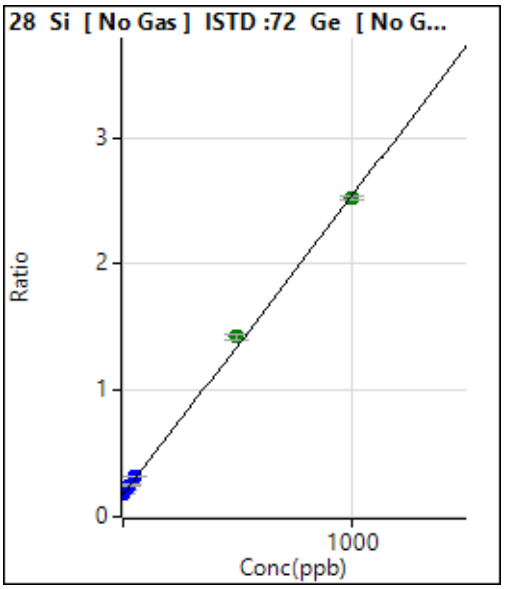
Calibration for 019_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	696.69	0.0014	P	2.0	
2	☐	2.000	1.930	1173.40	0.0023	P	11.6	-3.5
3	☐	5.000	4.994	1896.83	0.0037	P	8.0	-0.1
4	☐	10.000	9.140	2883.68	0.0057	P	4.5	-8.6
5	☐	100.000	101.167	25026.04	0.0491	P	2.4	1.2
6	☐	200.000	199.460	48156.97	0.0955	P	0.9	-0.3

y = 4.7194E-004 * x + 0.0014
R = 1.0000
DL = 0.1775 ppb
BEC = 2.934 ppb

Weight: <None>
Min Conc: <None>

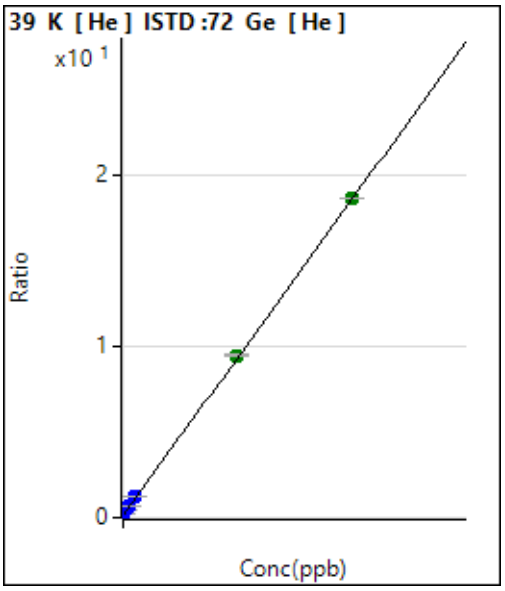


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	252884.69	0.1877	P	0.7	
2	☐	10.000	10.993	288803.26	0.2136	P	1.9	9.9
3	☐	25.000	26.339	332818.71	0.2499	P	2.3	5.4
4	☐	50.000	53.313	416085.50	0.3136	P	1.2	6.6
5	☐	500.000	522.670	1881129.09	1.4221	A	2.8	4.5
6	☐	1000.000	988.456	3314842.55	2.5222	A	1.7	-1.2

y = 0.0024 * x + 0.1877
R = 0.9996
DL = 1.628 ppb
BEC = 79.47 ppb

Weight: <None>
Min Conc: <None>

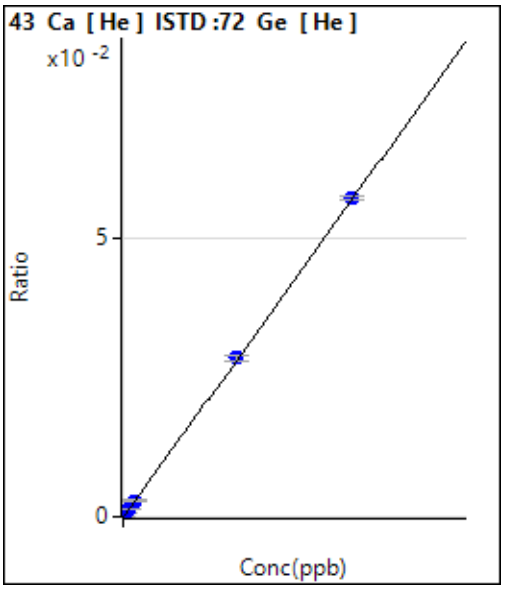
Calibration for 019_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	113414.31	0.2254	P	2.1	
2	☐	200.000	212.846	215784.80	0.4221	P	0.9	6.4
3	☐	500.000	515.152	355581.01	0.7014	P	0.3	3.0
4	☐	1000.000	1047.945	604002.63	1.1937	P	0.8	4.8
5	☐	10000.00	10017.69	4829149.31	9.4810	A	1.2	0.2
6	☐	20000.00	19988.25	9423842.57	18.6930	A	0.5	-0.1

y = 9.2392E-004 * x + 0.2254
R = 1.0000
DL = 15.02 ppb
BEC = 244 ppb

Weight: <None>
Min Conc: <None>

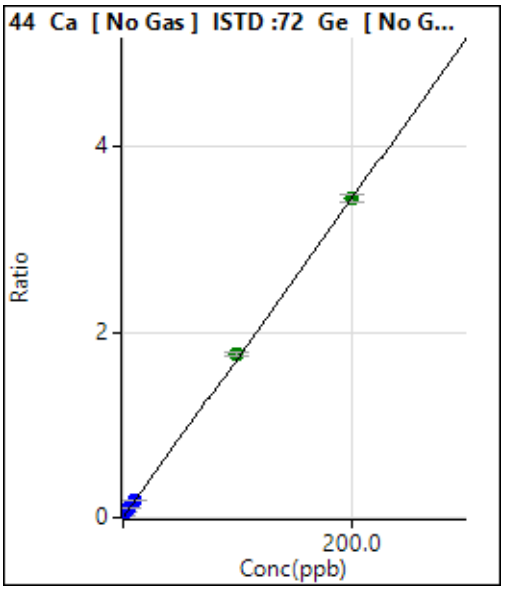


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	63.33	0.0001	P	64.7	
2	☐	200.000	172.748	316.68	0.0006	P	10.6	-13.6
3	☐	500.000	462.516	733.37	0.0014	P	9.8	-7.5
4	☐	1000.000	966.680	1460.11	0.0029	P	12.3	-3.3
5	☐	10000.00	9945.147	14514.66	0.0285	P	3.1	-0.5
6	☐	20000.00	20030.30	28873.84	0.0573	P	1.1	0.2

y = 2.8531E-006 * x + 1.2633E-004
R = 1.0000
DL = 86 ppb
BEC = 44.28 ppb

Weight: <None>
Min Conc: <None>

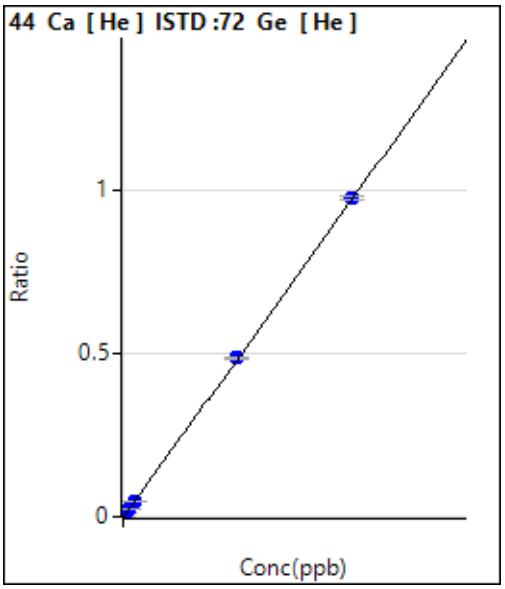
Calibration for 019_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	26672.93	0.0198	P	2.1	
2	☐	2.000	2.114	75875.20	0.0561	P	1.4	5.7
3	☐	5.000	5.017	141208.95	0.1060	P	2.4	0.3
4	☐	10.000	10.158	257908.17	0.1944	P	1.2	1.6
5	☐	100.000	101.605	2336336.16	1.7661	A	2.3	1.6
6	☐	200.000	199.188	4525142.74	3.4433	A	2.2	-0.4

y = 0.0172 * x + 0.0198
R = 1.0000
DL = 0.07133 ppb
BEC = 1.152 ppb

Weight: <None>
Min Conc: <None>

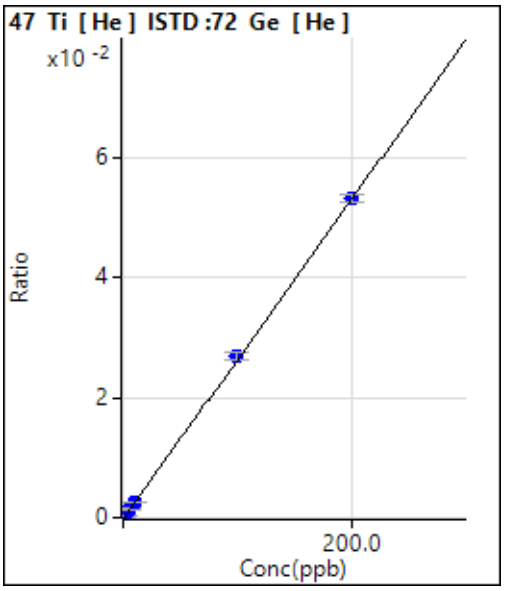


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	1010.06	0.0020	P	7.7	
2	☐	200.000	209.584	6251.54	0.0122	P	4.7	4.8
3	☐	500.000	482.069	12936.31	0.0255	P	3.5	-3.6
4	☐	1000.000	978.472	25166.59	0.0497	P	0.6	-2.2
5	☐	10000.00	9979.116	248931.21	0.4887	P	1.2	-0.2
6	☐	20000.00	20011.87	493067.73	0.9781	P	1.2	0.1

y = 4.8775E-005 * x + 0.0020
R = 1.0000
DL = 9.455 ppb
BEC = 41.16 ppb

Weight: <None>
Min Conc: <None>

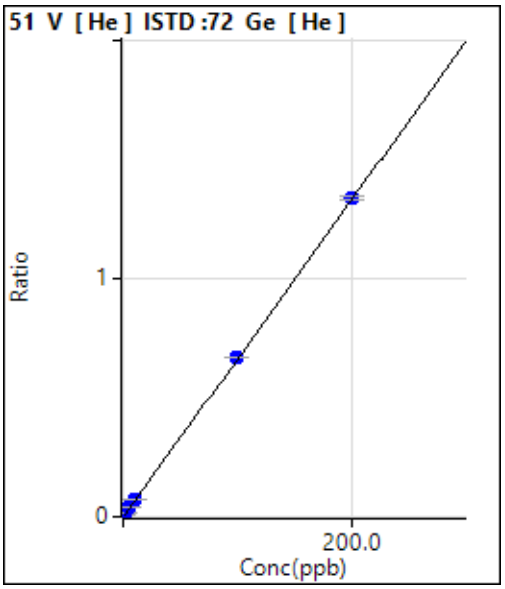
Calibration for 019_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	10.00	0.0000	P	99.6	
2	☐	2.000	1.661	236.68	0.0005	P	6.0	-17.0
3	☐	5.000	5.325	730.04	0.0014	P	9.4	6.5
4	☐	10.000	9.409	1280.09	0.0025	P	9.6	-5.9
5	☐	100.000	100.767	13700.39	0.0269	P	4.9	0.8
6	☐	200.000	199.642	26863.42	0.0533	P	2.8	-0.2

y = 2.6678E-004 * x + 1.9740E-005
R = 1.0000
DL = 0.2211 ppb
BEC = 0.07399 ppb

Weight: <None>
Min Conc: <None>

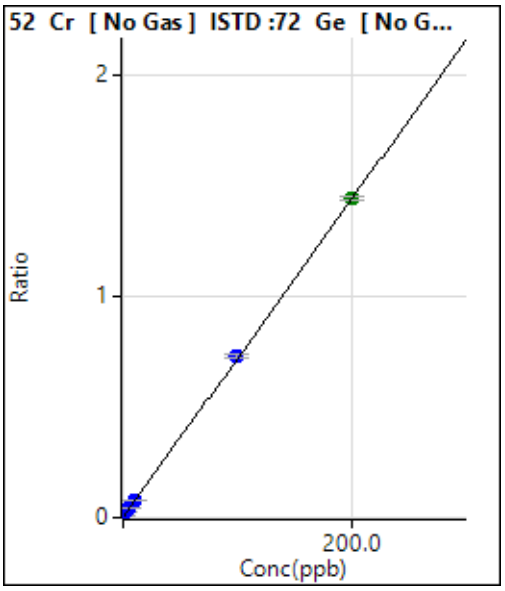


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	2430.23	0.0048	P	3.5	
2	☐	2.000	2.031	9391.03	0.0184	P	2.1	1.6
3	☐	5.000	4.885	18957.62	0.0374	P	2.5	-2.3
4	☐	10.000	9.933	35949.27	0.0710	P	0.6	-0.7
5	☐	100.000	99.588	340589.51	0.6687	P	0.9	-0.4
6	☐	200.000	200.212	675227.80	1.3394	P	1.0	0.1

y = 0.0067 * x + 0.0048
R = 1.0000
DL = 0.07567 ppb
BEC = 0.7246 ppb

Weight: <None>
Min Conc: <None>

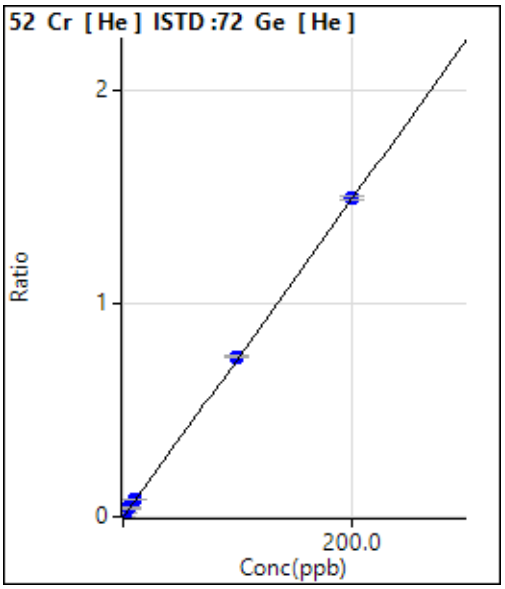
Calibration for 019_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	12552.63	0.0093	P	2.0	
2	☐	2.000	2.062	32579.22	0.0241	P	3.5	3.1
3	☐	5.000	4.811	58374.54	0.0438	P	0.9	-3.8
4	☐	10.000	10.115	108619.23	0.0819	P	1.1	1.2
5	☐	100.000	100.872	969396.60	0.7328	P	2.4	0.9
6	☐	200.000	199.562	1893367.73	1.4407	A	1.4	-0.2

y = 0.0072 * x + 0.0093
R = 1.0000
DL = 0.07667 ppb
BEC = 1.299 ppb

Weight: <None>
Min Conc: <None>

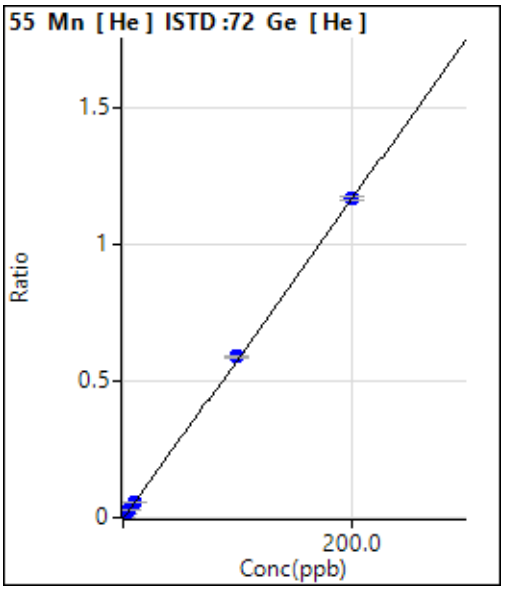


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	2046.86	0.0041	P	7.3	
2	☐	2.000	1.982	9650.25	0.0189	P	1.6	-0.9
3	☐	5.000	4.932	20742.71	0.0409	P	1.7	-1.4
4	☐	10.000	10.111	40286.17	0.0796	P	1.1	1.1
5	☐	100.000	100.072	382903.76	0.7518	P	0.9	0.1
6	☐	200.000	199.960	755225.48	1.4981	P	0.6	0.0

y = 0.0075 * x + 0.0041
R = 1.0000
DL = 0.1197 ppb
BEC = 0.5446 ppb

Weight: <None>
Min Conc: <None>

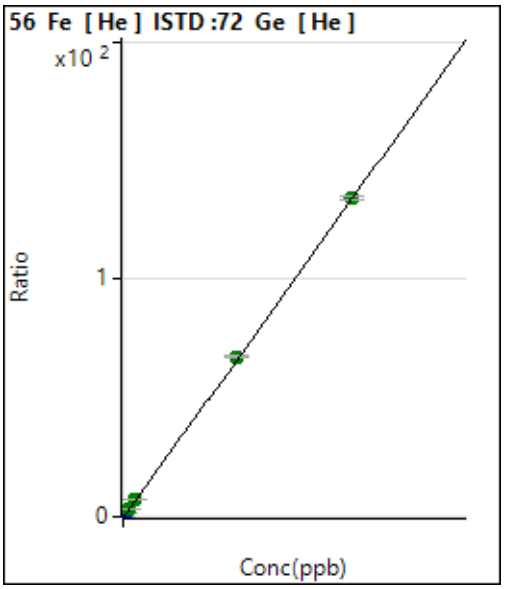
Calibration for 019_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	386.68	0.0008	P	20.8	
2	☐	2.000	2.146	6805.16	0.0133	P	6.1	7.3
3	☐	5.000	5.081	15442.34	0.0305	P	5.1	1.6
4	☐	10.000	9.973	29886.40	0.0591	P	2.3	-0.3
5	☐	100.000	100.561	299792.83	0.5886	P	0.8	0.6
6	☐	200.000	199.717	588910.94	1.1682	P	0.7	-0.1

y = 0.0058 * x + 7.6957E-004
R = 1.0000
DL = 0.08196 ppb
BEC = 0.1317 ppb

Weight: <None>
Min Conc: <None>

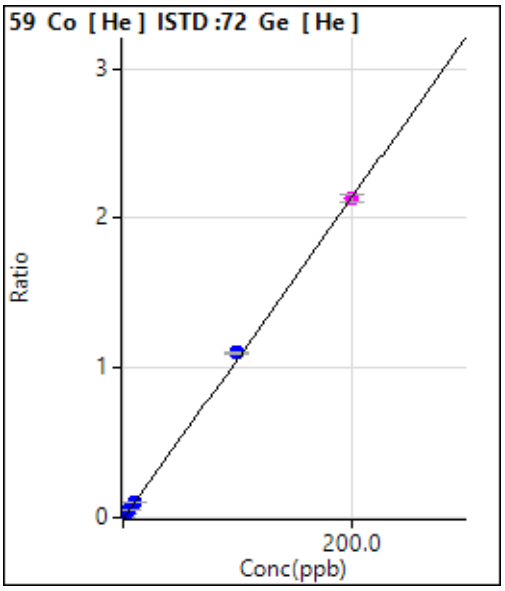


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	23173.30	0.0461	P	0.6	
2	☐	200.000	221.121	783381.50	1.5323	P	0.5	10.6
3	☐	500.000	527.093	1819521.95	3.5889	A	1.0	5.4
4	☐	1000.000	1029.517	3524658.70	6.9660	A	1.9	3.0
5	☐	10000.00	10017.98	34321280.3	67.3824	A	0.8	0.2
6	☐	20000.00	19988.64	67754672.3	134.400	A	1.1	-0.1

y = 0.0067 * x + 0.0461
R = 1.0000
DL = 0.1135 ppb
BEC = 6.852 ppb

Weight: <None>
Min Conc: <None>

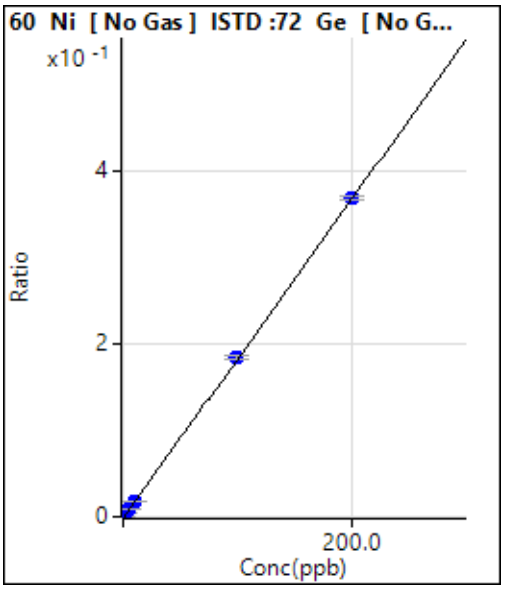
Calibration for 019_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	63.33	0.0001	P	32.4	
2	☐	2.000	2.115	11678.55	0.0228	P	3.6	5.7
3	☐	5.000	5.108	27878.83	0.0550	P	1.4	2.2
4	☐	10.000	10.104	54978.02	0.1086	P	0.1	1.0
5	☐	100.000	102.595	561311.49	1.1021	P	1.4	2.6
6	☐	200.000	198.694	1076189.38	2.1342	M	2.7	-0.7

y = 0.0107 * x + 1.2569E-004
R = 0.9999
DL = 0.01139 ppb
BEC = 0.0117 ppb

Weight: <None>
Min Conc: <None>

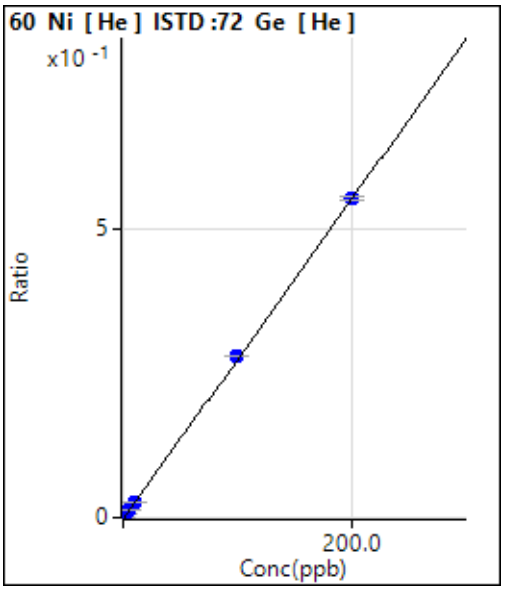


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	240.01	0.0002	P	6.1	
2	☐	2.000	2.031	5317.79	0.0039	P	3.5	1.5
3	☐	5.000	4.818	12105.57	0.0091	P	6.0	-3.6
4	☐	10.000	9.871	24465.64	0.0184	P	1.0	-1.3
5	☐	100.000	100.347	245792.80	0.1858	P	2.5	0.3
6	☐	200.000	199.837	486049.50	0.3698	P	1.3	-0.1

y = 0.0018 * x + 1.7804E-004
R = 1.0000
DL = 0.01762 ppb
BEC = 0.09625 ppb

Weight: <None>
Min Conc: <None>

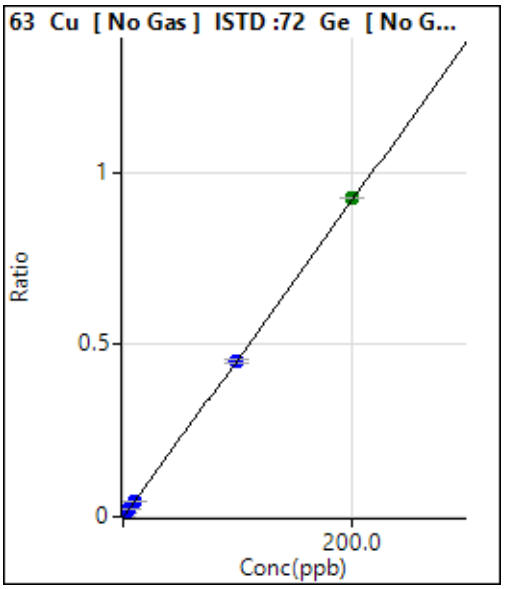
Calibration for 019_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	96.67	0.0002	P	16.8	
2	☐	2.000	2.155	3143.75	0.0062	P	7.1	7.8
3	☐	5.000	5.166	7338.77	0.0145	P	4.5	3.3
4	☐	10.000	9.902	13950.71	0.0276	P	0.7	-1.0
5	☐	100.000	100.886	142177.87	0.2791	P	0.6	0.9
6	☐	200.000	199.556	278239.97	0.5519	P	1.1	-0.2

y = 0.0028 * x + 1.9234E-004
R = 1.0000
DL = 0.03499 ppb
BEC = 0.06957 ppb

Weight: <None>
Min Conc: <None>

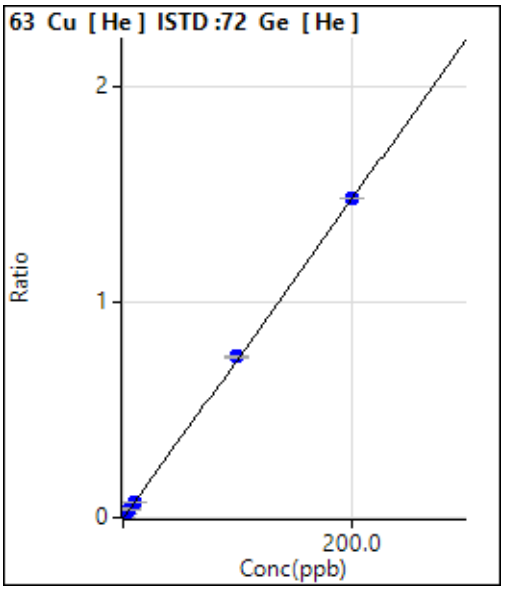


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	2620.30	0.0019	P	5.4	
2	☐	2.000	2.151	16006.39	0.0118	P	0.9	7.6
3	☐	5.000	4.837	32211.84	0.0242	P	2.8	-3.3
4	☐	10.000	9.683	61660.37	0.0465	P	1.8	-3.2
5	☐	100.000	98.164	599755.42	0.4534	P	2.5	-1.8
6	☐	200.000	200.937	1217164.67	0.9260	A	0.6	0.5

y = 0.0046 * x + 0.0019
R = 0.9999
DL = 0.06842 ppb
BEC = 0.4231 ppb

Weight: <None>
Min Conc: <None>

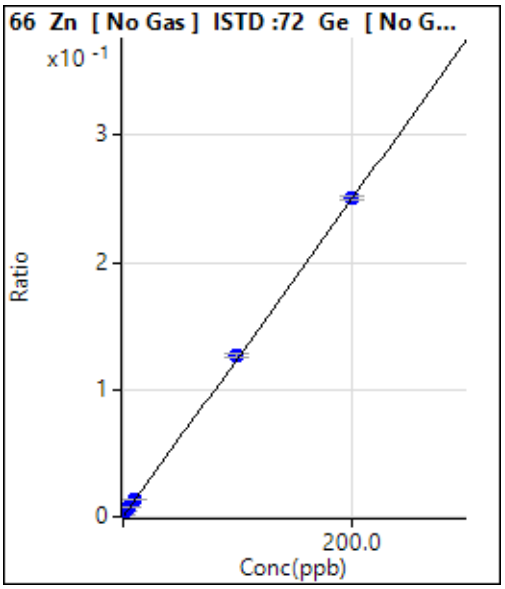
Calibration for 019_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	1530.11	0.0030	P	15.1	
2	☐	2.000	2.218	9943.81	0.0194	P	1.3	10.9
3	☐	5.000	4.879	19841.47	0.0391	P	5.2	-2.4
4	☐	10.000	9.755	38053.67	0.0752	P	1.2	-2.4
5	☐	100.000	100.621	380628.81	0.7473	P	1.3	0.6
6	☐	200.000	199.702	746230.43	1.4802	P	0.2	-0.1

y = 0.0074 * x + 0.0030
R = 1.0000
DL = 0.1864 ppb
BEC = 0.4116 ppb

Weight: <None>
Min Conc: <None>

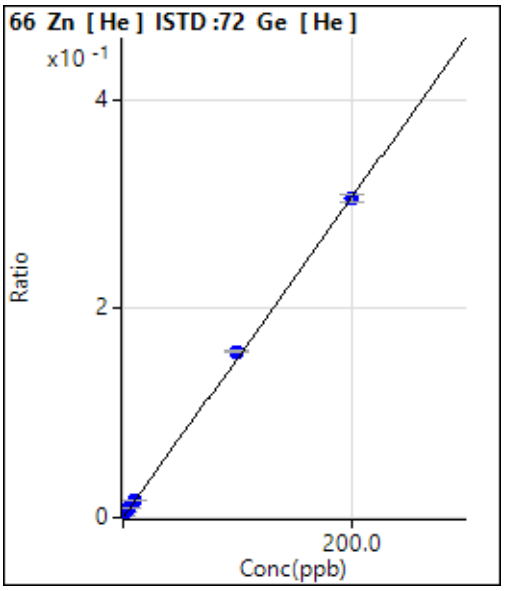


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	1673.47	0.0012	P	4.0	
2	☐	2.000	2.635	6124.87	0.0045	P	2.5	31.7
3	☐	5.000	5.358	10560.95	0.0079	P	2.9	7.2
4	☐	10.000	9.728	17758.56	0.0134	P	4.0	-2.7
5	☐	100.000	100.357	167340.06	0.1265	P	3.0	0.4
6	☐	200.000	199.820	329448.44	0.2507	P	0.8	-0.1

y = 0.0012 * x + 0.0012
R = 1.0000
DL = 0.1196 ppb
BEC = 0.9948 ppb

Weight: <None>
Min Conc: <None>

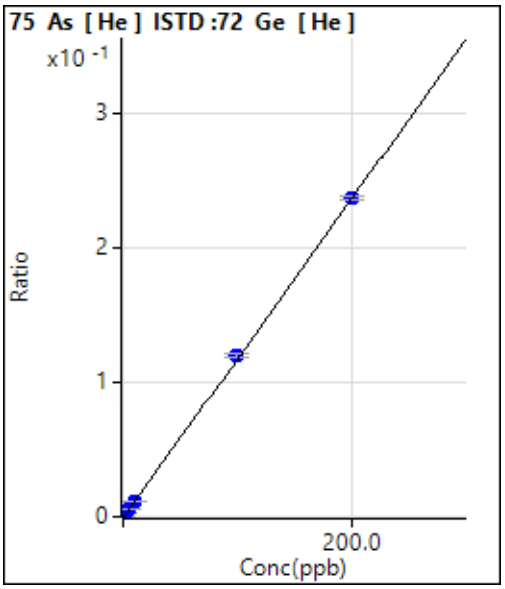
Calibration for 019_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	753.36	0.0015	P	20.6	
2	☐	2.000	2.907	3040.39	0.0059	P	4.9	45.3
3	☐	5.000	5.431	4974.33	0.0098	P	5.1	8.6
4	☐	10.000	10.196	8659.58	0.0171	P	4.0	2.0
5	☐	100.000	102.786	80934.13	0.1589	P	1.6	2.8
6	☐	200.000	198.577	154047.58	0.3056	P	2.0	-0.7

y = 0.0015 * x + 0.0015
R = 0.9999
DL = 0.603 ppb
BEC = 0.9769 ppb

Weight: <None>
Min Conc: <None>

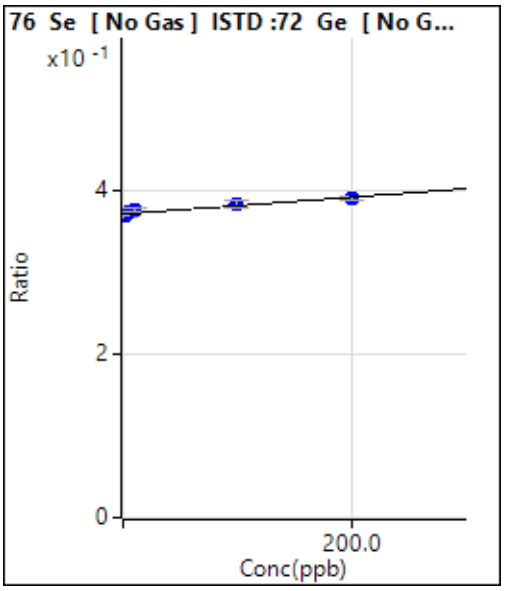


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	135.56	0.0003	P	14.6	
2	☐	2.000	2.168	1454.53	0.0028	P	0.3	8.4
3	☐	5.000	4.915	3097.04	0.0061	P	5.4	-1.7
4	☐	10.000	9.854	6060.27	0.0120	P	1.6	-1.5
5	☐	100.000	100.875	61180.07	0.1201	P	2.0	0.9
6	☐	200.000	199.570	119665.51	0.2374	P	1.3	-0.2

y = 0.0012 * x + 2.6946E-004
R = 1.0000
DL = 0.09919 ppb
BEC = 0.2268 ppb

Weight: <None>
Min Conc: <None>

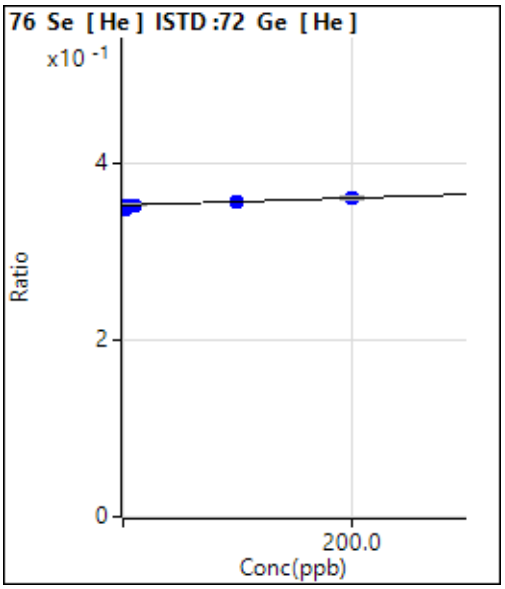
Calibration for 019_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	498864.16	0.3703	P	1.3	
2	☐	2.000	-9.219	499244.45	0.3693	P	1.6	-561.0
3	☐	5.000	31.939	497523.63	0.3736	P	2.4	538.8
4	☐	10.000	56.911	499087.15	0.3762	P	1.4	469.1
5	☐	100.000	122.857	506626.49	0.3830	P	2.4	22.9
6	☐	200.000	185.665	511875.65	0.3895	P	0.7	-7.2

y = 1.0343E-004 * x + 0.3703
R = 0.9554
DL = 140.6 ppb
BEC = 3580 ppb

Weight: <None>
Min Conc: <None>

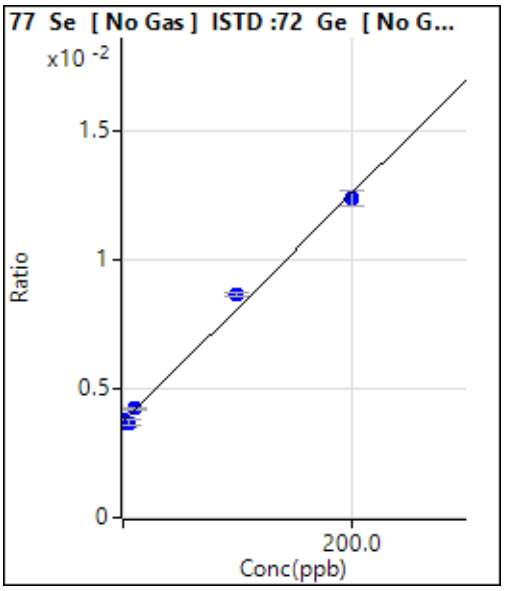


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	176999.69	0.3518	P	0.9	
2	☐	2.000	-91.861	177905.39	0.3480	P	0.4	-4693.0
3	☐	5.000	11.284	178584.32	0.3523	P	0.8	125.7
4	☐	10.000	0.566	178033.06	0.3518	P	0.6	-94.3
5	☐	100.000	102.971	181368.92	0.3561	P	0.4	3.0
6	☐	200.000	199.768	181524.07	0.3601	P	1.6	-0.1

y = 4.1506E-005 * x + 0.3518
R = 0.9315
DL = 217.1 ppb
BEC = 8476 ppb

Weight: <None>
Min Conc: <None>

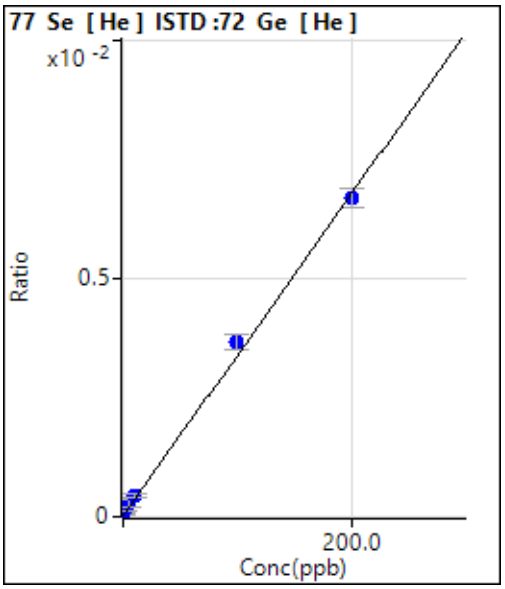
Calibration for 019_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	5147.74	0.0038	P	1.6	
2	☐	2.000	-3.573	4951.00	0.0037	P	7.2	-278.6
3	☐	5.000	-2.784	4927.64	0.0037	P	5.5	-155.7
4	☐	10.000	9.381	5617.94	0.0042	P	2.2	-6.2
5	☐	100.000	110.616	11505.10	0.0087	P	1.6	10.6
6	☐	200.000	194.973	16310.12	0.0124	P	4.3	-2.5

y = 4.4070E-005 * x + 0.0038
R = 0.9969
DL = 4.252 ppb
BEC = 86.7 ppb

Weight: <None>
Min Conc: <None>

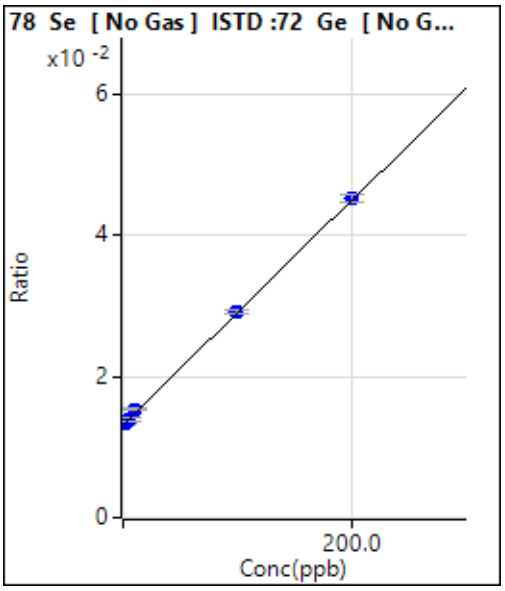


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	26.67	0.0001	P	43.4	
2	☐	2.000	3.057	80.00	0.0002	P	32.9	52.8
3	☐	5.000	6.974	146.67	0.0003	P	51.1	39.5
4	☐	10.000	11.274	220.01	0.0004	P	15.9	12.7
5	☐	100.000	107.186	1873.50	0.0037	P	8.9	7.2
6	☐	200.000	196.284	3373.82	0.0067	P	6.2	-1.9

y = 3.3839E-005 * x + 5.3015E-005
R = 0.9991
DL = 2.04 ppb
BEC = 1.567 ppb

Weight: <None>
Min Conc: <None>

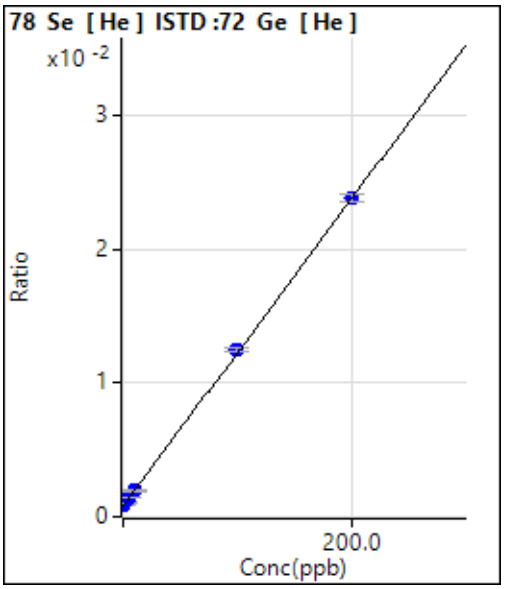
Calibration for 019_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	18172.48	0.0135	P	4.2	
2	☐	2.000	-0.165	18202.56	0.0135	P	2.3	-108.3
3	☐	5.000	3.068	18613.17	0.0140	P	3.9	-38.6
4	☐	10.000	11.468	20315.63	0.0153	P	1.6	14.7
5	☐	100.000	99.087	38635.60	0.0292	P	2.2	-0.9
6	☐	200.000	200.453	59504.80	0.0453	P	1.9	0.2

y = 1.5857E-004 * x + 0.0135
R = 0.9999
DL = 10.81 ppb
BEC = 85.09 ppb

Weight: <None>
Min Conc: <None>

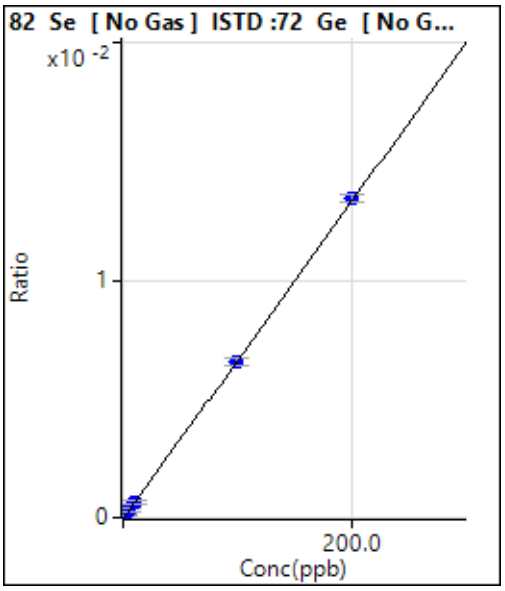


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	463.34	0.0009	P	5.5	
2	☐	2.000	1.514	560.01	0.0011	P	4.1	-24.3
3	☐	5.000	4.677	740.02	0.0015	P	4.8	-6.5
4	☐	10.000	8.950	987.37	0.0020	P	2.7	-10.5
5	☐	100.000	101.199	6403.54	0.0126	P	2.2	1.2
6	☐	200.000	199.466	12038.06	0.0239	P	1.9	-0.3

y = 1.1511E-004 * x + 9.2116E-004
R = 1.0000
DL = 1.316 ppb
BEC = 8.003 ppb

Weight: <None>
Min Conc: <None>

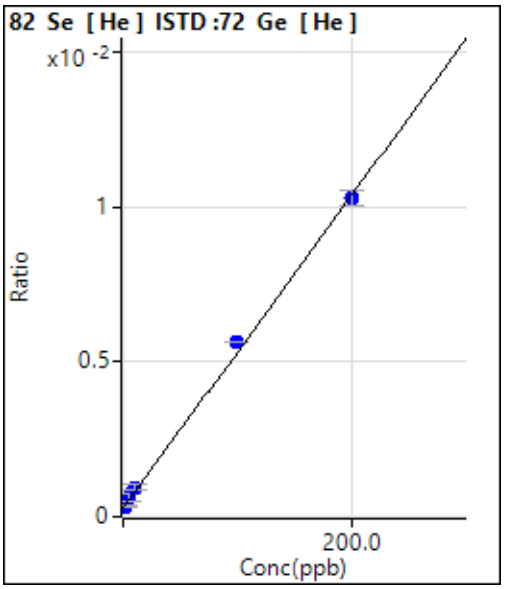
Calibration for 019_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	22.37	0.0000	P	654.	
2	☐	2.000	1.228	132.63	0.0001	P	73.7	-38.6
3	☐	5.000	4.840	449.38	0.0003	P	35.3	-3.2
4	☐	10.000	9.419	856.15	0.0006	P	21.1	-5.8
5	☐	100.000	98.007	8682.83	0.0066	P	3.9	-2.0
6	☐	200.000	201.037	17671.97	0.0134	P	2.5	0.5

y = 6.6815E-005 * x + 1.5742E-005
R = 0.9999
DL = 4.623 ppb
BEC = 0.2356 ppb

Weight: <None>
Min Conc: <None>

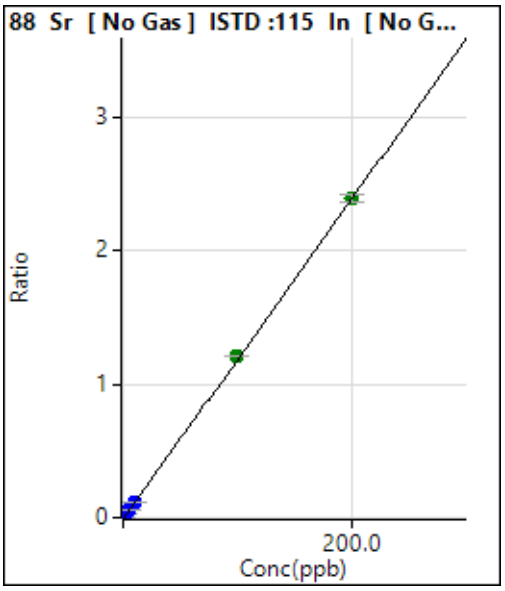


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	166.67	0.0003	P	21.6	
2	☐	2.000	0.155	173.33	0.0003	P	19.1	-92.3
3	☐	5.000	5.409	306.68	0.0006	P	37.8	8.2
4	☐	10.000	12.202	480.02	0.0009	P	16.5	22.0
5	☐	100.000	105.272	2880.36	0.0057	P	0.6	5.3
6	☐	200.000	197.262	5194.42	0.0103	P	4.4	-1.4

y = 5.0568E-005 * x + 3.3144E-004
R = 0.9994
DL = 4.238 ppb
BEC = 6.554 ppb

Weight: <None>
Min Conc: <None>

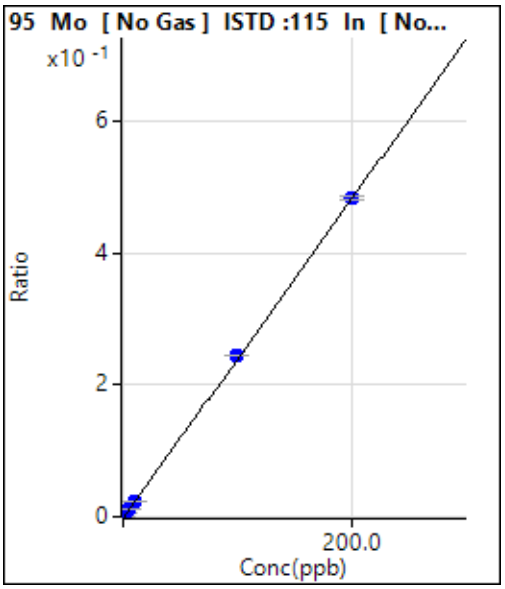
Calibration for 019_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	370.01	0.0003	P	10.3	
2	☐	2.000	2.036	28287.01	0.0247	P	1.1	1.8
3	☐	5.000	4.799	66344.93	0.0579	P	1.1	-4.0
4	☐	10.000	9.708	132876.70	0.1168	P	0.6	-2.9
5	☐	100.000	100.958	1372928.36	1.2114	A	1.1	1.0
6	☐	200.000	199.540	2708755.17	2.3939	A	2.5	-0.2

y = 0.0120 * x + 3.2664E-004
R = 1.0000
DL = 0.008434 ppb
BEC = 0.02723 ppb

Weight: <None>
Min Conc: <None>

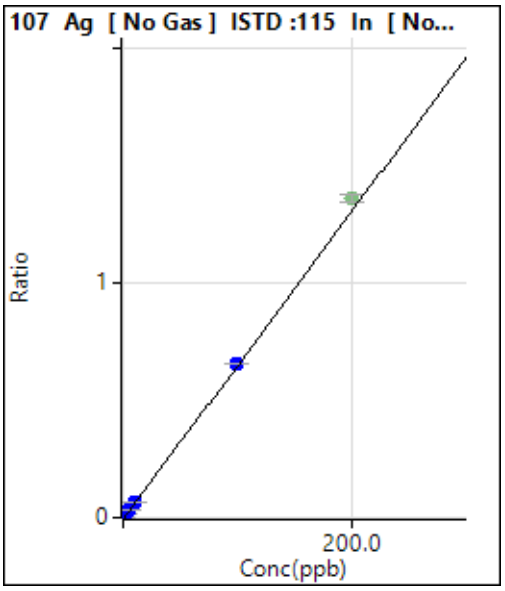


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	36.67	0.0000	P	69.1	
2	☐	2.000	2.044	5697.99	0.0050	P	4.5	2.2
3	☐	5.000	4.763	13270.14	0.0116	P	3.0	-4.7
4	☐	10.000	9.852	27208.18	0.0239	P	1.3	-1.5
5	☐	100.000	100.585	276340.74	0.2438	P	0.1	0.6
6	☐	200.000	199.720	547849.20	0.4841	P	1.3	-0.1

y = 0.0024 * x + 3.2451E-005
R = 1.0000
DL = 0.02775 ppb
BEC = 0.01339 ppb

Weight: <None>
Min Conc: <None>

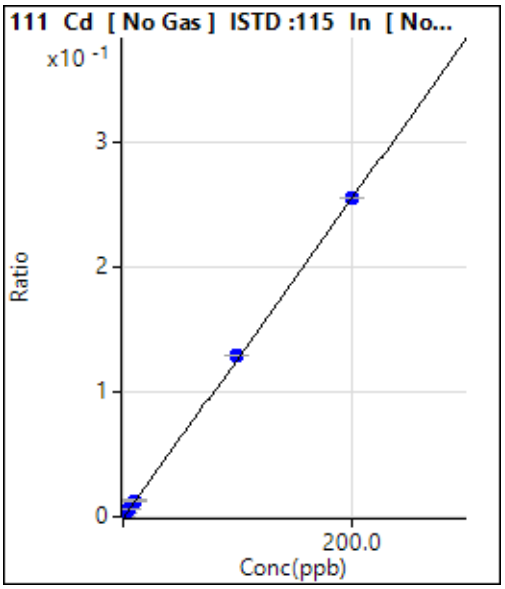
Calibration for 019_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	240.01	0.0002	P	26.4	
2	☐	2.000	2.005	15235.74	0.0133	P	2.6	0.3
3	☐	5.000	4.899	36968.82	0.0323	P	2.3	-2.0
4	☐	10.000	9.775	73001.98	0.0642	P	1.0	-2.3
5	☐	100.000	100.027	741818.82	0.6546	P	0.4	0.0
6	☑	200.000		1537311.64	1.3584	A	2.3	

y = 0.0065 * x + 2.1210E-004
R = 1.0000
DL = 0.02569 ppb
BEC = 0.03242 ppb

Weight: <None>
Min Conc: <None>

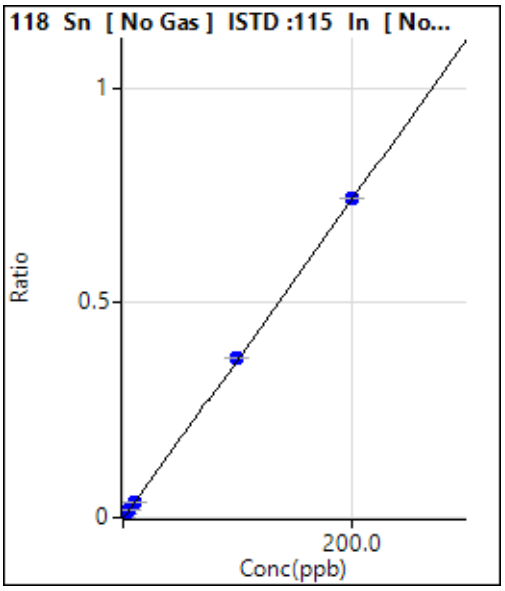


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	3.33	0.0000	P	173.	
2	☐	2.000	2.041	2993.73	0.0026	P	4.3	2.1
3	☐	5.000	4.872	7158.75	0.0062	P	1.9	-2.6
4	☐	10.000	10.088	14715.10	0.0129	P	3.6	0.9
5	☐	100.000	100.972	146656.78	0.1294	P	0.4	1.0
6	☐	200.000	199.513	289375.89	0.2557	P	0.6	-0.2

y = 0.0013 * x + 2.9290E-006
R = 1.0000
DL = 0.01188 ppb
BEC = 0.002285 ppb

Weight: <None>
Min Conc: <None>

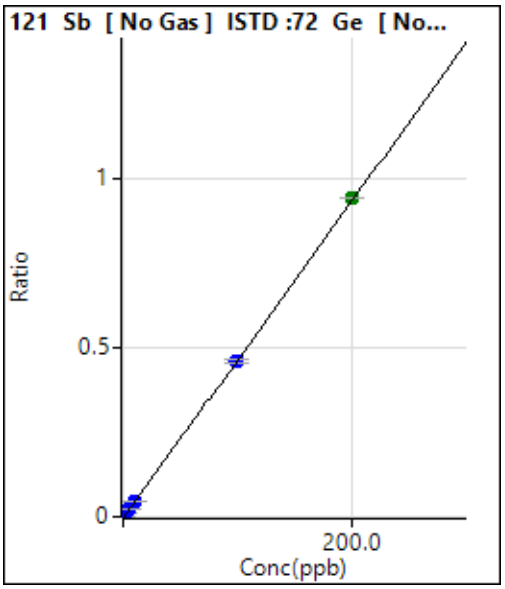
Calibration for 019_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	800.04	0.0007	P	8.2	
2	☐	2.000	1.978	9206.72	0.0081	P	5.0	-1.1
3	☐	5.000	4.823	21341.00	0.0186	P	1.7	-3.5
4	☐	10.000	9.829	42348.82	0.0372	P	2.6	-1.7
5	☐	100.000	99.911	421376.02	0.3718	P	0.7	-0.1
6	☐	200.000	200.058	841801.94	0.7438	P	0.5	0.0

y = 0.0037 * x + 7.0632E-004
R = 1.0000
DL = 0.04704 ppb
BEC = 0.1902 ppb

Weight: <None>
Min Conc: <None>

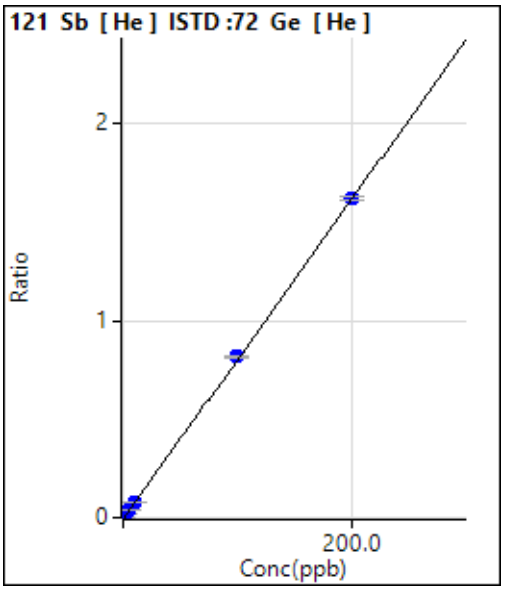


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	360.01	0.0003	P	34.2	
2	☐	2.000	2.016	13116.82	0.0097	P	2.8	0.8
3	☐	5.000	4.779	30158.48	0.0226	P	2.4	-4.4
4	☐	10.000	9.573	59803.39	0.0451	P	4.0	-4.3
5	☐	100.000	97.737	605591.85	0.4578	P	2.5	-2.3
6	☐	200.000	201.158	1237981.78	0.9419	A	0.5	0.6

y = 0.0047 * x + 2.6754E-004
R = 0.9999
DL = 0.05863 ppb
BEC = 0.05715 ppb

Weight: <None>
Min Conc: <None>

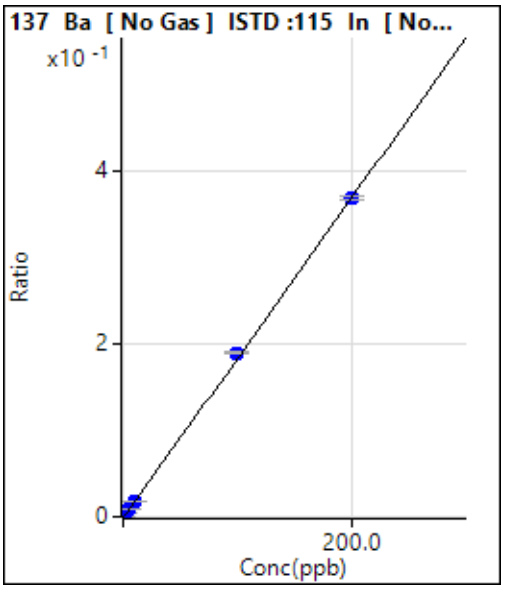
Calibration for 019_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	216.67	0.0004	P	13.1	
2	☐	2.000	1.988	8472.89	0.0166	P	3.1	-0.6
3	☐	5.000	4.958	20626.56	0.0407	P	3.0	-0.8
4	☐	10.000	10.051	41516.17	0.0821	P	2.2	0.5
5	☐	100.000	100.553	416132.53	0.8170	P	1.1	0.6
6	☐	200.000	199.722	817838.92	1.6223	P	1.1	-0.1

y = 0.0081 * x + 4.3025E-004
R = 1.0000
DL = 0.02075 ppb
BEC = 0.05298 ppb

Weight: <None>
Min Conc: <None>

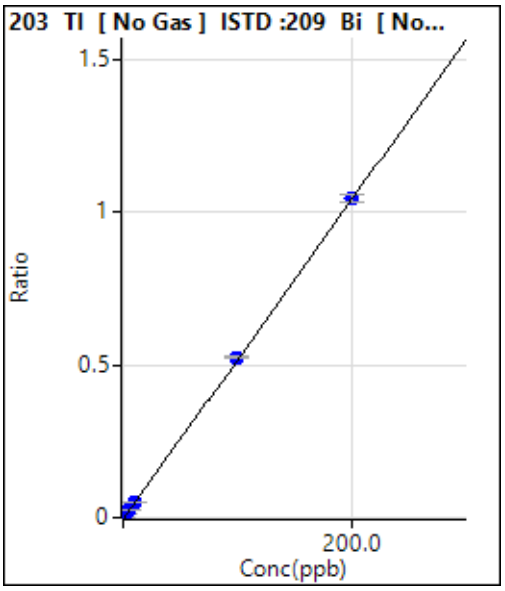


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	226.68	0.0002	P	17.4	
2	☐	2.000	2.073	4620.91	0.0040	P	1.8	3.7
3	☐	5.000	4.907	10654.58	0.0093	P	2.0	-1.9
4	☐	10.000	9.660	20603.38	0.0181	P	2.1	-3.4
5	☐	100.000	102.225	214940.52	0.1897	P	1.2	2.2
6	☐	200.000	198.906	417401.04	0.3689	P	1.5	-0.5

y = 0.0019 * x + 2.0033E-004
R = 0.9999
DL = 0.05652 ppb
BEC = 0.1081 ppb

Weight: <None>
Min Conc: <None>

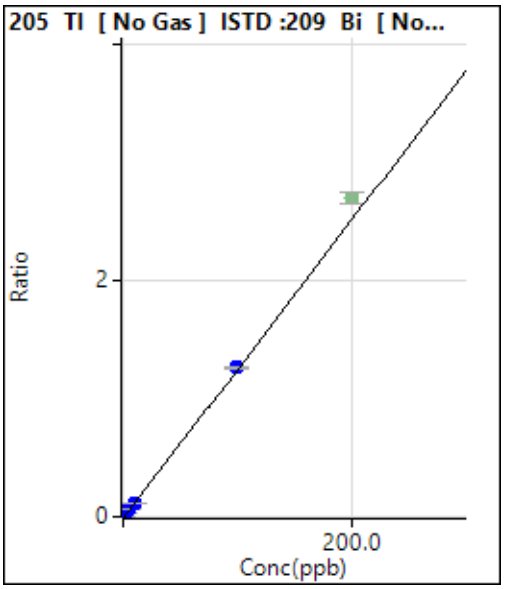
Calibration for 019_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	26.67	0.0000	P	22.0	
2	☐	2.000	1.939	9430.41	0.0102	P	1.2	-3.1
3	☐	5.000	4.656	22694.36	0.0243	P	3.1	-6.9
4	☐	10.000	9.564	46413.41	0.0500	P	0.6	-4.4
5	☐	100.000	100.314	483680.19	0.5240	P	1.4	0.3
6	☐	200.000	199.874	954064.60	1.0440	P	2.7	-0.1

y = 0.0052 * x + 2.8904E-005
R = 1.0000
DL = 0.003649 ppb
BEC = 0.005534 ppb

Weight: <None>
Min Conc: <None>

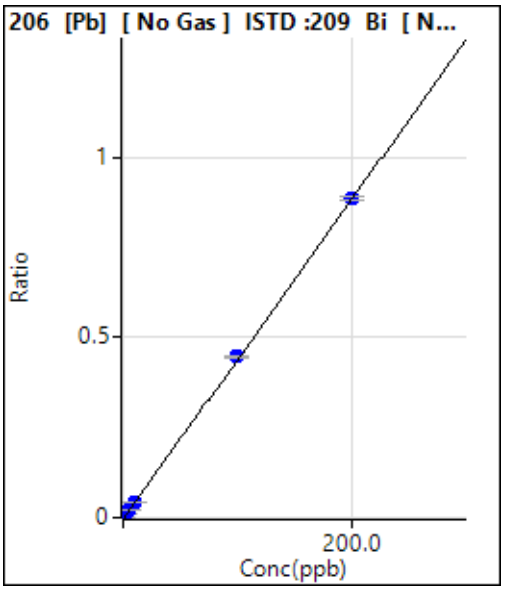


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	40.00	0.0000	P	65.7	
2	☐	2.000	1.984	23285.39	0.0251	P	0.8	-0.8
3	☐	5.000	4.621	54385.89	0.0583	P	1.1	-7.6
4	☐	10.000	9.516	111524.03	0.1201	P	0.3	-4.8
5	☐	100.000	100.068	1165429.62	1.2626	P	0.9	0.1
6	☑	200.000		2464196.48	2.6967	A	3.2	

y = 0.0126 * x + 4.3260E-005
R = 1.0000
DL = 0.006762 ppb
BEC = 0.003429 ppb

Weight: <None>
Min Conc: <None>

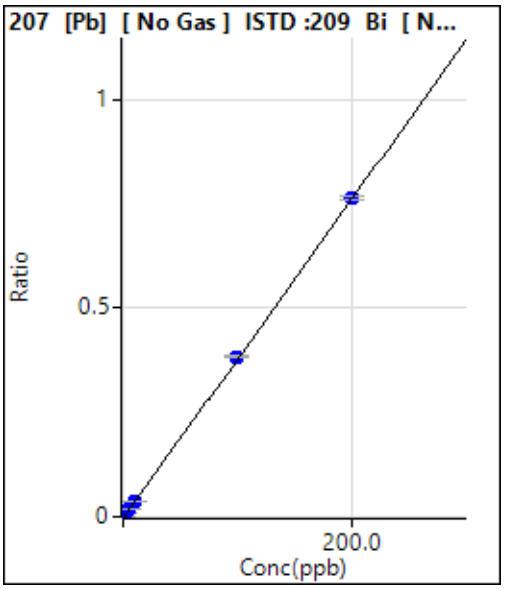
Calibration for 019_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	120.00	0.0001	P	25.1	
2	☐	2.000	2.053	8576.47	0.0092	P	3.1	2.6
3	☐	5.000	4.956	20617.43	0.0221	P	2.3	-0.9
4	☐	10.000	9.857	40723.72	0.0439	P	0.6	-1.4
5	☐	100.000	100.501	411637.27	0.4460	P	1.2	0.5
6	☐	200.000	199.757	809994.21	0.8863	P	1.5	-0.1

y = 0.0044 * x + 1.3000E-004
R = 1.0000
DL = 0.02203 ppb
BEC = 0.0293 ppb

Weight: <None>
Min Conc: <None>

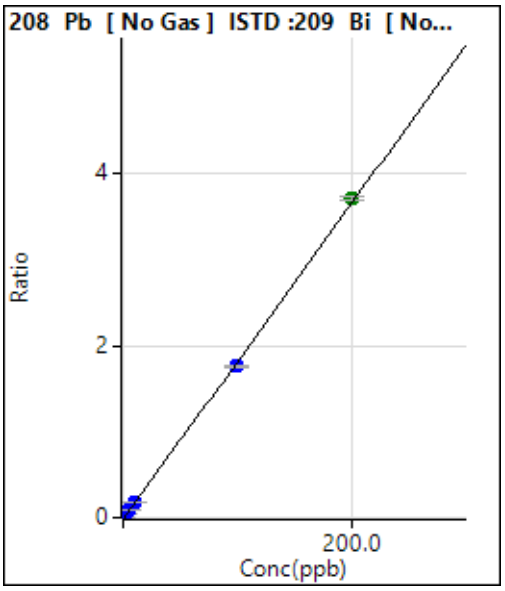


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	100.00	0.0001	P	9.7	
2	☐	2.000	1.945	7005.43	0.0075	P	3.5	-2.8
3	☐	5.000	4.915	17619.34	0.0189	P	2.9	-1.7
4	☐	10.000	9.654	34384.77	0.0370	P	2.8	-3.5
5	☐	100.000	100.203	353810.04	0.3833	P	0.8	0.2
6	☐	200.000	199.918	698869.83	0.7646	P	1.6	0.0

y = 0.0038 * x + 1.0831E-004
R = 1.0000
DL = 0.008206 ppb
BEC = 0.02832 ppb

Weight: <None>
Min Conc: <None>

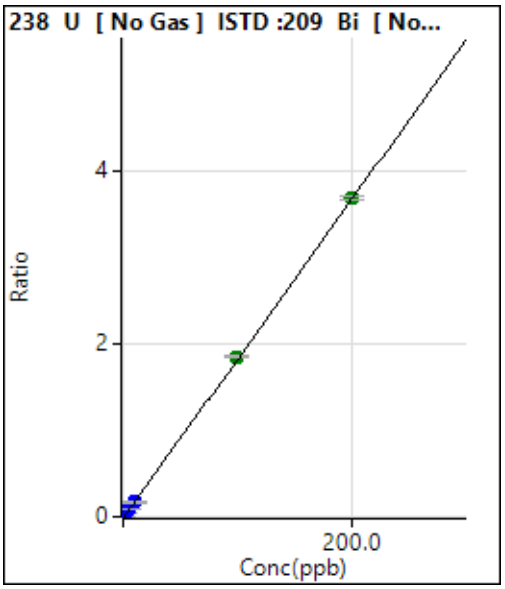
Calibration for 019_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	400.01	0.0004	P	13.1	
2	☐	2.000	1.961	33889.02	0.0365	P	1.2	-1.9
3	☐	5.000	4.707	81081.23	0.0870	P	1.0	-5.9
4	☐	10.000	9.258	158498.38	0.1707	P	1.4	-7.4
5	☐	100.000	95.848	1627348.73	1.7630	P	1.0	-4.2
6	☐	200.000	202.121	3397506.36	3.7173	A	0.7	1.1

y = 0.0184 * x + 4.3328E-004
R = 0.9997
DL = 0.009281 ppb
BEC = 0.02356 ppb

Weight: <None>
Min Conc: <None>

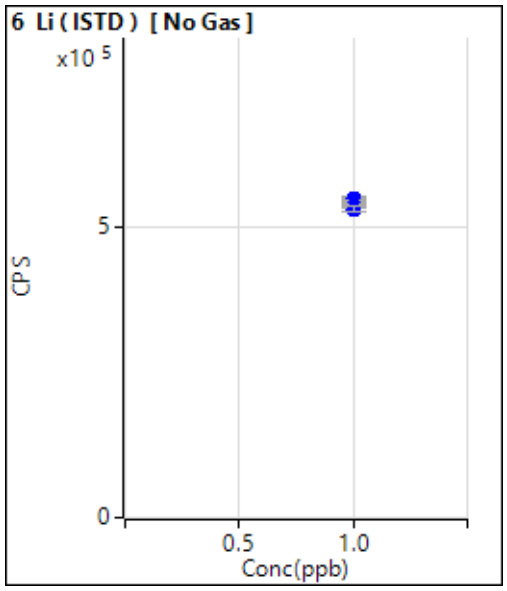


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	0.000	0.000	16.67	0.0000	P	69.5	
2	☐	2.000	1.884	32343.29	0.0348	P	2.5	-5.8
3	☐	5.000	4.430	76328.56	0.0819	P	0.1	-11.4
4	☐	10.000	9.070	155682.21	0.1677	P	1.6	-9.3
5	☐	100.000	100.115	1707878.20	1.8503	A	1.3	0.1
6	☐	200.000	200.005	3378897.66	3.6965	A	1.4	0.0

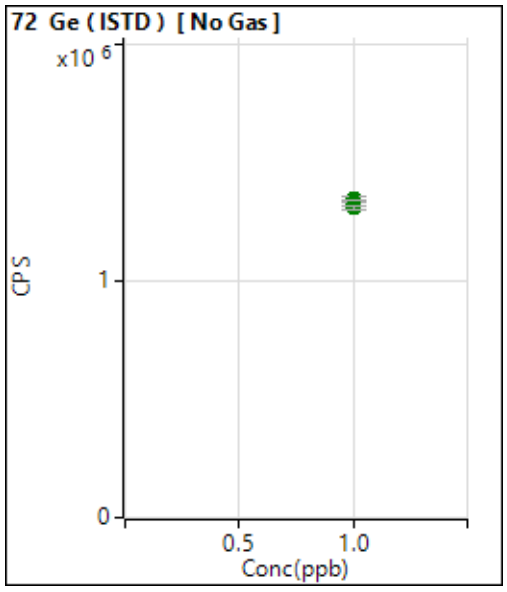
y = 0.0185 * x + 1.8071E-005
R = 1.0000
DL = 0.002038 ppb
BEC = 0.0009778 ppb

Weight: <None>
Min Conc: <None>

Calibration for 019_ICV.d

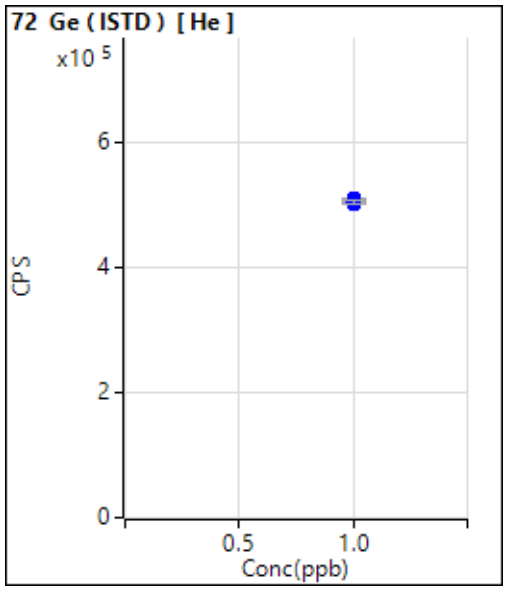


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	1.000		547647.74		P	0.7	
2	☐	1.000		550899.29		P	0.3	
3	☐	1.000		550867.94		P	0.7	
4	☐	1.000		547989.96		P	0.4	
5	☐	1.000		536527.93		P	1.2	
6	☐	1.000		532389.48		P	1.8	

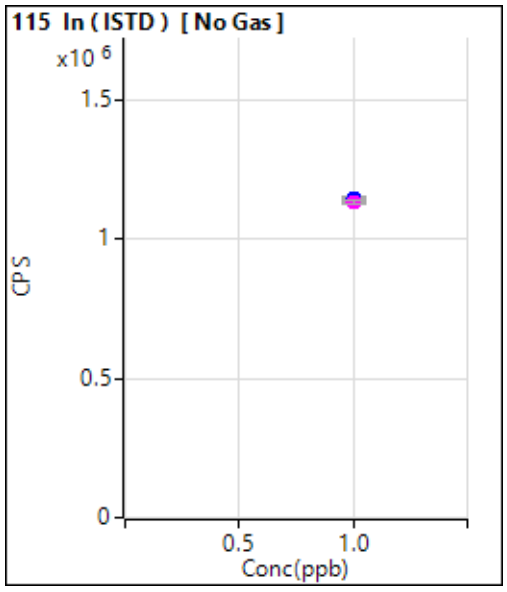


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	1.000		1347492.79		A	1.8	
2	☐	1.000		1351994.51		A	1.6	
3	☐	1.000		1332261.70		A	2.3	
4	☐	1.000		1326901.80		A	0.9	
5	☐	1.000		1323377.77		A	2.5	
6	☐	1.000		1314337.95		A	1.2	

Calibration for 019_ICV.d

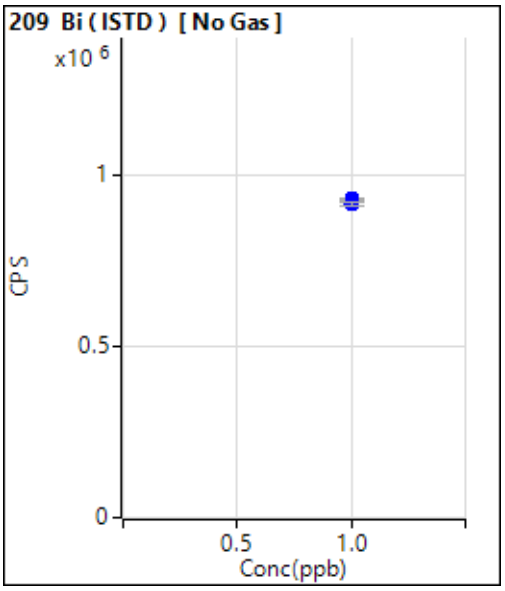


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	1.000		503154.39		P	1.0	
2	☐	1.000		511246.20		P	0.5	
3	☐	1.000		506967.77		P	0.7	
4	☐	1.000		506035.35		P	0.9	
5	☐	1.000		509385.16		P	1.3	
6	☐	1.000		504153.28		P	1.1	



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	1.000		1132392.01		P	0.7	
2	☐	1.000		1142937.34		P	0.4	
3	☐	1.000		1146084.05		P	1.2	
4	☐	1.000		1137911.71		P	0.5	
5	☐	1.000		1133308.89		P	0.9	
6	☐	1.000		1131770.30		M	1.6	

Calibration for 019_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD	%RE
1	☐	1.000		923104.13		P	0.4	
2	☐	1.000		928558.29		P	0.5	
3	☐	1.000		932153.21		P	0.6	
4	☐	1.000		928591.13		P	0.5	
5	☐	1.000		923040.17		P	0.4	
6	☐	1.000		914027.98		P	1.2	

Sample Report

Sample Table

Sample Name	LLICV2
Data File Name	020LCV2.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\012423D.b
Acq Date Time	2023-01-24T14:23:15-06:00
Sample Type	LLCCV2
Dilution	1
Comment	
ISTD Ref FileName	011CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	2.091	2.091	7.17	46746	0.00	2	
Be	9	1	No Gas	2.166	2.166	3.98	3951	0.05	2	
V	51	2	He	1.688	1.688	6.69	8301	0.02	2	
Cr	52	2	He	2.112	2.112	5.82	10247	0.02	2	
Fe	56	2	He	222.331	222.331	0.28	795120	0.03	200	
Se	78	2	He	1.625	1.625	6.49	572	0.28	2	
As	75	2	He	1.924	1.924	4.93	1319	0.15	2	
Ca	44	2	He	218.071	218.071	7.66	6525	3.34	200	
Na	23	2	He	209.185	209.185	1.37	235296	0.09	200	
Mg	24	2	He	217.892	217.892	1.20	83872	0.26	200	
K	39	2	He	217.678	217.678	3.10	220160	0.10	200	
Mn	55	2	He	2.154	2.154	5.99	6895	0.03	2	
Co	59	2	He	2.115	2.115	0.46	11789	0.02	2	
Ni	60	2	He	2.047	2.047	6.55	3020	0.07	2	
Cu	63	2	He	2.192	2.192	2.67	9941	0.02	2	
Zn	66	2	He	3.076	3.076	7.26	3204	0.10	2	NewName Main CR1 Failed
Al	27	2	He	2.416	2.416	10.02	1303	0.19	2	
B	11	1	No Gas	39.413	39.413	9.02	38150	0.10	10	NewName Main CR1 Failed
Al	27	1	No Gas	2.483	2.483	4.74	35549	0.01	2	
Si	28	1	No Gas	16.125	16.125	1.28	301486	0.01	10	NewName Main CR1 Failed
Ag	107	1	No Gas	2.062	2.062	0.66	15756	0.01	2	
Cd	111	1	No Gas	2.031	2.031	7.30	2997	0.07	2	
Sr	88	1	No Gas	2.072	2.072	0.44	28945	0.01	2	
Mo	95	1	No Gas	2.024	2.024	2.08	5678	0.04	2	
Sn	118	1	No Gas	2.149	2.149	1.13	9991	0.02	2	
Sb	121	1	No Gas	1.969	1.969	4.38	12663	0.02	2	
Ba	137	1	No Gas	2.040	2.040	3.70	4578	0.04	2	
Tl	205	1	No Gas	2.043	2.043	2.68	24060	0.01	2	
Tl	203	1	No Gas	1.997	1.997	5.58	9744	0.02	2	
Pb	208	1	No Gas	1.995	1.995	3.04	34583	0.01	2	
U	238	1	No Gas	1.894	1.894	0.96	32634	0.01	2	
Ca	43	2	He	202.417	202.417	16.35	363	55.71	200	
Sb	121	2	He	2.137	2.137	4.78	9180	0.02	2	
Ti	47	2	He	2.105	2.105	0.54	300	0.70	200	
Cu	63	1	No Gas	2.162	2.162	4.12	15876	0.01	2	
Se	82	1	No Gas	1.109	1.109	174.68	120	0.93	2	NewName Main CR1 Failed

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	551694	0.18	547648	100.74	70	120	
Ge	72	2	He	516161	0.52	503154	102.59	70	120	
Ge	72	1	No Gas	1335373	0.39	1347493	99.10	70	120	
In	115	1	No Gas	1149713	1.07	1132392	101.53	70	120	
Bi	209	1	No Gas	931871	0.60	923104	100.95	70	120	

Sample Report

Sample Table

Sample Name	LLICV5
Data File Name	021LCV5.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\012423D.b
Acq Date Time	2023-01-24T14:25:09-06:00
Sample Type	LLCCV5
Dilution	1
Comment	
ISTD Ref FileName	011CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	4.873	4.873	2.50	66688	0.01	5	
Be	9	1	No Gas	4.801	4.801	2.05	8674	0.06	5	
V	51	2	He	4.483	4.483	1.09	17829	0.03	5	
Cr	52	2	He	4.922	4.922	6.13	20983	0.02	5	
Fe	56	2	He	524.389	524.389	1.26	1834071	0.03	500	
Se	78	2	He	4.439	4.439	22.62	735	0.60	5	
As	75	2	He	4.919	4.919	0.90	3140	0.16	5	
Ca	44	2	He	491.097	491.097	4.62	13333	3.68	500	
Na	23	2	He	516.599	516.599	1.10	426677	0.12	500	
Mg	24	2	He	512.620	512.620	1.13	195903	0.26	500	
K	39	2	He	514.664	514.664	2.75	360016	0.14	500	
Mn	55	2	He	4.993	4.993	0.58	15386	0.03	5	
Co	59	2	He	4.983	4.983	2.05	27552	0.02	5	
Ni	60	2	He	5.083	5.083	2.55	7319	0.07	5	
Cu	63	2	He	4.975	4.975	3.42	20462	0.02	5	
Zn	66	2	He	5.382	5.382	3.43	5001	0.11	5	
Al	27	2	He	5.237	5.237	9.21	1980	0.26	5	
B	11	1	No Gas	37.751	37.751	1.39	36454	0.10	25	NewName2 Main CR1 Failed
Al	27	1	No Gas	5.383	5.383	2.04	55374	0.01	5	
Si	28	1	No Gas	25.809	25.809	3.45	333064	0.01	25	
Ag	107	1	No Gas	4.851	4.851	2.17	36611	0.01	5	
Cd	111	1	No Gas	5.036	5.036	5.67	7402	0.07	5	
Sr	88	1	No Gas	4.836	4.836	1.71	66857	0.01	5	
Mo	95	1	No Gas	4.719	4.719	2.35	13147	0.04	5	
Sn	118	1	No Gas	4.989	4.989	2.55	22046	0.02	5	
Sb	121	1	No Gas	4.644	4.644	0.85	29480	0.02	5	
Ba	137	1	No Gas	4.857	4.857	5.31	10544	0.05	5	
Tl	205	1	No Gas	4.569	4.569	1.85	53927	0.01	5	
Tl	203	1	No Gas	4.614	4.614	2.10	22554	0.02	5	
Pb	208	1	No Gas	4.646	4.646	1.59	80257	0.01	5	
U	238	1	No Gas	4.465	4.465	1.01	77151	0.01	5	
Ca	43	2	He	442.441	442.441	16.29	713	62.02	500	
Sb	121	2	He	4.890	4.890	0.49	20620	0.02	5	
Ti	47	2	He	5.399	5.399	3.38	750	0.72	5	
Cu	63	1	No Gas	4.833	4.833	1.40	32382	0.01	5	
Se	82	1	No Gas	3.826	3.826	73.19	363	1.05	5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	547083	0.09	547648	99.90	70	120	
Ge	72	2	He	513642	0.67	503154	102.08	70	120	
Ge	72	1	No Gas	1339614	1.04	1347493	99.42	70	120	
In	115	1	No Gas	1146199	1.16	1132392	101.22	70	120	
Bi	209	1	No Gas	934751	0.39	923104	101.26	70	120	

Initial Calibration Blank (ICB) Report

Sample Table

Sample Name	ICB
Data File Name	022_ICB.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\012423D.b
Acq Date Time	2023-01-24T14:27:03-06:00
Sample Type	ICB
Dilution	1
Comment	
ISTD Ref File Name	011CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Li	7	1	No Gas	0.063	71.8	30351	1.6	0.5	
Be	9	1	No Gas	0.002	157.7	12	49.5	0.5	
V	51	2	He	-0.073	-35.9	2168	4.2	2.5	
Cr	52	2	He	0.028	98.6	2137	6.0	2.5	
Fe	56	2	He	0.509	16.1	24699	2.3	100	
Se	78	2	He	-0.437	-52.3	435	2.4	1	
As	75	2	He	0.112	32.4	201	11.0	2.5	
Ca	44	2	He	-11.306	-9.4	727	2.9	100	
Na	23	2	He	-25.982	-12.8	84401	1.5	100	
Mg	24	2	He	0.662	50.3	570	22.4	100	
K	39	2	He	1.573	127.7	113256	0.4	100	
Mn	55	2	He	0.155	27.3	837	15.6	2.5	
Co	59	2	He	0.006	35.8	93	12.4	2.5	
Ni	60	2	He	0.025	154.5	130	40.0	2.5	
Cu	63	2	He	0.164	34.1	2127	10.8	1	
Zn	66	2	He	0.457	10.1	1097	4.3	2.5	
Al	27	2	He	-0.244	-141.9	633	12.0	5	
B	11	1	No Gas	13.501	2.2	15724	1.8	0.5	ICB Main CR1 Failed
Al	27	1	No Gas	-0.183	-45.1	17004	4.1	5	
Si	28	1	No Gas	1.201	172.9	247326	0.6	10	
Ag	107	1	No Gas	0.011	37.9	317	9.6	2.5	
Cd	111	1	No Gas	0.002	341.9	7	173.2	1	
Sr	88	1	No Gas	0.002	127.2	393	9.6	2.5	
Mo	95	1	No Gas	0.008	76.3	57	27.0	2.5	
Sn	118	1	No Gas	0.598	10.9	3274	7.6	5	
Sb	121	1	No Gas	0.069	11.0	767	6.7	2.5	
Ba	137	1	No Gas	0.003	770.8	230	19.9	2.5	
Tl	205	1	No Gas	0.023	49.0	303	43.0	1	
Tl	203	1	No Gas	0.019	69.8	117	54.4	1	
Pb	208	1	No Gas	0.015	41.8	643	15.6	2.5	
U	238	1	No Gas	0.001	90.0	33	45.8	2.5	
Ca	43	2	He	-30.193	-23.6	20	50.0	100	
Sb	121	2	He	0.042	47.8	387	22.0	2.5	
Ti	47	2	He	-0.024	-178.8	7	86.6	2.5	
Se	82	1	No Gas	0.132	408.5	32	147.4	1	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	526571	0.53	547648	96.15	70	120	
Ge	72	2	He	499201	1.19	503154	99.21	70	120	
Ge	72	1	No Gas	1298613	2.09	1347493	96.37	70	120	
In	115	1	No Gas	1118571	0.67	1132392	98.78	70	120	
Bi	209	1	No Gas	912454	0.61	923104	98.85	70	120	

Interference Check Solution A (ICS-A) Report

Sample Table

Sample Name	ICSA
Data File Name	024ICSA.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\012423D.b
Acq Date Time	2023-01-24T14:30:52-06:00
Sample Type	ICSA
Dilution	1
Comment	
ISTD Ref File Name	011CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Li	7	1	No Gas	0.149	38.7	31500	2.0	0	ICSA Main CR1 Failed
Be	9	1	No Gas	0.009	87.7	25	60.0	0	ICSA Main CR1 Failed
V	51	2	He	-0.339	-5.9	1351	5.5	0	ICSA Main CR1 Failed
Cr	52	2	He	0.723	12.0	4981	7.0	0	ICSA Main CR1 Failed
Fe	56	2	He	95958.445	1.3	339206028	1.5	0	
Se	78	2	He	-0.557	-47.4	451	3.6	0	ICSA Main CR1 Failed
As	75	2	He	0.275	21.8	313	12.1	0	ICSA Main CR1 Failed
Ca	44	2	He	93468.945	1.7	2398372	1.5	0	
Na	23	2	He	96861.415	0.7	62216176	0.9	0	
Mg	24	2	He	96300.084	0.6	37615270	0.4	0	
K	39	2	He	96412.366	1.4	46961949	1.6	0	
Mn	55	2	He	1.448	0.6	4854	0.3	0	ICSA Main CR1 Failed
Co	59	2	He	0.843	5.7	4828	5.4	0	ICSA Main CR1 Failed
Ni	60	2	He	1.123	4.3	1733	4.2	0	ICSA Main CR1 Failed
Cu	63	2	He	0.615	9.6	3991	5.5	0	ICSA Main CR1 Failed
Zn	66	2	He	1.941	3.7	2350	2.6	0	ICSA Main CR1 Failed
Al	27	2	He	88316.078	0.3	21918385	0.3	0	
B	11	1	No Gas	13.448	7.3	15953	4.1	0	
Al	27	1	No Gas	89856.581	0.7	627270724	1.1	0	
Si	28	1	No Gas	41.079	9.5	391798	4.7	0	
Ag	107	1	No Gas	0.034	43.0	497	21.5	0	ICSA Main CR1 Failed
Cd	111	1	No Gas	0.740	4.8	1083	3.7	0	ICSA Main CR1 Failed
Sr	88	1	No Gas	1.188	2.7	16614	3.6	0	ICSA Main CR1 Failed
Mo	95	1	No Gas	1929.567	0.4	5331264	1.4	0	
Sn	118	1	No Gas	0.231	14.6	1783	8.4	0	ICSA Main CR1 Failed
Sb	121	1	No Gas	0.166	4.6	1433	2.0	0	ICSA Main CR1 Failed
Ba	137	1	No Gas	1.168	5.0	2697	5.3	0	ICSA Main CR1 Failed
Tl	205	1	No Gas	0.009	64.9	137	47.0	0	ICSA Main CR1 Failed
Tl	203	1	No Gas	0.011	11.4	77	7.5	0	ICSA Main CR1 Failed
Pb	208	1	No Gas	0.742	4.7	12743	4.9	0	ICSA Main CR1 Failed
U	238	1	No Gas	0.007	12.4	133	11.5	0	ICSA Main CR1 Failed
Ca	43	2	He	93320.397	1.3	140078	1.1	0	
Sb	121	2	He	0.155	22.1	890	16.6	0	ICSA Main CR1 Failed
Ti	47	2	He	1981.760	0.4	278030	0.5	0	
Se	82	1	No Gas	-0.300	-521.8	-8	-1875.8	0	ICSA Main CR1 Failed

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	535860	1.15	547648	97.85	70	120	
Ge	72	2	He	525863	0.24	503154	104.51	70	120	
Ge	72	1	No Gas	1375755	1.78	1347493	102.10	70	120	
In	115	1	No Gas	1139865	1.06	1132392	100.66	70	120	
Bi	209	1	No Gas	904583	0.80	923104	97.99	70	120	

Interference Check Solution AB (ICS-AB) Report

Sample Table

Sample Name	ICSAB
Data File Name	025ICSB.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\012423D.b
Acq Date Time	2023-01-24T14:32:47-06:00
Sample Type	ICSB
Dilution	1
Comment	
ISTD Ref File Name	011CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	1	No Gas	96.140	0.398	696077	1.17	100	96.1	180	120	ICSB Main CR1 Failed
Be	9	1	No Gas	93.720	1.119	160461	0.34	100	93.7	80	120	
V	51	2	He	94.276	0.841	334262	0.47	100	94.3	80	120	
Cr	52	2	He	93.625	1.904	371369	1.52	100	93.6	80	120	
Fe	56	2	He	104625.247	0.683	371225781	0.47	100	104625.2	80	120	
Se	78	2	He	92.467	2.003	6105	2.22	100	92.5	80	120	
As	75	2	He	96.805	1.279	60851	0.90	100	96.8	80	120	
Ca	44	2	He	101485.057	0.703	2613847	0.60	100	101485.1	80	120	
Na	23	2	He	105355.559	0.797	67917307	0.77	100	105355.6	80	120	
Mg	24	2	He	104650.380	0.984	41030674	0.62	100	104650.4	80	120	
K	39	2	He	105271.528	0.330	51459081	0.53	100	105271.5	80	120	
Mn	55	2	He	95.358	0.339	294626	0.10	100	95.4	80	120	
Co	59	2	He	94.303	0.445	534708	0.13	100	94.3	80	120	
Ni	60	2	He	91.043	1.907	132967	1.53	100	91.0	80	120	
Cu	63	2	He	91.064	0.792	357150	0.61	100	91.1	80	120	
Zn	66	2	He	94.258	1.370	76985	1.55	100	94.3	80	120	
Al	27	2	He	88035.961	0.269	21931380	0.40	100	88036.0	80	120	ICSB Main CR1 Failed
B	11	1	No Gas	539.736	1.287	429635	1.94	100	539.7	80	120	
Al	27	1	No Gas	89746.426	1.501	616302524	0.95	100	89746.4	80	120	ICSB Main CR1 Failed
Si	28	1	No Gas	499.720	1.394	1851179	1.04	100	499.7	80	120	
Ag	107	1	No Gas	93.354	1.529	689922	0.18	100	93.4	80	120	
Cd	111	1	No Gas	96.513	0.967	139699	0.74	100	96.5	80	120	
Sr	88	1	No Gas	101.262	2.458	1372020	1.04	100	101.3	80	120	
Mo	95	1	No Gas	2044.640	1.624	5596731	0.14	100	2044.6	80	120	
Sn	118	1	No Gas	98.568	0.811	414308	1.01	100	98.6	80	120	
Sb	121	1	No Gas	93.131	0.789	590395	1.41	100	93.1	80	120	
Ba	137	1	No Gas	100.677	1.108	210991	2.00	100	100.7	80	120	
Tl	205	1	No Gas	91.614	0.664	1044665	0.17	100	91.6	80	120	
Tl	203	1	No Gas	91.761	0.805	433183	0.52	100	91.8	80	120	
Pb	208	1	No Gas	93.609	0.543	1556093	0.38	100	93.6	80	120	
U	238	1	No Gas	100.954	1.810	1686289	2.05	100	101.0	80	120	
Ca	43	2	He	103688.279	1.324	156220	1.02	100	103688.3	80	120	
Sb	121	2	He	93.946	0.267	402935	0.48	100	93.9	80	120	
Ti	47	2	He	2073.407	0.494	291989	0.86	100	2073.4	80	120	
Cu	63	1	No Gas	89.976	1.830	562581	1.20	100	90.0	80	120	
Se	82	1	No Gas	91.465	5.124	8289	4.10	100	91.5	80	120	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	518979	1.46	547648	94.77	70	120	
Ge	72	2	He	527849	0.38	503154	104.91	70	120	
Ge	72	1	No Gas	1353442	1.73	1347493	100.44	70	120	
In	115	1	No Gas	1129513	1.69	1132392	99.75	70	120	
Bi	209	1	No Gas	903766	0.72	923104	97.91	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	029_CCB.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\012423D.b
Acq Date Time	2023-01-24T14:41:54-06:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	011CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Li	7	1	No Gas	0.036	47.1	29286	0.4	0.5	
Be	9	1	No Gas	0.008	83.1	22	53.3	0.5	
V	51	2	He	-0.209	-12.0	1705	5.1	2.5	
Cr	52	2	He	0.250	6.0	2940	1.8	2.5	
Fe	56	2	He	1.983	9.1	29429	1.4	100	
Se	78	2	He	-0.220	-214.5	444	6.2	2	
As	75	2	He	0.062	97.4	170	20.4	2.5	
Ca	44	2	He	-5.991	-30.1	850	5.1	100	
Na	23	2	He	5.212	10.3	102655	0.3	100	
Mg	24	2	He	0.810	1.3	620	0.0	100	
K	39	2	He	3.406	34.3	113282	0.3	100	
Mn	55	2	He	0.202	11.0	967	7.0	2.5	
Co	59	2	He	0.004	29.6	83	6.9	2.5	
Ni	60	2	He	0.106	42.8	240	25.3	2.5	
Cu	63	2	He	0.257	2.0	2450	1.1	2	
Zn	66	2	He	0.108	152.2	823	14.8	2.5	
Al	27	2	He	0.401	129.7	780	15.6	5	
B	11	1	No Gas	27.355	14.8	26006	12.0	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	0.540	31.4	21744	4.3	5	
Si	28	1	No Gas	-0.711	-234.4	241261	0.7	10	
Ag	107	1	No Gas	0.010	71.8	307	16.1	2.5	
Cd	111	1	No Gas	0.005	148.4	10	100.0	1	
Sr	88	1	No Gas	0.009	49.8	490	12.4	2.5	
Mo	95	1	No Gas	0.082	25.5	257	21.5	2.5	
Sn	118	1	No Gas	0.560	2.4	3107	1.7	5	
Sb	121	1	No Gas	0.206	32.3	1593	24.5	2.5	
Ba	137	1	No Gas	-0.050	-35.1	120	30.0	2.5	
Tl	205	1	No Gas	0.062	32.6	760	31.6	1	
Tl	203	1	No Gas	0.058	32.8	303	30.6	1	
Pb	208	1	No Gas	0.028	25.1	877	14.4	2.5	
U	238	1	No Gas	0.006	74.9	117	64.3	2.5	
Ca	43	2	He	-18.319	-45.5	37	31.5	100	
Sb	121	2	He	0.167	4.2	887	2.6	2.5	
Ti	47	2	He	0.027	161.0	13	43.3	2.5	
Cu	63	1	No Gas	0.186	29.2	3637	10.1	2.5	
Se	82	1	No Gas	-0.008	-21906.6	19	756.4	2	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	511278	0.11	547648	93.36	70	120	
Ge	72	2	He	495593	0.62	503154	98.50	70	120	
Ge	72	1	No Gas	1297318	1.41	1347493	96.28	70	120	
In	115	1	No Gas	1114826	0.49	1132392	98.45	70	120	
Bi	209	1	No Gas	916032	0.65	923104	99.23	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	030_CCV.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\012423D.b
Acq Date Time	2023-01-24T14:43:48-06:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	011CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	No Gas	99.729	3.082	749810	3.34	100	99.7	90	110	
Be	9	1	No Gas	99.601	1.024	177366	1.77	100	99.6	90	110	
V	51	2	He	98.850	0.644	349305	0.27	100	98.9	90	110	
Cr	52	2	He	99.334	0.964	392711	0.63	100	99.3	90	110	
Fe	56	2	He	9932.296	0.932	35156592	0.36	10000	99.3	90	110	
Se	78	2	He	98.599	1.402	6458	1.35	100	98.6	90	110	
As	75	2	He	100.761	0.206	63143	0.55	100	100.8	90	110	
Ca	44	2	He	9874.683	0.654	254530	1.18	10000	98.7	90	110	
Na	23	2	He	9926.038	0.329	6475268	0.26	10000	99.3	90	110	
Mg	24	2	He	9994.372	0.799	3907073	0.46	10000	99.9	90	110	
K	39	2	He	9834.304	1.078	4900546	1.63	10000	98.3	90	110	
Mn	55	2	He	100.215	1.135	308679	1.00	100	100.2	90	110	
Co	59	2	He	101.905	0.358	576069	0.36	100	101.9	90	110	
Ni	60	2	He	101.083	1.295	147177	0.85	100	101.1	90	110	
Cu	63	2	He	99.727	0.789	389799	0.87	100	99.7	90	110	
Zn	66	2	He	101.875	0.674	82893	1.18	100	101.9	90	110	
Al	27	2	He	101.611	3.269	25968	3.70	100	101.6	90	110	
B	11	1	No Gas	510.141	2.807	422598	3.28	500	102.0	90	110	
Al	27	1	No Gas	101.758	2.718	723061	0.47	100	101.8	90	110	
Si	28	1	No Gas	503.177	3.741	1875809	1.15	5000	10.1	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	98.387	0.522	752880	1.01	100	98.4	90	110	
Cd	111	1	No Gas	101.257	0.788	151748	0.73	100	101.3	90	110	
Sr	88	1	No Gas	100.754	0.316	1413661	0.98	100	100.8	90	110	
Mo	95	1	No Gas	98.825	0.271	280142	0.96	100	98.8	90	110	
Sn	118	1	No Gas	99.559	0.892	433244	0.63	100	99.6	90	110	
Sb	121	1	No Gas	96.554	2.015	616632	1.01	100	96.6	90	110	
Ba	137	1	No Gas	100.235	0.858	217490	1.82	100	100.2	90	110	
Tl	205	1	No Gas	100.599	0.636	1213102	0.79	100	100.6	90	110	
Tl	203	1	No Gas	100.799	0.640	503222	0.89	100	100.8	90	110	
Pb	208	1	No Gas	94.839	0.483	1667299	1.38	100	94.8	90	110	
U	238	1	No Gas	100.230	0.347	1770486	1.10	100	100.2	90	110	
Ca	43	2	He	9672.948	2.087	14591	2.53	10000	96.7	90	110	
Sb	121	2	He	99.551	0.883	425673	0.93	100	99.6	90	110	
Ti	47	2	He	101.047	1.092	14198	1.67	100	101.0	90	110	
Cu	63	1	No Gas	97.362	1.575	613202	1.55	100	97.4	90	110	
Se	82	1	No Gas	100.063	3.588	9136	2.72	100	100.1	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	539696	0.74	547648	98.55	70	120	
Ge	72	2	He	526264	0.57	503154	104.59	70	120	
Ge	72	1	No Gas	1363988	3.02	1347493	101.22	70	120	
In	115	1	No Gas	1169383	1.23	1132392	103.27	70	120	
Bi	209	1	No Gas	955747	0.93	923104	103.54	70	120	

Sample Report

Sample Table

Sample Name	MBLK-188726
Data File Name	031SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\012423D.b
Acq Date Time	2023-01-24T14:45:46-06:00
Sample Type	Sample
Dilution	1
Comment	DOD TW B 188726
ISTD Ref FileName	011CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	0.094	0.094	100.47	28895	0.00	2000	
Be	9	1	No Gas	0.007	0.007	135.23	18	0.04	2000	
V	51	2	He	-0.235	-0.235	-11.46	1653	-0.01	2000	
Cr	52	2	He	0.234	0.234	23.49	2950	0.01	2000	
Fe	56	2	He	2.509	2.509	10.79	31921	0.01	200000	
Se	78	2	He	-0.181	-0.181	-7.13	457	-0.04	2000	
As	75	2	He	0.052	0.052	42.87	168	0.03	2000	
Ca	44	2	He	4.835	4.835	111.38	1137	0.43	200000	
Na	23	2	He	6.370	6.370	37.15	105775	0.01	200000	
Mg	24	2	He	1.470	1.470	8.65	883	0.17	200000	
K	39	2	He	-0.892	-0.892	-490.92	113925	0.00	200000	
Mn	55	2	He	0.303	0.303	11.59	1287	0.02	2000	
Co	59	2	He	0.007	0.007	85.44	100	0.01	2000	
Ni	60	2	He	0.280	0.280	25.01	490	0.06	2000	
Cu	63	2	He	0.309	0.309	11.94	2704	0.01	2000	
Zn	66	2	He	1.142	1.142	5.04	1647	0.07	2000	
Al	27	2	He	1.349	1.349	35.29	1027	0.13	2000	
B	11	1	No Gas	29.251	29.251	13.50	26727	0.11	2000	
Al	27	1	No Gas	1.104	1.104	5.85	24509	0.00	2000	
Si	28	1	No Gas	0.866	0.866	120.72	236877	0.00	2000	
Ag	107	1	No Gas	0.012	0.012	49.37	317	0.00	2000	
Cd	111	1	No Gas	0.003	0.003	163.77	7	0.04	2000	
Sr	88	1	No Gas	0.017	0.017	37.49	570	0.00	2000	
Mo	95	1	No Gas	0.071	0.071	25.88	220	0.03	2000	
Sn	118	1	No Gas	0.597	0.597	11.78	3160	0.02	2000	
Sb	121	1	No Gas	0.132	0.132	29.26	1107	0.01	2000	
Ba	137	1	No Gas	-0.030	-0.030	-11.43	157	-0.02	2000	
Tl	205	1	No Gas	0.123	0.123	49.80	1410	0.01	2000	
Tl	203	1	No Gas	0.116	0.116	45.61	560	0.02	2000	
Pb	208	1	No Gas	0.039	0.039	9.32	1017	0.00	2000	
U	238	1	No Gas	0.006	0.006	46.16	107	0.01	2000	
Ca	43	2	He	1.680	1.680	816.78	67	2.52	200000	
Sb	121	2	He	0.124	0.124	21.34	730	0.02	2000	
Ti	47	2	He	0.098	0.098	40.69	23	0.42	2000	
Cu	63	1	No Gas	0.246	0.246	8.98	3844	0.01	2000	
Zn	66	1	No Gas	1.053	1.053	13.72	3194	0.03	2000	
Se	82	1	No Gas	-0.567	-0.567	-117.60	-27	2.08	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	497911	1.81	547648	90.92	70	120	
Ge	72	2	He	507263	1.64	503154	100.82	70	120	

Sample Report

Ge	72	1	No Gas	1248608	1.09	1347493	92.66	70	120	
In	115	1	No Gas	1082479	1.98	1132392	95.59	70	120	
Bi	209	1	No Gas	888289	1.44	923104	96.23	70	120	

Sample Report

Sample Table

Sample Name	LCS-188726
Data File Name	032SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\012423D.b
Acq Date Time	2023-01-24T14:47:58-06:00
Sample Type	Sample
Dilution	1
Comment	DOD TW B 188726
ISTD Ref FileName	011CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	99.028	99.028	5.24	775459	0.01	2000	
Be	9	1	No Gas	49.603	49.603	1.14	91991	0.05	2000	
V	51	2	He	47.847	47.847	1.68	175987	0.03	2000	
Cr	52	2	He	48.608	48.608	1.63	199616	0.02	2000	
Fe	56	2	He	4882.925	4882.925	0.48	17866484	0.03	200000	
Se	78	2	He	49.165	49.165	1.15	3577	1.37	2000	
As	75	2	He	49.725	49.725	1.25	32260	0.15	2000	
Ca	44	2	He	4841.415	4841.415	1.22	129453	3.74	200000	
Na	23	2	He	4790.369	4790.369	1.64	3284173	0.15	200000	
Mg	24	2	He	4941.209	4941.209	1.25	1995370	0.25	200000	
K	39	2	He	4910.011	4910.011	0.87	2588504	0.19	200000	
Mn	55	2	He	48.405	48.405	2.34	154205	0.03	2000	
Co	59	2	He	49.725	49.725	1.22	290384	0.02	2000	
Ni	60	2	He	48.831	48.831	2.85	73482	0.07	2000	
Cu	63	2	He	50.744	50.744	2.25	205658	0.02	2000	
Zn	66	2	He	52.643	52.643	1.48	44634	0.12	2000	
Al	27	2	He	101.486	101.486	1.46	26793	0.38	2000	
B	11	1	No Gas	472.619	472.619	3.72	408143	0.12	2000	
Al	27	1	No Gas	100.231	100.231	1.42	748336	0.01	2000	
Si	28	1	No Gas	576.482	576.482	3.03	2217991	0.03	2000	
Ag	107	1	No Gas	47.660	47.660	1.94	384837	0.01	2000	
Cd	111	1	No Gas	49.248	49.248	2.98	77843	0.06	2000	
Sr	88	1	No Gas	97.325	97.325	2.91	1440242	0.01	2000	
Mo	95	1	No Gas	47.690	47.690	1.96	142620	0.03	2000	
Sn	118	1	No Gas	95.363	95.363	2.54	437750	0.02	2000	
Sb	121	1	No Gas	47.164	47.164	0.59	316546	0.01	2000	
Ba	137	1	No Gas	48.248	48.248	1.86	110553	0.04	2000	
Tl	205	1	No Gas	41.550	41.550	1.24	523071	0.01	2000	
Tl	203	1	No Gas	41.491	41.491	1.23	216246	0.02	2000	
Pb	208	1	No Gas	46.699	46.699	1.01	857219	0.01	2000	
U	238	1	No Gas	99.155	99.155	1.07	1828354	0.01	2000	
Ca	43	2	He	4822.798	4822.798	0.45	7549	63.89	200000	
Sb	121	2	He	48.127	48.127	1.56	212675	0.02	2000	
Ti	47	2	He	145.948	145.948	1.06	21177	0.69	2000	
Cu	63	1	No Gas	49.991	49.991	1.15	331979	0.02	2000	
Zn	66	1	No Gas	52.714	52.714	0.90	95999	0.05	2000	
Se	82	1	No Gas	49.934	49.934	2.58	4801	1.04	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	562070	0.46	547648	102.63	70	120	
Ge	72	2	He	543627	1.46	503154	108.04	70	120	
Ge	72	1	No Gas	1432024	1.37	1347493	106.27	70	120	
In	115	1	No Gas	1233838	2.34	1132392	108.96	70	120	

Sample Report

Bi	209	1	No Gas	997710	0.69	923104	108.08	70	120	

Sample Report

Sample Table

Sample Name	HS23010489-02SD
Data File Name	034SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\012423D.b
Acq Date Time	2023-01-24T14:51:44-06:00
Sample Type	Sample
Dilution	5
Comment	DOD TW B 188726
ISTD Ref FileName	011CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	4.226	21.131	4.19	59589	0.01	2000	
Be	9	1	No Gas	0.003	0.016	196.53	13	0.02	2000	
V	51	2	He	0.153	0.767	30.55	2884	0.01	2000	
Cr	52	2	He	58.156	290.780	0.60	216136	0.03	2000	
Fe	56	2	He	563.426	2817.128	0.48	1889001	0.03	200000	
Se	78	2	He	-0.775	-3.876	-43.04	410	-0.19	2000	
As	75	2	He	0.156	0.782	90.06	224	0.07	2000	
Ca	44	2	He	13179.499	65897.496	1.34	317776	4.15	200000	
Na	23	2	He	56225.727	281128.634	0.40	33886016	0.17	200000	
Mg	24	2	He	4133.404	20667.019	1.13	1513348	0.27	200000	
K	39	2	He	308.415	1542.076	2.21	251519	0.12	200000	
Mn	55	2	He	23.231	116.155	1.36	67299	0.03	2000	
Co	59	2	He	0.680	3.399	1.70	3661	0.02	2000	
Ni	60	2	He	64.906	324.529	0.77	88534	0.07	2000	
Cu	63	2	He	1.260	6.298	2.90	6091	0.02	2000	
Zn	66	2	He	0.988	4.942	20.55	1483	0.07	2000	
Al	27	2	He	3.315	16.574	7.09	1453	0.23	2000	
B	11	1	No Gas	22.898	114.488	6.48	23203	0.10	2000	
Al	27	1	No Gas	3.265	16.323	2.60	39664	0.01	2000	
Si	28	1	No Gas	3244.692	16223.462	1.47	10179243	0.03	2000	>LDR
Ag	107	1	No Gas	0.009	0.047	3.69	297	0.00	2000	
Cd	111	1	No Gas	0.280	1.402	11.87	393	0.07	2000	
Sr	88	1	No Gas	198.829	994.145	0.84	2586583	0.01	2000	
Mo	95	1	No Gas	4.922	24.610	3.02	12970	0.04	2000	
Sn	118	1	No Gas	0.513	2.567	3.41	2834	0.02	2000	
Sb	121	1	No Gas	0.170	0.849	23.52	1377	0.01	2000	
Ba	137	1	No Gas	127.384	636.918	0.23	256234	0.05	2000	
Tl	205	1	No Gas	0.027	0.136	26.09	343	0.01	2000	
Tl	203	1	No Gas	0.033	0.167	42.32	180	0.02	2000	
Pb	208	1	No Gas	0.027	0.133	4.83	817	0.00	2000	
U	238	1	No Gas	0.601	3.006	3.63	9861	0.01	2000	
Ca	43	2	He	13532.659	67663.296	0.59	19090	70.89	200000	
Sb	121	2	He	0.153	0.764	26.05	823	0.02	2000	
Ti	47	2	He	0.027	0.137	159.53	13	0.21	2000	
Cu	63	1	No Gas	1.431	7.154	5.32	11055	0.01	2000	
Zn	66	1	No Gas	0.706	3.532	14.61	2754	0.03	2000	
Se	82	1	No Gas	-0.170	-0.850	-782.63	6	-2.83	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	526229	1.50	547648	96.09	70	120	
Ge	72	2	He	492811	0.26	503154	97.94	70	120	
Ge	72	1	No Gas	1296604	0.50	1347493	96.22	70	120	
In	115	1	No Gas	1084372	1.36	1132392	95.76	70	120	

Sample Report

Bi	209	1	No Gas	886179	0.70	923104	96.00	70	120	

Sample Report

Sample Table

Sample Name	HS23010489-02MS
Data File Name	035SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\012423D.b
Acq Date Time	2023-01-24T14:53:36-06:00
Sample Type	Sample
Dilution	1
Comment	DOD TW B 188726
ISTD Ref FileName	011CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	131.435	131.435	0.40	994435	0.01	2000	
Be	9	1	No Gas	53.112	53.112	3.38	96145	0.06	2000	
V	51	2	He	53.340	53.340	0.42	193116	0.03	2000	
Cr	52	2	He	392.769	392.769	0.53	1574663	0.02	2000	
Fe	56	2	He	8452.275	8452.275	1.34	30465357	0.03	200000	
Se	78	2	He	50.849	50.849	3.63	3629	1.40	2000	
As	75	2	He	54.099	54.099	0.74	34585	0.16	2000	
Ca	44	2	He	88502.721	88502.721	1.39	2314645	3.82	200000	
Na	23	2	He	361395.925	361395.925	1.16	236251530	0.15	200000	>LDR
Mg	24	2	He	30694.922	30694.922	0.69	12218506	0.25	200000	
K	39	2	He	7043.088	7043.088	1.29	3607956	0.20	200000	
Mn	55	2	He	194.792	194.792	0.76	610578	0.03	2000	
Co	59	2	He	55.680	55.680	0.27	320535	0.02	2000	
Ni	60	2	He	454.190	454.190	0.84	673017	0.07	2000	
Cu	63	2	He	56.684	56.684	1.09	226295	0.03	2000	
Zn	66	2	He	55.426	55.426	1.20	46286	0.12	2000	
Al	27	2	He	116.993	116.993	0.44	30330	0.39	2000	
B	11	1	No Gas	585.297	585.297	5.05	492122	0.12	2000	
Al	27	1	No Gas	115.775	115.775	5.28	831856	0.01	2000	
Si	28	1	No Gas	21980.333	21980.333	2.63	72094672	0.03	2000	>LDR
Ag	107	1	No Gas	48.350	48.350	2.48	372684	0.01	2000	
Cd	111	1	No Gas	50.218	50.218	2.96	75788	0.07	2000	
Sr	88	1	No Gas	1307.985	1307.985	2.80	18475731	0.01	2000	
Mo	95	1	No Gas	82.615	82.615	3.90	235823	0.04	2000	
Sn	118	1	No Gas	101.848	101.848	2.18	446291	0.02	2000	
Sb	121	1	No Gas	49.837	49.837	1.75	323199	0.02	2000	
Ba	137	1	No Gas	886.818	886.818	2.81	1935584	0.05	2000	
Tl	205	1	No Gas	41.945	41.945	2.34	485087	0.01	2000	
Tl	203	1	No Gas	42.067	42.067	2.27	201370	0.02	2000	
Pb	208	1	No Gas	50.069	50.069	1.72	844233	0.01	2000	
U	238	1	No Gas	114.016	114.016	0.47	1931448	0.01	2000	
Ca	43	2	He	90988.721	90988.721	0.76	139180	65.37	200000	
Sb	121	2	He	51.724	51.724	0.39	225308	0.02	2000	
Ti	47	2	He	159.727	159.727	0.79	22846	0.70	2000	
Cu	63	1	No Gas	56.541	56.541	1.94	362489	0.02	2000	
Zn	66	1	No Gas	53.255	53.255	3.37	93679	0.06	2000	
Se	82	1	No Gas	51.672	51.672	3.05	4798	1.08	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	548540	0.73	547648	100.16	70	120	
Ge	72	2	He	535874	1.69	503154	106.50	70	120	
Ge	72	1	No Gas	1384098	2.63	1347493	102.72	70	120	
In	115	1	No Gas	1177611	0.90	1132392	103.99	70	120	
Bi	209	1	No Gas	916533	2.18	923104	99.29	70	120	

Sample Report

Sample Table

Sample Name	HS23010489-02MSD
Data File Name	036SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\012423D.b
Acq Date Time	2023-01-24T14:55:29-06:00
Sample Type	Sample
Dilution	1
Comment	DOD TW B 188726
ISTD Ref FileName	011CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	133.355	133.355	2.60	1007115	0.01	2000	
Be	9	1	No Gas	53.764	53.764	4.88	97107	0.06	2000	
V	51	2	He	53.278	53.278	0.86	190226	0.03	2000	
Cr	52	2	He	385.691	385.691	1.53	1524905	0.03	2000	
Fe	56	2	He	8454.387	8454.387	1.19	30052327	0.03	200000	
Se	78	2	He	50.739	50.739	0.67	3574	1.42	2000	
As	75	2	He	53.713	53.713	0.56	33870	0.16	2000	
Ca	44	2	He	89226.839	89226.839	1.53	2300588	3.88	200000	
Na	23	2	He	365171.771	365171.771	0.65	235418003	0.16	200000	>LDR
Mg	24	2	He	30876.189	30876.189	0.79	12122780	0.25	200000	
K	39	2	He	7117.117	7117.117	0.74	3594468	0.20	200000	
Mn	55	2	He	194.853	194.853	0.94	602280	0.03	2000	
Co	59	2	He	55.743	55.743	0.65	316463	0.02	2000	
Ni	60	2	He	453.709	453.709	1.05	663048	0.07	2000	
Cu	63	2	He	56.436	56.436	0.67	222243	0.03	2000	
Zn	66	2	He	54.811	54.811	1.56	45162	0.12	2000	
Al	27	2	He	117.682	117.682	2.40	30073	0.39	2000	
B	11	1	No Gas	618.264	618.264	3.02	518579	0.12	2000	
Al	27	1	No Gas	116.290	116.290	5.49	823680	0.01	2000	
Si	28	1	No Gas	22295.977	22295.977	1.70	72084816	0.03	2000	>LDR
Ag	107	1	No Gas	48.966	48.966	1.94	368909	0.01	2000	
Cd	111	1	No Gas	51.077	51.077	2.19	75345	0.07	2000	
Sr	88	1	No Gas	1372.609	1372.609	4.71	18940832	0.01	2000	
Mo	95	1	No Gas	84.195	84.195	4.20	234797	0.04	2000	
Sn	118	1	No Gas	114.662	114.662	2.00	491006	0.02	2000	
Sb	121	1	No Gas	50.207	50.207	0.35	321008	0.02	2000	
Ba	137	1	No Gas	914.953	914.953	1.70	1952043	0.05	2000	
Tl	205	1	No Gas	44.062	44.062	4.70	496009	0.01	2000	
Tl	203	1	No Gas	43.965	43.965	4.57	204904	0.02	2000	
Pb	208	1	No Gas	50.949	50.949	1.87	836572	0.01	2000	
U	238	1	No Gas	117.065	117.065	2.63	1931995	0.01	2000	
Ca	43	2	He	91236.165	91236.165	1.04	137621	66.30	200000	
Sb	121	2	He	51.169	51.169	0.07	219844	0.02	2000	
Ti	47	2	He	170.174	170.174	0.19	24005	0.71	2000	
Cu	63	1	No Gas	56.618	56.618	1.60	357853	0.02	2000	
Zn	66	1	No Gas	54.708	54.708	1.46	94874	0.06	2000	
Se	82	1	No Gas	51.078	51.078	3.71	4678	1.09	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	547939	3.18	547648	100.05	70	120	
Ge	72	2	He	528512	2.51	503154	105.04	70	120	
Ge	72	1	No Gas	1364285	1.82	1347493	101.25	70	120	
In	115	1	No Gas	1151399	3.37	1132392	101.68	70	120	
Bi	209	1	No Gas	892703	2.37	923104	96.71	70	120	

Sample Report

Sample Table

Sample Name	HS23010489-02PDS
Data File Name	037SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\012423D.b
Acq Date Time	2023-01-24T14:57:28-06:00
Sample Type	Sample
Dilution	1
Comment	DOD TW B 188726
ISTD Ref FileName	011CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	25.066	25.066	1.31	217020	0.01	2000	
Be	9	1	No Gas	102.468	102.468	1.03	187323	0.05	2000	
V	51	2	He	103.420	103.420	0.87	369352	0.03	2000	
Cr	52	2	He	440.196	440.196	0.54	1751990	0.03	2000	
Fe	56	2	He	13244.126	13244.126	0.81	47386246	0.03	200000	
Se	78	2	He	99.423	99.423	2.76	6579	1.51	2000	
As	75	2	He	106.018	106.018	0.85	67160	0.16	2000	
Ca	44	2	He	92629.257	92629.257	1.59	2404865	3.85	200000	
Na	23	2	He	363207.745	363207.745	1.22	235742423	0.15	200000	>LDR
Mg	24	2	He	35402.109	35402.109	1.59	13991255	0.25	200000	
K	39	2	He	11945.582	11945.582	0.50	5991859	0.20	200000	
Mn	55	2	He	241.865	241.865	0.45	752582	0.03	2000	
Co	59	2	He	105.491	105.491	1.35	602894	0.02	2000	
Ni	60	2	He	500.158	500.158	0.98	735851	0.07	2000	
Cu	63	2	He	104.746	104.746	0.63	413832	0.03	2000	
Zn	66	2	He	103.163	103.163	0.72	84849	0.12	2000	
Al	27	2	He	114.751	114.751	1.92	29548	0.39	2000	
B	11	1	No Gas	56.476	56.476	4.86	52635	0.11	2000	
Al	27	1	No Gas	115.095	115.095	0.99	813246	0.01	2000	
Si	28	1	No Gas	20748.262	20748.262	1.50	66886391	0.03	2000	>LDR
Ag	107	1	No Gas	98.111	98.111	0.95	716117	0.01	2000	
Cd	111	1	No Gas	102.584	102.584	0.44	146657	0.07	2000	
Sr	88	1	No Gas	1225.215	1225.215	0.39	16394082	0.01	2000	
Mo	95	1	No Gas	135.095	135.095	0.38	365281	0.04	2000	
Sn	118	1	No Gas	0.565	0.565	2.38	3130	0.02	2000	
Sb	121	1	No Gas	95.745	95.745	1.37	609845	0.02	2000	
Ba	137	1	No Gas	953.363	953.363	2.16	1970905	0.05	2000	
Tl	205	1	No Gas	97.992	97.992	0.44	1087600	0.01	2000	
Tl	203	1	No Gas	98.564	98.564	0.36	452902	0.02	2000	
Pb	208	1	No Gas	98.842	98.842	0.63	1599297	0.01	2000	
U	238	1	No Gas	3.981	3.981	1.65	64739	0.01	2000	
Ca	43	2	He	93578.163	93578.163	2.23	142115	65.85	200000	
Sb	121	2	He	101.192	101.192	0.08	437432	0.02	2000	
Ti	47	2	He	105.385	105.385	1.94	14968	0.70	2000	
Cu	63	1	No Gas	103.393	103.393	0.41	649234	0.02	2000	
Zn	66	1	No Gas	101.754	101.754	0.50	174405	0.06	2000	
Se	82	1	No Gas	98.078	98.078	1.31	8932	1.10	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	554107	1.37	547648	101.18	70	120	
Ge	72	2	He	532033	0.39	503154	105.74	70	120	
Ge	72	1	No Gas	1359864	1.13	1347493	100.92	70	120	
In	115	1	No Gas	1115461	1.23	1132392	98.50	70	120	
Bi	209	1	No Gas	879657	0.36	923104	95.29	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	041_CCV.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\012423D.b
Acq Date Time	2023-01-24T15:06:39-06:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	011CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	No Gas	100.974	1.611	742887	0.43	100	101.0	90	110	
Be	9	1	No Gas	99.558	1.973	173571	0.70	100	99.6	90	110	
V	51	2	He	99.190	0.187	333792	0.27	100	99.2	90	110	
Cr	52	2	He	99.216	0.504	373551	0.30	100	99.2	90	110	
Fe	56	2	He	9903.728	0.167	33385295	0.31	10000	99.0	90	110	
Se	78	2	He	97.533	1.720	6088	1.34	100	97.5	90	110	
As	75	2	He	101.512	0.396	60580	0.14	100	101.5	90	110	
Ca	44	2	He	9915.555	0.365	243389	0.51	10000	99.2	90	110	
Na	23	2	He	9967.175	1.193	6191835	1.37	10000	99.7	90	110	
Mg	24	2	He	10129.450	1.228	3771137	1.16	10000	101.3	90	110	
K	39	2	He	10072.550	0.399	4777005	0.35	10000	100.7	90	110	
Mn	55	2	He	100.182	0.625	293874	0.84	100	100.2	90	110	
Co	59	2	He	101.074	0.460	544133	0.29	100	101.1	90	110	
Ni	60	2	He	99.866	0.752	138477	0.65	100	99.9	90	110	
Cu	63	2	He	98.787	0.371	367735	0.57	100	98.8	90	110	
Zn	66	2	He	103.312	1.431	80042	1.43	100	103.3	90	110	
Al	27	2	He	101.084	3.367	24602	3.18	100	101.1	90	110	
B	11	1	No Gas	503.195	1.152	408249	2.20	500	100.6	90	110	
Al	27	1	No Gas	104.367	1.255	693113	1.27	100	104.4	90	110	
Si	28	1	No Gas	546.223	3.334	1883969	2.60	5000	10.9	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	98.574	0.652	694562	1.51	100	98.6	90	110	
Cd	111	1	No Gas	100.625	1.836	138838	0.85	100	100.6	90	110	
Sr	88	1	No Gas	102.395	2.763	1322730	2.52	100	102.4	90	110	
Mo	95	1	No Gas	99.162	1.169	258813	1.14	100	99.2	90	110	
Sn	118	1	No Gas	100.397	0.645	402289	1.33	100	100.4	90	110	
Sb	121	1	No Gas	95.482	1.694	570195	1.21	100	95.5	90	110	
Ba	137	1	No Gas	100.436	0.792	200653	1.67	100	100.4	90	110	
Tl	205	1	No Gas	100.759	1.862	1109034	1.61	100	100.8	90	110	
Tl	203	1	No Gas	101.439	1.452	462253	1.47	100	101.4	90	110	
Pb	208	1	No Gas	94.447	1.417	1515540	1.47	100	94.4	90	110	
U	238	1	No Gas	100.486	0.638	1620137	0.34	100	100.5	90	110	
Ca	43	2	He	10041.043	1.875	14421	1.81	10000	100.4	90	110	
Sb	121	2	He	98.568	0.403	401382	0.68	100	98.6	90	110	
Ti	47	2	He	100.271	1.523	13417	1.81	100	100.3	90	110	
Cu	63	1	No Gas	97.825	1.844	576040	1.38	100	97.8	90	110	
Se	82	1	No Gas	99.523	3.322	8499	3.89	100	99.5	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	528494	1.39	547648	96.50	70	120	
Ge	72	2	He	501173	0.29	503154	99.61	70	120	
Ge	72	1	No Gas	1274991	0.70	1347493	94.62	70	120	
In	115	1	No Gas	1076762	1.68	1132392	95.09	70	120	
Bi	209	1	No Gas	872382	0.48	923104	94.51	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	042_CCB.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\012423D.b
Acq Date Time	2023-01-24T15:08:31-06:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	011CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Li	7	1	No Gas	0.324	36.0	32282	2.4	0.5	
Be	9	1	No Gas	0.014	44.2	32	32.9	0.5	
V	51	2	He	0.075	30.4	2560	2.4	2.5	
Cr	52	2	He	0.251	5.7	2857	2.0	2.5	
Fe	56	2	He	1.894	6.5	28236	1.8	100	
Se	78	2	He	0.630	57.7	477	4.6	2	
As	75	2	He	0.131	51.1	204	19.3	2.5	
Ca	44	2	He	-4.185	-146.4	867	17.1	100	
Na	23	2	He	49.190	1.2	125255	0.5	100	
Mg	24	2	He	0.649	65.1	543	27.6	100	
K	39	2	He	13.415	14.3	114241	1.2	100	
Mn	55	2	He	0.194	3.2	913	2.3	2.5	
Co	59	2	He	-0.002	-170.2	50	34.6	2.5	
Ni	60	2	He	0.139	19.1	277	12.7	2.5	
Cu	63	2	He	0.191	39.1	2140	13.0	2	
Zn	66	2	He	-0.066	-170.8	670	12.2	2.5	
Al	27	2	He	0.240	226.9	720	17.7	5	
B	11	1	No Gas	36.319	10.6	34043	8.9	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	0.507	25.6	20916	3.0	5	
Si	28	1	No Gas	10.407	5.4	267609	0.9	10	CCB Main CR1 Failed
Ag	107	1	No Gas	0.010	90.4	297	20.3	2.5	
Cd	111	1	No Gas	0.003	164.2	7	86.6	1	
Sr	88	1	No Gas	0.015	67.7	543	23.0	2.5	
Mo	95	1	No Gas	0.064	9.4	203	7.5	2.5	
Sn	118	1	No Gas	0.704	8.5	3591	5.9	5	
Sb	121	1	No Gas	0.122	26.8	1057	18.3	2.5	
Ba	137	1	No Gas	-0.055	-17.9	107	19.5	2.5	
Tl	205	1	No Gas	0.120	48.1	1377	47.2	1	
Tl	203	1	No Gas	0.129	61.2	620	59.2	1	
Pb	208	1	No Gas	0.026	28.6	813	15.0	2.5	
U	238	1	No Gas	0.006	100.9	110	86.7	2.5	
Ca	43	2	He	-10.282	-145.5	47	44.6	100	
Sb	121	2	He	0.092	13.4	567	8.7	2.5	
Ti	47	2	He	0.057	288.5	17	124.9	2.5	
Cu	63	1	No Gas	0.242	1.8	3857	1.5	2.5	
Se	82	1	No Gas	0.271	638.4	42	343.6	2	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	528158	0.23	547648	96.44	70	120	
Ge	72	2	He	480339	0.56	503154	95.47	70	120	
Ge	72	1	No Gas	1260748	0.99	1347493	93.56	70	120	
In	115	1	No Gas	1081454	0.95	1132392	95.50	70	120	
Bi	209	1	No Gas	883741	1.01	923104	95.74	70	120	

Sample Report

Sample Table

Sample Name	HS23010632-01
Data File Name	051SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\012423D.b
Acq Date Time	2023-01-24T15:25:38-06:00
Sample Type	Sample
Dilution	1
Comment	DOD TW B 188726
ISTD Ref FileName	011CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	148.778	148.778	0.79	1194796	0.01	2000	
Be	9	1	No Gas	0.238	0.238	7.62	468	0.05	2000	
V	51	2	He	2.430	2.430	1.25	11665	0.02	2000	
Cr	52	2	He	2.176	2.176	2.10	11275	0.02	2000	
Fe	56	2	He	15996.580	15996.580	0.94	59662749	0.03	200000	
Se	78	2	He	-0.183	-0.183	-119.94	499	-0.04	2000	
As	75	2	He	17.220	17.220	3.00	11496	0.15	2000	
Ca	44	2	He	330381.650	330381.650	1.35	8939259	3.70	200000	>LDR
Na	23	2	He	920615.438	920615.438	1.96	622701337	0.15	200000	>LDR
Mg	24	2	He	263752.779	263752.779	0.64	108666892	0.24	200000	>LDR
K	39	2	He	3856.740	3856.740	1.39	2101373	0.18	200000	
Mn	55	2	He	181.689	181.689	0.58	589523	0.03	2000	
Co	59	2	He	19.919	19.919	0.58	118739	0.02	2000	
Ni	60	2	He	14.334	14.334	1.31	22088	0.06	2000	
Cu	63	2	He	0.980	0.980	7.50	5708	0.02	2000	
Zn	66	2	He	29.806	29.806	2.00	26149	0.11	2000	
Al	27	2	He	46.269	46.269	2.47	12883	0.36	2000	
B	11	1	No Gas	28.034	28.034	1.51	30325	0.09	2000	
Al	27	1	No Gas	45.308	45.308	4.38	348644	0.01	2000	
Si	28	1	No Gas	22081.203	22081.203	3.70	74773157	0.03	2000	>LDR
Ag	107	1	No Gas	-0.015	-0.015	-29.64	127	-0.01	2000	
Cd	111	1	No Gas	0.573	0.573	6.34	830	0.07	2000	
Sr	88	1	No Gas	7881.178	7881.178	0.95	106362738	0.01	2000	>LDR
Mo	95	1	No Gas	0.207	0.207	10.29	600	0.03	2000	
Sn	118	1	No Gas	0.224	0.224	25.46	1733	0.01	2000	
Sb	121	1	No Gas	0.108	0.108	15.14	1100	0.01	2000	
Ba	137	1	No Gas	11046.253	11046.253	0.24	23035415	0.05	2000	>LDR
Tl	205	1	No Gas	0.022	0.022	16.82	273	0.01	2000	
Tl	203	1	No Gas	0.020	0.020	41.89	110	0.02	2000	
Pb	208	1	No Gas	0.596	0.596	2.97	9528	0.01	2000	
U	238	1	No Gas	2.629	2.629	0.73	40672	0.01	2000	
Ca	43	2	He	349260.660	349260.660	0.40	552813	63.18	200000	>LDR
Sb	121	2	He	0.083	0.083	24.98	610	0.01	2000	
Ti	47	2	He	0.601	0.601	9.78	100	0.60	2000	
Cu	63	1	No Gas	4.725	4.725	1.72	33839	0.01	2000	
Zn	66	1	No Gas	28.229	28.229	1.35	52137	0.05	2000	
Se	82	1	No Gas	7.355	7.355	5.05	726	1.01	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	584353	0.98	547648	106.70	70	120	
Ge	72	2	He	554698	1.37	503154	110.24	70	120	
Ge	72	1	No Gas	1429634	2.85	1347493	106.10	70	120	
In	115	1	No Gas	1125128	0.92	1132392	99.36	70	120	
Bi	209	1	No Gas	836919	0.69	923104	90.66	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	053_CCV.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\012423D.b
Acq Date Time	2023-01-24T15:31:57-06:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	011CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	No Gas	102.347	1.904	787216	1.84	100	102.3	90	110	
Be	9	1	No Gas	101.389	0.471	184910	1.08	100	101.4	90	110	
V	51	2	He	99.535	0.556	349672	0.32	100	99.5	90	110	
Cr	52	2	He	98.355	0.823	386609	0.16	100	98.4	90	110	
Fe	56	2	He	10011.928	1.102	35232802	0.36	10000	100.1	90	110	
Se	78	2	He	101.912	2.967	6619	2.09	100	101.9	90	110	
As	75	2	He	100.172	1.550	62408	0.82	100	100.2	90	110	
Ca	44	2	He	10081.359	1.695	258306	0.93	10000	100.8	90	110	
Na	23	2	He	10550.264	0.711	6836288	1.22	10000	105.5	90	110	
Mg	24	2	He	10328.836	1.884	4014242	1.26	10000	103.3	90	110	
K	39	2	He	10414.667	1.420	5152231	0.63	10000	104.1	90	110	
Mn	55	2	He	100.031	0.857	306327	0.12	100	100.0	90	110	
Co	59	2	He	99.811	0.698	560962	0.09	100	99.8	90	110	
Ni	60	2	He	99.770	1.136	144425	0.42	100	99.8	90	110	
Cu	63	2	He	98.194	1.308	381594	0.56	100	98.2	90	110	
Zn	66	2	He	102.119	0.913	82611	1.48	100	102.1	90	110	
Al	27	2	He	103.842	2.964	26362	2.14	100	103.8	90	110	
B	11	1	No Gas	493.198	2.442	418667	3.52	500	98.6	90	110	
Al	27	1	No Gas	105.453	2.554	730899	1.00	100	105.5	90	110	
Si	28	1	No Gas	540.344	5.197	1947693	2.20	5000	10.8	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	99.198	0.117	700243	1.43	100	99.2	90	110	
Cd	111	1	No Gas	99.903	0.603	138120	1.81	100	99.9	90	110	
Sr	88	1	No Gas	105.096	1.500	1360412	2.78	100	105.1	90	110	
Mo	95	1	No Gas	100.292	0.805	262275	2.11	100	100.3	90	110	
Sn	118	1	No Gas	99.747	1.033	400390	0.31	100	99.7	90	110	
Sb	121	1	No Gas	91.261	2.260	569047	1.90	100	91.3	90	110	
Ba	137	1	No Gas	99.570	1.888	199287	2.31	100	99.6	90	110	
Tl	205	1	No Gas	100.451	0.686	1088065	1.54	100	100.5	90	110	
Tl	203	1	No Gas	100.946	1.729	452684	2.29	100	100.9	90	110	
Pb	208	1	No Gas	94.587	1.182	1493652	2.06	100	94.6	90	110	
U	238	1	No Gas	99.422	2.430	1577225	1.70	100	99.4	90	110	
Ca	43	2	He	10124.475	3.071	15179	2.59	10000	101.2	90	110	
Sb	121	2	He	96.244	0.488	409159	0.44	100	96.2	90	110	
Ti	47	2	He	102.687	0.921	14344	1.59	100	102.7	90	110	
Cu	63	1	No Gas	96.529	2.602	593447	1.19	100	96.5	90	110	
Se	82	1	No Gas	94.973	1.783	8469	2.06	100	95.0	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	552765	1.18	547648	100.93	70	120	
Ge	72	2	He	523224	0.76	503154	103.99	70	120	
Ge	72	1	No Gas	1331653	3.09	1347493	98.82	70	120	
In	115	1	No Gas	1078697	1.33	1132392	95.26	70	120	
Bi	209	1	No Gas	858455	0.94	923104	93.00	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	054_CCB.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\012423D.b
Acq Date Time	2023-01-24T15:33:49-06:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	011CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Li	7	1	No Gas	0.308	12.3	34038	1.1	0.5	
Be	9	1	No Gas	-0.001	-316.2	7	86.6	0.5	
V	51	2	He	0.358	15.4	3654	4.0	2.5	
Cr	52	2	He	0.214	22.2	2870	6.6	2.5	
Fe	56	2	He	2.464	1.3	31714	1.4	100	
Se	78	2	He	0.401	111.6	490	5.9	2	
As	75	2	He	0.191	33.3	251	14.7	2.5	
Ca	44	2	He	-5.035	-112.9	893	16.8	100	
Na	23	2	He	292.246	2.1	282157	0.7	100	CCB Main CR1 Failed
Mg	24	2	He	1.394	8.8	853	5.9	100	
K	39	2	He	24.241	9.7	125514	0.2	100	
Mn	55	2	He	0.155	11.8	850	7.3	2.5	
Co	59	2	He	-0.006	-30.7	30	33.3	2.5	
Ni	60	2	He	0.133	35.9	283	22.7	2.5	
Cu	63	2	He	0.116	24.7	1977	4.5	2	
Zn	66	2	He	0.015	1639.0	770	24.8	2.5	
Al	27	2	He	0.278	211.6	767	17.2	5	
B	11	1	No Gas	28.682	12.5	29545	10.1	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	0.479	24.2	21814	2.7	5	
Si	28	1	No Gas	8.188	14.6	274493	0.3	10	
Ag	107	1	No Gas	0.013	48.0	327	12.7	2.5	
Cd	111	1	No Gas	0.002	167.3	7	86.6	1	
Sr	88	1	No Gas	0.038	30.0	853	17.6	2.5	
Mo	95	1	No Gas	0.050	50.1	167	38.1	2.5	
Sn	118	1	No Gas	0.494	4.6	2784	2.4	5	
Sb	121	1	No Gas	0.099	21.2	970	12.7	2.5	
Ba	137	1	No Gas	-0.051	-5.6	117	4.9	2.5	
Tl	205	1	No Gas	0.116	48.3	1320	46.4	1	
Tl	203	1	No Gas	0.113	55.3	543	52.2	1	
Pb	208	1	No Gas	0.016	15.8	637	5.9	2.5	
U	238	1	No Gas	0.006	24.3	113	20.4	2.5	
Ca	43	2	He	-18.927	-20.1	37	15.7	100	
Sb	121	2	He	0.094	18.6	603	10.8	2.5	
Ti	47	2	He	0.099	86.5	23	49.5	2.5	
Cu	63	1	No Gas	0.498	7.4	5618	4.0	2.5	
Se	82	1	No Gas	0.702	80.8	83	60.1	2	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	558777	0.34	547648	102.03	70	120	
Ge	72	2	He	506481	1.10	503154	100.66	70	120	
Ge	72	1	No Gas	1326065	1.36	1347493	98.41	70	120	
In	115	1	No Gas	1096407	1.51	1132392	96.82	70	120	
Bi	209	1	No Gas	876829	0.77	923104	94.99	70	120	

Sample Report

Sample Table

Sample Name	HS23010489-02SD
Data File Name	059SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\012423D.b
Acq Date Time	2023-01-24T16:01:06-06:00
Sample Type	Sample
Dilution	50
Comment	DOD TW B 188726
ISTD Ref FileName	011CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	0.515	25.771	12.25	36071	0.00	2000	
Be	9	1	No Gas	-0.003	-0.141	-54.84	3	-0.08	2000	
V	51	2	He	0.932	46.593	3.60	5738	0.02	2000	
Cr	52	2	He	7.140	357.016	3.04	29836	0.02	2000	
Fe	56	2	He	69.371	3468.571	0.23	266271	0.03	200000	
Se	78	2	He	0.015	0.741	5213.32	479	0.00	2000	
As	75	2	He	0.270	13.502	24.18	307	0.09	2000	
Ca	44	2	He	1615.957	80797.865	2.50	42008	3.85	200000	
Na	23	2	He	7290.679	364533.973	0.86	4724482	0.15	200000	
Mg	24	2	He	530.429	26521.467	1.39	205088	0.26	200000	
K	39	2	He	41.156	2057.790	9.67	136932	0.03	200000	
Mn	55	2	He	2.991	149.565	2.46	9487	0.03	2000	
Co	59	2	He	0.088	4.403	8.10	557	0.02	2000	
Ni	60	2	He	8.007	400.373	4.02	11605	0.07	2000	
Cu	63	2	He	0.210	10.516	15.14	2390	0.01	2000	
Zn	66	2	He	0.765	38.268	27.84	1387	0.06	2000	
Al	27	2	He	1.139	56.960	48.12	1000	0.11	2000	
B	11	1	No Gas	5.429	271.459	3.86	9980	0.05	2000	
Al	27	1	No Gas	1.511	75.572	5.64	29198	0.01	2000	
Si	28	1	No Gas	439.311	21965.551	1.03	1649121	0.03	2000	
Ag	107	1	No Gas	0.005	0.247	62.00	273	0.00	2000	
Cd	111	1	No Gas	0.000	0.003	5975.86	3	0.00	2000	
Sr	88	1	No Gas	23.597	1179.840	1.59	316957	0.01	2000	
Mo	95	1	No Gas	0.616	30.814	12.59	1707	0.04	2000	
Sn	118	1	No Gas	0.282	14.124	14.94	1964	0.01	2000	
Sb	121	1	No Gas	0.057	2.858	24.64	720	0.01	2000	
Ba	137	1	No Gas	15.638	781.897	1.71	32648	0.05	2000	
Tl	205	1	No Gas	0.002	0.106	25.45	63	0.00	2000	
Tl	203	1	No Gas	-0.001	-0.065	-163.15	20	-0.01	2000	
Pb	208	1	No Gas	0.005	0.233	59.17	470	0.00	2000	
U	238	1	No Gas	0.069	3.446	5.07	1170	0.01	2000	
Ca	43	2	He	1783.483	89174.165	1.29	2710	65.80	200000	
Sb	121	2	He	0.047	2.326	21.60	420	0.01	2000	
Ti	47	2	He	0.069	3.469	178.96	20	0.35	2000	
Cu	63	1	No Gas	0.348	17.393	14.67	4771	0.01	2000	
Zn	66	1	No Gas	0.780	38.988	17.58	2980	0.03	2000	
Se	82	1	No Gas	-0.427	-21.362	-278.66	-17	2.50	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	566410	0.15	547648	103.43	70	120	
Ge	72	2	He	519726	1.06	503154	103.29	70	120	
Ge	72	1	No Gas	1346012	0.78	1347493	99.89	70	120	
In	115	1	No Gas	1118554	1.07	1132392	98.78	70	120	

Sample Report

Bi	209	1	No Gas	905832	0.92	923104	98.13	70	120	

Sample Report

Sample Table

Sample Name	HS23010489-02PDS
Data File Name	060SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\012423D.b
Acq Date Time	2023-01-24T16:03:00-06:00
Sample Type	Sample
Dilution	10
Comment	DOD TW B 188726
ISTD Ref FileName	011CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	2.474	24.737	1.97	51196	0.00	2000	
Be	9	1	No Gas	99.682	996.819	1.53	187402	0.05	2000	
V	51	2	He	101.364	1013.637	0.20	352430	0.03	2000	
Cr	52	2	He	136.470	1364.703	0.71	530161	0.03	2000	
Fe	56	2	He	10391.921	103919.205	0.16	36198206	0.03	200000	
Se	78	2	He	101.473	1014.732	3.51	6526	1.56	2000	
As	75	2	He	100.914	1009.137	1.15	62233	0.16	2000	
Ca	44	2	He	17944.922	179449.215	0.71	454316	3.95	200000	
Na	23	2	He	45983.126	459831.265	0.54	29142033	0.16	200000	
Mg	24	2	He	12716.825	127168.247	0.75	4892153	0.26	200000	
K	39	2	He	10423.452	104234.523	1.59	5103945	0.20	200000	
Mn	55	2	He	115.009	1150.089	0.61	348554	0.03	2000	
Co	59	2	He	102.203	1022.027	1.22	568552	0.02	2000	
Ni	60	2	He	138.380	1383.796	0.88	198240	0.07	2000	
Cu	63	2	He	99.388	993.877	1.16	382298	0.03	2000	
Zn	66	2	He	101.341	1013.411	0.85	81152	0.12	2000	
Al	27	2	He	103.483	1034.831	1.68	26011	0.40	2000	
B	11	1	No Gas	6.758	67.585	2.32	11190	0.06	2000	
Al	27	1	No Gas	100.567	1005.674	1.71	724467	0.01	2000	
Si	28	1	No Gas	2017.956	20179.557	2.71	6843482	0.03	2000	>LDR
Ag	107	1	No Gas	98.877	988.768	0.40	732293	0.01	2000	
Cd	111	1	No Gas	100.028	1000.278	0.38	145086	0.07	2000	
Sr	88	1	No Gas	123.549	1235.489	2.08	1677674	0.01	2000	
Mo	95	1	No Gas	103.903	1039.030	1.17	285049	0.04	2000	
Sn	118	1	No Gas	0.250	2.500	7.90	1850	0.01	2000	
Sb	121	1	No Gas	91.118	911.177	1.60	589720	0.02	2000	
Ba	137	1	No Gas	177.822	1778.216	0.78	373224	0.05	2000	
Tl	205	1	No Gas	103.615	1036.150	0.73	1185213	0.01	2000	
Tl	203	1	No Gas	104.065	1040.646	1.51	492777	0.02	2000	
Pb	208	1	No Gas	95.681	956.812	1.45	1595509	0.01	2000	
U	238	1	No Gas	0.366	3.664	1.90	6155	0.01	2000	
Ca	43	2	He	18059.647	180596.472	2.27	26750	67.51	200000	
Sb	121	2	He	97.570	975.703	1.28	410559	0.02	2000	
Ti	47	2	He	103.460	1034.602	1.85	14304	0.72	2000	
Cu	63	1	No Gas	96.215	962.149	1.49	614058	0.02	2000	
Zn	66	1	No Gas	96.888	968.879	1.71	168818	0.06	2000	
Se	82	1	No Gas	94.726	947.261	1.80	8766	1.08	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	569829	0.53	547648	104.05	70	120	
Ge	72	2	He	517891	0.64	503154	102.93	70	120	
Ge	72	1	No Gas	1381934	1.80	1347493	102.56	70	120	
In	115	1	No Gas	1131735	0.41	1132392	99.94	70	120	

Sample Report

Bi	209	1	No Gas	906595	0.89	923104	98.21	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	062_CCV.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\012423D.b
Acq Date Time	2023-01-24T16:06:46-06:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	011CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	No Gas	102.198	3.526	807325	2.82	100	102.2	90	110	
Be	9	1	No Gas	98.499	0.934	184500	0.74	100	98.5	90	110	
V	51	2	He	99.091	0.397	358555	0.80	100	99.1	90	110	
Cr	52	2	He	99.409	0.645	402437	0.84	100	99.4	90	110	
Fe	56	2	He	10018.561	0.887	36313575	1.20	10000	100.2	90	110	
Se	78	2	He	98.100	2.968	6581	2.40	100	98.1	90	110	
As	75	2	He	99.676	1.429	63965	1.84	100	99.7	90	110	
Ca	44	2	He	9937.924	1.282	262285	1.23	10000	99.4	90	110	
Na	23	2	He	10252.316	0.895	6845099	1.27	10000	102.5	90	110	
Mg	24	2	He	10265.660	0.446	4109461	0.86	10000	102.7	90	110	
K	39	2	He	10151.130	0.550	5175621	0.95	10000	101.5	90	110	
Mn	55	2	He	100.481	0.784	316929	1.17	100	100.5	90	110	
Co	59	2	He	100.540	0.645	581994	1.03	100	100.5	90	110	
Ni	60	2	He	98.832	0.277	147357	0.69	100	98.8	90	110	
Cu	63	2	He	98.429	0.336	393973	0.56	100	98.4	90	110	
Zn	66	2	He	101.253	0.023	84365	0.40	100	101.3	90	110	
Al	27	2	He	105.469	3.228	27571	3.56	100	105.5	90	110	
B	11	1	No Gas	483.361	1.839	421553	3.27	500	96.7	90	110	
Al	27	1	No Gas	104.682	1.810	746332	0.58	100	104.7	90	110	
Si	28	1	No Gas	520.442	1.955	1939462	0.37	5000	10.4	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	98.311	1.830	734595	1.18	100	98.3	90	110	
Cd	111	1	No Gas	100.161	1.362	146587	1.42	100	100.2	90	110	
Sr	88	1	No Gas	104.050	2.249	1425466	1.28	100	104.1	90	110	
Mo	95	1	No Gas	98.945	2.190	273857	0.54	100	98.9	90	110	
Sn	118	1	No Gas	99.177	1.545	421480	1.69	100	99.2	90	110	
Sb	121	1	No Gas	93.093	0.987	596979	1.41	100	93.1	90	110	
Ba	137	1	No Gas	99.586	2.362	210982	1.80	100	99.6	90	110	
Tl	205	1	No Gas	101.821	0.846	1174086	0.63	100	101.8	90	110	
Tl	203	1	No Gas	102.422	1.004	488938	0.58	100	102.4	90	110	
Pb	208	1	No Gas	95.952	0.786	1612988	0.96	100	96.0	90	110	
U	238	1	No Gas	101.881	2.660	1720743	2.29	100	101.9	90	110	
Ca	43	2	He	9882.837	6.093	15265	6.47	10000	98.8	90	110	
Sb	121	2	He	97.158	0.780	425417	1.17	100	97.2	90	110	
Ti	47	2	He	100.674	2.802	14485	3.20	100	100.7	90	110	
Cu	63	1	No Gas	95.942	0.795	606715	1.37	100	95.9	90	110	
Se	82	1	No Gas	97.777	3.537	8963	2.18	100	97.8	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	567767	1.61	547648	103.67	70	120	
Ge	72	2	He	538878	0.41	503154	107.10	70	120	
Ge	72	1	No Gas	1369128	1.80	1347493	101.61	70	120	
In	115	1	No Gas	1142144	2.47	1132392	100.86	70	120	
Bi	209	1	No Gas	913934	1.00	923104	99.01	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	063_CCB.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\012423D.b
Acq Date Time	2023-01-24T16:08:38-06:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	011CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Li	7	1	No Gas	0.049	99.0	31920	1.5	0.5	
Be	9	1	No Gas	0.002	178.9	12	49.5	0.5	
V	51	2	He	0.064	22.4	2668	1.4	2.5	
Cr	52	2	He	0.279	13.7	3124	5.3	2.5	
Fe	56	2	He	1.895	4.8	29856	1.9	100	
Se	78	2	He	0.611	50.0	503	2.8	2	
As	75	2	He	0.112	11.6	204	4.1	2.5	
Ca	44	2	He	-7.506	-68.5	833	15.2	100	
Na	23	2	He	99.183	1.8	163361	0.7	100	
Mg	24	2	He	0.768	45.1	620	21.7	100	
K	39	2	He	7.174	11.5	117841	1.4	100	
Mn	55	2	He	0.101	32.8	690	15.3	2.5	
Co	59	2	He	-0.003	-36.2	47	12.4	2.5	
Ni	60	2	He	0.120	48.5	267	31.5	2.5	
Cu	63	2	He	0.085	42.2	1867	8.3	2	
Zn	66	2	He	0.005	2531.0	763	13.2	2.5	
Al	27	2	He	0.197	90.0	750	4.8	5	
B	11	1	No Gas	26.441	16.8	27462	12.5	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	0.468	8.3	21958	1.9	5	
Si	28	1	No Gas	0.356	671.3	252345	0.9	10	
Ag	107	1	No Gas	0.007	78.8	287	12.3	2.5	
Cd	111	1	No Gas	0.005	147.7	10	100.0	1	
Sr	88	1	No Gas	0.008	7.4	473	2.4	2.5	
Mo	95	1	No Gas	0.064	41.7	210	33.3	2.5	
Sn	118	1	No Gas	0.517	17.8	2934	12.0	5	
Sb	121	1	No Gas	0.114	21.0	1073	11.8	2.5	
Ba	137	1	No Gas	-0.020	-112.5	183	26.9	2.5	
Tl	205	1	No Gas	0.118	55.4	1377	53.3	1	
Tl	203	1	No Gas	0.114	50.4	563	47.5	1	
Pb	208	1	No Gas	0.028	11.7	857	6.0	2.5	
U	238	1	No Gas	0.008	50.7	147	44.4	2.5	
Ca	43	2	He	-25.846	-16.0	27	21.7	100	
Sb	121	2	He	0.093	11.4	603	6.3	2.5	
Ti	47	2	He	0.122	124.0	27	78.1	2.5	
Cu	63	1	No Gas	0.160	22.1	3591	6.1	2.5	
Se	82	1	No Gas	-0.581	-20.6	-31	-37.5	2	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	555587	1.23	547648	101.45	70	120	
Ge	72	2	He	507786	1.10	503154	100.92	70	120	
Ge	72	1	No Gas	1339318	3.15	1347493	99.39	70	120	
In	115	1	No Gas	1118032	1.53	1132392	98.73	70	120	
Bi	209	1	No Gas	902572	1.65	923104	97.78	70	120	

Sample Report

Sample Table

Sample Name	HS23010632-01
Data File Name	071SMPL.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\012423D.b
Acq Date Time	2023-01-24T16:23:44-06:00
Sample Type	Sample
Dilution	100
Comment	DOD TW B 188726
ISTD Ref FileName	011CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	1.448	144.784	8.75	43115	0.00	2000	
Be	9	1	No Gas	0.003	0.339	205.98	15	0.02	2000	
V	51	2	He	0.419	41.875	7.09	4024	0.01	2000	
Cr	52	2	He	0.045	4.457	163.19	2324	0.00	2000	
Fe	56	2	He	166.552	16655.171	0.92	615363	0.03	200000	
Se	78	2	He	-0.050	-5.006	-369.59	483	-0.01	2000	
As	75	2	He	0.306	30.641	7.53	334	0.09	2000	
Ca	44	2	He	3284.184	328418.379	2.85	85626	3.84	200000	
Na	23	2	He	8906.566	890656.556	1.56	5839929	0.15	200000	
Mg	24	2	He	2643.633	264363.258	2.31	1037016	0.25	200000	
K	39	2	He	23.020	2301.957	5.99	130254	0.02	200000	
Mn	55	2	He	1.779	177.921	3.09	5898	0.03	2000	
Co	59	2	He	0.203	20.345	1.33	1220	0.02	2000	
Ni	60	2	He	0.118	11.788	41.90	273	0.04	2000	
Cu	63	2	He	0.025	2.481	143.23	1703	0.00	2000	
Zn	66	2	He	0.074	7.413	91.45	850	0.01	2000	
Al	27	2	He	1.214	121.356	33.62	1033	0.12	2000	
B	11	1	No Gas	3.192	319.247	12.38	8056	0.04	2000	
Al	27	1	No Gas	1.161	116.079	4.00	27237	0.00	2000	
Si	28	1	No Gas	221.808	22180.836	4.11	973048	0.02	2000	
Ag	107	1	No Gas	-0.010	-0.997	-39.03	170	-0.01	2000	
Cd	111	1	No Gas	0.002	0.229	172.92	7	0.03	2000	
Sr	88	1	No Gas	74.848	7484.837	3.84	1038363	0.01	2000	
Mo	95	1	No Gas	0.001	0.091	418.03	40	0.00	2000	
Sn	118	1	No Gas	0.208	20.839	17.67	1713	0.01	2000	
Sb	121	1	No Gas	0.032	3.181	44.78	570	0.01	2000	
Ba	137	1	No Gas	105.121	10512.112	3.57	225493	0.05	2000	
Tl	205	1	No Gas	-0.001	-0.059	-301.46	33	0.00	2000	
Tl	203	1	No Gas	-0.004	-0.416	-28.54	7	-0.06	2000	
Pb	208	1	No Gas	0.006	0.587	88.42	503	0.00	2000	
U	238	1	No Gas	0.024	2.366	11.20	423	0.01	2000	
Ca	43	2	He	3327.646	332764.629	7.09	5078	65.53	200000	
Sb	121	2	He	0.040	4.037	33.57	400	0.01	2000	
Ti	47	2	He	0.092	9.152	43.71	23	0.39	2000	
Cu	63	1	No Gas	0.094	9.427	20.85	3254	0.00	2000	
Zn	66	1	No Gas	-0.016	-1.612	-573.75	1670	0.00	2000	
Se	82	1	No Gas	0.422	42.213	382.94	59	0.71	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	566302	1.02	547648	103.41	70	120	
Ge	72	2	He	527990	0.83	503154	104.94	70	120	
Ge	72	1	No Gas	1367729	0.84	1347493	101.50	70	120	
In	115	1	No Gas	1157020	3.25	1132392	102.17	70	120	

Sample Report

Bi	209	1	No Gas	929676	0.25	923104	100.71	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	073_CCV.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\012423D.b
Acq Date Time	2023-01-24T16:27:32-06:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	011CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	No Gas	96.879	2.734	760603	2.66	100	96.9	90	110	
Be	9	1	No Gas	97.058	0.612	180270	0.75	100	97.1	90	110	
V	51	2	He	96.709	1.601	343854	0.66	100	96.7	90	110	
Cr	52	2	He	96.503	1.213	383888	0.26	100	96.5	90	110	
Fe	56	2	He	9811.798	1.790	34940034	0.99	10000	98.1	90	110	
Se	78	2	He	94.673	1.846	6257	1.59	100	94.7	90	110	
As	75	2	He	96.133	0.561	60618	1.08	100	96.1	90	110	
Ca	44	2	He	9690.849	1.334	251310	0.39	10000	96.9	90	110	
Na	23	2	He	9897.395	1.904	6495835	1.35	10000	99.0	90	110	
Mg	24	2	He	10144.103	2.410	3989406	1.69	10000	101.4	90	110	
K	39	2	He	9834.384	1.866	4929732	0.85	10000	98.3	90	110	
Mn	55	2	He	96.644	1.715	299484	0.73	100	96.6	90	110	
Co	59	2	He	98.733	1.674	561503	0.86	100	98.7	90	110	
Ni	60	2	He	97.094	0.734	142235	0.29	100	97.1	90	110	
Cu	63	2	He	95.793	1.675	376745	1.12	100	95.8	90	110	
Zn	66	2	He	96.828	1.729	79298	1.06	100	96.8	90	110	
Al	27	2	He	94.530	3.903	24348	2.83	100	94.5	90	110	
B	11	1	No Gas	488.106	3.166	421950	3.20	500	97.6	90	110	
Al	27	1	No Gas	95.988	0.749	712127	0.96	100	96.0	90	110	
Si	28	1	No Gas	488.792	3.359	1907040	2.28	5000	9.8	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	94.484	1.922	726891	0.85	100	94.5	90	110	
Cd	111	1	No Gas	96.333	1.977	145144	0.96	100	96.3	90	110	
Sr	88	1	No Gas	99.031	2.001	1396922	1.11	100	99.0	90	110	
Mo	95	1	No Gas	96.567	1.879	275206	0.87	100	96.6	90	110	
Sn	118	1	No Gas	95.930	1.568	419764	1.37	100	95.9	90	110	
Sb	121	1	No Gas	88.342	1.482	588043	0.83	100	88.3	90	110	CCV Main CR1-2 Failed
Ba	137	1	No Gas	96.722	1.341	210997	0.68	100	96.7	90	110	
Tl	205	1	No Gas	98.163	1.148	1161041	0.49	100	98.2	90	110	
Tl	203	1	No Gas	99.066	0.917	485140	1.66	100	99.1	90	110	
Pb	208	1	No Gas	91.996	1.092	1586342	1.23	100	92.0	90	110	
U	238	1	No Gas	97.911	1.698	1696246	0.64	100	97.9	90	110	
Ca	43	2	He	9647.356	3.689	14638	2.91	10000	96.5	90	110	
Sb	121	2	He	94.257	1.399	405475	0.41	100	94.3	90	110	
Ti	47	2	He	101.215	3.369	14304	2.39	100	101.2	90	110	
Cu	63	1	No Gas	91.666	1.287	601820	0.91	100	91.7	90	110	
Se	82	1	No Gas	90.492	4.322	8616	4.71	100	90.5	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	562927	0.14	547648	102.79	70	120	
Ge	72	2	He	529479	1.00	503154	105.23	70	120	
Ge	72	1	No Gas	1421204	1.58	1347493	105.47	70	120	
In	115	1	No Gas	1175768	1.09	1132392	103.83	70	120	
Bi	209	1	No Gas	937502	1.33	923104	101.56	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	074_CCB.d
Data Path Name	D:\Agilent\ICPMH\1\DATA\012423D.b
Acq Date Time	2023-01-24T16:29:24-06:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	011CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Li	7	1	No Gas	0.067	122.3	31031	1.7	0.5	
Be	9	1	No Gas	0.001	274.7	10	50.0	0.5	
V	51	2	He	0.090	10.3	2736	1.8	2.5	
Cr	52	2	He	0.188	35.3	2760	10.0	2.5	
Fe	56	2	He	0.957	16.3	26446	0.8	100	
Se	78	2	He	-0.153	-363.3	455	7.5	2	
As	75	2	He	0.093	43.4	191	11.4	2.5	
Ca	44	2	He	-7.975	-69.6	817	17.8	100	
Na	23	2	He	61.575	2.9	139006	0.6	100	
Mg	24	2	He	0.506	15.2	517	6.8	100	
K	39	2	He	-3.518	-152.8	111955	2.1	100	
Mn	55	2	He	0.127	14.8	763	7.7	2.5	
Co	59	2	He	0.006	123.9	97	41.8	2.5	
Ni	60	2	He	0.107	14.8	247	10.2	2.5	
Cu	63	2	He	0.038	78.9	1677	6.3	2	
Zn	66	2	He	-0.187	-20.3	610	5.7	2.5	
Al	27	2	He	-0.184	-245.2	653	15.3	5	
B	11	1	No Gas	23.741	14.4	24427	12.2	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	0.345	20.9	20632	0.2	5	
Si	28	1	No Gas	-2.822	-69.7	236770	0.0	10	
Ag	107	1	No Gas	0.000	2124.1	240	26.0	2.5	
Cd	111	1	No Gas	0.002	170.0	7	86.6	1	
Sr	88	1	No Gas	0.005	80.6	427	11.6	2.5	
Mo	95	1	No Gas	0.046	13.9	160	10.8	2.5	
Sn	118	1	No Gas	0.500	8.8	2864	6.5	5	
Sb	121	1	No Gas	0.172	14.5	1407	12.6	2.5	
Ba	137	1	No Gas	-0.032	-30.8	157	13.3	2.5	
Tl	205	1	No Gas	0.085	47.0	1003	45.9	1	
Tl	203	1	No Gas	0.090	50.1	450	48.1	1	
Pb	208	1	No Gas	0.022	30.6	750	13.5	2.5	
U	238	1	No Gas	0.006	34.6	120	30.0	2.5	
Ca	43	2	He	-11.657	-176.8	47	61.9	100	
Sb	121	2	He	0.151	12.3	833	9.7	2.5	
Ti	47	2	He	0.000	235.4	10	0.0	2.5	
Cu	63	1	No Gas	0.052	73.5	2854	5.7	2.5	
Se	82	1	No Gas	-0.543	-99.1	-28	-170.4	2	

QC ISTD Table

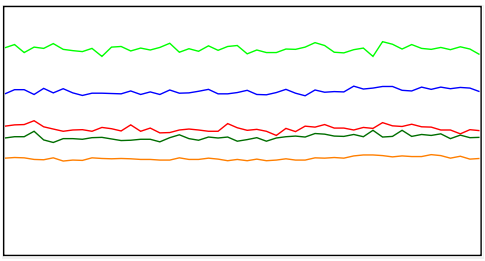
Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	537876	1.01	547648	98.22	70	120	
Ge	72	2	He	503920	1.25	503154	100.15	70	120	
Ge	72	1	No Gas	1308534	2.52	1347493	97.11	70	120	
In	115	1	No Gas	1117571	0.15	1132392	98.69	70	120	
Bi	209	1	No Gas	902796	1.27	923104	97.80	70	120	

Tune Check Report

Operator Name	ALSHS NoUser
Acq/Data Batch	D:\Agilent\ICPMH\1\DATA\012423A.b
Acq. Date-Time	01/24/2023 09:41:58
Report Comment	---
Instrument Name	G8422A SG22121190

[No Gas]

Sensitivity



Sampling Period [sec]	0.514
Integration Time [sec]	0.1

Mass	Range	Count	Resp [cps/(ug/l)]	Resp (Required) [cps/(ug/l)]	Resp (Flag)
9	5000	2548	25480.69		
24	10000	8333	83325.97		
59	20000	13222	132224.39		
115	50000	19432	194318.95		
208	20000	9487	94867.11		

Mass	Resp Ratio	Resp Ratio (Required)	Resp Ratio (Flag)
9		-	
24		-	
59		-	
115		-	
208		-	

Mass	RSD%	RSD% (Required)	RSD% (Flag)
9	2.376	5.000	
24	1.643	5.000	
59	1.604	5.000	
115	1.761	5.000	
208	2.271	5.000	

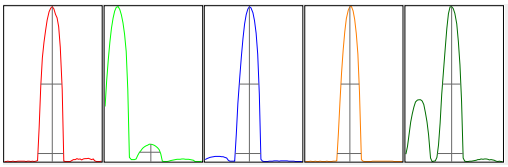
Mass	Background	Background (Required)	Background (Flag)
9	0.600		
24	0.100		
59	0.300		
115	1.200		
208	3.500		

Oxide/Doubly Charged Ratio

Oxide	156 / 140 0.427 %
Doubly Charged	70 / 140 3.100 %

Tune Check Report

Resolution/Axis



Integration Time [sec]	0.1
Acquisition Time [sec]	37.4
Y Axis	Linear

Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
9	2524.60	9.00	8.90 - 9.10	
24	8571.84	23.95	23.90 - 24.10	
59	13855.78	58.90	58.90 - 59.10	
115	19911.71	114.90	114.90 - 115.10	
208	9496.47	207.95	207.90 - 208.10	

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
9	0.64	0.785		
24	0.62			
59	0.60	0.782		
115	0.56	0.732		
208	0.56	0.781		

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas	0.78 L/min	Dilution Gas	0.25 L/min
RF Power	1550 W	Option Gas	---	Auxiliary Gas	0.90 L/min
RF Matching	1.80 V	Nebulizer Pump	0.10 rps	Plasma Gas	15.0 L/min
Sample Depth	8.0 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	0.0 V	Omega Lens	9.9 V	Deflect	13.0 V
Extract 2	-200.0 V	Cell Entrance	-30 V	Plate Bias	-35 V
Omega Bias	-75 V	Cell Exit	-50 V		

Cell Parameters

Use Gas	No	3rd Gas Flow	---	Energy Discrimination	5.0 V
He Flow	0.0 mL/min	OctP Bias	-8.0 V		
H2 Flow	0.0 mL/min	OctP RF	200 V		

QP Parameters

Mass Gain	124	Axis Gain	0.9992	QP Bias	-3.0 V
Mass Offset	125	Axis Offset	0.03		

Hardware Settings

Torch

Torch H	-0.2 mm	Torch V	-0.2 mm

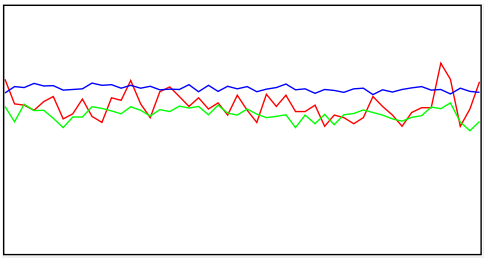
EM

Discriminator	4.5 mV	Analog HV	2163 V	Pulse HV	1224 V

[He]

Tune Check Report

Sensitivity



Sampling Period [sec]	0.306
Integration Time [sec]	0.1

Mass	Range	Count	Resp [cps/(ug/l)]	Resp (Required) [cps/(ug/l)]	Resp (Flag)
9	200	120	1200.65		
24	1000	564	5640.34		
59	10000	6673	66725.99		

Mass	Resp Ratio	Resp Ratio (Required)	Resp Ratio (Flag)
9		-	
24		-	
59		-	

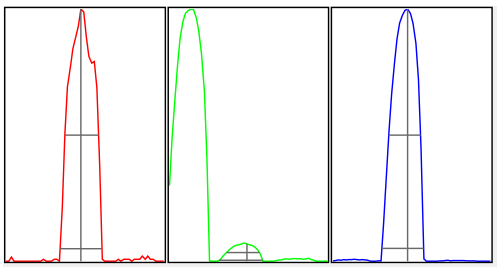
Mass	RSD%	RSD% (Required)	RSD% (Flag)
9	9.219	5.000	Fail
24	4.635	5.000	
59	1.699	5.000	

Mass	Background	Background (Required)	Background (Flag)
9	0.500		
24	0.100		
59	0.200		

Oxide/Doubly Charged Ratio

Oxide	156 / 140 0.307 %
Doubly Charged	70 / 140 1.689 %

Resolution/Axis



Integration Time [sec]	0.1
Acquisition Time [sec]	22.24
Y Axis	Linear

Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
9	122.51	8.95	8.90 - 9.10	
24	564.13	24.00	23.90 - 24.10	
59	6920.98	58.95	58.90 - 59.10	

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
9	0.63	0.783		
24	0.61	0.814		

Tune Check Report

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
59	0.60	0.779		

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas	0.78 L/min	Dilution Gas	0.25 L/min
RF Power	1550 W	Option Gas	---	Auxiliary Gas	0.90 L/min
RF Matching	1.80 V	Nebulizer Pump	0.10 rps	Plasma Gas	15.0 L/min
Sample Depth	8.0 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	0.0 V	Omega Lens	9.9 V	Deflect	0.6 V
Extract 2	-200.0 V	Cell Entrance	-40 V	Plate Bias	-60 V
Omega Bias	-80 V	Cell Exit	-60 V		

Cell Parameters

Use Gas	Yes	3rd Gas Flow	---	Energy Discrimination	3.0 V
He Flow	3.6 mL/min	OctP Bias	-18.0 V		
H2 Flow	0.0 mL/min	OctP RF	190 V		

QP Parameters

Mass Gain	124	Axis Gain	0.9992	QP Bias	-15.0 V
Mass Offset	125	Axis Offset	0.03		

Hardware Settings

Torch

Torch H	-0.2 mm	Torch V	-0.2 mm

EM

Discriminator	4.5 mV	Analog HV	2163 V	Pulse HV	1224 V

HS23010632-E2300033 Perchlorate Report
Level IV

ALS WO# HS23010632

January 20, 2023 Service Request No:E2300033

Dane Wacasey
ALS Group USA, Corp.
10450 Stancliff Road
Suite 210
Houston, TX 77099-4338

Laboratory Results for: HS23010632

Dear Dane,

Enclosed are the results of the sample(s) submitted to our laboratory January 16, 2023
For your reference, these analyses have been assigned our service request number **E2300033.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current TNI standards, where applicable, and except as noted in the laboratory case narrative provided. All results are intended to be considered in their entirety and ALS Environmental is not responsible for use of less than the complete final report. Results apply only to the items submitted to the laboratory, as received for analysis. In accordance with the current TNI Standard, a statement on the estimated uncertainty of measurement of any quantitative analysis will be supplied upon request.

Please contact me if you have any questions. My extension is 2188. You may also contact me via email at James.Guin@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental



James Guin

Certificate of Analysis

ALS Environmental - Houston HRMS
10450 Stancliff Rd, Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

ALS Environmental

Client:	ALS Environmental - US	**Service Request No.:**	E2300033
Project:	HS23010632	**Date Received:**	01/16/23
Sample Matrix:	Ground Water		

CASE NARRATIVE

All analyses were performed in adherence to the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier IV. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Six samples were received for analysis at ALS Environmental in Houston on 01/16/23.

The samples were received in good condition and are consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

Data Validation Notes and Discussion

Precision and Accuracy:

EQ2300018: Laboratory Control Spike/Duplicate Laboratory Control Spike (LCS/DLCS) samples were analyzed and reported in lieu of a MS/MSD for this extraction batch.

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.

Use of ALS group USA Corp dba ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.

Client: ALS Environmental - US **Service Request:**E2300033
Project: HS23010632

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
E2300033-001	126_011123	1/11/2023	0815
E2300033-002	MW16_011123	1/11/2023	0900
E2300033-003	MW16_011123.a	1/11/2023	0900
E2300033-004	MW17_011123	1/11/2023	0945
E2300033-005	MW17_011123.a	1/11/2023	0945
E2300033-006	18CPTMW16_011123	1/11/2023	1050

Service Request Summary

Folder #: **E2300033**
Client Name: ALS Environmental - US
Project Name: HS23010632
Project Number:

Report To: Dane Wacasey
ALS Group USA, Corp.
10450 Stancliff Road
Houston, TX 77099-4338
USA
Phone Number: 281-575-2190
Cell Number:
Fax Number: 281-530-5887
E-mail: dane.wacasey@alsglobal.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 01/16/23
Internal Due Date: 1/26/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23010632
EDD: BASIC_WQC_CASNo_LOD

6 120 mL-Plastic Bottle Natural WM Unpreserved
Location: EHRMS-AirArch 1
Pressure Gas:

Lab Samp No.	Client Samp No	Matrix	Collected	HOUSTON ClO4 DOD/6850
E2300033-001	126_011123	Ground Water	01/11/23 0815	**IV**
E2300033-002	MW16_011123	Ground Water	01/11/23 0900	**IV**
E2300033-003	MW16_011123.a	Ground Water	01/11/23 0900	**IV**
E2300033-004	MW17_011123	Ground Water	01/11/23 0945	**IV**
E2300033-005	MW17_011123.a	Ground Water	01/11/23 0945	**IV**
E2300033-006	18CPTMW16_011123	Ground Water	01/11/23 1050	**IV**

Service Request Summary

Folder #: **E2300033**
Client Name: ALS Environmental - US
Project Name: HS23010632
Project Number:

Report To: Dane Wacasey
ALS Group USA, Corp.
10450 Stancliff Road
Houston, TX 77099-4338
USA
Phone Number: 281-575-2190
Cell Number:
Fax Number: 281-530-5887
E-mail: dane.wacasey@alsglobal.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 01/16/23
Internal Due Date: 1/26/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23010632
EDD: BASIC_WQC_CASNo_LOD

6 120 mL-Plastic Bottle Natural WM Unpreserved
Location: EHRMS-AirArch 1
Pressure Gas:

Test Comments:

Group	Test/Method	Samples	Comments
Semivoa GCMS	ClO4 DOD/6850	6	IV due 2/2

Data Qualifiers

Lab Standard

+	Possible Tedlar bag artifact.
A	TIC is a suspected aldol-condensation product
B	Analyte found in the associated method blank as well as in the sample.
BC	Reported results are not blank corrected.
BH	The back section of the tube yielded higher results than the front.
BT	Results indicated possible breakthrough; back section >=10% front section.
C	Result identification confirmed.
D	Compound identified in an analysis at a secondary dilution factor
D	Spike was diluted out
DE	Reported results are corrected for desorption efficiency.
E	Estimated value. Concentration above calibration range
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
H	The chromatographic fingerprint of the sample resembles a petroleum product but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
H1	Sample analysis performed past holding time. See case narrative.
H2	Initial analysis within holding time. Reanalysis for the required dilution was past holding time.
H3	Sample was received and analyzed past holding time.
H4	Sample was extracted past required extraction holding time, but analyzed within analysis holding time. See case narrative.
I	(Auto) The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
I	Internal standard not within the specified limits. See case narrative.
I	The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
J	Estimated Value. Concentration found below MRL.
K	A deflection in the QC ion may indicate interference with the quantitation of this ion. The concentration of this analyte should be considered as an estimate.
K	Analyte was detected above the method reporting limit prior to normalization.
K	The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
L1	Laboratory control sample recovery outside the specified limits; results may be biased high.
L2	Laboratory control sample recovery outside the specified limits; results may be biased low.
L3	Laboratory control sample recovery outside the specified limits.
M	Matrix interference; results may be biased high.
M	The duplicate injection precision not met.

Data Qualifiers

Lab Standard

M1	Matrix interference due to coelution with a non-target compound; results may be biased high.
N	Presumptive evidence of a compound for TICs that have been identified based on a mass spectral library search.
N	The Matrix Spike sample recovery is not within control limits. See case narrative.
O	The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
P	Indicates chlorodiphenyl ether interference present at the retention time of the target compound.
P	Pesticide/Aroclor target analyte > 40% difference for detected concentrations between GC columns
Q	Indicates as estimated value because the P and P + 2 theoretical abundance ratio does not meet method criteria.
R	Duplicate Precision not met.
R1	Duplicate precision not within the specified limits; however, the results are below the MRL and considered estimated.
S	Surrogate recovery not within specified limits.
S	The reported value was determined by the Method of Standard Additions (MSA).
T	Analyte is a tentatively identified compound, result is estimated.
U	Compound was analyzed for, but was not detected (ND).
V1	The continuing calibration verification standard was outside (biased high) the specified limits for this compound.
V2	The continuing calibration verification standard was outside (biased low) the specified limits for this compound.
W	Result quantified, but the corresponding peak was detected outside the generated retention time window.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
X	See case narrative.
Y	Recovery outside limits
Y	The chromatogram resembles a petroleum product but does not match the calibration standard.
Z	The chromatogram does not resemble a petroleum product.
i	The MRL/MDL has been elevated due to a matrix interference.

ALS Laboratory Group

Acronyms

Cal	Calibration
Conc	CONCentration
Dioxin(s)	Polychlorinated dibenzo-p-dioxin(s)
EDL	Estimated Detection Limit
EMPC	Estimated Maximum Possible Concentration
Flags	Data qualifiers
Furan(s)	Polychlorinated dibenzofuran(s)
g	Grams
ICAL	Initial CALibration
ID	IDentifier
Ions	Masses monitored for the analyte during data acquisition
L	Liter (s)
LCS	Laboratory Control Sample
DLCS	Duplicate Laboratory Control Sample
MB	Method Blank
MCL	Method Calibration Limit
MDL	Method Detection Limit
mL	Milliliters
MS	Matrix Spiked sample
DMS	Duplicate Matrix Spiked sample
NO	Number of peaks meeting all identification criteria
PCDD(s)	Polychlorinated dibenzo-p-dioxin(s)
PCDF(s)	Polychlorinated dibenzofuran(s)
ppb	Parts per billion
ppm	Parts per million
ppq	Parts per quadrillion
ppt	Parts per trillion
QA	Quality Assurance
QC	Quality Control
Ratio	Ratio of areas from monitored ions for an analyte
% Rec.	Percent recovery
RPD	Relative Percent Difference
RRF	Relative Response Factor
RT	Retention Time
SDG	Sample Delivery Group
S/N	Signal-to-noise ratio
TEF	Toxicity Equivalence Factor
TEQ	Toxicity Equivalence Quotient

10450 Stancliff Rd, Houston, TX 77099 | 281-530-5656 | www.alsglobal.com

State Certifications, Accreditations, and Licenses

Agency	Number	Expire Date
Arizona Department of Health Services	AZ0793	5/27/2023
Arkansas Department of Environmental Quality	22-041-0	3/27/2023
California Department of Health Services	2919-2023	4/30/2023
Department of Defense	L22-90	3/31/2024
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Hawaii Department of Health	2022	4/30/2023
Illinois Environmental Protection Agency	2000322022-9	5/9/2023
Kansas Department of Health and Environment	E-10352 2022-2023	7/31/2023
Louisiana Department of Environmental Quality	03087-2022	6/30/2023
Louisiana Department of Health and Hospitals	LA028-2023	12/31/2023
Maine Department of Health and Human Services	2022017	6/5/2024
Maryland Department of the Environment	343	6/30/2023
Michigan Depratment of Environmental Quality	9971-2022	4/30/2023
Minnesota Department of Health	2368363	12/31/2023
Nebraska Department of Health and Human Services	NE-OS-25-13	4/30/2023
Nevada Department of Conservation and Natural Resources	TX026932023-1	7/31/2023
New Hampshire Environmental Laboratory Accreditation Program	209422	4/24/2023
New Jersey Department of Environmental Protection	TX008-2023	6/30/2023
New York Department of Health	11707	3/31/2023
Oklahoma Department of Environmental Quality	2022-141	8/31/2023
Oregon Environmental Laboratory Accreditation Program	TX200002	5/15/2023
Pennsylvania Department of Environmental Protection	68-03441-016	6/30/2023
Perry Johnson Laboratory Accreditation	L22-91	3/31/2024
Tennessee Department of Environment and Concervation	04016-2022	4/30/2023
Texas Commision on Environmental Quality	T104704231-22-29	4/30/2023
Utah Department of Health Environmental Laboratory Certification	TX026932022-13	7/31/2023
Washington Department of Ecology	C819-22	11/14/2023

Chain of Custody

ALS Environmental - Houston HRMS
10450 Stancliff Rd, Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

10450 Stancliff Rd, Ste 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887
www.alsglobal.com

Subcontract Chain of Custody

SAMPLING STATE: Texas **COC ID:** 20743

SUBCONTRACT TO:

ALS Environmental
10450 Stancliff RoadSuite 210
Houston, TX 77084

Phone: +1 281 530 5656

CUSTOMER INFORMATION:

Company:	ALS Houston
Contact:	Dane J. Wacasey
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Email:	Dane.Wacasey@alsglobal.com
Alternate Contact:	Jumoke M. Lawal
Email:	jumoke.lawal@alsglobal.com

INVOICE INFORMATION:

Company:	ALS Houston
Contact:	Accounts Payable
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Reference:	HS23010632
TSR:	Holly Tignac

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS23010632-01**	**126_011123**	**Groundwater**	**11 Jan 2023 08:15**
	6850 DoD Level II and Level IV reports in separate pdf; DoD Excel EDD			26 Jan 2023
2.	**HS23010632-02**	**MW16_011123**	**Groundwater**	**11 Jan 2023 09:00**
	6850 DoD Level II and Level IV reports in separate pdf; DoD Excel EDD			26 Jan 2023
3.	**HS23010632-03**	**MW16_011123.a**	**Groundwater**	**11 Jan 2023 09:00**
	6850 DoD Level II and Level IV reports in separate pdf; DoD Excel EDD			26 Jan 2023
4.	**HS23010632-04**	**MW17_011123**	**Groundwater**	**11 Jan 2023 09:45**
	6850 DoD Level II and Level IV reports in separate pdf; DoD Excel EDD			26 Jan 2023
5.	**HS23010632-05**	**MW17_011123.a**	**Groundwater**	**11 Jan 2023 09:45**
	6850 DoD Level II and Level IV reports in separate pdf; DoD Excel EDD			26 Jan 2023
6.	**HS23010632-06**	**18CPTMW16_011123**	**Groundwater**	**11 Jan 2023 10:50**
	6850 DoD Level II and Level IV reports in separate pdf; DoD Excel EDD			26 Jan 2023

Comments: Please analyze for the analysis listed above.
Send report to the emails shown above.

QC Level: DOD IV (DoD Data Package)

Subcontract Chain of Custody

SAMPLING STATE: **Texas** **COC ID:** **20743**

Relinquished By: _____ Date/Time: _____

Received By: _____ Date/Time: 1-16-23 1800

Cooler ID(s): _____ Temperature(s): _____

10450 Stancliff Road, Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887
www.alsglobal.com

Client: ALS Houston Date: 1/17/23 WO#:

Time Received: 18:00 Received by: CG BO#: N/A

Matrices: Solid/Sludge Water Oil Wipes Hydrocarbon Liquid Other

Kit ID/Cooler ID	Trip Blank ID	Cooler Temp (C) Observed/Corrected	IR #	Temp BLK Present?
—	—	— / —	31	(Y) N
		/		Y N
		/		Y N
		/		Y N
		/		Y N

Delivery Method: (FedEx) UPS Greyhound ALS Client Other

Date/Time of Unpacking: 1/17/23 Unpacked by:

Shipping container/cooler in good condition?	(Yes)	No	Not Present
Custody seals intact on shipping container/cooler?	Yes	No	(Not Present)
Custody seals intact on sample bottles?	Yes	No	(Not Present)
Chain of Custody present?	(Yes)	No	
Chain of Custody signed when relinquished and received?	(Yes)	No	
Chain of Custody - Sampler's name present?	(Yes)	No	
Chain of Custody agrees with sample labels?	(Yes)	No	
Samples in proper container/bottle?	(Yes)	No	
VOA/TX1005/1006 Solids in hermetically Sealed Vials:	Yes	No	(No VOA/TX1005/1006 Solid)
Sample containers intact?	(Yes)	No	
Sufficient sample volume for indicated test?	(Yes)	No	
All samples received within holding time?	(Yes)	No	
Container/Temp Blank temperature in compliance?	(Yes)	No	
Water - VOA vials have zero headspace?	Yes	No	(N/A) No VOA submitted
Non-VOA waters preserved with HCl, H2SO4, HNO3 are pH <2?			Yes No (N/A)
Waters preserved with NaOH/Ascorbic acid are pH>12?	Yes	No	(N/A)
pH adjusted?	Yes*	No	(N/A) *See Preservation Logbook

pH adjusted by: _____ pH Paper Lot: _____

10450 Stancliff Rd., Suite 210
Houston, TX 77099
T: +1 713 266 1599
F: +1 713 266 1599
www.alsglobal.com

SAMPLE ACCEPTANCE POLICY

This policy outlines the criteria samples must meet to be accepted by ALS Environmental – Houston HRMS.

Cooler Custody Seals (desirable, mandatory if specified in SAP):

- ✓ Intact on outside of cooler, signed and dated

Chain-of-Custody (COC) documentation (mandatory):

The following is required on each COC:

- ✓ Sample ID, the location, date and time of collection, collector's name, preservation type, sample type, and any other special remarks concerning the sampleThe COC must be completed in ink.
- ✓ Signature and date of relinquishing party.

In the absence of a COC at sample receipt, the COC will be requested from the client.

Sample Integrity (mandatory):

Samples are inspected upon arrival to ensure that sample integrity was not compromised during transfer to the laboratory.

- ✓ Sample containers must arrive in good condition (not broken or leaking).
- ✓ Samples must be labeled appropriately, including Sample IDs, and requested test using durable labels and indelible ink.
- ✓ The correct type of sample bottle must be used for the method requested.
- ✓ An appropriate sample volume, or weight, must be received.
- ✓ Sample IDs and number of containers must reconcile with the COC.
- ✓ Samples must be received within the method defined holding time.

Temperature Requirement (varies by sample matrix):

- ✓ Aqueous and Non-aqueous samples must be shipped and stored cold, at 0 to 6ºC.
- ✓ Tissue samples must be shipped and stored frozen, at -20 to -10ºC.
- ✓ Air samples are shipped and stored cold, at 0 to 6ºC
- ✓ The sample temperature must be recorded on the COC

All cooler inspections are documented on the Cooler Receipt Form (CRF). A separate CRF is completed for each service request. Any samples not meeting the above criteria are noted on the CRF and the Project Manager notified. The Project Manager must resolve any sample integrity issues with the client prior to proceeding with the analysis. Such resolutions are documented in writing and filed with the project folder. Data associated with samples received outside of this acceptance policy will be qualified on the case narrative of the final report

Preparation Information Benchsheets

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

Preparation Information Benchsheet

Prep Run#: 413259 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/XMI **Prep Method:** Method **Prep Date/Time:** 1/18/23 13:20

#	Lab Code	Client ID	B#	Method /Test	pH	Cl	Matrix	Amt. Ext.	Sample Description
1	E2300032-001	18CPTMW06_011023	.01	6850/ClO4 DOD			Water	10mL	
2	E2300032-002	MW22_011023	.01	6850/ClO4 DOD			Water	10mL	
3	E2300032-003	18WW06_011023	.01	6850/ClO4 DOD			Water	10mL	
4	E2300032-004	18WW02_011023	.01	6850/ClO4 DOD			Water	10mL	
5	E2300032-005	18WW10_011023	.01	6850/ClO4 DOD			Water	10mL	
6	E2300032-006	MW19_011023	.01	6850/ClO4 DOD			Water	10mL	
7	E2300032-007	MW19_011023_a	.01	6850/ClO4 DOD			Water	10mL	
8	E2300032-008	18CPTMW14_011023	.01	6850/ClO4 DOD			Water	10mL	
9	E2300032-009	CO8_011023	.01	6850/ClO4 DOD			Water	10mL	
10	E2300033-001	126_011123	.01	6850/ClO4 DOD			Ground Water	10mL	
11	E2300033-002	MW16_011123	.01	6850/ClO4 DOD			Ground Water	10mL	
12	E2300033-003	MW16_011123.a	.01	6850/ClO4 DOD			Ground Water	10mL	
13	E2300033-004	MW17_011123	.01	6850/ClO4 DOD			Ground Water	10mL	
14	E2300033-005	MW17_011123.a	.01	6850/ClO4 DOD			Ground Water	10mL	
15	E2300033-006	18CPTMW16_011123	.01	6850/ClO4 DOD			Ground Water	10mL	
16	E2300049-001	RY2300077-001	.01	6850/ClO4			Water	10mL	
17	E2300050-001	RY2300083-001	.01	6850/ClO4			Water	10mL	
18	EQ2300018-01	MB		6850/ClO4 DOD			Liquid	10mL	
19	EQ2300018-02	LCS		6850/ClO4 DOD			Liquid	10mL	
20	EQ2300018-03	DLCS		6850/ClO4 DOD			Liquid	10mL	
21	EQ2300018-04	MW22_011023 MS	.01	6850/ClO4 DOD			Liquid	10mL	
22	EQ2300018-05	MW22_011023 DMS	.01	6850/ClO4 DOD			Liquid	10mL	

Spiking Solutions

Name: Perchlorate Intermediate Stock1 Inventory ID 225386 Logbook Ref: Perchlorate (1st Source) Expires On: 01/31/2023

EQ2300018-02	1.00µL	EQ2300018-02	1.00µL	EQ2300018-03	1.00µL	EQ2300018-03	1.00µL	EQ2300018-04	1.00µL	EQ2300018-05	1.00µL

Name: Perchlorate Internal Standard 1ug/mL Inventory ID 226778 Logbook Ref: Perchlorate Internal Standard Expires On: 05/31/2023

E2300032-001	100.00µL	E2300032-002	100.00µL	E2300032-003	100.00µL	E2300032-004	100.00µL	E2300032-005	100.00µL	E2300032-006	100.00µL
E2300032-007	100.00µL	E2300032-008	100.00µL	E2300032-009	100.00µL	E2300033-001	100.00µL	E2300033-002	100.00µL	E2300033-003	100.00µL
E2300033-004	100.00µL	E2300033-005	100.00µL	E2300033-006	100.00µL	E2300049-001	100.00µL	E2300050-001	100.00µL	EQ2300018-01	100.00µL
EQ2300018-02	100.00µL	EQ2300018-02	100.00µL	EQ2300018-03	100.00µL	EQ2300018-03	100.00µL	EQ2300018-04	100.00µL	EQ2300018-05	100.00µL

Preparation Information Benchsheet

Prep Run#: 413259 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/XMI **Prep Method:** Method **Prep Date/Time:** 1/18/23 13:20

Preparation Materials

Water HPLC Grade	01/04/2023 Water (226857)	6850 Amber Glass screw vial	2mL Screw Top Vial (221308)	6850 0.45um syringe filters	6850 Syringe Filters (224414)
6850 Luer-Lok Syringes	Luer-Lok Syringes (221305)	6850 Pipette Tips 50-1000 uL	6850 Pipette Tips (221307)		

Preparation Steps

Step: Preparation
Started: 1/18/23 13:20
Finished: 1/18/23 16:21
By: XMI
Comments

Comments: _____

Reviewed By: XMI Date: 01/18/23

Chain of Custody

Relinquished By: _____ Date: _____ Extracts Examined

Received By: _____ Date: _____ Yes No

Analytical Results

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300033
Project:	HS23010632	**Date Collected:**	1/11/23 0815
Sample Matrix:	Ground Water	**Date Received:**	1/16/23
Sample Name:	126_011123	**Units:**	µg/L
Lab Code:	E2300033-001	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	ND	U	0.500	0.250	0.125	5	1/18/23	1/20/23 10:20	413259	792122	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300033
Project:	HS23010632	**Date Collected:**	1/11/23 0900
Sample Matrix:	Ground Water	**Date Received:**	1/16/23
Sample Name:	MW16_011123	**Units:**	µg/L
Lab Code:	E2300033-002	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	ND	U	0.100	0.0500	0.0250	1	1/18/23	1/19/23 12:08	413259	792064	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300033
Project:	HS23010632	**Date Collected:**	1/11/23 0900
Sample Matrix:	Ground Water	**Date Received:**	1/16/23
Sample Name:	MW16_011123.a	**Units:**	µg/L
Lab Code:	E2300033-003	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	ND	U	0.100	0.0500	0.0250	1	1/18/23	1/19/23 12:14	413259	792064	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300033
Project:	HS23010632	**Date Collected:**	1/11/23 0945
Sample Matrix:	Ground Water	**Date Received:**	1/16/23
Sample Name:	MW17_011123	**Units:**	µg/L
Lab Code:	E2300033-004	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	ND	U	0.100	0.0500	0.0250	1	1/18/23	1/19/23 12:20	413259	792064	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300033
Project:	HS23010632	**Date Collected:**	1/11/23 0945
Sample Matrix:	Ground Water	**Date Received:**	1/16/23
Sample Name:	MW17_011123.a	**Units:**	µg/L
Lab Code:	E2300033-005	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	ND	U	0.100	0.0500	0.0250	1	1/18/23	1/19/23 12:25	413259	792064	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300033
Project:	HS23010632	**Date Collected:**	1/11/23 1050
Sample Matrix:	Ground Water	**Date Received:**	1/16/23
Sample Name:	18CPTMW16_011123	**Units:**	µg/L
Lab Code:	E2300033-006	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.0463**	J	0.100	0.0500	0.0250	1	1/18/23	1/19/23 12:31	413259	792064	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300033
Project:	HS23010632	**Date Collected:**	NA
Sample Matrix:	Ground Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	EQ2300018-01	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	ND	U	0.100	0.0500	0.0250	1	1/18/23	1/19/23 09:17	413259	792064	

Accuracy & Precision

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2300033
Project:	HS23010632	**Date Analyzed:**	1/20/23 - 1/20/23
Sample Matrix:	Ground Water		

Lab Control Sample Summary

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method:	6850	**Units:**	µg/L
Prep Method:	Method	**Basis:**	NA
		Extraction Lot:	413259

	Lab Control Sample EQ2300018-02			Duplicate Lab Control Sample EQ2300018-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Perchlorate	0.0888	0.100	89	0.104	0.100	104	84 - 119	15	15

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300033
Project:	HS23010632	**Date Collected:**	NA
Sample Matrix:	Ground Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2300018-02	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.0888**	J	0.100	0.0500	0.0250	1	1/18/23	1/20/23 09:01	413259	792122	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300033
Project:	HS23010632	**Date Collected:**	NA
Sample Matrix:	Ground Water	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2300018-03	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.104**		0.100	0.0500	0.0250	1	1/18/23	1/19/23 10:29	413259	792064	

Initial Calibration

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

20221214

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XMI
2nd Review: Kneir

ICAL Date: 12/14/2022
Cal. Std. xp: 01/31/2023
ICAL ID: EC2200016

Mobile Phases : **A:**0.10% Formic Acid/Water 3210301-08 **B:**MeOH 224417

	Sample Name		File Name	Acquisition Method	Dilution	R	Comments	Date/Time
1	IB		20221214_001	Perchlorate6850c.lcm	1x	☒		12/14/2022 15:12
2	ICS		20221214_002	Perchlorate6850c.lcm	1x	☒		12/14/2022 15:29
3	LODV		20221214_003	Perchlorate6850c.lcm	1x	☒		12/14/2022 15:35
4	PERCHLORATE1		20221214_004	Perchlorate6850c.lcm	1x	☒	226061	12/14/2022 15:40
5	PERCHLORATE2		20221214_005	Perchlorate6850c.lcm	1x	☒	226062	12/14/2022 15:46
6	PERCHLORATE3		20221214_006	Perchlorate6850c.lcm	1x	☒	226063	12/14/2022 15:51
7	PERCHLORATE4		20221214_007	Perchlorate6850c.lcm	1x	☒	226064	12/14/2022 15:57
8	PERCHLORATE5		20221214_008	Perchlorate6850c.lcm	1x	☒	226065	12/14/2022 16:02
9	PERCHLORATE6		20221214_009	Perchlorate6850c.lcm	1x	☒	226066	12/14/2022 16:09
10	PERCHLORATE7		20221214_010	Perchlorate6850c.lcm	1x	☒	225881	12/14/2022 16:15
11	PERCHLORATE8		20221214_011	Perchlorate6850c.lcm	1x	☒	226068	12/14/2022 16:20
12	PERCHLORATE9		20221214_012	Perchlorate6850c.lcm	1x	☒	226069	12/14/2022 16:25
13	PERCHLORATE10		20221214_013	Perchlorate6850c.lcm	1x	☒	226070	12/14/2022 16:31
14	PERCHLORATEICV		20221214_014	Perchlorate6850c.lcm	1x	☒	226067	12/14/2022 16:37

Initial Calibration - Detailed Report

Calibration ID: EC2200016 **Instrument ID:** E-LCMS-01
Column Name: 1

#	Lab Code	Sample Name	File Location	Aquisition Date
01	EC2200016-01	PERCHLORATE1	20221214_004	12/14/2022 15:40
02	EC2200016-02	PERCHLORATE2	20221214_005	12/14/2022 15:46
03	EC2200016-03	PERCHLORATE3	20221214_006	12/14/2022 15:51
04	EC2200016-04	PERCHLORATE4	20221214_007	12/14/2022 15:57
05	EC2200016-05	PERCHLORATE5	20221214_008	12/14/2022 16:02
06	EC2200016-06	PERCHLORATE6	20221214_009	12/14/2022 16:09
07	EC2200016-07	PERCHLORATE7	20221214_010	12/14/2022 16:15
08	EC2200016-08	PERCHLORATE8	20221214_011	12/14/2022 16:20
09	EC2200016-09	PERCHLORATE9	20221214_012	12/14/2022 16:25
10	EC2200016-10	PERCHLORATE10	20221214_013	12/14/2022 16:31

Analyte **Curve Fit** **Weighting**

Perchlorate **Average RF** **RSD = 2.927** **Average RF = 0.1567**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.1000	0.1615	02	0.5000	0.1479	03	0.7000	0.1579	04	1.0000	0.1573
05	2.0000	0.1505	06	5.0000	0.1573	07	10.0000	0.1541	08	20.0000	0.162
09	30.0000	0.1598	10	50.0000	0.1587						

Analyte

Perchlorate RSE = 2.93

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.1000	0.103	3.1	02	0.5000	0.472	-5.6	03	0.7000	0.705	0.8
04	1.0000	1.00	0.4	05	2.0000	1.92	-3.9	06	5.0000	5.02	0.4
07	10.0000	9.83	-1.7	08	20.0000	20.7	3.4	09	30.0000	30.6	2.0
10	50.0000	50.6	1.3								

Initial Calibration Verification Summary Report

Calibration ID:	EC2200016	**Instrument ID:**	E-LCMS-01
Datafile ID:	20221214_014	**Column Name:**	1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
Perchlorate	EC2200016-11	T	Average RF	10	9.359	ng/mL	-6.4	<= 15

Insight Report

Printed at 12/15/2022 10:55:51 AM

Method File: I:\LCMS01\DATA\20221013ICAL\20221013ICAL.lcm
Project File: I:\LCMS01\DATA\20221214\12142022 ICAL.damlp

PERCHLORATE1

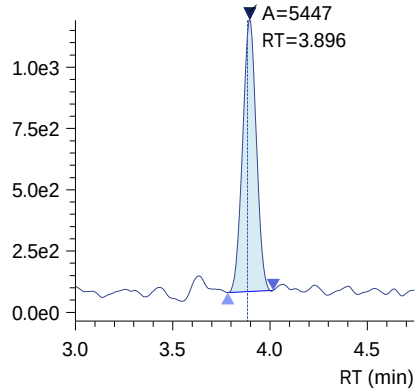
Sample ID: PERCHLORATE1
Date Acquired: 12/14/2022 3:40:29 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221214\20221214_004.lcd
Vial: 1 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.896	5447	337240	0.1031	ng/mL	101.00 >85.00	35.31	23.94 -44.46
Sodium Perchlorate-18O4_IS	Auto	3.889	337240	337240	1.0000	ng/mL	----	----	

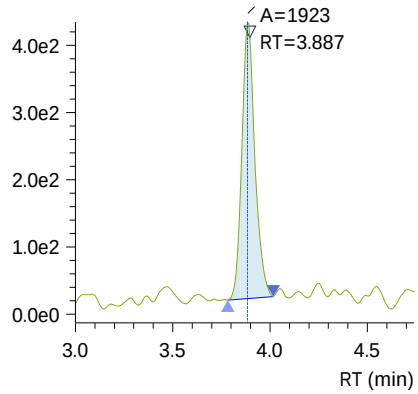
Perchlorate

Conc 0.1031
R#1 35.31 (34.02)

Q 99.00>83.00 (-) 1.19e3



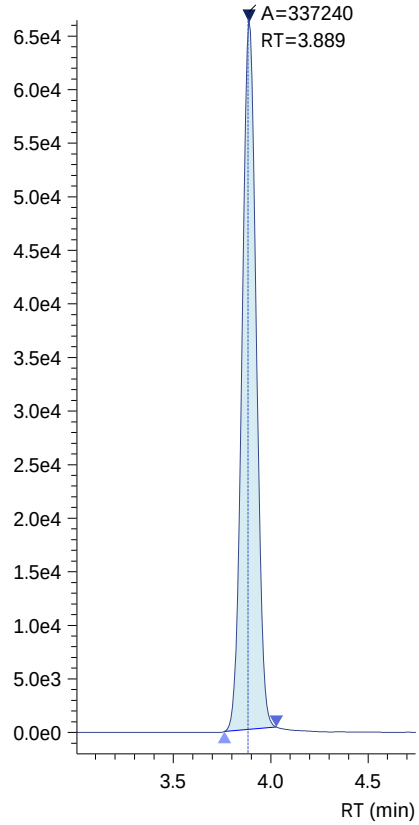
R1 101.00>85.00 (-) 4.35e2



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 6.65e4



Insight Report

Printed at 12/15/2022 10:55:51 AM

PERCHLORATE2

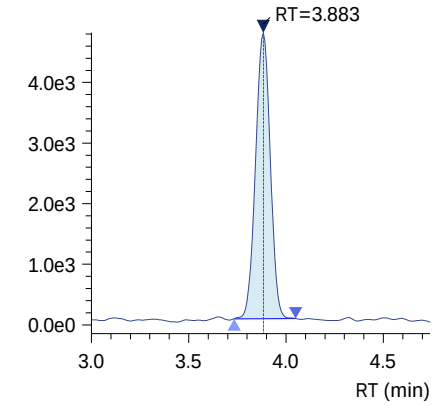
Sample ID: PERCHLORATE2
Date Acquired: 12/14/2022 3:46:03 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221214\20221214_005.lcd
Vial: 2 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.883	24897	336620	0.4720	ng/mL	101.00 >85.00	33.26	23.94 -44.46
Sodium Perchlorate-18O4 _IS	Auto	3.878	336620	336620	1.0000	ng/mL	----	----	

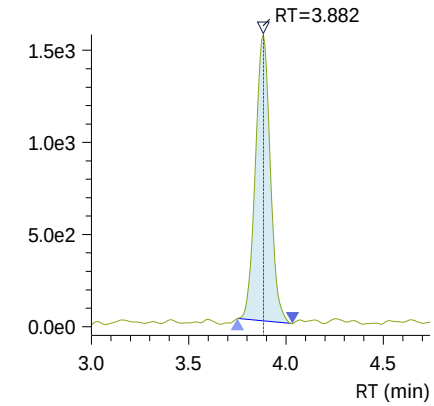
Perchlorate

Conc 0.4720
R#1 33.26 (34.02)

Q 99.00>83.00 (-) A=24897 4.82e3



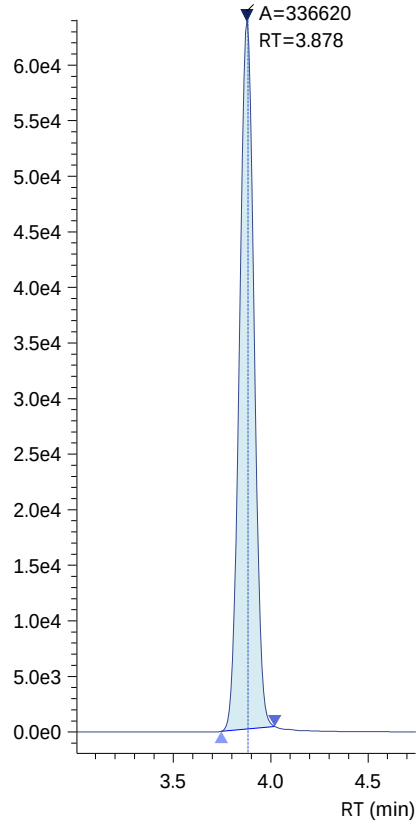
R1 101.00>85.00 (-) A=8281 1.59e3



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 6.41e4



Insight Report

Printed at 12/15/2022 10:55:51 AM

PERCHLORATE3

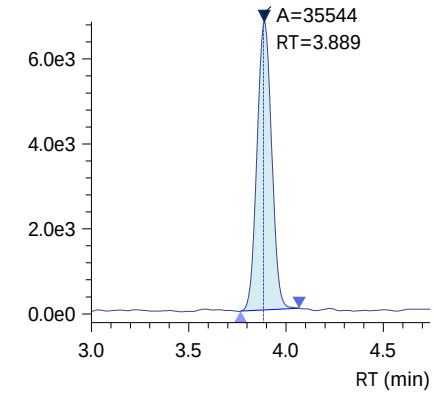
Sample ID: PERCHLORATE3
Date Acquired: 12/14/2022 3:51:33 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221214\20221214_006.lcd
Vial: 3 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.889	35544	321596	0.7053	ng/mL	101.00 >85.00	35.09	23.94 -44.46
Sodium Perchlorate-18O4_IS	Auto	3.885	321596	321596	1.0000	ng/mL	----	----	

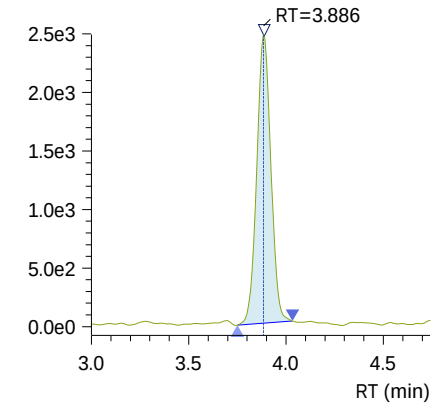
Perchlorate

Conc 0.7053
R#1 35.09 (34.02)

Q 99.00>83.00 (-) 6.88e3



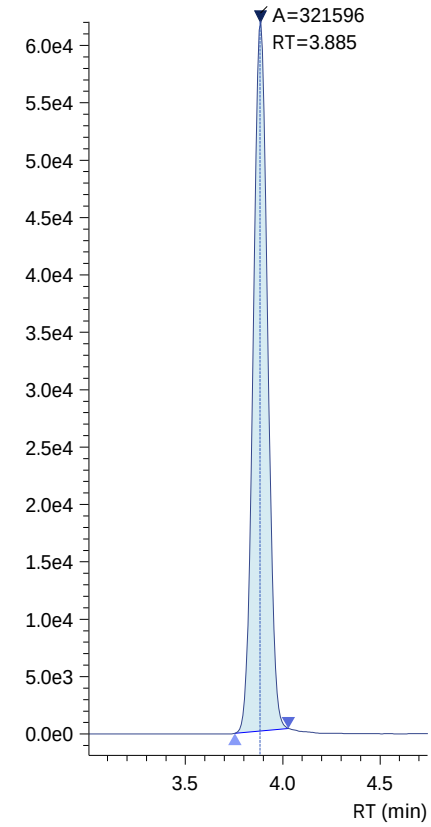
R1 101.00>85.00 (-) A=12471 2.50e3



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 6.21e4



Insight Report

Printed at 12/15/2022 10:55:51 AM

PERCHLORATE4

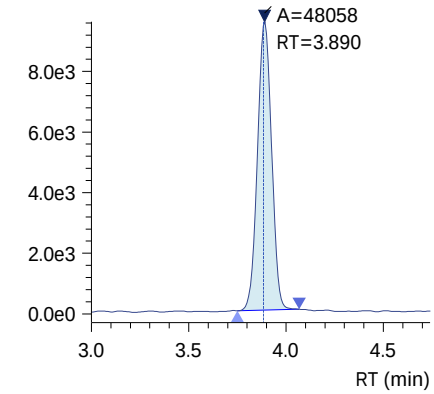
Sample ID: PERCHLORATE4
Date Acquired: 12/14/2022 3:57:06 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221214\20221214_007.lcd
Vial: 4 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.890	48058	305584	1.0036	ng/mL	101.00 >85.00	33.87	23.94 -44.46
Sodium Perchlorate-18O4_IS	Auto	3.886	305584	305584	1.0000	ng/mL	----	----	

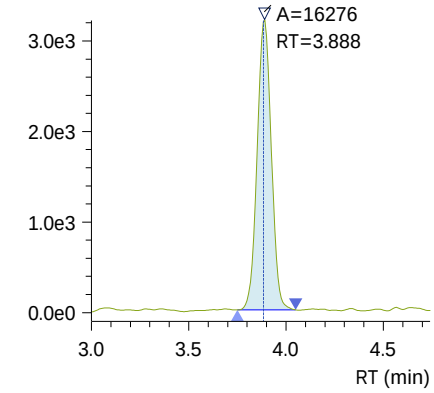
Perchlorate

Conc 1.0036
R#1 33.87 (34.02)

Q 99.00>83.00 (-) 9.64e3



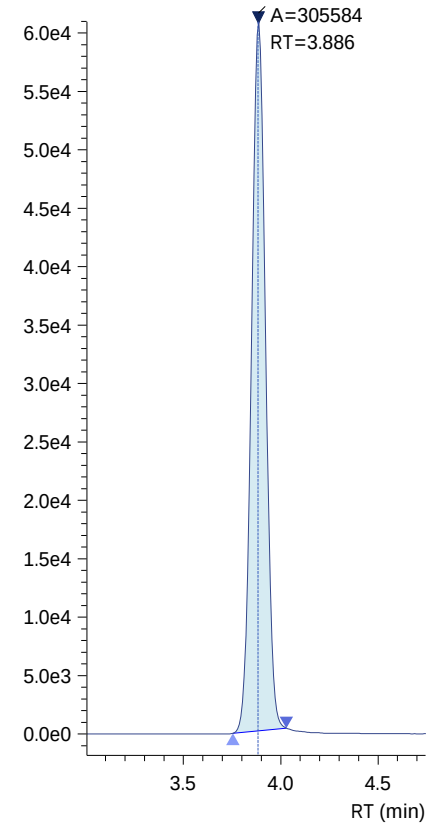
R1 101.00>85.00 (-) 3.23e3



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 6.10e4



Insight Report

Printed at 12/15/2022 10:55:51 AM

PERCHLORATE5

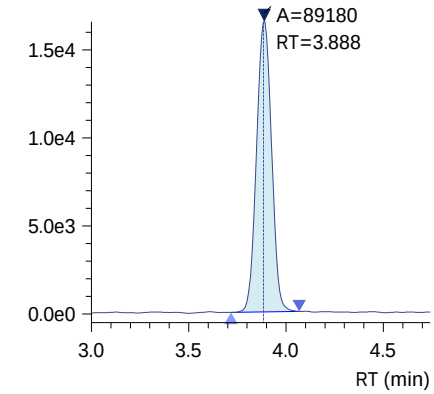
Sample ID: PERCHLORATE5
Date Acquired: 12/14/2022 4:02:38 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221214\20221214_008.lcd
Vial: 5 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.888	89180	296200	1.9213	ng/mL	101.00 >85.00	32.32	23.94 -44.46
Sodium Perchlorate-18O4 _IS	Auto	3.885	296200	296200	1.0000	ng/mL	----	----	

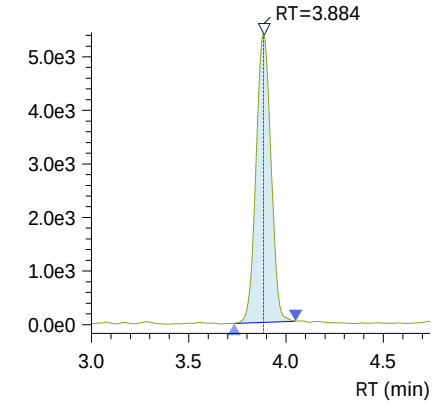
Perchlorate

Conc 1.9213
R#1 32.32 (34.02)

Q 99.00>83.00 (-) 1.66e4



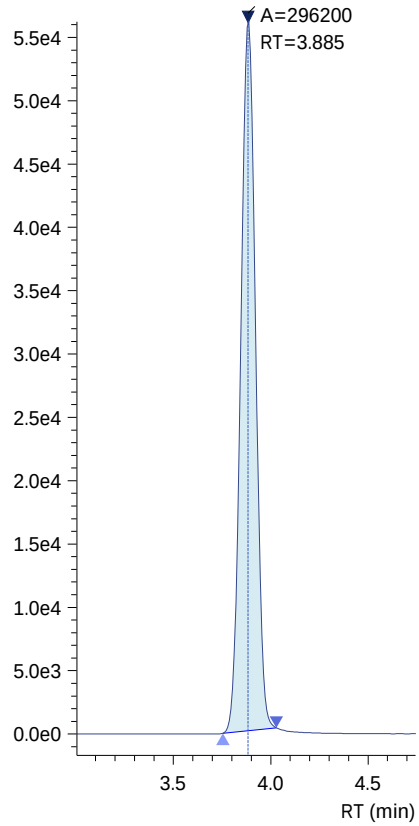
R1 101.00>85.00 (-) A=28822 5.45e3



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 5.62e4



Insight Report

Printed at 12/15/2022 10:55:51 AM

PERCHLORATE6

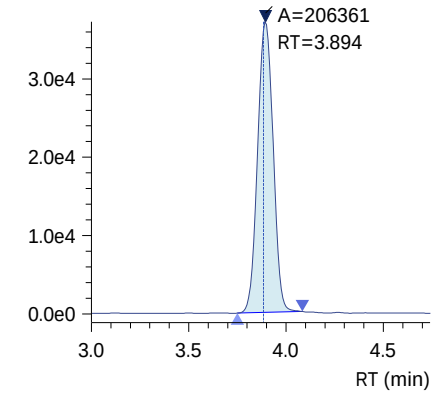
Sample ID: PERCHLORATE6
Date Acquired: 12/14/2022 4:09:28 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221214\20221214_009.lcd
Vial: 6 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.894	206361	262312	5.0202	ng/mL	101.00 >85.00	33.93	23.94 -44.46
Sodium Perchlorate-18O4_IS	Auto	3.889	262312	262312	1.0000	ng/mL	----	----	

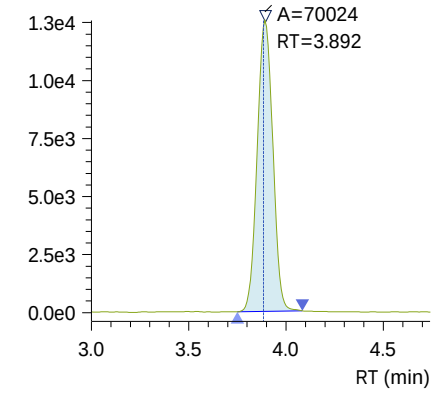
Perchlorate

Conc 5.0202
R#1 33.93 (34.02)

Q 99.00>83.00 (-) 3.73e4



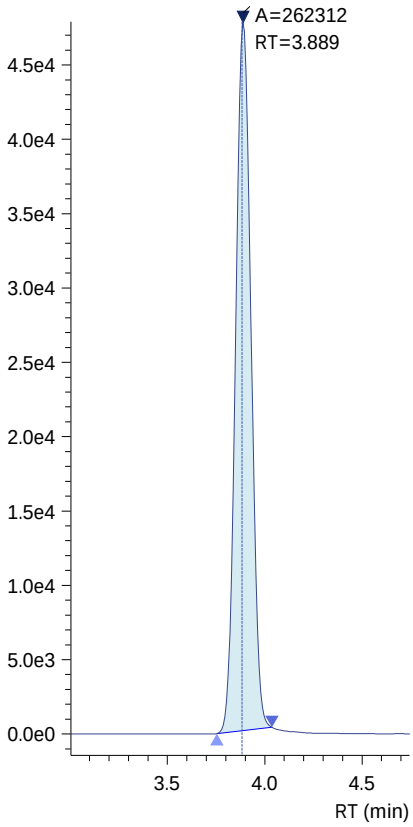
R1 101.00>85.00 (-) 1.26e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 4.79e4



Insight Report

Printed at 12/15/2022 10:55:51 AM

PERCHLORATE7

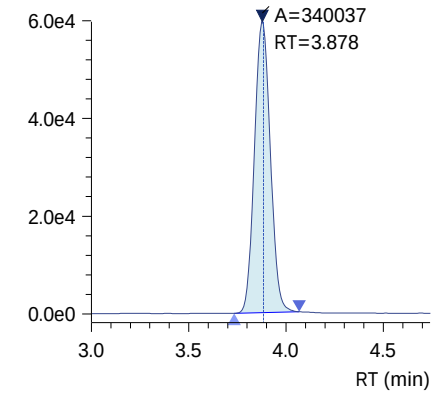
Sample ID: PERCHLORATE7
Date Acquired: 12/14/2022 4:15:00 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221214\20221214_010.lcd
Vial: 7 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.878	340037	220702	9.8317	ng/mL	101.00 >85.00	34.05	23.94 -44.46
Sodium Perchlorate-18O4_IS	Auto	3.875	220702	220702	1.0000	ng/mL	----	----	

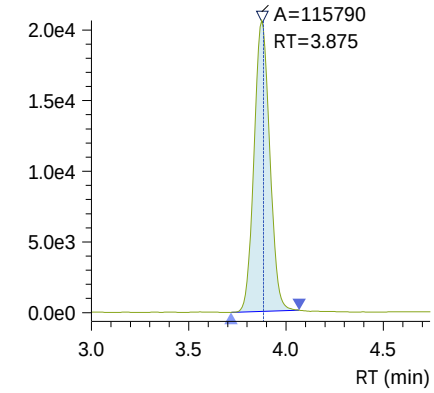
Perchlorate

Conc 9.8317
R#1 34.05 (34.02)

Q 99.00>83.00 (-) 5.98e4



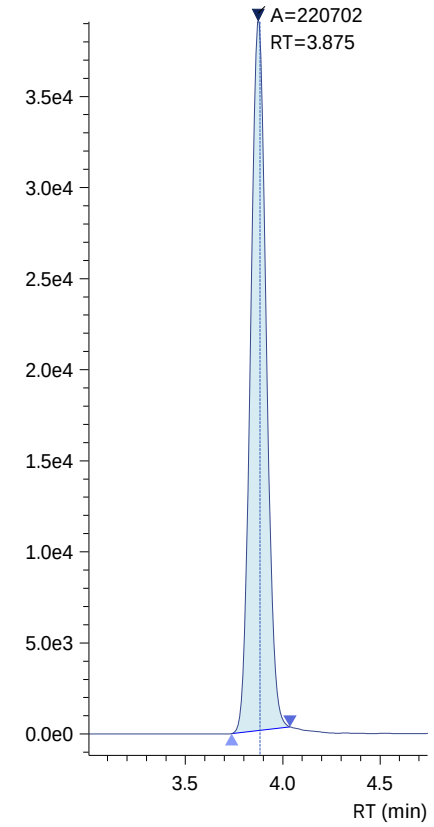
R1 101.00>85.00 (-) 2.07e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 3.91e4



Insight Report

Printed at 12/15/2022 10:55:51 AM

PERCHLORATE8

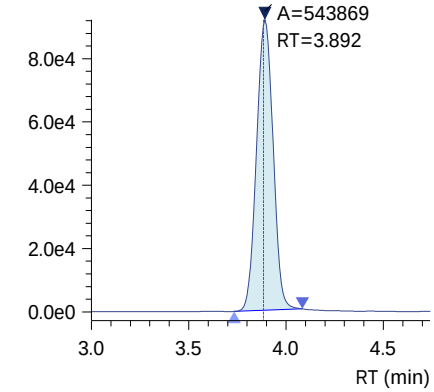
Sample ID: PERCHLORATE8
Date Acquired: 12/14/2022 4:20:30 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221214\20221214_011.lcd
Vial: 8 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.892	543869	167819	20.6806	ng/mL	101.00 >85.00	33.45	23.94 -44.46
Sodium Perchlorate-18O4_IS	Auto	3.888	167819	167819	1.0000	ng/mL	----	----	

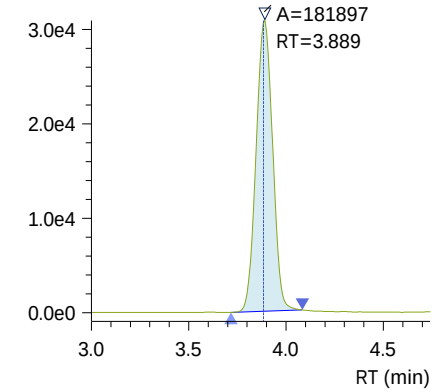
Perchlorate

Conc 20.6806
R#1 33.45 (34.02)

Q 99.00>83.00 (-) 9.23e4



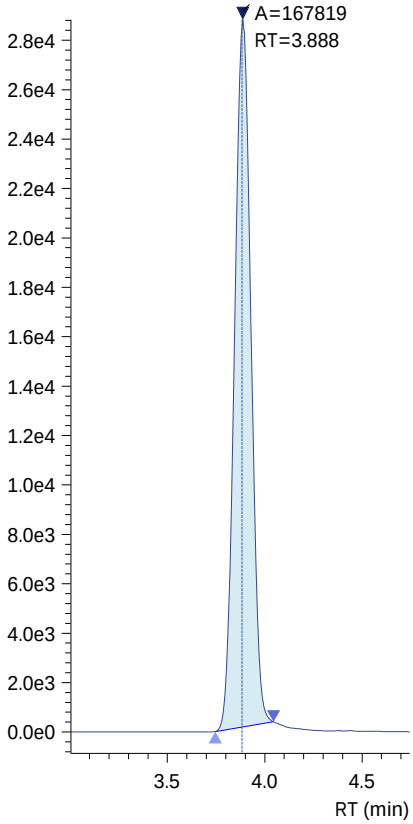
R1 101.00>85.00 (-) 3.09e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.88e4



Insight Report

Printed at 12/15/2022 10:55:51 AM

PERCHLORATE9

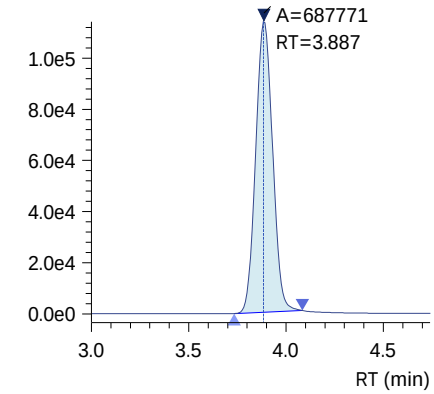
Sample ID: PERCHLORATE9
Date Acquired: 12/14/2022 4:25:58 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221214\20221214_012.lcd
Vial: 9 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.887	687771	143493	30.5860	ng/mL	101.00 >85.00	33.79	23.94 -44.46
Sodium Perchlorate-18O4_IS	Auto	3.883	143493	143493	1.0000	ng/mL	----	----	

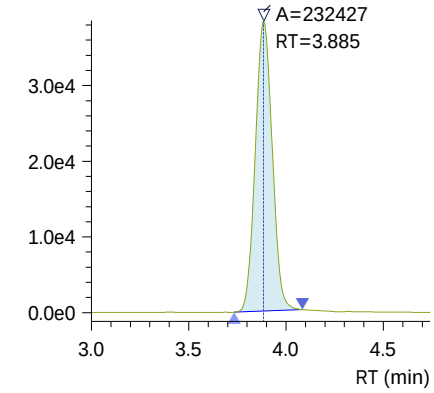
Perchlorate

Conc 30.5860
R#1 33.79 (34.02)

Q 99.00>83.00 (-) 1.14e5



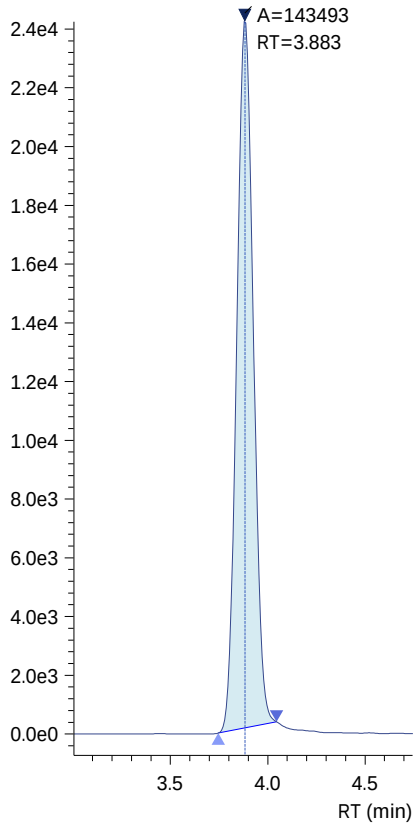
R1 101.00>85.00 (-) 3.86e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.43e4



Insight Report

Printed at 12/15/2022 10:55:51 AM

PERCHLORATE10

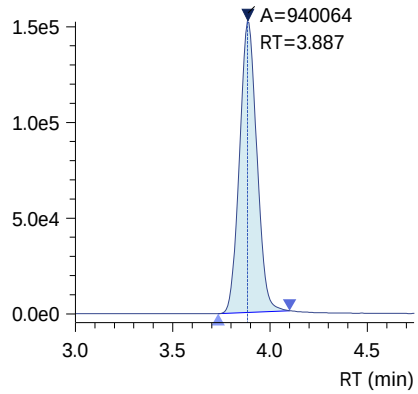
Sample ID: PERCHLORATE10
Date Acquired: 12/14/2022 4:31:28 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221214\20221214_013.lcd
Vial: 10 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.887	9400 64	118445	50.6 464	ng/mL	101.00 >85.00	33.39	23.94 -44.46
Sodium Perchlorate-18O4 _IS	Auto	3.883	1184 45	118445	1.0000	ng/mL	----	----	

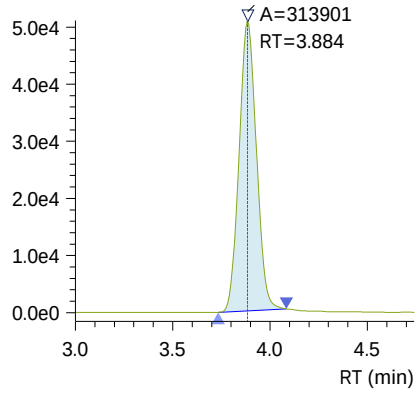
Perchlorate

Conc 50.6464
R#1 33.39 (34.02)

Q 99.00>83.00 (-) 1.53e5



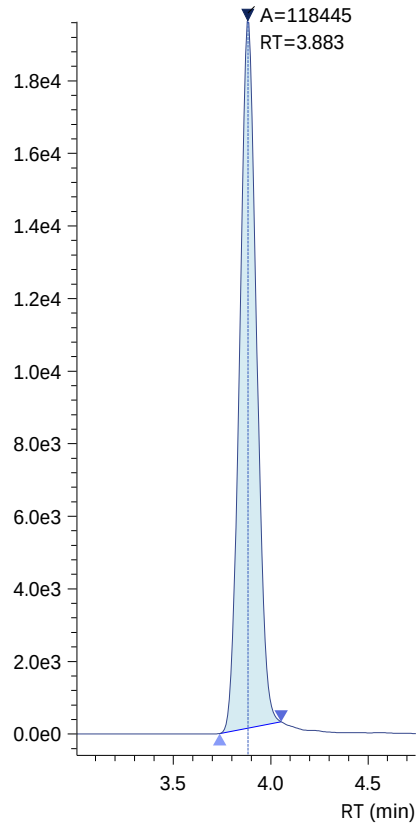
R1 101.00>85.00 (-) 5.12e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.96e4



Insight Report

Printed at 12/15/2022 10:55:51 AM

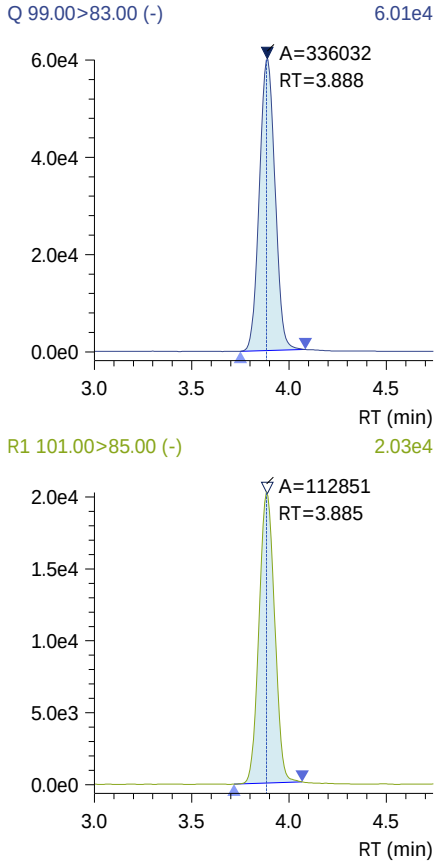
PERCHLORATEICV

Sample ID: PERCHLORATEICV
Date Acquired: 12/14/2022 4:37:01 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221214\20221214_014.lcd
Vial: 11 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.888	3360 32	229124	9.3588	ng/mL	101.00 >85.00	33.58	23.94 -44.46
Sodium Perchlorate-18O4 _IS	Auto	3.884	2291 24	229124	1.0000	ng/mL	----	----	

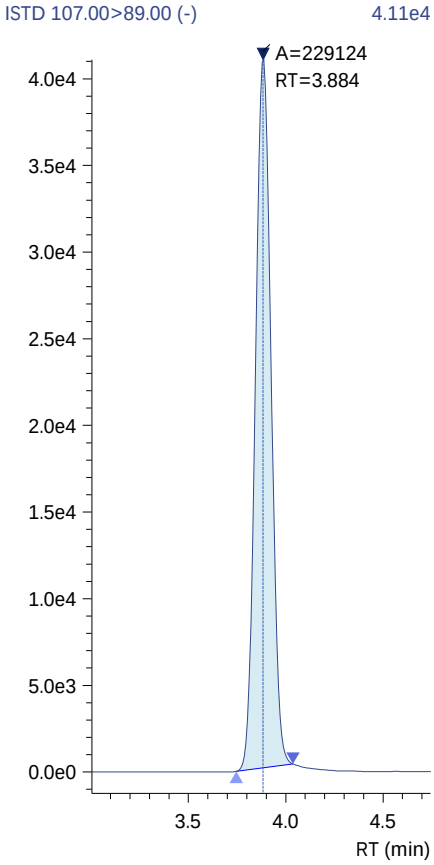
Perchlorate

Conc 9.3588
R#1 33.58 (34.02)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Chromatograms and Selected Ion Monitoring

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 320, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

20230119

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XMI
2nd Review: Kneir

ICAL Date: 12/14/2022
Cal. Std. xp: 01/31/2023
ICAL ID: EC2200016

Mobile Phases : A:0.10% Formic Acid/Water 3210303-01 **B:**MeOH 224417

	Sample Name		File Name	Acquisition Method	Dilution	R	Comments	Date/Time
1	IB		20230119-001	Perchlorate6850c.lcm	1x	☒		1/19/2023 8:54
2	LODV		20230119-002	Perchlorate6850c.lcm	1x	☒	225199	1/19/2023 9:00
3	ICS		20230119-003	Perchlorate6850c.lcm	1x	☒	32103024	1/19/2023 9:06
4	PERCHLORATE7		20230119-004	Perchlorate6850c.lcm	1x	☒	226067	1/19/2023 9:12
5	EQ2300018-01		20230119-005	Perchlorate6850c.lcm	1x	☒		1/19/2023 9:17
6	EQ2300018-02		20230119-006	Perchlorate6850c.lcm	1x	☒	DNU-BAD INJECTION	1/19/2023 10:23
7	EQ2300018-03		20230119-007	Perchlorate6850c.lcm	1x	☒		1/19/2023 10:29
8	EQ2300019-01		20230119-008	Perchlorate6850c.lcm	1x	☒		1/19/2023 10:34
9	EQ2300019-02		20230119-009	Perchlorate6850c.lcm	1x	☒		1/19/2023 10:40
10	EQ2300019-03		20230119-010	Perchlorate6850c.lcm	1x	☒		1/19/2023 10:46
11	E2300032-001		20230119-011	Perchlorate6850c.lcm	1x	☒		1/19/2023 10:52
12	E2300032-003		20230119-012	Perchlorate6850c.lcm	1x	☒		1/19/2023 10:58
13	E2300032-004		20230119-013	Perchlorate6850c.lcm	1x	☒		1/19/2023 11:03
14	E2300032-005		20230119-014	Perchlorate6850c.lcm	1x	☒		1/19/2023 11:09
15	PERCHLORATE7		20230119-015	Perchlorate6850c.lcm	1x	☒	226067	1/19/2023 11:15
16	E2300032-006		20230119-016	Perchlorate6850c.lcm	1x	☒		1/19/2023 11:40
17	E2300032-007		20230119-017	Perchlorate6850c.lcm	1x	☒		1/19/2023 11:45
18	E2300032-008		20230119-018	Perchlorate6850c.lcm	1x	☒	DNU-OUT OF ICAL Range	1/19/2023 11:51
19	E2300032-009		20230119-019	Perchlorate6850c.lcm	1x	☒	DNU-CO CONFIRM	1/19/2023 11:57
20	E2300033-001		20230119-020	Perchlorate6850c.lcm	1x	☒	DNU-IS	1/19/2023 12:03
21	E2300033-002		20230119-021	Perchlorate6850c.lcm	1x	☒		1/19/2023 12:08
22	E2300033-003		20230119-022	Perchlorate6850c.lcm	1x	☒		1/19/2023 12:14
23	E2300033-004		20230119-023	Perchlorate6850c.lcm	1x	☒		1/19/2023 12:20
24	E2300033-005		20230119-024	Perchlorate6850c.lcm	1x	☒		1/19/2023 12:25
25	E2300033-006		20230119-025	Perchlorate6850c.lcm	1x	☒		1/19/2023 12:31
26	PERCHLORATE7		20230119-026	Perchlorate6850c.lcm	1x	☒	226067	1/19/2023 12:37
27	E2300034-001		20230119-027	Perchlorate6850c.lcm	1x	☒	DNU-IS	1/19/2023 12:42
28	E2300034-002		20230119-028	Perchlorate6850c.lcm	1x	☒		1/19/2023 12:48
29	E2300034-003		20230119-029	Perchlorate6850c.lcm	1x	☒	DNU-IS	1/19/2023 12:54
30	E2300034-004		20230119-030	Perchlorate6850c.lcm	1x	☒		1/19/2023 12:59
31	E2300034-005		20230119-031	Perchlorate6850c.lcm	1x	☒	DNU-IS	1/19/2023 13:05
32	E2300034-006		20230119-032	Perchlorate6850c.lcm	1x	☒		1/19/2023 13:11
33	E2300034-007		20230119-033	Perchlorate6850c.lcm	1x	☒		1/19/2023 13:16
34	E2300034-008		20230119-034	Perchlorate6850c.lcm	1x	☒		1/19/2023 13:22
35	E2300034-009		20230119-035	Perchlorate6850c.lcm	1x	☒		1/19/2023 13:28
36	E2300034-010		20230119-036	Perchlorate6850c.lcm	1x	☒	DNU-IS	1/19/2023 13:33
37	PERCHLORATE7		20230119-037	Perchlorate6850c.lcm	1x	☒	226067	1/19/2023 13:39
38	E2300035-001		20230119-038	Perchlorate6850c.lcm	1x	☒		1/19/2023 13:45
39	E2300035-002		20230119-039	Perchlorate6850c.lcm	1x	☒		1/19/2023 13:51
40	E2300035-003		20230119-040	Perchlorate6850c.lcm	1x	☒		1/19/2023 13:56

20230119

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XMI
2nd Review: Kneir

ICAL Date: 12/14/2022
Cal. Std. xp: 01/31/2023
ICAL ID: EC2200016

Mobile Phases : A:0.10% Formic Acid/Water 3210303-01 **B:**MeOH 224417

	Sample Name		File Name	Acquisition Method	Dilution	R	Comments	Date/Time
41	E2300035-004		20230119-041	Perchlorate6850c.lcm	1x	☒	DNU-IS	1/19/2023 14:02
42	E2300035-005		20230119-042	Perchlorate6850c.lcm	1x	☒		1/19/2023 14:08
43	E2300035-006		20230119-043	Perchlorate6850c.lcm	1x	☒	DNU-IS	1/19/2023 14:13
44	E2300035-007		20230119-044	Perchlorate6850c.lcm	1x	☒	DNU-IS	1/19/2023 14:19
45	E2300035-008		20230119-045	Perchlorate6850c.lcm	1x	☒	DNU-IS	1/19/2023 14:25
46	E2300035-009		20230119-046	Perchlorate6850c.lcm	1x	☒		1/19/2023 14:30
47	E2300035-010		20230119-047	Perchlorate6850c.lcm	1x	☒		1/19/2023 14:36
48	PERCHLORATE7		20230119-048	Perchlorate6850c.lcm	1x	☒	226067	1/19/2023 14:42
49	E2300049-001		20230119-049	Perchlorate6850c.lcm	1x	☒		1/19/2023 14:48
50	E2300050-001		20230119-050	Perchlorate6850c.lcm	1x	☒		1/19/2023 14:53
51	E2300032-009		20230119-051	Perchlorate6850c.lcm	1x	☒		1/19/2023 15:05
52	E2300032-002		20230119-052	Perchlorate6850c.lcm	100x	☒		1/19/2023 15:16
53	EQ2300018-04		20230119-053	Perchlorate6850c.lcm	1x	☒		1/19/2023 15:22
54	EQ2300018-05		20230119-054	Perchlorate6850c.lcm	1x	☒		1/19/2023 15:27
55	PERCHLORATE7		20230119-055	Perchlorate6850c.lcm	1x	☒	226067	1/19/2023 16:08

20230120

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XMI
2nd Review: Kneir

ICAL Date: 12/14/2022
Cal. Std. xp: 01/31/2023
ICAL ID: EC2200016

Mobile Phases : A:0.10% Formic Acid/Water 3210303-01 **B:**MeOH 224417

	Sample Name		File Name	Acquisition Method	Dilution	R	Comments	Date/Time
1	IB		20230120-001	Perchlorate6850c.lcm	1x	☒		**1/20/2023 8:38**
2	LODV		20230120-002	Perchlorate6850c.lcm	1x	☒	225199	1/20/2023 8:44
3	ICS		20230120-003	Perchlorate6850c.lcm	1x	☒	32103024	1/20/2023 8:49
4	PERCHLORATE7		20230120-004	Perchlorate6850c.lcm	1x	☒	226067	1/20/2023 8:55
5	EQ2300018-02		20230120-005	Perchlorate6850c.lcm	1x	☒		1/20/2023 9:01
6	E2300032-008		20230120-006	Perchlorate6850c.lcm	200x	☒	DNU-IS	1/20/2023 9:06
7	E2300034-001		20230120-007	Perchlorate6850c.lcm	5x	☒		1/20/2023 9:21
8	E2300034-005		20230120-008	Perchlorate6850c.lcm	5x	☒		1/20/2023 9:27
9	E2300034-010		20230120-009	Perchlorate6850c.lcm	5x	☒		1/20/2023 9:32
10	E2300034-003		20230120-010	Perchlorate6850c.lcm	5x	☒		1/20/2023 9:38
11	E2300035-004		20230120-011	Perchlorate6850c.lcm	5x	☒		1/20/2023 9:44
12	E2300035-006		20230120-012	Perchlorate6850c.lcm	5x	☒	analyzed at 5x due to sample matrix	1/20/2023 9:49
13	E2300035-007		20230120-013	Perchlorate6850c.lcm	5x	☒		1/20/2023 9:55
14	E2300035-008		20230120-014	Perchlorate6850c.lcm	5x	☒		1/20/2023 10:01
15	PERCHLORATE7		20230120-015	Perchlorate6850c.lcm	1x	☒	226067	1/20/2023 10:06
16	E2300032-008		20230120-016	Perchlorate6850c.lcm	500x	☒		1/20/2023 10:12
17	E2300033-001		20230120-017	Perchlorate6850c.lcm	5x	☒	analyzed at 5x due to sample matrix	1/20/2023 10:20
18	EQ2300022-01		20230120-018	Perchlorate6850c.lcm	1x	☒		1/20/2023 10:26
19	EQ2300022-02		20230120-019	Perchlorate6850c.lcm	1x	☒		1/20/2023 10:31
20	EQ2300022-03		20230120-020	Perchlorate6850c.lcm	1x	☒		1/20/2023 10:37
21	E2300036-001		20230120-021	Perchlorate6850c.lcm	1x	☒		1/20/2023 10:43
22	E2300036-002		20230120-022	Perchlorate6850c.lcm	1x	☒		1/20/2023 10:48
23	E2300036-003		20230120-023	Perchlorate6850c.lcm	1x	☒	DNU-IS	1/20/2023 10:54
24	E2300036-004		20230120-024	Perchlorate6850c.lcm	1x	☒	DNU-IS	1/20/2023 11:00
25	E2300036-005		20230120-025	Perchlorate6850c.lcm	1x	☒	DNU-IS	1/20/2023 11:06
26	PERCHLORATE7		20230120-026	Perchlorate6850c.lcm	1x	☒	226067	1/20/2023 11:12
27	E2300036-006		20230120-027	Perchlorate6850c.lcm	1x	☒		1/20/2023 11:18
28	E2300036-007		20230120-028	Perchlorate6850c.lcm	1x	☒	DNU-IS	1/20/2023 11:23
29	E2300036-008		20230120-029	Perchlorate6850c.lcm	1x	☒		1/20/2023 11:29
30	E2300036-003		20230120-030	Perchlorate6850c.lcm	5x	☒		1/20/2023 11:40
31	E2300036-004		20230120-031	Perchlorate6850c.lcm	5x	☒		1/20/2023 11:45
32	E2300036-005		20230120-032	Perchlorate6850c.lcm	5x	☒		1/20/2023 11:51
33	E2300036-007		20230120-033	Perchlorate6850c.lcm	5x	☒		1/20/2023 12:03
34	PERCHLORATE7		20230120-034	Perchlorate6850c.lcm	1x	☒	226067	1/20/2023 12:08

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2300033
Project:	HS23010632	**Date Analyzed:**	1/19/23 09:12

Internal Standard Area and RT Summary

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20230119\20230119-004	**Lab Code:**	EQ2300021-01
Instrument ID:	E-LCMS-01	**Analysis Lot:**	792064
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	251,001	3.88
	Upper Limit ==>	376,502	5.88
	Lower Limit ==>	125,501	1.88
Associated Analyses			
Continuing Calibration Verification	EQ2300021-01	198,162	4.10
Method Blank	EQ2300018-01	300,773	4.10
Duplicate Lab Control Sample	EQ2300018-03	304,460	4.10

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2300033
Project:	HS23010632	**Date Analyzed:**	1/19/23 11:15

Internal Standard Area and RT Summary

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20230119\20230119-015	**Lab Code:**	EQ2300021-02
Instrument ID:	E-LCMS-01	**Analysis Lot:**	792064
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	251,001	3.88
	Upper Limit ==>	376,502	5.88
	Lower Limit ==>	125,501	1.88
Associated Analyses			
Continuing Calibration Verification	EQ2300021-02	184,291	4.09
MW16_011123	E2300033-002	244,129	4.02
MW16_011123.a	E2300033-003	258,338	4.02
MW17_011123	E2300033-004	274,204	4.03
MW17_011123.a	E2300033-005	279,314	4.03
18CPTMW16_011123	E2300033-006	280,196	4.04

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2300033
Project:	HS23010632	**Date Analyzed:**	1/19/23 12:37

Internal Standard Area and RT Summary

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20230119\20230119-026	**Lab Code:**	EQ2300021-03
Instrument ID:	E-LCMS-01	**Analysis Lot:**	792064
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	251,001	3.88
	Upper Limit ==>	376,502	5.88
	Lower Limit ==>	125,501	1.88
Associated Analyses			
Continuing Calibration Verification	EQ2300021-03	159,944	4.05

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2300033
Project:	HS23010632	**Date Analyzed:**	1/19/23 13:39

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20230119\20230119-037	**Lab Code:**	EQ2300021-04
Instrument ID:	E-LCMS-01	**Analysis Lot:**	792064
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	251,001	3.88
	Upper Limit ==>	376,502	5.88
	Lower Limit ==>	125,501	1.88
Associated Analyses			
Continuing Calibration Verification	EQ2300021-04	170,686	4.05

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2300033
Project:	HS23010632	**Date Analyzed:**	1/19/23 14:42

Internal Standard Area and RT Summary

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20230119\20230119-048	**Lab Code:**	EQ2300021-05
Instrument ID:	E-LCMS-01	**Analysis Lot:**	792064
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	251,001	3.88
	Upper Limit ==>	376,502	5.88
	Lower Limit ==>	125,501	1.88
Associated Analyses			
Continuing Calibration Verification	EQ2300021-05	166,363	4.05

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2300033
Project:	HS23010632	**Date Analyzed:**	1/19/23 16:08

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20230119\20230119-055	**Lab Code:**	EQ2300021-06
Instrument ID:	E-LCMS-01	**Analysis Lot:**	792064
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	251,001	3.88
	Upper Limit ==>	376,502	5.88
	Lower Limit ==>	125,501	1.88
Associated Analyses			
Continuing Calibration Verification	EQ2300021-06	135,804	4.09

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2300033
Project:	HS23010632	**Date Analyzed:**	1/20/23 08:55

Internal Standard Area and RT Summary

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20230120\20230120-004	**Lab Code:**	EQ2300023-01
Instrument ID:	E-LCMS-01	**Analysis Lot:**	792122
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	251,001	3.88
	Upper Limit ==>	376,502	5.88
	Lower Limit ==>	125,501	1.88
Associated Analyses			
Continuing Calibration Verification	EQ2300023-01	180,688	4.09
Lab Control Sample	EQ2300018-02	292,058	4.10

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2300033
Project:	HS23010632	**Date Analyzed:**	1/20/23 10:06

Internal Standard Area and RT Summary

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20230120\20230120-015	**Lab Code:**	EQ2300023-02
Instrument ID:	E-LCMS-01	**Analysis Lot:**	792122
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	251,001	3.88
	Upper Limit ==>	376,502	5.88
	Lower Limit ==>	125,501	1.88
Associated Analyses			
Continuing Calibration Verification	EQ2300023-02	161,197	4.09
126_011123	E2300033-001	299,287	4.01

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2300033
Project:	HS23010632	**Date Analyzed:**	1/20/23 11:12

Internal Standard Area and RT Summary

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20230120\20230120-026	**Lab Code:**	EQ2300023-03
Instrument ID:	E-LCMS-01	**Analysis Lot:**	792122
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	251,001	3.88
	Upper Limit ==>	376,502	5.88
	Lower Limit ==>	125,501	1.88
Associated Analyses			
Continuing Calibration Verification	EQ2300023-03	162,873	4.05

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2300033
Project:	HS23010632	**Date Analyzed:**	1/20/23 12:08

Internal Standard Area and RT Summary

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20230120\20230120-034	**Lab Code:**	EQ2300023-04
Instrument ID:	E-LCMS-01	**Analysis Lot:**	792122
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	251,001	3.88
	Upper Limit ==>	376,502	5.88
	Lower Limit ==>	125,501	1.88
Associated Analyses			
Continuing Calibration Verification	EQ2300023-04	161,067	4.05

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23010632

Service Request: E2300033
Date Analyzed: 1/19/23

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20230119\20230119-004

Calibration Date: 12/14/22
Calibration ID: EC2200016
Analysis Lot: 792064
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	10.0	0.1567	0.1574	0.4	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23010632

Service Request: E2300033
Date Analyzed: 1/19/23

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20230119\20230119-015

Calibration Date: 12/14/22
Calibration ID: EC2200016
Analysis Lot: 792064
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.89	0.1567	0.1550	-1.1	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23010632

Service Request: E2300033
Date Analyzed: 1/19/23

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20230119\20230119-026

Calibration Date: 12/14/22
Calibration ID: EC2200016
Analysis Lot: 792064
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.94	0.1567	0.1558	-0.6	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23010632

Service Request: E2300033
Date Analyzed: 1/19/23

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20230119\20230119-037

Calibration Date: 12/14/22
Calibration ID: EC2200016
Analysis Lot: 792064
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.90	0.1567	0.1552	-1.0	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23010632

Service Request: E2300033
Date Analyzed: 1/19/23

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20230119\20230119-048

Calibration Date: 12/14/22
Calibration ID: EC2200016
Analysis Lot: 792064
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.97	0.1567	0.1562	-0.3	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23010632

Service Request: E2300033
Date Analyzed: 1/19/23

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20230119\20230119-055

Calibration Date: 12/14/22
Calibration ID: EC2200016
Analysis Lot: 792064
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.92	0.1567	0.1554	-0.8	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23010632

Service Request: E2300033
Date Analyzed: 1/20/23

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20230120\20230120-004

Calibration Date: 12/14/22
Calibration ID: EC2200016
Analysis Lot: 792122
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.85	0.1567	0.1544	-1.5	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23010632

Service Request: E2300033
Date Analyzed: 1/20/23

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20230120\20230120-015

Calibration Date: 12/14/22
Calibration ID: EC2200016
Analysis Lot: 792122
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.88	0.1567	0.1549	-1.2	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23010632

Service Request: E2300033
Date Analyzed: 1/20/23

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20230120\20230120-026

Calibration Date: 12/14/22
Calibration ID: EC2200016
Analysis Lot: 792122
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.71	0.1567	0.1521	-2.9	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23010632

Service Request: E2300033
Date Analyzed: 1/20/23

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20230120\20230120-034

Calibration Date: 12/14/22
Calibration ID: EC2200016
Analysis Lot: 792122
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.71	0.1567	0.1521	-2.9	NA	± 15 %	Average RF

Insight Report

Printed at 1/20/2023 9:07:42 AM

Method File: I:\LCMS01\DATA\20230119\01192023.lcm
Project File: I:\LCMS01\DATA\20230119\01192023.damlp

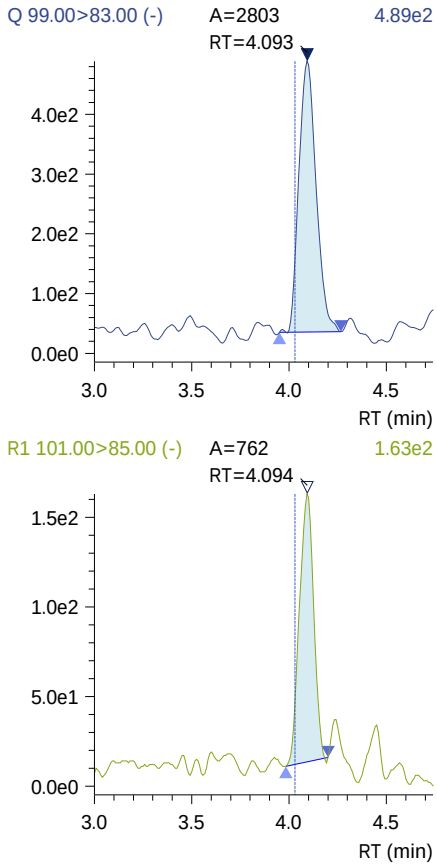
LODV

Sample ID: LODV
Date Acquired: 1/19/2023 9:00:41 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230119\20230119-002.lcd
Vial: 1 | Inj. Volume: 25.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	4.093	2803	317380	0.0564	ng/mL	101.00 >85.00	27.17	23.81 -44.22
Sodium Perchlorate -18O4_IS	Auto	4.088	317380	317380	1.0000	ng/mL	----	----	

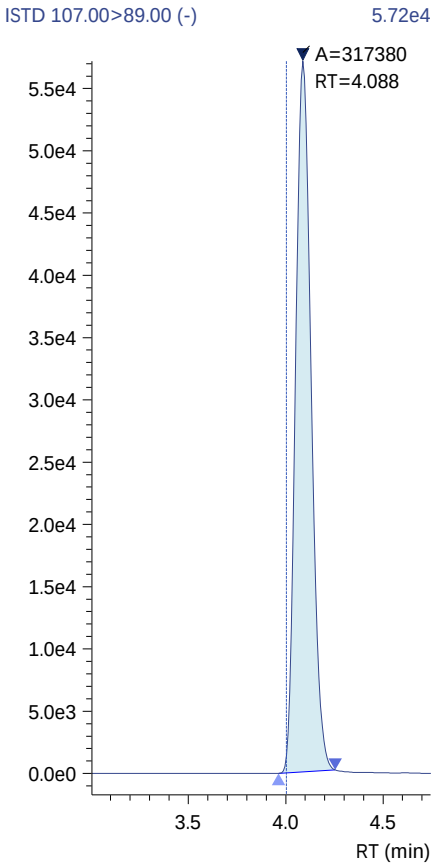
Perchlorate

Conc 0.0564
R#1 27.17 (34.01)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 1/20/2023 9:07:42 AM

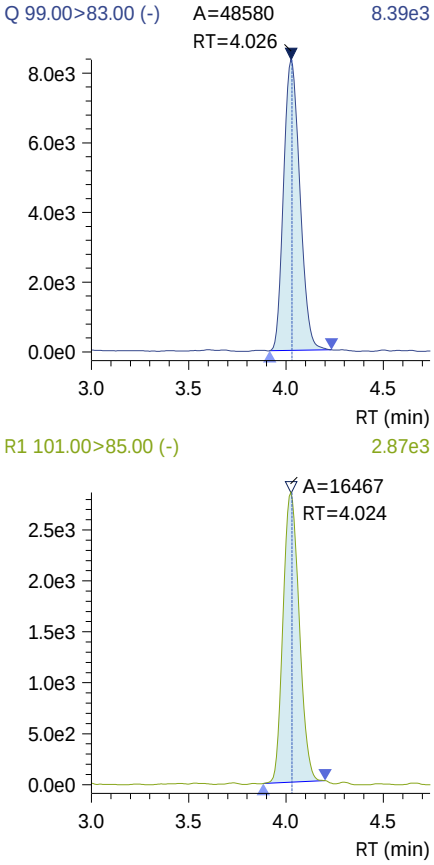
ICS

Sample ID: ICS
Date Acquired: 1/19/2023 9:06:23 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230119\20230119-003.lcd
Vial: 2 | Inj. Volume: 25.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	4.026	48580	307493	1.0082	ng/mL	101.00 >85.00	33.90	23.81 -44.22
Sodium Perchlorate -18O4_IS	Auto	4.022	307493	307493	1.0000	ng/mL	----	----	

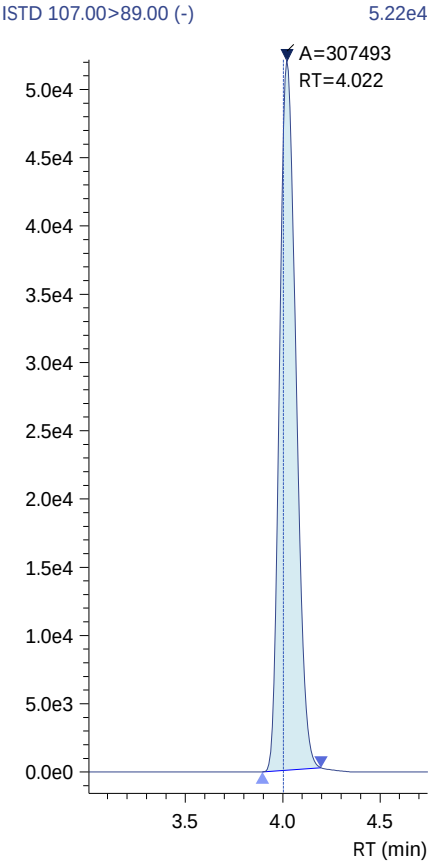
Perchlorate

Conc 1.0082
R#1 33.90 (34.01)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 1/20/2023 9:07:42 AM

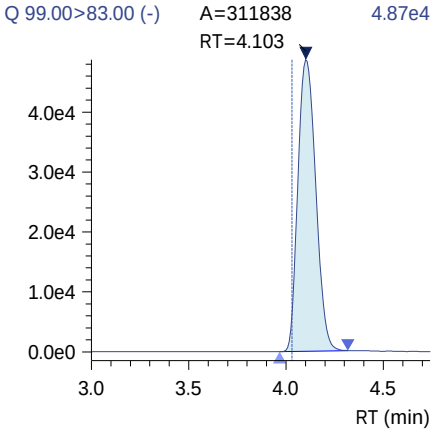
PERCHLORATE7

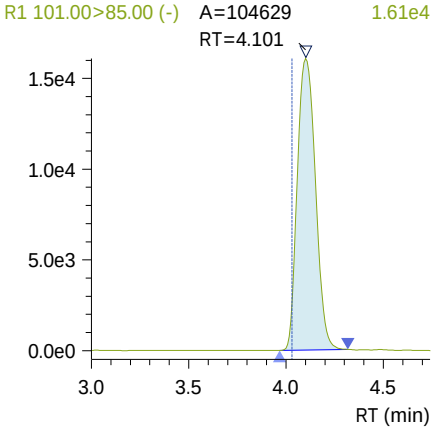
Sample ID: PERCHLORATE7
Date Acquired: 1/19/2023 9:12:04 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230119\20230119-004.lcd
Vial: 3 | Inj. Volume: 25.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	4.103	311838	198162	10.0419	ng/mL	101.00 >85.00	33.55	23.81 -44.22
Sodium Perchlorate -18O4_IS	Auto	4.098	198162	198162	1.0000	ng/mL	----	----	

Perchlorate

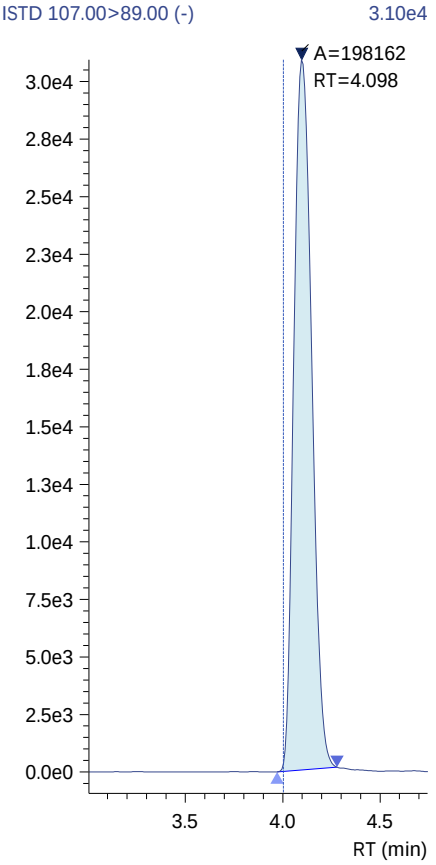
Conc 10.0419
R#1 33.55 (34.01)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 1/20/2023 9:07:42 AM

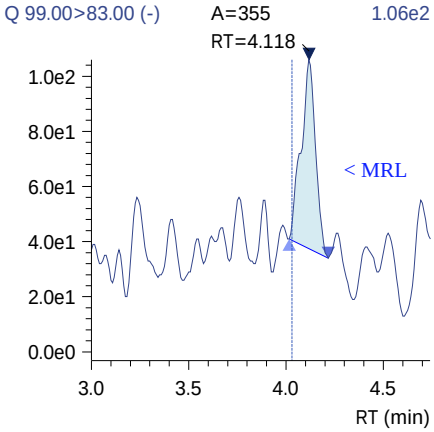
EQ2300018-01

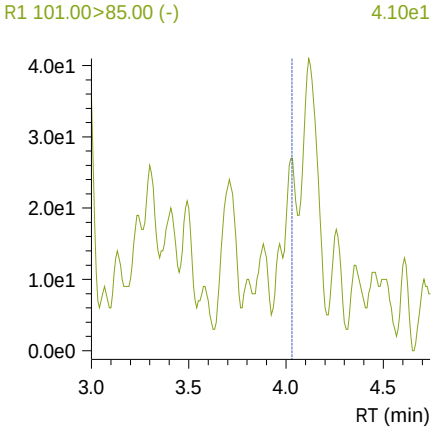
Sample ID: EQ2300018-01
Date Acquired: 1/19/2023 9:17:44 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230119\20230119-005.lcd
Vial: 46 | Inj. Volume: 25.0000uL | Tray: 4

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	4.118	355	300773	0.0075	ng/mL	101.00 >85.00	0.00	23.81 -44.22
Sodium Perchlorate -18O4_IS	Auto	4.101	300773	300773	1.0000	ng/mL	----	----	

Perchlorate

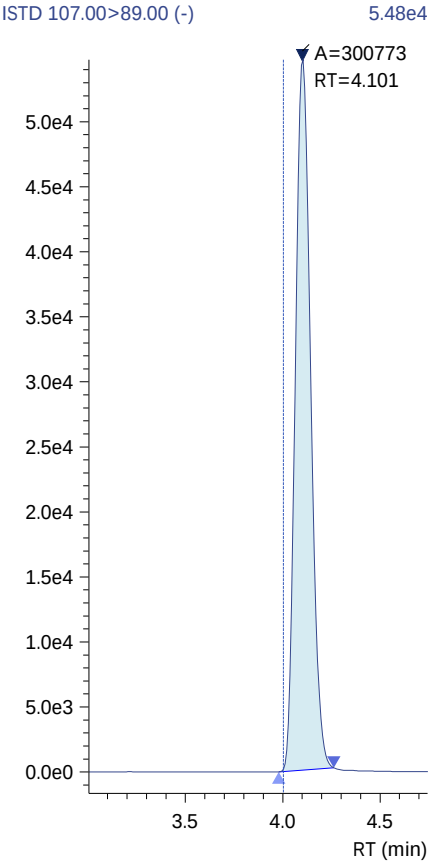
Conc 0.0075
R#1 0.00 (34.01)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 1/20/2023 9:07:42 AM

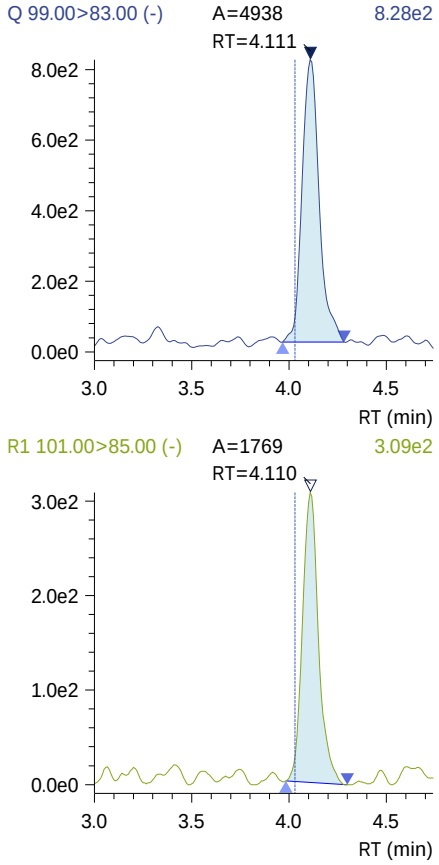
EQ2300018-03

Sample ID: EQ2300018-03
Date Acquired: 1/19/2023 10:29:02 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230119\20230119-007.lcd
Vial: 48 | Inj. Volume: 25.0000uL | Tray: 4

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	4.111	4938	304460	0.1035	ng/mL	101.00 >85.00	35.82	23.81 -44.22
Sodium Perchlorate -18O4_IS	Auto	4.099	304460	304460	1.0000	ng/mL	----	----	

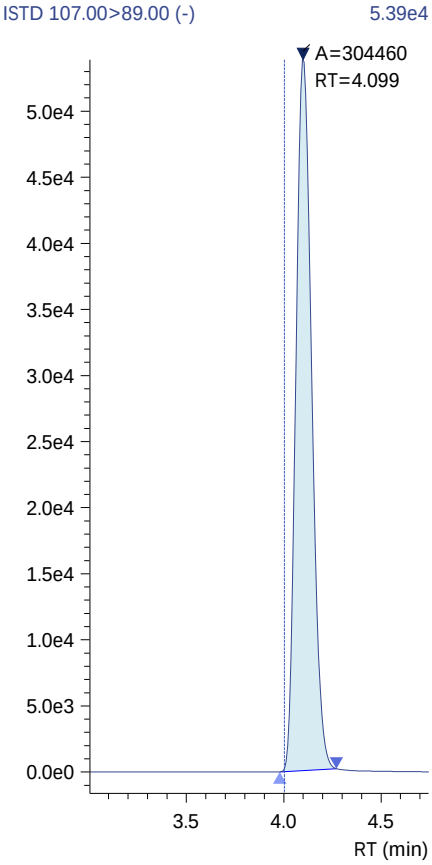
Perchlorate

Conc 0.1035
R#1 35.82 (34.01)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 1/20/2023 9:07:42 AM

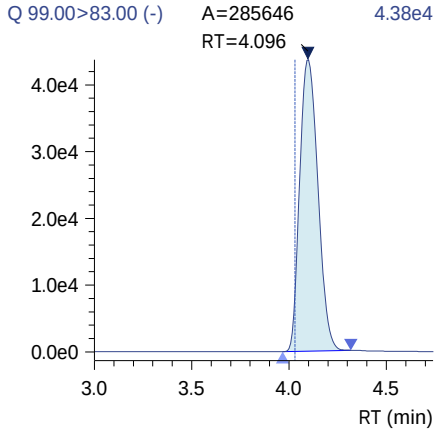
PERCHLORATE7

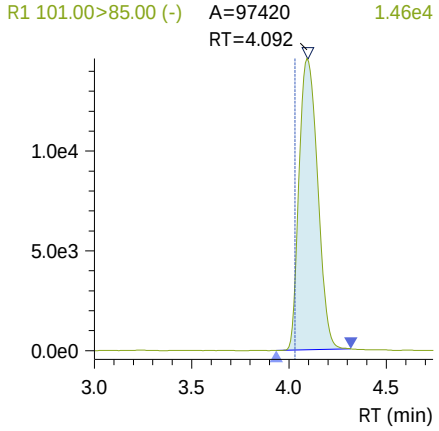
Sample ID: PERCHLORATE7
Date Acquired: 1/19/2023 11:15:13 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230119\20230119-015.lcd
Vial: 3 | Inj. Volume: 25.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	4.096	285646	184291	9.8908	ng/mL	101.00 >85.00	34.10	23.81 -44.22
Sodium Perchlorate -18O4_IS	Auto	4.091	184291	184291	1.0000	ng/mL	----	----	

Perchlorate

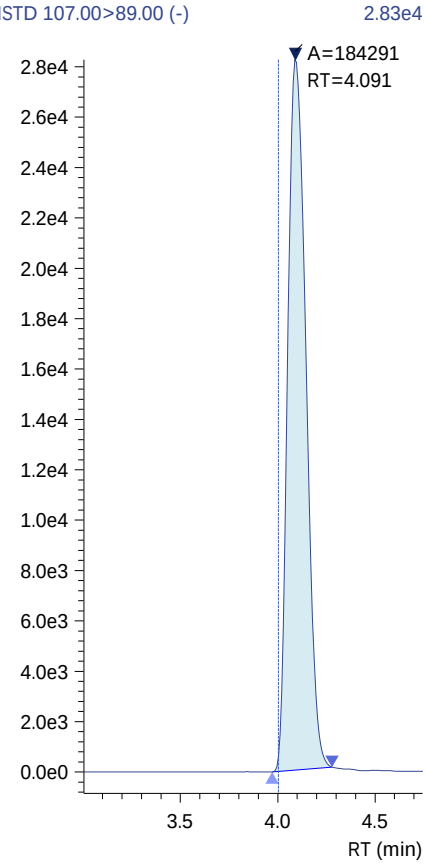
Conc 9.8908
R#1 34.10 (34.01)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 1/20/2023 9:07:42 AM

E2300033-002

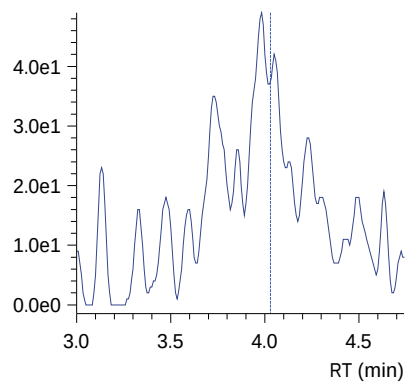
Sample ID: E2300033-002
Date Acquired: 1/19/2023 12:08:51 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230119\20230119-021.lcd
Vial: 11 | Inj. Volume: 25.0000uL | Tray: 4

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	244129	----	ng/mL	101.00 >85.00	0.00	23.81 -44.22
Sodium Perchlorate-18O4_IS	Auto	4.016	244129	244129	1.0000	ng/mL	----	----	

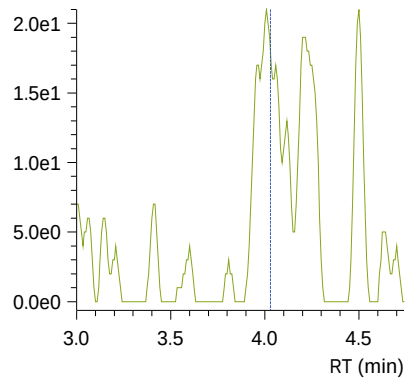
Perchlorate

Conc ----
R#1 0.00 (34.01)

Q 99.00>83.00 (-) 4.90e1



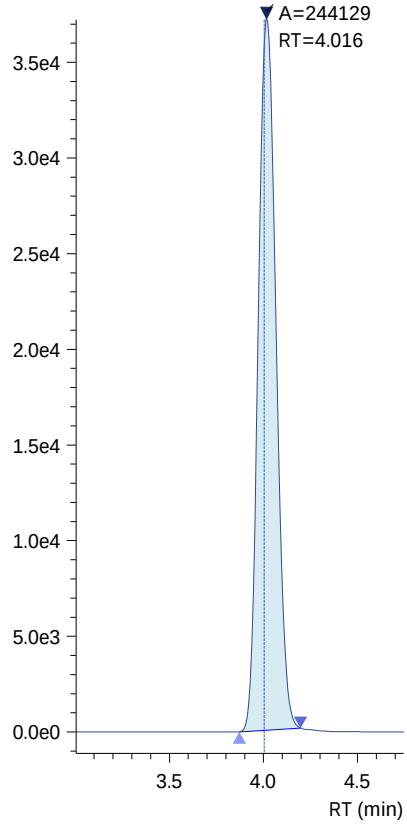
R1 101.00>85.00 (-) 2.10e1



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 3.72e4



Insight Report

Printed at 1/20/2023 9:07:42 AM

E2300033-003

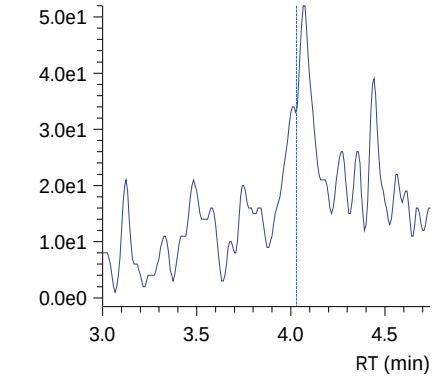
Sample ID: E2300033-003
Date Acquired: 1/19/2023 12:14:31 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230119\20230119-022.lcd
Vial: 12 | Inj. Volume: 25.0000uL | Tray: 4

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	258338	----	ng/mL	101.00 >85.00	0.00	23.81 -44.22
Sodium Perchlorate-18O4_IS	Auto	4.017	258338	258338	1.0000	ng/mL	----	----	

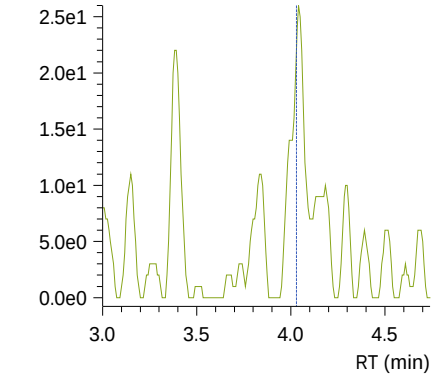
Perchlorate

Conc ----
R#1 0.00 (34.01)

Q 99.00>83.00 (-) 5.20e1



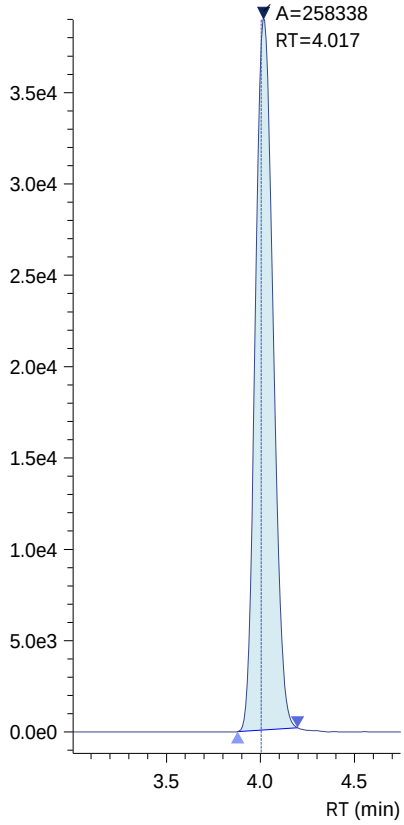
R1 101.00>85.00 (-) 2.60e1



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 3.90e4



Insight Report

Printed at 1/20/2023 9:07:42 AM

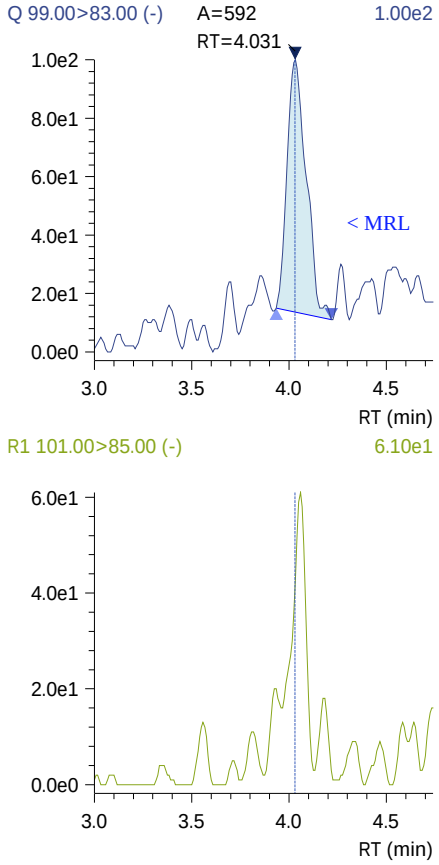
E2300033-004

Sample ID: E2300033-004
Date Acquired: 1/19/2023 12:20:11 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230119\20230119-023.lcd
Vial: 13 | Inj. Volume: 25.0000uL | Tray: 4

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	4.031	592	274204	0.0138	ng/mL	101.00 >85.00	0.00	23.81 -44.22
Sodium Perchlorate -18O4_IS	Auto	4.031	274204	274204	1.0000	ng/mL	----	----	

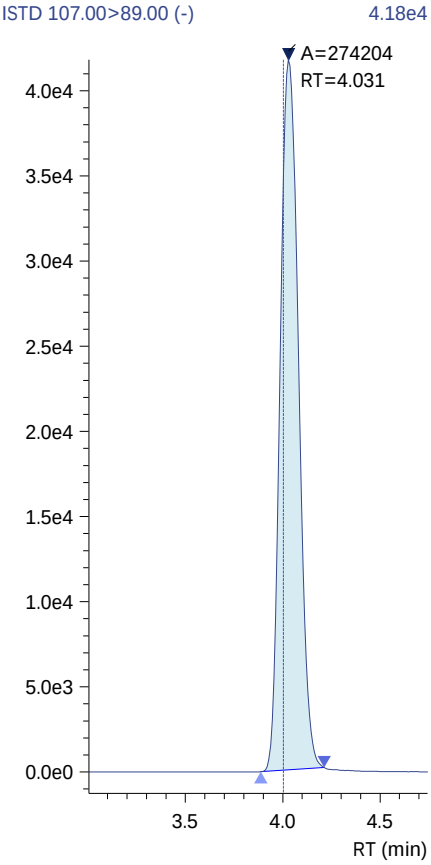
Perchlorate

Conc 0.0138
R#1 0.00 (34.01)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 1/20/2023 9:07:42 AM

E2300033-005

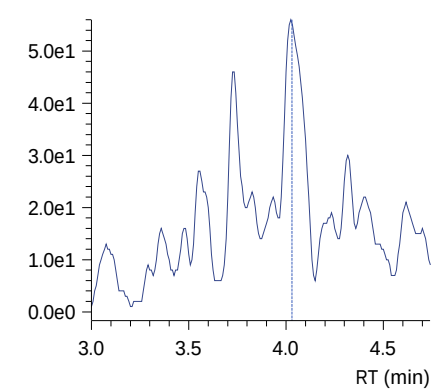
Sample ID: E2300033-005
Date Acquired: 1/19/2023 12:25:52 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230119\20230119-024.lcd
Vial: 14 | Inj. Volume: 25.0000uL | Tray: 4

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	279314	----	ng/mL	101.00 >85.00	0.00	23.81 -44.22
Sodium Perchlorate-18O4_IS	Auto	4.032	279314	279314	1.0000	ng/mL	----	----	

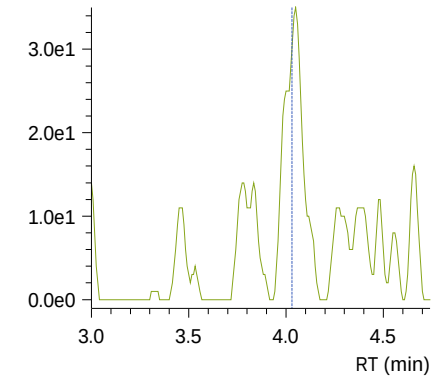
Perchlorate

Conc ----
R#1 0.00 (34.01)

Q 99.00>83.00 (-) 5.60e1



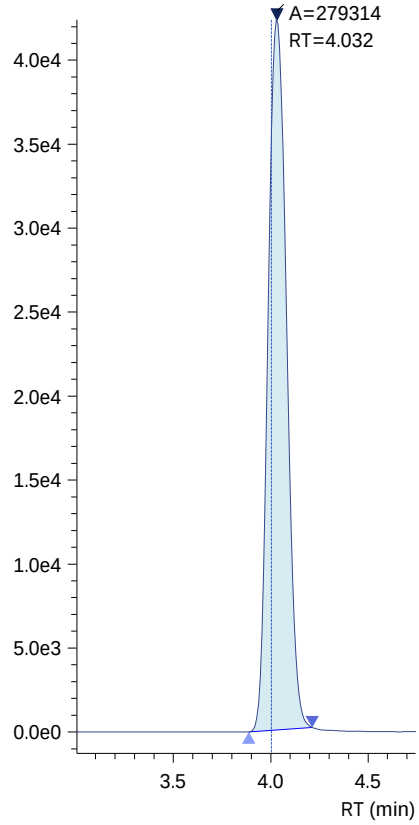
R1 101.00>85.00 (-) 3.50e1



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 4.24e4



Insight Report

Printed at 1/20/2023 9:07:42 AM

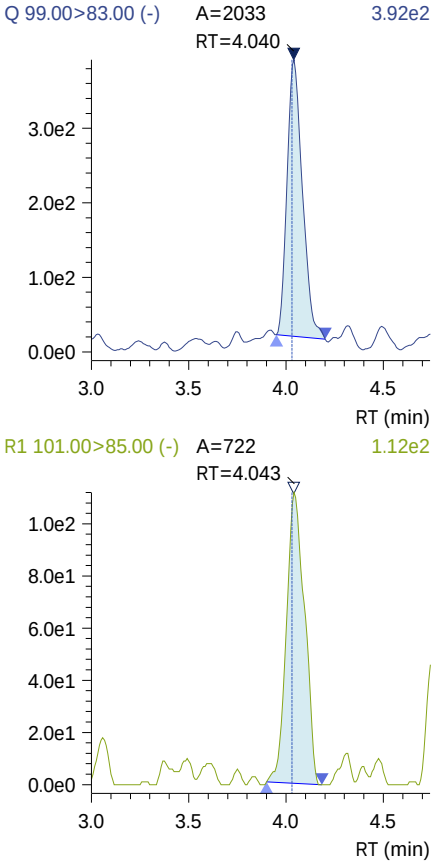
E2300033-006

Sample ID: E2300033-006
Date Acquired: 1/19/2023 12:31:32 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230119\20230119-025.lcd
Vial: 15 | Inj. Volume: 25.0000uL | Tray: 4

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	4.040	2033	280196	0.0463	ng/mL	101.00 >85.00	35.53	23.81 -44.22
Sodium Perchlorate -18O4_IS	Auto	4.040	280196	280196	1.0000	ng/mL	----	----	

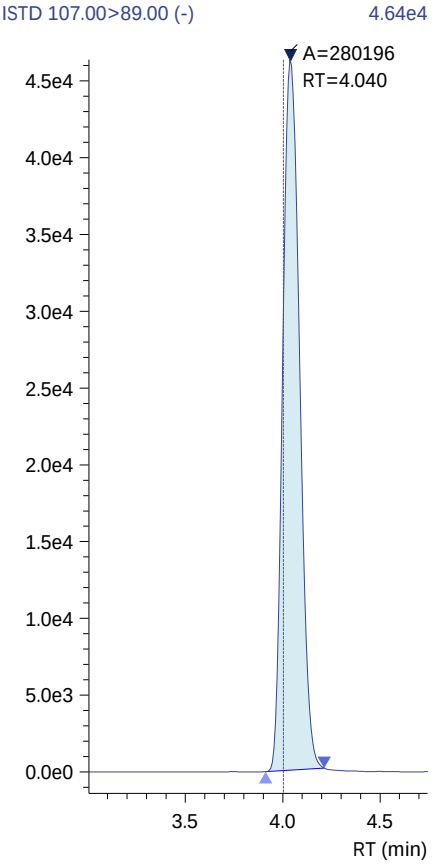
Perchlorate

Conc 0.0463
R#1 35.53 (34.01)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 1/20/2023 9:07:42 AM

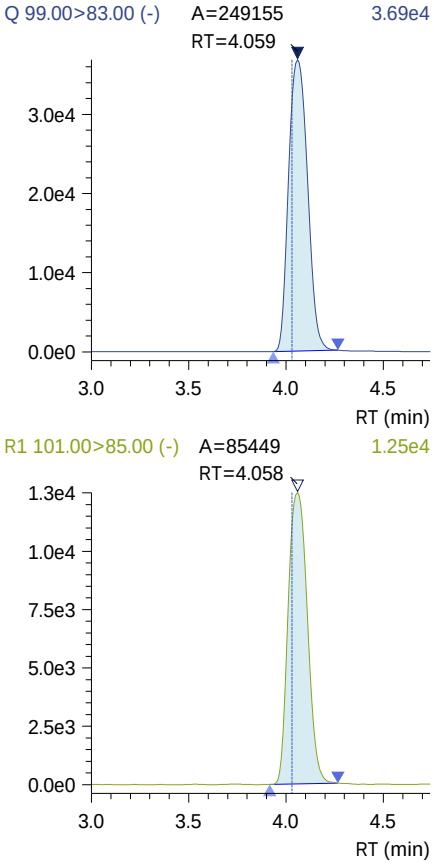
PERCHLORATE7

Sample ID: PERCHLORATE7
Date Acquired: 1/19/2023 12:37:11 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230119\20230119-026.lcd
Vial: 3 | Inj. Volume: 25.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	4.059	249155	159944	9.9406	ng/mL	101.00 >85.00	34.30	23.81 -44.22
Sodium Perchlorate -18O4_IS	Auto	4.052	159944	159944	1.0000	ng/mL	----	----	

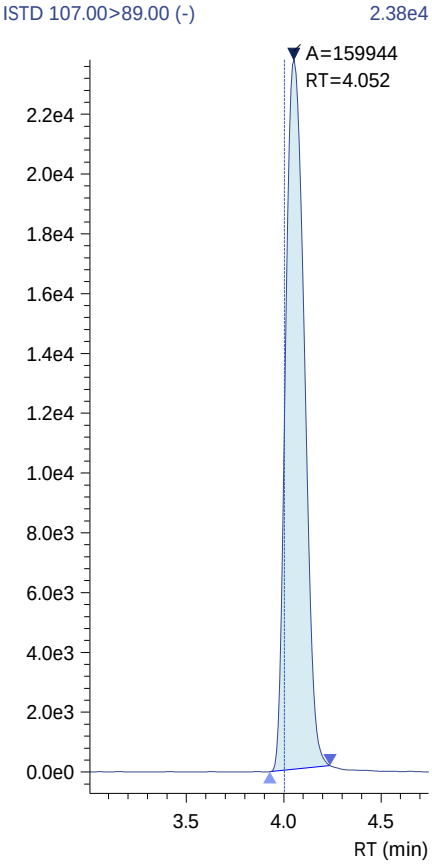
Perchlorate

Conc 9.9406
R#1 34.30 (34.01)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 1/20/2023 12:19:40 PM

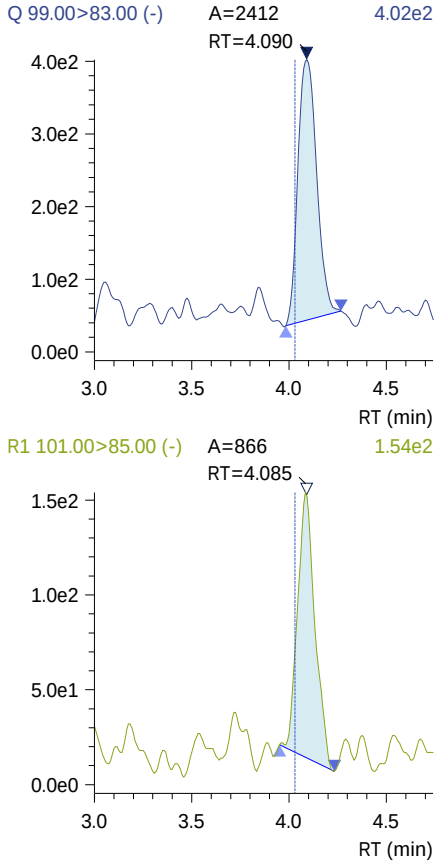
LODV

Sample ID: LODV
Date Acquired: 1/20/2023 8:44:02 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230120\20230120-002.lcd
Vial: 1 | Inj. Volume: 25.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	4.090	2412	270565	0.0569	ng/mL	101.00 >85.00	35.91	24.28 -45.09
Sodium Perchlorate-18O4_IS	Auto	4.081	2705 65	270565	1.0000	ng/mL	----	----	

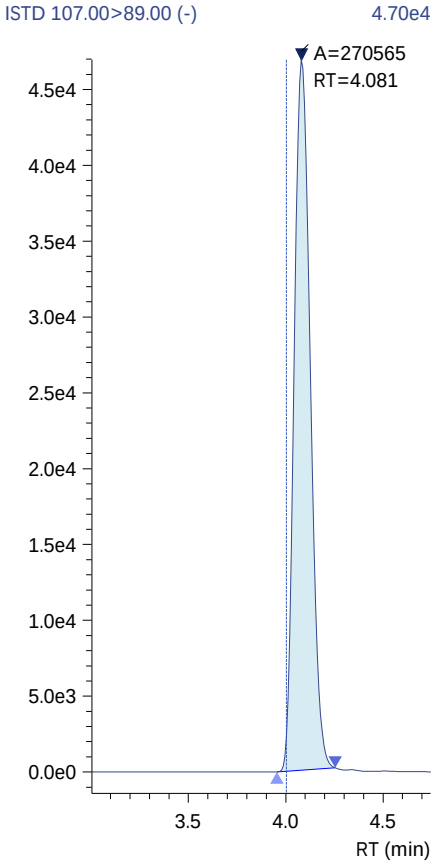
Perchlorate

Conc 0.0569
R#1 35.91 (34.69)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 1/20/2023 12:19:40 PM

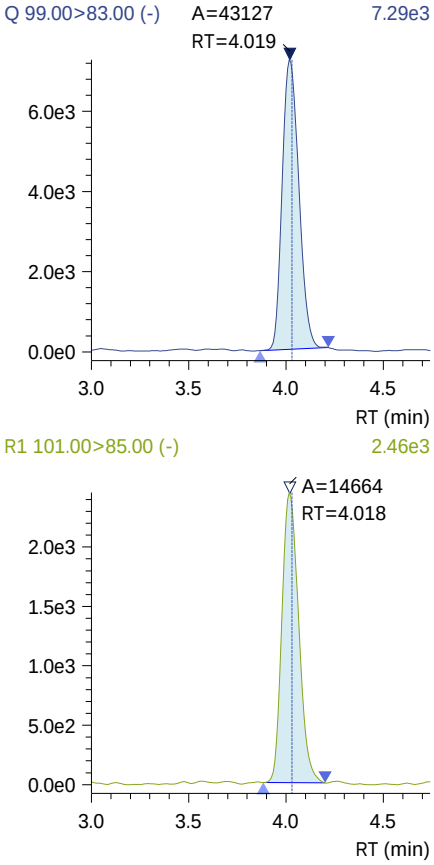
ICS

Sample ID: ICS
Date Acquired: 1/20/2023 8:49:42 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230120\20230120-003.lcd
Vial: 2 | Inj. Volume: 25.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	4.019	43127	275840	0.9977	ng/mL	101.00 >85.00	34.00	24.28 -45.09
Sodium Perchlorate-18O4_IS	Auto	4.015	2758 40	275840	1.0000	ng/mL	----	----	

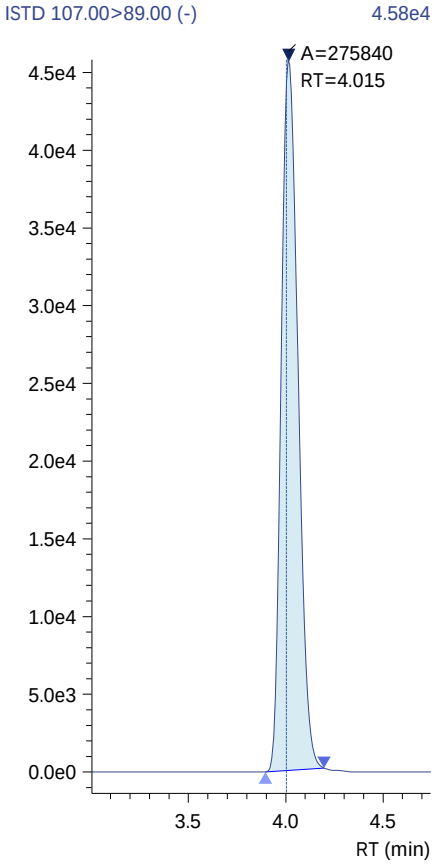
Perchlorate

Conc 0.9977
R#1 34.00 (34.69)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 1/20/2023 12:19:40 PM

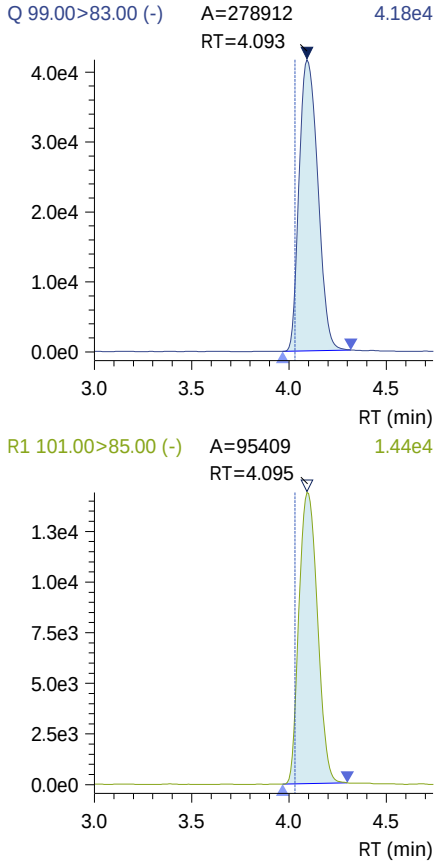
PERCHLORATE7

Sample ID: PERCHLORATE7
Date Acquired: 1/20/2023 8:55:27 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230120\20230120-004.lcd
Vial: 3 | Inj. Volume: 25.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	4.093	2789 12	180688	9.8502	ng/mL	101.00 >85.00	34.21	24.28 -45.09
Sodium Perchlorate-18O4 _IS	Auto	4.091	1806 88	180688	1.0000	ng/mL	----	----	

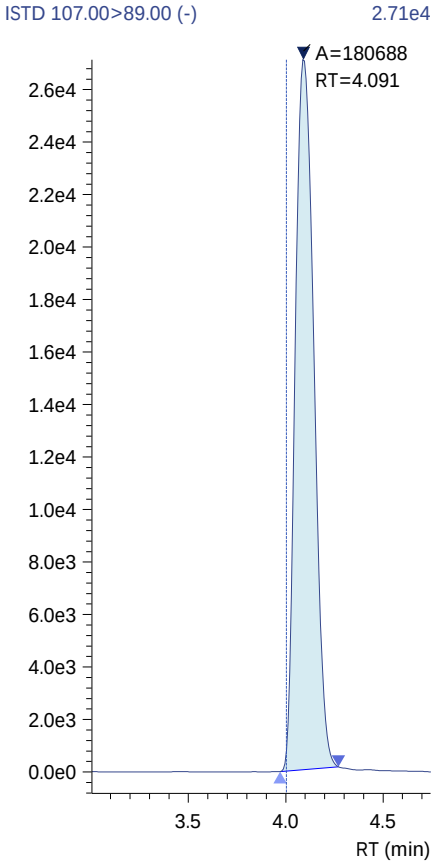
Perchlorate

Conc 9.8502
R#1 34.21 (34.69)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 1/20/2023 12:19:40 PM

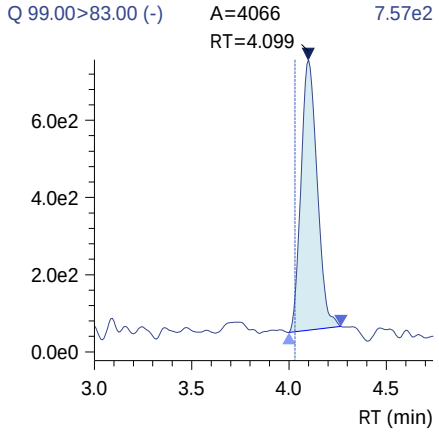
EQ2300018-02

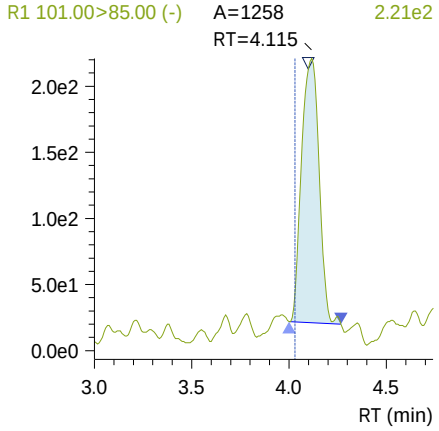
Sample ID: EQ2300018-02
Date Acquired: 1/20/2023 9:01:09 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230120\20230120-005.lcd
Vial: 47 | Inj. Volume: 25.0000uL | Tray: 4

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	4.099	4066	292058	0.0888	ng/mL	101.00 >85.00	30.94	24.28 -45.09
Sodium Perchlorate-18O4_IS	Auto	4.095	292058	292058	1.0000	ng/mL	----	----	

Perchlorate

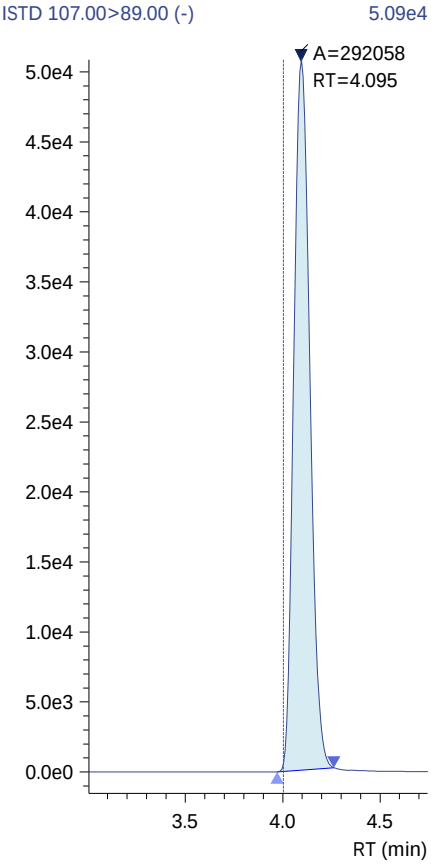
Conc 0.0888
R#1 30.94 (34.69)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 1/20/2023 12:19:40 PM

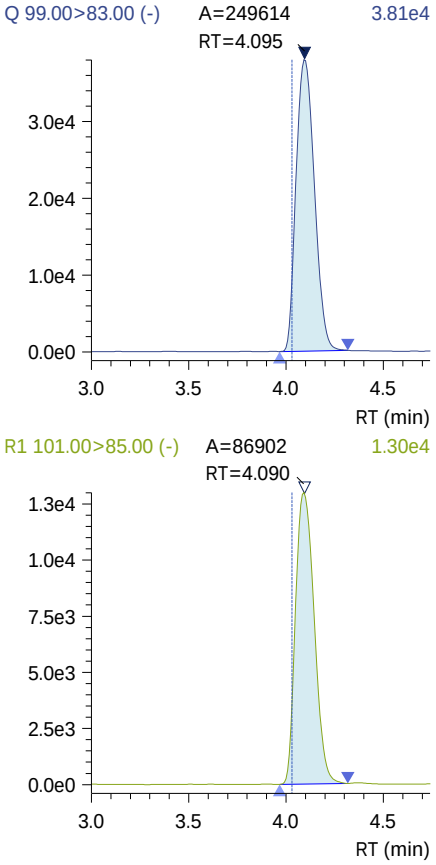
PERCHLORATE7

Sample ID: PERCHLORATE7
Date Acquired: 1/20/2023 10:06:58 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230120\20230120-015.lcd
Vial: 3 | Inj. Volume: 25.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	4.095	249614	161197	9.8815	ng/mL	101.00 >85.00	34.82	24.28 -45.09
Sodium Perchlorate-18O4_IS	Auto	4.089	161197	161197	1.0000	ng/mL	----	----	

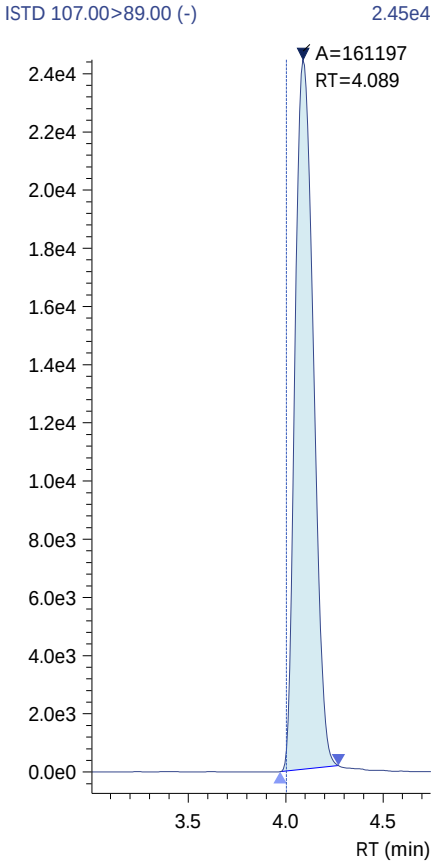
Perchlorate

Conc 9.8815
R#1 34.82 (34.69)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 1/20/2023 12:19:40 PM

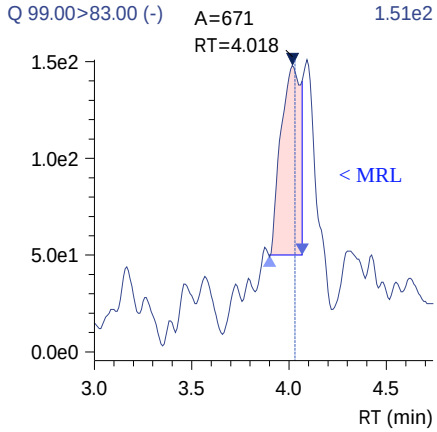
E2300033-001X5

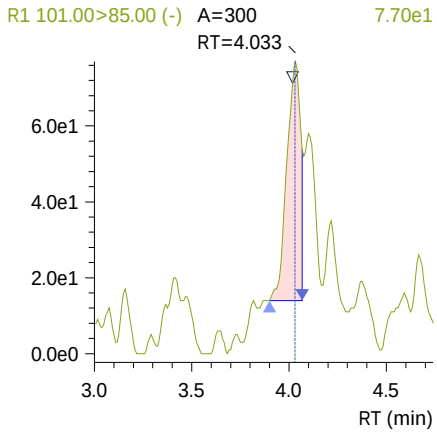
Sample ID: E2300033-001
Date Acquired: 1/20/2023 10:20:18 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230120\20230120-017.lcd
Vial: 10 | Inj. Volume: 25.0000uL | Tray: 4

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	M	4.018	671	299287	0.0143	ng/mL	101.00 >85.00	44.62	24.28 -45.09
Sodium Perchlorate-18O4_IS	Auto	4.014	299287	299287	1.0000	ng/mL	----	----	

Perchlorate

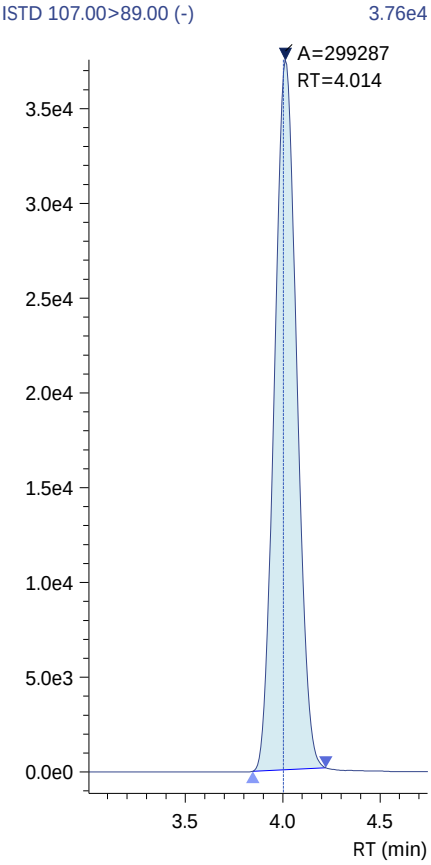
Conc 0.0143
R#1 44.62 (34.69)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 1/20/2023 12:20:29 PM

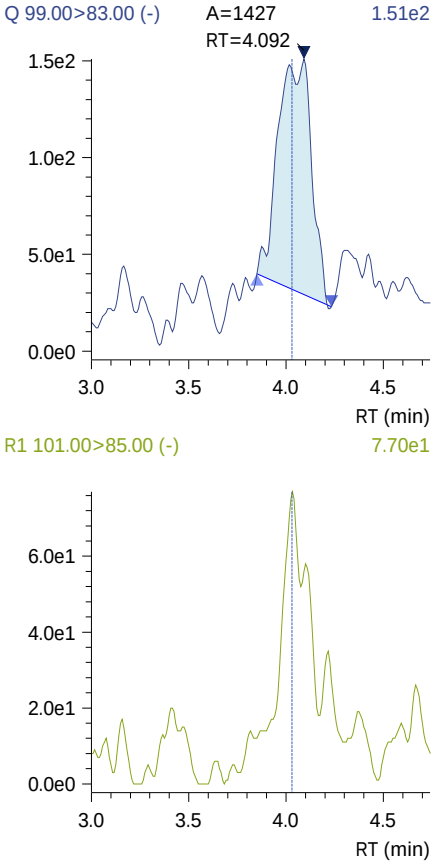
Method File: I:\LCMS01\DATA\20230120\20230120.lcm
Project File: I:\LCMS01\DATA\20230120\20230120.damlp

E2300033-001X5

Sample ID: E2300033-001
Date Acquired: 1/20/2023 10:20:18 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230120\20230120-017.lcd
Vial: 10 | Inj. Volume: 25.0000uL | Tray: 4

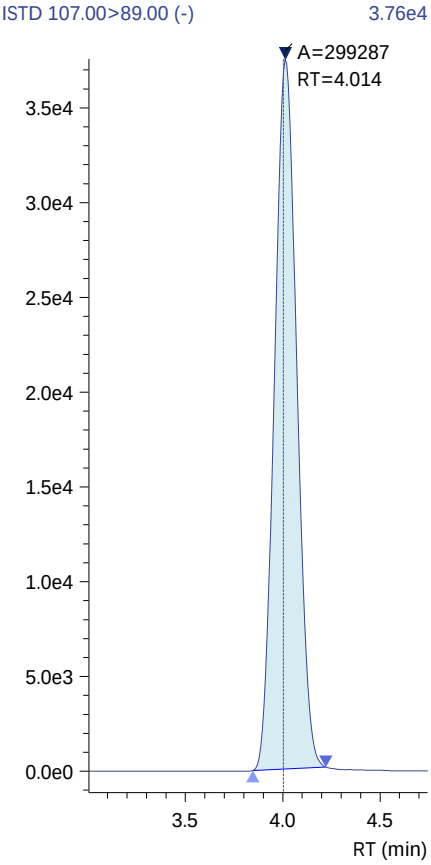
Perchlorate

Conc 0.0304
R#1 0.00 (34.69)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 1/20/2023 12:19:40 PM

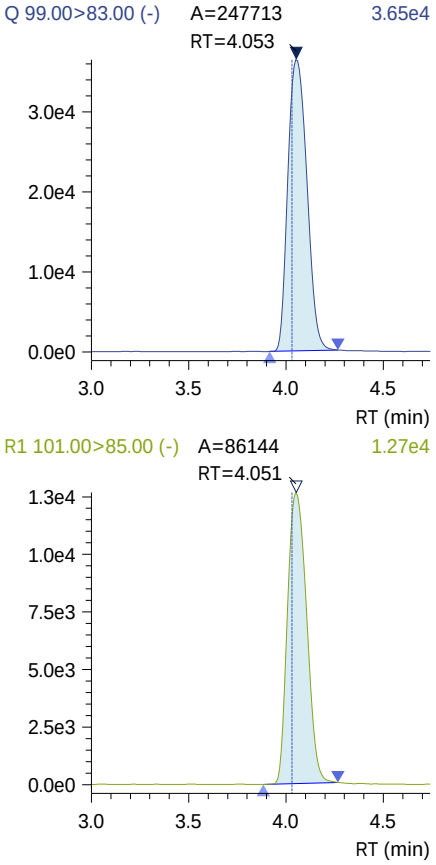
PERCHLORATE7

Sample ID: PERCHLORATE7
Date Acquired: 1/20/2023 11:12:23 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230120\20230120-026.lcd
Vial: 3 | Inj. Volume: 25.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	4.053	2477 13	162873	9.7053	ng/mL	101.00 >85.00	34.78	24.28 -45.09
Sodium Perchlorate-18O4 _IS	Auto	4.048	1628 73	162873	1.0000	ng/mL	----	----	

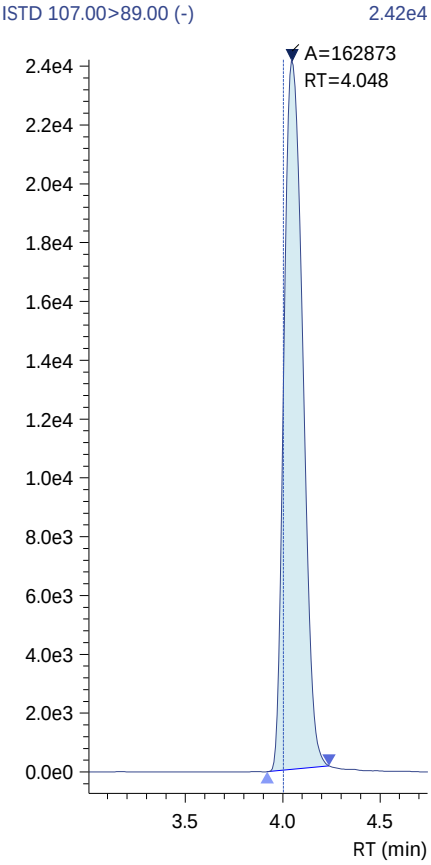
Perchlorate

Conc 9.7053
R#1 34.78 (34.69)



Sodium Perchlorate-18O4_IS

Conc 1.0000



January 27, 2023 Service Request No:E2300080

Marcia Olive
Bhate Environmental Associates, Inc.
445 Union Blvd
Suite 129
Lakewood, CO 80228

Laboratory Results for: LONGHORN ARMY AMMN. PLANT (LHAAP)

Dear Marcia,

Enclosed are the results of the sample(s) submitted to our laboratory January 26, 2023
For your reference, these analyses have been assigned our service request number **E2300080.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current TNI standards, where applicable, and except as noted in the laboratory case narrative provided. All results are intended to be considered in their entirety and ALS Environmental is not responsible for use of less than the complete final report. Results apply only to the items submitted to the laboratory, as received for analysis. In accordance with the current TNI Standard, a statement on the estimated uncertainty of measurement of any quantitative analysis will be supplied upon request.

Please contact me if you have any questions. My extension is 2188. You may also contact me via email at James.Guin@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

James Guin

ADDRESS 10450 Stancliff Rd., Suite 210, Houston, TX 77099
PHONE +1 281 530 5656 | FAX +1 281 530 5887
ALS Group USA, Corp.
dba ALS Environmental

Certificate of Analysis

ALS Environmental - Houston HRMS
10450 Stancliff Rd, Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

ALS Environmental

Client:	Bhate Environmental Associates	**Service Request No.:**	E2200080
Project:	Longhorn Army Ammn. Plant (LHAAP)	**Date Received:**	01/26/23
Sample Matrix:	Water		

CASE NARRATIVE

All analyses were performed in adherence to the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier IV. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Two samples were received for analysis at ALS Environmental in Houston on 01/26/23.

The samples were received in good condition and are consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

Data Validation Notes and Discussion

Precision and Accuracy:

EQ2300026: Laboratory Control Spike/Duplicate Laboratory Control Spike (LCS/DLCS) samples were analyzed and reported in lieu of a MS/MSD for this extraction batch.

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.

Use of ALS group USA Corp dba ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.

Client: Bhate Environmental Associates, Inc.
Project: LONGHORN ARMY AMMN. PLANT (LHAAP)/NWO1312.0150.016.0001

Service Request:E2300080

SAMPLE CROSS-REFERENCE

E2300080-001	LH18/24-SP650_012523_AIX	1/25/2023	1300
E2300080-002	LH18/24-SP650_012523_BIX	1/25/2023	1300

Service Request Summary

Folder #: **E2300080**
Client Name: Bhate Environmental Associates, Inc.
Project Name: LONGHORN ARMY AMMN. PLANT (LHAAP)
Project Number: NWO1312.0150.016.0001

Report To: Marcia Olive
Bhate Environmental Associates, Inc.
445 Union Blvd
Lakewood, CO 80228
USA
Phone Number: 303-597-2450
Cell Number:
Fax Number:
E-mail: molive@bhate.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: JGUIN
Date Received: 01/26/23
Internal Due Date: 1/27/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number:
EDD: BASIC_WQC_CASNo_LOD

2 120 mL-Plastic Bottle Natural WM Unpreserved
Location: SMO
Pressure Gas:

Lab Samp No.	Client Samp No	Matrix	Collected	HOUSTON ClO4 DOD/6850
E2300080-001	LH18/24-SP650_012523_AIX	Water	01/25/23 1300	**IV**
E2300080-002	LH18/24-SP650_012523_BIX	Water	01/25/23 1300	**IV**

Service Request Summary

Folder #:	**E2300080**
Client Name:	Bhate Environmental Associates, Inc.
Project Name:	LONGHORN ARMY AMMN. PLANT (LHAAP)
Project Number:	NWO1312.0150.016.0001
Report To:	Marcia Olive Bhate Environmental Associates, Inc. 445 Union Blvd Lakewood, CO 80228 USA
Phone Number:	303-597-2450
Cell Number:	
Fax Number:	
E-mail:	molive@bhate.com

Project Chemist:	James Guin
Originating Lab:	HOUSTON
Logged By:	JGUIN
Date Received:	01/26/23
Internal Due Date:	1/27/2023
QAP:	LAB QAP
Qualifier Set:	Lab Standard
Formset:	Lab Standard
Merged?:	Y
Report to MDL?:	Y
P.O. Number:	
EDD:	BASIC_WQC_CASNo_LOD

2 120 mL-Plastic Bottle Natural WM Unpreserved

Location: SMO

Pressure Gas:

Data Qualifiers

Lab Standard

+	Possible Tedlar bag artifact.
A	TIC is a suspected aldol-condensation product
B	Analyte found in the associated method blank as well as in the sample.
BC	Reported results are not blank corrected.
BH	The back section of the tube yielded higher results than the front.
BT	Results indicated possible breakthrough; back section >=10% front section.
C	Result identification confirmed.
D	Compound identified in an analysis at a secondary dilution factor
D	Spike was diluted out
DE	Reported results are corrected for desorption efficiency.
E	Estimated value. Concentration above calibration range
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
H	The chromatographic fingerprint of the sample resembles a petroleum product but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
H1	Sample analysis performed past holding time. See case narrative.
H2	Initial analysis within holding time. Reanalysis for the required dilution was past holding time.
H3	Sample was received and analyzed past holding time.
H4	Sample was extracted past required extraction holding time, but analyzed within analysis holding time. See case narrative.
I	(Auto) The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
I	Internal standard not within the specified limits. See case narrative.
I	The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
J	Estimated Value. Concentration found below MRL.
K	A deflection in the QC ion may indicate interference with the quantitation of this ion. The concentration of this analyte should be considered as an estimate.
K	Analyte was detected above the method reporting limit prior to normalization.
K	The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
L1	Laboratory control sample recovery outside the specified limits; results may be biased high.
L2	Laboratory control sample recovery outside the specified limits; results may be biased low.
L3	Laboratory control sample recovery outside the specified limits.
M	Matrix interference; results may be biased high.
M	The duplicate injection precision not met.

Data Qualifiers

Lab Standard

M1	Matrix interference due to coelution with a non-target compound; results may be biased high.
N	Presumptive evidence of a compound for TICs that have been identified based on a mass spectral library search.
N	The Matrix Spike sample recovery is not within control limits. See case narrative.
O	The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
P	Indicates chlorodiphenyl ether interference present at the retention time of the target compound.
P	Pesticide/Aroclor target analyte > 40% difference for detected concentrations between GC columns
Q	Indicates as estimated value because the P and P + 2 theoretical abundance ratio does not meet method criteria.
R	Duplicate Precision not met.
R1	Duplicate precision not within the specified limits; however, the results are below the MRL and considered estimated.
S	Surrogate recovery not within specified limits.
S	The reported value was determined by the Method of Standard Additions (MSA).
T	Analyte is a tentatively identified compound, result is estimated.
U	Compound was analyzed for, but was not detected (ND).
V1	The continuing calibration verification standard was outside (biased high) the specified limits for this compound.
V2	The continuing calibration verification standard was outside (biased low) the specified limits for this compound.
W	Result quantified, but the corresponding peak was detected outside the generated retention time window.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
X	See case narrative.
Y	Recovery outside limits
Y	The chromatogram resembles a petroleum product but does not match the calibration standard.
Z	The chromatogram does not resemble a petroleum product.
i	The MRL/MDL has been elevated due to a matrix interference.

ALS Laboratory Group

Acronyms

Cal	Calibration
Conc	CONCentration
Dioxin(s)	Polychlorinated dibenzo-p-dioxin(s)
EDL	Estimated Detection Limit
EMPC	Estimated Maximum Possible Concentration
Flags	Data qualifiers
Furan(s)	Polychlorinated dibenzofuran(s)
g	Grams
ICAL	Initial CALibration
ID	IDentifier
Ions	Masses monitored for the analyte during data acquisition
L	Liter (s)
LCS	Laboratory Control Sample
DLCS	Duplicate Laboratory Control Sample
MB	Method Blank
MCL	Method Calibration Limit
MDL	Method Detection Limit
mL	Milliliters
MS	Matrix Spiked sample
DMS	Duplicate Matrix Spiked sample
NO	Number of peaks meeting all identification criteria
PCDD(s)	Polychlorinated dibenzo-p-dioxin(s)
PCDF(s)	Polychlorinated dibenzofuran(s)
ppb	Parts per billion
ppm	Parts per million
ppq	Parts per quadrillion
ppt	Parts per trillion
QA	Quality Assurance
QC	Quality Control
Ratio	Ratio of areas from monitored ions for an analyte
% Rec.	Percent recovery
RPD	Relative Percent Difference
RRF	Relative Response Factor
RT	Retention Time
SDG	Sample Delivery Group
S/N	Signal-to-noise ratio
TEF	Toxicity Equivalence Factor
TEQ	Toxicity Equivalence Quotient

10450 Stancliff Rd, Houston, TX 77099 | 281-530-5656 | www.alsglobal.com

ALS Environmental

State Certifications, Accreditations, and Licenses

Agency	Number	Expire Date
Arizona Department of Health Services	AZ0793	5/27/2023
Arkansas Department of Environmental Quality	22-041-0	3/27/2023
California Department of Health Services	2919-2023	4/30/2023
Department of Defense	L22-90	3/31/2024
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Hawaii Department of Health	2022	4/30/2023
Illinois Environmental Protection Agency	2000322022-9	5/9/2023
Kansas Department of Health and Environment	E-10352 2022-2023	7/31/2023
Louisiana Department of Environmental Quality	03087-2022	6/30/2023
Louisiana Department of Health and Hospitals	LA028-2023	12/31/2023
Maine Department of Health and Human Services	2022017	6/5/2024
Maryland Department of the Environment	343	6/30/2023
Michigan Depratment of Environmental Quality	9971-2022	4/30/2023
Minnesota Department of Health	2368363	12/31/2023
Nebraska Department of Health and Human Services	NE-OS-25-13	4/30/2023
Nevada Department of Conservation and Natural Resources	TX026932023-1	7/31/2023
New Hampshire Environmental Laboratory Accreditation Program	209422	4/24/2023
New Jersey Department of Environmental Protection	TX008-2023	6/30/2023
New York Department of Health	11707	3/31/2023
Oklahoma Department of Environmental Quality	2022-141	8/31/2023
Oregon Environmental Laboratory Accreditation Program	TX200002	5/15/2023
Pennsylvania Department of Environmental Protection	68-03441-016	6/30/2023
Perry Johnson Laboratory Accreditation	L22-91	3/31/2024
Tennessee Department of Environment and Concervation	04016-2022	4/30/2023
Texas Commision on Environmental Quality	T104704231-22-29	4/30/2023
Utah Department of Health Environmental Laboratory Certification	TX026932022-13	7/31/2023
Washington Department of Ecology	C819-22	11/14/2023

Chain of Custody

ALS Environmental - Houston HRMS
10450 Stancliff Rd, Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

CHAIN OF CUSTODY

Name Of Lab Shipping To: ALS 10450 Stancliff Rd. Suite 210 Houston, TX. 77099 (281) 530-5656 ATTN: Dane Wacasey

Project: BHATE
LONGHORN ARMY AMMN. PLANT (LHAAP)
GROUNDWATER TREATMENT PLANT (GWTP)
KARNACK, TEXAS

Project No. NWO1312.0150.0 16.0001

Job: GROUNDWATER TREATMENT PLANT SPECIAL SAMPLES

Prepared By: Scott Beesinger

P.O. Number

Field Sample I.D.	Sample Matrix	Date / Time	MS / MSD	No. OF CONTAINERS	Analyses: PERCHLORATE										Remarks (Preservatives, etc.)	Lab I.D.#
LH18/24-SP650_012523_AIX	Water	01/25/23 / 13:00		1	X										NONE	
LH18/24-SP650_012523_BIX	Water	01/25/23 / 13:00		1	X										NONE	

Additional Remarks: RUSH (24 HR) TAT

IR31 2.242 −0.56

Relinquished By:	Date	Time	Received By:	Date	Time	Relinquished By:	Date	Time	Received By:	Date	Time
Scott Beesinger	01/25/23	13:30		01/26/2023	1015						

For Lab Use Only

Received At Lab By:	Date	Time	Airbill No.	Opened By:	Date	Time	Temp of Container	Seal No.	Condition

Remarks:

Cooler Receipt Form

ALS Environmental

Project Chemist JG

Client/Project Bhate.

Thermometer ID IR31

Date/Time Received: 01/26/23 0915 Initials: JG

Date/Time Logged in: 01/26/23 1000 Initials JG.

1. Method of delivery: ○ US Mail ✓ Fed Ex ○ UPS ○ DHL ○ Courier ○ Client
2. Samples received in: ✓ Cooler ○ Box ○ Envelope ○ Other
3. Were custody seals on coolers? ✓ Yes ○ No
   Were they intact? ✓ Yes ○ No ○ N/A
   Were they signed and dated? ✓ Yes ○ No ○ N/A
   If yes, how many and where? 1 front 1 back
4. Packing Material: ○ Inserts ✓ Baggies ✓ Bubble Wrap ○ Gel Packs ✓ Wet Ice ○ Sleeves ○ Other
5. Foreign or Regulated Soil? ○ Yes ✓ No Location of Sampling:

Cooler Tracking Number	COC ID	Date Opened	Time Opened	Opened By	Temp. °C	Temp Blank?
5789 1995 2462		1/26/23	0915	CG	1.7	☑
						☐
						☐
						☐

6. Were custody papers properly filled out (ink, signed, dated, etc)? ✓ Yes ○ No
7. Did all bottles arrive in good condition (not broken, no signs of leakage)? ✓ Yes ○ No
8. Were all sample labels complete (i.e., sample ID, analysis, preservation, etc)? ✓ Yes ○ No
9. Were appropriate bottles/containers and volumes received for the requested tests? ✓ Yes ○ No
10. Did sample labels and tags agree with custody documents? ✓ Yes ○ No

Notes, Discrepancies, & Resolutions:

Service request Label:

10450 Stancliff Rd., Suite 210
Houston, TX 77099
T: +1 713 266 1599
F: +1 713 266 1599
www.alsglobal.com

SAMPLE ACCEPTANCE POLICY

This policy outlines the criteria samples must meet to be accepted by ALS Environmental – Houston HRMS.

Cooler Custody Seals (desirable, mandatory if specified in SAP):

- ✓ Intact on outside of cooler, signed and dated

Chain-of-Custody (COC) documentation (mandatory):

The following is required on each COC:

- ✓ Sample ID, the location, date and time of collection, collector's name, preservation type, sample type, and any other special remarks concerning the sampleThe COC must be completed in ink.
- ✓ Signature and date of relinquishing party.

In the absence of a COC at sample receipt, the COC will be requested from the client.

Sample Integrity (mandatory):

Samples are inspected upon arrival to ensure that sample integrity was not compromised during transfer to the laboratory.

- ✓ Sample containers must arrive in good condition (not broken or leaking).
- ✓ Samples must be labeled appropriately, including Sample IDs, and requested test using durable labels and indelible ink.
- ✓ The correct type of sample bottle must be used for the method requested.
- ✓ An appropriate sample volume, or weight, must be received.
- ✓ Sample IDs and number of containers must reconcile with the COC.
- ✓ Samples must be received within the method defined holding time.

Temperature Requirement (varies by sample matrix):

- ✓ Aqueous and Non-aqueous samples must be shipped and stored cold, at 0 to 6ºC.
- ✓ Tissue samples must be shipped and stored frozen, at -20 to -10ºC.
- ✓ Air samples are shipped and stored cold, at 0 to 6ºC
- ✓ The sample temperature must be recorded on the COC

All cooler inspections are documented on the Cooler Receipt Form (CRF). A separate CRF is completed for each service request. Any samples not meeting the above criteria are noted on the CRF and the Project Manager notified. The Project Manager must resolve any sample integrity issues with the client prior to proceeding with the analysis. Such resolutions are documented in writing and filed with the project folder. Data associated with samples received outside of this acceptance policy will be qualified on the case narrative of the final report

Preparation Information Benchsheets

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

Preparation Information Benchsheet

Prep Run#: 413582 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/XMI **Prep Method:** Method **Prep Date/Time:** 1/26/23 08:50

#	Lab Code	Client ID	B#	Method /Test	pH	Cl	Matrix	Amt. Ext.	Sample Description
1	E2300053-001	16WW41-230119	.01	6850/ClO4 DOD			Ground Water	10mL	
2	E2300053-002	16RW06-230119	.01	6850/ClO4 DOD			Ground Water	10mL	
3	E2300053-003	16RW07-230119	.01	6850/ClO4 DOD			Ground Water	10mL	
4	E2300053-004	16WW55-230119	.01	6850/ClO4 DOD			Ground Water	10mL	
5	E2300053-005	16WW35-230119	.01	6850/ClO4 DOD			Ground Water	10mL	
6	E2300053-006	16WW16-230119	.01	6850/ClO4 DOD			Ground Water	10mL	
7	E2300053-007	16WW16-230119-FD	.01	6850/ClO4 DOD			Ground Water	10mL	
8	E2300056-001	16WW48-230119	.01	6850/ClO4 DOD			Ground Water	10mL	
9	E2300056-002	16RW04-230119	.01	6850/ClO4 DOD			Ground Water	10mL	
10	E2300056-003	16IW09-230119	.01	6850/ClO4 DOD			Ground Water	10mL	
11	E2300056-004	16IW20-230119	.01	6850/ClO4 DOD			Ground Water	10mL	
12	E2300056-005	16EW02-230119	.01	6850/ClO4 DOD			Ground Water	10mL	
13	E2300056-006	16EW03-230119	.01	6850/ClO4 DOD			Ground Water	10mL	
14	E2300080-001	LH18/24-SP650_012523_AIX	.01	6850/ClO4 DOD			Water	10mL	
15	E2300080-002	LH18/24-SP650_012523_BIX	.01	6850/ClO4 DOD			Water	10mL	
16	EQ2300026-01	MB		6850/ClO4 DOD			Liquid	10mL	
17	EQ2300026-02	LCS		6850/ClO4 DOD			Liquid	10mL	
18	EQ2300026-03	DLCS		6850/ClO4 DOD			Liquid	10mL	
19	EQ2300026-04	16EW02-230119 MS	.01	6850/ClO4 DOD			Liquid	10mL	
20	EQ2300026-05	16EW02-230119 DMS	.01	6850/ClO4 DOD			Liquid	10mL	
21	EQ2300026-06	16WW35-230119 MS	.01	6850/ClO4 DOD			Liquid	10mL	
22	EQ2300026-07	16WW35-230119 DMS	.01	6850/ClO4 DOD			Liquid	10mL	
23	R2300316-004	2301091027A BLM-17-550	.01	6850/ClO4			Water	10mL	
24	R2300316-009	2301091456A BLM-15-305	.01	6850/ClO4			Water	10mL	
25	R2300316-014	2301101352Y PL-6-1195	.01	6850/ClO4			Water	10mL	
26	R2300519-005	2301170958A BLM-18-430	.01	6850/ClO4			Water	10mL	
27	R2300519-010	2301171442A 400-A-151	.01	6850/ClO4			Water	10mL	

Spiking Solutions

Name: Perchlorate Internal Standard 1ug/mL Inventory ID 226778 Logbook Ref: Perchlorate Internal Standard Expires On: 05/31/2023

E2300053-001	100.00µL	E2300053-002	100.00µL	E2300053-003	100.00µL	E2300053-004	100.00µL	E2300053-005	100.00µL	E2300053-006	100.00µL
E2300053-007	100.00µL	E2300056-001	100.00µL	E2300056-002	100.00µL	E2300056-003	100.00µL	E2300056-004	100.00µL	E2300056-005	100.00µL
E2300056-006	100.00µL	E2300080-001	100.00µL	E2300080-002	100.00µL	EQ2300026-01	100.00µL	EQ2300026-01	100.00µL	EQ2300026-02	1.00µL
EQ2300026-02	1.00µL	EQ2300026-03	1.00µL	EQ2300026-03	1.00µL	EQ2300026-04	1.00µL	EQ2300026-05	1.00µL	EQ2300026-06	1.00µL

Preparation Information Benchsheet

Prep Run#: 413582 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/XMI **Prep Method:** Method **Prep Date/Time:** 1/26/23 08:50

EQ2300026-07	1.00µL	R2300316-004	100.00µL	R2300316-009	100.00µL	R2300316-014	100.00µL	R2300519-005	100.00µL	R2300519-010	100.00µL

Name: Perchlorate Intermediate Stock1 Inventory ID 227236 Logbook Ref: Perchlorate (1st Source) Expires On: 07/31/2023

EQ2300026-02	100.00µL	EQ2300026-02	100.00µL	EQ2300026-03	100.00µL	EQ2300026-03	100.00µL	EQ2300026-04	100.00µL	EQ2300026-05	100.00µL
EQ2300026-06	100.00µL	EQ2300026-07	100.00µL								

Preparation Materials

Water HPLC Grade	01/04/2023 Water (226857)	6850 Amber Glass screw vial	2mL Screw Top Vial (221894)	6850 0.45um syringe filters	6850 Syringe Filters (224414)
6850 Pipette Tips 50-1000 uL	6850 Pipette Tips (221929)	6850 Luer-Lok Syringes	Luer-Lok Syringes (221305)		

Preparation Steps

Step: Preparation
Started: 1/26/23 08:50
Finished: 1/26/23 09:50
By: XMI
Comments

Comments: _____

Reviewed By: XMI Date: 01/27/23

Chain of Custody

Relinquished By: _____ Date: _____ Extracts Examined

Received By: _____ Date: _____ Yes No

Analytical Results

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Bhate Environmental Associates, Inc.	**Service Request:**	E2300080
Project:	LONGHORN ARMY AMMN. PLANT (LHAAP)/NWO1312.0150.016.0001	**Date Collected:**	1/25/23 1300
Sample Matrix:	Water	**Date Received:**	1/26/23
Sample Name:	LH18/24-SP650_012523_AIX	**Units:**	µg/L
Lab Code:	E2300080-001	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.392**		0.100	0.0500	0.0250	1	1/26/23	1/26/23 12:50	413582	792728	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Bhate Environmental Associates, Inc.	**Service Request:**	E2300080
Project:	LONGHORN ARMY AMMN. PLANT (LHAAP)/NWO1312.0150.016.0001	**Date Collected:**	1/25/23 1300
Sample Matrix:	Water	**Date Received:**	1/26/23
Sample Name:	LH18/24-SP650_012523_BIX	**Units:**	µg/L
Lab Code:	E2300080-002	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**54.6**		0.500	0.250	0.125	5	1/26/23	1/26/23 13:01	413582	792728	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Bhate Environmental Associates, Inc.	**Service Request:**	E2300080
Project:	LONGHORN ARMY AMMN. PLANT (LHAAP)/NWO1312.0150.016.0001	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	EQ2300026-01	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	ND	U	0.100	0.0500	0.0250	1	1/26/23	1/26/23 11:44	413582	792728	

Accuracy & Precision

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	Bhate Environmental Associates, Inc.	**Service Request:**	E2300080
Project:	LONGHORN ARMY AMMN. PLANT (LHAAP)/NWO1312.0150.016.0001	**Date Analyzed:**	1/26/23
Sample Matrix:	Water		

Lab Control Sample Summary

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method:	6850	**Units:**	µg/L
Prep Method:	Method	**Basis:**	NA
		Extraction Lot:	413582

	Lab Control Sample EQ2300026-02			Duplicate Lab Control Sample EQ2300026-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Perchlorate	0.0868	0.100	87	0.0936	0.100	94	84 - 119	8	15

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Bhate Environmental Associates, Inc.	**Service Request:**	E2300080
Project:	LONGHORN ARMY AMMN. PLANT (LHAAP)/NWO1312.0150.016.0001	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2300026-02	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.0868**	J	0.100	0.0500	0.0250	1	1/26/23	1/26/23 11:50	413582	792728	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Bhate Environmental Associates, Inc.	**Service Request:**	E2300080
Project:	LONGHORN ARMY AMMN. PLANT (LHAAP)/NWO1312.0150.016.0001	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2300026-03	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.0936**	J	0.100	0.0500	0.0250	1	1/26/23	1/26/23 11:55	413582	792728	

Initial Calibration

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

20221214

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XMI
2nd Review: Kneir

ICAL Date: 12/14/2022
Cal. Std. xp: 01/31/2023
ICAL ID: EC2200016

Mobile Phases : **A:**0.10% Formic Acid/Water 3210301-08 **B:**MeOH 224417

	Sample Name		File Name	Acquisition Method	Dilution	R	Comments	Date/Time
1	IB		20221214_001	Perchlorate6850c.lcm	1x	☒		12/14/2022 15:12
2	ICS		20221214_002	Perchlorate6850c.lcm	1x	☒		12/14/2022 15:29
3	LODV		20221214_003	Perchlorate6850c.lcm	1x	☒		12/14/2022 15:35
4	PERCHLORATE1		20221214_004	Perchlorate6850c.lcm	1x	☒	226061	12/14/2022 15:40
5	PERCHLORATE2		20221214_005	Perchlorate6850c.lcm	1x	☒	226062	12/14/2022 15:46
6	PERCHLORATE3		20221214_006	Perchlorate6850c.lcm	1x	☒	226063	12/14/2022 15:51
7	PERCHLORATE4		20221214_007	Perchlorate6850c.lcm	1x	☒	226064	12/14/2022 15:57
8	PERCHLORATE5		20221214_008	Perchlorate6850c.lcm	1x	☒	226065	12/14/2022 16:02
9	PERCHLORATE6		20221214_009	Perchlorate6850c.lcm	1x	☒	226066	12/14/2022 16:09
10	PERCHLORATE7		20221214_010	Perchlorate6850c.lcm	1x	☒	225881	12/14/2022 16:15
11	PERCHLORATE8		20221214_011	Perchlorate6850c.lcm	1x	☒	226068	12/14/2022 16:20
12	PERCHLORATE9		20221214_012	Perchlorate6850c.lcm	1x	☒	226069	12/14/2022 16:25
13	PERCHLORATE10		20221214_013	Perchlorate6850c.lcm	1x	☒	226070	12/14/2022 16:31
14	PERCHLORATEICV		20221214_014	Perchlorate6850c.lcm	1x	☒	226067	12/14/2022 16:37

Initial Calibration - Detailed Report

Calibration ID: EC2200016 **Instrument ID:** E-LCMS-01
Column Name: 1

#	Lab Code	Sample Name	File Location	Aquisition Date
01	EC2200016-01	PERCHLORATE1	20221214_004	12/14/2022 15:40
02	EC2200016-02	PERCHLORATE2	20221214_005	12/14/2022 15:46
03	EC2200016-03	PERCHLORATE3	20221214_006	12/14/2022 15:51
04	EC2200016-04	PERCHLORATE4	20221214_007	12/14/2022 15:57
05	EC2200016-05	PERCHLORATE5	20221214_008	12/14/2022 16:02
06	EC2200016-06	PERCHLORATE6	20221214_009	12/14/2022 16:09
07	EC2200016-07	PERCHLORATE7	20221214_010	12/14/2022 16:15
08	EC2200016-08	PERCHLORATE8	20221214_011	12/14/2022 16:20
09	EC2200016-09	PERCHLORATE9	20221214_012	12/14/2022 16:25
10	EC2200016-10	PERCHLORATE10	20221214_013	12/14/2022 16:31

Analyte **Curve Fit** **Weighting**

Perchlorate **Average RF** **RSD = 2.927** **Average RF = 0.1567**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.1000	0.1615	02	0.5000	0.1479	03	0.7000	0.1579	04	1.0000	0.1573
05	2.0000	0.1505	06	5.0000	0.1573	07	10.0000	0.1541	08	20.0000	0.162
09	30.0000	0.1598	10	50.0000	0.1587						

Analyte

Perchlorate RSE = 2.93

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.1000	0.103	3.1	02	0.5000	0.472	-5.6	03	0.7000	0.705	0.8
04	1.0000	1.00	0.4	05	2.0000	1.92	-3.9	06	5.0000	5.02	0.4
07	10.0000	9.83	-1.7	08	20.0000	20.7	3.4	09	30.0000	30.6	2.0
10	50.0000	50.6	1.3								

Initial Calibration Verification Summary Report

Calibration ID:	EC2200016	**Instrument ID:**	E-LCMS-01
Datafile ID:	20221214_014	**Column Name:**	1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
Perchlorate	EC2200016-11	T	Average RF	10	9.359	ng/mL	-6.4	<= 15

Insight Report

Printed at 12/15/2022 10:55:51 AM

Method File: I:\LCMS01\DATA\20221013ICAL\20221013ICAL.lcm
Project File: I:\LCMS01\DATA\20221214\12142022 ICAL.damlp

PERCHLORATE1

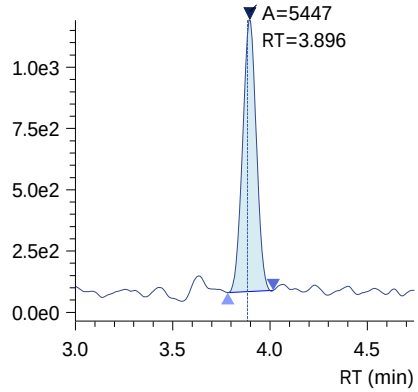
Sample ID: PERCHLORATE1
Date Acquired: 12/14/2022 3:40:29 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221214\20221214_004.lcd
Vial: 1 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.896	5447	337240	0.1031	ng/mL	101.00 >85.00	35.31	23.94 -44.46
Sodium Perchlorate-18O4_IS	Auto	3.889	337240	337240	1.0000	ng/mL	----	----	

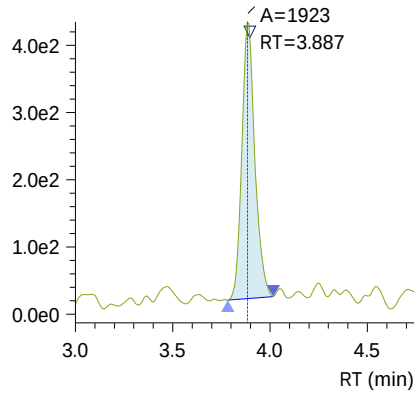
Perchlorate

Conc 0.1031
R#1 35.31 (34.02)

Q 99.00>83.00 (-) 1.19e3



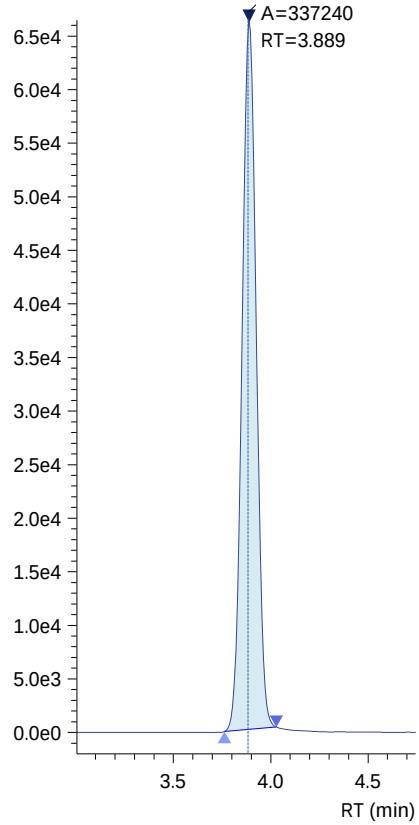
R1 101.00>85.00 (-) 4.35e2



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 6.65e4



Insight Report

Printed at 12/15/2022 10:55:51 AM

PERCHLORATE2

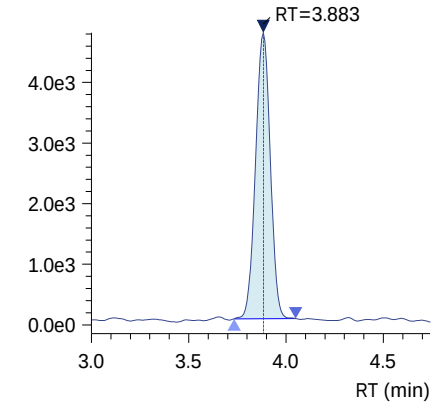
Sample ID: PERCHLORATE2
Date Acquired: 12/14/2022 3:46:03 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221214\20221214_005.lcd
Vial: 2 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.883	24897	336620	0.4720	ng/mL	101.00 >85.00	33.26	23.94 -44.46
Sodium Perchlorate-18O4_IS	Auto	3.878	336620	336620	1.0000	ng/mL	----	----	

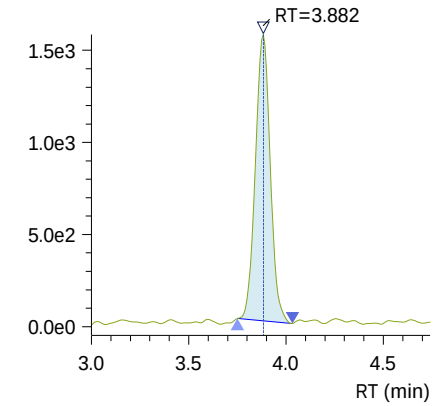
Perchlorate

Conc 0.4720
R#1 33.26 (34.02)

Q 99.00>83.00 (-) A=24897 4.82e3 RT=3.883



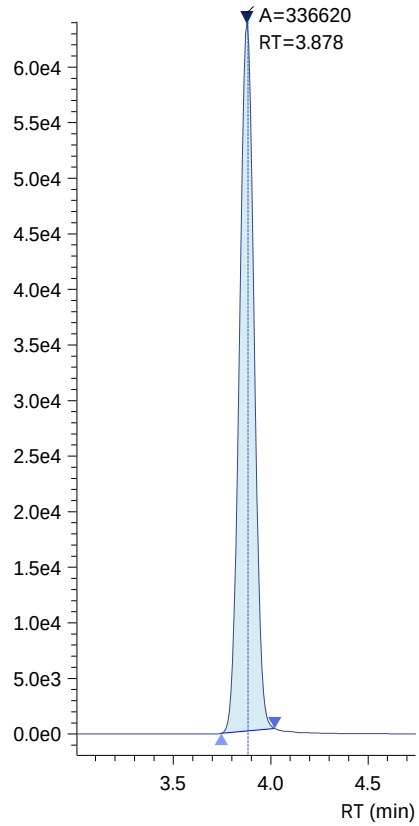
R1 101.00>85.00 (-) A=8281 1.59e3 RT=3.882



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 6.41e4 A=336620 RT=3.878



Insight Report

Printed at 12/15/2022 10:55:51 AM

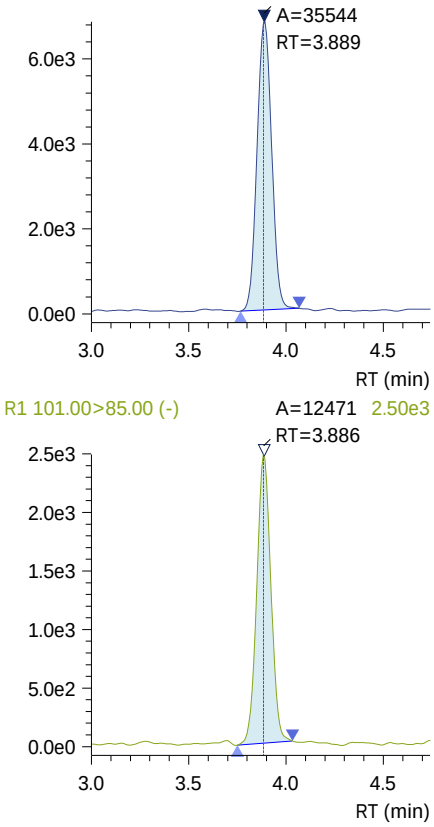
PERCHLORATE3

Sample ID: PERCHLORATE3
Date Acquired: 12/14/2022 3:51:33 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221214\20221214_006.lcd
Vial: 3 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.889	35544	321596	0.7053	ng/mL	101.00 >85.00	35.09	23.94 -44.46
Sodium Perchlorate-18O4_IS	Auto	3.885	321596	321596	1.0000	ng/mL	----	----	

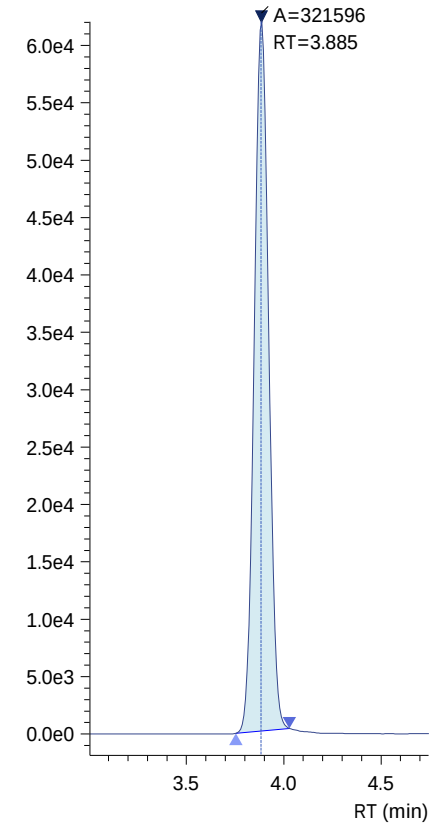
Perchlorate

Conc 0.7053
R#1 35.09 (34.02)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 12/15/2022 10:55:51 AM

PERCHLORATE4

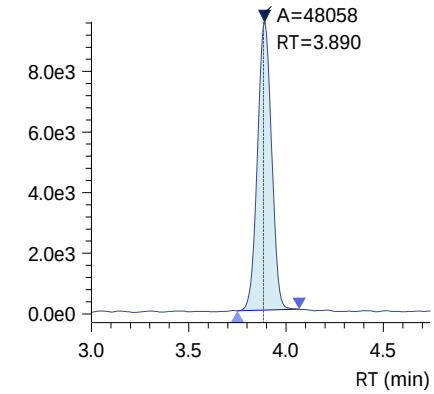
Sample ID: PERCHLORATE4
Date Acquired: 12/14/2022 3:57:06 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221214\20221214_007.lcd
Vial: 4 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.890	48058	305584	1.0036	ng/mL	101.00 >85.00	33.87	23.94 -44.46
Sodium Perchlorate-18O4_IS	Auto	3.886	305584	305584	1.0000	ng/mL	----	----	

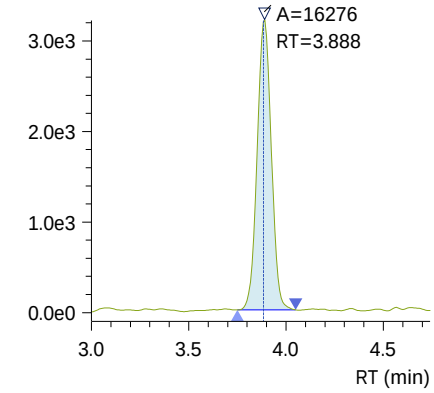
Perchlorate

Conc 1.0036
R#1 33.87 (34.02)

Q 99.00>83.00 (-) 9.64e3



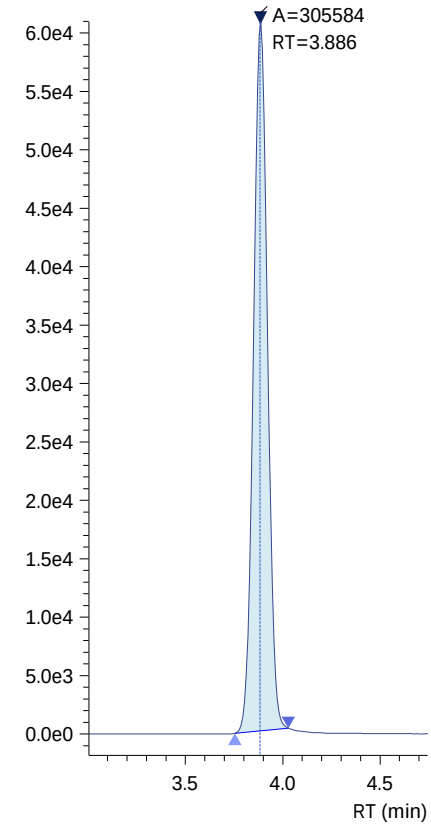
R1 101.00>85.00 (-) 3.23e3



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 6.10e4



Insight Report

Printed at 12/15/2022 10:55:51 AM

PERCHLORATE5

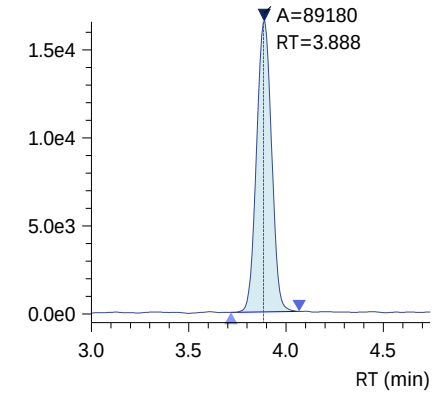
Sample ID: PERCHLORATE5
Date Acquired: 12/14/2022 4:02:38 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221214\20221214_008.lcd
Vial: 5 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.888	89180	296200	1.9213	ng/mL	101.00 >85.00	32.32	23.94 -44.46
Sodium Perchlorate-18O4 _IS	Auto	3.885	296200	296200	1.0000	ng/mL	----	----	

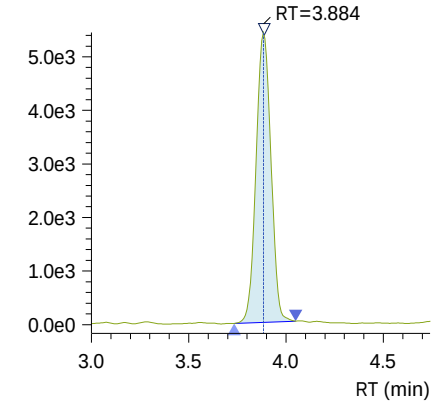
Perchlorate

Conc 1.9213
R#1 32.32 (34.02)

Q 99.00>83.00 (-) 1.66e4



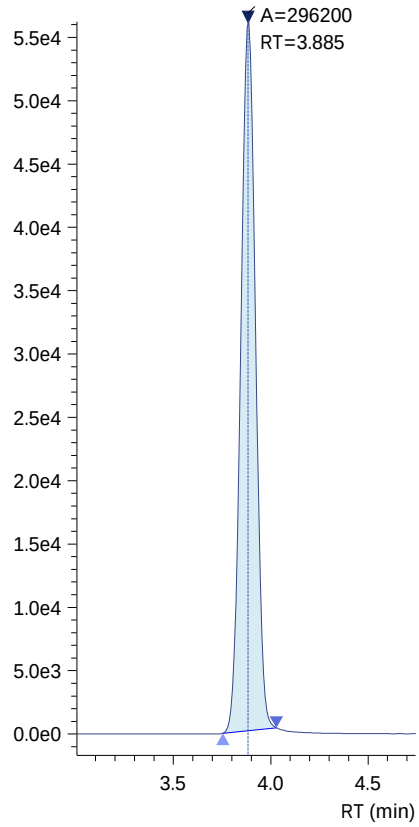
R1 101.00>85.00 (-) A=28822 5.45e3



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 5.62e4



Insight Report

Printed at 12/15/2022 10:55:51 AM

PERCHLORATE6

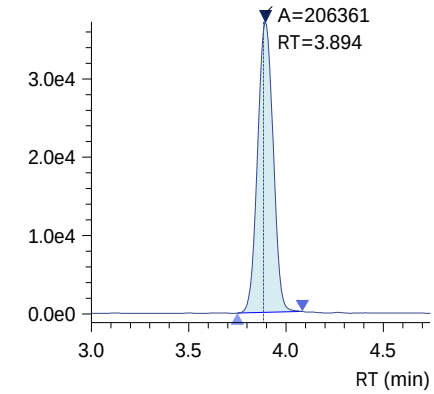
Sample ID: PERCHLORATE6
Date Acquired: 12/14/2022 4:09:28 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221214\20221214_009.lcd
Vial: 6 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.894	206361	262312	5.0202	ng/mL	101.00 >85.00	33.93	23.94 -44.46
Sodium Perchlorate-18O4_IS	Auto	3.889	262312	262312	1.0000	ng/mL	----	----	

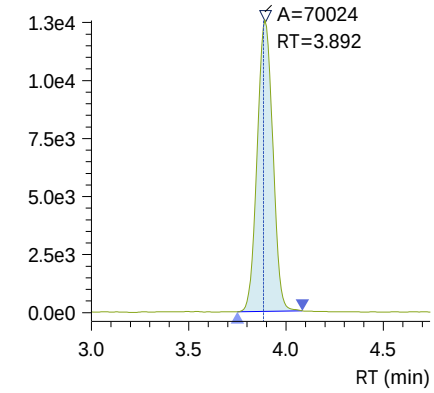
Perchlorate

Conc 5.0202
R#1 33.93 (34.02)

Q 99.00>83.00 (-) 3.73e4



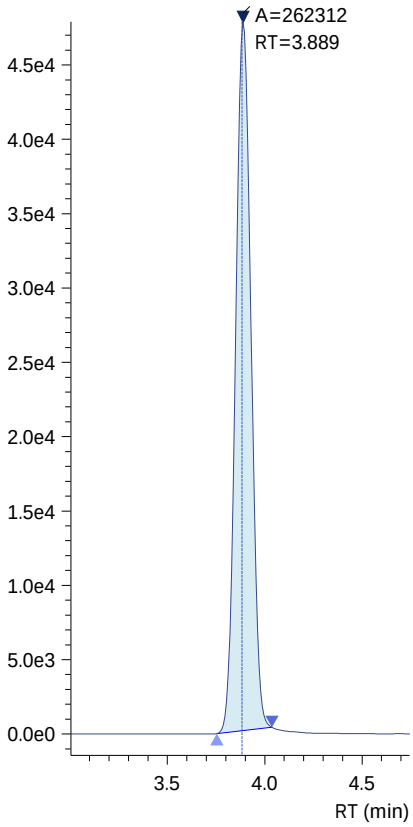
R1 101.00>85.00 (-) 1.26e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 4.79e4



Insight Report

Printed at 12/15/2022 10:55:51 AM

PERCHLORATE7

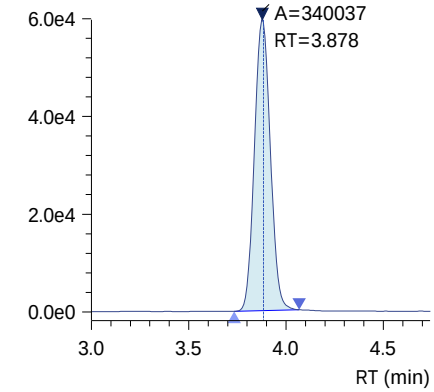
Sample ID: PERCHLORATE7
Date Acquired: 12/14/2022 4:15:00 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221214\20221214_010.lcd
Vial: 7 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.878	340037	220702	9.8317	ng/mL	101.00 >85.00	34.05	23.94 -44.46
Sodium Perchlorate-18O4_IS	Auto	3.875	220702	220702	1.0000	ng/mL	----	----	

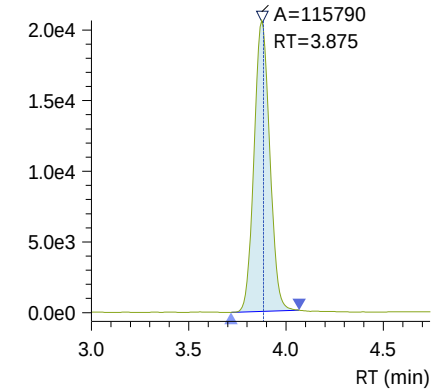
Perchlorate

Conc 9.8317
R#1 34.05 (34.02)

Q 99.00>83.00 (-) 5.98e4



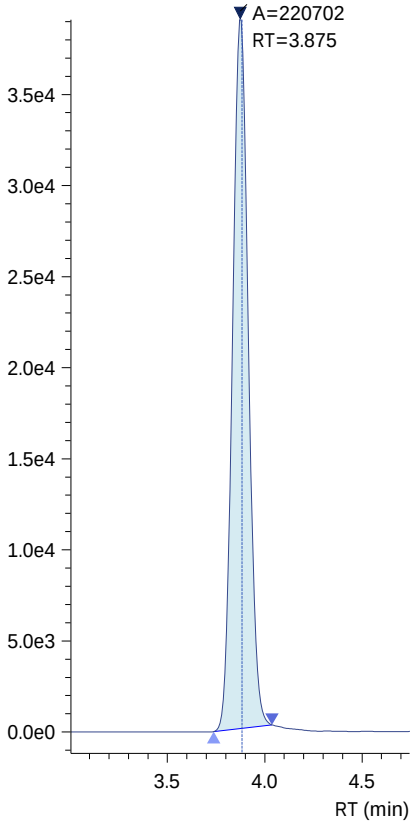
R1 101.00>85.00 (-) 2.07e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 3.91e4



Insight Report

Printed at 12/15/2022 10:55:51 AM

PERCHLORATE8

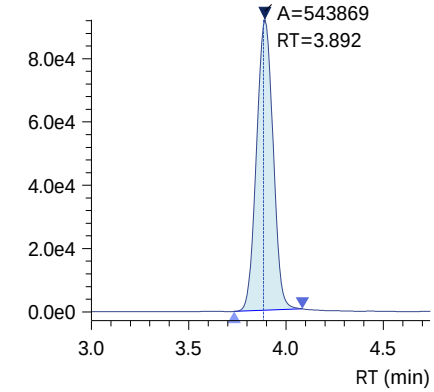
Sample ID: PERCHLORATE8
Date Acquired: 12/14/2022 4:20:30 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221214\20221214_011.lcd
Vial: 8 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.892	5438 69	167819	20.6 806	ng/mL	101.00 >85.00	33.45	23.94 -44.46
Sodium Perchlorate-18O4_IS	Auto	3.888	1678 19	167819	1.0000	ng/mL	----	----	

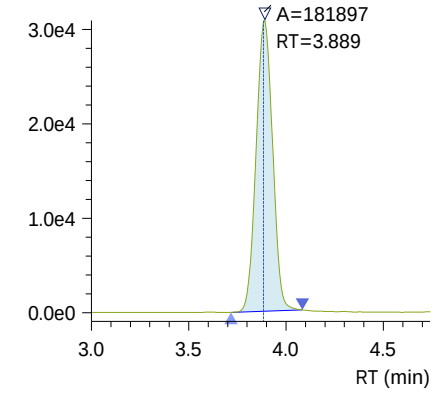
Perchlorate

Conc 20.6806
R#1 33.45 (34.02)

Q 99.00>83.00 (-) 9.23e4



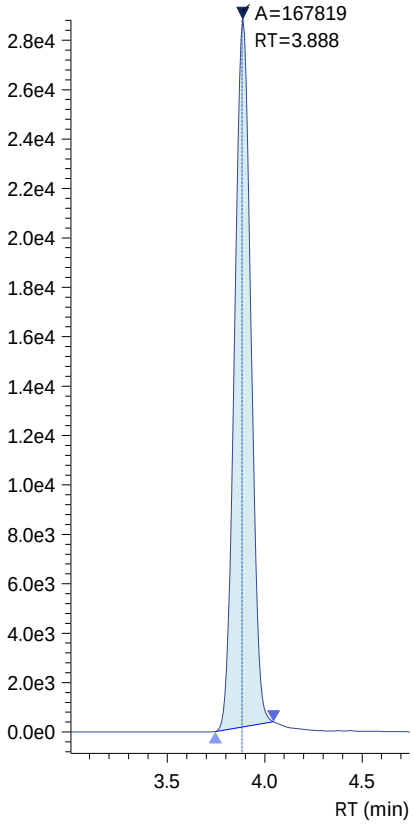
R1 101.00>85.00 (-) 3.09e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.88e4



Insight Report

Printed at 12/15/2022 10:55:51 AM

PERCHLORATE9

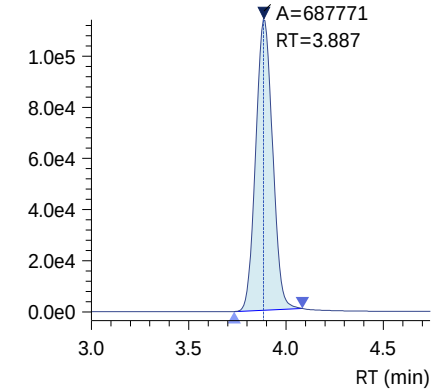
Sample ID: PERCHLORATE9
Date Acquired: 12/14/2022 4:25:58 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221214\20221214_012.lcd
Vial: 9 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.887	687771	143493	30.5860	ng/mL	101.00 >85.00	33.79	23.94 -44.46
Sodium Perchlorate-18O4_IS	Auto	3.883	143493	143493	1.0000	ng/mL	----	----	

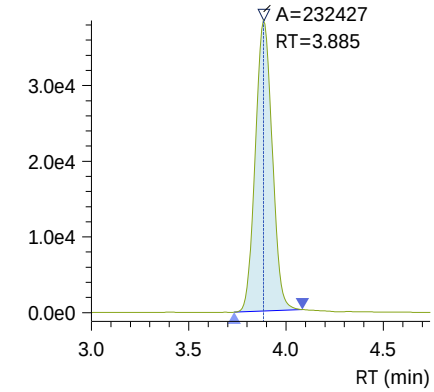
Perchlorate

Conc 30.5860
R#1 33.79 (34.02)

Q 99.00>83.00 (-) 1.14e5



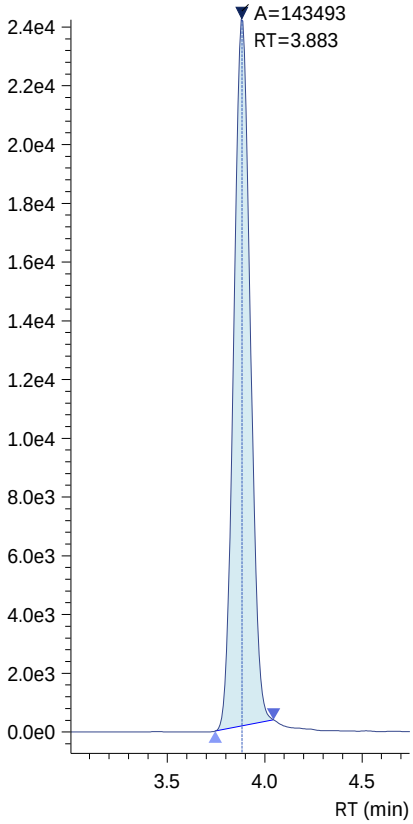
R1 101.00>85.00 (-) 3.86e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.43e4



Insight Report

Printed at 12/15/2022 10:55:51 AM

PERCHLORATE10

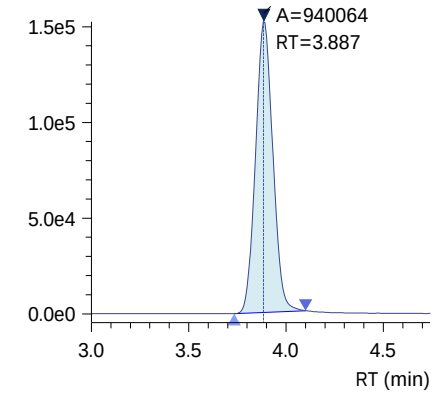
Sample ID: PERCHLORATE10
Date Acquired: 12/14/2022 4:31:28 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221214\20221214_013.lcd
Vial: 10 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.887	9400 64	118445	50.6 464	ng/mL	101.00 >85.00	33.39	23.94 -44.46
Sodium Perchlorate-18O4_IS	Auto	3.883	1184 45	118445	1.0000	ng/mL	----	----	

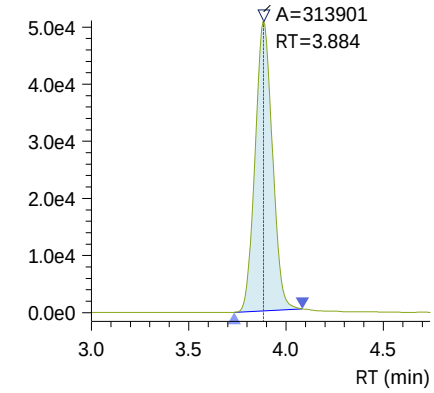
Perchlorate

Conc 50.6464
R#1 33.39 (34.02)

Q 99.00>83.00 (-) 1.53e5



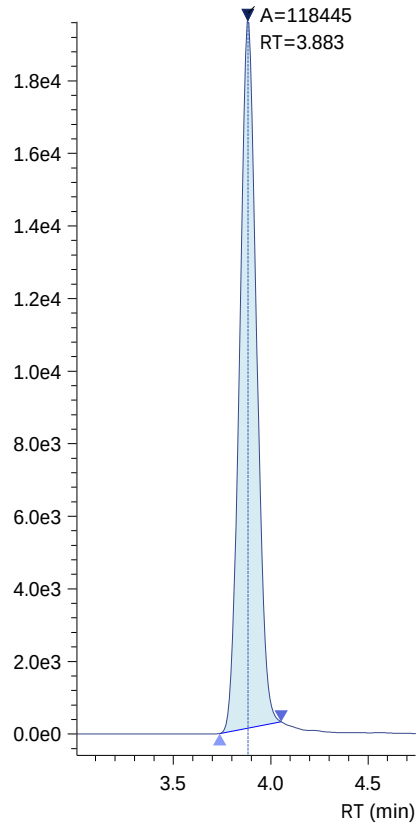
R1 101.00>85.00 (-) 5.12e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.96e4



Insight Report

Printed at 12/15/2022 10:55:51 AM

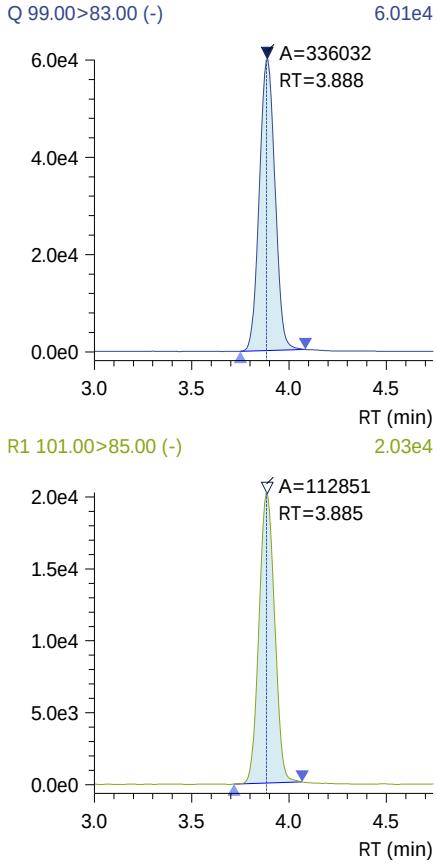
PERCHLORATEICV

Sample ID: PERCHLORATEICV
Date Acquired: 12/14/2022 4:37:01 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20221214\20221214_014.lcd
Vial: 11 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.888	3360 32	229124	9.3588	ng/mL	101.00 >85.00	33.58	23.94 -44.46
Sodium Perchlorate-18O4_IS	Auto	3.884	2291 24	229124	1.0000	ng/mL	----	----	

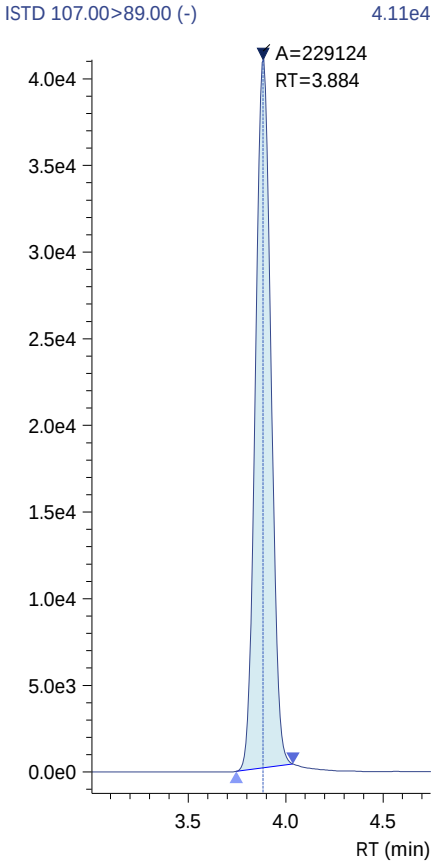
Perchlorate

Conc 9.3588
R#1 33.58 (34.02)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Chromatograms and Selected Ion Monitoring

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 320, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

20230126

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XMI
2nd Review: Kneir

ICAL Date: 12/14/2022
Cal. Std. xp: 01/31/2023
ICAL ID: EC2200016

Mobile Phases : A:0.10% Formic Acid/Water 3210303-02 **B:**MeOH 224417

	Sample Name		File Name	Acquisition Method	Dilution	R	Comments	Date/Time
1	IB		20230125-001	Perchlorate6850c.lcm	1x	☒		1/26/2023 10:56
2	ICS		20230125-002	Perchlorate6850c.lcm	1x	☒	32103024	1/26/2023 11:01
3	LODV		20230125-003	Perchlorate6850c.lcm	1x	☒	225199	1/26/2023 11:33
4	PERCHLORATE7		20230125-004	Perchlorate6850c.lcm	1x	☒	226067	1/26/2023 11:39
5	EQ2300026-01		20230125-005	Perchlorate6850c.lcm	1x	☒		1/26/2023 11:44
6	EQ2300026-02		20230125-006	Perchlorate6850c.lcm	1x	☒		1/26/2023 11:50
7	EQ2300026-03		20230125-007	Perchlorate6850c.lcm	1x	☒		1/26/2023 11:55
8	R2300519-005		20230125-008	Perchlorate6850c.lcm	1x	☒		1/26/2023 12:12
9	R2300519-010		20230125-009	Perchlorate6850c.lcm	1x	☒		1/26/2023 12:18
10	R2300316-004		20230125-010	Perchlorate6850c.lcm	1x	☒		1/26/2023 12:23
11	R2300316-009		20230125-011	Perchlorate6850c.lcm	1x	☒		1/26/2023 12:28
12	R2300316-014		20230125-012	Perchlorate6850c.lcm	1x	☒		1/26/2023 12:34
13	E2300080-001		20230126-013	Perchlorate6850c.lcm	1x	☒		1/26/2023 12:50
14	PERCHLORATE7		20230126-014	Perchlorate6850c.lcm	1x	☒	226067	1/26/2023 12:55
15	E2300080-002x5		20230126-015	Perchlorate6850c.lcm	5x	☒		1/26/2023 13:01
16	E2300053-001		20230126-016	Perchlorate6850c.lcm	1x	☒		1/26/2023 13:06
17	E2300053-002		20230126-017	Perchlorate6850c.lcm	1x	☒		1/26/2023 13:12
18	E2300053-003		20230126-018	Perchlorate6850c.lcm	1x	☒		1/26/2023 13:17
19	E2300053-004x10		20230126-019	Perchlorate6850c.lcm	10x	☒		1/26/2023 13:22
20	E2300053-005x10		20230126-020	Perchlorate6850c.lcm	10x	☒		1/26/2023 13:28
21	E2300053-006x50		20230126-021	Perchlorate6850c.lcm	50x	☒		1/26/2023 14:33
22	E2300053-007x50		20230126-022	Perchlorate6850c.lcm	50x	☒		1/26/2023 14:38
23	EQ2300026-06		20230126-023	Perchlorate6850c.lcm	1x	☒		1/26/2023 14:43
24	EQ2300026-07		20230126-024	Perchlorate6850c.lcm	1x	☒		1/26/2023 14:49
25	PERCHLORATE7		20230126-025	Perchlorate6850c.lcm	1x	☒	226067	1/26/2023 14:54
26	E2300056-001		20230126-026	Perchlorate6850c.lcm	1x	☒		1/26/2023 15:18
27	E2300056-002		20230126-027	Perchlorate6850c.lcm	1x	☒		1/26/2023 15:23
28	E2300056-003		20230126-028	Perchlorate6850c.lcm	1x	☒		1/26/2023 15:29
29	E2300056-004		20230126-029	Perchlorate6850c.lcm	1x	☒	DNU-CONFIRM PEAK	1/26/2023 15:34
30	EQ2300026-04		20230126-030	Perchlorate6850c.lcm	1x	☒		1/26/2023 15:45
31	EQ2300026-05		20230126-031	Perchlorate6850c.lcm	1x	☒		1/26/2023 15:50
32	E2300056-005		20230126-032	Perchlorate6850c.lcm	1x	☒	DNU-CONFIRM PEAK	1/26/2023 15:56
33	E2300056-006		20230126-033	Perchlorate6850c.lcm	1x	☒		1/26/2023 16:02
34	E2300056-004		20230126-034	Perchlorate6850c.lcm	1x	☒		1/26/2023 16:08
35	PERCHLORATE7		20230126-035	Perchlorate6850c.lcm	1x	☒	226067	1/26/2023 16:29

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	Bhate Environmental Associates, Inc.	**Service Request:**	E2300080
Project:	LONGHORN ARMY AMMN. PLANT (LHAAP)/NWO1312.0150.016.0001	**Date Analyzed:**	1/26/23 11:39

Internal Standard Area and RT Summary

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20230125\20230125-004	**Lab Code:**	EQ2300035-04
Instrument ID:	E-LCMS-01	**Analysis Lot:**	792728
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	251,001	3.88
	Upper Limit ==>	376,502	5.88
	Lower Limit ==>	125,501	1.88
Associated Analyses			
Continuing Calibration Verification	EQ2300035-04	195,847	3.51
Method Blank	EQ2300026-01	330,820	3.51
Lab Control Sample	EQ2300026-02	329,146	3.51
Duplicate Lab Control Sample	EQ2300026-03	325,820	3.51
LH18/24-SP650_012523_AIX	E2300080-001	321,855	3.50

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	Bhate Environmental Associates, Inc.	**Service Request:**	E2300080
Project:	LONGHORN ARMY AMMN. PLANT (LHAAP)/NWO1312.0150.016.0001	**Date Analyzed:**	1/26/23 12:55

Internal Standard Area and RT Summary

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20230125\20230126-014	**Lab Code:**	EQ2300035-01
Instrument ID:	E-LCMS-01	**Analysis Lot:**	792728
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	251,001	3.88
	Upper Limit ==>	376,502	5.88
	Lower Limit ==>	125,501	1.88
Associated Analyses			
Continuing Calibration Verification	EQ2300035-01	200,906	3.51
LH18/24-SP650_012523_BIX	E2300080-002	233,428	3.51

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	Bhate Environmental Associates, Inc.	**Service Request:**	E2300080
Project:	LONGHORN ARMY AMMN. PLANT (LHAAP)/NWO1312.0150.016.0001	**Date Analyzed:**	1/26/23 14:54

Internal Standard Area and RT Summary

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20230125\20230126-025	**Lab Code:**	EQ2300035-02
Instrument ID:	E-LCMS-01	**Analysis Lot:**	792728
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	251,001	3.88
	Upper Limit ==>	376,502	5.88
	Lower Limit ==>	125,501	1.88
Associated Analyses			
Continuing Calibration Verification	EQ2300035-02	313,798	3.46

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	Bhate Environmental Associates, Inc.	**Service Request:**	E2300080
Project:	LONGHORN ARMY AMMN. PLANT (LHAAP)/NWO1312.0150.016.0001	**Date Analyzed:**	1/26/23 16:29

Internal Standard Area and RT Summary

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20230125\20230126-035	**Lab Code:**	EQ2300035-03
Instrument ID:	E-LCMS-01	**Analysis Lot:**	792728
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	251,001	3.88
	Upper Limit ==>	376,502	5.88
	Lower Limit ==>	125,501	1.88
Associated Analyses			
Continuing Calibration Verification	EQ2300035-03	263,972	3.45

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	Bhate Environmental Associates, Inc.	**Service Request:**	E2300080
Project:	LONGHORN ARMY AMMN. PLANT (LHAAP)/NWO1312.0150.016.0001	**Date Analyzed:**	1/26/23

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method:	6850	**Calibration Date:**	12/14/22
File ID:	I:\LCMS01\DATA\20230125\20230126-014	**Calibration ID:**	EC2200016
		Analysis Lot:	792728
		Units:	ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	10.5	0.1567	0.1641	4.7	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	Bhate Environmental Associates, Inc.	**Service Request:**	E2300080
Project:	LONGHORN ARMY AMMN. PLANT (LHAAP)/NWO1312.0150.016.0001	**Date Analyzed:**	1/26/23

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method:	6850	**Calibration Date:**	12/14/22
File ID:	I:\LCMS01\DATA\20230125\20230126-025	**Calibration ID:**	EC2200016
		Analysis Lot:	792728
		Units:	ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	10.2	0.1567	0.1606	2.5	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	Bhate Environmental Associates, Inc.	**Service Request:**	E2300080
Project:	LONGHORN ARMY AMMN. PLANT (LHAAP)/NWO1312.0150.016.0001	**Date Analyzed:**	1/26/23

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method:	6850	**Calibration Date:**	12/14/22
File ID:	I:\LCMS01\DATA\20230125\20230126-035	**Calibration ID:**	EC2200016
		Analysis Lot:	792728
		Units:	ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.97	0.1567	0.1562	-0.3	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	Bhate Environmental Associates, Inc.	**Service Request:**	E2300080
Project:	LONGHORN ARMY AMMN. PLANT (LHAAP)/NWO1312.0150.016.0001	**Date Analyzed:**	1/26/23

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method:	6850	**Calibration Date:**	12/14/22
File ID:	I:\LCMS01\DATA\20230125\20230125-004	**Calibration ID:**	EC2200016
		Analysis Lot:	792728
		Units:	ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	10.4	0.1567	0.1637	4.4	NA	± 15 %	Average RF

Insight Report

Printed at 1/27/2023 9:34:02 AM

Method File: I:\LCMS01\DATA\20230125\01262023.lcm
Project File: I:\LCMS01\DATA\20230125\01262023.damlp

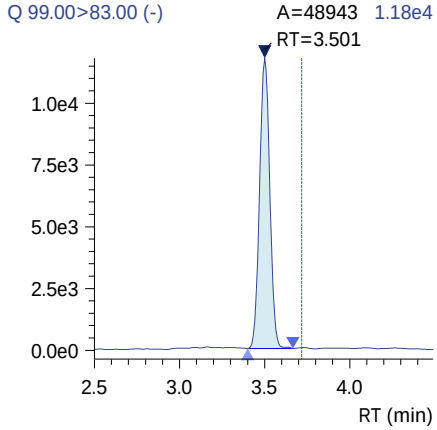
ICS

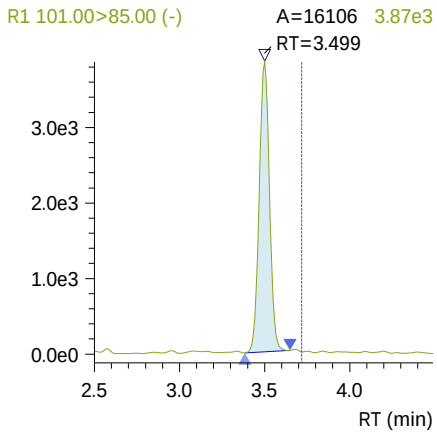
Sample ID: ICS
Date Acquired: 1/26/2023 11:01:40 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230125\20230125-002.lcd
Vial: 2 | Inj. Volume: 25.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.501	48943	292300	1.0685	ng/mL	101.00 >85.00	32.91	22.45 -41.70
Sodium Perchlorate -18O4_IS	Auto	3.497	292300	292300	1.0000	ng/mL	----	----	

Perchlorate

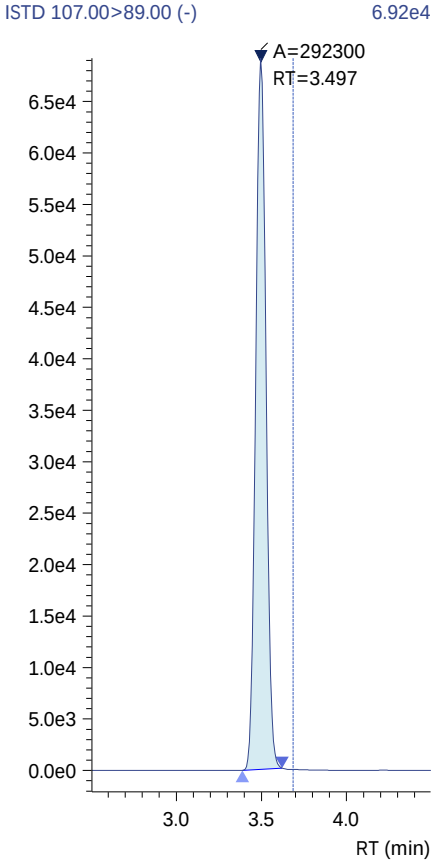
Conc 1.0685
R#1 32.91 (32.08)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 1/27/2023 9:34:02 AM

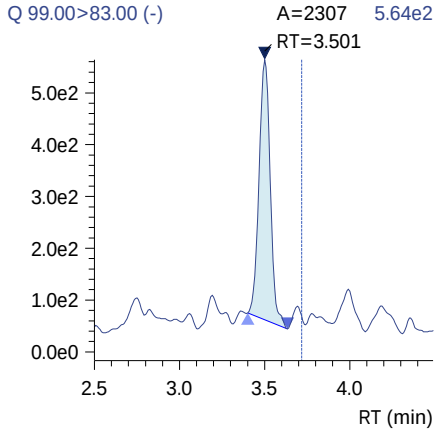
LODV

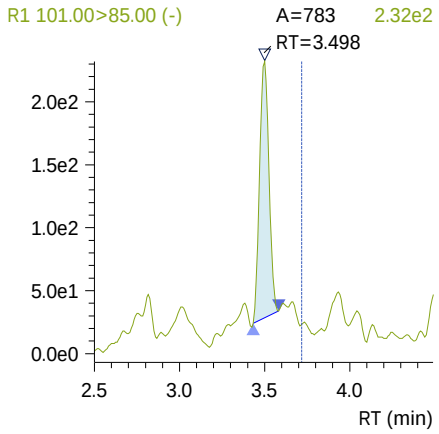
Sample ID: LODV
Date Acquired: 1/26/2023 11:33:59 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230125\20230125-003.lcd
Vial: 4 | Inj. Volume: 25.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.501	2307	248256	0.0593	ng/mL	101.00 >85.00	33.94	22.45 -41.70
Sodium Perchlorate -18O4_IS	Auto	3.497	248256	248256	1.0000	ng/mL	----	----	

Perchlorate

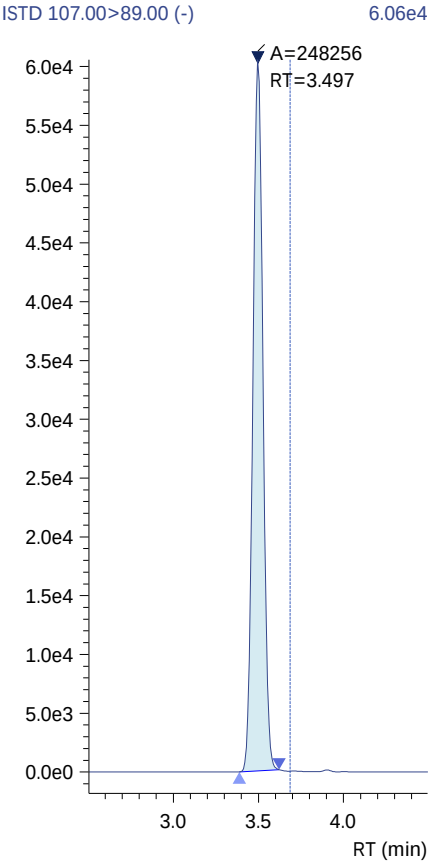
Conc 0.0593
R#1 33.94 (32.08)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 1/27/2023 9:34:02 AM

PERCHLORATE7

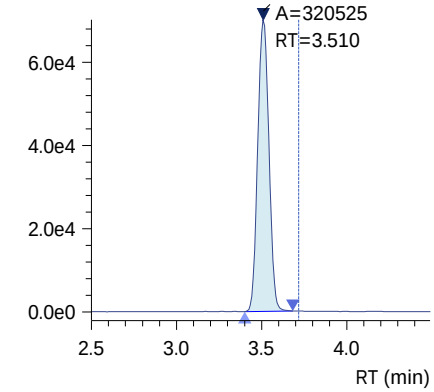
Sample ID: PERCHLORATE7
Date Acquired: 1/26/2023 11:39:23 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230125\20230125-004.lcd
Vial: 3 | Inj. Volume: 25.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.510	320525	195847	10.4437	ng/mL	101.00 >85.00	32.60	22.45 -41.70
Sodium Perchlorate -18O4_IS	Auto	3.505	195847	195847	1.0000	ng/mL	----	----	

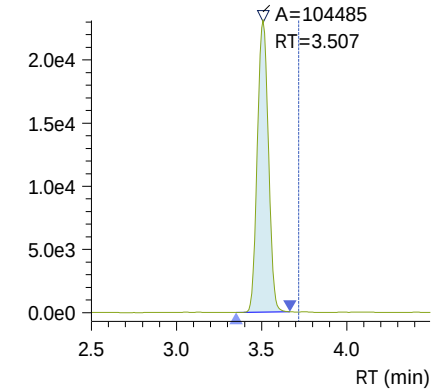
Perchlorate

Conc 10.4437
R#1 32.60 (32.08)

Q 99.00>83.00 (-) 7.03e4



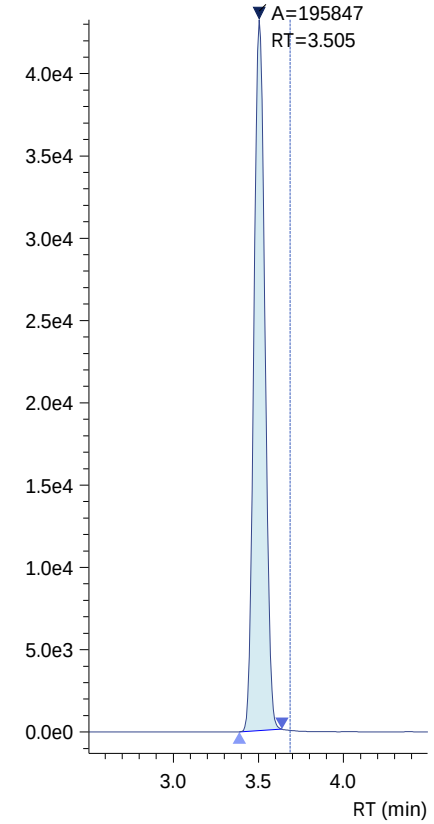
R1 101.00>85.00 (-) 2.31e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 4.33e4



Insight Report

Printed at 1/27/2023 9:34:02 AM

EQ2300026-01

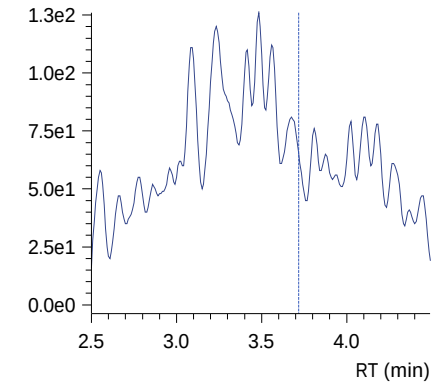
Sample ID: EQ2300026-01
Date Acquired: 1/26/2023 11:44:49 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230125\20230125-005.lcd
Vial: 21 | Inj. Volume: 25.0000uL | Tray: 4

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	330820	----	ng/mL	101.00 >85.00	0.00	22.45 -41.70
Sodium Perchlorate-18O4_IS	Auto	3.509	330820	330820	1.0000	ng/mL	----	----	

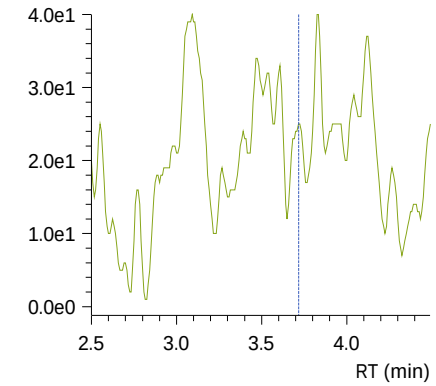
Perchlorate

Conc ----
R#1 0.00 (32.08)

Q 99.00>83.00 (-) 1.26e2



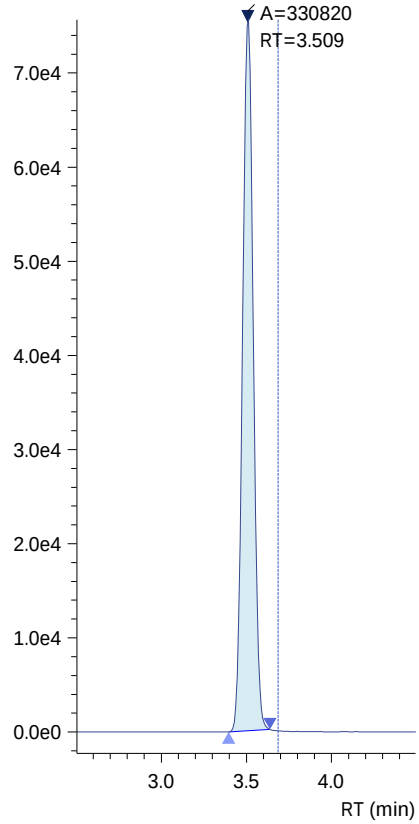
R1 101.00>85.00 (-) 4.00e1



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 7.57e4



Insight Report

Printed at 1/27/2023 9:34:02 AM

EQ2300026-02

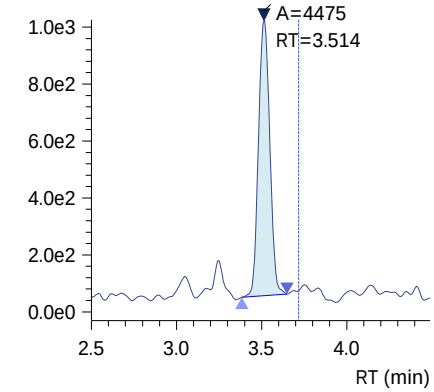
Sample ID: EQ2300026-02
Date Acquired: 1/26/2023 11:50:15 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230125\20230125-006.lcd
Vial: 22 | Inj. Volume: 25.0000uL | Tray: 4

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.514	4475	329146	0.0868	ng/mL	101.00 >85.00	31.79	22.45 -41.70
Sodium Perchlorate -18O4_IS	Auto	3.510	329146	329146	1.0000	ng/mL	----	----	

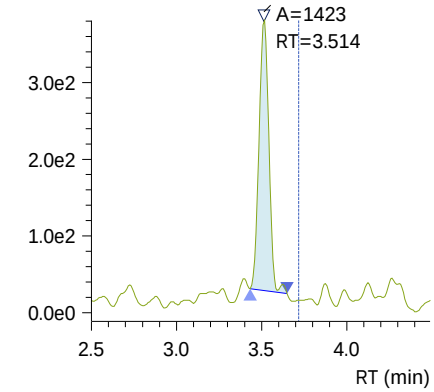
Perchlorate

Conc 0.0868
R#1 31.79 (32.08)

Q 99.00>83.00 (-) 1.03e3



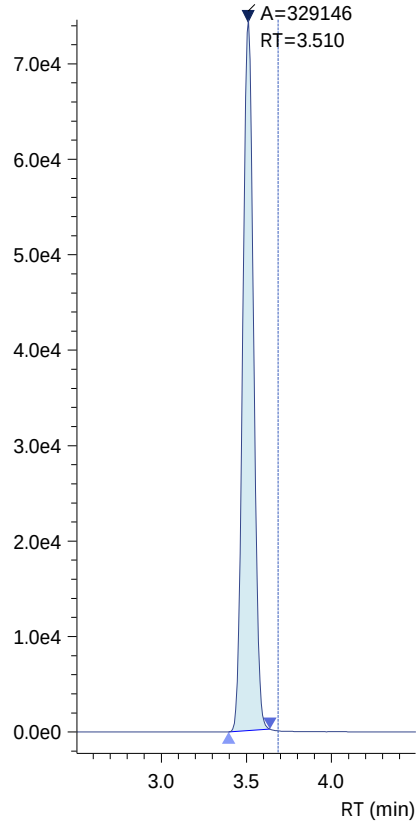
R1 101.00>85.00 (-) 3.81e2



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 7.46e4



Insight Report

Printed at 1/27/2023 9:34:02 AM

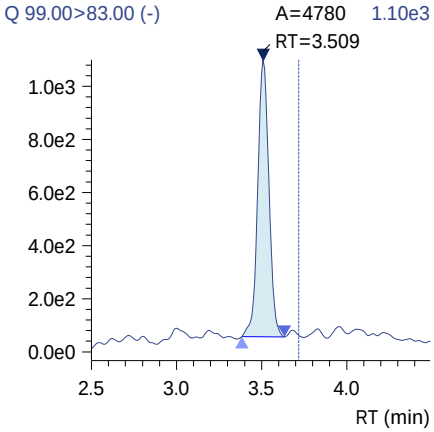
EQ2300026-03

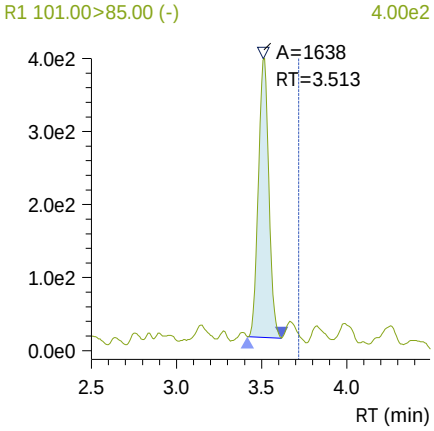
Sample ID: EQ2300026-03
Date Acquired: 1/26/2023 11:55:43 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230125\20230125-007.lcd
Vial: 23 | Inj. Volume: 25.0000uL | Tray: 4

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.509	4780	325820	0.0936	ng/mL	101.00 >85.00	34.26	22.45 -41.70
Sodium Perchlorate -18O4_IS	Auto	3.508	325820	325820	1.0000	ng/mL	----	----	

Perchlorate

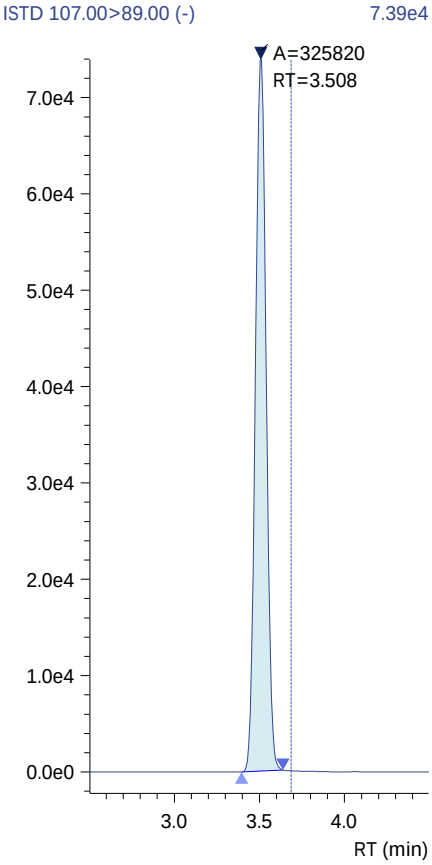
Conc 0.0936
R#1 34.26 (32.08)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 1/27/2023 9:34:02 AM

PERCHLORATE7

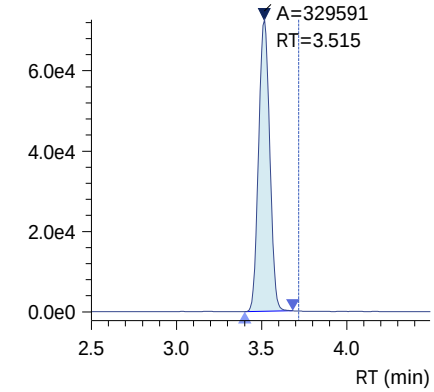
Sample ID: PERCHLORATE7
Date Acquired: 1/26/2023 12:55:59 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230125\20230126-014.lcd
Vial: 3 | Inj. Volume: 25.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.515	329591	200906	10.4687	ng/mL	101.00 >85.00	32.18	22.45 -41.70
Sodium Perchlorate -18O4_IS	Auto	3.510	200906	200906	1.0000	ng/mL	----	----	

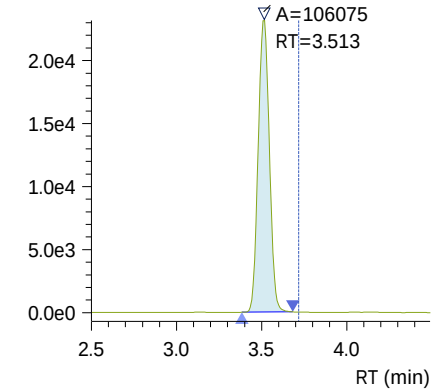
Perchlorate

Conc 10.4687
R#1 32.18 (32.08)

Q 99.00>83.00 (-) 7.27e4



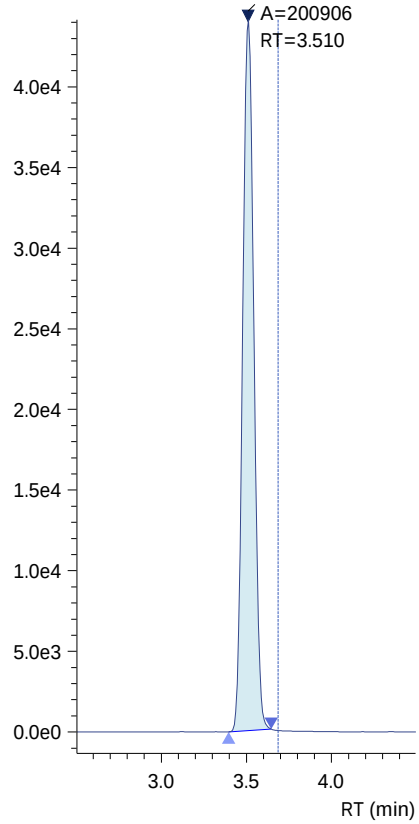
R1 101.00>85.00 (-) 2.32e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 4.42e4



Insight Report

Printed at 1/27/2023 9:34:02 AM

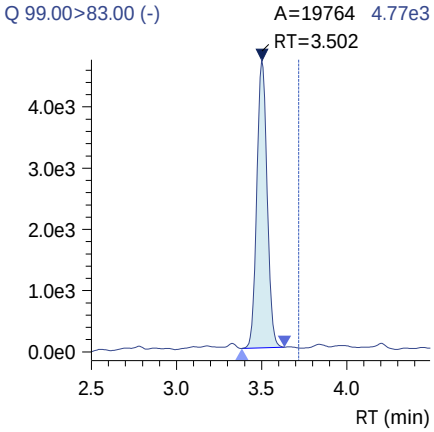
E2300080-001

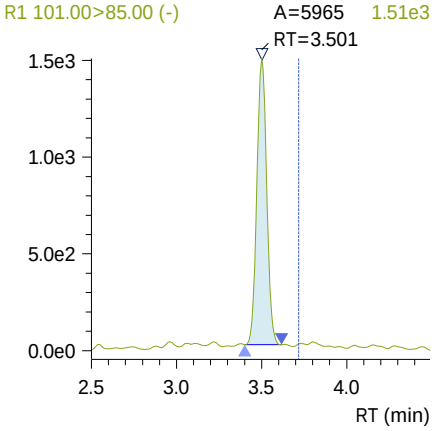
Sample ID: E2300080-001
Date Acquired: 1/26/2023 12:50:33 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230125\20230126-013.lcd
Vial: 19 | Inj. Volume: 25.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.502	19764	321855	0.3919	ng/mL	101.00 >85.00	30.18	22.45 -41.70
Sodium Perchlorate -18O4_IS	Auto	3.499	321855	321855	1.0000	ng/mL	----	----	

Perchlorate

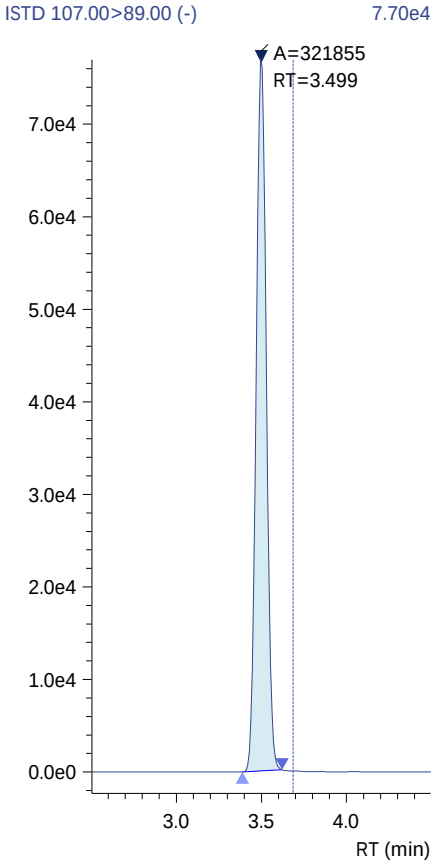
Conc 0.3919
R#1 30.18 (32.08)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 1/27/2023 9:34:02 AM

E2300080-002x5

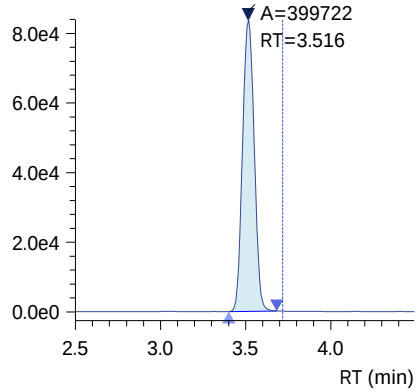
Sample ID: E2300080-002x5
Date Acquired: 1/26/2023 1:01:22 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230125\20230126-015.lcd
Vial: 21 | Inj. Volume: 25.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.516	399722	233428	10.9273	ng/mL	101.00 >85.00	33.39	22.45 -41.70
Sodium Perchlorate -18O4_IS	Auto	3.512	233428	233428	1.0000	ng/mL	----	----	

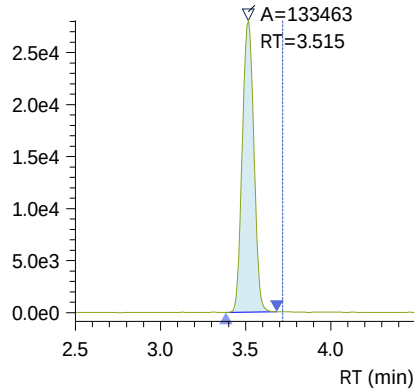
Perchlorate

Conc 10.9273
R#1 33.39 (32.08)

Q 99.00>83.00 (-) 8.39e4



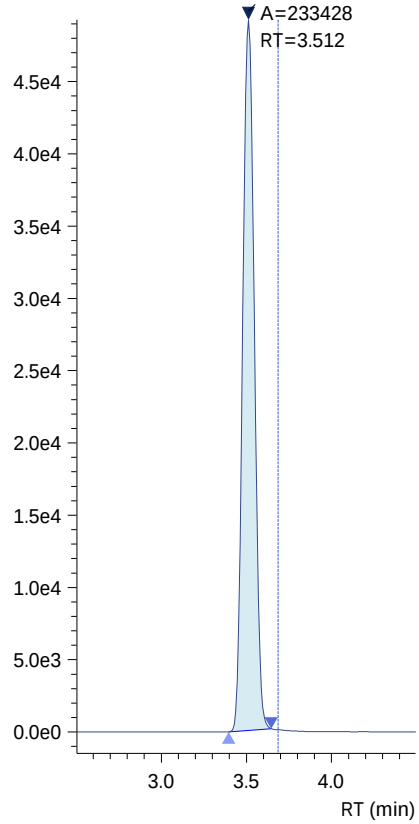
R1 101.00>85.00 (-) 2.81e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 4.93e4



Insight Report

Printed at 1/27/2023 9:34:02 AM

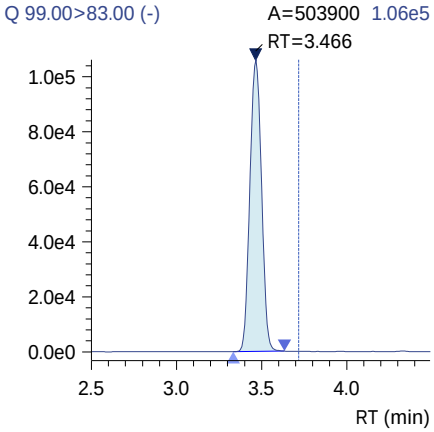
PERCHLORATE7

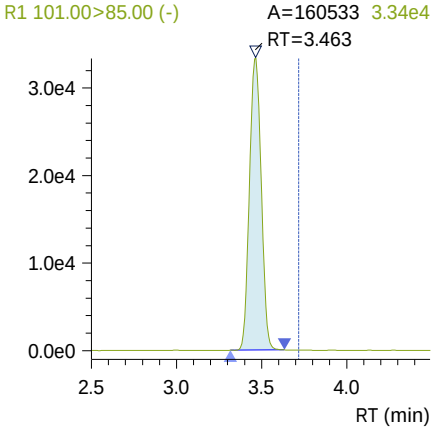
Sample ID: PERCHLORATE7
Date Acquired: 1/26/2023 2:54:41 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230125\20230126-025.lcd
Vial: 3 | Inj. Volume: 25.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.466	503900	313798	10.2471	ng/mL	101.00 >85.00	31.86	22.45 -41.70
Sodium Perchlorate -18O4_IS	Auto	3.461	313798	313798	1.0000	ng/mL	----	----	

Perchlorate

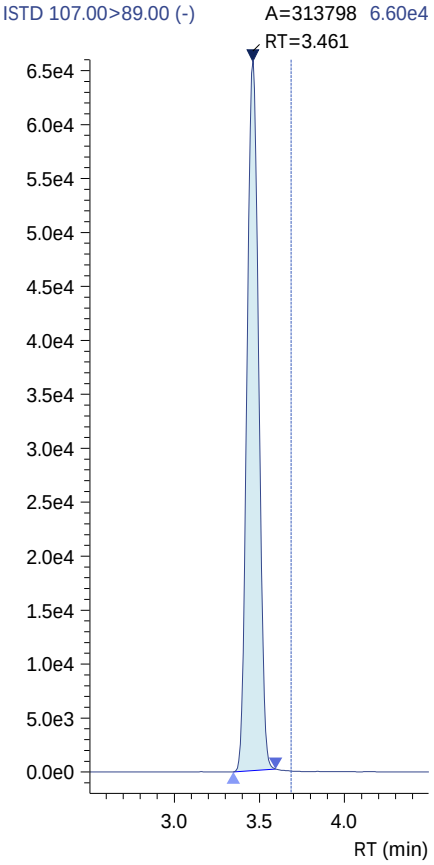
Conc 10.2471
R#1 31.86 (32.08)





Sodium Perchlorate-18O4_IS

Conc 1.0000



February 09, 2023 Service Request No:E2300128

Marcia Olive
Bhate Environmental Associates, Inc.
445 Union Blvd
Suite 129
Lakewood, CO 80228

Laboratory Results for: LHAAP

Dear Marcia,

Enclosed are the results of the sample(s) submitted to our laboratory February 08, 2023
For your reference, these analyses have been assigned our service request number **E2300128.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current TNI standards, where applicable, and except as noted in the laboratory case narrative provided. All results are intended to be considered in their entirety and ALS Environmental is not responsible for use of less than the complete final report. Results apply only to the items submitted to the laboratory, as received for analysis. In accordance with the current TNI Standard, a statement on the estimated uncertainty of measurement of any quantitative analysis will be supplied upon request.

Please contact me if you have any questions. My extension is 2188. You may also contact me via email at James.Guin@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

James Guin

ADDRESS 10450 Stancliff Rd., Suite 210, Houston, TX 77099
PHONE +1 281 530 5656 | FAX +1 281 530 5887
ALS Group USA, Corp.
dba ALS Environmental

Certificate of Analysis

ALS Environmental - Houston HRMS
10450 Stancliff Rd, Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

ALS Environmental

Client:	Bhate Environmental Associates	**Service Request No.:**	E2300128
Project:	LHAAP	**Date Received:**	02/08/23
Sample Matrix:	Water		

CASE NARRATIVE

All analyses were performed in adherence to the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier IV. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Two samples were received for analysis at ALS Environmental in Houston on 02/08/23.

The samples were received in good condition and are consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

Data Validation Notes and Discussion

Precision and Accuracy:

EQ2300061: Laboratory Control Spike/Duplicate Laboratory Control Spike (LCS/DLCS) samples were analyzed and reported in lieu of a MS/MSD for this extraction batch.

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.

Use of ALS group USA Corp dba ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.

Client: Bhate Environmental Associates, Inc. **Service Request:**E2300128
Project: LHAAP/NWO1312.0150.016.0001

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
E2300128-001	LH18/24-SP650_020723_AIX	2/7/2023	1400
E2300128-002	LH18/24-SP650_020723_BIX	2/7/2023	1400

Service Request Summary

Folder #: **E2300128**
Client Name: Bhate Environmental Associates, Inc.
Project Name: LHAAP
Project Number: NWO1312.0150.016.0001

Report To: Marcia Olive
Bhate Environmental Associates, Inc.
445 Union Blvd
Lakewood, CO 80228
USA
Phone Number: 303-597-2450
Cell Number:
Fax Number:
E-mail: molive@bhate.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: JGUIN
Date Received: 02/08/23
Internal Due Date: 2/9/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number:
EDD: BASIC_WQC_CASNo_LOD

2 120 mL-Plastic Bottle Natural WM Unpreserved
Location: EHRMS-AirArch 1
Pressure Gas:
Rush

Lab Samp No.	Client Samp No	Matrix	Collected	HOUSTON ClO4 DOD/6850
E2300128-001	LH18/24-SP650_020723_AIX	Water	02/07/23 1400	**IV**
E2300128-002	LH18/24-SP650_020723_BIX	Water	02/07/23 1400	**IV**

Service Request Summary

Folder #:	**E2300128**
Client Name:	Bhate Environmental Associates, Inc.
Project Name:	LHAAP
Project Number:	NWO1312.0150.016.0001
Report To:	Marcia Olive Bhate Environmental Associates, Inc. 445 Union Blvd Lakewood, CO 80228 USA
Phone Number:	303-597-2450
Cell Number:	
Fax Number:	
E-mail:	molive@bhate.com

Project Chemist:	James Guin
Originating Lab:	HOUSTON
Logged By:	JGUIN
Date Received:	02/08/23
Internal Due Date:	2/9/2023
QAP:	LAB QAP
Qualifier Set:	Lab Standard
Formset:	Lab Standard
Merged?:	Y
Report to MDL?:	Y
P.O. Number:	
EDD:	BASIC_WQC_CASNo_LOD

2 120 mL-Plastic Bottle Natural WM Unpreserved

Location: EHRMS-AirArch 1

Pressure Gas:

Rush

Data Qualifiers

Lab Standard

+	Possible Tedlar bag artifact.
A	TIC is a suspected aldol-condensation product
B	Analyte found in the associated method blank as well as in the sample.
BC	Reported results are not blank corrected.
BH	The back section of the tube yielded higher results than the front.
BT	Results indicated possible breakthrough; back section >=10% front section.
C	Result identification confirmed.
D	Compound identified in an analysis at a secondary dilution factor
D	Spike was diluted out
DE	Reported results are corrected for desorption efficiency.
E	Estimated value. Concentration above calibration range
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
H	The chromatographic fingerprint of the sample resembles a petroleum product but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
H1	Sample analysis performed past holding time. See case narrative.
H2	Initial analysis within holding time. Reanalysis for the required dilution was past holding time.
H3	Sample was received and analyzed past holding time.
H4	Sample was extracted past required extraction holding time, but analyzed within analysis holding time. See case narrative.
I	(Auto) The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
I	Internal standard not within the specified limits. See case narrative.
I	The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
J	Estimated Value. Concentration found below MRL.
K	A deflection in the QC ion may indicate interference with the quantitation of this ion. The concentration of this analyte should be considered as an estimate.
K	Analyte was detected above the method reporting limit prior to normalization.
K	The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
L1	Laboratory control sample recovery outside the specified limits; results may be biased high.
L2	Laboratory control sample recovery outside the specified limits; results may be biased low.
L3	Laboratory control sample recovery outside the specified limits.
M	Matrix interference; results may be biased high.
M	The duplicate injection precision not met.

Data Qualifiers

Lab Standard

M1	Matrix interference due to coelution with a non-target compound; results may be biased high.
N	Presumptive evidence of a compound for TICs that have been identified based on a mass spectral library search.
N	The Matrix Spike sample recovery is not within control limits. See case narrative.
O	The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
P	Indicates chlorodiphenyl ether interference present at the retention time of the target compound.
P	Pesticide/Aroclor target analyte > 40% difference for detected concentrations between GC columns
Q	Indicates as estimated value because the P and P + 2 theoretical abundance ratio does not meet method criteria.
R	Duplicate Precision not met.
R1	Duplicate precision not within the specified limits; however, the results are below the MRL and considered estimated.
S	Surrogate recovery not within specified limits.
S	The reported value was determined by the Method of Standard Additions (MSA).
T	Analyte is a tentatively identified compound, result is estimated.
U	Compound was analyzed for, but was not detected (ND).
V1	The continuing calibration verification standard was outside (biased high) the specified limits for this compound.
V2	The continuing calibration verification standard was outside (biased low) the specified limits for this compound.
W	Result quantified, but the corresponding peak was detected outside the generated retention time window.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
X	See case narrative.
Y	Recovery outside limits
Y	The chromatogram resembles a petroleum product but does not match the calibration standard.
Z	The chromatogram does not resemble a petroleum product.
i	The MRL/MDL has been elevated due to a matrix interference.

ALS Laboratory Group

Acronyms

Cal	Calibration
Conc	CONCentration
Dioxin(s)	Polychlorinated dibenzo-p-dioxin(s)
EDL	Estimated Detection Limit
EMPC	Estimated Maximum Possible Concentration
Flags	Data qualifiers
Furan(s)	Polychlorinated dibenzofuran(s)
g	Grams
ICAL	Initial CALibration
ID	IDentifier
Ions	Masses monitored for the analyte during data acquisition
L	Liter (s)
LCS	Laboratory Control Sample
DLCS	Duplicate Laboratory Control Sample
MB	Method Blank
MCL	Method Calibration Limit
MDL	Method Detection Limit
mL	Milliliters
MS	Matrix Spiked sample
DMS	Duplicate Matrix Spiked sample
NO	Number of peaks meeting all identification criteria
PCDD(s)	Polychlorinated dibenzo-p-dioxin(s)
PCDF(s)	Polychlorinated dibenzofuran(s)
ppb	Parts per billion
ppm	Parts per million
ppq	Parts per quadrillion
ppt	Parts per trillion
QA	Quality Assurance
QC	Quality Control
Ratio	Ratio of areas from monitored ions for an analyte
% Rec.	Percent recovery
RPD	Relative Percent Difference
RRF	Relative Response Factor
RT	Retention Time
SDG	Sample Delivery Group
S/N	Signal-to-noise ratio
TEF	Toxicity Equivalence Factor
TEQ	Toxicity Equivalence Quotient

10450 Stancliff Rd, Houston, TX 77099 | 281-530-5656 | www.alsglobal.com

ALS Environmental

State Certifications, Accreditations, and Licenses

Agency	Number	Expire Date
Arizona Department of Health Services	AZ0793	5/27/2023
Arkansas Department of Environmental Quality	22-041-0	3/27/2023
California Department of Health Services	2919-2023	4/30/2023
Department of Defense	L22-90	3/31/2024
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Hawaii Department of Health	2022	4/30/2023
Illinois Environmental Protection Agency	2000322022-9	5/9/2023
Kansas Department of Health and Environment	E-10352 2022-2023	7/31/2023
Louisiana Department of Environmental Quality	03087-2022	6/30/2023
Louisiana Department of Health and Hospitals	LA028-2023	12/31/2023
Maine Department of Health and Human Services	2022017	6/5/2024
Maryland Department of the Environment	343	6/30/2023
Michigan Depratment of Environmental Quality	9971-2022	4/30/2023
Minnesota Department of Health	2368363	12/31/2023
Nebraska Department of Health and Human Services	NE-OS-25-13	4/30/2023
Nevada Department of Conservation and Natural Resources	TX026932023-1	7/31/2023
New Hampshire Environmental Laboratory Accreditation Program	209422	4/24/2023
New Jersey Department of Environmental Protection	TX008-2023	6/30/2023
New York Department of Health	11707	3/31/2023
Oklahoma Department of Environmental Quality	2022-141	8/31/2023
Oregon Environmental Laboratory Accreditation Program	TX200002	5/15/2023
Pennsylvania Department of Environmental Protection	68-03441-016	6/30/2023
Perry Johnson Laboratory Accreditation	L22-91	3/31/2024
Tennessee Department of Environment and Concervation	04016-2022	4/30/2023
Texas Commision on Environmental Quality	T104704231-22-29	4/30/2023
Utah Department of Health Environmental Laboratory Certification	TX026932022-13	7/31/2023
Washington Department of Ecology	C819-22	11/14/2023

Chain of Custody

ALS Environmental - Houston HRMS
10450 Stancliff Rd, Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

CHAIN OF CUSTODY

Name Of Lab Shipping To: ALS 10450 Stancliff Rd. Suite 210 Houston, TX. 77099 (281) 530-5656 ATTN: Dane Wacasey

Project: BHATE LONGHORN ARMY AMMN. PLANT (LHAAP) GROUNDWATER TREATMENT PLANT (GWTP) KARNACK, TEXAS	Project No. NWO1312.0150.0 16.0001
Job: **GROUNDWATER TREATMENT PLANT SPECIAL SAMPLES**	
Prepared By: Scott Beesinger	P.O. Number

Field Sample I.D.	Sample Matrix	Date / Time	MS / MSD	No. OF CONTAINERS	Analyses: PERCHLORATE										Remarks (Preservatives, etc.)	Lab I.D.#
LH18/24-SP650_020723_AIX	Water	02/07/23 / 14:00		1	X										NONE	
LH18/24-SP650_020723_BIX	Water	02/07/23 / 14:00		1	X										NONE	

Additional Remarks: **RUSH (24 HR) TAT**

Relinquished By:	Date	Time	Received By:	Date	Time	Relinquished By:	Date	Time	Received By:	Date	Time
Scott Beesinger	02/07/23	14:30	COREY G	2-8-23	0945						

For Lab Use Only

Received At Lab By:	Date	Time	Airbill No.	Opened By:	Date	Time	Temp of Container	Seal No.	Condition

Remarks:

S0293 IR#1 2.1° CF=-0.5

ALS Environmental

Cooler Receipt Form

Project Chemist JG.

Client/Project Bhate

Thermometer ID IR31

Date/Time Received: 2/8/23 0945 Initials: JG

Date/Time Logged in: 02/8/23 1030 Initials JG

1. Method of delivery: ○ US Mail ✓ Fed Ex ○ UPS ○ DHL ○ Courier ○ Client
2. Samples received in: ✓ Cooler ○ Box ○ Envelope ○ Other _____
3. Were custody seals on coolers? ✓ Yes ○ No
   Were they intact? ✓ Yes ○ No ○ N/A
   Were they signed and dated? ✓ Yes ○ No ○ N/A
   If yes, how many and where?
4. Packing Material: ○ Inserts ✓ Baggies ✓ Bubble Wrap ○ Gel Packs ✓ Wet Ice ○ Sleeves ○ Other _____
5. Foreign or Regulated Soil? ○ Yes ✓ No Location of Sampling: _____

Cooler Tracking Number	COC ID	Date Opened	Time Opened	Opened By	Temp. °C	Temp Blank?
5789 1995 2429		02/08/23	0945	CG	1.6	☑
						☐
						☐
						☐

6. Were custody papers properly filled out (ink, signed, dated, etc)? ✓ Yes ○ No
7. Did all bottles arrive in good condition (not broken, no signs of leakage)? ✓ Yes ○ No
8. Were all sample labels complete (i.e., sample ID, analysis, preservation, etc)? ✓ Yes ○ No
9. Were appropriate bottles/containers and volumes received for the requested tests? ✓ Yes ○ No
10. Did sample labels and tags agree with custody documents? ✓ Yes ○ No

Notes, Discrepancies, & Resolutions:

Service request Label:

10450 Stancliff Rd., Suite 210
Houston, TX 77099
T: +1 713 266 1599
F: +1 713 266 1599
www.alsglobal.com

SAMPLE ACCEPTANCE POLICY

This policy outlines the criteria samples must meet to be accepted by ALS Environmental – Houston HRMS.

Cooler Custody Seals (desirable, mandatory if specified in SAP):

- ✓ Intact on outside of cooler, signed and dated

Chain-of-Custody (COC) documentation (mandatory):

The following is required on each COC:

- ✓ Sample ID, the location, date and time of collection, collector's name, preservation type, sample type, and any other special remarks concerning the sampleThe COC must be completed in ink.
- ✓ Signature and date of relinquishing party.

In the absence of a COC at sample receipt, the COC will be requested from the client.

Sample Integrity (mandatory):

Samples are inspected upon arrival to ensure that sample integrity was not compromised during transfer to the laboratory.

- ✓ Sample containers must arrive in good condition (not broken or leaking).
- ✓ Samples must be labeled appropriately, including Sample IDs, and requested test using durable labels and indelible ink.
- ✓ The correct type of sample bottle must be used for the method requested.
- ✓ An appropriate sample volume, or weight, must be received.
- ✓ Sample IDs and number of containers must reconcile with the COC.
- ✓ Samples must be received within the method defined holding time.

Temperature Requirement (varies by sample matrix):

- ✓ Aqueous and Non-aqueous samples must be shipped and stored cold, at 0 to 6ºC.
- ✓ Tissue samples must be shipped and stored frozen, at -20 to -10ºC.
- ✓ Air samples are shipped and stored cold, at 0 to 6ºC
- ✓ The sample temperature must be recorded on the COC

All cooler inspections are documented on the Cooler Receipt Form (CRF). A separate CRF is completed for each service request. Any samples not meeting the above criteria are noted on the CRF and the Project Manager notified. The Project Manager must resolve any sample integrity issues with the client prior to proceeding with the analysis. Such resolutions are documented in writing and filed with the project folder. Data associated with samples received outside of this acceptance policy will be qualified on the case narrative of the final report

Preparation Information Benchsheets

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

Preparation Information Benchsheet

Prep Run#: 414418 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/XMI **Prep Method:** Method **Prep Date/Time:** 2/8/23 14:30

#	Lab Code	Client ID	B#	Method /Test	pH	Cl	Matrix	Amt. Ext.	Sample Description
1	E2300116-001	RSA-195-INT-01	.01	6850/ClO4 DOD			Water	10mL	
2	E2300116-002	RSA-195-INT-02	.01	6850/ClO4 DOD			Water	10mL	
3	E2300116-003	RSA-195-INT-03	.01	6850/ClO4 DOD			Water	10mL	
4	E2300116-004	RSA-095-INT-01	.01	6850/ClO4 DOD			Water	10mL	
5	E2300116-005	RSA-213-OVB-04	.01	6850/ClO4 DOD			Water	10mL	
6	E2300116-006	RSA-213-OVB-05	.01	6850/ClO4 DOD			Water	10mL	
7	E2300123-001	JD2300635-001	.01	6850/ClO4			Water	10mL	
8	E2300128-001	LH18/24-SP650_020723_AIX	.01	6850/ClO4 DOD			Water	10mL	
9	E2300128-002	LH18/24-SP650_020723_BIX	.01	6850/ClO4 DOD			Water	10mL	
10	E2300131-001	RSA-213-OVB-01	.01	6850/ClO4 DOD			Water	10mL	
11	E2300131-002	RSA-094-OVB-01	.01	6850/ClO4 DOD			Water	10mL	
12	EQ2300061-01	MB		6850/ClO4			Liquid	10mL	
13	EQ2300061-02	LCS		6850/ClO4			Liquid	10mL	
14	EQ2300061-03	DLCS		6850/ClO4			Liquid	10mL	
15	R2300857-012	2301311013 600L-SB-25	.01	6850/ClO4			Water	10mL	
16	R2300918-012	2302010743 600L-SB-24	.01	6850/ClO4			Water	10mL	

Spiking Solutions

Name: Perchlorate Internal Standard 1ug/mL Inventory ID 226778 Logbook Ref: Perchlorate Internal Standard Expires On: 05/31/2023

E2300116-001	100.00µL	E2300116-002	100.00µL	E2300116-003	100.00µL	E2300116-004	100.00µL	E2300116-005	100.00µL	E2300116-006	100.00µL
E2300123-001	100.00µL	E2300128-001	100.00µL	E2300128-002	100.00µL	E2300131-001	100.00µL	E2300131-002	100.00µL	EQ2300061-01	100.00µL
EQ2300061-01	100.00µL	EQ2300061-02	100.00µL	EQ2300061-02	100.00µL	EQ2300061-03	100.00µL	EQ2300061-03	100.00µL	R2300857-012	100.00µL
R2300918-012	100.00µL										

Name: Perchlorate Intermediate Stock1 Inventory ID 227236 Logbook Ref: Perchlorate (1st Source) Expires On: 07/31/2023

EQ2300061-02	1.00µL	EQ2300061-02	1.00µL	EQ2300061-03	1.00µL	EQ2300061-03	1.00µL

Preparation Materials

Water HPLC Grade	01/04/2023 Water (226857)	6850 Amber Glass screw vial	2mL Screw Top Vial (221894)	6850 0.45um syringe filters	6850 Syringe Filters (224414)
6850 Luer-Lok Syringes	Luer-Lok Syringes (221305)	6850 Pipette Tips 50-1000 uL	6850 Pipette Tips (221929)		

Preparation Information Benchsheet

Prep Run#: 414418
Team: Semivoa GCMS/XMI

Prep WorkFlow: GenExt28Day
Prep Method: Method

Status: Prepped
Prep Date/Time: 2/8/23 14:30

Preparation Steps

Step: Preparation
Started: 2/8/23 14:30
Finished: 2/8/23 15:30
By: XMI
Comments

Comments: _____

Reviewed By: XMI Date: 02/08/23

Chain of Custody

Relinquished By: _____ Date: _____

Received By: _____ Date: _____

Extracts Examined
Yes No

Analytical Results

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Bhate Environmental Associates, Inc.	**Service Request:**	E2300128
Project:	LHAAP/NWO1312.0150.016.0001	**Date Collected:**	2/ 7/23 1400
Sample Matrix:	Water	**Date Received:**	2/ 8/23
Sample Name:	LH18/24-SP650_020723_AIX	**Units:**	µg/L
Lab Code:	E2300128-001	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.383**		0.100	0.0500	0.0250	1	2/ 8/23	2/8/23 17:39	414418	794049	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Bhate Environmental Associates, Inc.	**Service Request:**	E2300128
Project:	LHAAP/NWO1312.0150.016.0001	**Date Collected:**	2/ 7/23 1400
Sample Matrix:	Water	**Date Received:**	2/ 8/23
Sample Name:	LH18/24-SP650_020723_BIX	**Units:**	µg/L
Lab Code:	E2300128-002	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.497**		0.100	0.0500	0.0250	1	2/ 8/23	2/8/23 17:45	414418	794049	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Bhate Environmental Associates, Inc.	**Service Request:**	E2300128
Project:	LHAAP/NWO1312.0150.016.0001	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	EQ2300061-01	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	ND	U	0.100	0.0500	0.0250	1	2/ 8/23	2/8/23 16:52	414418	794049	

Accuracy & Precision

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Bhate Environmental Associates, Inc. **Service Request:** E2300128
Project: LHAAP/NWO1312.0150.016.0001 **Date Analyzed:** 2/ 8/23
Sample Matrix: Water

Lab Control Sample Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850 **Units:** µg/L
Prep Method: Method **Basis:** NA

Extraction Lot: 414418

	Lab Control Sample EQ2300061-02			Duplicate Lab Control Sample EQ2300061-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Perchlorate	0.0994	0.100	99	0.0910	0.100	91	84 - 119	9	15

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Bhate Environmental Associates, Inc.	**Service Request:**	E2300128
Project:	LHAAP/NWO1312.0150.016.0001	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2300061-02	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.0994**	J	0.100	0.0500	0.0250	1	2/ 8/23	2/8/23 16:58	414418	794049	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Bhate Environmental Associates, Inc.	**Service Request:**	E2300128
Project:	LHAAP/NWO1312.0150.016.0001	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2300061-03	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.0910**	J	0.100	0.0500	0.0250	1	2/ 8/23	2/8/23 17:04	414418	794049	

Initial Calibration

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

20230201-793296

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XMI
2nd Review: Kneir

ICAL Date: 2/1/2023
Cal. Std. xp: 07/31/2023
ICAL ID: EC2300002

Mobile Phases : A:0.10% Formic Acid/Water 3210303-02 **B:**MeOH 224417

	Sample Name		File Name	Acquisition Method	Dilution	R	Comments	Date/Time
1	PERCHLORATE1		20230201-003	Perchlorate6850c.lcm	1x	☒	227245	2/1/2023 11:50
2	PERCHLORATE2		20230201-004	Perchlorate6850c.lcm	1x	☒	227246	2/1/2023 11:55
3	PERCHLORATE3		20230201-005	Perchlorate6850c.lcm	1x	☒	227247	2/1/2023 12:01
4	PERCHLORATE4		20230201-006	Perchlorate6850c.lcm	1x	☒	227248	2/1/2023 12:07
5	PERCHLORATE5		20230201-007	Perchlorate6850c.lcm	1x	☒	227249	2/1/2023 12:13
6	PERCHLORATE6		20230201-008	Perchlorate6850c.lcm	1x	☒	227250	2/1/2023 12:19
7	PERCHLORATE7		20230201-009	Perchlorate6850c.lcm	1x	☒	227251	2/1/2023 12:25
8	PERCHLORATE8		20230201-010	Perchlorate6850c.lcm	1x	☒	227252	2/1/2023 12:30
9	PERCHLORATE9		20230201-011	Perchlorate6850c.lcm	1x	☒	227253	2/1/2023 12:36
10	PERCHLORATE10		20230201-012	Perchlorate6850c.lcm	1x	☒	227254	2/1/2023 12:42
11	PERCHLORATEICV		20230201-013	Perchlorate6850c.lcm	1x	☒	227256	2/1/2023 12:48
12	LODV		20230201-014	Perchlorate6850c.lcm	1x	☒	225199	2/1/2023 12:54
13	ICS		20230201-015	Perchlorate6850c.lcm	1x	☒	32103024	2/1/2023 13:00
14	PERCHLORATE7		20230201-016	Perchlorate6850c.lcm	1x	☒	227251	2/1/2023 15:24
15	EQ2300047-01		20230201-017	Perchlorate6850c.lcm	1x	☒		2/1/2023 15:30
16	EQ2300047-02		20230201-018	Perchlorate6850c.lcm	1x	☒		2/1/2023 15:36
17	EQ2300047-03		20230201-019	Perchlorate6850c.lcm	1x	☒		2/1/2023 15:41
18	R2300589-005		20230201-020	Perchlorate6850c.lcm	1x	☒		2/1/2023 15:48
19	R2300589-010		20230201-021	Perchlorate6850c.lcm	1x	☒	DNU-BAD PEAK SHAPE	2/1/2023 15:54
20	R2300648-018		20230201-022	Perchlorate6850c.lcm	1x	☒		2/1/2023 16:00
21	R2300648-025		20230201-023	Perchlorate6850c.lcm	1x	☒		2/1/2023 16:06
22	PERCHLORATE7		20230201-024	Perchlorate6850c.lcm	1x	☒	227251	2/1/2023 16:17
23	E2300092-001		20230201-025	Perchlorate6850c.lcm	1x	☒		2/1/2023 16:23
24	E2300092-002		20230201-026	Perchlorate6850c.lcm	1x	☒		2/1/2023 16:29
25	E2300092-003		20230201-027	Perchlorate6850c.lcm	1x	☒		2/1/2023 16:35
26	E2300092-004		20230201-028	Perchlorate6850c.lcm	1x	☒		2/1/2023 16:41
27	E2300094-001		20230201-029	Perchlorate6850c.lcm	1x	☒		2/1/2023 16:47
28	E2300094-002		20230201-030	Perchlorate6850c.lcm	1x	☒		2/1/2023 16:52
29	E2300094-003		20230201-031	Perchlorate6850c.lcm	1x	☒		2/1/2023 16:58
30	E2300094-004		20230201-032	Perchlorate6850c.lcm	1x	☒		2/1/2023 17:04
31	E2300094-005		20230201-033	Perchlorate6850c.lcm	1x	☒		2/1/2023 17:10
32	PERCHLORATE7		20230201-034	Perchlorate6850c.lcm	1x	☒	227251	2/1/2023 17:16
33	E2300096-001		20230201-035	Perchlorate6850c.lcm	1x	☒		2/1/2023 17:21
34	E2300096-002		20230201-036	Perchlorate6850c.lcm	1x	☒		2/1/2023 17:27
35	E2300096-003		20230201-037	Perchlorate6850c.lcm	1x	☒		2/1/2023 17:33
36	E2300096-004		20230201-038	Perchlorate6850c.lcm	1x	☒		2/1/2023 17:39
37	E2300096-005		20230201-039	Perchlorate6850c.lcm	1x	☒		2/1/2023 17:45
38	E2300096-006		20230201-040	Perchlorate6850c.lcm	1x	☒		2/1/2023 17:51
39	E2300096-007		20230201-041	Perchlorate6850c.lcm	1x	☒		2/1/2023 17:56
40	PERCHLORATE7		20230201-042	Perchlorate6850c.lcm	1x	☒	227251	2/1/2023 18:02

Initial Calibration - Detailed Report

Calibration ID: EC2300002 **Instrument ID:** E-LCMS-01
Column Name: 1

#	Lab Code	Sample Name	File Location	Aquisition Date
01	EC2300002-01	PERCHLORATE1	20230201-003	02/01/2023 11:50
02	EC2300002-02	PERCHLORATE2	20230201-004	02/01/2023 11:55
03	EC2300002-03	PERCHLORATE3	20230201-005	02/01/2023 12:01
04	EC2300002-04	PERCHLORATE4	20230201-006	02/01/2023 12:07
05	EC2300002-05	PERCHLORATE5	20230201-007	02/01/2023 12:13
06	EC2300002-06	PERCHLORATE6	20230201-008	02/01/2023 12:19
07	EC2300002-07	PERCHLORATE7	20230201-009	02/01/2023 12:25
08	EC2300002-08	PERCHLORATE8	20230201-010	02/01/2023 12:30
09	EC2300002-09	PERCHLORATE9	20230201-011	02/01/2023 12:36
10	EC2300002-10	PERCHLORATE10	20230201-012	02/01/2023 12:42

Analyte **Curve Fit** **Weighting**

Perchlorate **Average RF** **RSD = 4.86** **Average RF = 0.1385**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.1000	0.1253	02	0.5000	0.13	03	0.7000	0.1346	04	1.0000	0.1399
05	2.0000	0.1406	06	5.0000	0.1404	07	10.0000	0.1416	08	20.0000	0.1407
09	30.0000	0.1447	10	50.0000	0.1477						

Analyte

Perchlorate RSE = 4.86

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.1000	0.0904	-9.6	02	0.5000	0.469	-6.1	03	0.7000	0.680	-2.8
04	1.0000	1.01	0.9	05	2.0000	2.03	1.5	06	5.0000	5.07	1.3
07	10.0000	10.2	2.2	08	20.0000	20.3	1.5	09	30.0000	31.3	4.5
10	50.0000	53.3	6.6								

Initial Calibration Verification Summary Report

Calibration ID:	EC2300002	**Instrument ID:**	E-LCMS-01
Datafile ID:	20230201-013	**Column Name:**	1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
Perchlorate	EC2300002-11	T	Average RF	10	10.538	ng/mL	5.4	<= 15

Insight Report

Printed at 2/1/2023 2:06:14 PM

Method File: I:\LCMS01\DATA\02012023\20230201.lcm
Project File: I:\LCMS01\DATA\02012023\20230201.damlp

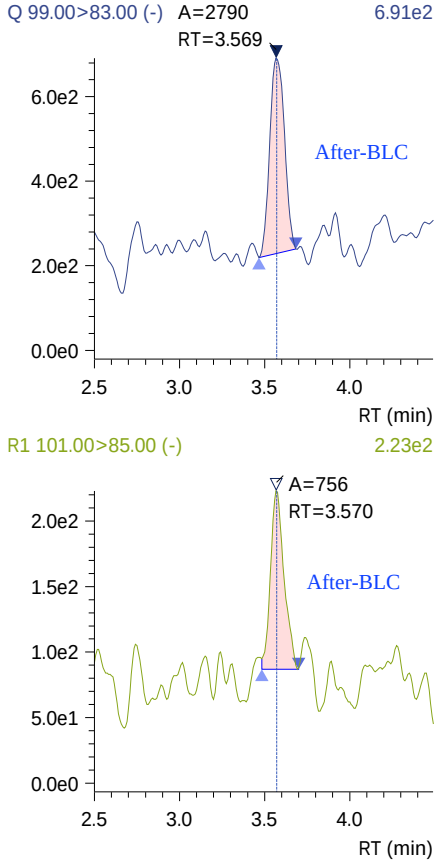
PERCHLORATE1

Sample ID: PERCHLORATE1
Date Acquired: 2/1/2023 11:50:11 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\02012023\20230201-003.lcd
Vial: 1 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	M	3.569	2790	222693	0.0904	ng/mL	101.00 >85.00	27.11	24.11 -44.78
Sodium Perchlorate-18O4_IS	Auto	3.568	222693	222693	1.0000	ng/mL	----	----	

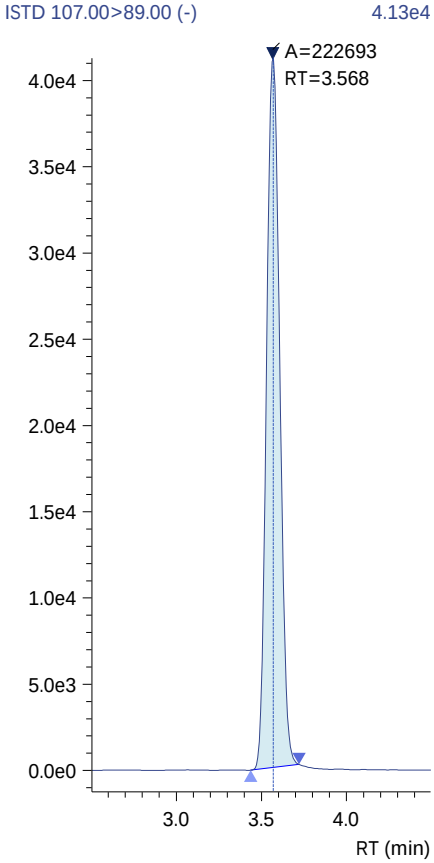
Perchlorate

Conc 0.0904
R#1 27.11 (31.99)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/1/2023 1:30:25 PM

Method File: I:\LCMS01\DATA\20230201\20230201ICAL.lcm
Project File: I:\LCMS01\DATA\20230201\20230201ICAL.damIp

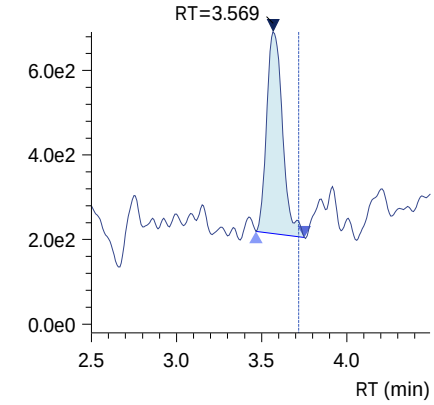
PERCHLORATE1

Sample ID: PERCHLORATE1
Date Acquired: 2/1/2023 11:50:11 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\02012023\20230201-003.lcd
Vial: 1 | Inj. Volume: 25.0000uL | Tray: 1

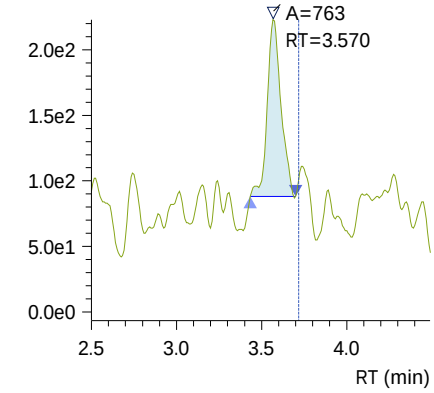
Perchlorate

Conc 0.0996
R#1 24.56 (34.45)

Q 99.00>83.00 (-) A=3105 6.91e2



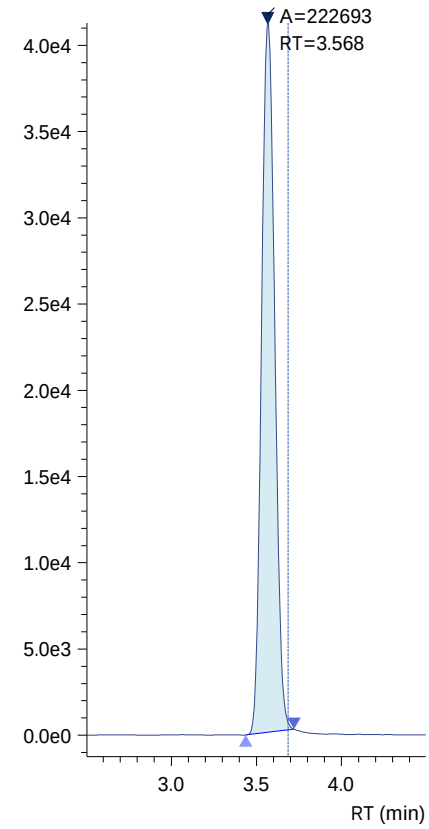
R1 101.00>85.00 (-) 2.23e2



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 4.13e4



Insight Report

Printed at 2/1/2023 2:06:14 PM

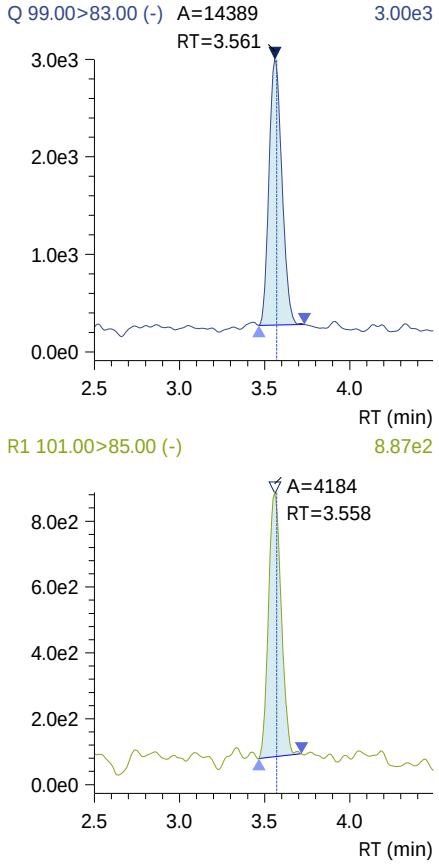
PERCHLORATE2

Sample ID: PERCHLORATE2
Date Acquired: 2/1/2023 11:55:59 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\02012023\20230201-004.lcd
Vial: 2 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.561	14389	221291	0.4694	ng/mL	101.00 >85.00	29.08	24.11 -44.78
Sodium Perchlorate-18O4_IS	Auto	3.558	221291	221291	1.0000	ng/mL	----	----	

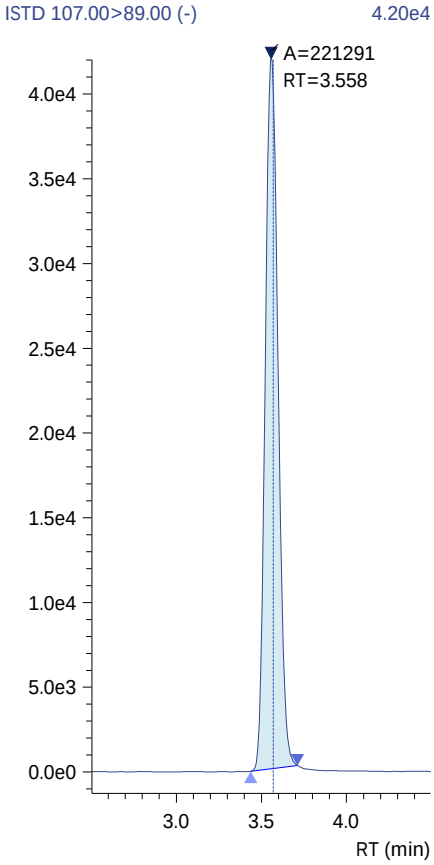
Perchlorate

Conc 0.4694
R#1 29.08 (31.99)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/1/2023 2:06:14 PM

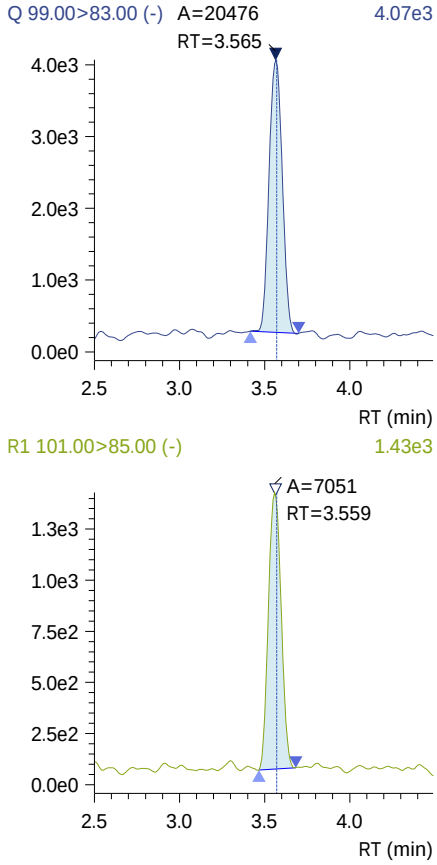
PERCHLORATE3

Sample ID: PERCHLORATE3
Date Acquired: 2/1/2023 12:01:49 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\02012023\20230201-005.lcd
Vial: 3 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.565	20476	217325	0.6801	ng/mL	101.00 >85.00	34.44	24.11 -44.78
Sodium Perchlorate-18O4_IS	Auto	3.559	2173 25	217325	1.0000	ng/mL	----	----	

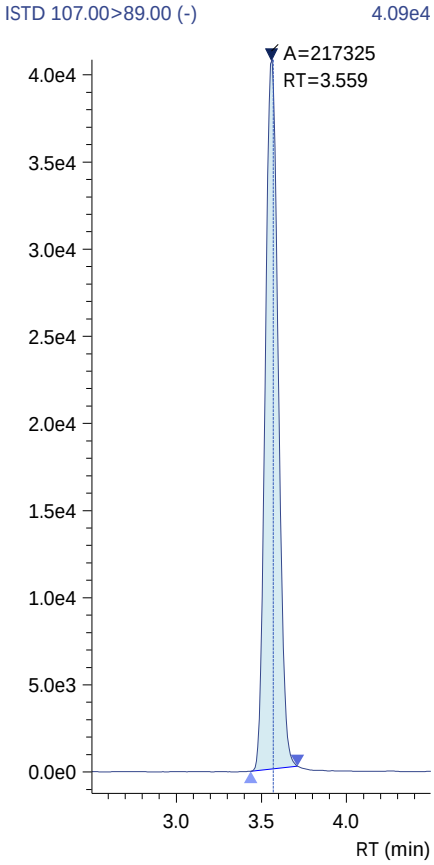
Perchlorate

Conc 0.6801
R#1 34.44 (31.99)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/1/2023 2:06:14 PM

PERCHLORATE4

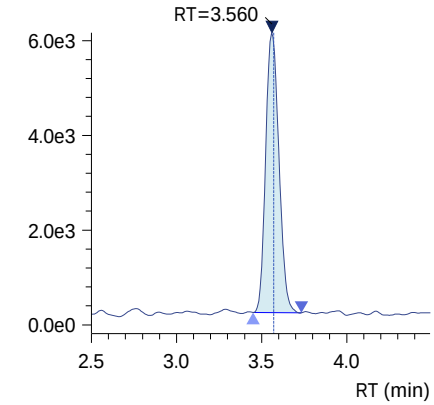
Sample ID: PERCHLORATE4
Date Acquired: 2/1/2023 12:07:38 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\02012023\20230201-006.lcd
Vial: 4 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.560	31993	228763	1.0095	ng/mL	101.00 >85.00	30.65	24.11 -44.78
Sodium Perchlorate-18O4 _IS	Auto	3.557	2287 63	228763	1.0000	ng/mL	----	----	

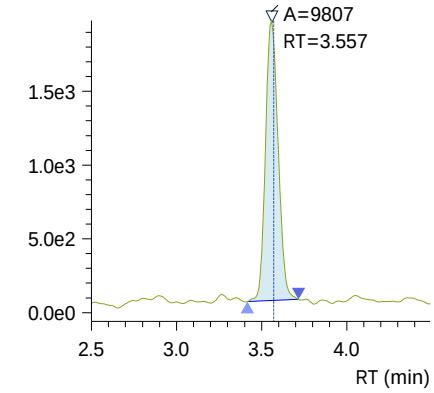
Perchlorate

Conc 1.0095
R#1 30.65 (31.99)

Q 99.00>83.00 (-) A=31993 6.17e3



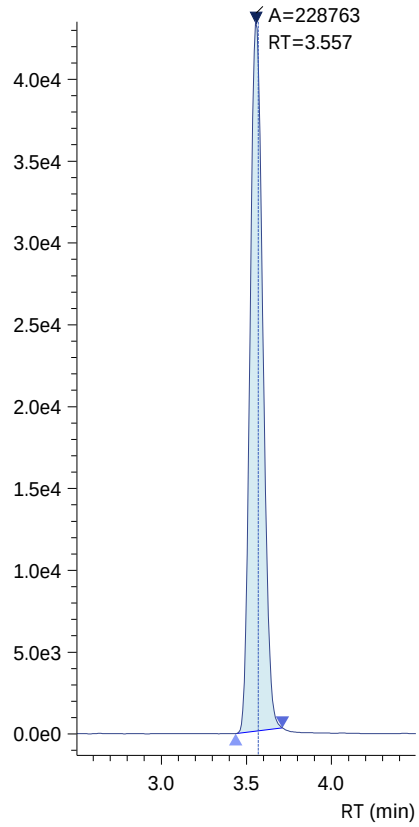
R1 101.00>85.00 (-) 1.98e3



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 4.35e4



Insight Report

Printed at 2/1/2023 2:06:14 PM

PERCHLORATE5

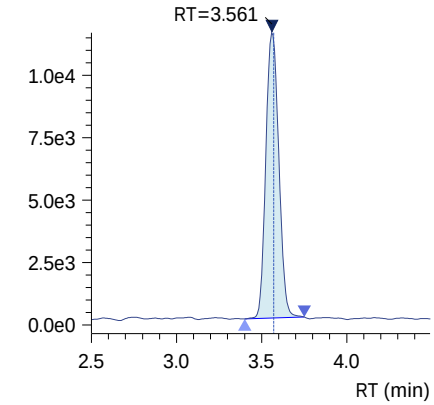
Sample ID: PERCHLORATE5
Date Acquired: 2/1/2023 12:13:29 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\02012023\20230201-007.lcd
Vial: 5 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.561	60751	216066	2.0296	ng/mL	101.00 >85.00	32.70	24.11 -44.78
Sodium Perchlorate-18O4_IS	Auto	3.557	216066	216066	1.0000	ng/mL	----	----	

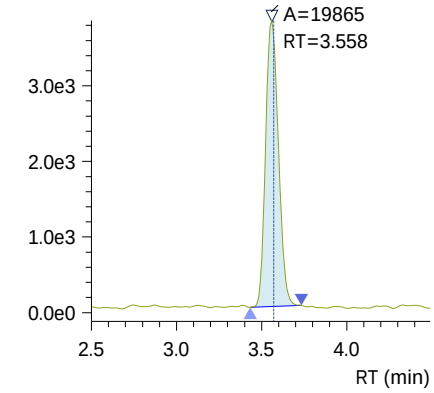
Perchlorate

Conc 2.0296
R#1 32.70 (31.99)

Q 99.00>83.00 (-) A=60751 1.17e4



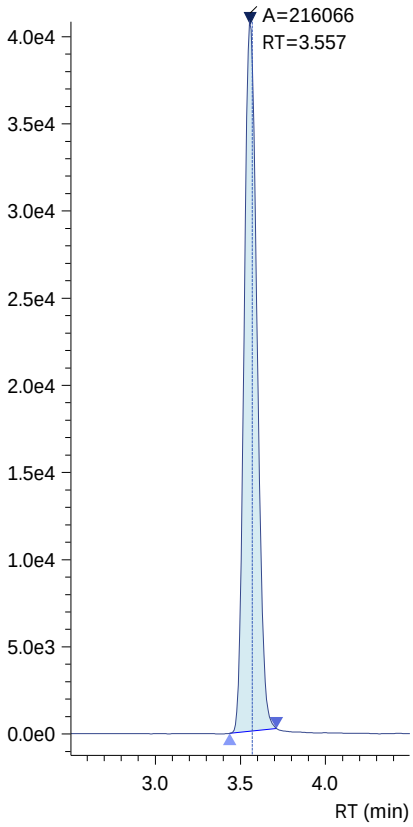
R1 101.00>85.00 (-) 3.87e3



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 4.09e4



Insight Report

Printed at 2/1/2023 2:06:14 PM

PERCHLORATE6

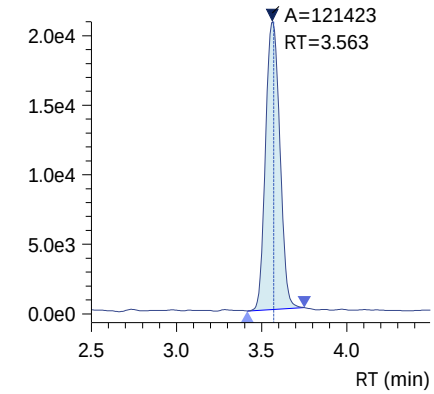
Sample ID: PERCHLORATE6
Date Acquired: 2/1/2023 12:19:20 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\02012023\20230201-008.lcd
Vial: 6 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.563	1214 23	172986	5.0667	ng/mL	101.00 >85.00	32.55	24.11 -44.78
Sodium Perchlorate-18O4 _IS	Auto	3.558	1729 86	172986	1.0000	ng/mL	----	----	

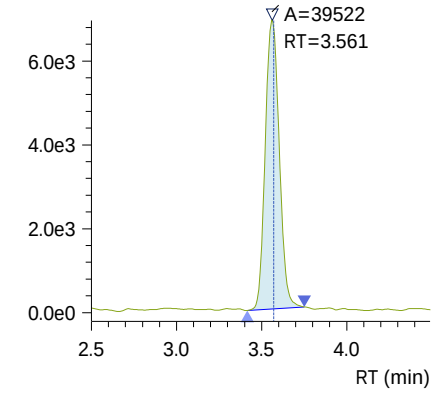
Perchlorate

Conc 5.0667
R#1 32.55 (31.99)

Q 99.00>83.00 (-) 2.10e4



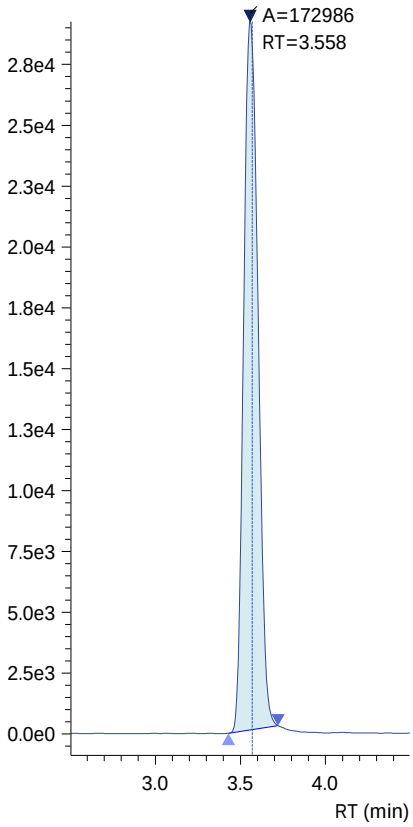
R1 101.00>85.00 (-) 6.97e3



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.93e4



Insight Report

Printed at 2/1/2023 2:06:14 PM

PERCHLORATE7

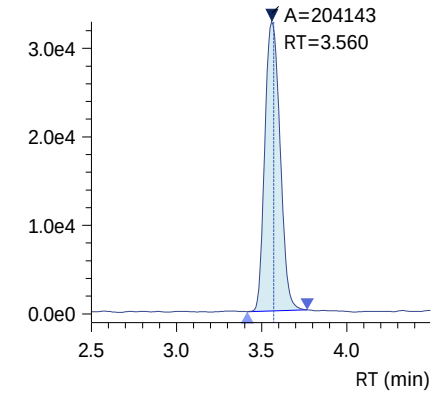
Sample ID: PERCHLORATE7
Date Acquired: 2/1/2023 12:25:10 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\02012023\20230201-009.lcd
Vial: 7 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.560	2041 43	144196	10.2 192	ng/mL	101.00 >85.00	31.99	24.11 -44.78
Sodium Perchlorate-18O4_IS	Auto	3.555	1441 96	144196	1.0000	ng/mL	----	----	

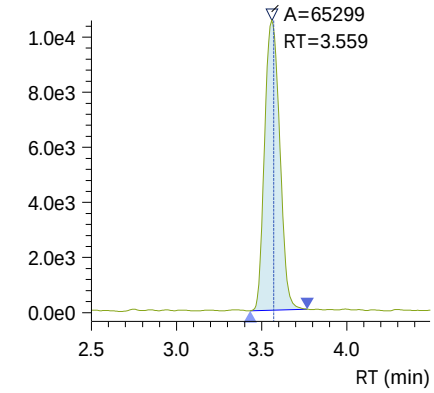
Perchlorate

Conc 10.2192
R#1 31.99 (31.99)

Q 99.00>83.00 (-) 3.30e4



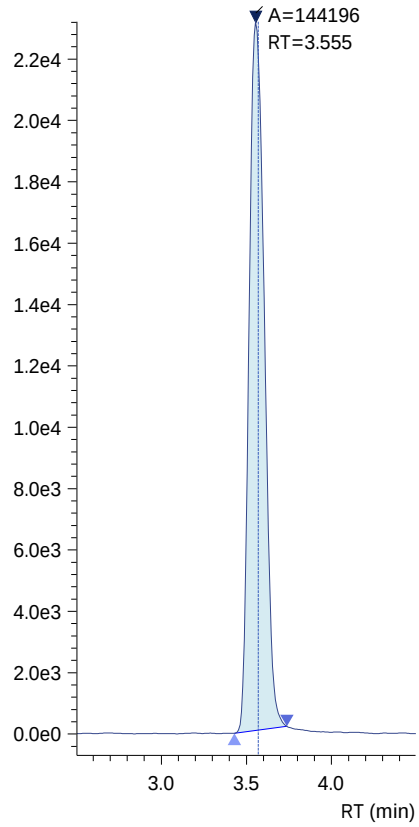
R1 101.00>85.00 (-) 1.06e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.32e4



Insight Report

Printed at 2/1/2023 2:06:14 PM

PERCHLORATE8

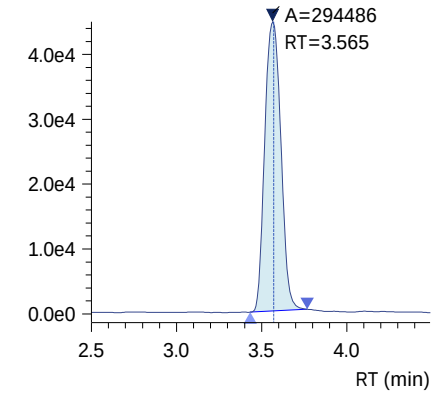
Sample ID: PERCHLORATE8
Date Acquired: 2/1/2023 12:30:57 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\02012023\20230201-010.lcd
Vial: 8 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.565	294486	104680	20.3065	ng/mL	101.00 >85.00	32.66	24.11 -44.78
Sodium Perchlorate-18O4_IS	Auto	3.557	104680	104680	1.0000	ng/mL	----	----	

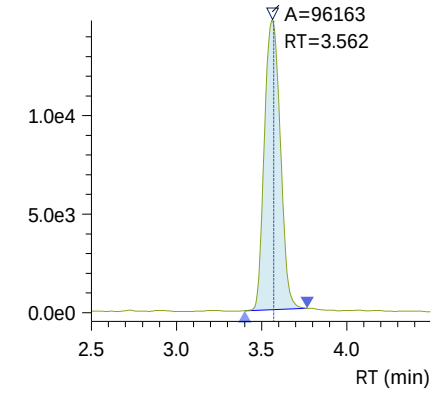
Perchlorate

Conc 20.3065
R#1 32.66 (31.99)

Q 99.00>83.00 (-) 4.50e4



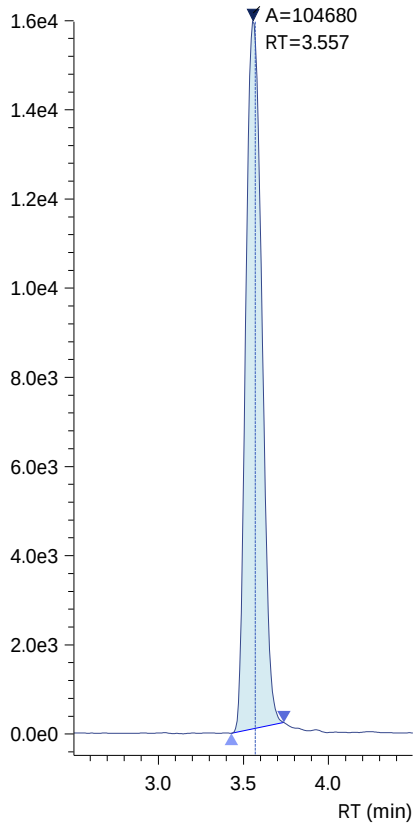
R1 101.00>85.00 (-) 1.48e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.60e4



Insight Report

Printed at 2/1/2023 2:06:14 PM

PERCHLORATE9

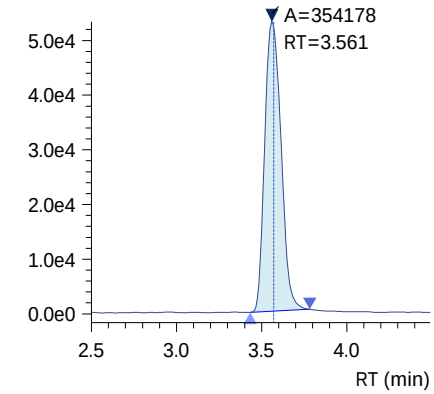
Sample ID: PERCHLORATE9
Date Acquired: 2/1/2023 12:36:45 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\02012023\20230201-011.lcd
Vial: 9 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.561	3541	81577	31.3	ng/mL	101.00	31.89	24.11
			78		395		>85.00		-44.78
Sodium Perchlorate-18O4 _IS	Auto	3.557	81577	81577	1.0000	ng/mL	----	----	

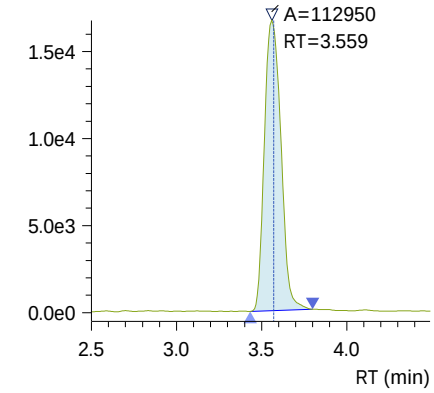
Perchlorate

Conc 31.3395
R#1 31.89 (31.99)

Q 99.00>83.00 (-) 5.34e4



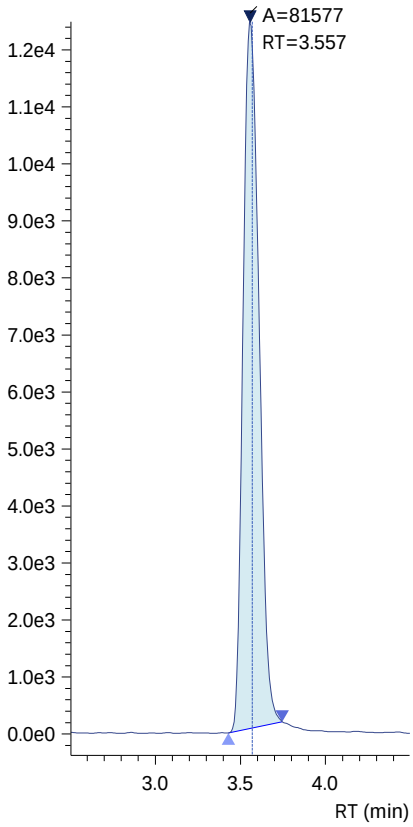
R1 101.00>85.00 (-) 1.68e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.25e4



Insight Report

Printed at 2/1/2023 2:06:14 PM

PERCHLORATE10

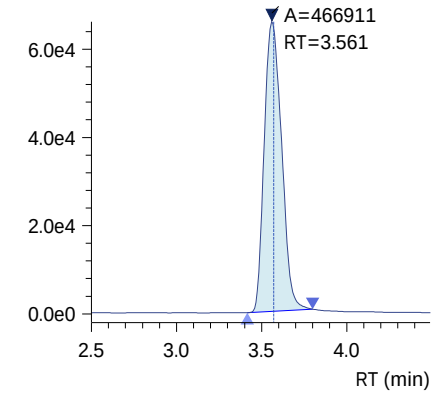
Sample ID: PERCHLORATE10
Date Acquired: 2/1/2023 12:42:34 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\02012023\20230201-012.lcd
Vial: 10 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.561	4669	63237	53.2	ng/mL	101.00	32.40	24.11
			11		964		>85.00		-44.78
Sodium Perchlorate-18O4_IS	Auto	3.554	63237	63237	1.0000	ng/mL	----	----	

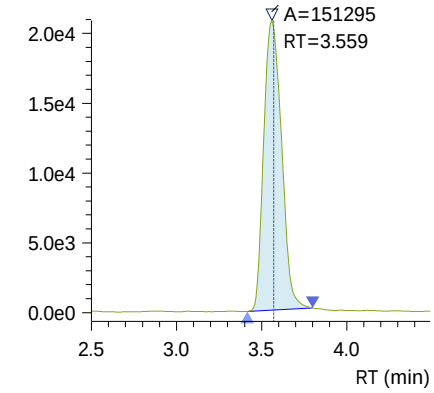
Perchlorate

Conc 53.2964
R#1 32.40 (31.99)

Q 99.00>83.00 (-) 6.62e4



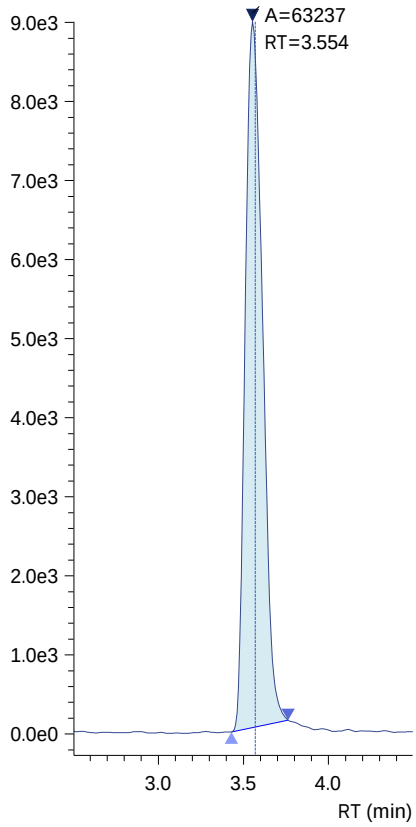
R1 101.00>85.00 (-) 2.09e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 9.01e3



Insight Report

Printed at 2/1/2023 2:06:14 PM

PERCHLORATEICV

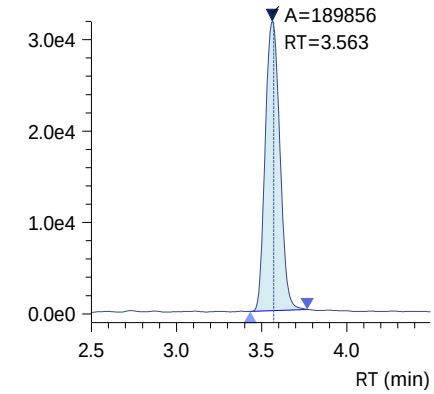
Sample ID: PERCHLORATEICV
Date Acquired: 2/1/2023 12:48:22 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\02012023\20230201-013.lcd
Vial: 11 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.563	189856 1898	130049	10.5 379	ng/mL	101.00 >85.00	32.76	24.11 -44.78
Sodium Perchlorate-18O4_IS	Auto	3.557	130049	130049	1.0000	ng/mL	----	----	

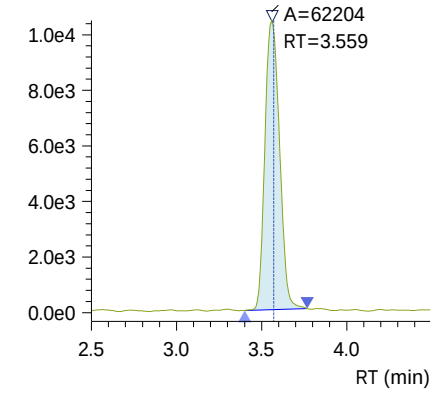
Perchlorate

Conc 10.5379
R#1 32.76 (31.99)

Q 99.00>83.00 (-) 3.20e4



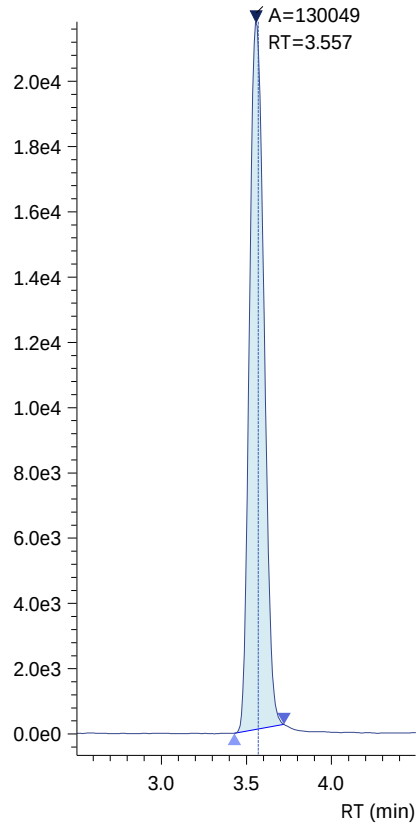
R1 101.00>85.00 (-) 1.05e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.18e4





Chromatograms and Selected Ion Monitoring

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 320, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

20230208-794049

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XMI
2nd Review: **Kristin**

ICAL Date: 2/1/2023
Cal. Std. xp: 07/31/2023
ICAL ID: EC2300002

Mobile Phases : **A:**0.10% Formic Acid/Water 3210303-03 **B:**MeOH 224417

	Sample Name		File Name	Acquisition Method	Dilution	R	Comments	Date/Time
1	IB		20230208-001	Perchlorate6850c.lcm	1x	☒		2/8/2023 14:50
2	LODV		20230208-002	Perchlorate6850c.lcm	1x	☒	227501	2/8/2023 15:14
3	ICS		20230208-003	Perchlorate6850c.lcm	1x	☒	32103024	2/8/2023 15:20
4	PERCHLORATE7		20230208-004	Perchlorate6850c.lcm	1x	☒	227251	2/8/2023 15:26
5	EQ2300061-01		20230208-005	Perchlorate6850c.lcm	1x	☒		2/8/2023 16:52
6	EQ2300061-02		20230208-006	Perchlorate6850c.lcm	1x	☒		2/8/2023 16:58
7	EQ2300061-03		20230208-007	Perchlorate6850c.lcm	1x	☒		2/8/2023 17:04
8	R2300918-012		20230208-008	Perchlorate6850c.lcm	1x	☒		2/8/2023 17:10
9	E2300123-001		20230208-009	Perchlorate6850c.lcm	1x	☒		2/8/2023 17:15
10	R2300857-012		20230208-010	Perchlorate6850c.lcm	1x	☒		2/8/2023 17:21
11	E2300128-001		20230208-011	Perchlorate6850c.lcm	1x	☒		2/8/2023 17:39
12	E2300128-002		20230208-012	Perchlorate6850c.lcm	1x	☒		2/8/2023 17:45
13	PERCHLORATE7		20230208-013	Perchlorate6850c.lcm	1x	☒	227251	2/8/2023 17:51
14	E23000116-001		20230208-014	Perchlorate6850c.lcm	1x	☒		2/8/2023 17:56
15	E23000116-002		20230208-015	Perchlorate6850c.lcm	1x	☒		2/8/2023 18:02
16	E23000116-003		20230208-016	Perchlorate6850c.lcm	1x	☒		2/8/2023 18:08
17	E23000116-004		20230208-017	Perchlorate6850c.lcm	1x	☒		2/8/2023 18:13
18	E23000116-005		20230208-018	Perchlorate6850c.lcm	1x	☒		2/8/2023 18:19
19	E23000116-006		20230208-019	Perchlorate6850c.lcm	1x	☒		2/8/2023 18:25
20	PERCHLORATE7		20230208-020	Perchlorate6850c.lcm	1x	☒	227251	2/8/2023 18:30

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	Bhate Environmental Associates, Inc.	**Service Request:**	E2300128
Project:	LHAAP/NWO1312.0150.016.0001	**Date Analyzed:**	2/8/23 15:26

Internal Standard Area and RT Summary

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20230208\20230208-004	**Lab Code:**	EQ2300062-01
Instrument ID:	E-LCMS-01	**Analysis Lot:**	794049
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	167,281	3.56
	Upper Limit ==>	250,922	5.56
	Lower Limit ==>	83,641	1.56
Associated Analyses			
Continuing Calibration Verification	EQ2300062-01	191,248	3.43
Method Blank	EQ2300061-01	246,371	3.43
Lab Control Sample	EQ2300061-02	232,397	3.42
Duplicate Lab Control Sample	EQ2300061-03	239,421	3.42
LH18/24-SP650_020723_AIX	E2300128-001	227,101	3.42
LH18/24-SP650_020723_BIX	E2300128-002	218,555	3.43

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	Bhate Environmental Associates, Inc.	**Service Request:**	E2300128
Project:	LHAAP/NWO1312.0150.016.0001	**Date Analyzed:**	2/8/23 17:51

Internal Standard Area and RT Summary

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20230208\20230208-013	**Lab Code:**	EQ2300062-02
Instrument ID:	E-LCMS-01	**Analysis Lot:**	794049
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	167,281	3.56
	Upper Limit ==>	250,922	5.56
	Lower Limit ==>	83,641	1.56
Associated Analyses			
Continuing Calibration Verification	EQ2300062-02	190,269	3.43

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	Bhate Environmental Associates, Inc.	**Service Request:**	E2300128
Project:	LHAAP/NWO1312.0150.016.0001	**Date Analyzed:**	2/8/23 18:30

Internal Standard Area and RT Summary

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20230208\20230208-020	**Lab Code:**	EQ2300062-03
Instrument ID:	E-LCMS-01	**Analysis Lot:**	794049
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	167,281	3.56
	Upper Limit ==>	250,922	5.56
	Lower Limit ==>	83,641	1.56
Associated Analyses			
Continuing Calibration Verification	EQ2300062-03	196,558	3.42

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	Bhate Environmental Associates, Inc.	**Service Request:**	E2300128
Project:	LHAAP/NWO1312.0150.016.0001	**Date Analyzed:**	2/ 8/23

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method:	6850	**Calibration Date:**	2/1/23
File ID:	I:\LCMS01\DATA\20230208\20230208-004	**Calibration ID:**	EC2300002
		Analysis Lot:	794049
		Units:	ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	11.3	0.1385	0.1562	12.8	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	Bhate Environmental Associates, Inc.	**Service Request:**	E2300128
Project:	LHAAP/NWO1312.0150.016.0001	**Date Analyzed:**	2/ 8/23

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method:	6850	**Calibration Date:**	2/1/23
File ID:	I:\LCMS01\DATA\20230208\20230208-013	**Calibration ID:**	EC2300002
		Analysis Lot:	794049
		Units:	ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	10.9	0.1385	0.1514	9.3	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	Bhate Environmental Associates, Inc.	**Service Request:**	E2300128
Project:	LHAAP/NWO1312.0150.016.0001	**Date Analyzed:**	2/ 8/23

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method:	6850	**Calibration Date:**	2/1/23
File ID:	I:\LCMS01\DATA\20230208\20230208-020	**Calibration ID:**	EC2300002
		Analysis Lot:	794049
		Units:	ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	10.3	0.1385	0.1421	2.6	NA	± 15 %	Average RF

Insight Report

Printed at 2/9/2023 9:29:59 AM

Method File: I:\LCMS01\DATA\20230208\20230208.lcm
Project File: I:\LCMS01\DATA\20230208\20230208.damlp

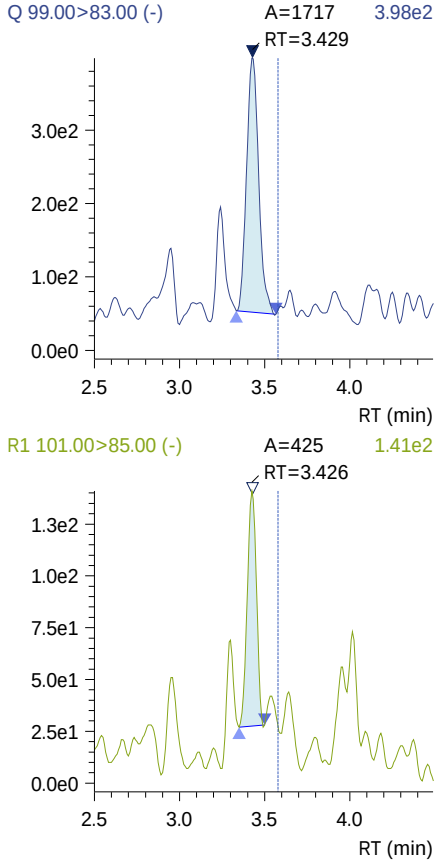
LODV

Sample ID: LODV
Date Acquired: 2/8/2023 3:14:45 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230208\20230208-002.lcd
Vial: 1 | Inj. Volume: 25.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.429	1717	228863	0.0541	ng/mL	101.00 >85.00	24.77	22.58 -41.93
Sodium Perchlorate-18O4_IS	Auto	3.424	228863	228863	1.0000	ng/mL	----	----	

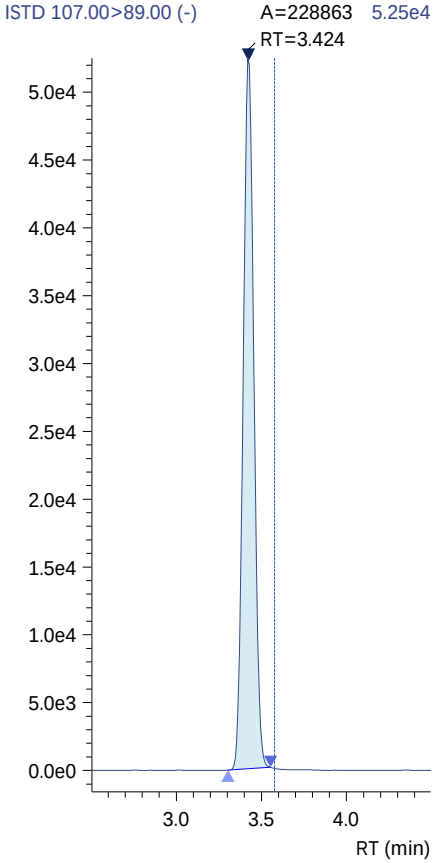
Perchlorate

Conc 0.0541
R#1 24.77 (32.26)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/9/2023 9:29:59 AM

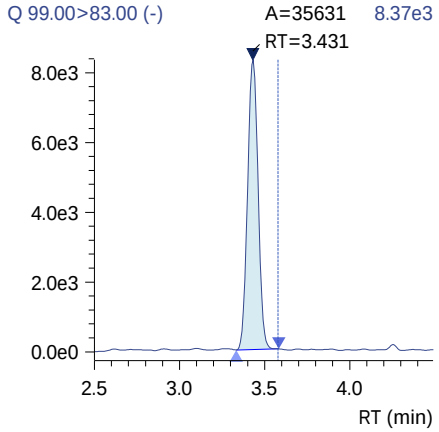
ICS

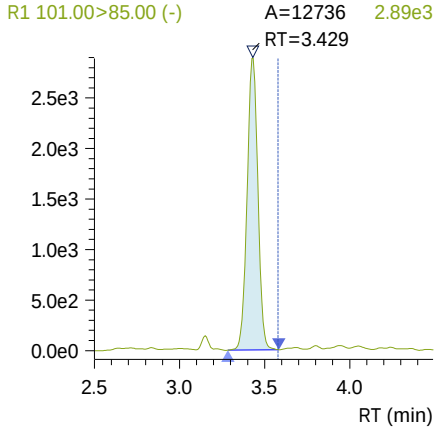
Sample ID: ICS
Date Acquired: 2/8/2023 3:20:24 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230208\20230208-003.lcd
Vial: 2 | Inj. Volume: 25.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.431	35631	239717	1.0729	ng/mL	101.00 >85.00	35.74	22.58 -41.93
Sodium Perchlorate-18O4_IS	Auto	3.427	2397 17	239717	1.0000	ng/mL	----	----	

Perchlorate

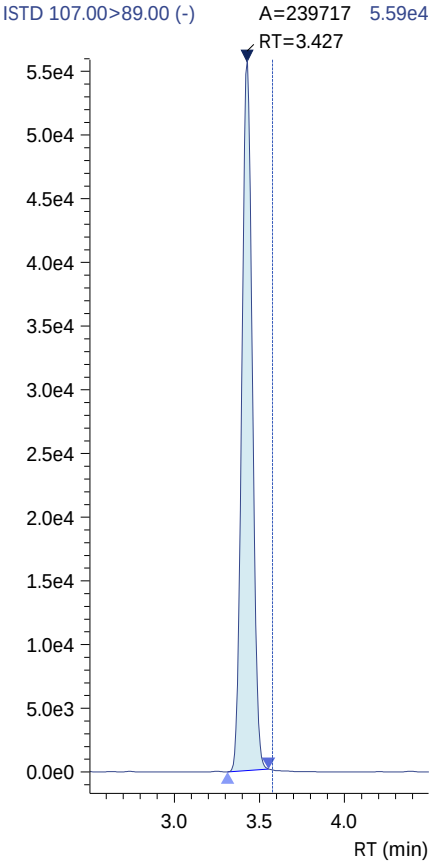
Conc 1.0729
R#1 35.74 (32.26)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/9/2023 9:29:59 AM

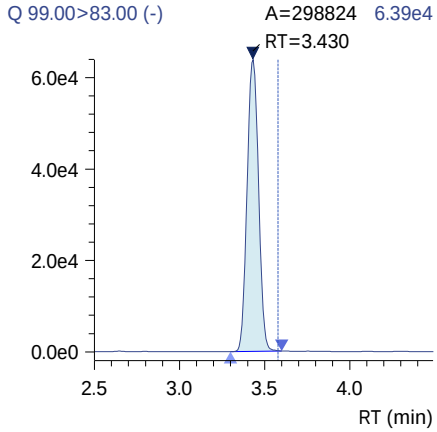
PERCHLORATE7

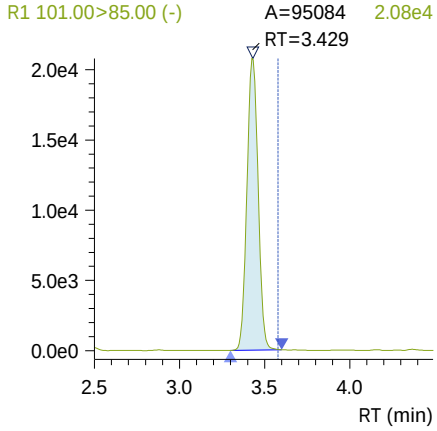
Sample ID: PERCHLORATE7
Date Acquired: 2/8/2023 3:26:02 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230208\20230208-004.lcd
Vial: 3 | Inj. Volume: 25.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.430	2988 24	191248	11.2 785	ng/mL	101.00 >85.00	31.82	22.58 -41.93
Sodium Perchlorate-18O4_IS	Auto	3.427	1912 48	191248	1.0000	ng/mL	----	----	

Perchlorate

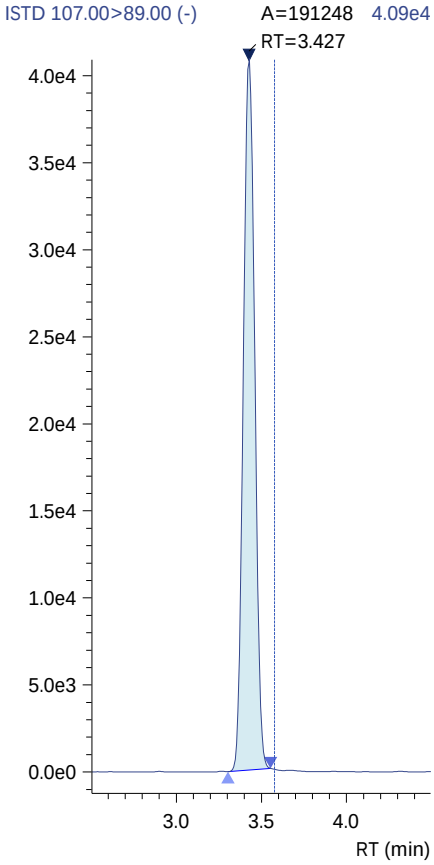
Conc 11.2785
R#1 31.82 (32.26)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/9/2023 9:29:59 AM

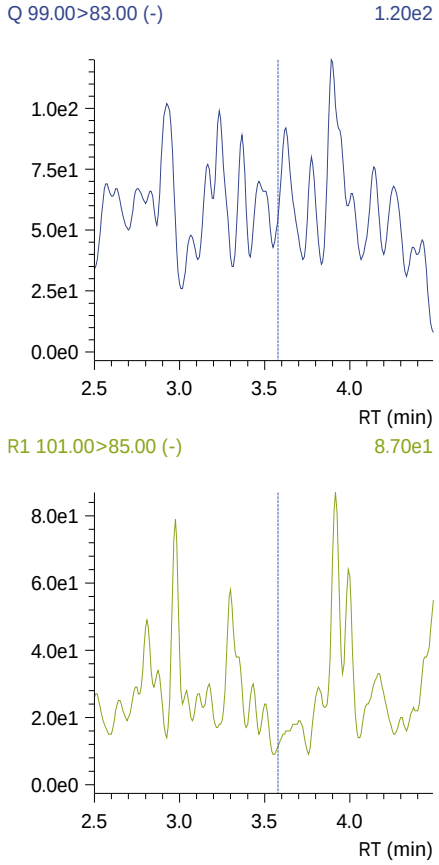
EQ2300061-01

Sample ID: EQ2300061-01
Date Acquired: 2/8/2023 4:52:43 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230208\20230208-005.lcd
Vial: 1 | Inj. Volume: 25.0000uL | Tray: 4

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	246371	----	ng/mL	101.00 >85.00	0.00	22.58 -41.93
Sodium Perchlorate-18O4_IS	Auto	3.428	246371	246371	1.0000	ng/mL	----	----	

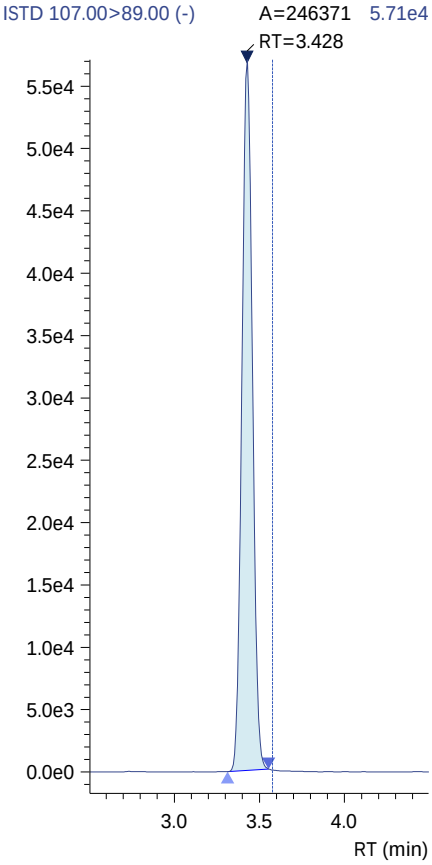
Perchlorate

Conc ----
R#1 0.00 (32.26)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/9/2023 9:29:59 AM

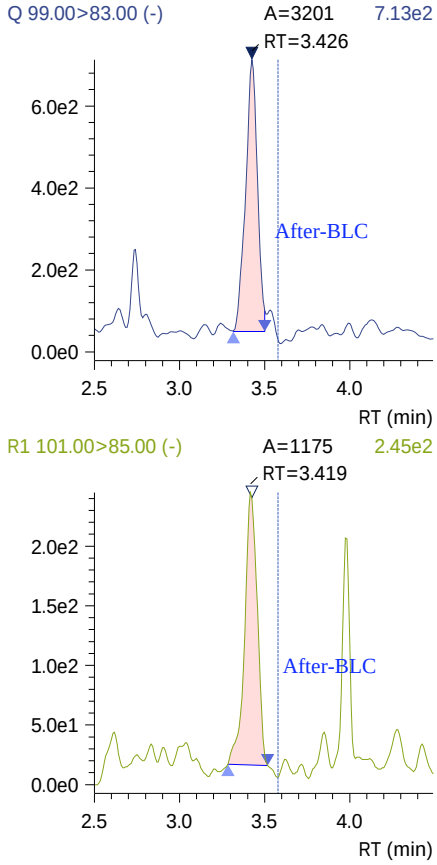
EQ2300061-02

Sample ID: EQ2300061-02
Date Acquired: 2/8/2023 4:58:24 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230208\20230208-006.lcd
Vial: 2 | Inj. Volume: 25.0000uL | Tray: 4

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	M	3.426	3201	232397	0.0994	ng/mL	101.00 >85.00	36.72	22.58 -41.93
Sodium Perchlorate-18O4_IS	Auto	3.423	232397	232397	1.0000	ng/mL	----	----	

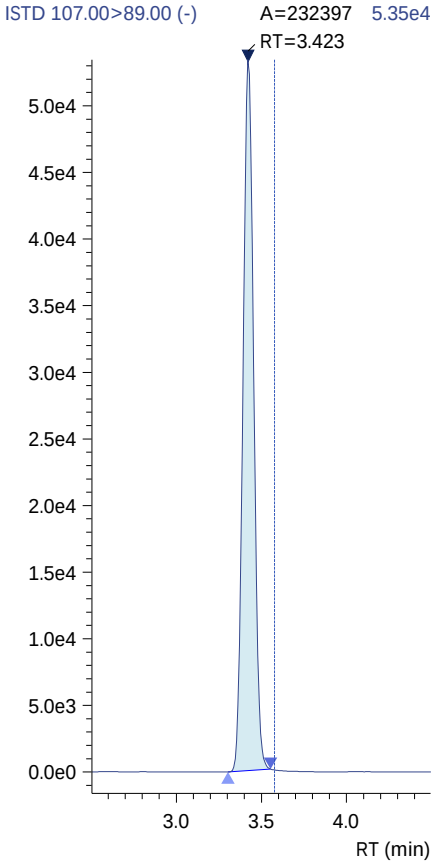
Perchlorate

Conc 0.0994
R#1 36.72 (32.26)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/9/2023 9:30:37 AM

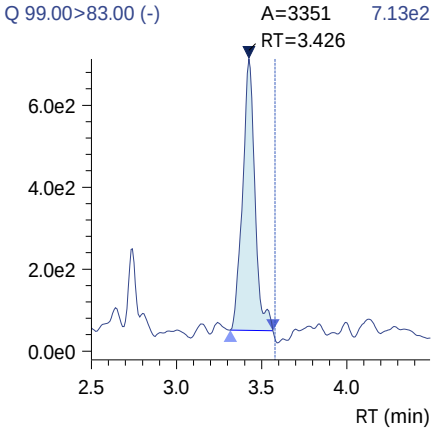
Method File: I:\LCMS01\DATA\20230208\20230208.lcm
Project File: I:\LCMS01\DATA\20230208\20230208.damlp

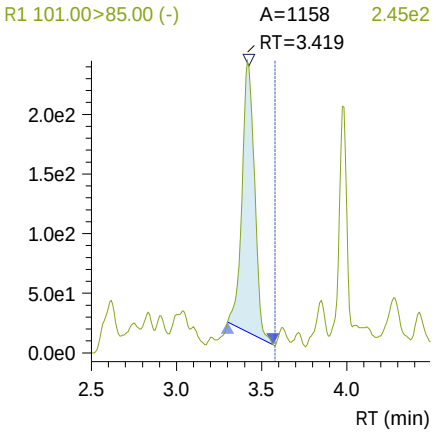
EQ2300061-02

Sample ID: EQ2300061-02
Date Acquired: 2/8/2023 4:58:24 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230208\20230208-006.lcd
Vial: 2 | Inj. Volume: 25.0000uL | Tray: 4

Perchlorate

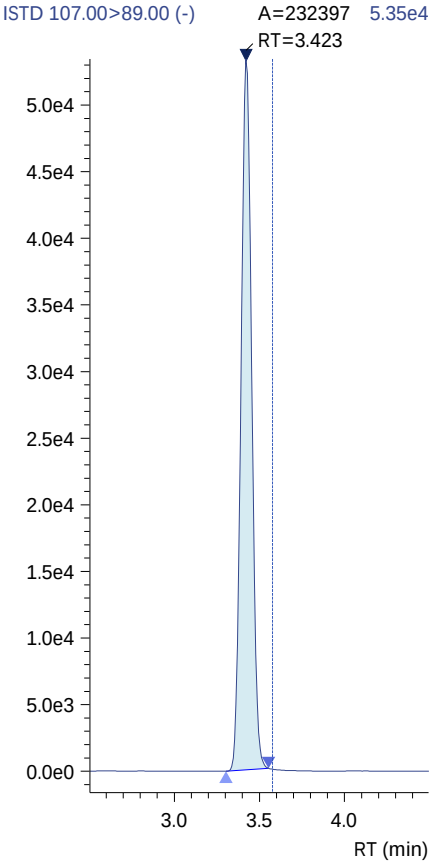
Conc 0.1041
R#1 34.57 (32.26)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/9/2023 9:29:59 AM

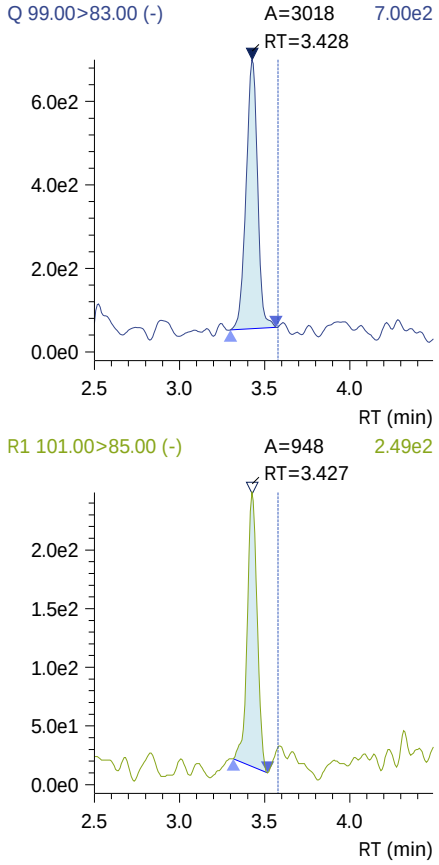
EQ2300061-03

Sample ID: EQ2300061-03
Date Acquired: 2/8/2023 5:04:01 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230208\20230208-007.lcd
Vial: 3 | Inj. Volume: 25.0000uL | Tray: 4

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.428	3018	239421	0.0910	ng/mL	101.00 >85.00	31.41	22.58 -41.93
Sodium Perchlorate-18O4_IS	Auto	3.424	2394 21	239421	1.0000	ng/mL	----	----	

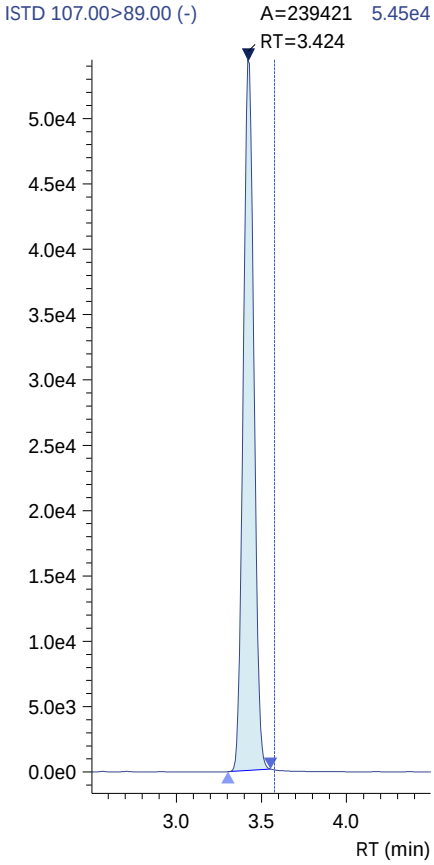
Perchlorate

Conc 0.0910
R#1 31.41 (32.26)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/9/2023 9:29:59 AM

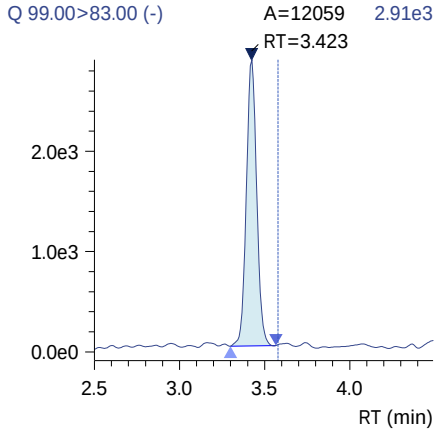
E2300128-001

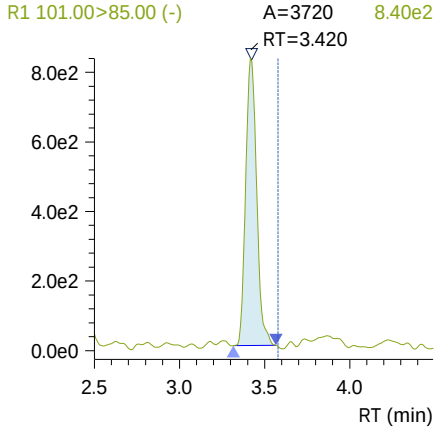
Sample ID: E2300128-001
Date Acquired: 2/8/2023 5:39:54 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230208\20230208-011.lcd
Vial: 7 | Inj. Volume: 25.0000uL | Tray: 4

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.423	12059	227101	0.3833	ng/mL	101.00 >85.00	30.85	22.58 -41.93
Sodium Perchlorate-18O4_IS	Auto	3.421	227101	227101	1.0000	ng/mL	----	----	

Perchlorate

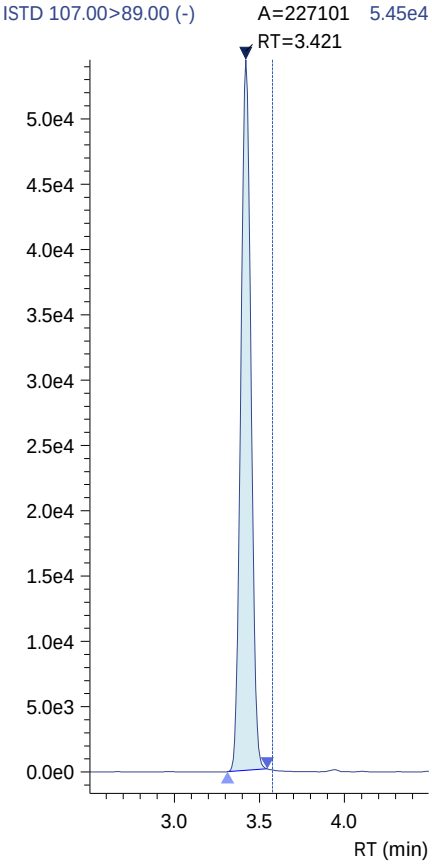
Conc 0.3833
R#1 30.85 (32.26)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/9/2023 9:29:59 AM

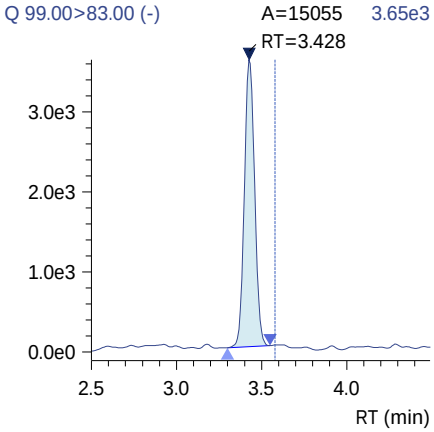
E2300128-002

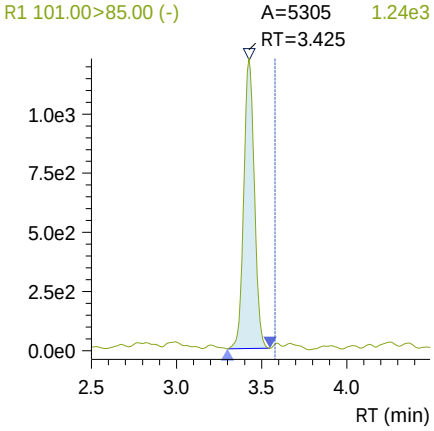
Sample ID: E2300128-002
Date Acquired: 2/8/2023 5:45:30 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230208\20230208-012.lcd
Vial: 8 | Inj. Volume: 25.0000uL | Tray: 4

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.428	15055	218555	0.4972	ng/mL	101.00 >85.00	35.24	22.58 -41.93
Sodium Perchlorate-18O4_IS	Auto	3.427	218555	218555	1.0000	ng/mL	----	----	

Perchlorate

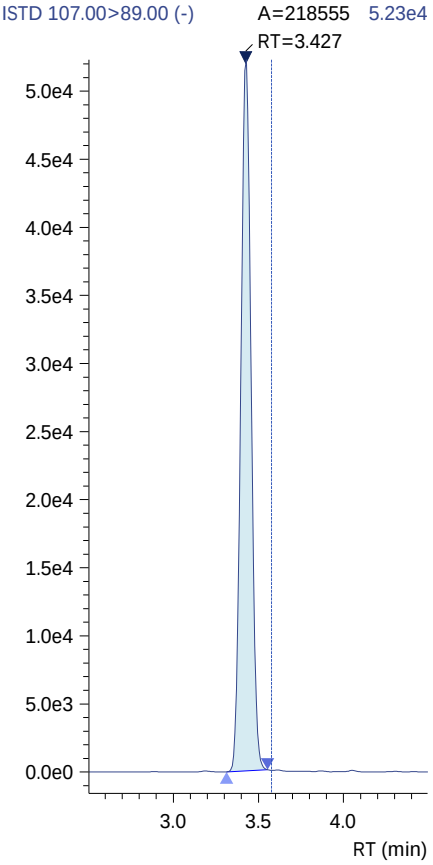
Conc 0.4972
R#1 35.24 (32.26)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/9/2023 9:29:59 AM

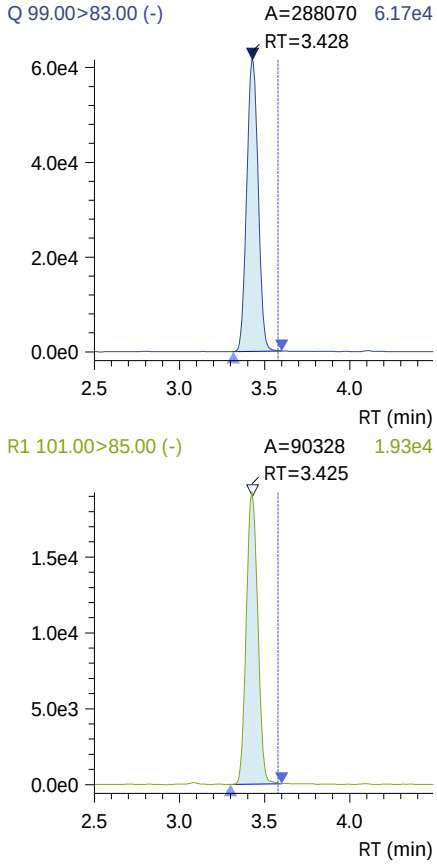
PERCHLORATE7

Sample ID: PERCHLORATE7
Date Acquired: 2/8/2023 5:51:11 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230208\20230208-013.lcd
Vial: 3 | Inj. Volume: 25.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.428	2880 70	190269	10.9 286	ng/mL	101.00 >85.00	31.36	22.58 -41.93
Sodium Perchlorate-18O4_IS	Auto	3.425	1902 69	190269	1.0000	ng/mL	----	----	

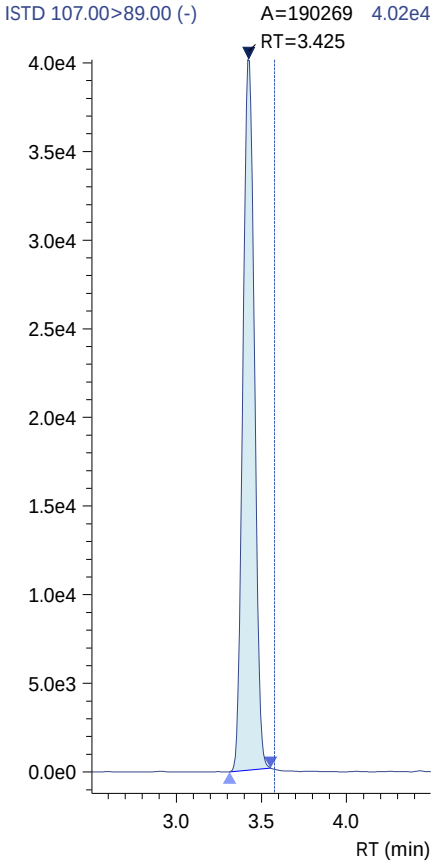
Perchlorate

Conc 10.9286
R#1 31.36 (32.26)



Sodium Perchlorate-18O4_IS

Conc 1.0000



February 28, 2023 Service Request No:E2300178

Marcia Olive
Bhate Environmental Associates, Inc.
445 Union Blvd
Suite 129
Lakewood, CO 80228

Laboratory Results for: GW Treatment Plant Special Samples

Dear Marcia,

Enclosed are the results of the sample(s) submitted to our laboratory February 25, 2023
For your reference, these analyses have been assigned our service request number **E2300178.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current TNI standards, where applicable, and except as noted in the laboratory case narrative provided. All results are intended to be considered in their entirety and ALS Environmental is not responsible for use of less than the complete final report. Results apply only to the items submitted to the laboratory, as received for analysis. In accordance with the current TNI Standard, a statement on the estimated uncertainty of measurement of any quantitative analysis will be supplied upon request.

Please contact me if you have any questions. My extension is 2188. You may also contact me via email at James.Guin@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental



James Guin

ADDRESS 10450 Stancliff Rd., Suite 210, Houston, TX 77099
PHONE +1 281 530 5656 | FAX +1 281 530 5887
ALS Group USA, Corp.
dba ALS Environmental

Certificate of Analysis

ALS Environmental - Houston HRMS
10450 Stancliff Rd, Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

ALS Environmental

Client:	Bhate Environmental Associates	**Service Request No.:**	E2300178
Project:	GW Treatment Associates	**Date Received:**	02/25/23
Sample Matrix:	Water		

CASE NARRATIVE

All analyses were performed in adherence to the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Two samples were received for analysis at ALS Environmental in Houston on 02/25/23.

The samples were received in good condition and are consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

Data Validation Notes and Discussion

Precision and Accuracy:

EQ2300091: Laboratory Control Spike/Duplicate Laboratory Control Spike (LCS/DLCS) samples were analyzed and reported in lieu of a MS/MSD for this extraction batch.

.

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.

Use of ALS group USA Corp dba ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.

Client: Bhate Environmental Associates, Inc. **Service Request:**E2300178

Project: GW Treatment Plant Special Samples/NWO1312.0150.016.0001

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
E2300178-001	LH18/24-SP650_022423_AIX	2/24/2023	1300
E2300178-002	LH18/24-SP650_022423_BIX	2/24/2023	1300

Service Request Summary

Folder #: **E2300178**
Client Name: Bhate Environmental Associates, Inc.
Project Name: GW Treatment Plant Special Samples
Project Number: NWO1312.0150.016.0001

Report To: Marcia Olive
Bhate Environmental Associates, Inc.
445 Union Blvd
Lakewood, CO 80228
USA
Phone Number: 303-597-2450
Cell Number:
Fax Number:
E-mail: molive@bhate.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 02/25/23
Internal Due Date: 2/28/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number:
EDD: BASIC_WQC_CASNo_LOD

2 120 mL-Plastic Bottle Natural WM Unpreserved
Location: EHRMS-AirArch 1
Pressure Gas:
Rush

Lab Samp No.	Client Samp No	Matrix	Collected	HOUSTON ClO4 DOD/6850
E2300178-001	LH18/24-SP650_022423_AIX	Water	02/24/23 1300	**IV**
E2300178-002	LH18/24-SP650_022423_BIX	Water	02/24/23 1300	**IV**

Service Request Summary

Folder #: **E2300178**
Client Name: Bhate Environmental Associates, Inc.
Project Name: GW Treatment Plant Special Samples
Project Number: NWO1312.0150.016.0001

Report To: Marcia Olive
Bhate Environmental Associates, Inc.
445 Union Blvd
Lakewood, CO 80228
USA
Phone Number: 303-597-2450
Cell Number:
Fax Number:
E-mail: molive@bhate.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 02/25/23
Internal Due Date: 2/28/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number:
EDD: BASIC_WQC_CASNo_LOD

2 120 mL-Plastic Bottle Natural WM Unpreserved
Location: EHRMS-AirArch 1
Pressure Gas:
Rush

Data Qualifiers

Lab Standard

+	Possible Tedlar bag artifact.
A	TIC is a suspected aldol-condensation product
B	Analyte found in the associated method blank as well as in the sample.
BC	Reported results are not blank corrected.
BH	The back section of the tube yielded higher results than the front.
BT	Results indicated possible breakthrough; back section >=10% front section.
C	Result identification confirmed.
D	Compound identified in an analysis at a secondary dilution factor
D	Spike was diluted out
DE	Reported results are corrected for desorption efficiency.
E	Estimated value. Concentration above calibration range
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
H	The chromatographic fingerprint of the sample resembles a petroleum product but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
H1	Sample analysis performed past holding time. See case narrative.
H2	Initial analysis within holding time. Reanalysis for the required dilution was past holding time.
H3	Sample was received and analyzed past holding time.
H4	Sample was extracted past required extraction holding time, but analyzed within analysis holding time. See case narrative.
I	(Auto) The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
I	Internal standard not within the specified limits. See case narrative.
I	The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
J	Estimated Value. Concentration found below MRL.
K	A deflection in the QC ion may indicate interference with the quantitation of this ion. The concentration of this analyte should be considered as an estimate.
K	Analyte was detected above the method reporting limit prior to normalization.
K	The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
L1	Laboratory control sample recovery outside the specified limits; results may be biased high.
L2	Laboratory control sample recovery outside the specified limits; results may be biased low.
L3	Laboratory control sample recovery outside the specified limits.
M	Matrix interference; results may be biased high.
M	The duplicate injection precision not met.

Data Qualifiers

Lab Standard

M1	Matrix interference due to coelution with a non-target compound; results may be biased high.
N	Presumptive evidence of a compound for TICs that have been identified based on a mass spectral library search.
N	The Matrix Spike sample recovery is not within control limits. See case narrative.
O	The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
P	Indicates chlorodiphenyl ether interference present at the retention time of the target compound.
P	Pesticide/Aroclor target analyte > 40% difference for detected concentrations between GC columns
Q	Indicates as estimated value because the P and P + 2 theoretical abundance ratio does not meet method criteria.
R	Duplicate Precision not met.
R1	Duplicate precision not within the specified limits; however, the results are below the MRL and considered estimated.
S	Surrogate recovery not within specified limits.
S	The reported value was determined by the Method of Standard Additions (MSA).
T	Analyte is a tentatively identified compound, result is estimated.
U	Compound was analyzed for, but was not detected (ND).
V1	The continuing calibration verification standard was outside (biased high) the specified limits for this compound.
V2	The continuing calibration verification standard was outside (biased low) the specified limits for this compound.
W	Result quantified, but the corresponding peak was detected outside the generated retention time window.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
X	See case narrative.
Y	Recovery outside limits
Y	The chromatogram resembles a petroleum product but does not match the calibration standard.
Z	The chromatogram does not resemble a petroleum product.
i	The MRL/MDL has been elevated due to a matrix interference.

ALS Laboratory Group

Acronyms

Cal	Calibration
Conc	CONCentration
Dioxin(s)	Polychlorinated dibenzo-p-dioxin(s)
EDL	Estimated Detection Limit
EMPC	Estimated Maximum Possible Concentration
Flags	Data qualifiers
Furan(s)	Polychlorinated dibenzofuran(s)
g	Grams
ICAL	Initial CALibration
ID	IDentifier
Ions	Masses monitored for the analyte during data acquisition
L	Liter (s)
LCS	Laboratory Control Sample
DLCS	Duplicate Laboratory Control Sample
MB	Method Blank
MCL	Method Calibration Limit
MDL	Method Detection Limit
mL	Milliliters
MS	Matrix Spiked sample
DMS	Duplicate Matrix Spiked sample
NO	Number of peaks meeting all identification criteria
PCDD(s)	Polychlorinated dibenzo-p-dioxin(s)
PCDF(s)	Polychlorinated dibenzofuran(s)
ppb	Parts per billion
ppm	Parts per million
ppq	Parts per quadrillion
ppt	Parts per trillion
QA	Quality Assurance
QC	Quality Control
Ratio	Ratio of areas from monitored ions for an analyte
% Rec.	Percent recovery
RPD	Relative Percent Difference
RRF	Relative Response Factor
RT	Retention Time
SDG	Sample Delivery Group
S/N	Signal-to-noise ratio
TEF	Toxicity Equivalence Factor
TEQ	Toxicity Equivalence Quotient

10450 Stancliff Rd, Houston, TX 77099 | 281-530-5656 | www.alsglobal.com

ALS Environmental

State Certifications, Accreditations, and Licenses

Agency	Number	Expire Date
Arizona Department of Health Services	AZ0793	5/27/2023
Arkansas Department of Environmental Quality	22-041-0	3/27/2023
California Department of Health Services	2919-2023	4/30/2023
Department of Defense	L22-90	3/31/2024
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Hawaii Department of Health	2022	4/30/2023
Illinois Environmental Protection Agency	2000322022-9	5/9/2023
Kansas Department of Health and Environment	E-10352 2022-2023	7/31/2023
Louisiana Department of Environmental Quality	03087-2022	6/30/2023
Louisiana Department of Health and Hospitals	LA028-2023	12/31/2023
Maine Department of Health and Human Services	2022017	6/5/2024
Maryland Department of the Environment	343	6/30/2023
Michigan Depratment of Environmental Quality	9971-2022	4/30/2023
Minnesota Department of Health	2368363	12/31/2023
Nebraska Department of Health and Human Services	NE-OS-25-13	4/30/2023
Nevada Department of Conservation and Natural Resources	TX026932023-1	7/31/2023
New Hampshire Environmental Laboratory Accreditation Program	209422	4/24/2023
New Jersey Department of Environmental Protection	TX008-2023	6/30/2023
New York Department of Health	11707	3/31/2023
Oklahoma Department of Environmental Quality	2022-141	8/31/2023
Oregon Environmental Laboratory Accreditation Program	TX200002	5/15/2023
Pennsylvania Department of Environmental Protection	68-03441-016	6/30/2023
Perry Johnson Laboratory Accreditation	L22-91	3/31/2024
Tennessee Department of Environment and Concervation	04016-2022	4/30/2023
Texas Commision on Environmental Quality	T104704231-22-29	4/30/2023
Utah Department of Health Environmental Laboratory Certification	TX026932022-13	7/31/2023
Washington Department of Ecology	C819-22	11/14/2023

Chain of Custody

ALS Environmental - Houston HRMS
10450 Stancliff Rd, Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

CHAIN OF CUSTODY

Name Of Lab Shipping To: ALS 10450 Stancliff Rd. Suite 210 Houston, TX. 77099 (281) 530-5656 ATTN: Dane Wacasey

Project: BHATE
LONGHORN ARMY AMMN. PLANT (LHAAP)
GROUNDWATER TREATMENT PLANT (GWTP)
KARNACK, TEXAS

Project No.
NWO1312.0150.0
16.0001

Job:
GROUNDWATER TREATMENT PLANT SPECIAL SAMPLES

Prepared By:
Scott Beesinger

P.O. Number

Field Sample I.D.	Sample Matrix	Date / Time	MS / MSD	No. OF CONTAINERS	Analyses: PERCHLORATE										Remarks (Preservatives, etc.)	Lab I.D.#
LH18/24-SP650_022423_AIX	Water	02/24/23 / 13:00		1	X										NONE	
LH18/24-SP650_022423_BIX	Water	02/24/23 / 13:00		1	X										NONE	

Additional Remarks: **RUSH (24 HR) TAT** 1831 2.1°

Relinquished By:	Date	Time	Received By:	Date	Time	Relinquished By:	Date	Time	Received By:	Date	Time
Scott Beesinger	02/24/23	13:30		2-25-23	1045						

For Lab Use Only

Received At Lab By:	Date	Time	Airbill No.	Opened By:	Date	Time	Temp of Container	Seal No.	Condition

Remarks:

ALS Environmental

Cooler Receipt Form

Project Chemist JG

Client/Project RHATE

Thermometer ID IR21

Date/Time Received: 2-24-23 Initials: CG Date/Time Logged in: 2-24-23 Initials CG

1. Method of delivery: ○ US Mail ☑ Fed Ex ○ UPS ○ DHL ○ Courier ○ Client

2. Samples received in: ☒ Cooler ○ Box ○ Envelope ○ Other

3. Were custody seals on coolers? ☑ Yes ○ No
   Were they intact? ☒ Yes ○ No ○ N/A
   Were they signed and dated? ☒ Yes ○ No ○ N/A
   If yes, how many and where? 1-F

4. Packing Material: ○ Inserts ☑ Baggies ○ Bubble Wrap ○ Gel Packs ☑ Wet Ice ○ Sleeves ○ Other

5. Foreign or Regulated Soil? ○ Yes ○ No Location of Sampling:

Cooler Tracking Number	COC ID	Date Opened	Time Opened	Opened By	Temp. °C	Temp Blank?
5789 1995 3928		2-24-23	1055	CG	1.6	☑
						☐
						☐
						☐

6. Were custody papers properly filled out (ink, signed, dated, etc)? ☑ Yes ○ No
7. Did all bottles arrive in good condition (not broken, no signs of leakage)? ☑ Yes ○ No
8. Were all sample labels complete (i.e., sample ID, analysis, preservation, etc)? ☑ Yes ○ No
9. Were appropriate bottles/containers and volumes received for the requested tests? ☑ Yes ○ No
10. Did sample labels and tags agree with custody documents? ☑ Yes ○ No

Notes, Discrepancies, & Resolutions:

Service request Label:

10450 Stancliff Rd., Suite 210
Houston, TX 77099
T: +1 713 266 1599
F: +1 713 266 1599
www.alsglobal.com

SAMPLE ACCEPTANCE POLICY

This policy outlines the criteria samples must meet to be accepted by ALS Environmental – Houston HRMS.

Cooler Custody Seals (desirable, mandatory if specified in SAP):

- ✓ Intact on outside of cooler, signed and dated

Chain-of-Custody (COC) documentation (mandatory):

The following is required on each COC:

- ✓ Sample ID, the location, date and time of collection, collector's name, preservation type, sample type, and any other special remarks concerning the sampleThe COC must be completed in ink.
- ✓ Signature and date of relinquishing party.

In the absence of a COC at sample receipt, the COC will be requested from the client.

Sample Integrity (mandatory):

Samples are inspected upon arrival to ensure that sample integrity was not compromised during transfer to the laboratory.

- ✓ Sample containers must arrive in good condition (not broken or leaking).
- ✓ Samples must be labeled appropriately, including Sample IDs, and requested test using durable labels and indelible ink.
- ✓ The correct type of sample bottle must be used for the method requested.
- ✓ An appropriate sample volume, or weight, must be received.
- ✓ Sample IDs and number of containers must reconcile with the COC.
- ✓ Samples must be received within the method defined holding time.

Temperature Requirement (varies by sample matrix):

- ✓ Aqueous and Non-aqueous samples must be shipped and stored cold, at 0 to 6ºC.
- ✓ Tissue samples must be shipped and stored frozen, at -20 to -10ºC.
- ✓ Air samples are shipped and stored cold, at 0 to 6ºC
- ✓ The sample temperature must be recorded on the COC

All cooler inspections are documented on the Cooler Receipt Form (CRF). A separate CRF is completed for each service request. Any samples not meeting the above criteria are noted on the CRF and the Project Manager notified. The Project Manager must resolve any sample integrity issues with the client prior to proceeding with the analysis. Such resolutions are documented in writing and filed with the project folder. Data associated with samples received outside of this acceptance policy will be qualified on the case narrative of the final report

Preparation Information Benchsheets

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

Preparation Information Benchsheet

Prep Run#: 415501 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/XMI **Prep Method:** Method **Prep Date/Time:** 2/28/23 07:20

#	Lab Code	Client ID	B#	Method /Test	pH	Cl	Matrix	Amt. Ext.	Sample Description
1	E2300178-001	LH18/24-SP650_022423_AIX	.01	6850/ClO4 DOD			Water	10mL	
2	E2300178-002	LH18/24-SP650_022423_BIX	.01	6850/ClO4 DOD			Water	10mL	
3	E2300192-001	46DP05-GP02-4146-022223	.01	6850/ClO4 DOD			Water	10mL	
4	E2300192-002	46DP05-GP02-6166-022223	.01	6850/ClO4 DOD			Water	10mL	
5	E2300192-003	46DP05-GP02P-6166-022223	.01	6850/ClO4 DOD			Water	10mL	
6	E2300192-004	WO-EB01-022223	.01	6850/ClO4 DOD			Water	10mL	
7	E2300193-001	46DP04-GP01-4045-022123	.01	6850/ClO4 DOD			Water	10mL	
8	E2300193-002	46DP04-GP02-6772-022123	.01	6850/ClO4 DOD			Water	10mL	
9	E2300193-003	WO-EB01-022123	.01	6850/ClO4 DOD			Water	10mL	
10	EQ2300091-01	MB		6850/ClO4			Liquid	10mL	
11	EQ2300091-02	LCS		6850/ClO4			Liquid	10mL	
12	EQ2300091-03	DLCS		6850/ClO4			Liquid	10mL	
13	R2301230-012	2302070913 200L-SB-10	.01	6850/ClO4			Water	10mL	
14	R2301400-012	2302160813 200L-SB-11	.01	6850/ClO4			Water	10mL	
15	R2301402-012	2302161453 200L-SB-16	.01	6850/ClO4			Water	10mL	
16	R2301421-022	2302170913 200L-SB-15	.01	6850/ClO4			Water	10mL	
17	R2301421-025	2302171313 200L-SB-12	.01	6850/ClO4			Water	10mL	
18	R2301471-006	2302161354C 300-A-170	.01	6850/ClO4			Water	10mL	
19	R2301473-012	2302181258 200L-SB-18	.01	6850/ClO4			Water	10mL	
20	R2301475-012	2302181003 200L-SB-13	.01	6850/ClO4			Water	10mL	
21	R2301477-012	2302181058 200L-SB-14	.01	6850/ClO4			Water	10mL	

Spiking Solutions

Name: Perchlorate Internal Standard 1ug/mL Inventory ID 226778 Logbook Ref: Perchlorate Internal Standard Expires On: 05/31/2023

E2300178-001	100.00µL	E2300178-002	100.00µL	E2300192-001	100.00µL	E2300192-002	100.00µL	E2300192-003	100.00µL	E2300192-004	100.00µL
E2300193-001	100.00µL	E2300193-002	100.00µL	E2300193-003	100.00µL	EQ2300091-01	100.00µL	EQ2300091-01	100.00µL	EQ2300091-02	100.00µL
EQ2300091-02	100.00µL	EQ2300091-03	100.00µL	EQ2300091-03	100.00µL	R2301230-012	100.00µL	R2301400-012	100.00µL	R2301402-012	100.00µL
R2301421-022	100.00µL	R2301421-025	100.00µL	R2301471-006	100.00µL	R2301473-012	100.00µL	R2301475-012	100.00µL	R2301477-012	100.00µL

Name: Perchlorate Intermediate Stock1 Inventory ID 227236 Logbook Ref: Perchlorate (1st Source) Expires On: 07/31/2023

EQ2300091-02	100.00µL	EQ2300091-02	100.00µL	EQ2300091-03	100.00µL	EQ2300091-03	100.00µL

Preparation Information Benchsheet

Prep Run#: 415501 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/XMI **Prep Method:** **Prep Date/Time:** 2/28/23 07:20

Preparation Materials

Water HPLC Grade	01/04/2023 Water (226857)	6850 Amber Glass screw vial	2mL Screw Top Vial (221894)	6850 0.45um syringe filters	6850 Syringe Filters (224414)
6850 Luer-Lok Syringes	Luer-Lok Syringes (221305)	6850 Pipette Tips 50-1000 uL	6850 Pipette Tips (221929)		

Preparation Steps

Step: Preparation
Started: 2/28/23 07:20
Finished: 2/28/23 08:22
By: XMI
Comments

Comments: _____

Reviewed By: _____ Date: _____

Chain of Custody

Relinquished By: _____ Date: _____ Extracts Examined

Received By: _____ Date: _____ Yes No

Analytical Results

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Bhate Environmental Associates, Inc.	**Service Request:**	E2300178
Project:	GW Treatment Plant Special Samples/NWO1312.0150.016.0001	**Date Collected:**	2/24/23 1300
Sample Matrix:	Water	**Date Received:**	2/25/23
Sample Name:	LH18/24-SP650_022423_AIX	**Units:**	µg/L
Lab Code:	E2300178-001	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**1.84**		0.100	0.0500	0.0250	1	2/28/23	2/28/23 10:07	415501	795964	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Bhate Environmental Associates, Inc.	**Service Request:**	E2300178
Project:	GW Treatment Plant Special Samples/NWO1312.0150.016.0001	**Date Collected:**	2/24/23 1300
Sample Matrix:	Water	**Date Received:**	2/25/23
Sample Name:	LH18/24-SP650_022423_BIX	**Units:**	µg/L
Lab Code:	E2300178-002	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**1660**		5.00	2.50	1.25	50	2/28/23	2/28/23 10:13	415501	795964	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Bhate Environmental Associates, Inc.	**Service Request:**	E2300178
Project:	GW Treatment Plant Special Samples/NWO1312.0150.016.0001	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	EQ2300091-01	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	ND	U	0.100	0.0500	0.0250	1	2/28/23	2/28/23 09:34	415501	795964	

Accuracy & Precision

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	Bhate Environmental Associates, Inc.	**Service Request:**	E2300178
Project:	GW Treatment Plant Special Samples/NWO1312.0150.016.0001	**Date Analyzed:**	2/28/23
Sample Matrix:	Water		

Lab Control Sample Summary

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method:	6850	**Units:**	µg/L
Prep Method:	Method	**Basis:**	NA
		Extraction Lot:	415501

	Lab Control Sample EQ2300091-02			Duplicate Lab Control Sample EQ2300091-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Perchlorate	0.103	0.100	103	0.0980	0.100	98	84 - 119	5	15

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Bhate Environmental Associates, Inc.	**Service Request:**	E2300178
Project:	GW Treatment Plant Special Samples/NWO1312.0150.016.0001	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2300091-02	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.103**		0.100	0.0500	0.0250	1	2/28/23	2/28/23 09:52	415501	795964	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Bhate Environmental Associates, Inc.	**Service Request:**	E2300178
Project:	GW Treatment Plant Special Samples/NWO1312.0150.016.0001	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2300091-03	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.0980**	J	0.100	0.0500	0.0250	1	2/28/23	2/28/23 09:58	415501	795964	

Initial Calibration

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

20230201-793296

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XMI
2nd Review: Kneir

ICAL Date: 2/1/2023
Cal. Std. xp: 07/31/2023
ICAL ID: EC2300002

Mobile Phases : A:0.10% Formic Acid/Water 3210303-02 **B:**MeOH 224417

	Sample Name		File Name	Acquisition Method	Dilution	R	Comments	Date/Time
1	PERCHLORATE1		20230201-003	Perchlorate6850c.lcm	1x	☒	227245	2/1/2023 11:50
2	PERCHLORATE2		20230201-004	Perchlorate6850c.lcm	1x	☒	227246	2/1/2023 11:55
3	PERCHLORATE3		20230201-005	Perchlorate6850c.lcm	1x	☒	227247	2/1/2023 12:01
4	PERCHLORATE4		20230201-006	Perchlorate6850c.lcm	1x	☒	227248	2/1/2023 12:07
5	PERCHLORATE5		20230201-007	Perchlorate6850c.lcm	1x	☒	227249	2/1/2023 12:13
6	PERCHLORATE6		20230201-008	Perchlorate6850c.lcm	1x	☒	227250	2/1/2023 12:19
7	PERCHLORATE7		20230201-009	Perchlorate6850c.lcm	1x	☒	227251	2/1/2023 12:25
8	PERCHLORATE8		20230201-010	Perchlorate6850c.lcm	1x	☒	227252	2/1/2023 12:30
9	PERCHLORATE9		20230201-011	Perchlorate6850c.lcm	1x	☒	227253	2/1/2023 12:36
10	PERCHLORATE10		20230201-012	Perchlorate6850c.lcm	1x	☒	227254	2/1/2023 12:42
11	PERCHLORATEICV		20230201-013	Perchlorate6850c.lcm	1x	☒	227256	2/1/2023 12:48
12	LODV		20230201-014	Perchlorate6850c.lcm	1x	☒	225199	2/1/2023 12:54
13	ICS		20230201-015	Perchlorate6850c.lcm	1x	☒	32103024	2/1/2023 13:00
14	PERCHLORATE7		20230201-016	Perchlorate6850c.lcm	1x	☒	227251	2/1/2023 15:24
15	EQ2300047-01		20230201-017	Perchlorate6850c.lcm	1x	☒		2/1/2023 15:30
16	EQ2300047-02		20230201-018	Perchlorate6850c.lcm	1x	☒		2/1/2023 15:36
17	EQ2300047-03		20230201-019	Perchlorate6850c.lcm	1x	☒		2/1/2023 15:41
18	R2300589-005		20230201-020	Perchlorate6850c.lcm	1x	☒		2/1/2023 15:48
19	R2300589-010		20230201-021	Perchlorate6850c.lcm	1x	☒	DNU-BAD PEAK SHAPE	2/1/2023 15:54
20	R2300648-018		20230201-022	Perchlorate6850c.lcm	1x	☒		2/1/2023 16:00
21	R2300648-025		20230201-023	Perchlorate6850c.lcm	1x	☒		2/1/2023 16:06
22	PERCHLORATE7		20230201-024	Perchlorate6850c.lcm	1x	☒	227251	2/1/2023 16:17
23	E2300092-001		20230201-025	Perchlorate6850c.lcm	1x	☒		2/1/2023 16:23
24	E2300092-002		20230201-026	Perchlorate6850c.lcm	1x	☒		2/1/2023 16:29
25	E2300092-003		20230201-027	Perchlorate6850c.lcm	1x	☒		2/1/2023 16:35
26	E2300092-004		20230201-028	Perchlorate6850c.lcm	1x	☒		2/1/2023 16:41
27	E2300094-001		20230201-029	Perchlorate6850c.lcm	1x	☒		2/1/2023 16:47
28	E2300094-002		20230201-030	Perchlorate6850c.lcm	1x	☒		2/1/2023 16:52
29	E2300094-003		20230201-031	Perchlorate6850c.lcm	1x	☒		2/1/2023 16:58
30	E2300094-004		20230201-032	Perchlorate6850c.lcm	1x	☒		2/1/2023 17:04
31	E2300094-005		20230201-033	Perchlorate6850c.lcm	1x	☒		2/1/2023 17:10
32	PERCHLORATE7		20230201-034	Perchlorate6850c.lcm	1x	☒	227251	2/1/2023 17:16
33	E2300096-001		20230201-035	Perchlorate6850c.lcm	1x	☒		2/1/2023 17:21
34	E2300096-002		20230201-036	Perchlorate6850c.lcm	1x	☒		2/1/2023 17:27
35	E2300096-003		20230201-037	Perchlorate6850c.lcm	1x	☒		2/1/2023 17:33
36	E2300096-004		20230201-038	Perchlorate6850c.lcm	1x	☒		2/1/2023 17:39
37	E2300096-005		20230201-039	Perchlorate6850c.lcm	1x	☒		2/1/2023 17:45
38	E2300096-006		20230201-040	Perchlorate6850c.lcm	1x	☒		2/1/2023 17:51
39	E2300096-007		20230201-041	Perchlorate6850c.lcm	1x	☒		2/1/2023 17:56
40	PERCHLORATE7		20230201-042	Perchlorate6850c.lcm	1x	☒	227251	2/1/2023 18:02

Initial Calibration - Detailed Report

Calibration ID: EC2300002 **Instrument ID:** E-LCMS-01
Column Name: 1

#	Lab Code	Sample Name	File Location	Aquisition Date
01	EC2300002-01	PERCHLORATE1	20230201-003	02/01/2023 11:50
02	EC2300002-02	PERCHLORATE2	20230201-004	02/01/2023 11:55
03	EC2300002-03	PERCHLORATE3	20230201-005	02/01/2023 12:01
04	EC2300002-04	PERCHLORATE4	20230201-006	02/01/2023 12:07
05	EC2300002-05	PERCHLORATE5	20230201-007	02/01/2023 12:13
06	EC2300002-06	PERCHLORATE6	20230201-008	02/01/2023 12:19
07	EC2300002-07	PERCHLORATE7	20230201-009	02/01/2023 12:25
08	EC2300002-08	PERCHLORATE8	20230201-010	02/01/2023 12:30
09	EC2300002-09	PERCHLORATE9	20230201-011	02/01/2023 12:36
10	EC2300002-10	PERCHLORATE10	20230201-012	02/01/2023 12:42

Analyte **Curve Fit** **Weighting**

Perchlorate **Average RF** **RSD = 4.86** **Average RF = 0.1385**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.1000	0.1253	02	0.5000	0.13	03	0.7000	0.1346	04	1.0000	0.1399
05	2.0000	0.1406	06	5.0000	0.1404	07	10.0000	0.1416	08	20.0000	0.1407
09	30.0000	0.1447	10	50.0000	0.1477						

Analyte

Perchlorate RSE = 4.86

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.1000	0.0904	-9.6	02	0.5000	0.469	-6.1	03	0.7000	0.680	-2.8
04	1.0000	1.01	0.9	05	2.0000	2.03	1.5	06	5.0000	5.07	1.3
07	10.0000	10.2	2.2	08	20.0000	20.3	1.5	09	30.0000	31.3	4.5
10	50.0000	53.3	6.6								

Initial Calibration Verification Summary Report

Calibration ID:	EC2300002	**Instrument ID:**	E-LCMS-01
Datafile ID:	20230201-013	**Column Name:**	1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
Perchlorate	EC2300002-11	T	Average RF	10	10.538	ng/mL	5.4	<= 15

Insight Report

Printed at 2/1/2023 2:06:14 PM

Method File: I:\LCMS01\DATA\02012023\20230201.lcm
Project File: I:\LCMS01\DATA\02012023\20230201.damlp

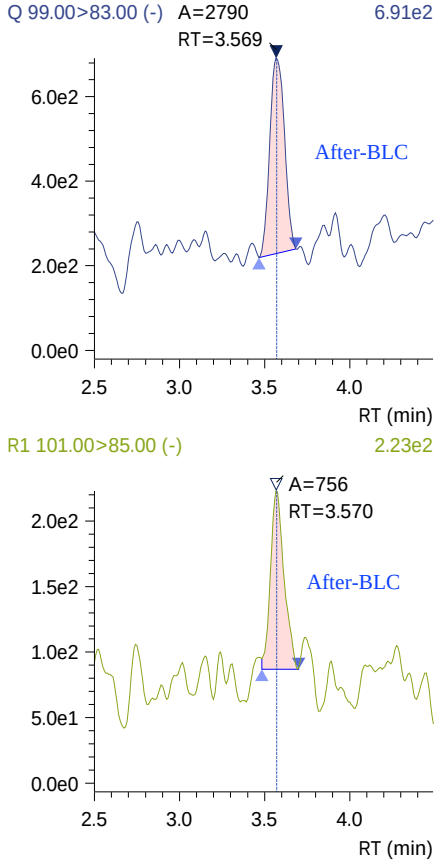
PERCHLORATE1

Sample ID: PERCHLORATE1
Date Acquired: 2/1/2023 11:50:11 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\02012023\20230201-003.lcd
Vial: 1 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	M	3.569	2790	222693	0.0904	ng/mL	101.00 >85.00	27.11	24.11 -44.78
Sodium Perchlorate-18O4_IS	Auto	3.568	222693	222693	1.0000	ng/mL	----	----	

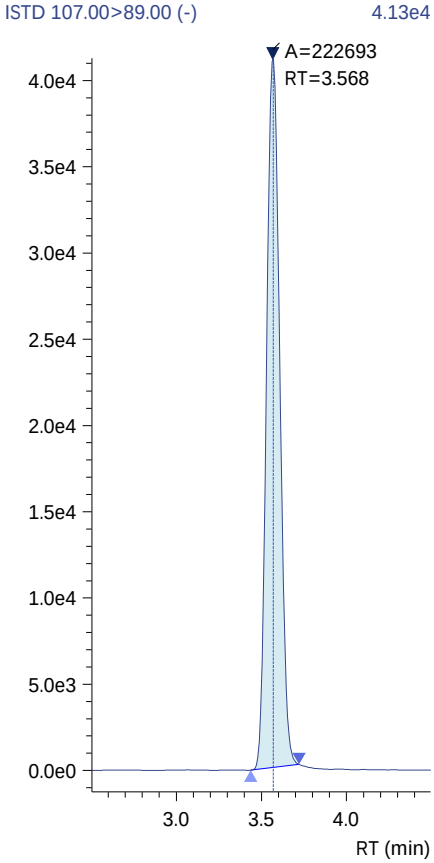
Perchlorate

Conc 0.0904
R#1 27.11 (31.99)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/1/2023 1:30:25 PM

Method File: I:\LCMS01\DATA\20230201\20230201ICAL.lcm
Project File: I:\LCMS01\DATA\20230201\20230201ICAL.damIp

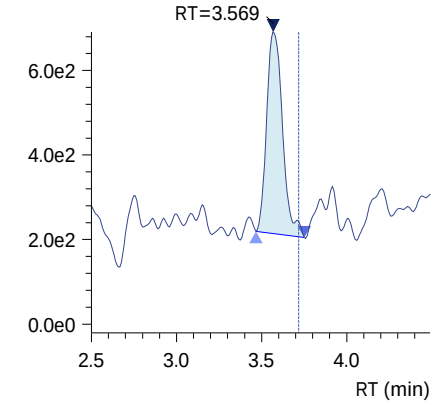
PERCHLORATE1

Sample ID: PERCHLORATE1
Date Acquired: 2/1/2023 11:50:11 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\02012023\20230201-003.lcd
Vial: 1 | Inj. Volume: 25.0000uL | Tray: 1

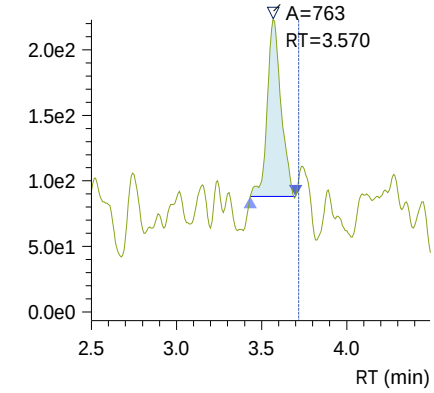
Perchlorate

Conc 0.0996
R#1 24.56 (34.45)

Q 99.00>83.00 (-) A=3105 6.91e2



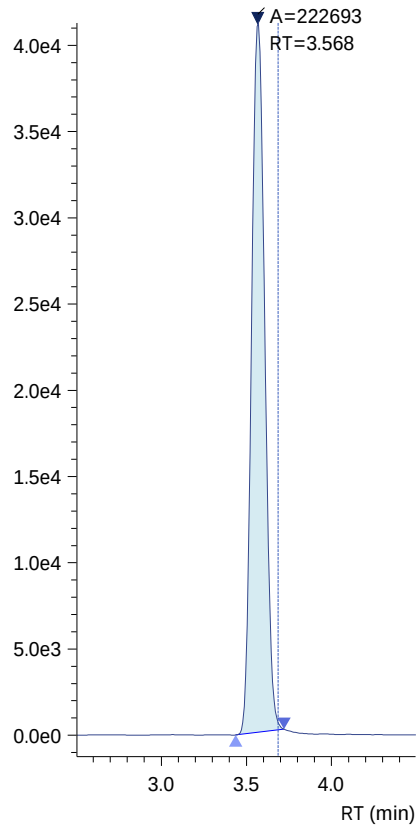
R1 101.00>85.00 (-) 2.23e2



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 4.13e4



Insight Report

Printed at 2/1/2023 2:06:14 PM

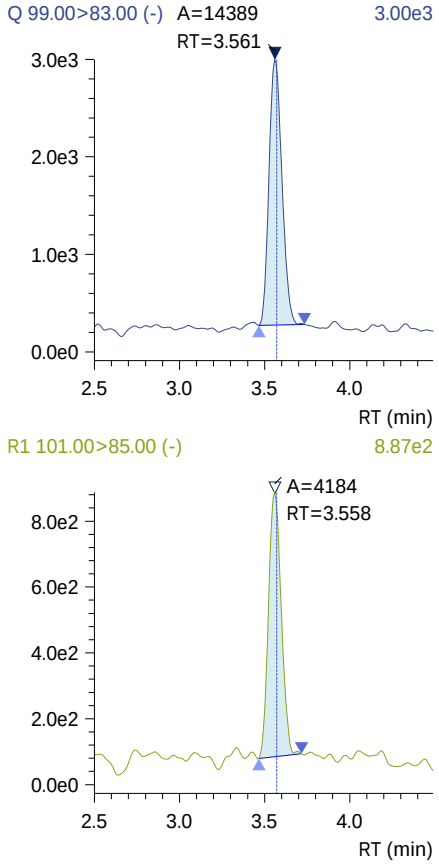
PERCHLORATE2

Sample ID: PERCHLORATE2
Date Acquired: 2/1/2023 11:55:59 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\02012023\20230201-004.lcd
Vial: 2 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.561	14389	221291	0.4694	ng/mL	101.00 >85.00	29.08	24.11 -44.78
Sodium Perchlorate-18O4 _IS	Auto	3.558	221291	221291	1.0000	ng/mL	----	----	

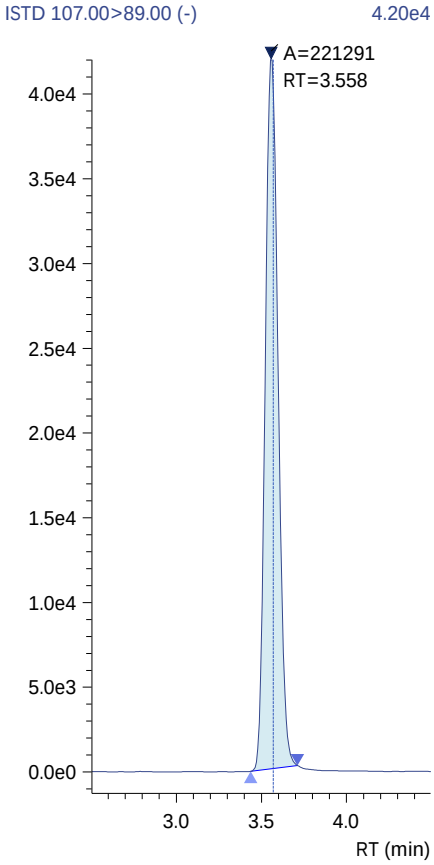
Perchlorate

Conc 0.4694
R#1 29.08 (31.99)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/1/2023 2:06:14 PM

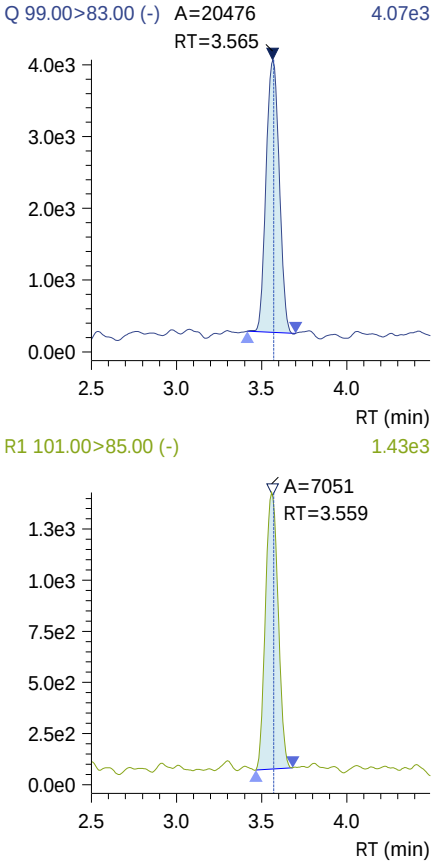
PERCHLORATE3

Sample ID: PERCHLORATE3
Date Acquired: 2/1/2023 12:01:49 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\02012023\20230201-005.lcd
Vial: 3 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.565	20476	217325	0.6801	ng/mL	101.00 >85.00	34.44	24.11 -44.78
Sodium Perchlorate-18O4_IS	Auto	3.559	2173 25	217325	1.0000	ng/mL	----	----	

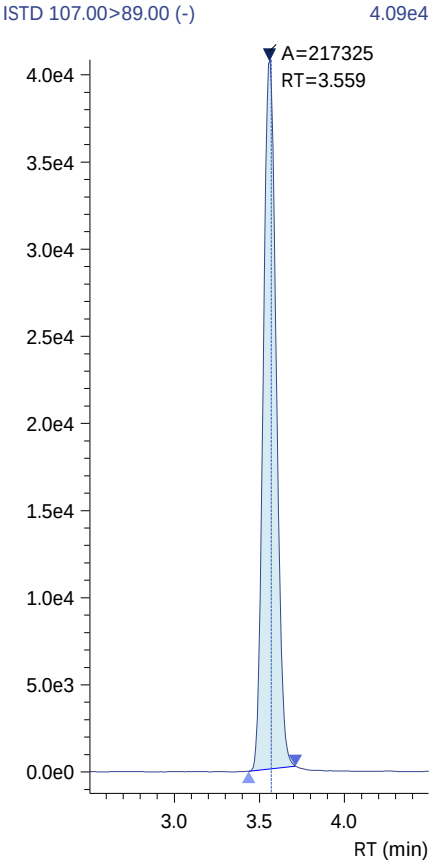
Perchlorate

Conc 0.6801
R#1 34.44 (31.99)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/1/2023 2:06:14 PM

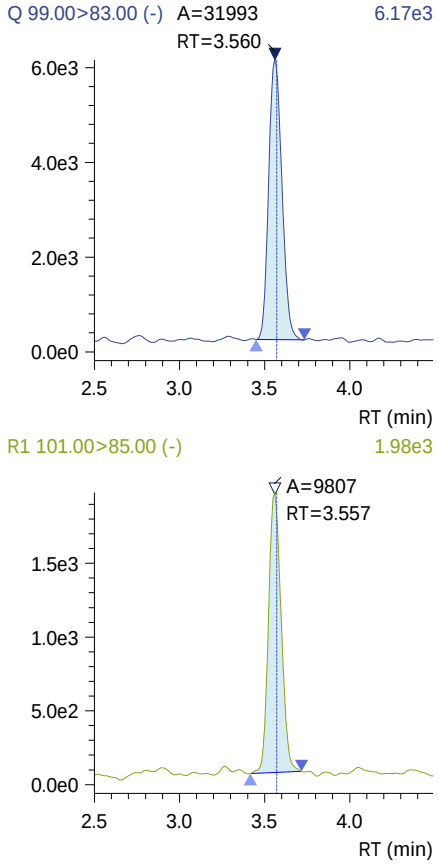
PERCHLORATE4

Sample ID: PERCHLORATE4
Date Acquired: 2/1/2023 12:07:38 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\02012023\20230201-006.lcd
Vial: 4 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.560	31993	228763	1.0095	ng/mL	101.00 >85.00	30.65	24.11 -44.78
Sodium Perchlorate-18O4 _IS	Auto	3.557	2287 63	228763	1.0000	ng/mL	----	----	

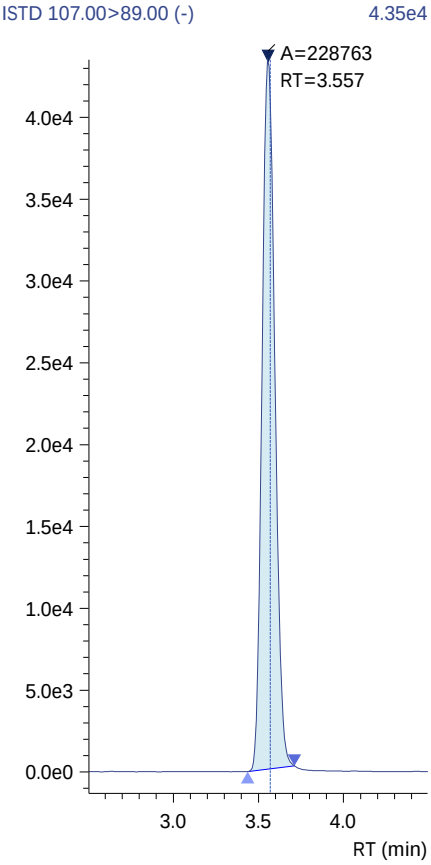
Perchlorate

Conc 1.0095
R#1 30.65 (31.99)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/1/2023 2:06:14 PM

PERCHLORATE5

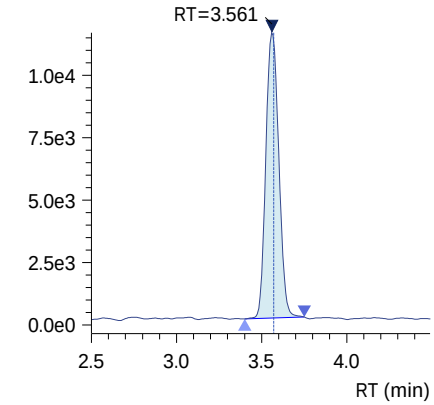
Sample ID: PERCHLORATE5
Date Acquired: 2/1/2023 12:13:29 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\02012023\20230201-007.lcd
Vial: 5 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.561	60751	216066	2.0296	ng/mL	101.00 >85.00	32.70	24.11 -44.78
Sodium Perchlorate-18O4 _IS	Auto	3.557	216066	216066	1.0000	ng/mL	----	----	

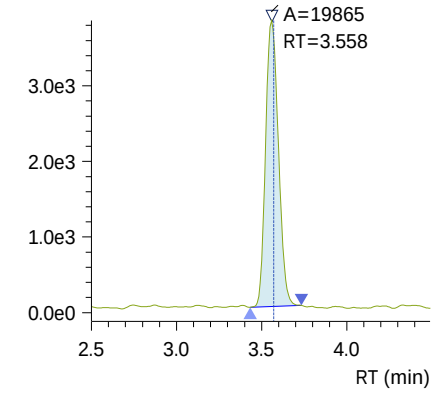
Perchlorate

Conc 2.0296
R#1 32.70 (31.99)

Q 99.00>83.00 (-) A=60751 1.17e4



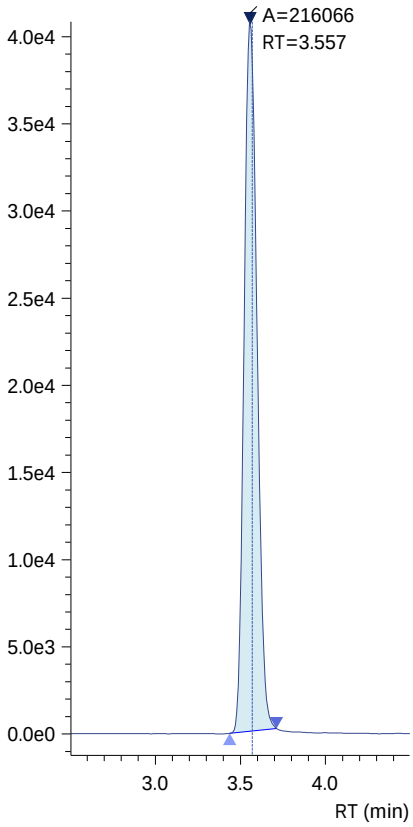
R1 101.00>85.00 (-) 3.87e3



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 4.09e4



Insight Report

Printed at 2/1/2023 2:06:14 PM

PERCHLORATE6

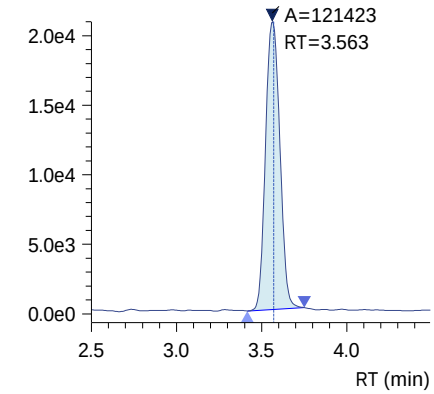
Sample ID: PERCHLORATE6
Date Acquired: 2/1/2023 12:19:20 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\02012023\20230201-008.lcd
Vial: 6 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.563	1214 23	172986	5.0667	ng/mL	101.00 >85.00	32.55	24.11 -44.78
Sodium Perchlorate-18O4 _IS	Auto	3.558	1729 86	172986	1.0000	ng/mL	----	----	

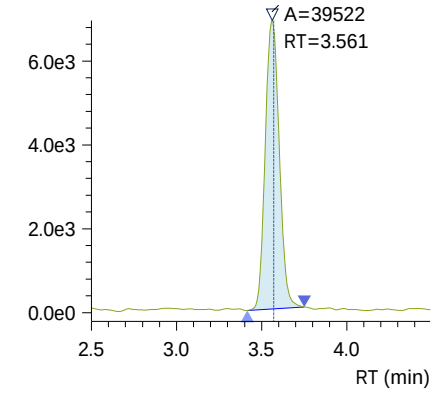
Perchlorate

Conc 5.0667
R#1 32.55 (31.99)

Q 99.00>83.00 (-) 2.10e4



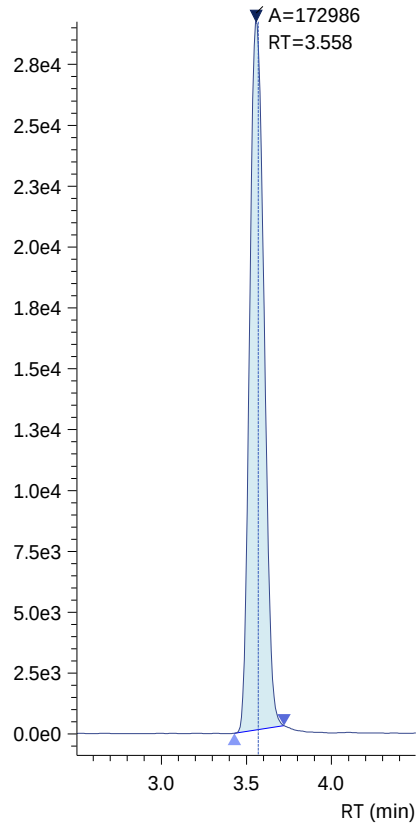
R1 101.00>85.00 (-) 6.97e3



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.93e4



Insight Report

Printed at 2/1/2023 2:06:14 PM

PERCHLORATE7

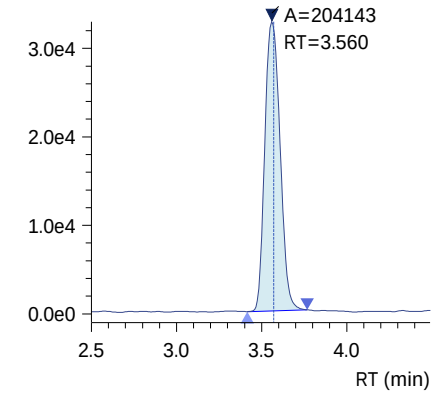
Sample ID: PERCHLORATE7
Date Acquired: 2/1/2023 12:25:10 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\02012023\20230201-009.lcd
Vial: 7 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.560	2041 43	144196	10.2 192	ng/mL	101.00 >85.00	31.99	24.11 -44.78
Sodium Perchlorate-18O4_IS	Auto	3.555	144196	144196	1.0000	ng/mL	----	----	

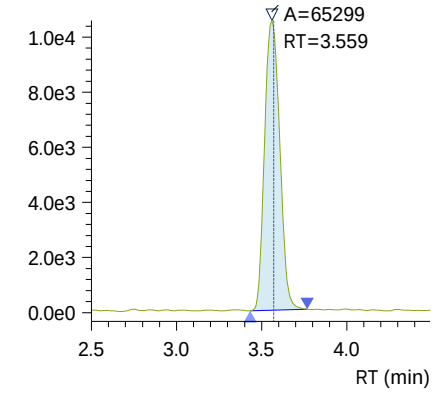
Perchlorate

Conc 10.2192
R#1 31.99 (31.99)

Q 99.00>83.00 (-) 3.30e4



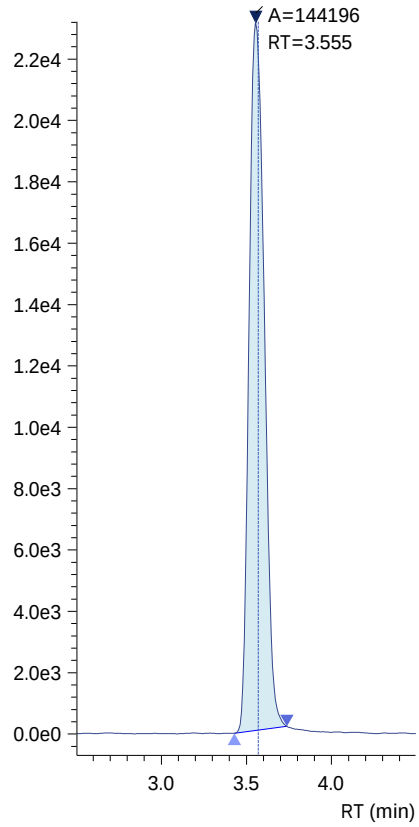
R1 101.00>85.00 (-) 1.06e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.32e4



Insight Report

Printed at 2/1/2023 2:06:14 PM

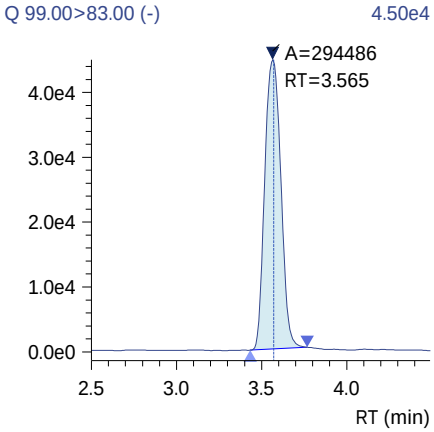
PERCHLORATE8

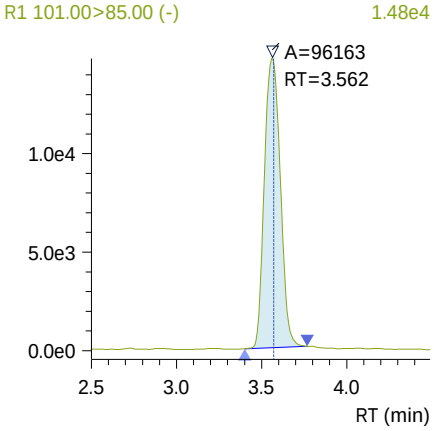
Sample ID: PERCHLORATE8
Date Acquired: 2/1/2023 12:30:57 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\02012023\20230201-010.lcd
Vial: 8 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.565	294486	104680	20.3065	ng/mL	101.00 >85.00	32.66	24.11 -44.78
Sodium Perchlorate-18O4_IS	Auto	3.557	104680	104680	1.0000	ng/mL	----	----	

Perchlorate

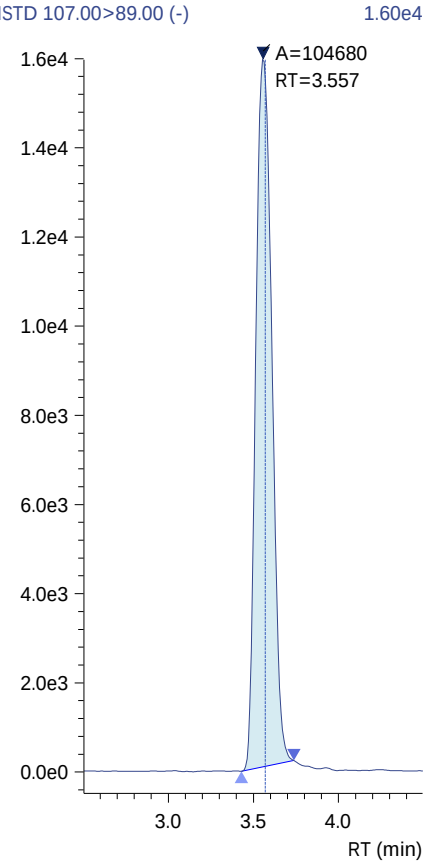
Conc 20.3065
R#1 32.66 (31.99)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/1/2023 2:06:14 PM

PERCHLORATE9

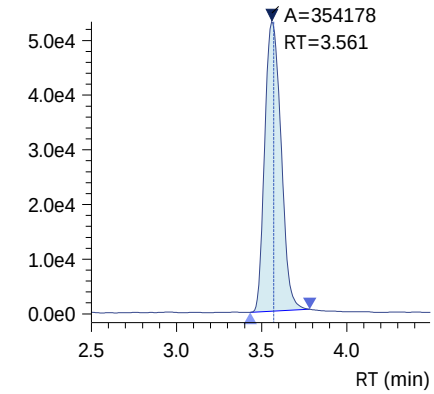
Sample ID: PERCHLORATE9
Date Acquired: 2/1/2023 12:36:45 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\02012023\20230201-011.lcd
Vial: 9 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.561	3541	81577	31.3	ng/mL	101.00	31.89	24.11
			78		395		>85.00		-44.78
Sodium Perchlorate-18O4_IS	Auto	3.557	81577	81577	1.0000	ng/mL	----	----	

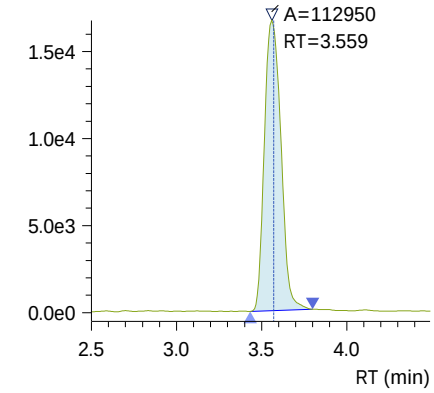
Perchlorate

Conc 31.3395
R#1 31.89 (31.99)

Q 99.00>83.00 (-) 5.34e4



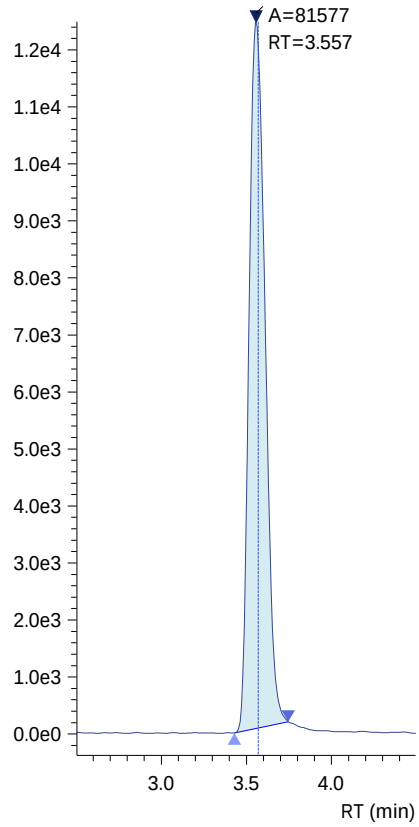
R1 101.00>85.00 (-) 1.68e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.25e4



Insight Report

Printed at 2/1/2023 2:06:14 PM

PERCHLORATE10

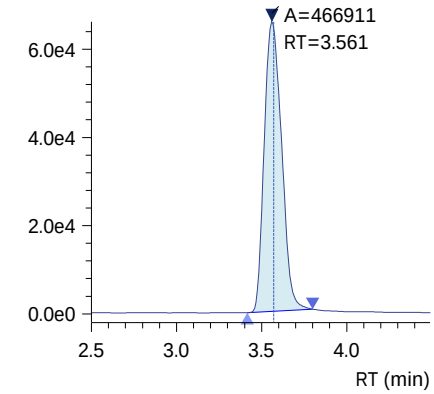
Sample ID: PERCHLORATE10
Date Acquired: 2/1/2023 12:42:34 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\02012023\20230201-012.lcd
Vial: 10 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.561	4669	63237	53.2	ng/mL	101.00	32.40	24.11
			11		964		>85.00		-44.78
Sodium Perchlorate-18O4_IS	Auto	3.554	63237	63237	1.0000	ng/mL	----	----	

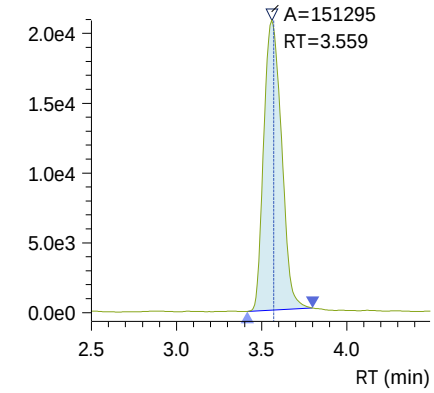
Perchlorate

Conc 53.2964
R#1 32.40 (31.99)

Q 99.00>83.00 (-) 6.62e4



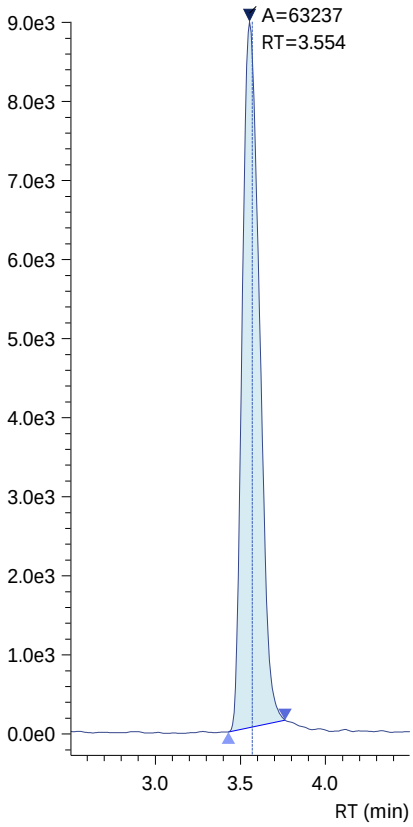
R1 101.00>85.00 (-) 2.09e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 9.01e3



Insight Report

Printed at 2/1/2023 2:06:14 PM

PERCHLORATEICV

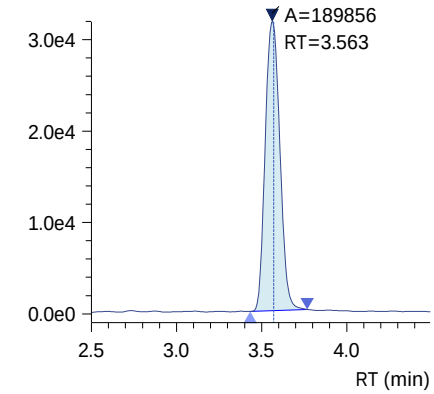
Sample ID: PERCHLORATEICV
Date Acquired: 2/1/2023 12:48:22 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\02012023\20230201-013.lcd
Vial: 11 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.563	189856 1898	130049	10.5 379	ng/mL	101.00 >85.00	32.76	24.11 -44.78
Sodium Perchlorate-18O4_IS	Auto	3.557	130049	130049	1.0000	ng/mL	----	----	

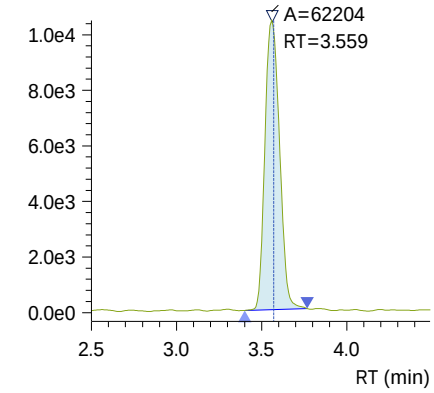
Perchlorate

Conc 10.5379
R#1 32.76 (31.99)

Q 99.00>83.00 (-) 3.20e4



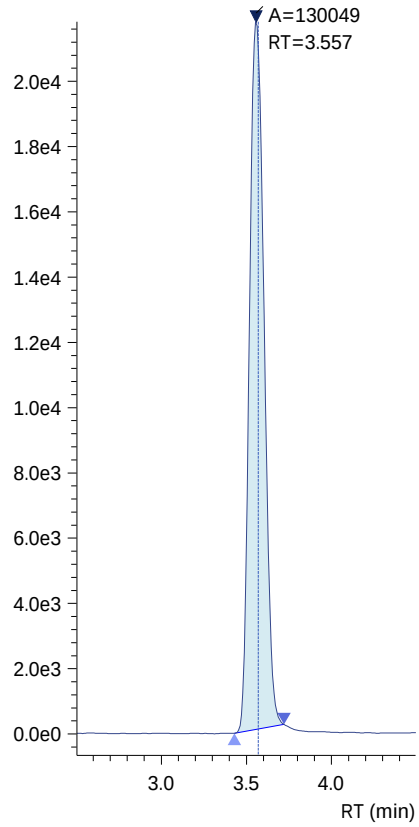
R1 101.00>85.00 (-) 1.05e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.18e4



Chromatograms and Selected Ion Monitoring

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 320, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

20230228-795964

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XMI
2nd Review: KNEIR

ICAL Date: 2/1/2023
Cal. Std. xp: 07/31/2023
ICAL ID: EC2300002

Mobile Phases : **A:**0.10% Formic Acid/Water 3210303-04 **B:**MeOH 224417

	Sample Name		File Name	Acquisition Method	Dilution	R	Comments	Date/Time
1	LODV		20230228-002	Perchlorate6850c.lcm	1x	☒	227501	2/28/2023 9:17
2	ICS		20230228-003	Perchlorate6850c.lcm	1x	☒	32103024	2/28/2023 8:57
3	PERCHLORATE7		20230228-004	Perchlorate6850c.lcm	1x	☒	227251	2/28/2023 9:28
4	EQ2300091-01		20230228-005	Perchlorate6850c.lcm	1x	☒		2/28/2023 9:34
5	EQ2300091-02		20230228-006	Perchlorate6850c.lcm	1x	☒		2/28/2023 9:52
6	EQ2300091-03		20230228-007	Perchlorate6850c.lcm	1x	☒		2/28/2023 9:58
7	E2300178-001		20230228-008	Perchlorate6850c.lcm	1x	☒		2/28/2023 10:07
8	E2300178-002		20230228-009	Perchlorate6850c.lcm	50x	☒		2/28/2023 10:13
9	EQ2300090-01		20230228-010	Perchlorate6850c.lcm	1x	☒		2/28/2023 10:54
10	EQ2300090-02		20230228-011	Perchlorate6850c.lcm	1x	☒	DNU-NEED RERUN	2/28/2023 11:14
11	EQ2300090-03		20230228-012	Perchlorate6850c.lcm	1x	☒		2/28/2023 11:05
12	R2301242-010		20230228-013	Perchlorate6850c.lcm	1x	☒	DNU-IR	2/28/2023 11:28
13	R2301242-019		20230228-014	Perchlorate6850c.lcm	1x	☒		2/28/2023 11:34
14	PERCHLORATE7		20230228-015	Perchlorate6850c.lcm	1x	☒	227251	2/28/2023 11:56
15	R2301242-020		20230228-016	Perchlorate6850c.lcm	1x	☒		2/28/2023 12:02
16	R2301242-029		20230228-017	Perchlorate6850c.lcm	1x	☒		2/28/2023 12:08
17	R2301242-030		20230228-018	Perchlorate6850c.lcm	1x	☒		2/28/2023 12:13
18	R2301242-039		20230228-019	Perchlorate6850c.lcm	1x	☒		2/28/2023 12:19
19	R2301242-040		20230228-020	Perchlorate6850c.lcm	1x	☒		2/28/2023 12:25
20	R2301242-049		20230228-021	Perchlorate6850c.lcm	1x	☒		2/28/2023 12:31
21	R2301242-050		20230228-022	Perchlorate6850c.lcm	1x	☒		2/28/2023 12:36
22	R2301242-055		20230228-023	Perchlorate6850c.lcm	1x	☒		2/28/2023 12:42
23	PERCHLORATE7		20230228-024	Perchlorate6850c.lcm	1x	☒	227251	2/28/2023 12:54
24	R2301242-009		20230228-025	Perchlorate6850c.lcm	1x	☒		2/28/2023 13:18
25	R2301242-010		20230228-026	Perchlorate6850c.lcm	1x	☒		2/28/2023 13:54
26	EQ2300090-04		20230228-027	Perchlorate6850c.lcm	1x	☒		2/28/2023 14:00
27	EQ2300090-05		20230228-028	Perchlorate6850c.lcm	1x	☒		2/28/2023 14:06
28	PERCHLORATE7		20230228-029	Perchlorate6850c.lcm	1x	☒	227251	2/28/2023 14:11
29	EQ2300090-02		20230228-030	Perchlorate6850c.lcm	1x	☒		2/28/2023 15:38
30	PERCHLORATE7		20230228-031	Perchlorate6850c.lcm	1x	☒	227251	2/28/2023 15:44

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	Bhate Environmental Associates, Inc.	**Service Request:**	E2300178
Project:	GW Treatment Plant Special Samples/NWO1312.0150.016.0001	**Date Analyzed:**	2/28/23 09:28

Internal Standard Area and RT Summary

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20230228\20230228-004	**Lab Code:**	EQ2300097-01
Instrument ID:	E-LCMS-01	**Analysis Lot:**	795964
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	167,281	3.56
	Upper Limit ==>	250,922	5.56
	Lower Limit ==>	83,641	1.56
Associated Analyses			
Continuing Calibration Verification	EQ2300097-01	171,802	3.40
Method Blank	EQ2300091-01	205,566	3.40
Lab Control Sample	EQ2300091-02	153,253	3.40
Duplicate Lab Control Sample	EQ2300091-03	153,016	3.41
LH18/24-SP650_022423_AIX	E2300178-001	163,181	3.40
LH18/24-SP650_022423_BIX	E2300178-002	95,386	3.41

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	Bhate Environmental Associates, Inc.	**Service Request:**	E2300178
Project:	GW Treatment Plant Special Samples/NWO1312.0150.016.0001	**Date Analyzed:**	2/28/23

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method:	6850	**Calibration Date:**	2/1/23
File ID:	I:\LCMS01\DATA\20230228\20230228-004	**Calibration ID:**	EC2300002
		Analysis Lot:	795964
		Units:	ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	11.2	0.1385	0.1554	12.2	NA	± 15 %	Average RF

Insight Report

Printed at 2/28/2023 4:05:03 PM

Method File: I:\LCMS01\DATA\20230228\02282023.lcm
Project File: I:\LCMS01\DATA\20230228\02282023.damlp

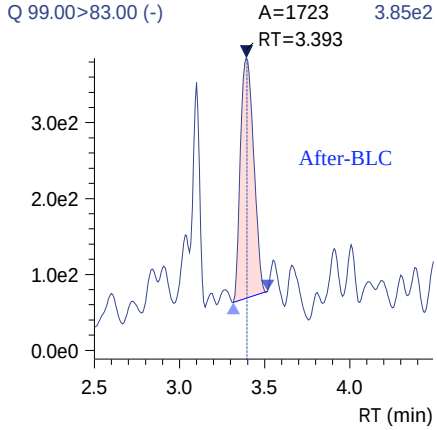
LODV

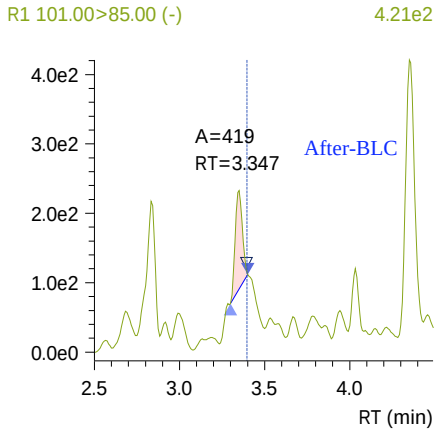
Sample ID: LODV
Date Acquired: 2/28/2023 9:17:27 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230228\20230228-002-1.lcd
Vial: 1 | Inj. Volume: 25.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	MI	3.393	1723	219522	0.0566	ng/mL	101.00 >85.00	24.29	22.55 -41.88
Sodium Perchlorate-18O4_IS	Auto	3.401	219522	219522	1.0000	ng/mL	----	----	

Perchlorate

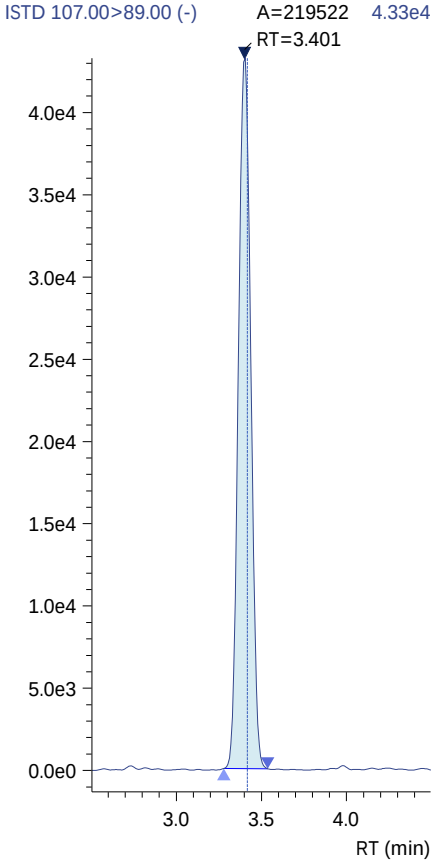
Conc 0.0566
R#1 24.29 (32.22)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/28/2023 4:06:59 PM

Method File: I:\LCMS01\DATA\20230228\02282023.lcm
Project File: I:\LCMS01\DATA\20230228\02282023.damlp

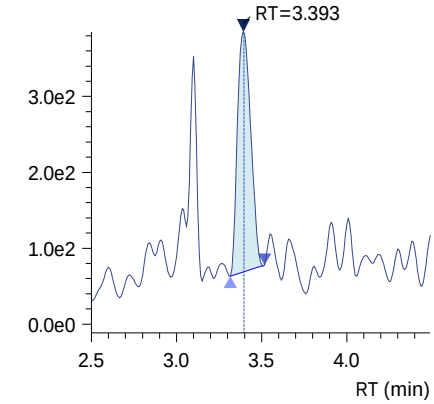
LODV

Sample ID: LODV
Date Acquired: 2/28/2023 9:17:27 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230228\20230228-002-1.lcd
Vial: 1 | Inj. Volume: 25.0000uL | Tray: 0

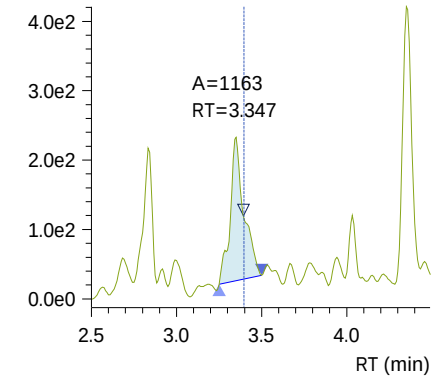
Perchlorate

Conc 0.0561
R#1 67.52 (32.22)

Q 99.00>83.00 (-) A=1723 3.85e2



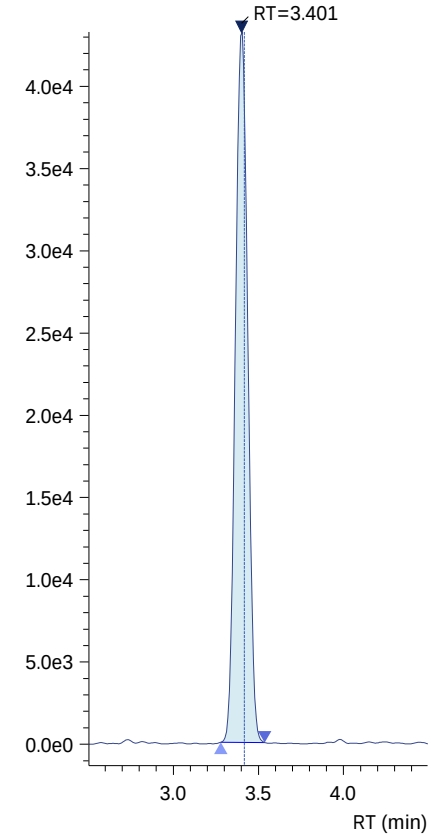
R1 101.00>85.00 (-) 4.21e2



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) A=219522 4.33e4



Insight Report

Printed at 2/28/2023 4:05:03 PM

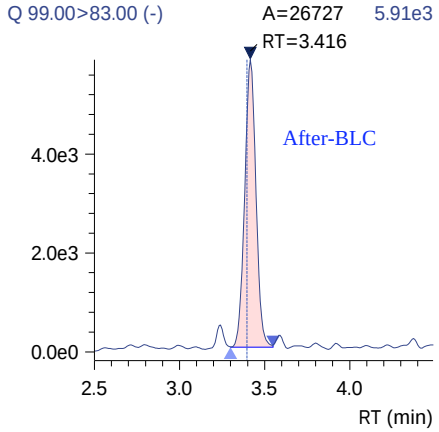
ICS

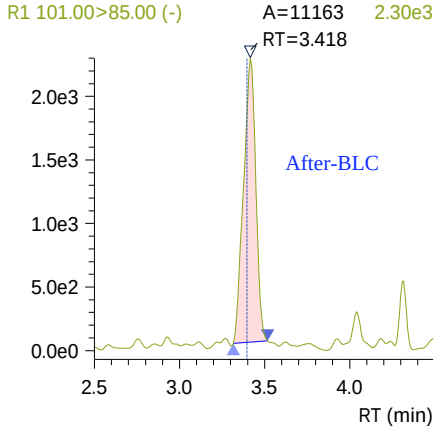
Sample ID: ICS
Date Acquired: 2/28/2023 8:57:42 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230228\20230228-003.lcd
Vial: 2 | Inj. Volume: 25.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	M	3.416	26727	180976	1.0660	ng/mL	101.00 >85.00	41.77	22.55 -41.88
Sodium Perchlorate-18O4_IS	Auto	3.414	180976	180976	1.0000	ng/mL	----	----	

Perchlorate

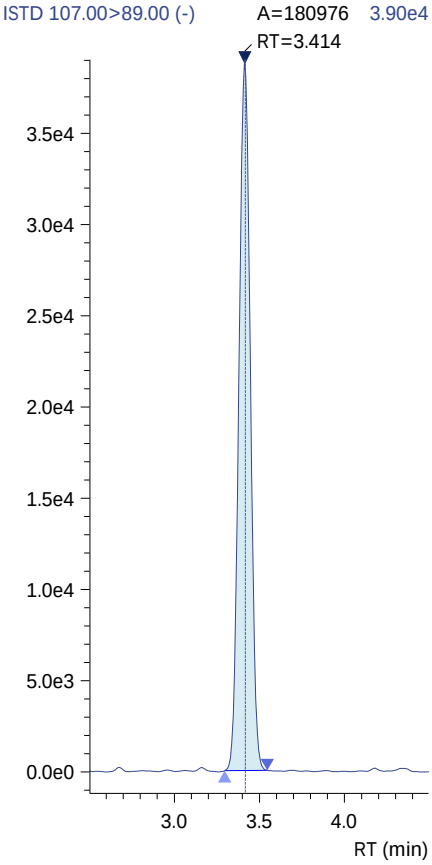
Conc 1.0660
R#1 41.77 (32.22)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/28/2023 4:06:59 PM

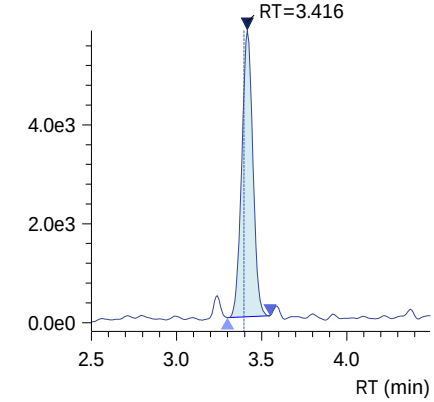
ICS

Sample ID: ICS
Date Acquired: 2/28/2023 8:57:42 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230228\20230228-003.lcd
Vial: 2 | Inj. Volume: 25.0000uL | Tray: 0

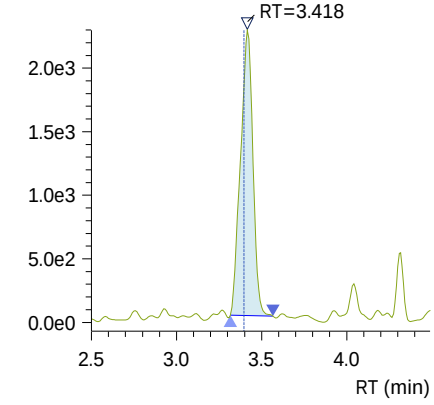
Perchlorate

Conc 1.0407
R#1 43.08 (32.22)

Q 99.00>83.00 (-) A=26360 5.91e3



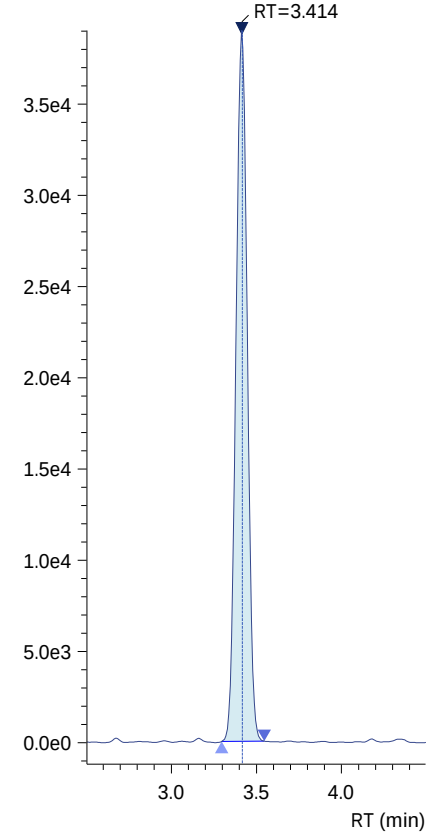
R1 101.00>85.00 (-) A=11355 2.30e3



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) A=180976 3.90e4



Insight Report

Printed at 2/28/2023 4:05:03 PM

PERCHLORATE7

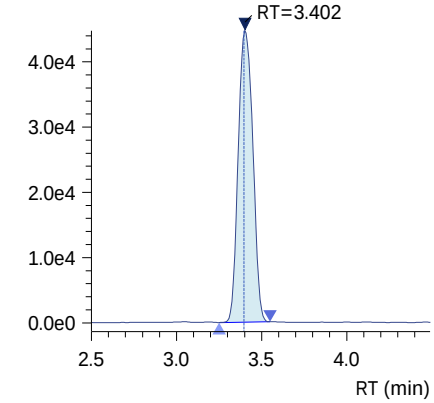
Sample ID: PERCHLORATE7
Date Acquired: 2/28/2023 9:28:52 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230228\20230228-004.lcd
Vial: 3 | Inj. Volume: 25.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.402	2670 20	171802	11.2 189	ng/mL	101.00 >85.00	31.71	22.55 -41.88
Sodium Perchlorate-18O4_IS	Auto	3.399	1718 02	171802	1.0000	ng/mL	----	----	

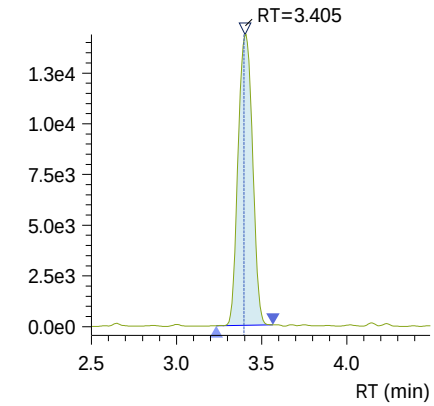
Perchlorate

Conc 11.2189
R#1 31.71 (32.22)

Q 99.00>83.00 (-) A=267020 4.48e4
RT=3.402



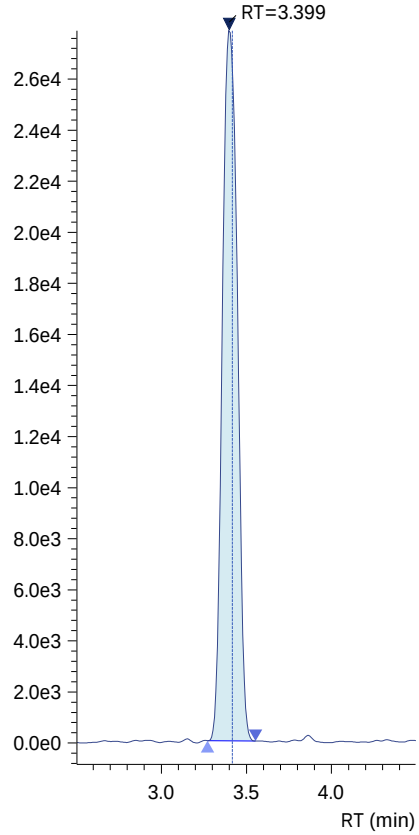
R1 101.00>85.00 (-) A=84658 1.44e4
RT=3.405



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) A=171802 2.79e4
RT=3.399



Insight Report

Printed at 2/28/2023 4:05:03 PM

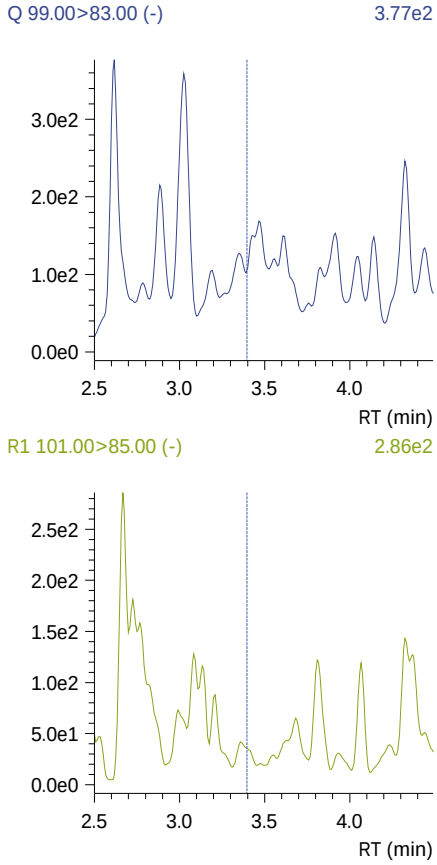
EQ2300091-01

Sample ID: EQ2300091-01
Date Acquired: 2/28/2023 9:34:39 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230228\20230228-005.lcd
Vial: 1 | Inj. Volume: 25.0000uL | Tray: 4

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	205566	----	ng/mL	101.00 >85.00	0.00	22.55 -41.88
Sodium Perchlorate-18O4_IS	Auto	3.400	205566	205566	1.0000	ng/mL	----	----	

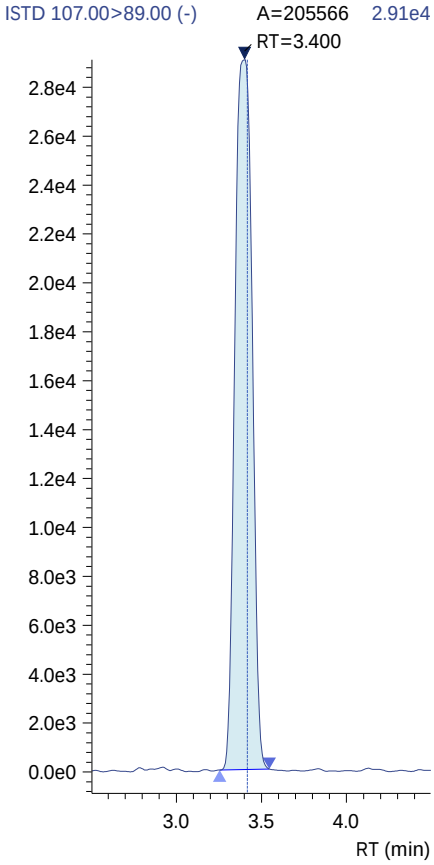
Perchlorate

Conc ----
R#1 0.00 (32.22)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/28/2023 4:05:03 PM

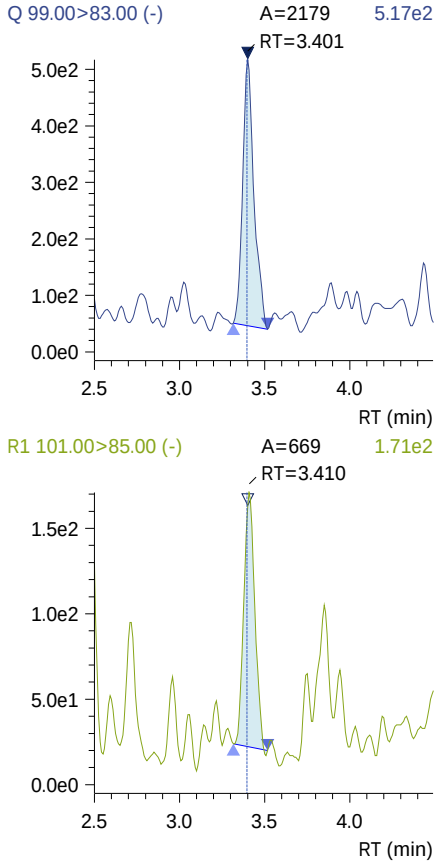
EQ2300091-02

Sample ID: EQ2300091-02
Date Acquired: 2/28/2023 9:52:30 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230228\20230228-006.lcd
Vial: 2 | Inj. Volume: 25.0000uL | Tray: 4

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.401	2179	153253	0.1026	ng/mL	101.00 >85.00	30.71	22.55 -41.88
Sodium Perchlorate-18O4_IS	Auto	3.404	153253	153253	1.0000	ng/mL	----	----	

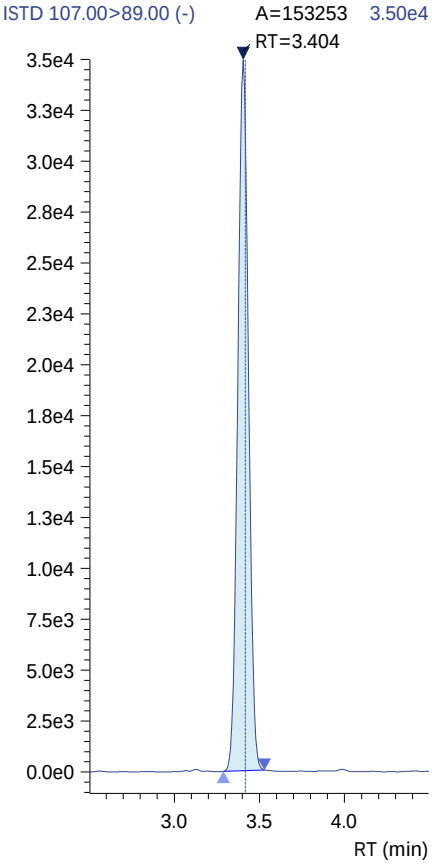
Perchlorate

Conc 0.1026
R#1 30.71 (32.22)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/28/2023 4:05:03 PM

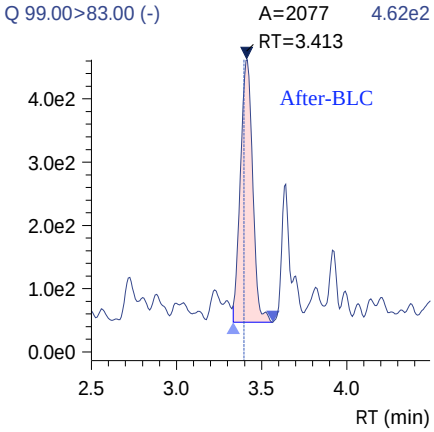
EQ2300091-03

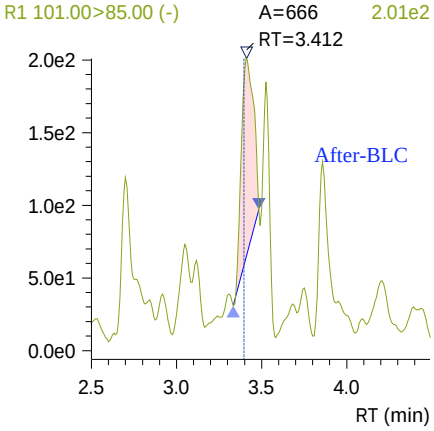
Sample ID: EQ2300091-03
Date Acquired: 2/28/2023 9:58:14 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230228\20230228-007.lcd
Vial: 3 | Inj. Volume: 25.0000uL | Tray: 4

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	M	3.413	2077	153016	0.0980	ng/mL	101.00 >85.00	32.07	22.55 -41.88
Sodium Perchlorate-18O4_IS	Auto	3.411	1530 16	153016	1.0000	ng/mL	----	----	

Perchlorate

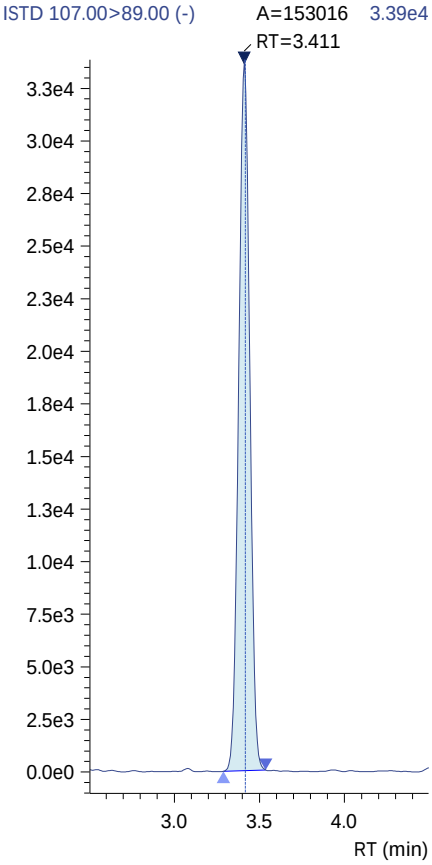
Conc 0.0980
R#1 32.07 (32.22)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/28/2023 4:06:59 PM

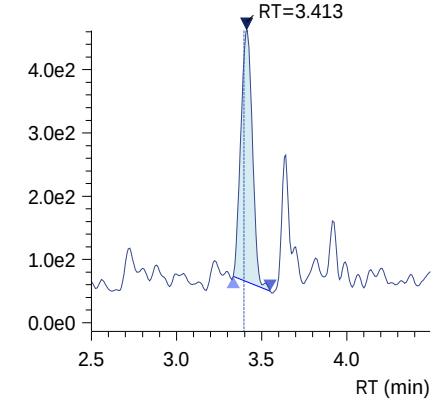
EQ2300091-03

Sample ID: EQ2300091-03
Date Acquired: 2/28/2023 9:58:14 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230228\20230228-007.lcd
Vial: 3 | Inj. Volume: 25.0000uL | Tray: 4

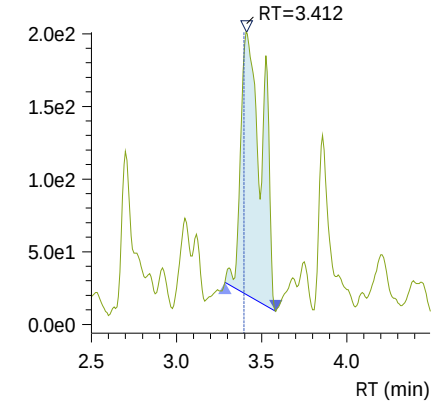
Perchlorate

Conc 0.0882
R#1 84.84 (32.22)

Q 99.00>83.00 (-) A=1888 4.62e2



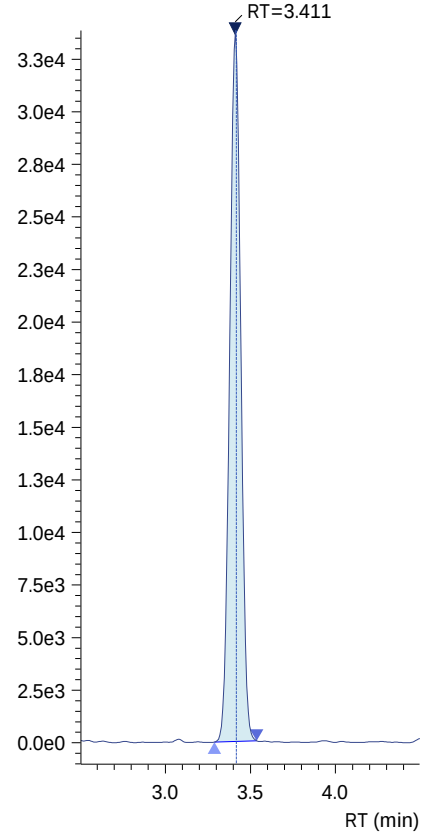
R1 101.00>85.00 (-) A=1602 2.01e2



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) A=153016 3.39e4



Insight Report

Printed at 2/28/2023 4:05:03 PM

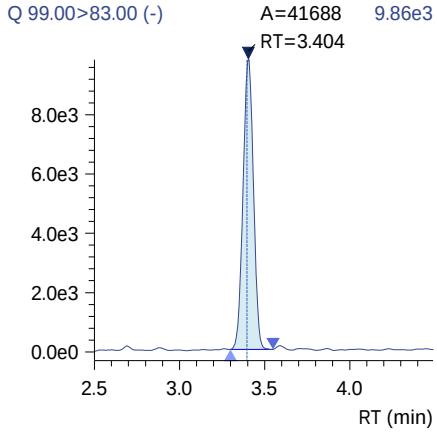
E2300178-001

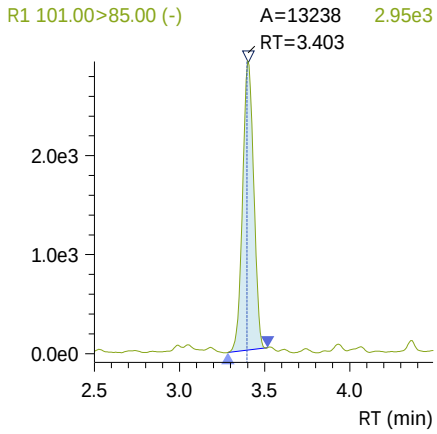
Sample ID: E2300178-001
Date Acquired: 2/28/2023 10:07:19 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230228\20230228-008.lcd
Vial: 4 | Inj. Volume: 25.0000uL | Tray: 4

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.404	41688	163181	1.8441	ng/mL	101.00 >85.00	31.76	22.55 -41.88
Sodium Perchlorate-18O4_IS	Auto	3.402	163181	163181	1.0000	ng/mL	----	----	

Perchlorate

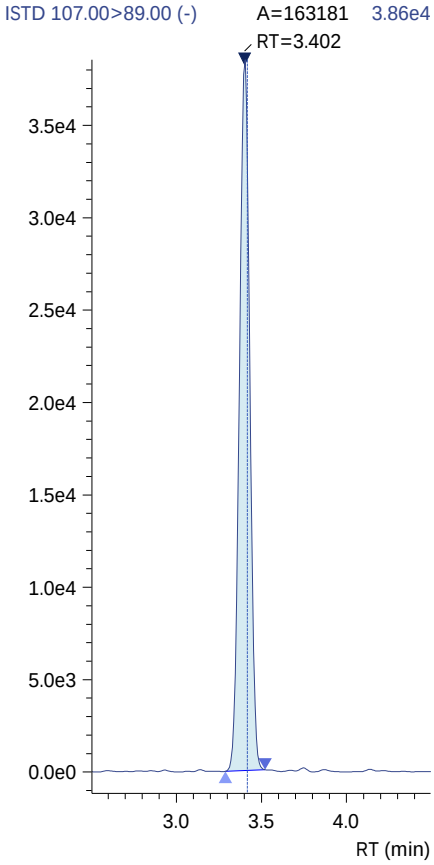
Conc 1.8441
R#1 31.76 (32.22)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/28/2023 4:05:03 PM

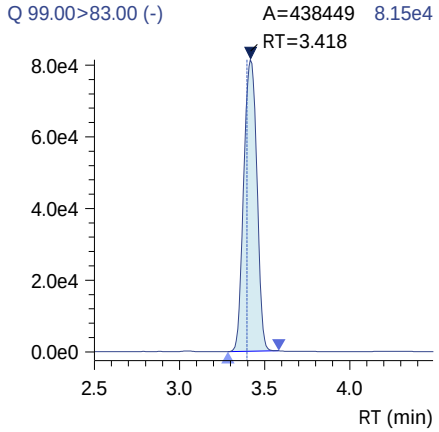
E2300178-002X50

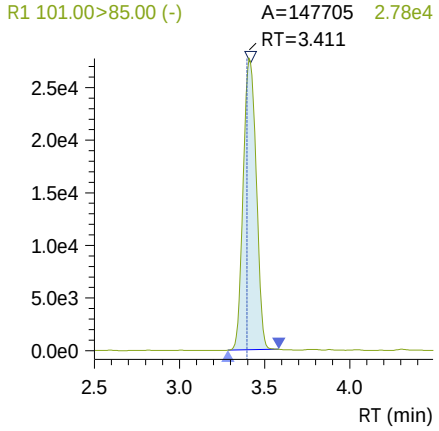
Sample ID: E2300178-002
Date Acquired: 2/28/2023 10:13:02 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230228\20230228-009.lcd
Vial: 5 | Inj. Volume: 25.0000uL | Tray: 4

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.418	4384	95386	33.1	ng/mL	101.00	33.69	22.55
			49		797		>85.00		-41.88
Sodium Perchlorate-18O4_IS	Auto	3.410	95386	95386	1.0000	ng/mL	----	----	

Perchlorate

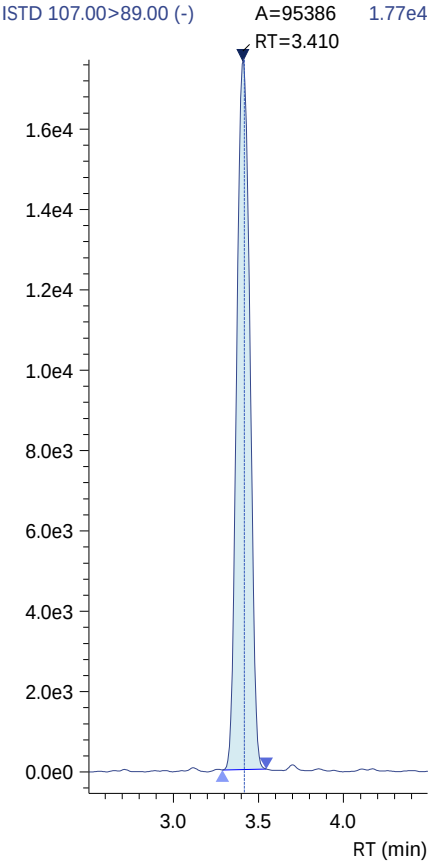
Conc 33.1797
R#1 33.69 (32.22)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/28/2023 4:05:03 PM

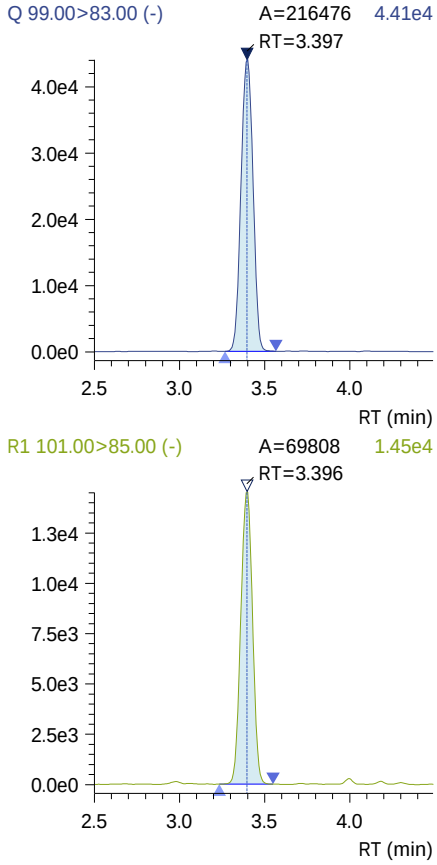
PERCHLORATE7

Sample ID: PERCHLORATE7
Date Acquired: 2/28/2023 11:56:33 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230228\20230228-015.lcd
Vial: 3 | Inj. Volume: 25.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.397	2164 76	141759	11.0 229	ng/mL	101.00 >85.00	32.25	22.55 -41.88
Sodium Perchlorate-18O4_IS	Auto	3.393	1417 59	141759	1.0000	ng/mL	----	----	

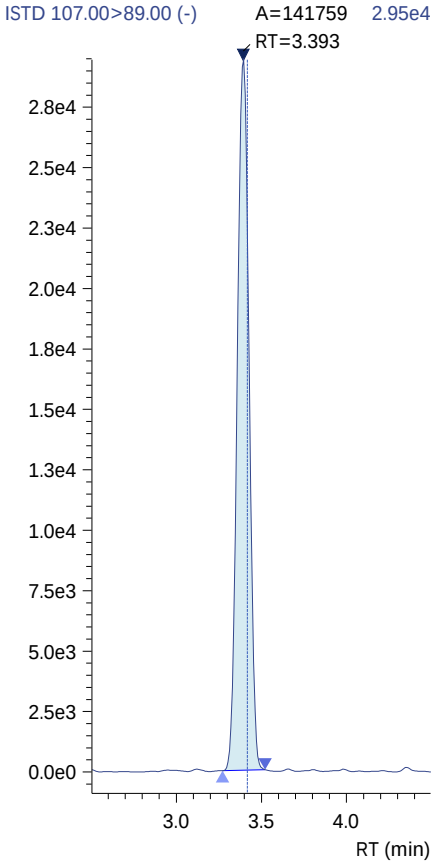
Perchlorate

Conc 11.0229
R#1 32.25 (32.22)



Sodium Perchlorate-18O4_IS

Conc 1.0000



March 23, 2023 Service Request No:E2300277

Marcia Olive
Bhate Environmental Associates, Inc.
445 Union Blvd
Suite 129
Lakewood, CO 80228

Laboratory Results for: LHAAP / Site 17

Dear Marcia,

Enclosed are the results of the sample(s) submitted to our laboratory March 22, 2023
For your reference, these analyses have been assigned our service request number **E2300277.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current TNI standards, where applicable, and except as noted in the laboratory case narrative provided. All results are intended to be considered in their entirety and ALS Environmental is not responsible for use of less than the complete final report. Results apply only to the items submitted to the laboratory, as received for analysis. In accordance with the current TNI Standard, a statement on the estimated uncertainty of measurement of any quantitative analysis will be supplied upon request.

Please contact me if you have any questions. My extension is 2188. You may also contact me via email at James.Guin@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

James Guin

ADDRESS 10450 Stancliff Rd., Suite 210, Houston, TX 77099
PHONE +1 281 530 5656 | FAX +1 281 530 5887
ALS Group USA, Corp.
dba ALS Environmental

Certificate of Analysis

ALS Environmental - Houston HRMS
10450 Stancliff Rd, Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

ALS Environmental

Client:	Bhate Environmental Associates	**Service Request No.:**	E2300277
Project:	LHAAP / Site 17	**Date Received:**	03/22/23
Sample Matrix:	Water		

CASE NARRATIVE

All analyses were performed in adherence to the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Two samples were received for analysis at ALS Environmental in Houston on 03/22/23.

The samples were received in good condition and are consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

Data Validation Notes and Discussion

Precision and Accuracy:

EQ2300140: Laboratory Control Spike/Duplicate Laboratory Control Spike (LCS/DLCS) samples were analyzed and reported in lieu of a MS/MSD for this extraction batch.

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.

Use of ALS group USA Corp dba ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.

Client: Bhate Environmental Associates, Inc. **Service Request:**E2300277
Project: LHAAP / Site 17

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
E2300277-001	LH18/24-SP650_032123_AIX	3/21/2023	1300
E2300277-002	LH18/24-SP650_032123_BIX	3/21/2023	1300

Service Request Summary

Folder #: **E2300277**
Client Name: Bhate Environmental Associates, Inc.
Project Name: LHAAP / Site 17
Project Number:

Report To: Marcia Olive
Bhate Environmental Associates, Inc.
445 Union Blvd
Lakewood, CO 80228
USA
Phone Number: 303-597-2450
Cell Number:
Fax Number:
E-mail: molive@bhate.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: JGUIN
Date Received: 03/22/23
Internal Due Date: 3/23/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: 2878
EDD: BASIC_WQC_CASNo_LOD

2 120 mL-Plastic Bottle Natural WM Unpreserved
Location: EHRMS-AirArch 1
Pressure Gas:
Rush

Lab Samp No.	Client Samp No	Matrix	Collected	HOUSTON ClO4 DOD/6850
E2300277-001	LH18/24-SP650_032123_AIX	Water	03/21/23 1300	**IV**
E2300277-002	LH18/24-SP650_032123_BIX	Water	03/21/23 1300	**IV**

Service Request Summary

Folder #: **E2300277**
Client Name: Bhate Environmental Associates, Inc.
Project Name: LHAAP / Site 17
Project Number:

Report To: Marcia Olive
Bhate Environmental Associates, Inc.
445 Union Blvd
Lakewood, CO 80228
USA
Phone Number: 303-597-2450
Cell Number:
Fax Number:
E-mail: molive@bhate.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: JGUIN
Date Received: 03/22/23
Internal Due Date: 3/23/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: 2878
EDD: BASIC_WQC_CASNo_LOD

2 120 mL-Plastic Bottle Natural WM Unpreserved
Location: EHRMS-AirArch 1
Pressure Gas:
Rush

Data Qualifiers

Lab Standard

+	Possible Tedlar bag artifact.
A	TIC is a suspected aldol-condensation product
B	Analyte found in the associated method blank as well as in the sample.
BC	Reported results are not blank corrected.
BH	The back section of the tube yielded higher results than the front.
BT	Results indicated possible breakthrough; back section >=10% front section.
C	Result identification confirmed.
D	Compound identified in an analysis at a secondary dilution factor
D	Spike was diluted out
DE	Reported results are corrected for desorption efficiency.
E	Estimated value. Concentration above calibration range
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
H	The chromatographic fingerprint of the sample resembles a petroleum product but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
H1	Sample analysis performed past holding time. See case narrative.
H2	Initial analysis within holding time. Reanalysis for the required dilution was past holding time.
H3	Sample was received and analyzed past holding time.
H4	Sample was extracted past required extraction holding time, but analyzed within analysis holding time. See case narrative.
I	(Auto) The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
I	Internal standard not within the specified limits. See case narrative.
I	The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
J	Estimated Value. Concentration found below MRL.
K	A deflection in the QC ion may indicate interference with the quantitation of this ion. The concentration of this analyte should be considered as an estimate.
K	Analyte was detected above the method reporting limit prior to normalization.
K	The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
L1	Laboratory control sample recovery outside the specified limits; results may be biased high.
L2	Laboratory control sample recovery outside the specified limits; results may be biased low.
L3	Laboratory control sample recovery outside the specified limits.
M	Matrix interference; results may be biased high.
M	The duplicate injection precision not met.

Data Qualifiers

Lab Standard

M1	Matrix interference due to coelution with a non-target compound; results may be biased high.
N	Presumptive evidence of a compound for TICs that have been identified based on a mass spectral library search.
N	The Matrix Spike sample recovery is not within control limits. See case narrative.
O	The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
P	Indicates chlorodiphenyl ether interference present at the retention time of the target compound.
P	Pesticide/Aroclor target analyte > 40% difference for detected concentrations between GC columns
Q	Indicates as estimated value because the P and P + 2 theoretical abundance ratio does not meet method criteria.
R	Duplicate Precision not met.
R1	Duplicate precision not within the specified limits; however, the results are below the MRL and considered estimated.
S	Surrogate recovery not within specified limits.
S	The reported value was determined by the Method of Standard Additions (MSA).
T	Analyte is a tentatively identified compound, result is estimated.
U	Compound was analyzed for, but was not detected (ND).
V1	The continuing calibration verification standard was outside (biased high) the specified limits for this compound.
V2	The continuing calibration verification standard was outside (biased low) the specified limits for this compound.
W	Result quantified, but the corresponding peak was detected outside the generated retention time window.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
X	See case narrative.
Y	Recovery outside limits
Y	The chromatogram resembles a petroleum product but does not match the calibration standard.
Z	The chromatogram does not resemble a petroleum product.
i	The MRL/MDL has been elevated due to a matrix interference.

ALS Laboratory Group

Acronyms

Cal	Calibration
Conc	CONCentration
Dioxin(s)	Polychlorinated dibenzo-p-dioxin(s)
EDL	Estimated Detection Limit
EMPC	Estimated Maximum Possible Concentration
Flags	Data qualifiers
Furan(s)	Polychlorinated dibenzofuran(s)
g	Grams
ICAL	Initial CALibration
ID	IDentifier
Ions	Masses monitored for the analyte during data acquisition
L	Liter (s)
LCS	Laboratory Control Sample
DLCS	Duplicate Laboratory Control Sample
MB	Method Blank
MCL	Method Calibration Limit
MDL	Method Detection Limit
mL	Milliliters
MS	Matrix Spiked sample
DMS	Duplicate Matrix Spiked sample
NO	Number of peaks meeting all identification criteria
PCDD(s)	Polychlorinated dibenzo-p-dioxin(s)
PCDF(s)	Polychlorinated dibenzofuran(s)
ppb	Parts per billion
ppm	Parts per million
ppq	Parts per quadrillion
ppt	Parts per trillion
QA	Quality Assurance
QC	Quality Control
Ratio	Ratio of areas from monitored ions for an analyte
% Rec.	Percent recovery
RPD	Relative Percent Difference
RRF	Relative Response Factor
RT	Retention Time
SDG	Sample Delivery Group
S/N	Signal-to-noise ratio
TEF	Toxicity Equivalence Factor
TEQ	Toxicity Equivalence Quotient

10450 Stancliff Rd, Houston, TX 77099 | 281-530-5656 | www.alsglobal.com

ALS Environmental

State Certifications, Accreditations, and Licenses

Agency	Number	Expire Date
Arizona Department of Health Services	AZ0793	5/27/2023
Arkansas Department of Environmental Quality	22-041-0	3/27/2023
California Department of Health Services	2919-2023	4/30/2023
Department of Defense	L22-90	3/31/2024
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Hawaii Department of Health	2022	4/30/2023
Illinois Environmental Protection Agency	2000322022-9	5/9/2023
Kansas Department of Health and Environment	E-10352 2022-2023	7/31/2023
Louisiana Department of Environmental Quality	03087-2022	6/30/2023
Louisiana Department of Health and Hospitals	LA028-2023	12/31/2023
Maine Department of Health and Human Services	2022017	6/5/2024
Maryland Department of the Environment	343	6/30/2023
Michigan Depratment of Environmental Quality	9971-2022	4/30/2023
Minnesota Department of Health	2368363	12/31/2023
Nebraska Department of Health and Human Services	NE-OS-25-13	4/30/2023
Nevada Department of Conservation and Natural Resources	TX026932023-1	7/31/2023
New Hampshire Environmental Laboratory Accreditation Program	209422	4/24/2023
New Jersey Department of Environmental Protection	TX008-2023	6/30/2023
New York Department of Health	11707	3/31/2023
Oklahoma Department of Environmental Quality	2022-141	8/31/2023
Oregon Environmental Laboratory Accreditation Program	TX200002	5/15/2023
Pennsylvania Department of Environmental Protection	68-03441-016	6/30/2023
Perry Johnson Laboratory Accreditation	L22-91	3/31/2024
Tennessee Department of Environment and Concervation	04016-2022	4/30/2023
Texas Commision on Environmental Quality	T104704231-22-29	4/30/2023
Utah Department of Health Environmental Laboratory Certification	TX026932022-13	7/31/2023
Washington Department of Ecology	C819-22	11/14/2023

Chain of Custody

ALS Environmental - Houston HRMS
10450 Stancliff Rd, Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

CHAIN OF CUSTODY

Name Of Lab Shipping To: ALS 10450 Stancliff Rd. Suite 210 Houston, TX. 77099 (281) 530-5656 ATTN: Dane Wacasey

Project: BHATE
LONGHORN ARMY AMMN. PLANT (LHAAP)
GROUNDWATER TREATMENT PLANT (GWTP)
KARNACK, TEXAS

Project No. NWO1312.0150.0 16.0001

Job: GROUNDWATER TREATMENT PLANT WEEKLY SAMPLES

Prepared By: Scott Beesinger

P.O. Number

Field Sample I.D.	Sample Matrix	Date / Time	MS / MSD	No. OF CONTAINERS	Analyses: AMMONIA-N	TOTAL ORGANIC CARBON	ORTHO-PHOSPHATE	PERCHLORATE							Remarks (Preservatives, etc.)	Lab I.D.#
LH18/24-SP650_032123	Water	03/21/23 / 13:00		3	X	X									H2SO4	
LH18/24-SP650_032123	Water	03/21/23 / 13:00		1			X								NONE	
LH18/24–SP650_032123_AIX	Water	03/21/23 / 13:00		1				X							NONE	
LH18/24-SP650_032123_BIX	Water	03/21/23 / 13:00		1				X							NONE	

Additional Remarks: **24 HR. TAT on Perchlorate Samples. Standard TAT on all other parameters**

Relinquished By:	Date	Time	Received By:	Date	Time	Relinquished By:	Date	Time	Received By:	Date	Time
Scott Beesinger	03/21/23	13:30		3/22/23	10:00						

For Lab Use Only

Received At Lab By:	Date	Time	Airbill No.	Opened By:	Date	Time	Temp of Container	Seal No.	Condition
UPS 4378 1.4°									

Remarks: #31 Cl(1-05)

10450 Stancliff Road, Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887
www.alsglobal.com

Client: BHATE Date: MAR 2 2 2023 WO#: _____

Time Received: 1020 Received by: PG BO#: 85837 88443

Matrices: Solid/Sludge (Water) Oil Wipes Hydrocarbon Liquid Other

Kit ID/Cooler ID	Trip Blank ID	Cooler Temp (C) Observed/Corrected	IR #	Temp BLK Present?
43798	—	1.4 / 0.9	#31	(Y) N
		/		Y N
		/		Y N
		/		Y N
		/		Y N

Delivery Method: (FedEx) UPS Greyhound ALS Client Other _____

Date/Time of Unpacking: MAR 2 2 2023 12:10pm Unpacked by: GM

Shipping container/cooler in good condition?	(Yes)	No	Not Present
Custody seals intact on shipping container/cooler?	(Yes)	No	Not Present
Custody seals intact on sample bottles?	Yes	No	(Not Present)
Chain of Custody present?	(Yes)	No	
Chain of Custody signed when relinquished and received?	(Yes)	No	
Chain of Custody - Sampler's name present?	(Yes)	No	
Chain of Custody agrees with sample labels?	(Yes)	No	
Samples in proper container/bottle?	(Yes)	No	
VOA/TX1005/1006 Solids in hermetically Sealed Vials:	Yes	No	(No VOA/TX1005/1006 Solid)
Sample containers intact?	(Yes)	No	
Sufficient sample volume for indicated test?	(Yes)	No	
All samples received within holding time?	(Yes)	No	
Container/Temp Blank temperature in compliance?	(Yes)	No	
Water - VOA vials have zero headspace?	(Yes)	No	N/A No VOA submitted
Non-VOA waters preserved with HCl, H2SO4, HNO3 are pH <2?			(Yes) No N/A
Waters preserved with NaOH/Ascorbic acid are pH>12?	Yes	No	(N/A)
pH adjusted?	Yes*	(No)	N/A *See Preservation Logbook

pH adjusted by: _____ **pH Paper Lot:** 3UA0708511

10450 Stancliff Rd., Suite 210
Houston, TX 77099
T: +1 713 266 1599
F: +1 713 266 1599
www.alsglobal.com

SAMPLE ACCEPTANCE POLICY

This policy outlines the criteria samples must meet to be accepted by ALS Environmental – Houston HRMS.

Cooler Custody Seals (desirable, mandatory if specified in SAP):

- ✓ Intact on outside of cooler, signed and dated

Chain-of-Custody (COC) documentation (mandatory):

The following is required on each COC:

- ✓ Sample ID, the location, date and time of collection, collector's name, preservation type, sample type, and any other special remarks concerning the sampleThe COC must be completed in ink.
- ✓ Signature and date of relinquishing party.

In the absence of a COC at sample receipt, the COC will be requested from the client.

Sample Integrity (mandatory):

Samples are inspected upon arrival to ensure that sample integrity was not compromised during transfer to the laboratory.

- ✓ Sample containers must arrive in good condition (not broken or leaking).
- ✓ Samples must be labeled appropriately, including Sample IDs, and requested test using durable labels and indelible ink.
- ✓ The correct type of sample bottle must be used for the method requested.
- ✓ An appropriate sample volume, or weight, must be received.
- ✓ Sample IDs and number of containers must reconcile with the COC.
- ✓ Samples must be received within the method defined holding time.

Temperature Requirement (varies by sample matrix):

- ✓ Aqueous and Non-aqueous samples must be shipped and stored cold, at 0 to 6ºC.
- ✓ Tissue samples must be shipped and stored frozen, at -20 to -10ºC.
- ✓ Air samples are shipped and stored cold, at 0 to 6ºC
- ✓ The sample temperature must be recorded on the COC

All cooler inspections are documented on the Cooler Receipt Form (CRF). A separate CRF is completed for each service request. Any samples not meeting the above criteria are noted on the CRF and the Project Manager notified. The Project Manager must resolve any sample integrity issues with the client prior to proceeding with the analysis. Such resolutions are documented in writing and filed with the project folder. Data associated with samples received outside of this acceptance policy will be qualified on the case narrative of the final report

Preparation Information Benchsheets

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

Preparation Information Benchsheet

Prep Run#: 416851 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/XMI **Prep Method:** Method **Prep Date/Time:** 3/22/23 11:22

#	Lab Code	Client ID	B#	Method /Test	pH	Cl	Matrix	Amt. Ext.	Sample Description
1	E2300254-001	GW-MW-14-20230314-01	.01	6850/ClO4			Ground Water	10mL	
2	E2300254-002	GW-MW-15-20230314-01	.01	6850/ClO4			Ground Water	10mL	
3	E2300254-003	GW-MW-16-20230314-01	.01	6850/ClO4			Ground Water	10mL	
4	E2300254-004	GW-MW-70D-20230314-01	.01	6850/ClO4			Ground Water	10mL	
5	E2300254-005	GW-MW-39D-20230314-01	.01	6850/ClO4			Ground Water	10mL	
6	E2300254-006	GW-MW-89D-20230314-01	.01	6850/ClO4			Ground Water	10mL	
7	E2300277-001	LH18/24-SP650_032123_AIX	.01	6850/ClO4 DOD			Water	10mL	
8	E2300277-002	LH18/24-SP650_032123_BIX	.01	6850/ClO4 DOD			Water	10mL	
9	EQ2300140-01	MB		6850/ClO4 DOD			Liquid	10mL	
10	EQ2300140-02	LCS		6850/ClO4 DOD			Liquid	10mL	
11	EQ2300140-03	DLCS		6850/ClO4 DOD			Liquid	10mL	
12	R2302026-004	2303081426C BLM-7-509	.01	6850/ClO4			Water	10mL	
13	R2302026-009	2303081602X WW-3-710	.01	6850/ClO4			Water	10mL	
14	R2302028-012	2303080843 STGT-SB-15	.01	6850/ClO4			Water	10mL	
15	R2302122-005	2303091508X WW-3-469	.01	6850/ClO4			Water	10mL	
16	R2302122-010	2303100930A WW-2-489	.01	6850/ClO4			Water	10mL	
17	R2302122-015	2303101003X WW-3-978	.01	6850/ClO4			Water	10mL	
18	R2302122-020	2303101056A WW-2-664	.01	6850/ClO4			Water	10mL	
19	R2302144-012	2303131253 STGTL-SB-13	.01	6850/ClO4			Water	10mL	
20	R2302146-012	2303131503 STGT-SB-12	.01	6850/ClO4			Water	10mL	
21	R2302148-012	2303130913 STGTL-SB-14	.01	6850/ClO4			Water	10mL	
22	R2302188-007	2303141617X PL-8-780	.01	6850/ClO4			Water	10mL	
23	R2302190-012	2303141013 STGT-SB-11	.01	6850/ClO4			Water	10mL	

Spiking Solutions

Name: Perchlorate Intermediate Stock1 Inventory ID 227236 Logbook Ref: Perchlorate (1st Source) Expires On: 07/31/2023

EQ2300140-02	1.00µL	EQ2300140-02	1.00µL	EQ2300140-03	1.00µL	EQ2300140-03	1.00µL

Name: Perchlorate Internal Standard 1ug/mL Inventory ID 227244 Logbook Ref: Perchlorate Internal Standard Expires On: 07/31/2023

E2300254-001	100.00µL	E2300254-002	100.00µL	E2300254-003	100.00µL	E2300254-004	100.00µL	E2300254-005	100.00µL	E2300254-006	100.00µL
E2300277-001	100.00µL	E2300277-002	100.00µL	EQ2300140-01	100.00µL	EQ2300140-01	100.00µL	EQ2300140-02	100.00µL	EQ2300140-02	100.00µL
EQ2300140-03	100.00µL	EQ2300140-03	100.00µL	R2302026-004	100.00µL	R2302026-009	100.00µL	R2302028-012	100.00µL	R2302122-005	100.00µL
R2302122-010	100.00µL	R2302122-015	100.00µL	R2302122-020	100.00µL	R2302144-012	100.00µL	R2302146-012	100.00µL	R2302148-012	100.00µL
R2302188-007	100.00µL	R2302190-012	100.00µL								

Preparation Information Benchsheet

Prep Run#: 416851 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/XMI **Prep Method:** Method **Prep Date/Time:** 3/22/23 11:22

Preparation Materials

Water HPLC Grade	01/04/2023 Water (226857)	6850 Amber Glass screw vial	2mL Screw Top Vial (221894)	6850 0.45um syringe filters	6850 Syringe Filters (224414)
6850 Luer-Lok Syringes	luer-lock syringes (228116)				

Preparation Steps

Step: Preparation
Started: 3/21/23 11:22
Finished: 3/22/23 08:57
By: XMI
Comments

Comments: _____

Reviewed By: XMI Date: 03/22/23

Chain of Custody

Relinquished By: _____ Date: _____ Extracts Examined

Received By: _____ Date: _____ Yes No

Analytical Results

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Bhate Environmental Associates, Inc.	**Service Request:**	E2300277
Project:	LHAAP / Site 17	**Date Collected:**	3/21/23 1300
Sample Matrix:	Water	**Date Received:**	3/22/23
Sample Name:	LH18/24-SP650_032123_AIX	**Units:**	µg/L
Lab Code:	E2300277-001	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.0858**	J	0.100	0.0500	0.0250	1	3/22/23	3/22/23 16:13	416851	798493	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Bhate Environmental Associates, Inc.	**Service Request:**	E2300277
Project:	LHAAP / Site 17	**Date Collected:**	3/21/23 1300
Sample Matrix:	Water	**Date Received:**	3/22/23
Sample Name:	LH18/24-SP650_032123_BIX	**Units:**	µg/L
Lab Code:	E2300277-002	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**26.1**		0.100	0.0500	0.0250	1	3/22/23	3/22/23 16:19	416851	798493	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Bhate Environmental Associates, Inc.	**Service Request:**	E2300277
Project:	LHAAP / Site 17	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	EQ2300140-01	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	ND	U	0.100	0.0500	0.0250	1	3/22/23	3/22/23 16:25	416851	798493	

Accuracy & Precision

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	Bhate Environmental Associates, Inc.	**Service Request:**	E2300277
Project:	LHAAP / Site 17	**Date Analyzed:**	3/22/23
Sample Matrix:	Water		

Lab Control Sample Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method:	6850	**Units:**	µg/L
Prep Method:	Method	**Basis:**	NA
		Extraction Lot:	416851

	Lab Control Sample EQ2300140-02			Duplicate Lab Control Sample EQ2300140-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Perchlorate	0.0893	0.100	89	0.0968	0.100	97	84 - 119	8	15

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Bhate Environmental Associates, Inc.	**Service Request:**	E2300277
Project:	LHAAP / Site 17	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2300140-02	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.0893**	J	0.100	0.0500	0.0250	1	3/22/23	3/22/23 16:30	416851	798493	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Bhate Environmental Associates, Inc.	**Service Request:**	E2300277
Project:	LHAAP / Site 17	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2300140-03	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.0968**	J	0.100	0.0500	0.0250	1	3/22/23	3/22/23 15:07	416851	798493	

HS23030396 Longhorn GW Treatment Plant Monthly Effluent Samples Cover Page

ALS WO# HS23030396

ALS Environmental
ALS Group USA, Corp
10450 Stancliff Road, Suite 210
Houston, TX 77099
T : +1 281 530 5656
F : +1 281 530 5887
www.alsglobal.com

Table of Contents

HS23030396 Longhorn GW Treatment Plant Monthly Effluent Samples Cover Page
- CoverPage
- HS23030396 Longhorn GW Treatment Plant Monthly Effluent Samples Final
  - CoverLetter
  - Sample Summary
  - CaseNarrative
  - LH18/24-SP650_030723
  - LH18/24-SP650_030723_AIX
  - Trip Blank
  - Weight/Volume Log
  - Dates Report
  - QC
  - Acronyms
  - Certifications
  - SampleReceiptCheckList
  - COC
  - HS23030396-E2300239 Perchlorate Report Level II
- HS23030396-MSVOA-SW8260
  - Form 1 - Sample Results
  - Form 2 - Surrogates
  - Form 3A - MS/MSD
  - Form 3B - LCS/LCSD

Table of Contents (continued)

Form 4 - MB Assoc
Form 5 - Tune
Form 6 - ICAL
Form 6I - ICV
Form 7 - CCV
Form 8 - ISTD
Run Log
Raw Data VOA6 424237
Raw Data VOA6 429719
HS23030396-MSSEMI-SW8270SIM
Form 1 - Sample Results
Form 2 - Surrogates
Form 3B - LCS/LCSD
Form 4 - MB Assoc
Form 5 - Tune
Form 6 - ICAL
Form 6I - ICV
Form 7 - CCV
Form 8 - ISTD
Prep Log
Run Log
Raw Data SV-6 427063
Raw Data SV-6 430148
HS23030396 - ME - ICP_W_DOD
Form 11 - ICPMS06 Internal Standard Association
Form 13 - ICPMS06_430084 Run Log
Form 2 - ICPMS06_430084 CCV
Form 3 - ICPMS06_430084 CCB
Form 4 - ICPMS06_430084 ICSA
Form 5A - ICPMS06_430084 MS
Form 5B - ICPMS06_430084 PDS
Form 7 - ICPMS06_430084 LCS
Form 8 - ICPMS06_430084 SD
HS23030396 Wet Chemistry
HS23030396-E2300239 Perchlorate Report Level IV

10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887
alsglobal.com

WorkOrder: HS23030396

Longhorn GW Treatment Plant Monthly Effluent Samples

Bhate Environmental Associates, Inc.

Marcia Olive
445 Union Blvd Ste 129
Lakewood CO 80228

27-Mar-2023

HS23030396 Longhorn GW Treatment Plant
Monthly Effluent Samples Final

ALS WO# HS23030396

10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887

March 24, 2023

Marcia Olive
Bhate Environmental Associates, Inc.
445 Union Blvd Ste 129
Lakewood, CO 80228

Work Order: **HS23030396**

Laboratory Results for: **Longhorn GW Treatment Plant Monthly Effluent Samples**

Dear Marcia Olive,

ALS Environmental received 3 sample(s) on Mar 08, 2023 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Generated By: JUMOKE.LAWAL
Dane J. Wacasey

ALS Houston, US Date: 24-Mar-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
Work Order: HS23030396

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS23030396-01	LH18/24-SP650_030723	Water		07-Mar-2023 13:00	08-Mar-2023 10:15	☐
HS23030396-02	LH18/24-SP650_030723_AIX	Water		07-Mar-2023 13:00	08-Mar-2023 10:15	☐
HS23030396-03	Trip Blank	Water		07-Mar-2023 00:00	08-Mar-2023 10:15	☐

ALS Houston, US Date: 24-Mar-23

Client: Bhate Environmental Associates, Inc. **CASE NARRATIVE**
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
Work Order: HS23030396

Work Order Comments

- The analysis for Perchlorate was subcontracted to ALS Houston High-Res Lab. Final report attached

GCMS Semivolatiles by Method SW8270SIM

Batch ID: 190734

Sample ID: LH18/24-SP650_030723 (HS23030396-01)

- Surrogate recovery was above upper control limit. Associated spike compounds are within control limits. No corrective action taken. High surrogate for 4-Terphenyl-d14 does not affect target analyte 1,4-Dioxane.

GCMS Volatiles by Method SW8260

Batch ID: R429719

Sample ID: LH18/24-SP650_030723(HS23030396-01MS

- The recovery of the Matrix Spike (MS) and the Matrix Spike Duplicate (MSD) associated to these analytes were outside of the established control limits. However, the LCS was within control limits. The failed recovery of the MS/MSD may be due to sample matrix interference.

  The RPD between the MS and MSD was outside of the control limit. Chloroethane

Metals by Method SW6020A

Batch ID: 190792

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method SW7196

Batch ID: R429769

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

ALS Houston, US Date: 24-Mar-23

Client: Bhate Environmental Associates, Inc. **ANALYTICAL REPORT**
Project: Longhorn GW Treatment Plant Monthly Effluent Samples WorkOrder:HS23030396
Sample ID: LH18/24-SP650_030723 Lab ID:HS23030396-01
Collection Date: 07-Mar-2023 13:00 Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C	**Method:SW8260**							Analyst: PC
1,1,1,2-Tetrachloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	09-Mar-2023 13:28
1,1,1-Trichloroethane	1.0	U	0.20	1.0	1.0	ug/L	1	09-Mar-2023 13:28
1,1,2,2-Tetrachloroethane	1.0	U	0.50	1.0	1.0	ug/L	1	09-Mar-2023 13:28
1,1,2-Trichloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	09-Mar-2023 13:28
1,1-Dichloroethane	1.0	U	0.20	1.0	1.0	ug/L	1	09-Mar-2023 13:28
1,1-Dichloroethene	1.0	U	0.20	1.0	1.0	ug/L	1	09-Mar-2023 13:28
1,1-Dichloropropene	1.0	U	0.30	1.0	1.0	ug/L	1	09-Mar-2023 13:28
1,2,3-Trichlorobenzene	1.0	U	0.40	1.0	1.0	ug/L	1	09-Mar-2023 13:28
1,2,3-Trichloropropane	1.0	U	0.50	1.0	1.0	ug/L	1	09-Mar-2023 13:28
1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	1.0	ug/L	1	09-Mar-2023 13:28
1,2,4-Trimethylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	09-Mar-2023 13:28
1,2-Dibromo-3-chloropropane	1.0	U	0.20	1.0	1.0	ug/L	1	09-Mar-2023 13:28
1,2-Dibromoethane	1.0	U	0.20	1.0	1.0	ug/L	1	09-Mar-2023 13:28
1,2-Dichlorobenzene	1.0	U	0.50	1.0	1.0	ug/L	1	09-Mar-2023 13:28
1,2-Dichloroethane	1.0	U	0.20	1.0	1.0	ug/L	1	09-Mar-2023 13:28
1,2-Dichloropropane	1.0	U	0.50	1.0	1.0	ug/L	1	09-Mar-2023 13:28
1,3,5-Trimethylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	09-Mar-2023 13:28
1,3-Dichlorobenzene	1.0	U	0.40	1.0	1.0	ug/L	1	09-Mar-2023 13:28
1,3-Dichloropropane	1.0	U	0.30	1.0	1.0	ug/L	1	09-Mar-2023 13:28
1,4-Dichlorobenzene	1.0	U	0.40	1.0	1.0	ug/L	1	09-Mar-2023 13:28
2,2-Dichloropropane	1.0	U	0.20	1.0	1.0	ug/L	1	09-Mar-2023 13:28
2-Butanone	1.0	U	0.50	1.0	2.0	ug/L	1	09-Mar-2023 13:28
2-Chlorotoluene	1.0	U	0.30	1.0	1.0	ug/L	1	09-Mar-2023 13:28
2-Hexanone	1.0	U	1.0	1.0	2.0	ug/L	1	09-Mar-2023 13:28
4-Chlorotoluene	1.0	U	0.40	1.0	1.0	ug/L	1	09-Mar-2023 13:28
4-Isopropyltoluene	1.0	U	0.30	1.0	1.0	ug/L	1	09-Mar-2023 13:28
4-Methyl-2-pentanone	1.0	U	0.70	1.0	2.0	ug/L	1	09-Mar-2023 13:28
Acetone	1.0	U	0.40	1.0	2.0	ug/L	1	09-Mar-2023 13:28
Benzene	1.0	U	0.20	1.0	1.0	ug/L	1	09-Mar-2023 13:28
Bromobenzene	1.0	U	0.40	1.0	1.0	ug/L	1	09-Mar-2023 13:28
Bromochloromethane	1.0	U	0.20	1.0	1.0	ug/L	1	09-Mar-2023 13:28
Bromodichloromethane	1.0	U	0.20	1.0	1.0	ug/L	1	09-Mar-2023 13:28
Bromoform	1.0	U	0.40	1.0	1.0	ug/L	1	09-Mar-2023 13:28
Bromomethane	1.0	U	0.40	1.0	1.0	ug/L	1	09-Mar-2023 13:28
Carbon disulfide	1.0	U	0.60	1.0	2.0	ug/L	1	09-Mar-2023 13:28
Carbon tetrachloride	1.0	U	0.50	1.0	1.0	ug/L	1	09-Mar-2023 13:28
Chlorobenzene	1.0	U	0.30	1.0	1.0	ug/L	1	09-Mar-2023 13:28
Chloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	09-Mar-2023 13:28
Chloroform	1.0	U	0.20	1.0	1.0	ug/L	1	09-Mar-2023 13:28

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 24-Mar-23

Client: Bhate Environmental Associates, Inc.
ANALYTICAL REPORT
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder:HS23030396
Sample ID: LH18/24-SP650_030723
Lab ID:HS23030396-01
Collection Date: 07-Mar-2023 13:00
Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: PC
Chloromethane	1.0	U	0.20	1.0	1.0	ug/L	1	09-Mar-2023 13:28
cis-1,2-Dichloroethene	**1.7**		**0.20**	**1.0**	**1.0**	**ug/L**	1	09-Mar-2023 13:28
cis-1,3-Dichloropropene	1.0	U	0.20	1.0	1.0	ug/L	1	09-Mar-2023 13:28
Dibromochloromethane	1.0	U	0.30	1.0	1.0	ug/L	1	09-Mar-2023 13:28
Dibromomethane	1.0	U	0.20	1.0	1.0	ug/L	1	09-Mar-2023 13:28
Dichlorodifluoromethane	1.0	U	0.30	1.0	1.0	ug/L	1	09-Mar-2023 13:28
Ethylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	09-Mar-2023 13:28
Hexachlorobutadiene	1.0	U	1.0	1.0	1.0	ug/L	1	09-Mar-2023 13:28
Isopropylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	09-Mar-2023 13:28
m,p-Xylene	1.0	U	0.50	1.0	2.0	ug/L	1	09-Mar-2023 13:28
Methylene chloride	1.0	U	0.40	1.0	2.0	ug/L	1	09-Mar-2023 13:28
n-Butylbenzene	1.0	U	0.40	1.0	1.0	ug/L	1	09-Mar-2023 13:28
n-Propylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	09-Mar-2023 13:28
Naphthalene	1.0	U	0.30	1.0	1.0	ug/L	1	09-Mar-2023 13:28
o-Xylene	1.0	U	0.30	1.0	1.0	ug/L	1	09-Mar-2023 13:28
sec-Butylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	09-Mar-2023 13:28
Styrene	1.0	U	0.30	1.0	1.0	ug/L	1	09-Mar-2023 13:28
tert-Butylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	09-Mar-2023 13:28
Tetrachloroethene	1.0	U	0.30	1.0	1.0	ug/L	1	09-Mar-2023 13:28
Toluene	1.0	U	0.20	1.0	1.0	ug/L	1	09-Mar-2023 13:28
trans-1,2-Dichloroethene	1.0	U	0.20	1.0	1.0	ug/L	1	09-Mar-2023 13:28
trans-1,3-Dichloropropene	1.0	U	0.20	1.0	1.0	ug/L	1	09-Mar-2023 13:28
Trichloroethene	1.0	U	0.20	1.0	1.0	ug/L	1	09-Mar-2023 13:28
Trichlorofluoromethane	1.0	U	0.30	1.0	1.0	ug/L	1	09-Mar-2023 13:28
Vinyl chloride	1.0	U	0.20	1.0	1.0	ug/L	1	09-Mar-2023 13:28
Surr: 1,2-Dichloroethane-d4	*101*			**0**	*81-118*	*%REC*	*1*	*09-Mar-2023 13:28*
Surr: 4-Bromofluorobenzene	*104*			**0**	*85-114*	*%REC*	*1*	*09-Mar-2023 13:28*
Surr: Dibromofluoromethane	*92.0*			**0**	*80-119*	*%REC*	*1*	*09-Mar-2023 13:28*
Surr: Toluene-d8	*109*			**0**	*89-112*	*%REC*	*1*	*09-Mar-2023 13:28*
SEMIVOLATILES SIM		**Method:SW8270SIM**				Prep:SW3510 / 13-Mar-2023		Analyst: MBG
1,4-Dioxane	**0.72**	a	**0.10**	**0**	**0.10**	**ug/L**	10	15-Mar-2023 17:37
Surr: 2-Fluorobiphenyl	*89.8*			**0**	*40-140*	*%REC*	*10*	*15-Mar-2023 17:37*
Surr: 4-Terphenyl-d14	*221*	*S*		**0**	*40-140*	*%REC*	*10*	*15-Mar-2023 17:37*
Surr: Nitrobenzene-d5	*104*			**0**	*40-140*	*%REC*	*10*	*15-Mar-2023 17:37*
METALS BY ICPMS BY SW6020A		**Method:SW6020A**				Prep:SW3010A / 14-Mar-2023		Analyst: JC
Barium	**0.228**		**0.00190**	**0.00250**	**0.00500**	**mg/L**	1	15-Mar-2023 12:43
Lead	0.00125	U	0.000600	0.00125	0.00500	mg/L	1	15-Mar-2023 12:43
Selenium	0.00250	U	0.00110	0.00250	0.00500	mg/L	1	15-Mar-2023 12:43
Silver	0.000500	U	0.000200	0.000500	0.00500	mg/L	1	15-Mar-2023 12:43

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 24-Mar-23

Client: Bhate Environmental Associates, Inc. **ANALYTICAL REPORT**

Project: Longhorn GW Treatment Plant Monthly Effluent Samples WorkOrder:HS23030396

Sample ID: LH18/24-SP650_030723 Lab ID:HS23030396-01

Collection Date: 07-Mar-2023 13:00 Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
HEXAVALENT CHROMIUM BY SW7196A	**Method:SW7196**							Analyst: JAC
Chromium, Hexavalent	0.00600	U	0.00600	0.00600	0.0100	mg/L	1	08-Mar-2023 11:24

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 24-Mar-23

Client: Bhate Environmental Associates, Inc. **ANALYTICAL REPORT**

Project: Longhorn GW Treatment Plant Monthly Effluent Samples WorkOrder:HS23030396

Sample ID: LH18/24-SP650_030723_AIX Lab ID:HS23030396-02

Collection Date: 07-Mar-2023 13:00 Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: SUB
Subcontract Analysis	See Attached		0	0		NA	1	24-Mar-2023 11:10

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 24-Mar-23

Client: Bhate Environmental Associates, Inc. **ANALYTICAL REPORT**

Project: Longhorn GW Treatment Plant Monthly Effluent Samples WorkOrder:HS23030396

Sample ID: Trip Blank Lab ID:HS23030396-03

Collection Date: 07-Mar-2023 00:00 Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C	**Method:SW8260**							Analyst: PC
1,1,1,2-Tetrachloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	09-Mar-2023 13:07
1,1,1-Trichloroethane	1.0	U	0.20	1.0	1.0	ug/L	1	09-Mar-2023 13:07
1,1,2,2-Tetrachloroethane	1.0	U	0.50	1.0	1.0	ug/L	1	09-Mar-2023 13:07
1,1,2-Trichloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	09-Mar-2023 13:07
1,1-Dichloroethane	1.0	U	0.20	1.0	1.0	ug/L	1	09-Mar-2023 13:07
1,1-Dichloroethene	1.0	U	0.20	1.0	1.0	ug/L	1	09-Mar-2023 13:07
1,1-Dichloropropene	1.0	U	0.30	1.0	1.0	ug/L	1	09-Mar-2023 13:07
1,2,3-Trichlorobenzene	1.0	U	0.40	1.0	1.0	ug/L	1	09-Mar-2023 13:07
1,2,3-Trichloropropane	1.0	U	0.50	1.0	1.0	ug/L	1	09-Mar-2023 13:07
1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	1.0	ug/L	1	09-Mar-2023 13:07
1,2,4-Trimethylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	09-Mar-2023 13:07
1,2-Dibromo-3-chloropropane	1.0	U	0.20	1.0	1.0	ug/L	1	09-Mar-2023 13:07
1,2-Dibromoethane	1.0	U	0.20	1.0	1.0	ug/L	1	09-Mar-2023 13:07
1,2-Dichlorobenzene	1.0	U	0.50	1.0	1.0	ug/L	1	09-Mar-2023 13:07
1,2-Dichloroethane	1.0	U	0.20	1.0	1.0	ug/L	1	09-Mar-2023 13:07
1,2-Dichloropropane	1.0	U	0.50	1.0	1.0	ug/L	1	09-Mar-2023 13:07
1,3,5-Trimethylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	09-Mar-2023 13:07
1,3-Dichlorobenzene	1.0	U	0.40	1.0	1.0	ug/L	1	09-Mar-2023 13:07
1,3-Dichloropropane	1.0	U	0.30	1.0	1.0	ug/L	1	09-Mar-2023 13:07
1,4-Dichlorobenzene	1.0	U	0.40	1.0	1.0	ug/L	1	09-Mar-2023 13:07
2,2-Dichloropropane	1.0	U	0.20	1.0	1.0	ug/L	1	09-Mar-2023 13:07
2-Butanone	1.0	U	0.50	1.0	2.0	ug/L	1	09-Mar-2023 13:07
2-Chlorotoluene	1.0	U	0.30	1.0	1.0	ug/L	1	09-Mar-2023 13:07
2-Hexanone	1.0	U	1.0	1.0	2.0	ug/L	1	09-Mar-2023 13:07
4-Chlorotoluene	1.0	U	0.40	1.0	1.0	ug/L	1	09-Mar-2023 13:07
4-Isopropyltoluene	1.0	U	0.30	1.0	1.0	ug/L	1	09-Mar-2023 13:07
4-Methyl-2-pentanone	1.0	U	0.70	1.0	2.0	ug/L	1	09-Mar-2023 13:07
Acetone	1.0	U	0.40	1.0	2.0	ug/L	1	09-Mar-2023 13:07
Benzene	1.0	U	0.20	1.0	1.0	ug/L	1	09-Mar-2023 13:07
Bromobenzene	1.0	U	0.40	1.0	1.0	ug/L	1	09-Mar-2023 13:07
Bromochloromethane	1.0	U	0.20	1.0	1.0	ug/L	1	09-Mar-2023 13:07
Bromodichloromethane	1.0	U	0.20	1.0	1.0	ug/L	1	09-Mar-2023 13:07
Bromoform	1.0	U	0.40	1.0	1.0	ug/L	1	09-Mar-2023 13:07
Bromomethane	1.0	U	0.40	1.0	1.0	ug/L	1	09-Mar-2023 13:07
Carbon disulfide	1.0	U	0.60	1.0	2.0	ug/L	1	09-Mar-2023 13:07
Carbon tetrachloride	1.0	U	0.50	1.0	1.0	ug/L	1	09-Mar-2023 13:07
Chlorobenzene	1.0	U	0.30	1.0	1.0	ug/L	1	09-Mar-2023 13:07
Chloroethane	1.0	U	0.30	1.0	1.0	ug/L	1	09-Mar-2023 13:07
Chloroform	1.0	U	0.20	1.0	1.0	ug/L	1	09-Mar-2023 13:07

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 24-Mar-23

Client: Bhate Environmental Associates, Inc.
ANALYTICAL REPORT
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder:HS23030396
Sample ID: Trip Blank
Lab ID:HS23030396-03
Collection Date: 07-Mar-2023 00:00
Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C	**Method:SW8260**							Analyst: PC
Chloromethane	1.0	U	0.20	1.0	1.0	ug/L	1	09-Mar-2023 13:07
cis-1,2-Dichloroethene	1.0	U	0.20	1.0	1.0	ug/L	1	09-Mar-2023 13:07
cis-1,3-Dichloropropene	1.0	U	0.20	1.0	1.0	ug/L	1	09-Mar-2023 13:07
Dibromochloromethane	1.0	U	0.30	1.0	1.0	ug/L	1	09-Mar-2023 13:07
Dibromomethane	1.0	U	0.20	1.0	1.0	ug/L	1	09-Mar-2023 13:07
Dichlorodifluoromethane	1.0	U	0.30	1.0	1.0	ug/L	1	09-Mar-2023 13:07
Ethylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	09-Mar-2023 13:07
Hexachlorobutadiene	1.0	U	1.0	1.0	1.0	ug/L	1	09-Mar-2023 13:07
Isopropylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	09-Mar-2023 13:07
m,p-Xylene	1.0	U	0.50	1.0	2.0	ug/L	1	09-Mar-2023 13:07
Methylene chloride	1.0	U	0.40	1.0	2.0	ug/L	1	09-Mar-2023 13:07
n-Butylbenzene	1.0	U	0.40	1.0	1.0	ug/L	1	09-Mar-2023 13:07
n-Propylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	09-Mar-2023 13:07
Naphthalene	1.0	U	0.30	1.0	1.0	ug/L	1	09-Mar-2023 13:07
o-Xylene	1.0	U	0.30	1.0	1.0	ug/L	1	09-Mar-2023 13:07
sec-Butylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	09-Mar-2023 13:07
Styrene	1.0	U	0.30	1.0	1.0	ug/L	1	09-Mar-2023 13:07
tert-Butylbenzene	1.0	U	0.30	1.0	1.0	ug/L	1	09-Mar-2023 13:07
Tetrachloroethene	1.0	U	0.30	1.0	1.0	ug/L	1	09-Mar-2023 13:07
Toluene	1.0	U	0.20	1.0	1.0	ug/L	1	09-Mar-2023 13:07
trans-1,2-Dichloroethene	1.0	U	0.20	1.0	1.0	ug/L	1	09-Mar-2023 13:07
trans-1,3-Dichloropropene	1.0	U	0.20	1.0	1.0	ug/L	1	09-Mar-2023 13:07
Trichloroethene	1.0	U	0.20	1.0	1.0	ug/L	1	09-Mar-2023 13:07
Trichlorofluoromethane	1.0	U	0.30	1.0	1.0	ug/L	1	09-Mar-2023 13:07
Vinyl chloride	1.0	U	0.20	1.0	1.0	ug/L	1	09-Mar-2023 13:07
Surr: 1,2-Dichloroethane-d4	*99.4*			**0**	*81-118*	*%REC*	*1*	*09-Mar-2023 13:07*
Surr: 4-Bromofluorobenzene	*106*			**0**	*85-114*	*%REC*	*1*	*09-Mar-2023 13:07*
Surr: Dibromofluoromethane	*92.3*			**0**	*80-119*	*%REC*	*1*	*09-Mar-2023 13:07*
Surr: Toluene-d8	*109*			**0**	*89-112*	*%REC*	*1*	*09-Mar-2023 13:07*

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Weight / Prep Log

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder: HS23030396

Batch ID: 190734 **Start Date:** 13 Mar 2023 12:30 **End Date:** 13 Mar 2023 15:00
Method: SV AQ SEP FUN EXTRACT-LOWLEV - 3510C **Prep Code:** 3510_B_SIM

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS23030396-01	1	1000 (mL)	1 (mL)	0.001	1-liter amber glass, Neat

Batch ID: 190792 **Start Date:** 14 Mar 2023 14:00 **End Date:** 14 Mar 2023 18:00
Method: WATER - SW3010A **Prep Code:** 3010A

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS23030396-01		10 (mL)	10 (mL)	1	120 plastic HNO3

ALS Houston, US Date: 24-Mar-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder: HS23030396

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: 190734 (0)	**Test Name :** SEMIVOLATILES SIM				**Matrix:** Water	
HS23030396-01	LH18/24-SP650_030723	07 Mar 2023 13:00		13 Mar 2023 16:51	15 Mar 2023 17:37	10
Batch ID: 190792 (0)	**Test Name :** METALS BY ICPMS BY SW6020A				**Matrix:** Water	
HS23030396-01	LH18/24-SP650_030723	07 Mar 2023 13:00		14 Mar 2023 14:00	15 Mar 2023 12:43	1
Batch ID: R429719 (0)	**Test Name :** VOLATILES ORGANICS BY METHOD 8260C				**Matrix:** Water	
HS23030396-01	LH18/24-SP650_030723	07 Mar 2023 13:00			09 Mar 2023 13:28	1
HS23030396-03	Trip Blank	07 Mar 2023 00:00			09 Mar 2023 13:07	1
Batch ID: R429769 (0)	**Test Name :** HEXAVALENT CHROMIUM BY SW7196A				**Matrix:** Water	
HS23030396-01	LH18/24-SP650_030723	07 Mar 2023 13:00			08 Mar 2023 11:24	1
Batch ID: R430874 (0)	**Test Name :** SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)				**Matrix:** Water	
HS23030396-02	LH18/24-SP650_030723_AIX	07 Mar 2023 13:00			24 Mar 2023 11:10	1

ALS Houston, US Date: 24-Mar-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder: HS23030396

QC BATCH REPORT

Batch ID: 190792 (0) **Instrument: ICPMS06** **Method: METALS BY ICPMS BY SW6020A**

MBLK Sample ID: **MBLK-190792** Units: **mg/L** Analysis Date: **15-Mar-2023 12:56**
Client ID: Run ID: **ICPMS06_430084** SeqNo: **7173408** PrepDate: **14-Mar-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Barium	0.00250	0.00500								U
Lead	0.00125	0.00500								U
Selenium	0.00250	0.00500								U
Silver	0.000500	0.00500								U

LCS Sample ID: **LCS-190792** Units: **mg/L** Analysis Date: **15-Mar-2023 12:41**
Client ID: Run ID: **ICPMS06_430084** SeqNo: **7173400** PrepDate: **14-Mar-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Barium	0.04748	0.00500	0.05	0	95.0	86 - 114				
Lead	0.04791	0.00500	0.05	0	95.8	88 - 115				
Selenium	0.04905	0.00500	0.05	0	98.1	80 - 120				
Silver	0.05048	0.00500	0.05	0	101	85 - 116				

MS Sample ID: **HS23030399-01MS** Units: **mg/L** Analysis Date: **15-Mar-2023 12:49**
Client ID: Run ID: **ICPMS06_430084** SeqNo: **7173404** PrepDate: **14-Mar-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Barium	0.2988	0.00500	0.05	0.2481	101	86 - 114				O
Lead	0.04819	0.00500	0.05	0.000196	96.0	88 - 115				
Selenium	0.04911	0.00500	0.05	0.000553	97.1	80 - 120				
Silver	0.04763	0.00500	0.05	0.000017	95.2	85 - 116				

MSD Sample ID: **HS23030399-01MSD** Units: **mg/L** Analysis Date: **15-Mar-2023 12:51**
Client ID: Run ID: **ICPMS06_430084** SeqNo: **7173405** PrepDate: **14-Mar-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Barium	0.302	0.00500	0.05	0.2481	108	86 - 114	0.2988	1.06	20	O
Lead	0.04806	0.00500	0.05	0.000196	95.7	88 - 115	0.04819	0.276	20	
Selenium	0.05034	0.00500	0.05	0.000553	99.6	80 - 120	0.04911	2.48	20	
Silver	0.04768	0.00500	0.05	0.000017	95.3	85 - 116	0.04763	0.109	20	

ALS Houston, US Date: 24-Mar-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder: HS23030396

QC BATCH REPORT

Batch ID: 190792 (0) **Instrument: ICPMS06** **Method: METALS BY ICPMS BY SW6020A**

PDS Sample ID: **HS23030399-01PDS** Units: **mg/L** Analysis Date: **15-Mar-2023 12:53**
Client ID: Run ID: **ICPMS06_430084** SeqNo: **7173406** PrepDate: **14-Mar-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Barium	0.3498	0.00500	0.1	0.2481	102	80 - 120				
Lead	0.09539	0.00500	0.1	0.000196	95.2	80 - 120				
Selenium	0.09867	0.00500	0.1	0.000553	98.1	80 - 120				
Silver	0.09682	0.00500	0.1	0.000017	96.8	80 - 120				

SD Sample ID: **HS23030399-01SD** Units: **mg/L** Analysis Date: **15-Mar-2023 12:47**
Client ID: Run ID: **ICPMS06_430084** SeqNo: **7173403** PrepDate: **14-Mar-2023** DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Barium	0.2437	0.0250					0.2481	1.75	10	
Lead	0.00625	0.0250					0.000196	0	10	U
Selenium	0.0125	0.0250					0.000553	0	10	U
Silver	0.00250	0.0250					0.000017	0	10	U

The following samples were analyzed in this batch: HS23030396-01

ALS Houston, US Date: 24-Mar-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder: HS23030396

QC BATCH REPORT

Batch ID: 190734 (0) **Instrument: SV-6** **Method: SEMIVOLATILES SIM**

MBLK Sample ID: **MBLK-190734** Units: **ug/L** Analysis Date: **15-Mar-2023 16:43**
Client ID: Run ID: **SV-6_430148** SeqNo: **7175311** PrepDate: **13-Mar-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dioxane	0	0.030								U
Surr: 2-Fluorobiphenyl	*0.07521*	*0*	*0.08*	*0*	*94.0*	*40 - 140*				
Surr: 4-Terphenyl-d14	*0.06573*	*0*	*0.08*	*0*	*82.2*	*40 - 140*				
Surr: Nitrobenzene-d5	*0.07429*	*0*	*0.08*	*0*	*92.9*	*40 - 140*				

LCS Sample ID: **LCS-190734** Units: **ug/L** Analysis Date: **15-Mar-2023 17:01**
Client ID: Run ID: **SV-6_430148** SeqNo: **7175312** PrepDate: **13-Mar-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dioxane	0.0607	0.030	0.08	0	75.9	40 - 140				
Surr: 2-Fluorobiphenyl	*0.09189*	*0*	*0.08*	*0*	*115*	*40 - 140*				
Surr: 4-Terphenyl-d14	*0.07096*	*0*	*0.08*	*0*	*88.7*	*40 - 140*				
Surr: Nitrobenzene-d5	*0.08264*	*0*	*0.08*	*0*	*103*	*40 - 140*				

LCSD Sample ID: **LCSD-190734** Units: **ug/L** Analysis Date: **15-Mar-2023 17:19**
Client ID: Run ID: **SV-6_430148** SeqNo: **7175313** PrepDate: **13-Mar-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dioxane	0.0593	0.030	0.08	0	74.1	40 - 140	0.0607	2.34	20	
Surr: 2-Fluorobiphenyl	*0.08285*	*0*	*0.08*	*0*	*104*	*40 - 140*	*0.09189*	*10.3*	*20*	
Surr: 4-Terphenyl-d14	*0.0739*	*0*	*0.08*	*0*	*92.4*	*40 - 140*	*0.07096*	*4.06*	*20*	
Surr: Nitrobenzene-d5	*0.07218*	*0*	*0.08*	*0*	*90.2*	*40 - 140*	*0.08264*	*13.5*	*20*	

The following samples were analyzed in this batch: HS23030396-01

ALS Houston, US Date: 24-Mar-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder: HS23030396

QC BATCH REPORT

Batch ID: R429719 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MBLK Sample ID: **VBLKW-230309** Units: **ug/L** Analysis Date: **09-Mar-2023 12:46**
Client ID: Run ID: **VOA6_429719** SeqNo: **7164928** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	1.0	1.0								U
1,1,1-Trichloroethane	1.0	1.0								U
1,1,2,2-Tetrachloroethane	1.0	1.0								U
1,1,2-Trichloroethane	1.0	1.0								U
1,1-Dichloroethane	1.0	1.0								U
1,1-Dichloroethene	1.0	1.0								U
1,1-Dichloropropene	1.0	1.0								U
1,2,3-Trichlorobenzene	1.0	1.0								U
1,2,3-Trichloropropane	1.0	1.0								U
1,2,4-Trichlorobenzene	1.0	1.0								U
1,2,4-Trimethylbenzene	1.0	1.0								U
1,2-Dibromo-3-chloropropane	1.0	1.0								U
1,2-Dibromoethane	1.0	1.0								U
1,2-Dichlorobenzene	1.0	1.0								U
1,2-Dichloroethane	1.0	1.0								U
1,2-Dichloropropane	1.0	1.0								U
1,3,5-Trimethylbenzene	1.0	1.0								U
1,3-Dichlorobenzene	1.0	1.0								U
1,3-Dichloropropane	1.0	1.0								U
1,4-Dichlorobenzene	1.0	1.0								U
2,2-Dichloropropane	1.0	1.0								U
2-Butanone	1.0	2.0								U
2-Chlorotoluene	1.0	1.0								U
2-Hexanone	1.0	2.0								U
4-Chlorotoluene	1.0	1.0								U
4-Isopropyltoluene	1.0	1.0								U
4-Methyl-2-pentanone	1.0	2.0								U
Acetone	1.0	2.0								U
Benzene	1.0	1.0								U
Bromobenzene	1.0	1.0								U
Bromochloromethane	1.0	1.0								U
Bromodichloromethane	1.0	1.0								U
Bromoform	1.0	1.0								U
Bromomethane	1.0	1.0								U

ALS Houston, US Date: 24-Mar-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder: HS23030396

QC BATCH REPORT

Batch ID: R429719 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MBLK Sample ID: **VBLKW-230309** Units: **ug/L** Analysis Date: **09-Mar-2023 12:46**
Client ID: Run ID: **VOA6_429719** SeqNo: **7164928** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Carbon disulfide	1.0	2.0								U
Carbon tetrachloride	1.0	1.0								U
Chlorobenzene	1.0	1.0								U
Chloroethane	1.0	1.0								U
Chloroform	1.0	1.0								U
Chloromethane	1.0	1.0								U
cis-1,2-Dichloroethene	1.0	1.0								U
cis-1,3-Dichloropropene	1.0	1.0								U
Dibromochloromethane	1.0	1.0								U
Dibromomethane	1.0	1.0								U
Dichlorodifluoromethane	1.0	1.0								U
Ethylbenzene	1.0	1.0								U
Hexachlorobutadiene	1.0	1.0								U
Isopropylbenzene	1.0	1.0								U
m,p-Xylene	1.0	2.0								U
Methylene chloride	1.0	2.0								U
Naphthalene	1.0	1.0								U
n-Butylbenzene	1.0	1.0								U
n-Propylbenzene	1.0	1.0								U
o-Xylene	1.0	1.0								U
sec-Butylbenzene	1.0	1.0								U
Styrene	1.0	1.0								U
tert-Butylbenzene	1.0	1.0								U
Tetrachloroethene	1.0	1.0								U
Toluene	1.0	1.0								U
trans-1,2-Dichloroethene	1.0	1.0								U
trans-1,3-Dichloropropene	1.0	1.0								U
Trichloroethene	1.0	1.0								U
Trichlorofluoromethane	1.0	1.0								U
Vinyl chloride	1.0	1.0								U
Surr: 1,2-Dichloroethane-d4	*49.13*	*1.0*	*50*	*0*	*98.3*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*53.09*	*1.0*	*50*	*0*	*106*	*85 - 114*				
Surr: Dibromofluoromethane	*45.46*	*1.0*	*50*	*0*	*90.9*	*80 - 119*				
Surr: Toluene-d8	*54.5*	*1.0*	*50*	*0*	*109*	*89 - 112*				

ALS Houston, US Date: 24-Mar-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder: HS23030396

QC BATCH REPORT

Batch ID: R429719 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

LCS Sample ID: **VLCSW-230309** Units: **ug/L** Analysis Date: **09-Mar-2023 12:04**
Client ID: Run ID: **VOA6_429719** SeqNo: **7164927** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	19.54	1.0	20	0	97.7	78 - 124				
1,1,1-Trichloroethane	18.97	1.0	20	0	94.9	74 - 131				
1,1,2,2-Tetrachloroethane	21.39	1.0	20	0	107	71 - 121				
1,1,2-Trichloroethane	20.74	1.0	20	0	104	80 - 119				
1,1-Dichloroethane	21.57	1.0	20	0	108	77 - 125				
1,1-Dichloroethene	15.54	1.0	20	0	77.7	71 - 131				
1,1-Dichloropropene	19.61	1.0	20	0	98.0	78 - 125				
1,2,3-Trichlorobenzene	20.26	1.0	20	0	101	69 - 129				
1,2,3-Trichloropropane	22.64	1.0	20	0	113	73 - 122				
1,2,4-Trichlorobenzene	20.67	1.0	20	0	103	69 - 130				
1,2,4-Trimethylbenzene	19.7	1.0	20	0	98.5	76 - 124				
1,2-Dibromo-3-chloropropane	21.28	1.0	20	0	106	62 - 128				
1,2-Dibromoethane	20.96	1.0	20	0	105	77 - 121				
1,2-Dichlorobenzene	18.86	1.0	20	0	94.3	80 - 119				
1,2-Dichloroethane	21.63	1.0	20	0	108	73 - 128				
1,2-Dichloropropane	21.9	1.0	20	0	110	78 - 122				
1,3,5-Trimethylbenzene	19.9	1.0	20	0	99.5	75 - 124				
1,3-Dichlorobenzene	19.45	1.0	20	0	97.2	80 - 119				
1,3-Dichloropropane	22.17	1.0	20	0	111	80 - 119				
1,4-Dichlorobenzene	18.57	1.0	20	0	92.9	79 - 118				
2,2-Dichloropropane	20.88	1.0	20	0	104	60 - 139				
2-Butanone	46.42	2.0	40	0	116	56 - 143				
2-Chlorotoluene	20.98	1.0	20	0	105	79 - 122				
2-Hexanone	49.99	2.0	40	0	125	57 - 139				
4-Chlorotoluene	20.86	1.0	20	0	104	78 - 122				
4-Isopropyltoluene	18.99	1.0	20	0	94.9	77 - 127				
4-Methyl-2-pentanone	50.3	2.0	40	0	126	67 - 130				
Acetone	47.08	2.0	40	0	118	39 - 160				
Benzene	20.37	1.0	20	0	102	79 - 120				
Bromobenzene	19.21	1.0	20	0	96.0	80 - 120				
Bromochloromethane	19.5	1.0	20	0	97.5	78 - 123				
Bromodichloromethane	19.55	1.0	20	0	97.8	79 - 125				
Bromoform	19.3	1.0	20	0	96.5	66 - 130				
Bromomethane	19.03	1.0	20	0	95.2	53 - 141				

ALS Houston, US Date: 24-Mar-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder: HS23030396

QC BATCH REPORT

Batch ID: R429719 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

LCS Sample ID: **VLCSW-230309** Units: **ug/L** Analysis Date: **09-Mar-2023 12:04**
Client ID: Run ID: **VOA6_429719** SeqNo: **7164927** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Carbon disulfide	39.85	2.0	40	0	99.6	64 - 133				
Carbon tetrachloride	16.49	1.0	20	0	82.4	72 - 136				
Chlorobenzene	19.25	1.0	20	0	96.2	82 - 118				
Chloroethane	18.04	1.0	20	0	90.2	60 - 138				
Chloroform	20.7	1.0	20	0	104	79 - 124				
Chloromethane	24.57	1.0	20	0	123	50 - 139				
cis-1,2-Dichloroethene	19.73	1.0	20	0	98.6	78 - 123				
cis-1,3-Dichloropropene	22.16	1.0	20	0	111	75 - 124				
Dibromochloromethane	19.75	1.0	20	0	98.8	74 - 126				
Dibromomethane	19.96	1.0	20	0	99.8	79 - 123				
Dichlorodifluoromethane	15.1	1.0	20	0	75.5	32 - 152				
Ethylbenzene	19.78	1.0	20	0	98.9	79 - 121				
Hexachlorobutadiene	16.79	1.0	20	0	84.0	66 - 134				
Isopropylbenzene	18.92	1.0	20	0	94.6	72 - 131				
m,p-Xylene	39.24	2.0	40	0	98.1	80 - 121				
Methylene chloride	21.53	2.0	20	0	108	74 - 124				
Naphthalene	21.87	1.0	20	0	109	61 - 128				
n-Butylbenzene	17.77	1.0	20	0	88.9	75 - 128				
n-Propylbenzene	19.2	1.0	20	0	96.0	76 - 126				
o-Xylene	19.95	1.0	20	0	99.7	78 - 122				
sec-Butylbenzene	18.13	1.0	20	0	90.7	77 - 126				
Styrene	20.55	1.0	20	0	103	78 - 123				
tert-Butylbenzene	18.67	1.0	20	0	93.3	78 - 124				
Tetrachloroethene	17.65	1.0	20	0	88.2	74 - 129				
Toluene	19.99	1.0	20	0	100.0	80 - 121				
trans-1,2-Dichloroethene	19.8	1.0	20	0	99.0	75 - 124				
trans-1,3-Dichloropropene	22.54	1.0	20	0	113	73 - 127				
Trichloroethene	18.94	1.0	20	0	94.7	79 - 123				
Trichlorofluoromethane	15.46	1.0	20	0	77.3	65 - 141				
Vinyl chloride	17.36	1.0	20	0	86.8	58 - 137				
Surr: 1,2-Dichloroethane-d4	*53.04*	*1.0*	*50*	*0*	*106*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*50.9*	*1.0*	*50*	*0*	*102*	*85 - 114*				
Surr: Dibromofluoromethane	*48.94*	*1.0*	*50*	*0*	*97.9*	*80 - 119*				
Surr: Toluene-d8	*47.85*	*1.0*	*50*	*0*	*95.7*	*89 - 112*				

ALS Houston, US Date: 24-Mar-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder: HS23030396

QC BATCH REPORT

Batch ID: R429719 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MS Sample ID: **HS23030396-01MS** Units: **ug/L** Analysis Date: **09-Mar-2023 13:49**
Client ID: **LH18/24-SP650_030723** Run ID: **VOA6_429719** SeqNo: **7164931** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	19.66	1.0	20	0	98.3	78 - 124				
1,1,1-Trichloroethane	18.5	1.0	20	0	92.5	74 - 131				
1,1,2,2-Tetrachloroethane	21.3	1.0	20	0	107	71 - 121				
1,1,2-Trichloroethane	19.41	1.0	20	0	97.1	80 - 119				
1,1-Dichloroethane	18.59	1.0	20	0	92.9	77 - 125				
1,1-Dichloroethene	16.09	1.0	20	0	80.5	71 - 131				
1,1-Dichloropropene	21.47	1.0	20	0	107	78 - 125				
1,2,3-Trichlorobenzene	23.14	1.0	20	0	116	69 - 129				
1,2,3-Trichloropropane	23.74	1.0	20	0	119	73 - 122				
1,2,4-Trichlorobenzene	24	1.0	20	0	120	69 - 130				
1,2,4-Trimethylbenzene	23.89	1.0	20	0	119	76 - 124				
1,2-Dibromo-3-chloropropane	21.52	1.0	20	0	108	62 - 128				
1,2-Dibromoethane	19.53	1.0	20	0	97.6	77 - 121				
1,2-Dichlorobenzene	21.12	1.0	20	0	106	80 - 119				
1,2-Dichloroethane	19.18	1.0	20	0	95.9	73 - 128				
1,2-Dichloropropane	19.11	1.0	20	0	95.6	78 - 122				
1,3,5-Trimethylbenzene	24.89	1.0	20	0	124	75 - 124				S
1,3-Dichlorobenzene	22.29	1.0	20	0	111	80 - 119				
1,3-Dichloropropane	20.7	1.0	20	0	104	80 - 119				
1,4-Dichlorobenzene	21.11	1.0	20	0	106	79 - 118				
2,2-Dichloropropane	19.44	1.0	20	0	97.2	60 - 139				
2-Butanone	35.01	2.0	40	0	87.5	56 - 143				
2-Chlorotoluene	24.19	1.0	20	0	121	79 - 122				
2-Hexanone	43.29	2.0	40	0	108	57 - 139				
4-Chlorotoluene	23.87	1.0	20	0	119	78 - 122				
4-Isopropyltoluene	25.97	1.0	20	0	130	77 - 127				S
4-Methyl-2-pentanone	43.72	2.0	40	0	109	67 - 130				
Acetone	28.22	2.0	40	0	70.5	39 - 160				
Benzene	18.94	1.0	20	0	94.7	79 - 120				
Bromobenzene	20.37	1.0	20	0	102	80 - 120				
Bromochloromethane	15.81	1.0	20	0	79.0	78 - 123				
Bromodichloromethane	17.78	1.0	20	0	88.9	79 - 125				
Bromoform	18.13	1.0	20	0	90.6	66 - 130				
Bromomethane	13	1.0	20	0	65.0	53 - 141				

ALS Houston, US Date: 24-Mar-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder: HS23030396

QC BATCH REPORT

Batch ID: R429719 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MS Sample ID: **HS23030396-01MS** Units: **ug/L** Analysis Date: **09-Mar-2023 13:49**
Client ID: **LH18/24-SP650_030723** Run ID: **VOA6_429719** SeqNo: **7164931** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Carbon disulfide	41.04	2.0	40	0	103	64 - 133				
Carbon tetrachloride	19.14	1.0	20	0	95.7	72 - 136				
Chlorobenzene	19.46	1.0	20	0	97.3	82 - 118				
Chloroethane	14.82	1.0	20	0	74.1	60 - 138				
Chloroform	17.2	1.0	20	0	86.0	79 - 124				
Chloromethane	23.72	1.0	20	0	119	50 - 139				
cis-1,2-Dichloroethene	18.23	1.0	20	1.655	82.9	78 - 123				
cis-1,3-Dichloropropene	19.33	1.0	20	0	96.7	75 - 124				
Dibromochloromethane	18.95	1.0	20	0	94.7	74 - 126				
Dibromomethane	17.2	1.0	20	0	86.0	79 - 123				
Dichlorodifluoromethane	14.33	1.0	20	0	71.7	32 - 152				
Ethylbenzene	21.31	1.0	20	0	107	79 - 121				
Hexachlorobutadiene	24.39	1.0	20	0	122	66 - 134				
Isopropylbenzene	22.76	1.0	20	0	114	72 - 131				
m,p-Xylene	42.25	2.0	40	0	106	80 - 121				
Methylene chloride	16.02	2.0	20	0	80.1	74 - 124				
Naphthalene	23.28	1.0	20	0	116	61 - 128				
n-Butylbenzene	24.15	1.0	20	0	121	75 - 128				
n-Propylbenzene	24.6	1.0	20	0	123	76 - 126				
o-Xylene	20.6	1.0	20	0	103	78 - 122				
sec-Butylbenzene	25.97	1.0	20	0	130	77 - 126				S
Styrene	20.75	1.0	20	0	104	78 - 123				
tert-Butylbenzene	25.16	1.0	20	0	126	78 - 124				S
Tetrachloroethene	21.86	1.0	20	0	109	74 - 129				
Toluene	20.46	1.0	20	0	102	80 - 121				
trans-1,2-Dichloroethene	17.67	1.0	20	0	88.3	75 - 124				
trans-1,3-Dichloropropene	19.2	1.0	20	0	96.0	73 - 127				
Trichloroethene	18.5	1.0	20	0	92.5	79 - 123				
Trichlorofluoromethane	16.95	1.0	20	0	84.8	65 - 141				
Vinyl chloride	17.68	1.0	20	0	88.4	58 - 137				
Surr: 1,2-Dichloroethane-d4	*47.83*	*1.0*	*50*	*0*	*95.7*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*53.12*	*1.0*	*50*	*0*	*106*	*85 - 114*				
Surr: Dibromofluoromethane	*44.4*	*1.0*	*50*	*0*	*88.8*	*80 - 119*				
Surr: Toluene-d8	*54.85*	*1.0*	*50*	*0*	*110*	*89 - 112*				

ALS Houston, US Date: 24-Mar-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder: HS23030396

QC BATCH REPORT

Batch ID: R429719 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MSD Sample ID: **HS23030396-01MSD** Units: **ug/L** Analysis Date: **09-Mar-2023 14:10**
Client ID: **LH18/24-SP650_030723** Run ID: **VOA6_429719** SeqNo: **7164932** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	20.56	1.0	20	0	103	78 - 124	19.66	4.47	20	
1,1,1-Trichloroethane	19.12	1.0	20	0	95.6	74 - 131	18.5	3.29	20	
1,1,2,2-Tetrachloroethane	20.41	1.0	20	0	102	71 - 121	21.3	4.29	20	
1,1,2-Trichloroethane	20.31	1.0	20	0	102	80 - 119	19.41	4.53	20	
1,1-Dichloroethane	19.58	1.0	20	0	97.9	77 - 125	18.59	5.18	20	
1,1-Dichloroethene	15.87	1.0	20	0	79.4	71 - 131	16.09	1.39	20	
1,1-Dichloropropene	21.91	1.0	20	0	110	78 - 125	21.47	2	20	
1,2,3-Trichlorobenzene	24.09	1.0	20	0	120	69 - 129	23.14	4.05	20	
1,2,3-Trichloropropane	22.78	1.0	20	0	114	73 - 122	23.74	4.15	20	
1,2,4-Trichlorobenzene	25.24	1.0	20	0	126	69 - 130	24	5.03	20	
1,2,4-Trimethylbenzene	24.37	1.0	20	0	122	76 - 124	23.89	1.99	20	
1,2-Dibromo-3-chloropropane	20.3	1.0	20	0	102	62 - 128	21.52	5.84	20	
1,2-Dibromoethane	19.82	1.0	20	0	99.1	77 - 121	19.53	1.48	20	
1,2-Dichlorobenzene	21.44	1.0	20	0	107	80 - 119	21.12	1.52	20	
1,2-Dichloroethane	19.68	1.0	20	0	98.4	73 - 128	19.18	2.61	20	
1,2-Dichloropropane	20.61	1.0	20	0	103	78 - 122	19.11	7.51	20	
1,3,5-Trimethylbenzene	24.91	1.0	20	0	125	75 - 124	24.89	0.114	20	S
1,3-Dichlorobenzene	22.59	1.0	20	0	113	80 - 119	22.29	1.34	20	
1,3-Dichloropropane	21.23	1.0	20	0	106	80 - 119	20.7	2.52	20	
1,4-Dichlorobenzene	21.36	1.0	20	0	107	79 - 118	21.11	1.17	20	
2,2-Dichloropropane	20.11	1.0	20	0	101	60 - 139	19.44	3.43	20	
2-Butanone	36.18	2.0	40	0	90.4	56 - 143	35.01	3.28	20	
2-Chlorotoluene	23.89	1.0	20	0	119	79 - 122	24.19	1.24	20	
2-Hexanone	43.25	2.0	40	0	108	57 - 139	43.29	0.0988	20	
4-Chlorotoluene	24.26	1.0	20	0	121	78 - 122	23.87	1.62	20	
4-Isopropyltoluene	26.74	1.0	20	0	134	77 - 127	25.97	2.92	20	S
4-Methyl-2-pentanone	43.4	2.0	40	0	108	67 - 130	43.72	0.744	20	
Acetone	26.61	2.0	40	0	66.5	39 - 160	28.22	5.85	20	
Benzene	20.19	1.0	20	0	101	79 - 120	18.94	6.42	20	
Bromobenzene	20.56	1.0	20	0	103	80 - 120	20.37	0.932	20	
Bromochloromethane	16.33	1.0	20	0	81.6	78 - 123	15.81	3.24	20	
Bromodichloromethane	19.08	1.0	20	0	95.4	79 - 125	17.78	7.07	20	
Bromoform	18.78	1.0	20	0	93.9	66 - 130	18.13	3.51	20	
Bromomethane	14.15	1.0	20	0	70.8	53 - 141	13	8.52	20	

ALS Houston, US Date: 24-Mar-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder: HS23030396

QC BATCH REPORT

Batch ID: R429719 (0) **Instrument:** VOA6 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MSD Sample ID: **HS23030396-01MSD** Units: **ug/L** Analysis Date: **09-Mar-2023 14:10**
Client ID: **LH18/24-SP650_030723** Run ID: **VOA6_429719** SeqNo: **7164932** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Carbon disulfide	40.5	2.0	40	0	101	64 - 133	41.04	1.33	20	
Carbon tetrachloride	19.73	1.0	20	0	98.6	72 - 136	19.14	3.06	20	
Chlorobenzene	20.41	1.0	20	0	102	82 - 118	19.46	4.78	20	
Chloroethane	20.29	1.0	20	0	101	60 - 138	14.82	31.2	20	R
Chloroform	18.46	1.0	20	0	92.3	79 - 124	17.2	7.05	20	
Chloromethane	23.55	1.0	20	0	118	50 - 139	23.72	0.711	20	
cis-1,2-Dichloroethene	19.73	1.0	20	1.655	90.4	78 - 123	18.23	7.92	20	
cis-1,3-Dichloropropene	20.63	1.0	20	0	103	75 - 124	19.33	6.48	20	
Dibromochloromethane	19.91	1.0	20	0	99.5	74 - 126	18.95	4.95	20	
Dibromomethane	18.11	1.0	20	0	90.6	79 - 123	17.2	5.17	20	
Dichlorodifluoromethane	14.07	1.0	20	0	70.3	32 - 152	14.33	1.86	20	
Ethylbenzene	22.17	1.0	20	0	111	79 - 121	21.31	3.96	20	
Hexachlorobutadiene	25.36	1.0	20	0	127	66 - 134	24.39	3.94	20	
Isopropylbenzene	23.84	1.0	20	0	119	72 - 131	22.76	4.63	20	
m,p-Xylene	43.68	2.0	40	0	109	80 - 121	42.25	3.35	20	
Methylene chloride	16.56	2.0	20	0	82.8	74 - 124	16.02	3.34	20	
Naphthalene	23.74	1.0	20	0	119	61 - 128	23.28	1.98	20	
n-Butylbenzene	25.03	1.0	20	0	125	75 - 128	24.15	3.59	20	
n-Propylbenzene	25.05	1.0	20	0	125	76 - 126	24.6	1.81	20	
o-Xylene	22.06	1.0	20	0	110	78 - 122	20.6	6.81	20	
sec-Butylbenzene	26.67	1.0	20	0	133	77 - 126	25.97	2.67	20	S
Styrene	21.79	1.0	20	0	109	78 - 123	20.75	4.86	20	
tert-Butylbenzene	25.39	1.0	20	0	127	78 - 124	25.16	0.901	20	S
Tetrachloroethene	22.51	1.0	20	0	113	74 - 129	21.86	2.92	20	
Toluene	21.16	1.0	20	0	106	80 - 121	20.46	3.34	20	
trans-1,2-Dichloroethene	17.83	1.0	20	0	89.1	75 - 124	17.67	0.899	20	
trans-1,3-Dichloropropene	20.16	1.0	20	0	101	73 - 127	19.2	4.88	20	
Trichloroethene	19.63	1.0	20	0	98.1	79 - 123	18.5	5.93	20	
Trichlorofluoromethane	16.54	1.0	20	0	82.7	65 - 141	16.95	2.48	20	
Vinyl chloride	17.74	1.0	20	0	88.7	58 - 137	17.68	0.332	20	
Surr: 1,2-Dichloroethane-d4	*48.38*	*1.0*	*50*	*0*	*96.8*	*81 - 118*	*47.83*	*1.14*	*20*	
Surr: 4-Bromofluorobenzene	*53.8*	*1.0*	*50*	*0*	*108*	*85 - 114*	*53.12*	*1.26*	*20*	
Surr: Dibromofluoromethane	*44.51*	*1.0*	*50*	*0*	*89.0*	*80 - 119*	*44.4*	*0.241*	*20*	
Surr: Toluene-d8	*54.49*	*1.0*	*50*	*0*	*109*	*89 - 112*	*54.85*	*0.66*	*20*	

ALS Houston, US Date: 24-Mar-23

Client:	Bhate Environmental Associates, Inc.
Project:	Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder:	HS23030396

QC BATCH REPORT

Batch ID:	**R429719 (0)**	**Instrument:**	**VOA6**	**Method:**	**VOLATILES ORGANICS BY METHOD 8260C**

The following samples were analyzed in this batch: HS23030396-01 HS23030396-03

ALS Houston, US Date: 24-Mar-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder: HS23030396

QC BATCH REPORT

Batch ID: R429769 (0) **Instrument: UV-2450** **Method: HEXAVALENT CHROMIUM BY SW7196A**

MBLK Sample ID: **MBLK-R429769** Units: **mg/L** Analysis Date: **08-Mar-2023 11:24**
Client ID: Run ID: **UV-2450_429769** SeqNo: **7166138** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	0	0.0100								U

LCS Sample ID: **LCS-R429769** Units: **mg/L** Analysis Date: **08-Mar-2023 11:24**
Client ID: Run ID: **UV-2450_429769** SeqNo: **7166137** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	0.243	0.0100	0.25	0	97.2	80 - 120				

LCSD Sample ID: **LCSD-R429769** Units: **mg/L** Analysis Date: **08-Mar-2023 11:24**
Client ID: Run ID: **UV-2450_429769** SeqNo: **7166136** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	0.243	0.0100	0.25	0	97.2	86 - 117	0.243	0	15	

MS Sample ID: **HS23030400-15MS** Units: **mg/L** Analysis Date: **08-Mar-2023 11:24**
Client ID: Run ID: **UV-2450_429769** SeqNo: **7166140** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	0.229	0.0100	0.25	0	91.6	86 - 117				

MSD Sample ID: **HS23030400-15MSD** Units: **mg/L** Analysis Date: **08-Mar-2023 11:24**
Client ID: Run ID: **UV-2450_429769** SeqNo: **7166139** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	0.23	0.0100	0.25	0	92.0	86 - 117	0.229	0.436	15	

The following samples were analyzed in this batch: HS23030396-01

ALS Houston, US Date: 24-Mar-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder: **HS23030396**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	22-041-0	27-Mar-2023
California	2919 2022-2023	30-Apr-2023
Dept of Defense	L21-682	31-Dec-2023
Florida	E87611-36	30-Jun-2023
Illinois	2000322022-9	09-May-2023
Kansas	E-10352; 2022-2023	31-Jul-2023
Kentucky	123043, 2022-2023	30-Apr-2023
Louisiana	03087, 2022-2023	30-Jun-2023
Maryland	343, 2022-2023	30-Jun-2023
North Carolina	624-2023	31-Dec-2023
North Dakota	R-193 2022-2023	30-Apr-2023
Oklahoma	2022-141	31-Aug-2023
Texas	T104704231-22-29	30-Apr-2023
Utah	TX026932022-13	31-Jul-2023

ALS Houston, US Date: 24-Mar-23

Sample Receipt Checklist

Work Order ID: HS23030396 **Date/Time Received:** 08-Mar-2023 10:15

Client Name: Bhate Environmental **Received by:** Paresh M. Giga

Completed By:	/S/ Paresh M. Giga	08-Mar-2023 11:55	**Reviewed by:**	/S/ Dane J. Wacasey	09-Mar-2023 08:47
	eSignature	Date/Time		eSignature	Date/Time

Matrices: **Water** Carrier name: **FedEx Priority Overnight**

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
VOA/TX1005/TX1006 Solids in hermetically sealed vials?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	1 Page(s)
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	COC IDs:none
Samplers name present on COC?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	

Temperature(s)/Thermometer(s):	1.4C/0.9C U/C	IR31
Cooler(s)/Kit(s):	49894	
Date/Time sample(s) sent to storage:	3/8/23 12:00	

Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐
pH adjusted?	Yes ☐	No ☑	N/A ☐
pH adjusted by:			

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:

CHAIN OF CUSTODY

Name Of Lab Shipping To: ALS 10450 Stancliff Rd., Suite 210 Houston, TX 77099 (281) 530 – 5656 ATTN: Dane Wacasey

Project: BHATE
LONGHORN ARMY AMMN. PLANT (LHAAP)
GROUNDWATER TREATMENT PLANT (GWTP)
KARNACK, TEXAS

Project No.
NWO1312.0150.0
16.0001

Job:
GROUNDWATER TREATMENT PLANT MONTHLY EFFLUENT SAMPLES

Prepared By:
Scott Beesinger

P.O. Number

Field Sample I.D.	Sample Matrix	Date / Time	MS / MSD	No. OF CONTAINERS	Analyses: VOLATILES	SILVER, SELENIUM, LEAD, BARIUM	HEXAVALENT CHROMIUM	1, 4 - DIOXANE	PERCHLORATE						Remarks (Preservatives, etc.)	Lab I.D.#
LH18/24-SP650_030723	Water	03/07/23 / 13:00		3	X										HCL	
LH18/24-SP650_030723	Water	03/07/23 / 13:00		2			X	X							NONE	
LH18/24-SP650_030723_AIX	Water	03/07/23 / 13:00		1					X						NONE	
LH18/24-SP650_030723	Water	03/07/23 / 13:00		1		X									HNO3	
Trip Blank	Water	03/07/23		2	X										HCL	

Additional Remarks: **Standard TAT on all parameters**

Relinquished By:	Date	Time	Received By:	Date	Time	Relinquished By:	Date	Time	Received By:	Date	Time
Scott Beesinger	03/07/23	13:30		3/8/23	10:15						

For Lab Use Only

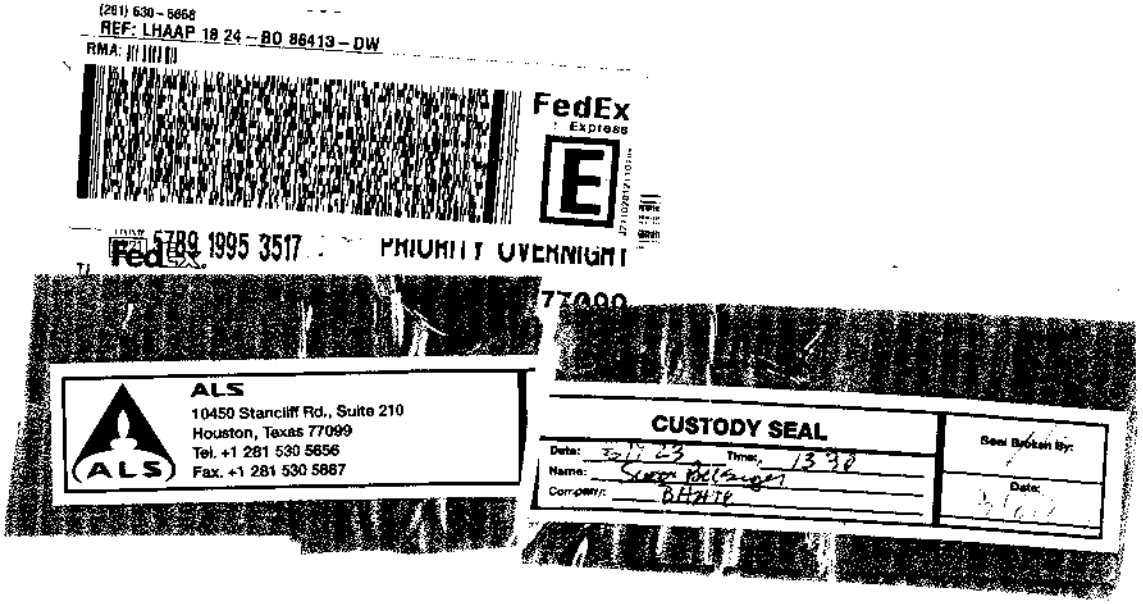
Received At Lab By:	Date	Time	Airbill No.	Opened By:	Date	Time	Temp of	Seal No.	Condition
49894									

Remarks: 1.4° 431 Cl...

HS23030396

Bhate Environmental Associates, Inc.
Longhorn GW Treatment Plant Monthly Effluent Sample

(Word) S:\Forms\Chain of Custody - BiWeekly


(281) 530 - 5668
REF: LHAAP 18 24 - BO 86413 - DW
RMA:
FedEx
Express
5789 1995 3517
PRIORITY OVERNIGHT
77090
ALS
10450 Stanciiff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887
CUSTODY SEAL
Date:
Time:
Name:
Company:
Seal Broken by:
Date:

March 17, 2023 Service Request No:E2300239

Dane Wacasey
ALS Group USA, Corp.
10450 Stancliff Road
Suite 210
Houston, TX 77099-4338

Laboratory Results for: HS23030396

Dear Dane,

Enclosed are the results of the sample(s) submitted to our laboratory March 13, 2023
For your reference, these analyses have been assigned our service request number **E2300239.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current TNI standards, where applicable, and except as noted in the laboratory case narrative provided. All results are intended to be considered in their entirety and ALS Environmental is not responsible for use of less than the complete final report. Results apply only to the items submitted to the laboratory, as received for analysis. In accordance with the current TNI Standard, a statement on the estimated uncertainty of measurement of any quantitative analysis will be supplied upon request.

Please contact me if you have any questions. My extension is 2188. You may also contact me via email at James.Guin@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

James Guin

ADDRESS 10450 Stancliff Rd., Suite 210, Houston, TX 77099
PHONE +1 281 530 5656 | FAX +1 281 530 5887
ALS Group USA, Corp.
dba ALS Environmental

Certificate of Analysis

ALS Environmental - Houston HRMS
10450 Stancliff Rd, Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

ALS Environmental

Client:	ALS Environmental - US	**Service Request No.:**	E2300239
Project:	HS23030396	**Date Received:**	03/13/23
Sample Matrix:	Water		

CASE NARRATIVE

All analyses were performed in adherence to the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier IV. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

One sample was received for analysis at ALS Environmental in Houston on 03/13/23.

The sample was received in good condition and is consistent with the accompanying chain of custody form. The sample was stored in a refrigerator at 4°C upon receipt at the laboratory.

Data Validation Notes and Discussion

Precision and Accuracy:

EQ2300127: Laboratory Control Spike/Duplicate Laboratory Control Spike (LCS/DLCS) samples were analyzed and reported in addition to a MS/MSD for this extraction batch.

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.

Use of ALS group USA Corp dba ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.

Client: ALS Environmental - US **Service Request:**E2300239
Project: HS23030396

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
E2300239-001	LH18/24-SP650_030723_AIX	3/7/2023	1300

Service Request Summary

Folder #: **E2300239**
Client Name: ALS Environmental - US
Project Name: HS23030396
Project Number:

Report To: Dane Wacasey
ALS Group USA, Corp.
10450 Stancliff Road
Houston, TX 77099-4338
USA
Phone Number: 281-575-2190
Cell Number:
Fax Number: 281-530-5887
E-mail: dane.wacasey@alsglobal.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 03/13/23
Internal Due Date: 3/17/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23030396
EDD: BASIC_WQC_CASNo_LOD

1 120 mL-Plastic Bottle Natural WM Unpreserved
Location: EHRMS-AirArch 1
Pressure Gas:

Lab Samp No.	Client Samp No	Matrix	Collected	HOUSTON ClO4 DOD/6850
E2300239-001	LH18/24-SP650_030723_AIX	Water	03/07/23 1300	IV

Service Request Summary

Folder #: **E2300239**
Client Name: ALS Environmental - US
Project Name: HS23030396
Project Number:

Report To: Dane Wacasey
ALS Group USA, Corp.
10450 Stancliff Road
Houston, TX 77099-4338
USA
Phone Number: 281-575-2190
Cell Number:
Fax Number: 281-530-5887
E-mail: dane.wacasey@alsglobal.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 03/13/23
Internal Due Date: 3/17/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23030396
EDD: BASIC_WQC_CASNo_LOD

1 120 mL-Plastic Bottle Natural WM Unpreserved
Location: EHRMS-AirArch 1
Pressure Gas:

Data Qualifiers

Lab Standard

+	Possible Tedlar bag artifact.
A	TIC is a suspected aldol-condensation product
B	Analyte found in the associated method blank as well as in the sample.
BC	Reported results are not blank corrected.
BH	The back section of the tube yielded higher results than the front.
BT	Results indicated possible breakthrough; back section >=10% front section.
C	Result identification confirmed.
D	Compound identified in an analysis at a secondary dilution factor
D	Spike was diluted out
DE	Reported results are corrected for desorption efficiency.
E	Estimated value. Concentration above calibration range
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
H	The chromatographic fingerprint of the sample resembles a petroleum product but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
H1	Sample analysis performed past holding time. See case narrative.
H2	Initial analysis within holding time. Reanalysis for the required dilution was past holding time.
H3	Sample was received and analyzed past holding time.
H4	Sample was extracted past required extraction holding time, but analyzed within analysis holding time. See case narrative.
I	(Auto) The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
I	Internal standard not within the specified limits. See case narrative.
I	The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
J	Estimated Value. Concentration found below MRL.
K	A deflection in the QC ion may indicate interference with the quantitation of this ion. The concentration of this analyte should be considered as an estimate.
K	Analyte was detected above the method reporting limit prior to normalization.
K	The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
L1	Laboratory control sample recovery outside the specified limits; results may be biased high.
L2	Laboratory control sample recovery outside the specified limits; results may be biased low.
L3	Laboratory control sample recovery outside the specified limits.
M	Matrix interference; results may be biased high.
M	The duplicate injection precision not met.

Data Qualifiers

Lab Standard

M1	Matrix interference due to coelution with a non-target compound; results may be biased high.
N	Presumptive evidence of a compound for TICs that have been identified based on a mass spectral library search.
N	The Matrix Spike sample recovery is not within control limits. See case narrative.
O	The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
P	Indicates chlorodiphenyl ether interference present at the retention time of the target compound.
P	Pesticide/Aroclor target analyte > 40% difference for detected concentrations between GC columns
Q	Indicates as estimated value because the P and P + 2 theoretical abundance ratio does not meet method criteria.
R	Duplicate Precision not met.
R1	Duplicate precision not within the specified limits; however, the results are below the MRL and considered estimated.
S	Surrogate recovery not within specified limits.
S	The reported value was determined by the Method of Standard Additions (MSA).
T	Analyte is a tentatively identified compound, result is estimated.
U	Compound was analyzed for, but was not detected (ND).
V1	The continuing calibration verification standard was outside (biased high) the specified limits for this compound.
V2	The continuing calibration verification standard was outside (biased low) the specified limits for this compound.
W	Result quantified, but the corresponding peak was detected outside the generated retention time window.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
X	See case narrative.
Y	Recovery outside limits
Y	The chromatogram resembles a petroleum product but does not match the calibration standard.
Z	The chromatogram does not resemble a petroleum product.
i	The MRL/MDL has been elevated due to a matrix interference.

ALS Laboratory Group

Acronyms

Cal	Calibration
Conc	CONCentration
Dioxin(s)	Polychlorinated dibenzo-p-dioxin(s)
EDL	Estimated Detection Limit
EMPC	Estimated Maximum Possible Concentration
Flags	Data qualifiers
Furan(s)	Polychlorinated dibenzofuran(s)
g	Grams
ICAL	Initial CALibration
ID	IDentifier
Ions	Masses monitored for the analyte during data acquisition
L	Liter (s)
LCS	Laboratory Control Sample
DLCS	Duplicate Laboratory Control Sample
MB	Method Blank
MCL	Method Calibration Limit
MDL	Method Detection Limit
mL	Milliliters
MS	Matrix Spiked sample
DMS	Duplicate Matrix Spiked sample
NO	Number of peaks meeting all identification criteria
PCDD(s)	Polychlorinated dibenzo-p-dioxin(s)
PCDF(s)	Polychlorinated dibenzofuran(s)
ppb	Parts per billion
ppm	Parts per million
ppq	Parts per quadrillion
ppt	Parts per trillion
QA	Quality Assurance
QC	Quality Control
Ratio	Ratio of areas from monitored ions for an analyte
% Rec.	Percent recovery
RPD	Relative Percent Difference
RRF	Relative Response Factor
RT	Retention Time
SDG	Sample Delivery Group
S/N	Signal-to-noise ratio
TEF	Toxicity Equivalence Factor
TEQ	Toxicity Equivalence Quotient

10450 Stancliff Rd, Houston, TX 77099 | 281-530-5656 | www.alsglobal.com

ALS Environmental

State Certifications, Accreditations, and Licenses

Agency	Number	Expire Date
Arizona Department of Health Services	AZ0793	5/27/2023
Arkansas Department of Environmental Quality	22-041-0	3/27/2023
California Department of Health Services	2919-2023	4/30/2023
Department of Defense	L22-90	3/31/2024
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Hawaii Department of Health	2022	4/30/2023
Illinois Environmental Protection Agency	2000322022-9	5/9/2023
Kansas Department of Health and Environment	E-10352 2022-2023	7/31/2023
Louisiana Department of Environmental Quality	03087-2022	6/30/2023
Louisiana Department of Health and Hospitals	LA028-2023	12/31/2023
Maine Department of Health and Human Services	2022017	6/5/2024
Maryland Department of the Environment	343	6/30/2023
Michigan Depratment of Environmental Quality	9971-2022	4/30/2023
Minnesota Department of Health	2368363	12/31/2023
Nebraska Department of Health and Human Services	NE-OS-25-13	4/30/2023
Nevada Department of Conservation and Natural Resources	TX026932023-1	7/31/2023
New Hampshire Environmental Laboratory Accreditation Program	209422	4/24/2023
New Jersey Department of Environmental Protection	TX008-2023	6/30/2023
New York Department of Health	11707	3/31/2023
Oklahoma Department of Environmental Quality	2022-141	8/31/2023
Oregon Environmental Laboratory Accreditation Program	TX200002	5/15/2023
Pennsylvania Department of Environmental Protection	68-03441-016	6/30/2023
Perry Johnson Laboratory Accreditation	L22-91	3/31/2024
Tennessee Department of Environment and Concervation	04016-2022	4/30/2023
Texas Commision on Environmental Quality	T104704231-22-29	4/30/2023
Utah Department of Health Environmental Laboratory Certification	TX026932022-13	7/31/2023
Washington Department of Ecology	C819-22	11/14/2023

ALS

Chain of Custody

ALS Environmental - Houston HRMS
10450 Stancliff Rd, Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

AIS.

10450 Stancliff Rd, Ste 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887
www.alsglobal.com

Subcontract Chain of Custody

SAMPLING STATE: Dept of Defense **COC ID:** 21066

SUBCONTRACT TO:

ALS Environmental
10450 Stancliff RoadSuite 210
Houston, TX 77084

Phone: +1 281 530 5656

CUSTOMER INFORMATION:

Company:	ALS Houston
Contact:	Dane J. Wacasey
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Email:	Dane.Wacasey@alsglobal.com
Alternate Contact:	Jumoke M. Lawal
Email:	jumoke.lawal@alsglobal.com

INVOICE INFORMATION:

Company:	ALS Houston
Contact:	Accounts Payable
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Reference:	HS23030396
TSR:	Houston House Acct

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS23030396-02**	**LH18/24-SP650_030723_AIX**	**Water**	**07 Mar 2023 13:00**
	Provide Level II and Level IV reports in separate pdf			17 Mar 2023

Comments: Please analyze for the analysis listed above.
Send report to the emails shown above.

QC Level: DOD IV (DoD Data Package)

Relinquished By: _____ Date/Time: _____

Received By: _____ Date/Time: 3.13.23 0800

Cooler ID(s): _____ Temperature(s): _____

Cooler Receipt Form

ALS Environmental

Project Chemist JG

Client/Project ALS-H

Thermometer ID IR71

Date/Time Received: 3.13.23 Initials: JG

Date/Time Logged in: 3.13.23 Initials JG

1. Method of delivery: ○ US Mail ○ Fed Ex ○ UPS ○ DHL ☒ ALS Courier ○ Client

2. Samples received in: ☒ Cooler ○ Box ○ Envelope ○ Other

3. Were custody seals on coolers? ○ Yes ☒ No

Were they intact? ○ Yes ○ No ☒ N/A

Were they signed and dated? ○ Yes ○ No ☒ N/A

If yes, how many and where?

4. Packing Material: ○ Inserts ☑ Baggies ○ Bubble Wrap ○ Gel Packs ☑ Wet Ice ○ Sleeves ○ Other

5. Foreign or Regulated Soil? ○ Yes ○ No Location of Sampling:

Cooler Tracking Number	COC ID	Date Opened	Time Opened	Opened By	Temp. °C	Temp Blank?
NA		3.13.23	0800	JG	0.9	☑
						☐
						☐
						☐

6. Were custody papers properly filled out (ink, signed, dated, etc)? ☑ Yes ○ No

7. Did all bottles arrive in good condition (not broken, no signs of leakage)? ☒ Yes ○ No

8. Were all sample labels complete (i.e., sample ID, analysis, preservation, etc)? ☒ Yes ○ No

9. Were appropriate bottles/containers and volumes received for the requested tests? ☒ Yes ○ No

10. Did sample labels and tags agree with custody documents? ☑ Yes ○ No

Notes, Discrepancies, & Resolutions:

Service request Label:

10450 Stancliff Rd., Suite 210
Houston, TX 77099
T: +1 713 266 1599
F: +1 713 266 1599
www.alsglobal.com

SAMPLE ACCEPTANCE POLICY

This policy outlines the criteria samples must meet to be accepted by ALS Environmental – Houston HRMS.

Cooler Custody Seals (desirable, mandatory if specified in SAP):

- ✓ Intact on outside of cooler, signed and dated

Chain-of-Custody (COC) documentation (mandatory):

The following is required on each COC:

- ✓ Sample ID, the location, date and time of collection, collector's name, preservation type, sample type, and any other special remarks concerning the sampleThe COC must be completed in ink.
- ✓ Signature and date of relinquishing party.

In the absence of a COC at sample receipt, the COC will be requested from the client.

Sample Integrity (mandatory):

Samples are inspected upon arrival to ensure that sample integrity was not compromised during transfer to the laboratory.

- ✓ Sample containers must arrive in good condition (not broken or leaking).
- ✓ Samples must be labeled appropriately, including Sample IDs, and requested test using durable labels and indelible ink.
- ✓ The correct type of sample bottle must be used for the method requested.
- ✓ An appropriate sample volume, or weight, must be received.
- ✓ Sample IDs and number of containers must reconcile with the COC.
- ✓ Samples must be received within the method defined holding time.

Temperature Requirement (varies by sample matrix):

- ✓ Aqueous and Non-aqueous samples must be shipped and stored cold, at 0 to 6ºC.
- ✓ Tissue samples must be shipped and stored frozen, at -20 to -10ºC.
- ✓ Air samples are shipped and stored cold, at 0 to 6ºC
- ✓ The sample temperature must be recorded on the COC

All cooler inspections are documented on the Cooler Receipt Form (CRF). A separate CRF is completed for each service request. Any samples not meeting the above criteria are noted on the CRF and the Project Manager notified. The Project Manager must resolve any sample integrity issues with the client prior to proceeding with the analysis. Such resolutions are documented in writing and filed with the project folder. Data associated with samples received outside of this acceptance policy will be qualified on the case narrative of the final report

Preparation Information Benchsheets

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

Preparation Information Benchsheet

Prep Run#: 416444 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/XMI **Prep Method:** Method **Prep Date/Time:** 3/14/23 08:36

#	Lab Code	Client ID	B#	Method /Test	pH	Cl	Matrix	Amt. Ext.	Sample Description
1	E2300231-001	RSA-095-INT-02	.01	6850/ClO4 DOD			Water	10mL	
2	E2300231-002	RSA-095-INT-05	.01	6850/ClO4 DOD			Water	10mL	
3	E2300231-003	RSA-095-INT-06	.01	6850/ClO4 DOD			Water	10mL	
4	E2300231-004	RSA-195-INT-05	.01	6850/ClO4 DOD			Water	10mL	
5	E2300231-005	RSA-195-INT-04	.01	6850/ClO4 DOD			Water	10mL	
6	E2300235-001	46DP09-GP01-5156-022823	.01	6850/ClO4 DOD			Water	10mL	
7	E2300235-002	46DP09-GP02-6065-022823	.01	6850/ClO4 DOD			Water	10mL	
8	E2300235-003	WO-EB01-022823	.01	6850/ClO4 DOD			Water	10mL	
9	E2300239-001	LH18/24-SP650_030723_AIX	.01	6850/ClO4 DOD			Water	10mL	
10	E2300240-001	LH18/24-SP140_030723	.01	6850/ClO4 DOD			Water	10mL	
11	EQ2300127-01	MB		6850/ClO4			Liquid	10mL	
12	EQ2300127-02	LCS		6850/ClO4			Liquid	10mL	
13	EQ2300127-03	DLCS		6850/ClO4			Liquid	10mL	
14	R2301866-011	2303021402C BLM-13-300	.01	6850/ClO4			Water	10mL	
15	R2301866-013	2303020954A BLM-9-419	.01	6850/ClO4			Water	10mL	
16	R2301868-012	2303040818 100L-SB-14	.01	6850/ClO4			Water	10mL	
17	R2301870-012	2303041458 100L-SB-16	.01	6850/ClO4			Water	10mL	
18	R2301872-012	2303040953 200L-SB-17	.01	6850/ClO4			Water	10mL	
19	R2301874-012	2303041117 100L-SB-18	.01	6850/ClO4			Water	10mL	
20	R2301876-012	2303041223 100L-SB-19	.01	6850/ClO4			Water	10mL	
21	R2301914-005	2303061044C ST-4-690	.01	6850/ClO4			Water	10mL	
22	R2301914-014	2303061515C ST-4-481	.01	6850/ClO4			Water	10mL	

Spiking Solutions

Name: Perchlorate Internal Standard 1ug/mL Inventory ID 226778 Logbook Ref: Perchlorate Internal Standard Expires On: 05/31/2023

E2300231-001	100.00µL	E2300231-002	100.00µL	E2300231-003	100.00µL	E2300231-004	100.00µL	E2300231-005	100.00µL	E2300235-001	100.00µL
E2300235-002	100.00µL	E2300235-003	100.00µL	E2300239-001	100.00µL	E2300240-001	100.00µL	EQ2300127-01	100.00µL	EQ2300127-01	100.00µL
EQ2300127-02	100.00µL	EQ2300127-02	100.00µL	EQ2300127-03	100.00µL	EQ2300127-03	100.00µL	R2301866-011	100.00µL	R2301866-013	100.00µL
R2301868-012	100.00µL	R2301870-012	100.00µL	R2301872-012	100.00µL	R2301874-012	100.00µL	R2301876-012	100.00µL	R2301914-005	100.00µL
R2301914-014	100.00µL										

Name: Perchlorate Intermediate Stock1 Inventory ID 227236 Logbook Ref: Perchlorate (1st Source) Expires On: 07/31/2023

EQ2300127-02	1.00µL	EQ2300127-02	1.00µL	EQ2300127-03	1.00µL	EQ2300127-03	1.00µL

Preparation Information Benchsheet

Prep Run#: 416444 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/XMI **Prep Method:** Method **Prep Date/Time:** 3/14/23 08:36

Preparation Materials

Water HPLC Grade	01/04/2023 Water (226857)	6850 Amber Glass screw vial	2mL Screw Top Vial (221894)	6850 0.45um syringe filters	6850 Syringe Filters (224414)
6850 Luer-Lok Syringes	Luer-Lok Syringes (221305)				

Preparation Steps

Step: Preparation
Started: 3/14/23 08:36
Finished: 3/14/23 10:50
By: XMI
Comments

Comments: _____

Reviewed By: XMI Date: 03/14/23

Chain of Custody

Relinquished By: _____ Date: _____ Extracts Examined

Received By: _____ Date: _____ Yes No

Analytical Results

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300239
Project:	HS23030396	**Date Collected:**	3/ 7/23 1300
Sample Matrix:	Water	**Date Received:**	3/13/23
Sample Name:	LH18/24-SP650_030723_AIX	**Units:**	µg/L
Lab Code:	E2300239-001	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**9.22**		0.100	0.0500	0.0250	1	3/14/23	3/15/23 13:39	416444	797835	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300239
Project:	HS23030396	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	EQ2300127-01	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	ND	U	0.100	0.0500	0.0250	1	3/14/23	3/15/23 12:30	416444	797835	

Accuracy & Precision

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23030396
Sample Matrix: Water

Service Request: E2300239
Date Analyzed: 3/15/23

Lab Control Sample Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Units: µg/L
Basis: NA

Extraction Lot: 416444

	Lab Control Sample EQ2300127-02			Duplicate Lab Control Sample EQ2300127-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Perchlorate	0.106	0.100	106	0.0940	0.100	94	84 - 119	12	15

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300239
Project:	HS23030396	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2300127-02	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.106**		0.100	0.0500	0.0250	1	3/14/23	3/15/23 12:36	416444	797835	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300239
Project:	HS23030396	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2300127-03	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.0940**	J	0.100	0.0500	0.0250	1	3/14/23	3/15/23 12:42	416444	797835	

Initial Calibration

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

20230201-793296

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XMI
2nd Review: Kneir

ICAL Date: 2/1/2023
Cal. Std. xp: 07/31/2023
ICAL ID: EC2300002

Mobile Phases : A:0.10% Formic Acid/Water 3210303-02 **B:**MeOH 224417

	Sample Name		File Name	Acquisition Method	Dilution	R	Comments	Date/Time
1	PERCHLORATE1		20230201-003	Perchlorate6850c.lcm	1x	☒	227245	2/1/2023 11:50
2	PERCHLORATE2		20230201-004	Perchlorate6850c.lcm	1x	☒	227246	2/1/2023 11:55
3	PERCHLORATE3		20230201-005	Perchlorate6850c.lcm	1x	☒	227247	2/1/2023 12:01
4	PERCHLORATE4		20230201-006	Perchlorate6850c.lcm	1x	☒	227248	2/1/2023 12:07
5	PERCHLORATE5		20230201-007	Perchlorate6850c.lcm	1x	☒	227249	2/1/2023 12:13
6	PERCHLORATE6		20230201-008	Perchlorate6850c.lcm	1x	☒	227250	2/1/2023 12:19
7	PERCHLORATE7		20230201-009	Perchlorate6850c.lcm	1x	☒	227251	2/1/2023 12:25
8	PERCHLORATE8		20230201-010	Perchlorate6850c.lcm	1x	☒	227252	2/1/2023 12:30
9	PERCHLORATE9		20230201-011	Perchlorate6850c.lcm	1x	☒	227253	2/1/2023 12:36
10	PERCHLORATE10		20230201-012	Perchlorate6850c.lcm	1x	☒	227254	2/1/2023 12:42
11	PERCHLORATEICV		20230201-013	Perchlorate6850c.lcm	1x	☒	227256	2/1/2023 12:48
12	LODV		20230201-014	Perchlorate6850c.lcm	1x	☒	225199	2/1/2023 12:54
13	ICS		20230201-015	Perchlorate6850c.lcm	1x	☒	32103024	2/1/2023 13:00
14	PERCHLORATE7		20230201-016	Perchlorate6850c.lcm	1x	☒	227251	2/1/2023 15:24
15	EQ2300047-01		20230201-017	Perchlorate6850c.lcm	1x	☒		2/1/2023 15:30
16	EQ2300047-02		20230201-018	Perchlorate6850c.lcm	1x	☒		2/1/2023 15:36
17	EQ2300047-03		20230201-019	Perchlorate6850c.lcm	1x	☒		2/1/2023 15:41
18	R2300589-005		20230201-020	Perchlorate6850c.lcm	1x	☒		2/1/2023 15:48
19	R2300589-010		20230201-021	Perchlorate6850c.lcm	1x	☒	DNU-BAD PEAK SHAPE	2/1/2023 15:54
20	R2300648-018		20230201-022	Perchlorate6850c.lcm	1x	☒		2/1/2023 16:00
21	R2300648-025		20230201-023	Perchlorate6850c.lcm	1x	☒		2/1/2023 16:06
22	PERCHLORATE7		20230201-024	Perchlorate6850c.lcm	1x	☒	227251	2/1/2023 16:17
23	E2300092-001		20230201-025	Perchlorate6850c.lcm	1x	☒		2/1/2023 16:23
24	E2300092-002		20230201-026	Perchlorate6850c.lcm	1x	☒		2/1/2023 16:29
25	E2300092-003		20230201-027	Perchlorate6850c.lcm	1x	☒		2/1/2023 16:35
26	E2300092-004		20230201-028	Perchlorate6850c.lcm	1x	☒		2/1/2023 16:41
27	E2300094-001		20230201-029	Perchlorate6850c.lcm	1x	☒		2/1/2023 16:47
28	E2300094-002		20230201-030	Perchlorate6850c.lcm	1x	☒		2/1/2023 16:52
29	E2300094-003		20230201-031	Perchlorate6850c.lcm	1x	☒		2/1/2023 16:58
30	E2300094-004		20230201-032	Perchlorate6850c.lcm	1x	☒		2/1/2023 17:04
31	E2300094-005		20230201-033	Perchlorate6850c.lcm	1x	☒		2/1/2023 17:10
32	PERCHLORATE7		20230201-034	Perchlorate6850c.lcm	1x	☒	227251	2/1/2023 17:16
33	E2300096-001		20230201-035	Perchlorate6850c.lcm	1x	☒		2/1/2023 17:21
34	E2300096-002		20230201-036	Perchlorate6850c.lcm	1x	☒		2/1/2023 17:27
35	E2300096-003		20230201-037	Perchlorate6850c.lcm	1x	☒		2/1/2023 17:33
36	E2300096-004		20230201-038	Perchlorate6850c.lcm	1x	☒		2/1/2023 17:39
37	E2300096-005		20230201-039	Perchlorate6850c.lcm	1x	☒		2/1/2023 17:45
38	E2300096-006		20230201-040	Perchlorate6850c.lcm	1x	☒		2/1/2023 17:51
39	E2300096-007		20230201-041	Perchlorate6850c.lcm	1x	☒		2/1/2023 17:56
40	PERCHLORATE7		20230201-042	Perchlorate6850c.lcm	1x	☒	227251	2/1/2023 18:02

Initial Calibration - Detailed Report

Calibration ID: EC2300002 **Instrument ID:** E-LCMS-01
Column Name: 1

#	Lab Code	Sample Name	File Location	Aquisition Date
01	EC2300002-01	PERCHLORATE1	20230201-003	02/01/2023 11:50
02	EC2300002-02	PERCHLORATE2	20230201-004	02/01/2023 11:55
03	EC2300002-03	PERCHLORATE3	20230201-005	02/01/2023 12:01
04	EC2300002-04	PERCHLORATE4	20230201-006	02/01/2023 12:07
05	EC2300002-05	PERCHLORATE5	20230201-007	02/01/2023 12:13
06	EC2300002-06	PERCHLORATE6	20230201-008	02/01/2023 12:19
07	EC2300002-07	PERCHLORATE7	20230201-009	02/01/2023 12:25
08	EC2300002-08	PERCHLORATE8	20230201-010	02/01/2023 12:30
09	EC2300002-09	PERCHLORATE9	20230201-011	02/01/2023 12:36
10	EC2300002-10	PERCHLORATE10	20230201-012	02/01/2023 12:42

Analyte **Curve Fit** **Weighting**

Perchlorate **Average RF** **RSD = 4.86** **Average RF = 0.1385**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.1000	0.1253	02	0.5000	0.13	03	0.7000	0.1346	04	1.0000	0.1399
05	2.0000	0.1406	06	5.0000	0.1404	07	10.0000	0.1416	08	20.0000	0.1407
09	30.0000	0.1447	10	50.0000	0.1477						

Analyte

Perchlorate RSE = 4.86

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.1000	0.0904	-9.6	02	0.5000	0.469	-6.1	03	0.7000	0.680	-2.8
04	1.0000	1.01	0.9	05	2.0000	2.03	1.5	06	5.0000	5.07	1.3
07	10.0000	10.2	2.2	08	20.0000	20.3	1.5	09	30.0000	31.3	4.5
10	50.0000	53.3	6.6								

Initial Calibration Verification Summary Report

Calibration ID:	EC2300002	**Instrument ID:**	E-LCMS-01
Datafile ID:	20230201-013	**Column Name:**	1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
Perchlorate	EC2300002-11	T	Average RF	10	10.538	ng/mL	5.4	<= 15

Insight Report

Printed at 2/1/2023 2:06:14 PM

Method File: I:\LCMS01\DATA\02012023\20230201.lcm
Project File: I:\LCMS01\DATA\02012023\20230201.damlp

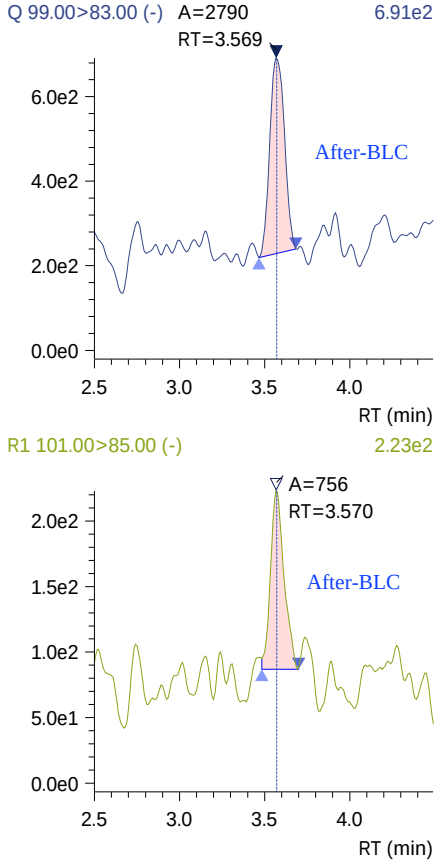
PERCHLORATE1

Sample ID: PERCHLORATE1
Date Acquired: 2/1/2023 11:50:11 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\02012023\20230201-003.lcd
Vial: 1 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	M	3.569	2790	222693	0.0904	ng/mL	101.00 >85.00	27.11	24.11 -44.78
Sodium Perchlorate-18O4_IS	Auto	3.568	222693	222693	1.0000	ng/mL	----	----	

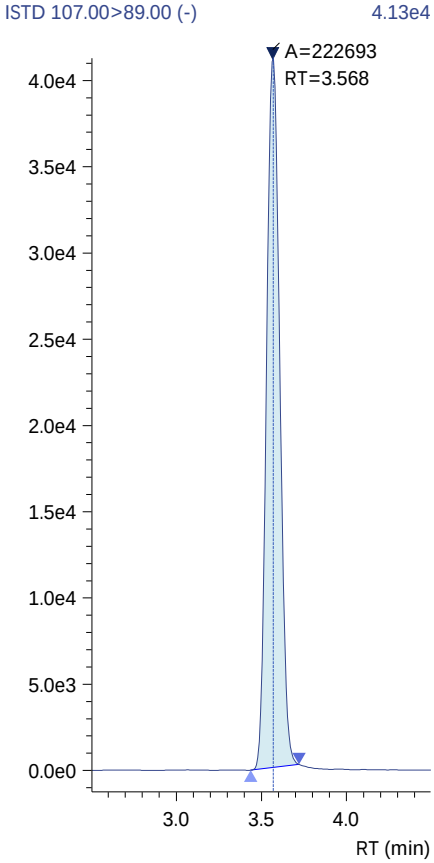
Perchlorate

Conc 0.0904
R#1 27.11 (31.99)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/1/2023 1:30:25 PM

Method File: I:\LCMS01\DATA\20230201\20230201ICAL.lcm
Project File: I:\LCMS01\DATA\20230201\20230201ICAL.damIp

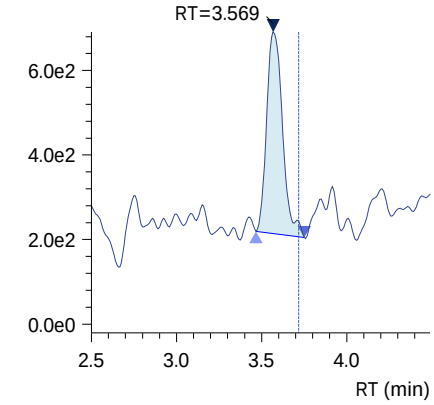
PERCHLORATE1

Sample ID: PERCHLORATE1
Date Acquired: 2/1/2023 11:50:11 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\02012023\20230201-003.lcd
Vial: 1 | Inj. Volume: 25.0000uL | Tray: 1

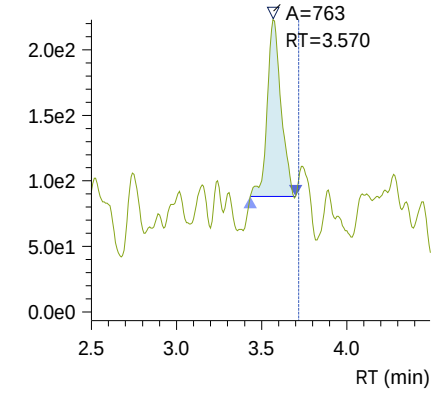
Perchlorate

Conc 0.0996
R#1 24.56 (34.45)

Q 99.00>83.00 (-) A=3105 6.91e2



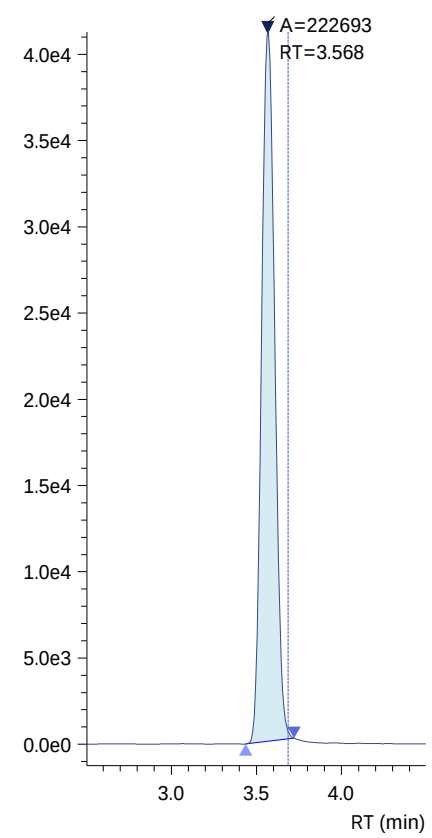
R1 101.00>85.00 (-) 2.23e2



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 4.13e4



Insight Report

Printed at 2/1/2023 2:06:14 PM

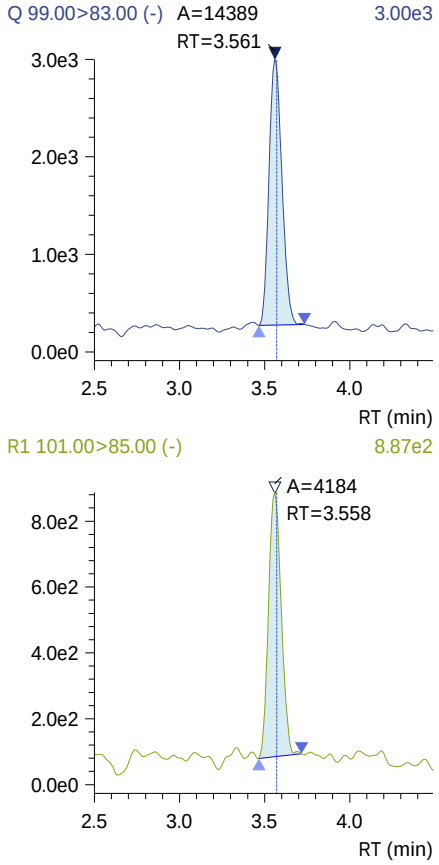
PERCHLORATE2

Sample ID: PERCHLORATE2
Date Acquired: 2/1/2023 11:55:59 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\02012023\20230201-004.lcd
Vial: 2 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.561	14389	221291	0.4694	ng/mL	101.00 >85.00	29.08	24.11 -44.78
Sodium Perchlorate-18O4_IS	Auto	3.558	221291	221291	1.0000	ng/mL	----	----	

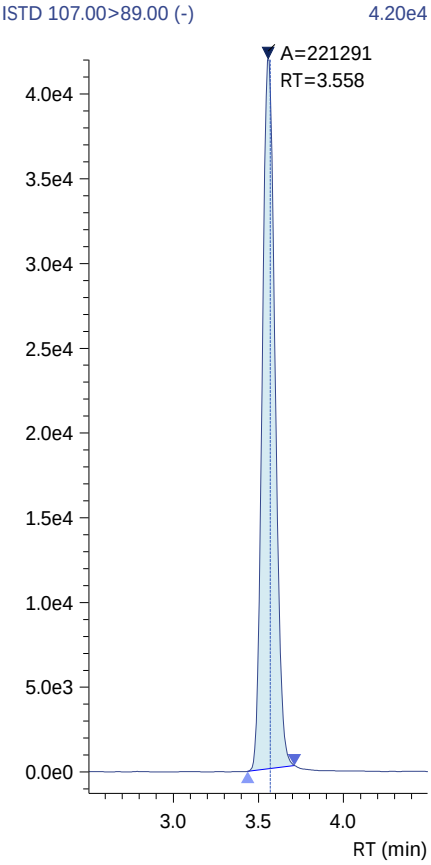
Perchlorate

Conc 0.4694
R#1 29.08 (31.99)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/1/2023 2:06:14 PM

PERCHLORATE3

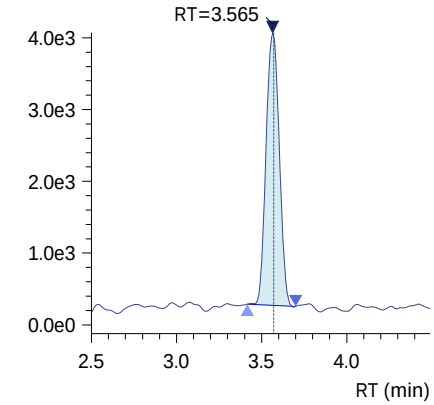
Sample ID: PERCHLORATE3
Date Acquired: 2/1/2023 12:01:49 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\02012023\20230201-005.lcd
Vial: 3 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.565	20476	217325	0.6801	ng/mL	101.00 >85.00	34.44	24.11 -44.78
Sodium Perchlorate-18O4_IS	Auto	3.559	217325	217325	1.0000	ng/mL	----	----	

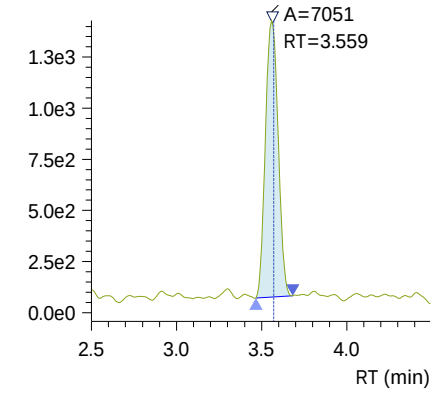
Perchlorate

Conc 0.6801
R#1 34.44 (31.99)

Q 99.00>83.00 (-) A=20476 4.07e3



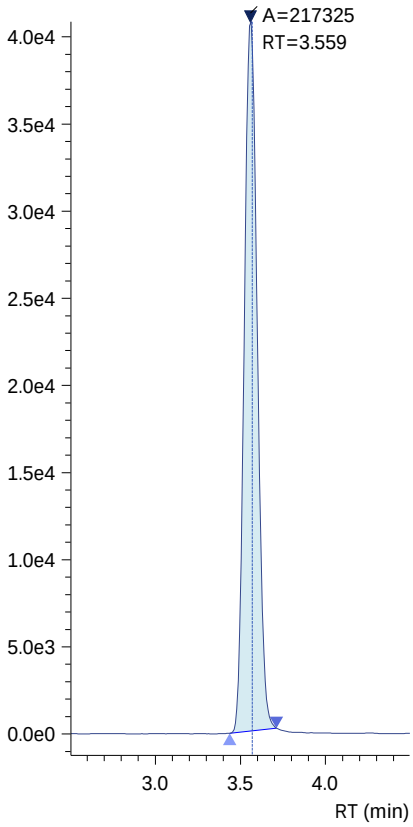
R1 101.00>85.00 (-) 1.43e3



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 4.09e4



Insight Report

Printed at 2/1/2023 2:06:14 PM

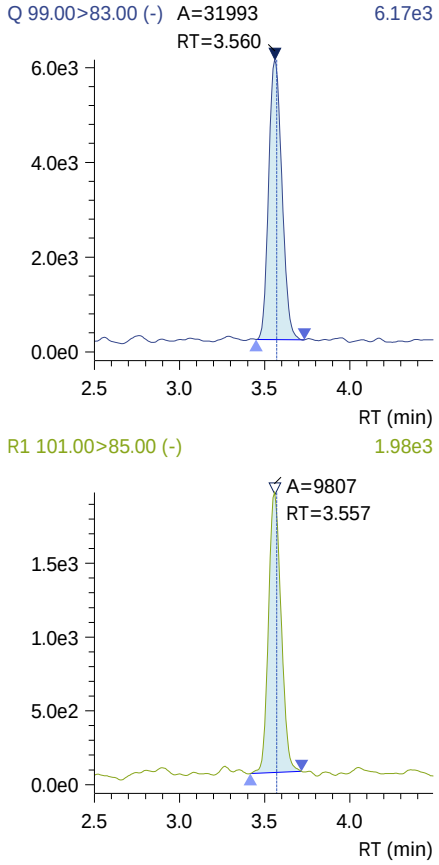
PERCHLORATE4

Sample ID: PERCHLORATE4
Date Acquired: 2/1/2023 12:07:38 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\02012023\20230201-006.lcd
Vial: 4 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.560	31993	228763	1.0095	ng/mL	101.00 >85.00	30.65	24.11 -44.78
Sodium Perchlorate-18O4_IS	Auto	3.557	228763	228763	1.0000	ng/mL	----	----	

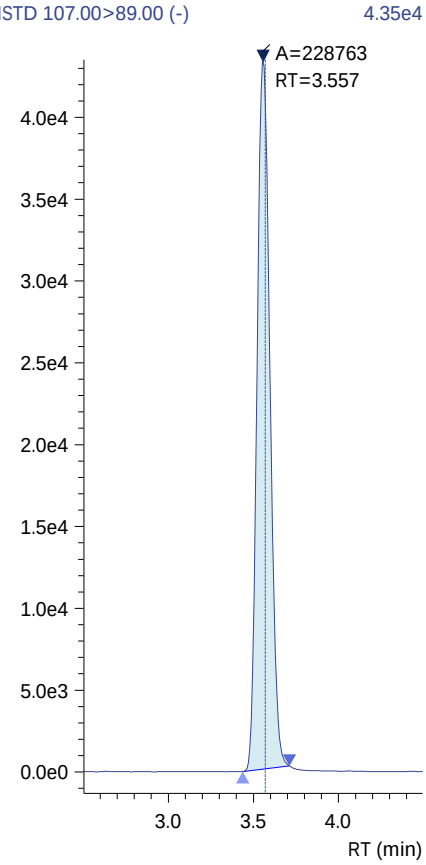
Perchlorate

Conc 1.0095
R#1 30.65 (31.99)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/1/2023 2:06:14 PM

PERCHLORATE5

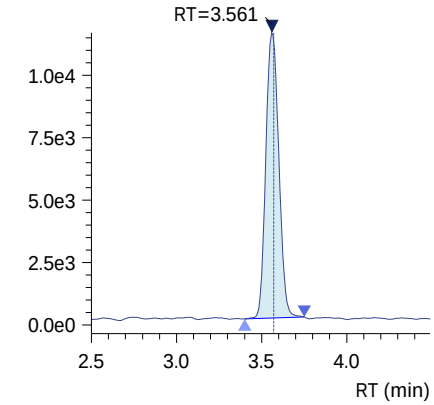
Sample ID: PERCHLORATE5
Date Acquired: 2/1/2023 12:13:29 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\02012023\20230201-007.lcd
Vial: 5 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.561	60751	216066	2.0296	ng/mL	101.00 >85.00	32.70	24.11 -44.78
Sodium Perchlorate-18O4_IS	Auto	3.557	216066	216066	1.0000	ng/mL	----	----	

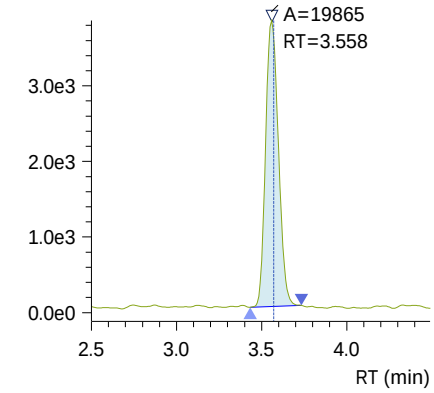
Perchlorate

Conc 2.0296
R#1 32.70 (31.99)

Q 99.00>83.00 (-) A=60751 1.17e4



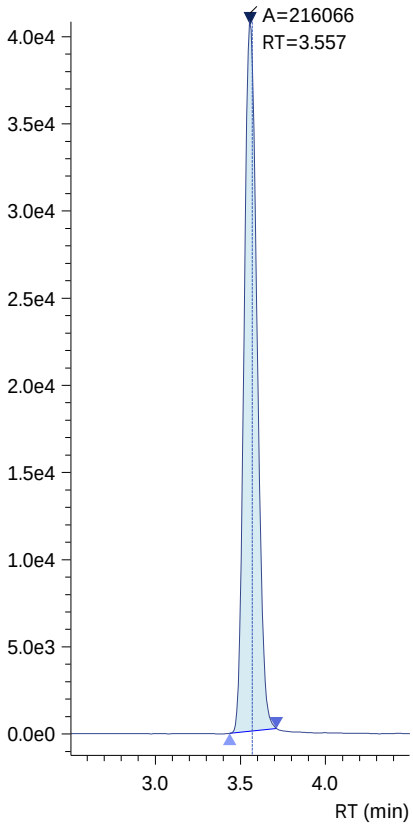
R1 101.00>85.00 (-) 3.87e3



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 4.09e4



Insight Report

Printed at 2/1/2023 2:06:14 PM

PERCHLORATE6

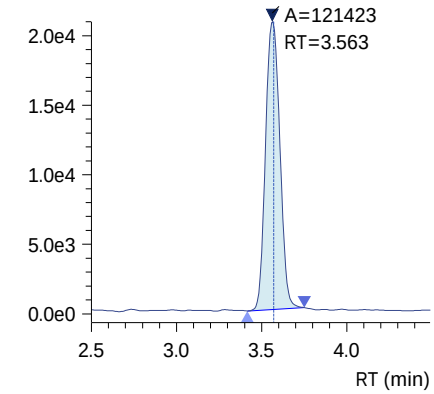
Sample ID: PERCHLORATE6
Date Acquired: 2/1/2023 12:19:20 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\02012023\20230201-008.lcd
Vial: 6 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.563	121423	172986	5.0667	ng/mL	101.00	32.55	24.11
							>85.00		-44.78
Sodium Perchlorate-18O4_IS	Auto	3.558	172986	172986	1.0000	ng/mL	----	----	

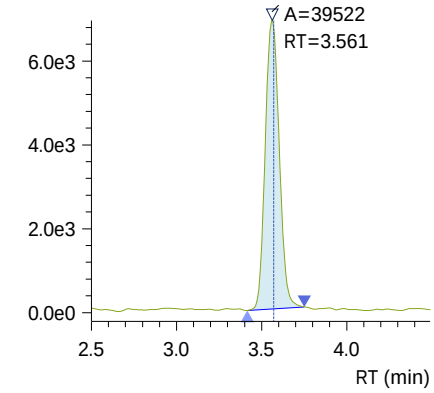
Perchlorate

Conc 5.0667
R#1 32.55 (31.99)

Q 99.00>83.00 (-) 2.10e4



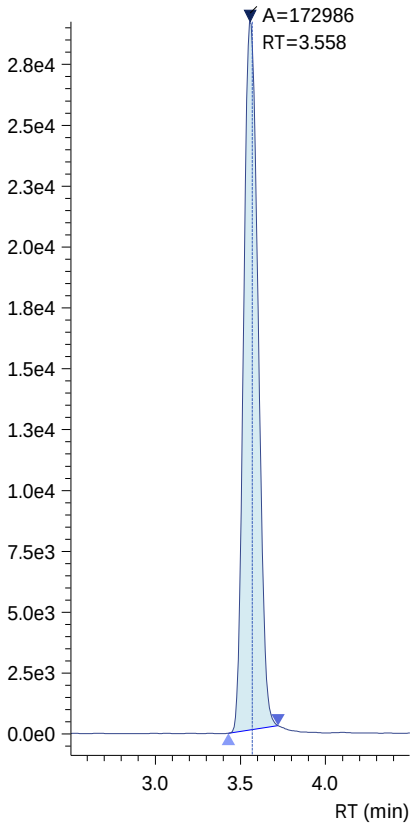
R1 101.00>85.00 (-) 6.97e3



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.93e4



Insight Report

Printed at 2/1/2023 2:06:14 PM

PERCHLORATE7

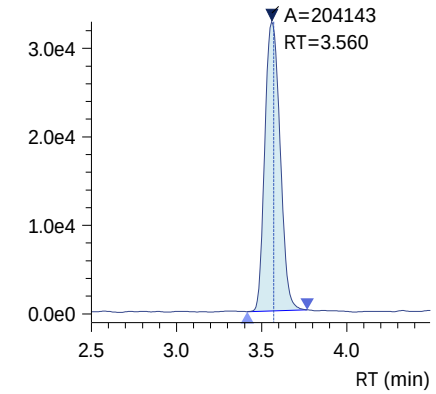
Sample ID: PERCHLORATE7
Date Acquired: 2/1/2023 12:25:10 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\02012023\20230201-009.lcd
Vial: 7 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.560	2041 43	144196	10.2 192	ng/mL	101.00 >85.00	31.99	24.11 -44.78
Sodium Perchlorate-18O4_IS	Auto	3.555	1441 96	144196	1.0000	ng/mL	----	----	

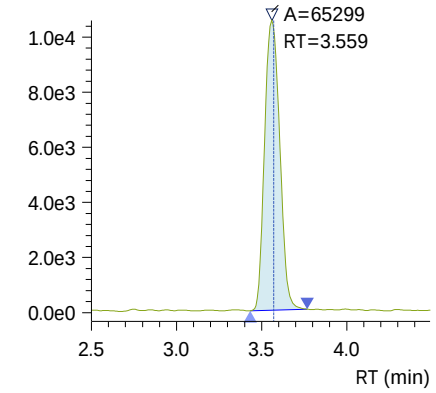
Perchlorate

Conc 10.2192
R#1 31.99 (31.99)

Q 99.00>83.00 (-) 3.30e4



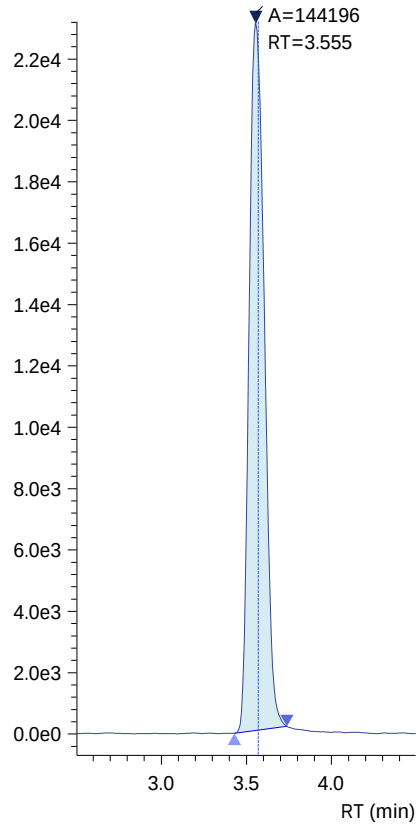
R1 101.00>85.00 (-) 1.06e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.32e4



Insight Report

Printed at 2/1/2023 2:06:14 PM

PERCHLORATE8

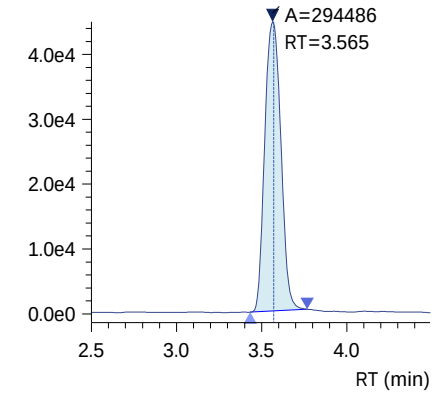
Sample ID: PERCHLORATE8
Date Acquired: 2/1/2023 12:30:57 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\02012023\20230201-010.lcd
Vial: 8 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.565	294486	104680	20.3065	ng/mL	101.00 >85.00	32.66	24.11 -44.78
Sodium Perchlorate-18O4_IS	Auto	3.557	104680	104680	1.0000	ng/mL	----	----	

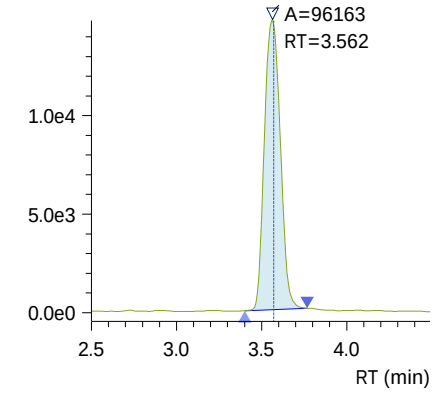
Perchlorate

Conc 20.3065
R#1 32.66 (31.99)

Q 99.00>83.00 (-) 4.50e4



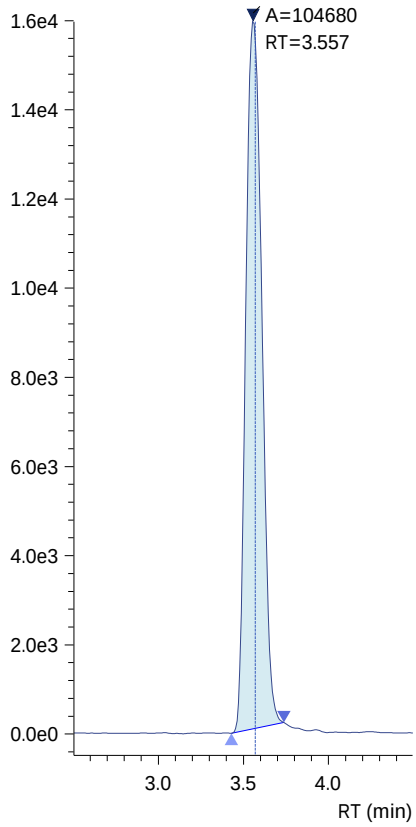
R1 101.00>85.00 (-) 1.48e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.60e4



Insight Report

Printed at 2/1/2023 2:06:14 PM

PERCHLORATE9

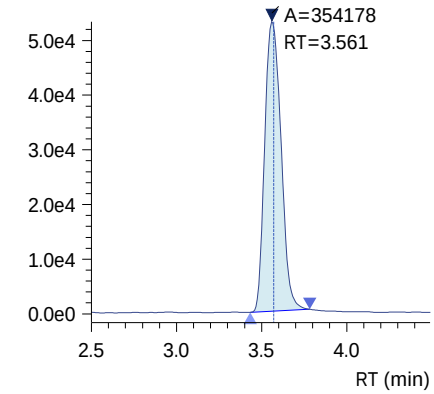
Sample ID: PERCHLORATE9
Date Acquired: 2/1/2023 12:36:45 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\02012023\20230201-011.lcd
Vial: 9 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.561	3541	81577	31.3	ng/mL	101.00	31.89	24.11
			78		395		>85.00		-44.78
Sodium Perchlorate-18O4 _IS	Auto	3.557	81577	81577	1.0000	ng/mL	----	----	

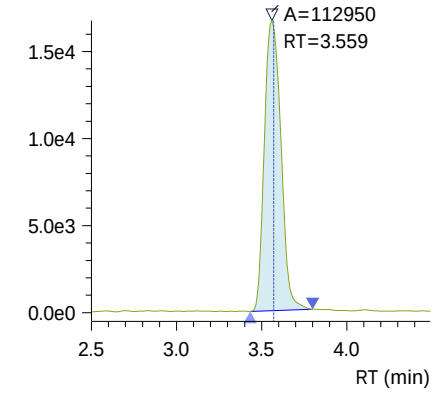
Perchlorate

Conc 31.3395
R#1 31.89 (31.99)

Q 99.00>83.00 (-) 5.34e4



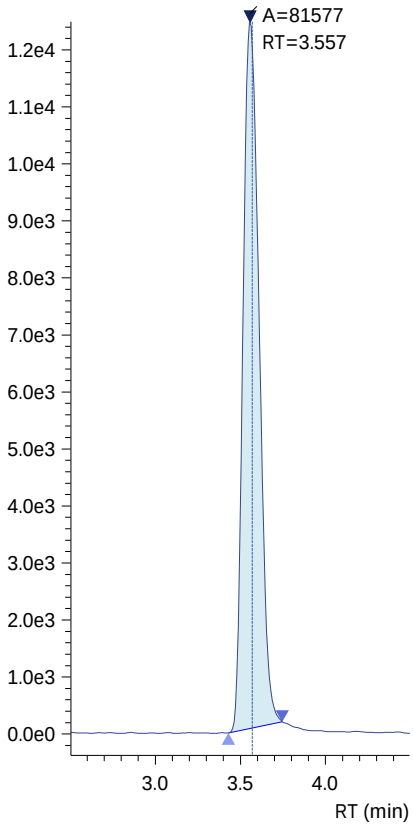
R1 101.00>85.00 (-) 1.68e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.25e4



Insight Report

Printed at 2/1/2023 2:06:14 PM

PERCHLORATE10

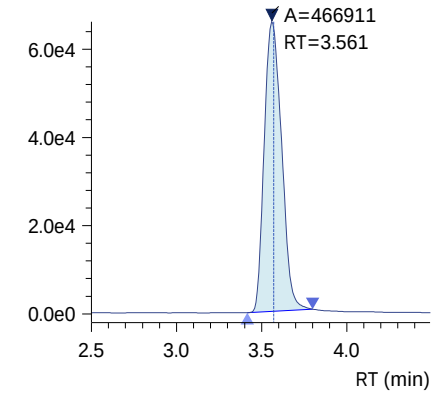
Sample ID: PERCHLORATE10
Date Acquired: 2/1/2023 12:42:34 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\02012023\20230201-012.lcd
Vial: 10 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.561	4669	63237	53.2	ng/mL	101.00	32.40	24.11
			11		964		>85.00		-44.78
Sodium Perchlorate-18O4_IS	Auto	3.554	63237	63237	1.0000	ng/mL	----	----	

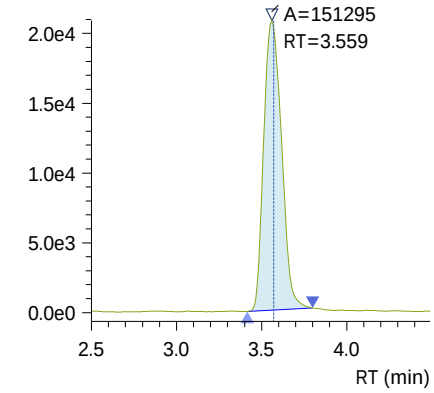
Perchlorate

Conc 53.2964
R#1 32.40 (31.99)

Q 99.00>83.00 (-) 6.62e4



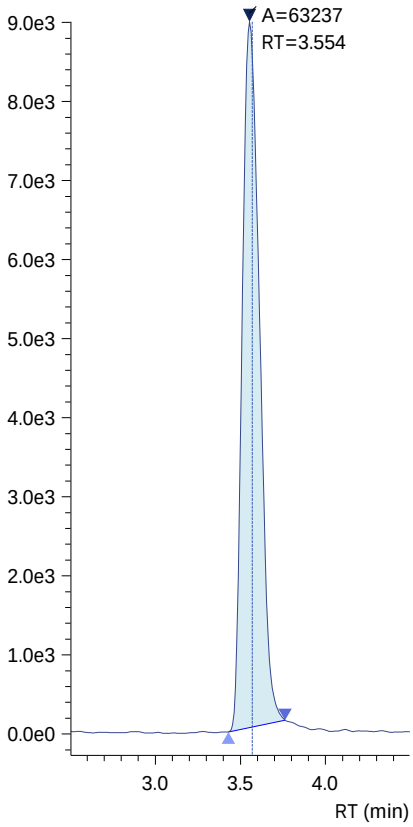
R1 101.00>85.00 (-) 2.09e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 9.01e3



Insight Report

Printed at 2/1/2023 2:06:14 PM

PERCHLORATEICV

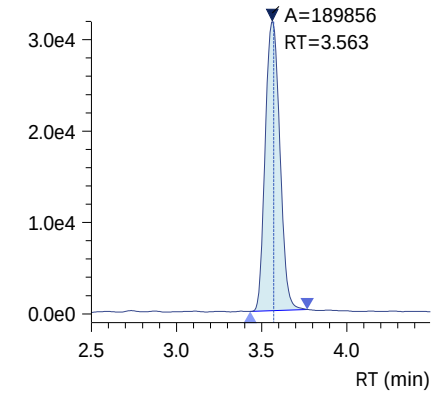
Sample ID: PERCHLORATEICV
Date Acquired: 2/1/2023 12:48:22 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\02012023\20230201-013.lcd
Vial: 11 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.563	189856 62204	130049	10.5379	ng/mL	101.00 >85.00	32.76	24.11 -44.78
Sodium Perchlorate-18O4_IS	Auto	3.557	130049	130049	1.0000	ng/mL	----	----	

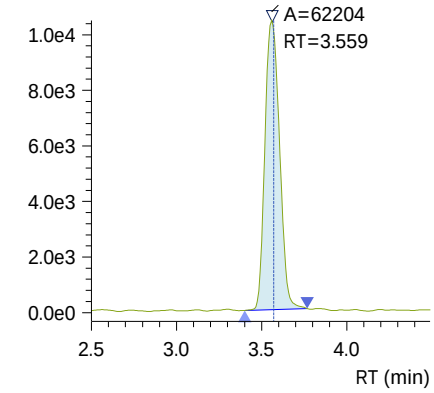
Perchlorate

Conc 10.5379
R#1 32.76 (31.99)

Q 99.00>83.00 (-) 3.20e4



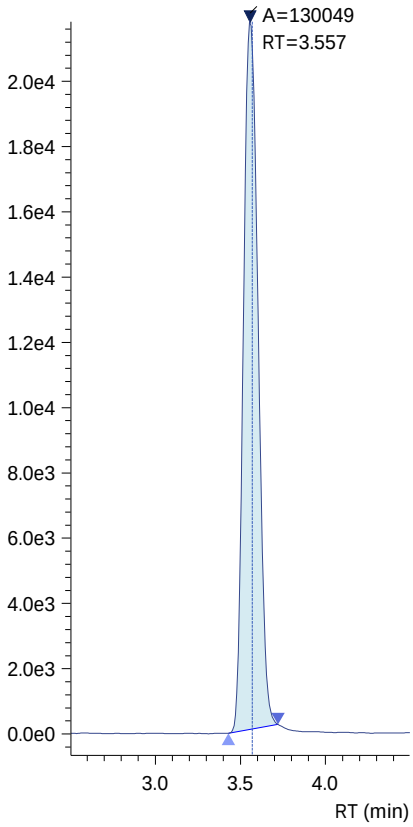
R1 101.00>85.00 (-) 1.05e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.18e4



Chromatograms and Selected Ion Monitoring

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 320, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

20230315-797835

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XMI
2nd Review: KNEIR

ICAL Date: 2/1/2023
Cal. Std. xp: 07/31/2023
ICAL ID: EC2300002

Mobile Phases : A:0.10% Formic Acid/Water 3210303-05 **B:**MeOH 224417

	Sample Name		File Name	Acquisition Method	Dilution	R	Comments	Date/Time
1	IB		20230315-001	Perchlorate6850c.lcm	1x	☒		3/15/2023 8:46
2	LODV		20230315-002	Perchlorate6850c.lcm	1x	☒	DNU-IR	3/15/2023 8:52
3	ICS		20230315-003	Perchlorate6850c.lcm	1x	☒	32103024	3/15/2023 8:58
4	LODV		20230315-004	Perchlorate6850c.lcm	1x	☒	227501	3/15/2023 9:05
5	PERCHLORATE7		20230315-005	Perchlorate6850c.lcm	1x	☒	227251	3/15/2023 9:25
6	EQ2300128-01		20230315-006	Perchlorate6850c.lcm	1x	☒		3/15/2023 9:30
7	EQ2300128-02		20230315-007	Perchlorate6850c.lcm	1x	☒		3/15/2023 9:36
8	EQ2300128-03		20230315-008	Perchlorate6850c.lcm	1x	☒		3/15/2023 9:42
9	R2301893-005		20230315-009	Perchlorate6850c.lcm	1x	☒		3/15/2023 10:05
10	R2301893-010		20230315-010	Perchlorate6850c.lcm	1x	☒		3/15/2023 10:10
11	R2301893-015		20230315-011	Perchlorate6850c.lcm	1x	☒		3/15/2023 10:21
12	R2301893-020		20230315-012	Perchlorate6850c.lcm	1x	☒		3/15/2023 10:27
13	R2301893-025		20230315-013	Perchlorate6850c.lcm	1x	☒		3/15/2023 10:33
14	R2301893-034		20230315-014	Perchlorate6850c.lcm	1x	☒		3/15/2023 10:38
15	R2301893-035		20230315-015	Perchlorate6850c.lcm	1x	☒	DNU-RR	3/15/2023 10:44
16	PERCHLORATE7		20230315-016	Perchlorate6850c.lcm	1x	☒	227251	3/15/2023 10:50
17	R2301893-044		20230315-017	Perchlorate6850c.lcm	1x	☒		3/15/2023 10:55
18	R2301893-045		20230315-018	Perchlorate6850c.lcm	1x	☒		3/15/2023 11:01
19	R2301893-050		20230315-019	Perchlorate6850c.lcm	1x	☒		3/15/2023 11:07
20	EQ2300128-04		20230315-020	Perchlorate6850c.lcm	1x	☒		3/15/2023 11:13
21	EQ2300128-05		20230315-021	Perchlorate6850c.lcm	1x	☒		3/15/2023 11:19
22	R2301893-055		20230315-022	Perchlorate6850c.lcm	1x	☒		3/15/2023 11:27
23	R2301896-009		20230315-023	Perchlorate6850c.lcm	1x	☒		3/15/2023 11:33
24	R2301896-010		20230315-024	Perchlorate6850c.lcm	1x	☒		3/15/2023 11:39
25	R2301896-015		20230315-025	Perchlorate6850c.lcm	1x	☒		3/15/2023 11:44
26	R2301896-024		20230315-026	Perchlorate6850c.lcm	1x	☒		3/15/2023 11:50
27	PERCHLORATE7		20230315-027	Perchlorate6850c.lcm	1x	☒	227251	3/15/2023 11:56
28	R2301896-025		20230315-028	Perchlorate6850c.lcm	1x	☒		3/15/2023 12:02
29	R2301896-034		20230315-029	Perchlorate6850c.lcm	1x	☒		3/15/2023 12:07
30	R2301896-035		20230315-030	Perchlorate6850c.lcm	1x	☒		3/15/2023 12:13
31	R2301896-040		20230315-031	Perchlorate6850c.lcm	1x	☒	DNU-CONFIRM PEAK	3/15/2023 12:19
32	R2301896-045		20230315-032	Perchlorate6850c.lcm	1x	☒		3/15/2023 12:24
33	EQ2300127-01		20230315-033	Perchlorate6850c.lcm	1x	☒		3/15/2023 12:30
34	EQ2300127-02		20230315-034	Perchlorate6850c.lcm	1x	☒		3/15/2023 12:36
35	EQ2300127-03		20230315-035	Perchlorate6850c.lcm	1x	☒		3/15/2023 12:42
36	E2300231-001		20230315-036	Perchlorate6850c.lcm	1x	☒		3/15/2023 12:48
37	E2300231-002		20230315-037	Perchlorate6850c.lcm	1x	☒		3/15/2023 12:54

20230315-797835

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XMI
2nd Review: KNEIR

ICAL Date: 2/1/2023
Cal. Std. xp: 07/31/2023
ICAL ID: EC2300002

Mobile Phases : **A:**0.10% Formic Acid/Water 3210303-05 **B:**MeOH 224417

	Sample Name		File Name	Acquisition Method	Dilution	R	Comments	Date/Time
38	PERCHLORATE7		20230315-038	Perchlorate6850c.lcm	1x	☒	227251	3/15/2023 12:59
39	E2300231-003		20230315-039	Perchlorate6850c.lcm	1x	☒		3/15/2023 13:05
40	E2300231-004		20230315-040	Perchlorate6850c.lcm	1x	☒	DNU-IR	3/15/2023 13:11
41	E2300231-005		20230315-041	Perchlorate6850c.lcm	1x	☒		3/15/2023 13:16
42	E2300235-001		20230315-042	Perchlorate6850c.lcm	1x	☒		3/15/2023 13:22
43	E2300235-002		20230315-043	Perchlorate6850c.lcm	1x	☒		3/15/2023 13:28
44	E2300235-003		20230315-044	Perchlorate6850c.lcm	1x	☒		3/15/2023 13:34
45	E2300239-001		20230315-045	Perchlorate6850c.lcm	1x	☒		3/15/2023 13:39
46	E2300240-001		20230315-046	Perchlorate6850c.lcm	1x	☒	DNU-out of ICAL range	3/15/2023 13:45
47	R2301866-011		20230315-047	Perchlorate6850c.lcm	1x	☒		3/15/2023 13:51
48	R2301866-013		20230315-048	Perchlorate6850c.lcm	1x	☒		3/15/2023 13:57
49	PERCHLORATE7		20230315-049	Perchlorate6850c.lcm	1x	☒	227251	3/15/2023 14:37
50	R2301868-012		20230315-050	Perchlorate6850c.lcm	1x	☒		3/15/2023 14:44
51	R2301870-012		20230315-051	Perchlorate6850c.lcm	1x	☒		3/15/2023 14:50
52	R2301872-012		20230315-052	Perchlorate6850c.lcm	1x	☒		3/15/2023 14:56
53	R2301874-012		20230315-053	Perchlorate6850c.lcm	1x	☒		3/15/2023 15:01
54	R2301876-012		20230315-054	Perchlorate6850c.lcm	1x	☒		3/15/2023 15:07
55	R2301914-005		20230315-055	Perchlorate6850c.lcm	1x	☒		3/15/2023 15:13
56	R2301914-014		20230315-056	Perchlorate6850c.lcm	1x	☒		3/15/2023 15:19
57	R2301896-040		20230315-057	Perchlorate6850c.lcm	1x	☒		3/15/2023 15:24
58	E2300231-004		20230315-058	Perchlorate6850c.lcm	1x	☒		3/15/2023 15:30
59	E2300240-001		20230315-059	Perchlorate6850c.lcm	1000x	☒		3/15/2023 15:52
60	PERCHLORATE7		20230315-060	Perchlorate6850c.lcm	1x	☒	227251	3/15/2023 16:59

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2300239
Project:	HS23030396	**Date Analyzed:**	3/15/23 12:59

Internal Standard Area and RT Summary

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20230315\20230315-038	**Lab Code:**	EQ2300132-04
Instrument ID:	E-LCMS-01	**Analysis Lot:**	797835
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	167,281	3.56
	Upper Limit ==>	250,922	5.56
	Lower Limit ==>	83,641	1.56
Associated Analyses			
Continuing Calibration Verification	EQ2300132-04	207,678	3.39
LH18/24-SP650_030723_AIX	E2300239-001	197,751	3.39

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2300239
Project:	HS23030396	**Date Analyzed:**	3/15/23 14:37

Internal Standard Area and RT Summary

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20230315\20230315-049	**Lab Code:**	EQ2300132-05
Instrument ID:	E-LCMS-01	**Analysis Lot:**	797835
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	167,281	3.56
	Upper Limit ==>	250,922	5.56
	Lower Limit ==>	83,641	1.56
Associated Analyses			
Continuing Calibration Verification	EQ2300132-05	222,551	3.38

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2300239
Project:	HS23030396	**Date Analyzed:**	3/15/23 16:59

Internal Standard Area and RT Summary

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20230315\20230315-060-5	**Lab Code:**	EQ2300132-06
Instrument ID:	E-LCMS-01	**Analysis Lot:**	797835
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	167,281	3.56
	Upper Limit ==>	250,922	5.56
	Lower Limit ==>	83,641	1.56
Associated Analyses			
Continuing Calibration Verification	EQ2300132-06	173,264	3.35

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23030396

Service Request: E2300239
Date Analyzed: 3/15/23

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20230315\20230315-038

Calibration Date: 2/1/23
Calibration ID: EC2300002
Analysis Lot: 797835
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	8.67	0.1385	0.1201	-13.3	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23030396

Service Request: E2300239
Date Analyzed: 3/15/23

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20230315\20230315-049

Calibration Date: 2/1/23
Calibration ID: EC2300002
Analysis Lot: 797835
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	8.68	0.1385	0.1203	-13.2	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23030396

Service Request: E2300239
Date Analyzed: 3/15/23

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20230315\20230315-060-5

Calibration Date: 2/1/23
Calibration ID: EC2300002
Analysis Lot: 797835
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	10.8	0.1385	0.1495	7.9	NA	± 15 %	Average RF

Insight Report

Printed at 3/16/2023 9:16:42 AM

Method File: I:\LCMS01\DATA\20230315\20230315.lcm
Project File: I:\LCMS01\DATA\20230315\20230315.damlp

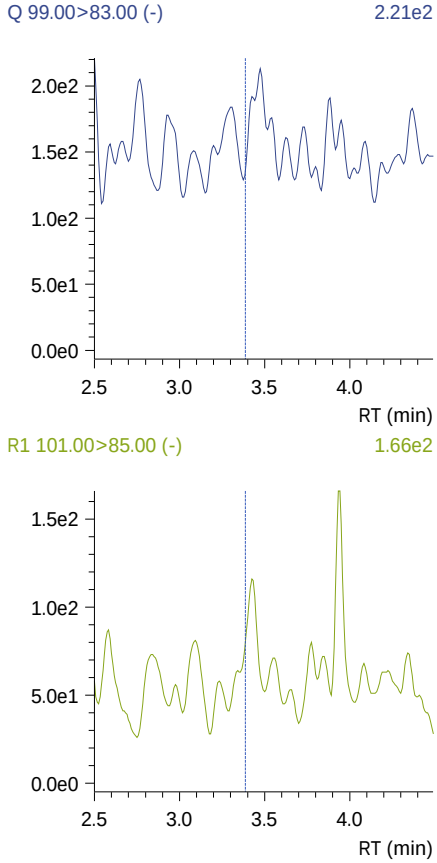
IB

Sample ID: IB
Date Acquired: 3/15/2023 8:46:51 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230315\20230315-001.lcd
Vial: 4 | Inj. Volume: 25.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	228254	----	ng/mL	101.00 >85.00	0.00	22.03 -40.92
Sodium Perchlorate-18O4_IS	Auto	3.430	228254	228254	1.0000	ng/mL	----	----	

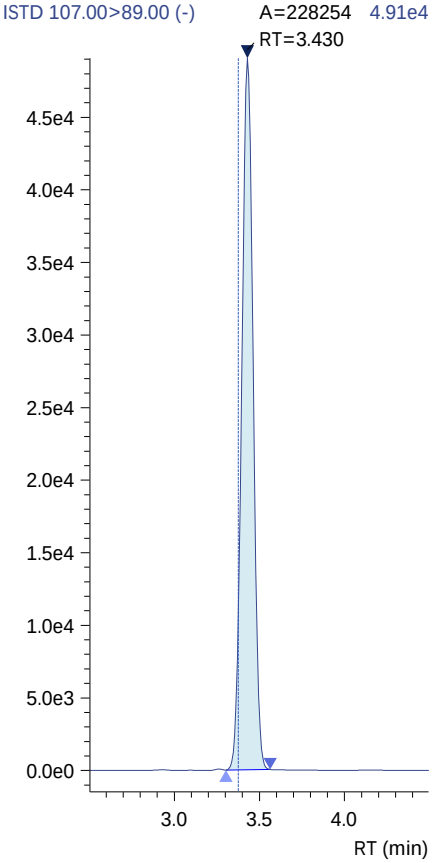
Perchlorate

Conc ----
R#1 0.00 (31.48)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 3/16/2023 9:16:42 AM

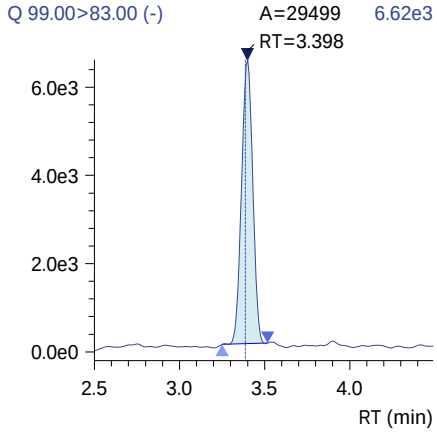
ICS

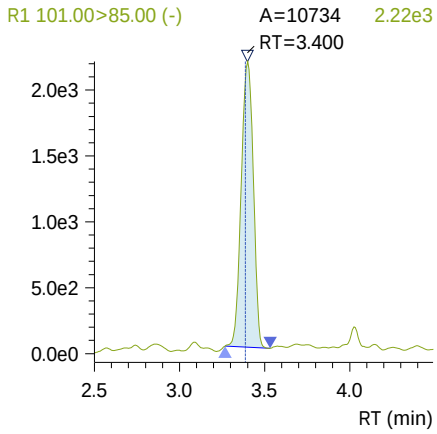
Sample ID: ICS
Date Acquired: 3/15/2023 8:58:42 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230315\20230315-003.lcd
Vial: 2 | Inj. Volume: 25.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.398	29499	198883	1.0707	ng/mL	101.00 >85.00	36.39	22.03 -40.92
Sodium Perchlorate-18O4_IS	Auto	3.394	198883	198883	1.0000	ng/mL	----	----	

Perchlorate

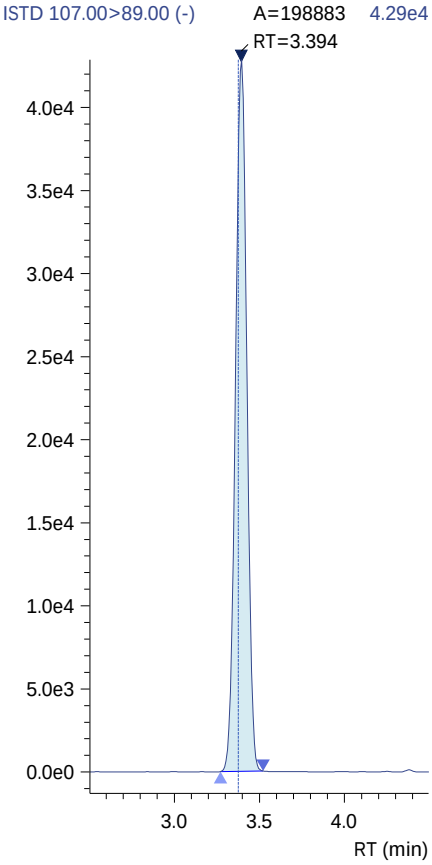
Conc 1.0707
R#1 36.39 (31.48)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 3/16/2023 9:16:42 AM

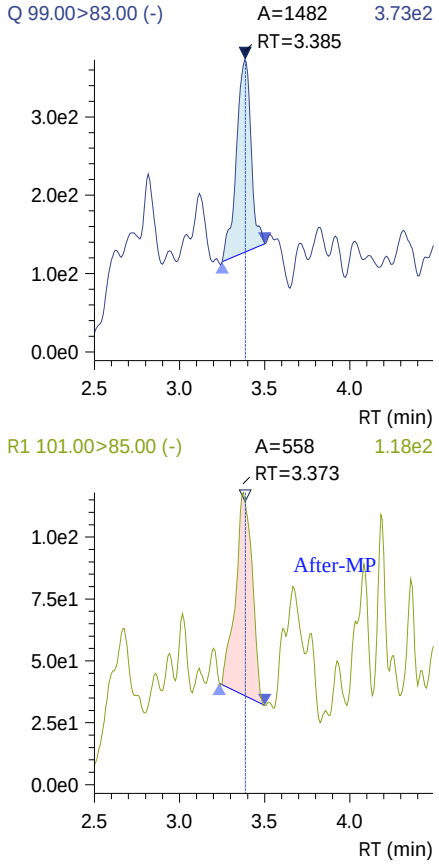
LODV

Sample ID: LODV
Date Acquired: 3/15/2023 9:05:11 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230315\20230315-004.lcd
Vial: 1 | Inj. Volume: 25.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	MI R1	3.385	1482	174618	0.0613	ng/mL	101.00 >85.00	37.64	22.03 -40.92
Sodium Perchlorate-18O4_IS	Auto	3.383	174618	174618	1.0000	ng/mL	----	----	

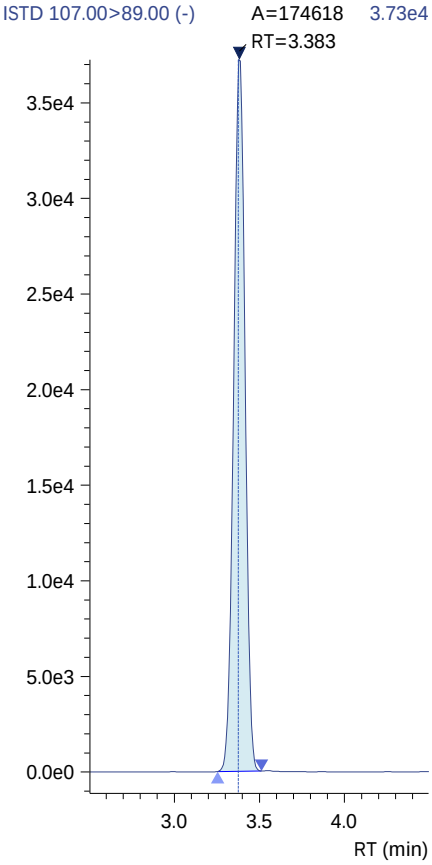
Perchlorate

Conc 0.0613
R#1 37.64 (31.48)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 3/16/2023 9:18:29 AM

Method File: I:\LCMS01\DATA\20230315\20230315.lcm
Project File: I:\LCMS01\DATA\20230315\20230315.damlp

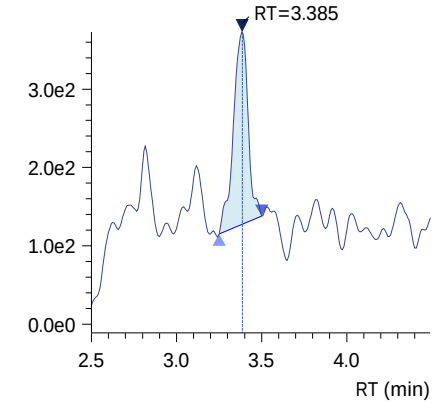
LODV

Sample ID: LODV
Date Acquired: 3/15/2023 9:05:11 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230315\20230315-004.lcd
Vial: 1 | Inj. Volume: 25.0000uL | Tray: 0

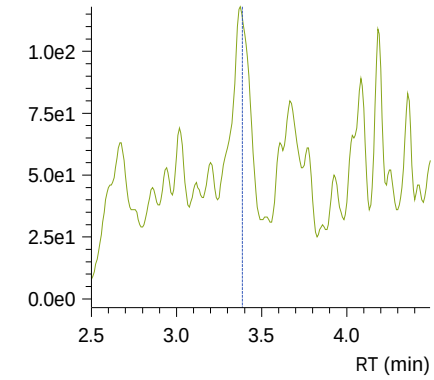
Perchlorate

Conc 0.0606
R#1 0.00 (31.48)

Q 99.00>83.00 (-) A=1482 3.73e2



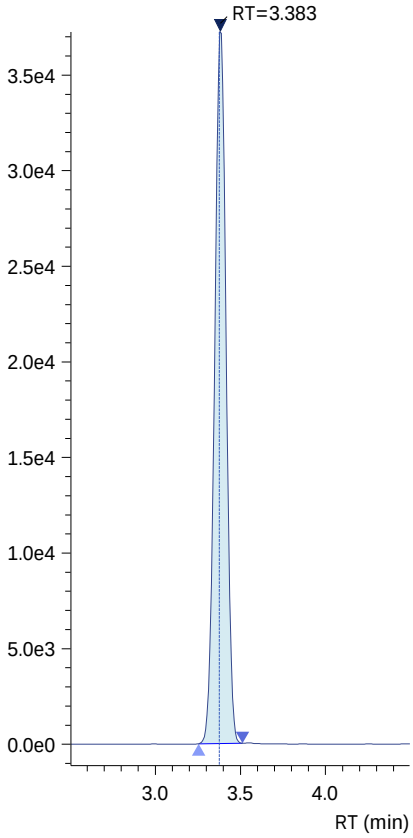
R1 101.00>85.00 (-) 1.18e2



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) A=174618 3.73e4



Insight Report

Printed at 3/16/2023 9:16:42 AM

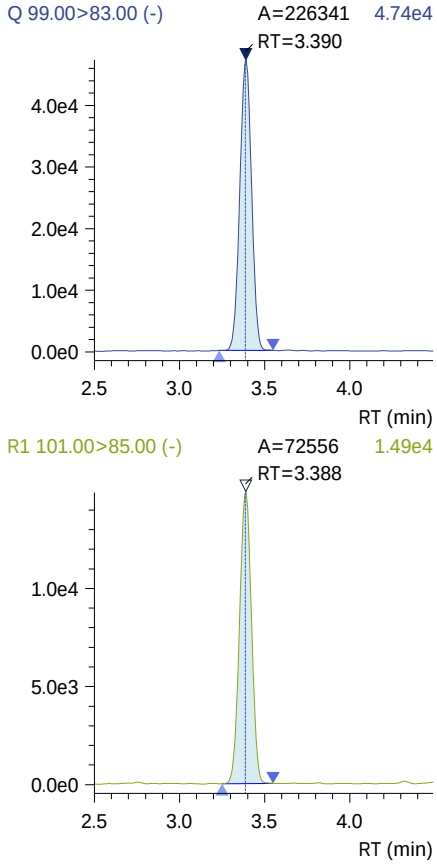
PERCHLORATE7

Sample ID: PERCHLORATE7
Date Acquired: 3/15/2023 9:25:10 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230315\20230315-005.lcd
Vial: 3 | Inj. Volume: 25.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.390	226341	177502	9.2044	ng/mL	101.00 >85.00	32.06	22.03 -40.92
Sodium Perchlorate-18O4_IS	Auto	3.385	177502	177502	1.0000	ng/mL	----	----	

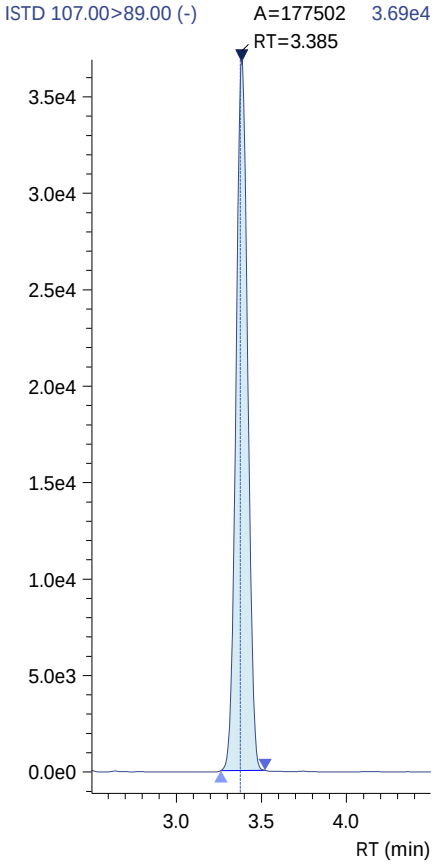
Perchlorate

Conc 9.2044
R#1 32.06 (31.48)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 3/16/2023 9:16:42 AM

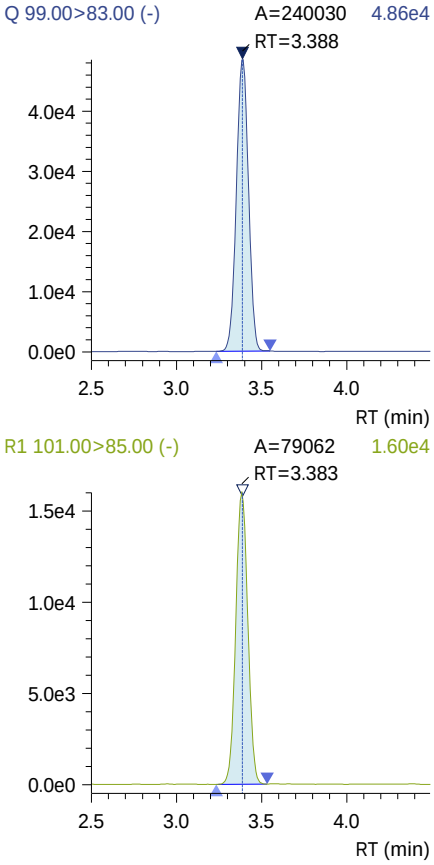
PERCHLORATE7

Sample ID: PERCHLORATE7
Date Acquired: 3/15/2023 11:56:15 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230315\20230315-027.lcd
Vial: 3 | Inj. Volume: 25.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.388	240030	198746	8.7177	ng/mL	101.00 >85.00	32.94	22.03 -40.92
Sodium Perchlorate-18O4_IS	Auto	3.385	198746	198746	1.0000	ng/mL	----	----	

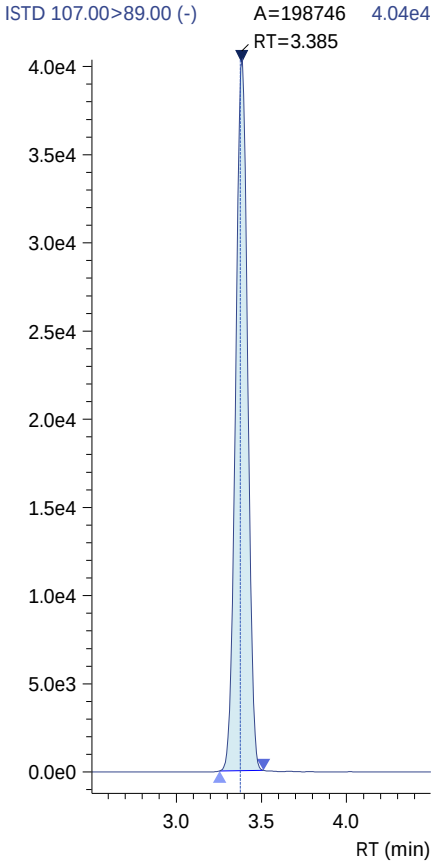
Perchlorate

Conc 8.7177
R#1 32.94 (31.48)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 3/16/2023 9:16:42 AM

EQ2300127-01

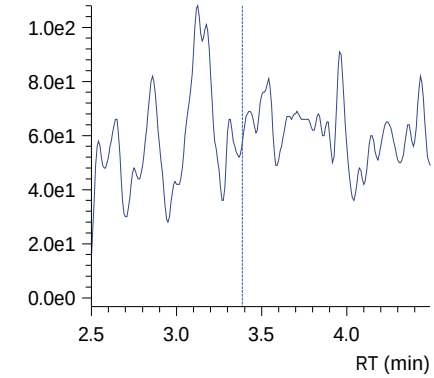
Sample ID: EQ2300127-01
Date Acquired: 3/15/2023 12:30:34 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230315\20230315-033.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 4

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	201202	----	ng/mL	101.00 >85.00	0.00	22.03 -40.92
Sodium Perchlorate-18O4_IS	Auto	3.385	201202	201202	1.0000	ng/mL	----	----	

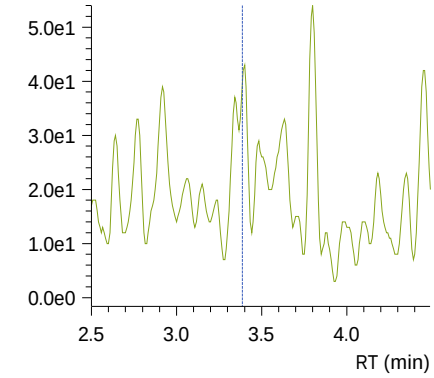
Perchlorate

Conc ----
R#1 0.00 (31.48)

Q 99.00>83.00 (-) 1.08e2



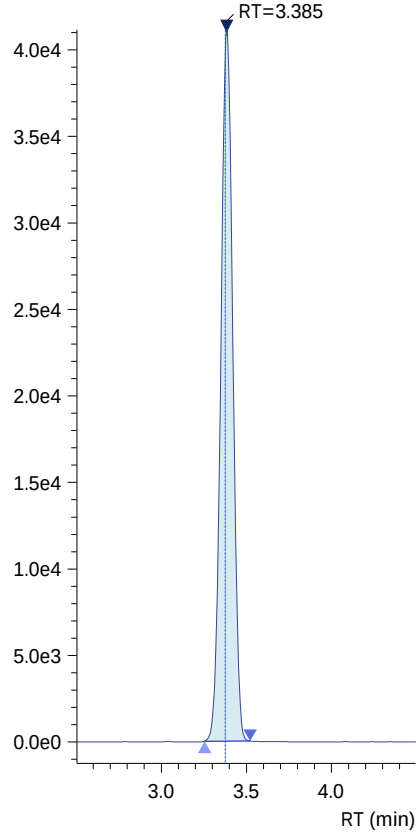
R1 101.00>85.00 (-) 5.40e1



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) A=201202 4.12e4
RT=3.385



Insight Report

Printed at 3/16/2023 9:16:42 AM

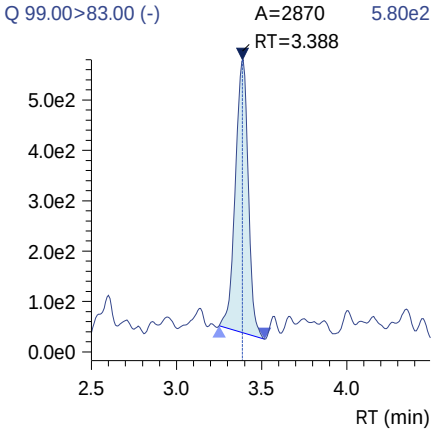
EQ2300127-02

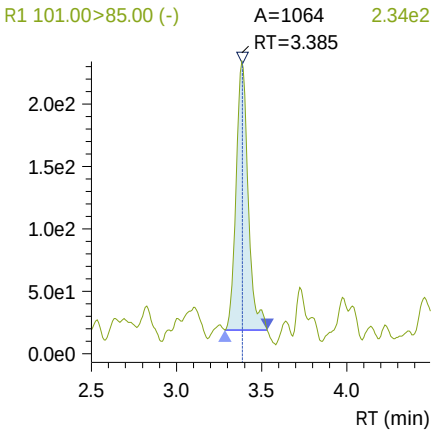
Sample ID: EQ2300127-02
Date Acquired: 3/15/2023 12:36:18 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230315\20230315-034.lcd
Vial: 27 | Inj. Volume: 25.0000uL | Tray: 4

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.388	2870	195012	0.1062	ng/mL	101.00 >85.00	37.05	22.03 -40.92
Sodium Perchlorate-18O4_IS	Auto	3.383	1950 12	195012	1.0000	ng/mL	----	----	

Perchlorate

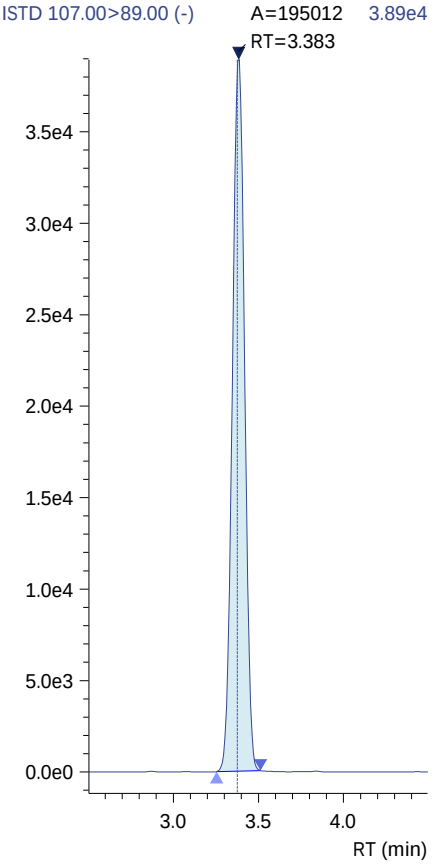
Conc 0.1062
R#1 37.05 (31.48)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 3/16/2023 9:16:42 AM

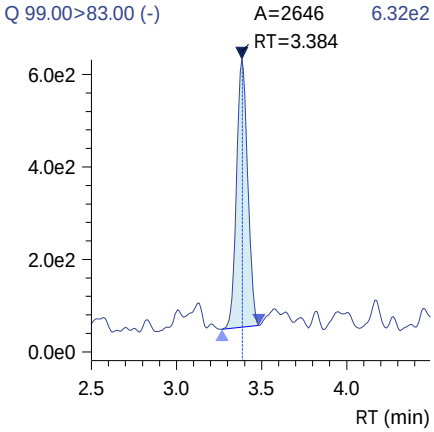
EQ2300127-03

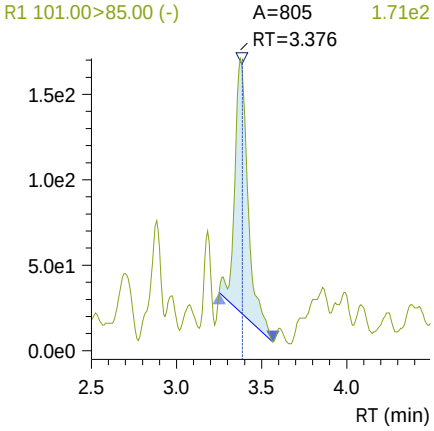
Sample ID: EQ2300127-03
Date Acquired: 3/15/2023 12:42:02 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230315\20230315-035.lcd
Vial: 28 | Inj. Volume: 25.0000uL | Tray: 4

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.384	2646	203253	0.0940	ng/mL	101.00 >85.00	30.41	22.03 -40.92
Sodium Perchlorate-18O4_IS	Auto	3.381	203253	203253	1.0000	ng/mL	----	----	

Perchlorate

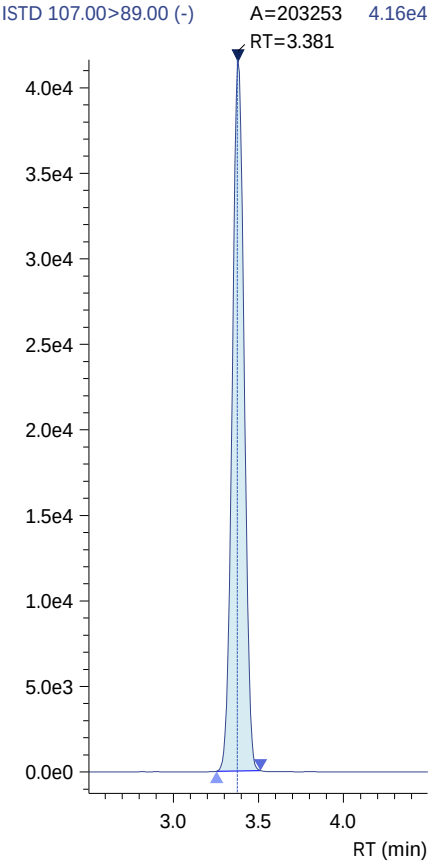
Conc 0.0940
R#1 30.41 (31.48)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 3/16/2023 9:16:42 AM

PERCHLORATE7

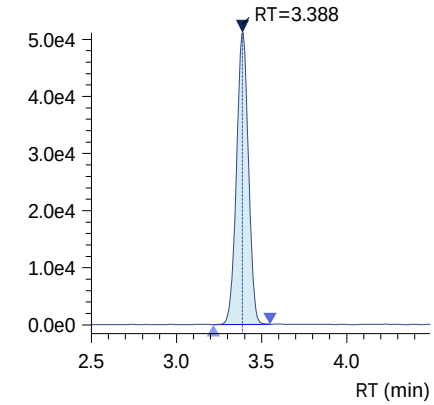
Sample ID: PERCHLORATE7
Date Acquired: 3/15/2023 12:59:44 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230315\20230315-038.lcd
Vial: 3 | Inj. Volume: 25.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.388	249399	207678	8.6684	ng/mL	101.00 >85.00	30.71	22.03 -40.92
Sodium Perchlorate-18O4_IS	Auto	3.385	207678	207678	1.0000	ng/mL	----	----	

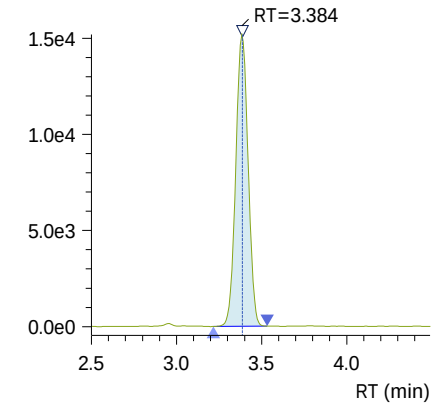
Perchlorate

Conc 8.6684
R#1 30.71 (31.48)

Q 99.00>83.00 (-) A=249399 5.12e4 RT=3.388



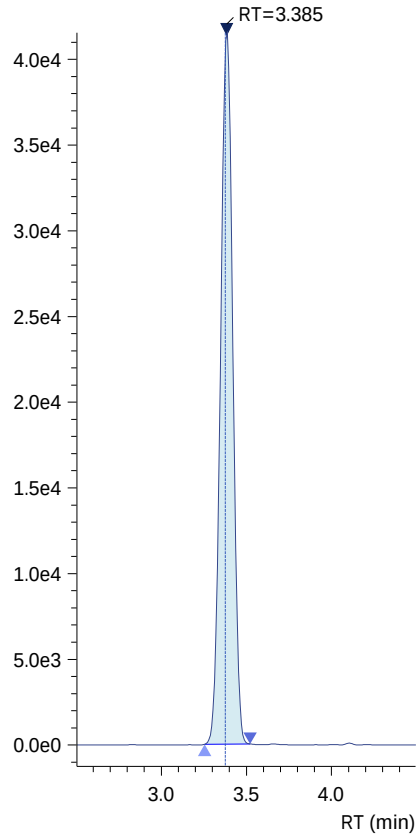
R1 101.00>85.00 (-) A=76584 1.52e4 RT=3.384



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) A=207678 4.16e4 RT=3.385



Insight Report

Printed at 3/16/2023 9:16:42 AM

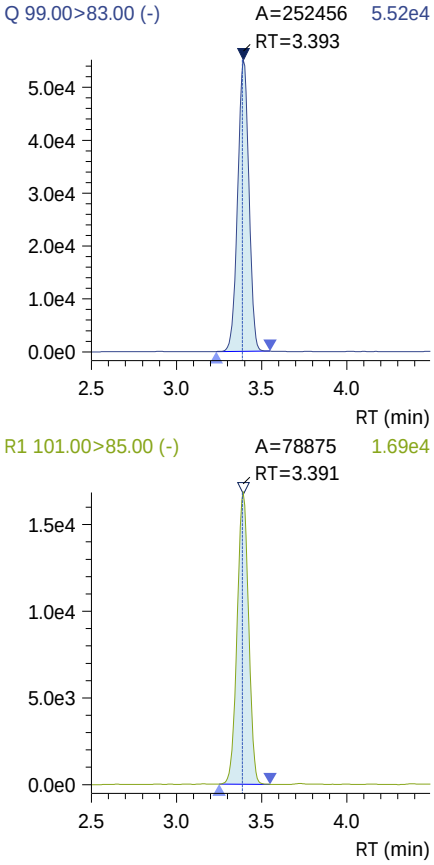
E2300239-001

Sample ID: E2300239-001
Date Acquired: 3/15/2023 1:39:54 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230315\20230315-045.lcd
Vial: 37 | Inj. Volume: 25.0000uL | Tray: 4

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.393	252456	197751	9.2151	ng/mL	101.00 >85.00	31.24	22.03 -40.92
Sodium Perchlorate-18O4_IS	Auto	3.390	197751	197751	1.0000	ng/mL	----	----	

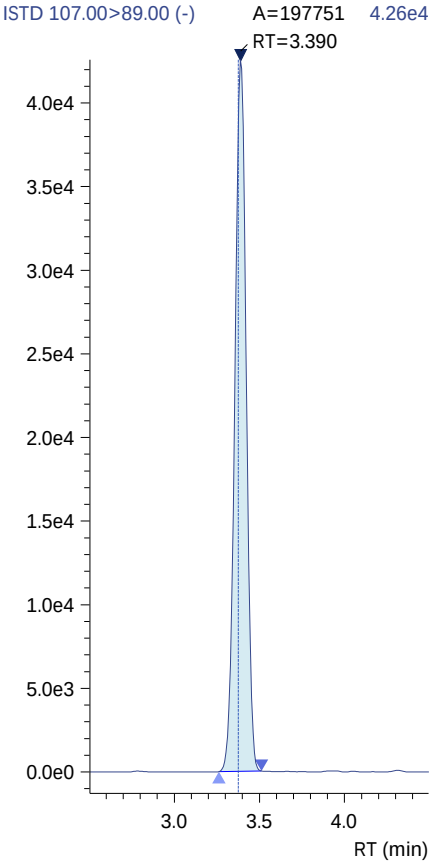
Perchlorate

Conc 9.2151
R#1 31.24 (31.48)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 3/16/2023 9:16:42 AM

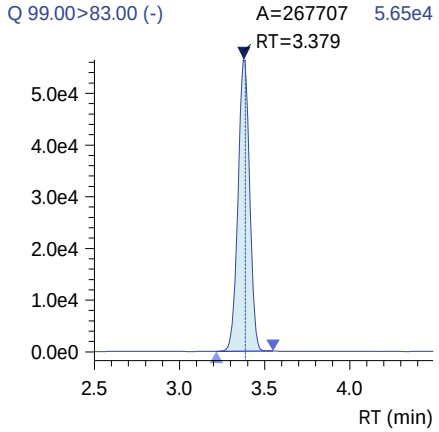
PERCHLORATE7

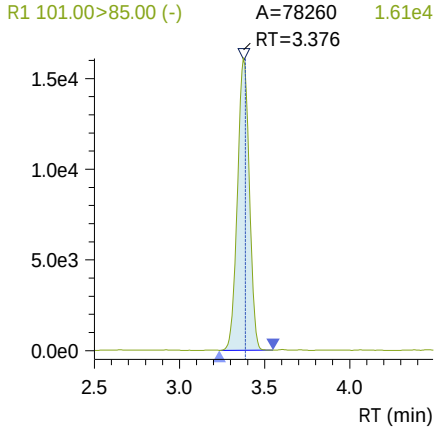
Sample ID: PERCHLORATE7
Date Acquired: 3/15/2023 2:37:55 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230315\20230315-049.lcd
Vial: 3 | Inj. Volume: 25.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.379	267707	222551	8.6829	ng/mL	101.00 >85.00	29.23	22.03 -40.92
Sodium Perchlorate-18O4_IS	Auto	3.375	222551	222551	1.0000	ng/mL	----	----	

Perchlorate

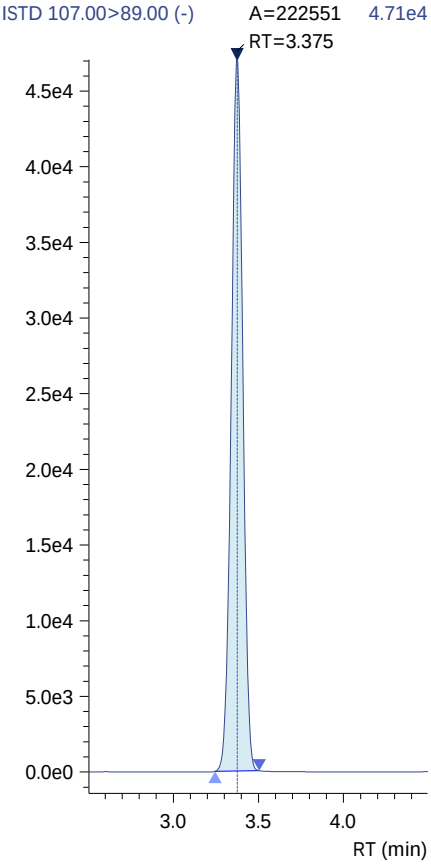
Conc 8.6829
R#1 29.23 (31.48)





Sodium Perchlorate-18O4_IS

Conc 1.0000



HS23030396-MSVOA-SW8260

ALS WO# HS23030396

01182556

right solutions.
right partner.

Form 1

Organic Analysis Data Sheet

Volatiles by EPA 8260

Workorder

HS23030396

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Monthly Effluent Samples

03/15/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder
HS23030396

Volatiles by EPA 8260

HS23030396-01	Collected	Received	Matrix	Basis
LH18/24-SP650_030723	03/07/23 13:00	03/08/23 10:15	Water	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
1,1,1,2-Tetrachloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	03/09/23 13:28	VOA6_429719_R42971	X030909
1,1,1-Trichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	03/09/23 13:28	VOA6_429719_R42971	X030909
1,1,2,2-Tetrachloroethane	ug/L	1.0	U	0.50	1.0	1.0	1	03/09/23 13:28	VOA6_429719_R42971	X030909
1,1,2-Trichloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	03/09/23 13:28	VOA6_429719_R42971	X030909
1,1-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	03/09/23 13:28	VOA6_429719_R42971	X030909
1,1-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	03/09/23 13:28	VOA6_429719_R42971	X030909
1,1-Dichloropropene	ug/L	1.0	U	0.30	1.0	1.0	1	03/09/23 13:28	VOA6_429719_R42971	X030909
1,2,3-Trichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	03/09/23 13:28	VOA6_429719_R42971	X030909
1,2,3-Trichloropropane	ug/L	1.0	U	0.50	1.0	1.0	1	03/09/23 13:28	VOA6_429719_R42971	X030909
1,2,4-Trichlorobenzene	ug/L	1.0	U	0.50	1.0	1.0	1	03/09/23 13:28	VOA6_429719_R42971	X030909
1,2,4-Trimethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	03/09/23 13:28	VOA6_429719_R42971	X030909
1,2-Dibromo-3-	ug/L	1.0	U	0.20	1.0	1.0	1	03/09/23 13:28	VOA6_429719_R42971	X030909
1,2-Dibromoethane	ug/L	1.0	U	0.20	1.0	1.0	1	03/09/23 13:28	VOA6_429719_R42971	X030909
1,2-Dichlorobenzene	ug/L	1.0	U	0.50	1.0	1.0	1	03/09/23 13:28	VOA6_429719_R42971	X030909
1,2-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	03/09/23 13:28	VOA6_429719_R42971	X030909
1,2-Dichloropropane	ug/L	1.0	U	0.50	1.0	1.0	1	03/09/23 13:28	VOA6_429719_R42971	X030909
1,3,5-Trimethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	03/09/23 13:28	VOA6_429719_R42971	X030909
1,3-Dichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	03/09/23 13:28	VOA6_429719_R42971	X030909
1,3-Dichloropropane	ug/L	1.0	U	0.30	1.0	1.0	1	03/09/23 13:28	VOA6_429719_R42971	X030909
1,4-Dichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	03/09/23 13:28	VOA6_429719_R42971	X030909
2,2-Dichloropropane	ug/L	1.0	U	0.20	1.0	1.0	1	03/09/23 13:28	VOA6_429719_R42971	X030909
2-Butanone	ug/L	2.0	U	0.50	2.0	2.0	1	03/09/23 13:28	VOA6_429719_R42971	X030909
2-Chlorotoluene	ug/L	1.0	U	0.30	1.0	1.0	1	03/09/23 13:28	VOA6_429719_R42971	X030909
2-Hexanone	ug/L	2.0	U	1.0	2.0	2.0	1	03/09/23 13:28	VOA6_429719_R42971	X030909
4-Chlorotoluene	ug/L	1.0	U	0.40	1.0	1.0	1	03/09/23 13:28	VOA6_429719_R42971	X030909
4-Isopropyltoluene	ug/L	1.0	U	0.30	1.0	1.0	1	03/09/23 13:28	VOA6_429719_R42971	X030909
4-Methyl-2-pentanone	ug/L	2.0	U	0.70	2.0	2.0	1	03/09/23 13:28	VOA6_429719_R42971	X030909
Acetone	ug/L	2.0	U	0.40	2.0	2.0	1	03/09/23 13:28	VOA6_429719_R42971	X030909
Benzene	ug/L	1.0	U	0.20	1.0	1.0	1	03/09/23 13:28	VOA6_429719_R42971	X030909
Bromobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	03/09/23 13:28	VOA6_429719_R42971	X030909
Bromochloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	03/09/23 13:28	VOA6_429719_R42971	X030909
Bromodichloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	03/09/23 13:28	VOA6_429719_R42971	X030909
Bromoform	ug/L	1.0	U	0.40	1.0	1.0	1	03/09/23 13:28	VOA6_429719_R42971	X030909

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder **HS23030396**

Volatiles by EPA 8260

HS23030396-01	Collected	Received	Matrix	Basis
LH18/24-SP650_030723	03/07/23 13:00	03/08/23 10:15	Water	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
Bromomethane	ug/L	1.0	U	0.40	1.0	1.0	1	03/09/23 13:28	VOA6_429719_R42971	X030909
Carbon disulfide	ug/L	2.0	U	0.60	2.0	2.0	1	03/09/23 13:28	VOA6_429719_R42971	X030909
Carbon tetrachloride	ug/L	1.0	U	0.50	1.0	1.0	1	03/09/23 13:28	VOA6_429719_R42971	X030909
Chlorobenzene	ug/L	1.0	U	0.30	1.0	1.0	1	03/09/23 13:28	VOA6_429719_R42971	X030909
Chloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	03/09/23 13:28	VOA6_429719_R42971	X030909
Chloroform	ug/L	1.0	U	0.20	1.0	1.0	1	03/09/23 13:28	VOA6_429719_R42971	X030909
Chloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	03/09/23 13:28	VOA6_429719_R42971	X030909
cis-1,2-Dichloroethene	ug/L	1.7		0.20	1.0	1.0	1	03/09/23 13:28	VOA6_429719_R42971	X030909
cis-1,3-Dichloropropene	ug/L	1.0	U	0.20	1.0	1.0	1	03/09/23 13:28	VOA6_429719_R42971	X030909
Dibromochloromethane	ug/L	1.0	U	0.30	1.0	1.0	1	03/09/23 13:28	VOA6_429719_R42971	X030909
Dibromomethane	ug/L	1.0	U	0.20	1.0	1.0	1	03/09/23 13:28	VOA6_429719_R42971	X030909
Dichlorodifluoromethane	ug/L	1.0	U	0.30	1.0	1.0	1	03/09/23 13:28	VOA6_429719_R42971	X030909
Ethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	03/09/23 13:28	VOA6_429719_R42971	X030909
Hexachlorobutadiene	ug/L	1.0	U	1.0	1.0	1.0	1	03/09/23 13:28	VOA6_429719_R42971	X030909
Isopropylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	03/09/23 13:28	VOA6_429719_R42971	X030909
m,p-Xylene	ug/L	2.0	U	0.50	2.0	2.0	1	03/09/23 13:28	VOA6_429719_R42971	X030909
Methylene chloride	ug/L	2.0	U	0.40	2.0	2.0	1	03/09/23 13:28	VOA6_429719_R42971	X030909
Naphthalene	ug/L	1.0	U	0.30	1.0	1.0	1	03/09/23 13:28	VOA6_429719_R42971	X030909
n-Butylbenzene	ug/L	1.0	U	0.40	1.0	1.0	1	03/09/23 13:28	VOA6_429719_R42971	X030909
n-Propylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	03/09/23 13:28	VOA6_429719_R42971	X030909
o-Xylene	ug/L	1.0	U	0.30	1.0	1.0	1	03/09/23 13:28	VOA6_429719_R42971	X030909
sec-Butylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	03/09/23 13:28	VOA6_429719_R42971	X030909
Styrene	ug/L	1.0	U	0.30	1.0	1.0	1	03/09/23 13:28	VOA6_429719_R42971	X030909
tert-Butylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	03/09/23 13:28	VOA6_429719_R42971	X030909
Tetrachloroethene	ug/L	1.0	U	0.30	1.0	1.0	1	03/09/23 13:28	VOA6_429719_R42971	X030909
Toluene	ug/L	1.0	U	0.20	1.0	1.0	1	03/09/23 13:28	VOA6_429719_R42971	X030909
trans-1,2-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	03/09/23 13:28	VOA6_429719_R42971	X030909
trans-1,3-Dichloropropene	ug/L	1.0	U	0.20	1.0	1.0	1	03/09/23 13:28	VOA6_429719_R42971	X030909
Trichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	03/09/23 13:28	VOA6_429719_R42971	X030909
Trichlorofluoromethane	ug/L	1.0	U	0.30	1.0	1.0	1	03/09/23 13:28	VOA6_429719_R42971	X030909
Vinyl chloride	ug/L	1.0	U	0.20	1.0	1.0	1	03/09/23 13:28	VOA6_429719_R42971	X030909

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder **HS23030396**

Volatiles by EPA 8260

HS23030396-03	Collected	Received	Matrix	Basis
Trip Blank	03/07/23 00:00	03/08/23 10:15	Water	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
1,1,1,2-Tetrachloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	03/09/23 13:07	VOA6_429719_R42971	X030908
1,1,1-Trichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	03/09/23 13:07	VOA6_429719_R42971	X030908
1,1,2,2-Tetrachloroethane	ug/L	1.0	U	0.50	1.0	1.0	1	03/09/23 13:07	VOA6_429719_R42971	X030908
1,1,2-Trichloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	03/09/23 13:07	VOA6_429719_R42971	X030908
1,1-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	03/09/23 13:07	VOA6_429719_R42971	X030908
1,1-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	03/09/23 13:07	VOA6_429719_R42971	X030908
1,1-Dichloropropene	ug/L	1.0	U	0.30	1.0	1.0	1	03/09/23 13:07	VOA6_429719_R42971	X030908
1,2,3-Trichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	03/09/23 13:07	VOA6_429719_R42971	X030908
1,2,3-Trichloropropane	ug/L	1.0	U	0.50	1.0	1.0	1	03/09/23 13:07	VOA6_429719_R42971	X030908
1,2,4-Trichlorobenzene	ug/L	1.0	U	0.50	1.0	1.0	1	03/09/23 13:07	VOA6_429719_R42971	X030908
1,2,4-Trimethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	03/09/23 13:07	VOA6_429719_R42971	X030908
1,2-Dibromo-3-	ug/L	1.0	U	0.20	1.0	1.0	1	03/09/23 13:07	VOA6_429719_R42971	X030908
1,2-Dibromoethane	ug/L	1.0	U	0.20	1.0	1.0	1	03/09/23 13:07	VOA6_429719_R42971	X030908
1,2-Dichlorobenzene	ug/L	1.0	U	0.50	1.0	1.0	1	03/09/23 13:07	VOA6_429719_R42971	X030908
1,2-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	03/09/23 13:07	VOA6_429719_R42971	X030908
1,2-Dichloropropane	ug/L	1.0	U	0.50	1.0	1.0	1	03/09/23 13:07	VOA6_429719_R42971	X030908
1,3,5-Trimethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	03/09/23 13:07	VOA6_429719_R42971	X030908
1,3-Dichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	03/09/23 13:07	VOA6_429719_R42971	X030908
1,3-Dichloropropane	ug/L	1.0	U	0.30	1.0	1.0	1	03/09/23 13:07	VOA6_429719_R42971	X030908
1,4-Dichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	03/09/23 13:07	VOA6_429719_R42971	X030908
2,2-Dichloropropane	ug/L	1.0	U	0.20	1.0	1.0	1	03/09/23 13:07	VOA6_429719_R42971	X030908
2-Butanone	ug/L	2.0	U	0.50	2.0	2.0	1	03/09/23 13:07	VOA6_429719_R42971	X030908
2-Chlorotoluene	ug/L	1.0	U	0.30	1.0	1.0	1	03/09/23 13:07	VOA6_429719_R42971	X030908
2-Hexanone	ug/L	2.0	U	1.0	2.0	2.0	1	03/09/23 13:07	VOA6_429719_R42971	X030908
4-Chlorotoluene	ug/L	1.0	U	0.40	1.0	1.0	1	03/09/23 13:07	VOA6_429719_R42971	X030908
4-Isopropyltoluene	ug/L	1.0	U	0.30	1.0	1.0	1	03/09/23 13:07	VOA6_429719_R42971	X030908
4-Methyl-2-pentanone	ug/L	2.0	U	0.70	2.0	2.0	1	03/09/23 13:07	VOA6_429719_R42971	X030908
Acetone	ug/L	2.0	U	0.40	2.0	2.0	1	03/09/23 13:07	VOA6_429719_R42971	X030908
Benzene	ug/L	1.0	U	0.20	1.0	1.0	1	03/09/23 13:07	VOA6_429719_R42971	X030908
Bromobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	03/09/23 13:07	VOA6_429719_R42971	X030908
Bromochloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	03/09/23 13:07	VOA6_429719_R42971	X030908
Bromodichloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	03/09/23 13:07	VOA6_429719_R42971	X030908
Bromoform	ug/L	1.0	U	0.40	1.0	1.0	1	03/09/23 13:07	VOA6_429719_R42971	X030908

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder **HS23030396**

Volatiles by EPA 8260

HS23030396-03	Collected	Received	Matrix	Basis
Trip Blank	03/07/23 00:00	03/08/23 10:15	Water	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
Bromomethane	ug/L	1.0	U	0.40	1.0	1.0	1	03/09/23 13:07	VOA6_429719_R42971	X030908
Carbon disulfide	ug/L	2.0	U	0.60	2.0	2.0	1	03/09/23 13:07	VOA6_429719_R42971	X030908
Carbon tetrachloride	ug/L	1.0	U	0.50	1.0	1.0	1	03/09/23 13:07	VOA6_429719_R42971	X030908
Chlorobenzene	ug/L	1.0	U	0.30	1.0	1.0	1	03/09/23 13:07	VOA6_429719_R42971	X030908
Chloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	03/09/23 13:07	VOA6_429719_R42971	X030908
Chloroform	ug/L	1.0	U	0.20	1.0	1.0	1	03/09/23 13:07	VOA6_429719_R42971	X030908
Chloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	03/09/23 13:07	VOA6_429719_R42971	X030908
cis-1,2-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	03/09/23 13:07	VOA6_429719_R42971	X030908
cis-1,3-Dichloropropene	ug/L	1.0	U	0.20	1.0	1.0	1	03/09/23 13:07	VOA6_429719_R42971	X030908
Dibromochloromethane	ug/L	1.0	U	0.30	1.0	1.0	1	03/09/23 13:07	VOA6_429719_R42971	X030908
Dibromomethane	ug/L	1.0	U	0.20	1.0	1.0	1	03/09/23 13:07	VOA6_429719_R42971	X030908
Dichlorodifluoromethane	ug/L	1.0	U	0.30	1.0	1.0	1	03/09/23 13:07	VOA6_429719_R42971	X030908
Ethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	03/09/23 13:07	VOA6_429719_R42971	X030908
Hexachlorobutadiene	ug/L	1.0	U	1.0	1.0	1.0	1	03/09/23 13:07	VOA6_429719_R42971	X030908
Isopropylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	03/09/23 13:07	VOA6_429719_R42971	X030908
m,p-Xylene	ug/L	2.0	U	0.50	2.0	2.0	1	03/09/23 13:07	VOA6_429719_R42971	X030908
Methylene chloride	ug/L	2.0	U	0.40	2.0	2.0	1	03/09/23 13:07	VOA6_429719_R42971	X030908
Naphthalene	ug/L	1.0	U	0.30	1.0	1.0	1	03/09/23 13:07	VOA6_429719_R42971	X030908
n-Butylbenzene	ug/L	1.0	U	0.40	1.0	1.0	1	03/09/23 13:07	VOA6_429719_R42971	X030908
n-Propylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	03/09/23 13:07	VOA6_429719_R42971	X030908
o-Xylene	ug/L	1.0	U	0.30	1.0	1.0	1	03/09/23 13:07	VOA6_429719_R42971	X030908
sec-Butylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	03/09/23 13:07	VOA6_429719_R42971	X030908
Styrene	ug/L	1.0	U	0.30	1.0	1.0	1	03/09/23 13:07	VOA6_429719_R42971	X030908
tert-Butylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	03/09/23 13:07	VOA6_429719_R42971	X030908
Tetrachloroethene	ug/L	1.0	U	0.30	1.0	1.0	1	03/09/23 13:07	VOA6_429719_R42971	X030908
Toluene	ug/L	1.0	U	0.20	1.0	1.0	1	03/09/23 13:07	VOA6_429719_R42971	X030908
trans-1,2-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	03/09/23 13:07	VOA6_429719_R42971	X030908
trans-1,3-Dichloropropene	ug/L	1.0	U	0.20	1.0	1.0	1	03/09/23 13:07	VOA6_429719_R42971	X030908
Trichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	03/09/23 13:07	VOA6_429719_R42971	X030908
Trichlorofluoromethane	ug/L	1.0	U	0.30	1.0	1.0	1	03/09/23 13:07	VOA6_429719_R42971	X030908
Vinyl chloride	ug/L	1.0	U	0.20	1.0	1.0	1	03/09/23 13:07	VOA6_429719_R42971	X030908

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder
HS23030396

Volatiles by EPA 8260

VBLKW-230309	Collected	Received	Matrix	Basis
VBLKW-230309	NA	NA	Aqueous	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
1,1,1,2-Tetrachloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	03/09/23 12:46	VOA6_429719_R42971	X030907
1,1,1-Trichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	03/09/23 12:46	VOA6_429719_R42971	X030907
1,1,2,2-Tetrachloroethane	ug/L	1.0	U	0.50	1.0	1.0	1	03/09/23 12:46	VOA6_429719_R42971	X030907
1,1,2-Trichloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	03/09/23 12:46	VOA6_429719_R42971	X030907
1,1-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	03/09/23 12:46	VOA6_429719_R42971	X030907
1,1-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	03/09/23 12:46	VOA6_429719_R42971	X030907
1,1-Dichloropropene	ug/L	1.0	U	0.30	1.0	1.0	1	03/09/23 12:46	VOA6_429719_R42971	X030907
1,2,3-Trichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	03/09/23 12:46	VOA6_429719_R42971	X030907
1,2,3-Trichloropropane	ug/L	1.0	U	0.50	1.0	1.0	1	03/09/23 12:46	VOA6_429719_R42971	X030907
1,2,4-Trichlorobenzene	ug/L	1.0	U	0.50	1.0	1.0	1	03/09/23 12:46	VOA6_429719_R42971	X030907
1,2,4-Trimethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	03/09/23 12:46	VOA6_429719_R42971	X030907
1,2-Dibromo-3-	ug/L	1.0	U	0.20	1.0	1.0	1	03/09/23 12:46	VOA6_429719_R42971	X030907
1,2-Dibromoethane	ug/L	1.0	U	0.20	1.0	1.0	1	03/09/23 12:46	VOA6_429719_R42971	X030907
1,2-Dichlorobenzene	ug/L	1.0	U	0.50	1.0	1.0	1	03/09/23 12:46	VOA6_429719_R42971	X030907
1,2-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	03/09/23 12:46	VOA6_429719_R42971	X030907
1,2-Dichloropropane	ug/L	1.0	U	0.50	1.0	1.0	1	03/09/23 12:46	VOA6_429719_R42971	X030907
1,3,5-Trimethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	03/09/23 12:46	VOA6_429719_R42971	X030907
1,3-Dichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	03/09/23 12:46	VOA6_429719_R42971	X030907
1,3-Dichloropropane	ug/L	1.0	U	0.30	1.0	1.0	1	03/09/23 12:46	VOA6_429719_R42971	X030907
1,4-Dichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	03/09/23 12:46	VOA6_429719_R42971	X030907
2,2-Dichloropropane	ug/L	1.0	U	0.20	1.0	1.0	1	03/09/23 12:46	VOA6_429719_R42971	X030907
2-Butanone	ug/L	2.0	U	0.50	2.0	2.0	1	03/09/23 12:46	VOA6_429719_R42971	X030907
2-Chlorotoluene	ug/L	1.0	U	0.30	1.0	1.0	1	03/09/23 12:46	VOA6_429719_R42971	X030907
2-Hexanone	ug/L	2.0	U	1.0	2.0	2.0	1	03/09/23 12:46	VOA6_429719_R42971	X030907
4-Chlorotoluene	ug/L	1.0	U	0.40	1.0	1.0	1	03/09/23 12:46	VOA6_429719_R42971	X030907
4-Isopropyltoluene	ug/L	1.0	U	0.30	1.0	1.0	1	03/09/23 12:46	VOA6_429719_R42971	X030907
4-Methyl-2-pentanone	ug/L	2.0	U	0.70	2.0	2.0	1	03/09/23 12:46	VOA6_429719_R42971	X030907
Acetone	ug/L	2.0	U	0.40	2.0	2.0	1	03/09/23 12:46	VOA6_429719_R42971	X030907
Benzene	ug/L	1.0	U	0.20	1.0	1.0	1	03/09/23 12:46	VOA6_429719_R42971	X030907
Bromobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	03/09/23 12:46	VOA6_429719_R42971	X030907
Bromochloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	03/09/23 12:46	VOA6_429719_R42971	X030907
Bromodichloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	03/09/23 12:46	VOA6_429719_R42971	X030907
Bromoform	ug/L	1.0	U	0.40	1.0	1.0	1	03/09/23 12:46	VOA6_429719_R42971	X030907

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder
HS23030396

Volatiles by EPA 8260

VBLKW-230309	Collected	Received	Matrix	Basis
VBLKW-230309	NA	NA	Aqueous	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
Bromomethane	ug/L	1.0	U	0.40	1.0	1.0	1	03/09/23 12:46	VOA6_429719_R42971	X030907
Carbon disulfide	ug/L	2.0	U	0.60	2.0	2.0	1	03/09/23 12:46	VOA6_429719_R42971	X030907
Carbon tetrachloride	ug/L	1.0	U	0.50	1.0	1.0	1	03/09/23 12:46	VOA6_429719_R42971	X030907
Chlorobenzene	ug/L	1.0	U	0.30	1.0	1.0	1	03/09/23 12:46	VOA6_429719_R42971	X030907
Chloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	03/09/23 12:46	VOA6_429719_R42971	X030907
Chloroform	ug/L	1.0	U	0.20	1.0	1.0	1	03/09/23 12:46	VOA6_429719_R42971	X030907
Chloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	03/09/23 12:46	VOA6_429719_R42971	X030907
cis-1,2-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	03/09/23 12:46	VOA6_429719_R42971	X030907
cis-1,3-Dichloropropene	ug/L	1.0	U	0.20	1.0	1.0	1	03/09/23 12:46	VOA6_429719_R42971	X030907
Dibromochloromethane	ug/L	1.0	U	0.30	1.0	1.0	1	03/09/23 12:46	VOA6_429719_R42971	X030907
Dibromomethane	ug/L	1.0	U	0.20	1.0	1.0	1	03/09/23 12:46	VOA6_429719_R42971	X030907
Dichlorodifluoromethane	ug/L	1.0	U	0.30	1.0	1.0	1	03/09/23 12:46	VOA6_429719_R42971	X030907
Ethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	03/09/23 12:46	VOA6_429719_R42971	X030907
Hexachlorobutadiene	ug/L	1.0	U	1.0	1.0	1.0	1	03/09/23 12:46	VOA6_429719_R42971	X030907
Isopropylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	03/09/23 12:46	VOA6_429719_R42971	X030907
m,p-Xylene	ug/L	2.0	U	0.50	2.0	2.0	1	03/09/23 12:46	VOA6_429719_R42971	X030907
Methylene chloride	ug/L	2.0	U	0.40	2.0	2.0	1	03/09/23 12:46	VOA6_429719_R42971	X030907
Naphthalene	ug/L	1.0	U	0.30	1.0	1.0	1	03/09/23 12:46	VOA6_429719_R42971	X030907
n-Butylbenzene	ug/L	1.0	U	0.40	1.0	1.0	1	03/09/23 12:46	VOA6_429719_R42971	X030907
n-Propylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	03/09/23 12:46	VOA6_429719_R42971	X030907
o-Xylene	ug/L	1.0	U	0.30	1.0	1.0	1	03/09/23 12:46	VOA6_429719_R42971	X030907
sec-Butylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	03/09/23 12:46	VOA6_429719_R42971	X030907
Styrene	ug/L	1.0	U	0.30	1.0	1.0	1	03/09/23 12:46	VOA6_429719_R42971	X030907
tert-Butylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	03/09/23 12:46	VOA6_429719_R42971	X030907
Tetrachloroethene	ug/L	1.0	U	0.30	1.0	1.0	1	03/09/23 12:46	VOA6_429719_R42971	X030907
Toluene	ug/L	1.0	U	0.20	1.0	1.0	1	03/09/23 12:46	VOA6_429719_R42971	X030907
trans-1,2-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	03/09/23 12:46	VOA6_429719_R42971	X030907
trans-1,3-Dichloropropene	ug/L	1.0	U	0.20	1.0	1.0	1	03/09/23 12:46	VOA6_429719_R42971	X030907
Trichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	03/09/23 12:46	VOA6_429719_R42971	X030907
Trichlorofluoromethane	ug/L	1.0	U	0.30	1.0	1.0	1	03/09/23 12:46	VOA6_429719_R42971	X030907
Vinyl chloride	ug/L	1.0	U	0.20	1.0	1.0	1	03/09/23 12:46	VOA6_429719_R42971	X030907

01182563

right solutions.
right partner.

Form 2

System Monitoring Compound Recovery

Volatiles by EPA 8260

Workorder

HS23030396

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Monthly Effluent Samples

03/15/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Form 2 - System Monitoring Compound Recovery

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder
HS23030396

RunID
VOA6_429719_R429719

Volatiles by EPA 8260

CCV	Analyzed 03/09/23	Conc Units µg/L	Dilution 1		
Surrogate	**Result Conc**	**Spike Conc**	**%Recovery**	**%Recovery Limits**	**Q**
1,2-Dichloroethane-d4	52.44	50	105	80-120	
4-Bromofluorobenzene	50.16	50	100	80-120	
Dibromofluoromethane	48.16	50	96.3	80-120	
Toluene-d8	47.83	50	95.7	80-120	

CCB	Analyzed 03/09/23	Conc Units µg/L	Dilution 1		
Surrogate	**Result Conc**	**Spike Conc**	**%Recovery**	**%Recovery Limits**	**Q**
1,2-Dichloroethane-d4	48.23	50	96.5	80-120	
4-Bromofluorobenzene	52.13	50	104	80-120	
Dibromofluoromethane	45.66	50	91.3	80-120	
Toluene-d8	54.23	50	108	80-120	

VLCSW-230309	Analyzed 03/09/23	Conc Units µg/L	Dilution 1		
Surrogate	**Result Conc**	**Spike Conc**	**%Recovery**	**%Recovery Limits**	**Q**
1,2-Dichloroethane-d4	53.04	50	106	81-118	
4-Bromofluorobenzene	50.9	50	102	85-114	
Dibromofluoromethane	48.94	50	97.9	80-119	
Toluene-d8	47.85	50	95.7	89-112	

VBLKW-230309	Analyzed 03/09/23	Conc Units µg/L	Dilution 1		
Surrogate	**Result Conc**	**Spike Conc**	**%Recovery**	**%Recovery Limits**	**Q**
1,2-Dichloroethane-d4	49.13	50	98.3	81-118	
4-Bromofluorobenzene	53.09	50	106	85-114	
Dibromofluoromethane	45.46	50	90.9	80-119	
Toluene-d8	54.5	50	109	89-112	

Q - Surrogate %Recovery Flag * - %Recovery / RPD Outside Limits

Form 2 - System Monitoring Compound Recovery

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder
HS23030396

RunID
VOA6_429719_R429719

Volatiles by EPA 8260

HS23030396-03	Analyzed 03/09/23	Conc Units µg/L	Dilution 1		
Surrogate	Result Conc	Spike Conc	%Recovery	%Recovery Limits	Q
1,2-Dichloroethane-d4	50	50	99.4	81-118	
4-Bromofluorobenzene	53	50	106	85-114	
Dibromofluoromethane	46	50	92.3	80-119	
Toluene-d8	55	50	109	89-112	

HS23030396-01	Analyzed 03/09/23	Conc Units µg/L	Dilution 1		
Surrogate	Result Conc	Spike Conc	%Recovery	%Recovery Limits	Q
1,2-Dichloroethane-d4	50	50	101	81-118	
4-Bromofluorobenzene	52	50	104	85-114	
Dibromofluoromethane	46	50	92.0	80-119	
Toluene-d8	55	50	109	89-112	

HS23030396-01MS	Analyzed 03/09/23	Conc Units µg/L	Dilution 1		
Surrogate	Result Conc	Spike Conc	%Recovery	%Recovery Limits	Q
1,2-Dichloroethane-d4	47.83	50	95.7	81-118	
4-Bromofluorobenzene	53.12	50	106	85-114	
Dibromofluoromethane	44.4	50	88.8	80-119	
Toluene-d8	54.85	50	110	89-112	

HS23030396-01MSD	Analyzed 03/09/23	Conc Units µg/L	Dilution 1		
Surrogate	Result Conc	Spike Conc	%Recovery	%Recovery Limits	Q
1,2-Dichloroethane-d4	48.38	50	96.8	81-118	
4-Bromofluorobenzene	53.8	50	108	85-114	
Dibromofluoromethane	44.51	50	89.0	80-119	
Toluene-d8	54.49	50	109	89-112	

Q - Surrogate %Recovery Flag * - %Recovery / RPD Outside Limits

01182566

right solutions.
right partner.

Form 3A

Matrix Spike/Spike Duplicate Recovery

Volatiles by EPA 8260

Workorder

HS23030396

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Monthly Effluent Samples

03/15/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Form 3A - Matrix Spike/Spike Duplicate Recovery

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder
HS23030396

LH18/24-SP650_030723	HS23030396-01	HS23030396-01MS	HS23030396-01MSD	
Sample Matrix Aqueous	**Run Date** 03/09/23	03/09/23	03/09/23	
Units µg/L	**Run Time** 13:28	13:49	14:10	
	Data File X030909.D	X030910.D	X030911.D	

Analyte	%R Limits	DF	Result	MS Result	Spike Added	%R	Q	MSD Result	Spike Added	%R	Q	RPD Limit	RPD	Q
1,1,1,2-Tetrachloroethane	78-124	1	0	19.66	20.00	98		20.56	20.00	103		20	4.50	
1,1,1-Trichloroethane	74-131	1	0	18.50	20.00	93		19.12	20.00	96		20	3.30	
1,1,2,2-Tetrachloroethane	71-121	1	0	21.30	20.00	107		20.41	20.00	102		20	4.30	
1,1,2-Trichloroethane	80-119	1	0	19.41	20.00	97		20.31	20.00	102		20	4.50	
1,1-Dichloroethane	77-125	1	0	18.59	20.00	93		19.58	20.00	98		20	5.20	
1,1-Dichloroethene	71-131	1	0	16.09	20.00	81		15.87	20.00	79		20	1.40	
1,1-Dichloropropene	78-125	1	0	21.47	20.00	107		21.91	20.00	110		20	2.00	
1,2,3-Trichlorobenzene	69-129	1	0	23.14	20.00	116		24.09	20.00	120		20	4.00	
1,2,3-Trichloropropane	73-122	1	0	23.74	20.00	119		22.78	20.00	114		20	4.10	
1,2,4-Trichlorobenzene	69-130	1	0	24.00	20.00	120		25.24	20.00	126		20	5.00	
1,2,4-Trimethylbenzene	76-124	1	0	23.89	20.00	119		24.37	20.00	122		20	2.00	
1,2-Dibromo-3-chloropropane	62-128	1	0	21.52	20.00	108		20.3	20.00	102		20	5.80	
1,2-Dibromoethane	77-121	1	0	19.53	20.00	98		19.82	20.00	99		20	1.50	
1,2-Dichlorobenzene	80-119	1	0	21.12	20.00	106		21.44	20.00	107		20	1.50	
1,2-Dichloroethane	73-128	1	0	19.18	20.00	96		19.68	20.00	98		20	2.60	
1,2-Dichloropropane	78-122	1	0	19.11	20.00	96		20.61	20.00	103		20	7.50	
1,3,5-Trimethylbenzene	75-124	1	0	24.89	20.00	124	*	24.91	20.00	125	*	20	0.100	
1,3-Dichlorobenzene	80-119	1	0	22.29	20.00	111		22.59	20.00	113		20	1.30	
1,3-Dichloropropane	80-119	1	0	20.70	20.00	104		21.23	20.00	106		20	2.50	
1,4-Dichlorobenzene	79-118	1	0	21.11	20.00	106		21.36	20.00	107		20	1.20	
2,2-Dichloropropane	60-139	1	0	19.44	20.00	97		20.11	20.00	101		20	3.40	
2-Butanone	56-143	1	0	35.01	40.00	88		36.18	40.00	90		20	3.30	
2-Chlorotoluene	79-122	1	0	24.19	20.00	121		23.89	20.00	119		20	1.20	
2-Hexanone	57-139	1	0	43.29	40.00	108		43.25	40.00	108		20	0.100	
4-Chlorotoluene	78-122	1	0	23.87	20.00	119		24.26	20.00	121		20	1.60	
4-Isopropyltoluene	77-127	1	0	25.97	20.00	130	*	26.74	20.00	134	*	20	2.90	
4-Methyl-2-pentanone	67-130	1	0	43.72	40.00	109		43.4	40.00	108		20	0.700	
Acetone	39-160	1	0	28.22	40.00	71		26.61	40.00	67		20	5.90	
Benzene	79-120	1	0	18.94	20.00	95		20.19	20.00	101		20	6.40	
Bromobenzene	80-120	1	0	20.37	20.00	102		20.56	20.00	103		20	0.900	
Bromochloromethane	78-123	1	0	15.81	20.00	79		16.33	20.00	82		20	3.20	
Bromodichloromethane	79-125	1	0	17.78	20.00	89		19.08	20.00	95		20	7.10	
Bromoform	66-130	1	0	18.13	20.00	91		18.78	20.00	94		20	3.50	
Bromomethane	53-141	1	0	13.00	20.00	65		14.15	20.00	71		20	8.50	

- %Recovery / RPD Flag * - %Recovery / RPD Outside Limits OL - Outside Limits

Form 3A - Matrix Spike/Spike Duplicate Recovery

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder **HS23030396**

LH18/24-SP650_030723	HS23030396-01	HS23030396-01MS	HS23030396-01MSD
Sample Matrix Aqueous	**Run Date** 03/09/23	03/09/23	03/09/23
Units µg/L	**Run Time** 13:28	13:49	14:10
	Data File X030909.D	X030910.D	X030911.D

Analyte	%R Limits	DF	Result	MS Result	Spike Added	%R	Q	MSD Result	Spike Added	%R	Q	RPD Limit	RPD	Q
Carbon disulfide	64-133	1	0	41.04	40.00	103		40.5	40.00	101		20	1.30	
Carbon tetrachloride	72-136	1	0	19.14	20.00	96		19.73	20.00	99		20	3.10	
Chlorobenzene	82-118	1	0	19.46	20.00	97		20.41	20.00	102		20	4.80	
Chloroethane	60-138	1	0	14.82	20.00	74		20.29	20.00	101		20	31.2	
Chloroform	79-124	1	0	17.20	20.00	86		18.46	20.00	92		20	7.00	
Chloromethane	50-139	1	0	23.72	20.00	119		23.55	20.00	118		20	0.700	
cis-1,2-Dichloroethene	78-123	1	1.655	18.23	20.00	83		19.73	20.00	90		20	7.90	
cis-1,3-Dichloropropene	75-124	1	0	19.33	20.00	97		20.63	20.00	103		20	6.50	
Dibromochloromethane	74-126	1	0	18.95	20.00	95		19.91	20.00	100		20	4.90	
Dibromomethane	79-123	1	0	17.20	20.00	86		18.11	20.00	91		20	5.20	
Dichlorodifluoromethane	32-152	1	0	14.33	20.00	72		14.07	20.00	70		20	1.90	
Ethylbenzene	79-121	1	0	21.31	20.00	107		22.17	20.00	111		20	4.00	
Hexachlorobutadiene	66-134	1	0	24.39	20.00	122		25.36	20.00	127		20	3.90	
Isopropylbenzene	72-131	1	0	22.76	20.00	114		23.84	20.00	119		20	4.60	
m,p-Xylene	80-121	1	0	42.25	40.00	106		43.68	40.00	109		20	3.30	
Methylene chloride	74-124	1	0	16.02	20.00	80		16.56	20.00	83		20	3.30	
n-Butylbenzene	75-128	1	0	24.15	20.00	121		25.03	20.00	125		20	3.60	
n-Propylbenzene	76-126	1	0	24.60	20.00	123		25.05	20.00	125		20	1.80	
Naphthalene	61-128	1	0	23.28	20.00	116		23.74	20.00	119		20	2.00	
o-Xylene	78-122	1	0	20.60	20.00	103		22.06	20.00	110		20	6.80	
sec-Butylbenzene	77-126	1	0	25.97	20.00	130	*	26.67	20.00	133	*	20	2.70	
Styrene	78-123	1	0	20.75	20.00	104		21.79	20.00	109		20	4.90	
tert-Butylbenzene	78-124	1	0	25.16	20.00	126	*	25.39	20.00	127	*	20	0.900	
Tetrachloroethene	74-129	1	0	21.86	20.00	109		22.51	20.00	113		20	2.90	
Toluene	80-121	1	0	20.46	20.00	102		21.16	20.00	106		20	3.30	
trans-1,2-Dichloroethene	75-124	1	0	17.67	20.00	88		17.83	20.00	89		20	0.900	
trans-1,3-Dichloropropene	73-127	1	0	19.20	20.00	96		20.16	20.00	101		20	4.90	
Trichloroethene	79-123	1	0	18.50	20.00	93		19.63	20.00	98		20	5.90	
Trichlorofluoromethane	65-141	1	0	16.95	20.00	85		16.54	20.00	83		20	2.50	
Vinyl chloride	58-137	1	0	17.68	20.00	88		17.74	20.00	89		20	0.300	

- %Recovery / RPD Flag * - %Recovery / RPD Outside Limits OL - Outside Limits

01182569

right solutions.
right partner.

Form 3B

Laboratory Control Sample Recovery

Volatiles by EPA 8260

Workorder

HS23030396

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Monthly Effluent Samples

03/15/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Form 3B - Laboratory Control Sample Recovery

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder
HS23030396

Volatiles by EPA 8260

VOA6_429719_R429719		QC ID	LCS-R429719
QC Matrix Aqueous	Units	Run Date	03/09/23
	ug/L	Run Time	12:04

Analyte	%R Limits	Spike Added	LCS Result	%R	Q
1,1,1,2-Tetrachloroethane	78-124	20	19.54	98	
1,1,1-Trichloroethane	74-131	20	18.97	95	
1,1,2,2-Tetrachloroethane	71-121	20	21.39	107	
1,1,2-Trichloroethane	80-119	20	20.74	104	
1,1-Dichloroethane	77-125	20	21.57	108	
1,1-Dichloroethene	71-131	20	15.54	78	
1,1-Dichloropropene	78-125	20	19.61	98	
1,2,3-Trichlorobenzene	69-129	20	20.26	101	
1,2,3-Trichloropropane	73-122	20	22.64	113	
1,2,4-Trichlorobenzene	69-130	20	20.67	103	
1,2,4-Trimethylbenzene	76-124	20	19.7	98	
1,2-Dibromo-3-chloropropane	62-128	20	21.28	106	
1,2-Dibromoethane	77-121	20	20.96	105	
1,2-Dichlorobenzene	80-119	20	18.86	94	
1,2-Dichloroethane	73-128	20	21.63	108	
1,2-Dichloroethane-d4	81-118	50	53.04	106	
1,2-Dichloropropane	78-122	20	21.9	110	
1,3,5-Trimethylbenzene	75-124	20	19.9	100	
1,3-Dichlorobenzene	80-119	20	19.45	97	
1,3-Dichloropropane	80-119	20	22.17	111	
1,4-Dichlorobenzene	79-118	20	18.57	93	
2,2-Dichloropropane	60-139	20	20.88	104	
2-Butanone	56-143	40	46.42	116	
2-Chlorotoluene	79-122	20	20.98	105	
2-Hexanone	57-139	40	49.99	125	
4-Bromofluorobenzene	85-114	50	50.9	102	
4-Chlorotoluene	78-122	20	20.86	104	
4-Isopropyltoluene	77-127	20	18.99	95	
4-Methyl-2-pentanone	67-130	40	50.3	126	
Acetone	39-160	40	47.08	118	
Benzene	79-120	20	20.37	102	
Bromobenzene	80-120	20	19.21	96	
Bromochloromethane	78-123	20	19.5	98	
Bromodichloromethane	79-125	20	19.55	98	
Bromoform	66-130	20	19.3	96	

- %Recovery / RPD Flag * - %Recovery / RPD Outside Limits

Form 3B - Laboratory Control Sample Recovery

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder
HS23030396

Volatiles by EPA 8260

VOA6_429719_R429719		QC ID	LCS-R429719
QC Matrix Aqueous	Units	Run Date	03/09/23
	ug/L	Run Time	12:04

Analyte	%R Limits	Spike Added	LCS Result	%R	Q
Bromomethane	53-141	20	19.03	95	
Carbon disulfide	64-133	40	39.85	100	
Carbon tetrachloride	72-136	20	16.49	82	
Chlorobenzene	82-118	20	19.25	96	
Chloroethane	60-138	20	18.04	90	
Chloroform	79-124	20	20.7	104	
Chloromethane	50-139	20	24.57	123	
cis-1,2-Dichloroethene	78-123	20	19.73	99	
cis-1,3-Dichloropropene	75-124	20	22.16	111	
Dibromochloromethane	74-126	20	19.75	99	
Dibromofluoromethane	80-119	50	48.94	98	
Dibromomethane	79-123	20	19.96	100	
Dichlorodifluoromethane	32-152	20	15.1	76	
Ethylbenzene	79-121	20	19.78	99	
Hexachlorobutadiene	66-134	20	16.79	84	
Isopropylbenzene	72-131	20	18.92	95	
m,p-Xylene	80-121	40	39.24	98	
Methylene chloride	74-124	20	21.53	108	
Naphthalene	61-128	20	21.87	109	
n-Butylbenzene	75-128	20	17.77	89	
n-Propylbenzene	76-126	20	19.2	96	
o-Xylene	78-122	20	19.95	100	
sec-Butylbenzene	77-126	20	18.13	91	
Styrene	78-123	20	20.55	103	
tert-Butylbenzene	78-124	20	18.67	93	
Tetrachloroethene	74-129	20	17.65	88	
Toluene	80-121	20	19.99	100	
Toluene-d8	89-112	50	47.85	96	
trans-1,2-Dichloroethene	75-124	20	19.8	99	
trans-1,3-Dichloropropene	73-127	20	22.54	113	
Trichloroethene	79-123	20	18.94	95	
Trichlorofluoromethane	65-141	20	15.46	77	
Vinyl chloride	58-137	20	17.36	87	

- %Recovery / RPD Flag * - %Recovery / RPD Outside Limits

01182572

right solutions.
right partner.

Form 4

Method Blank Summary

Volatiles by EPA 8260

Workorder

HS23030396

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Monthly Effluent Samples

03/15/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Form 4 - Method Blank Summary

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder
HS23030396

Volatiles by EPA 8260

Client Sample ID	Type	Lab Sample ID	File ID	Date Analyzed	Run ID
METHOD BLANK	MBLK	VBLKW-230309	X030907.D	03/09/23 12:46	VOA6_429719_R429719
VLCSW-230309	LCS	VLCSW-230309	X030905.D	03/09/23 12:04	VOA6_429719_R429719
Trip Blank	SAMP	HS23030396-03	X030908.D	03/09/23 13:07	VOA6_429719_R429719
LH18/24-SP650_030723	SAMP	HS23030396-01	X030909.D	03/09/23 13:28	VOA6_429719_R429719
LH18/24-SP650_030723	MS	HS23030396-01MS	X030910.D	03/09/23 13:49	VOA6_429719_R429719
LH18/24-SP650_030723	MSD	HS23030396-01MSD	X030911.D	03/09/23 14:10	VOA6_429719_R429719

01182574

right solutions.
right partner.

Form 5

Instrument Performance Check

Volatiles by EPA 8260

Workorder

HS23030396

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Monthly Effluent Samples

03/15/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Form 5 - Instrument Performance Check

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder
HS23030396

RunID
VOA6_424237

Tune File X121601.D 12/16/22 11:17

m / e	Ion Abundance Criterion	%RA
50	15.0 - 40.0% of mass 95	18.3 (18.4)
75	30.0 - 60.0% of mass 95	46.1 (46.1)
95	Base peak, 100% RA	100 (100)
96	5.0 - 9.0% of mass 95	7.2 (7.16)
173	Less than 2.0% of mass 174	0.8 (0.897) 1
174	50.0 - 120.0% of mass 95	89 (89)
175	4.0 - 9.0% of mass 174	7 (7.82) 1
176	93.0 - 101.0% of mass 174	87.4 (98.2) 1
177	5.0 - 9.0% of mass 176	5.8 (6.59) 2

Value is % of mass 1) 174 2) 176 RA - Relative Abundance

This check applies to the following analyses

	Type	Date Analyzed	Lab File ID	Sample ID
1	ICAL1	12/16/22 11:38	X121602	VSTD000.25
2	ICAL2	12/16/22 12:20	X121603	VSTD000.5
3	ICAL3	12/16/22 12:41	X121604	VSTD001
4	ICAL4	12/16/22 13:02	X121605	VSTD002
5	ICAL5	12/16/22 13:23	X121606	VSTD005
6	ICAL6	12/16/22 13:43	X121607	VSTD020
7	ICAL7	12/16/22 14:04	X121608	VSTD050
8	ICAL8	12/16/22 14:25	X121609	VSTD100
9	ICAL9	12/16/22 14:46	X121610	VSTD150
10	ICAL	12/16/22 15:07	X121611	VSTD200
11	ICV	12/16/22 15:49	X121613	CCV

Form 5 - Instrument Performance Check

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder
HS23030396

RunID
VOA6_429719

Tune File X030901.D 03/09/23 10:40

m / e	Ion Abundance Criterion	%RA
50	15.0 - 40.0% of mass 95	17.2 (17.2)
75	30.0 - 60.0% of mass 95	46.3 (46.3)
95	Base peak, 100% RA	100 (100)
96	5.0 - 9.0% of mass 95	7.6 (7.64)
173	Less than 2.0% of mass 174	0.7 (0.964) 1
174	50.0 - 120.0% of mass 95	75.8 (75.8)
175	4.0 - 9.0% of mass 174	5.8 (7.6) 1
176	93.0 - 101.0% of mass 174	75.5 (99.6) 1
177	5.0 - 9.0% of mass 176	5.1 (6.74) 2

Value is % of mass 1) 174 2) 176 RA - Relative Abundance

This check applies to the following analyses

	Type	Date Analyzed	Lab File ID	Sample ID
1	CCV	03/09/23 11:22	X030903	CCV
2	CCB	03/09/23 11:43	X030904	CCB
3	LCS	03/09/23 12:04	X030905	VLCSW-230309
4	MBLK	03/09/23 12:46	X030907	VBLKW-230309
5	SAMP	03/09/23 13:07	X030908	Trip Blank
6	SAMP	03/09/23 13:28	X030909	LH18/24-SP650_030723
7	MS	03/09/23 13:49	X030910	HS23030396-01MS
8	MSD	03/09/23 14:10	X030911	HS23030396-01MSD
9	CCV_EN	03/09/23 14:31	X030912	CCV-END

01182577

right solutions.
right partner.

Form 6

Initial Calibration Data

Volatiles by EPA 8260

Workorder

HS23030396

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Monthly Effluent Samples

03/15/2023

ALS Environmental–Houston Laboratory

10450 Stancliff Road, Suite 210, Houston, TX 77099

Phone (281) 530-5656 Fax (281) 530-5887

www.alsglobal.com

Initial Calibration Data

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder HS23030396

RunID VOA6_424237

ICAL Start Date 16-DEC-2022 1138

ICAL End Date 16-DEC-2022 1507

Calibration Files

Level 1 ..voa6.i\X221216.b\X121602.D
Level 2 ..voa6.i\X221216.b\X121603.D
Level 3 ..voa6.i\X221216.b\X121604.D
Level 4 ..voa6.i\X221216.b\X121605.D
Level 5 ..voa6.i\X221216.b\X121606.D
Level 6 ..voa6.i\X221216.b\X121607.D
Level 7 ..voa6.i\X221216.b\X121608.D
Level 8 ..voa6.i\X221216.b\X121609.D
Level 9 ..voa6.i\X221216.b\X121610.D
Level 10 ..voa6.i\X221216.b\X121611.D

Compound	Level 1 0.250 Level 7 50.0	Level 2 0.500 Level 8 100.0	Level 3 1.00 Level 9 150.0	Level 4 2.00 Level 10 200.0	Level 5 5.00	Level 6 20.00	Curve	b	m1	m2	%RSD or R^2	Q
Dichlorodifluoromethane	NE 160392	1990 309019	2911 476130	6239 635808	15008	63382	LINR	0.00786	0.35247		0.99971	
Chloromethane	NE 192710	2466 388163	3670 621048	8057 865151	19623	72324	LINR	0.04423	0.47332		0.99747	
Propionitrile	NE 0.04851	0.06018 0.04917	0.05265 0.05178	0.04739 0.05178	0.05114	0.04656	AVRG		0.05102		7.91502	
Vinyl Chloride	NE 0.44103	0.52268 0.42953	0.40472 0.44923	0.39786 0.45909	0.42164	0.40520	AVRG		0.43678		8.81916	
Bromomethane	NE 139689	1893 284165	3293 470318	5996 NE	15112	52034	LINR	0.03529	0.34244		0.99519	
Chloroethane	NE 0.29447	0.35820 0.28714	0.27936 0.30494	0.31044 0.30410	0.31436	0.28309	AVRG		0.30401		7.80750	
Trichlorofluoromethane	NE 0.60756	0.71207 0.59817	0.54474 0.64605	0.57316 0.65074	0.59068	0.57785	AVRG		0.61122		8.28859	
Acrolein	NE 27445	440 60756	761 96139	1317 125874	2699	12279	LINR	0.05644	0.03519		0.99833	
Acetone	NE 124798	2669 243517	4787 373504	7041 514105	17632	50987	LINR	-0.00069	0.14025		0.99910	
1,1-Dichloroethene	NE 0.36912	0.44142 0.36226	0.35953 0.38517	0.37590 0.39076	0.37389	0.35725	AVRG		0.37948		6.80558	

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits

Initial Calibration Data

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder HS23030396

RunID VOA6_424237

ICAL Start Date 16-DEC-2022 1138 **ICAL End Date** 16-DEC-2022 1507

Compound	Level 1 0.250 Level 7 50.0	Level 2 0.500 Level 8 100.0	Level 3 1.00 Level 9 150.0	Level 4 2.00 Level 10 200.0	Level 5 5.00	Level 6 20.00	Curve	b	m1	m2	%RSD or R^2	Q
Isobutyl Alcohol	NE 0.05462	0.05610 0.05559	0.05239 0.05946	0.05650 0.05952	0.05728	0.05469	AVRG		0.05624		4.10209	
Acetonitrile	NE 0.04430	0.04776 0.04552	0.04645 0.04791	0.04253 0.04736	0.04357	0.04417	AVRG		0.04551		4.32823	
Allyl Chloride	NE 0.81324	0.99118 0.83169	0.95202 0.86799	0.81682 0.86396	0.84304	0.82034	AVRG		0.86670		7.30464	
Iodomethane	NE 455792	2397 958603	3865 1554547	8702 2193685	26708	143457	QUAD	0.06641	2.01333	-0.08031	0.99956	
Acrylonitrile	NE 0.12970	0.12113 0.12956	0.12536 0.13857	0.12482 0.13997	0.12256	0.12666	AVRG		0.12870		5.15060	
Methylene Chloride	NE 0.49311	0.63666 0.46611	0.59459 0.48892	0.50364 0.47907	0.50885	0.51372	AVRG		0.52052		10.92514	
Methyl tert-butyl ether	NE 1.16844	1.26574 1.18584	1.39027 1.23813	1.27259 1.24075	1.24993	1.16729	AVRG		1.24211		5.52745	
Carbon Disulfide	NE 0.97542	1.07494 0.97088	1.00609 1.02392	0.95722 1.06178	0.94769	0.91773	AVRG		0.99285		5.32584	
trans-1,2-Dichloroethene	NE 0.41851	0.48064 0.41454	0.42427 0.43221	0.38965 0.43554	0.42173	0.40526	AVRG		0.42470		5.92187	
Vinyl Acetate	NE 1.07506	1.09845 1.07519	0.99054 1.16529	1.06368 1.16741	1.12321	1.05445	AVRG		1.09037		5.13969	
1,1-Dichloroethane	NE 0.72125	0.83949 0.70504	0.80145 0.74074	0.69997 0.74459	0.75023	0.70550	AVRG		0.74536		6.34771	
Chloroprene	NE 0.16145	0.19503 0.16116	0.18721 0.16823	0.17124 0.17481	0.15874	0.15219	AVRG		0.17001		8.17551	

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits

Initial Calibration Data

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder HS23030396

RunID VOA6_424237

ICAL Start Date 16-DEC-2022 1138 **ICAL End Date** 16-DEC-2022 1507

Compound	Level 1 0.250 Level 7 50.0	Level 2 0.500 Level 8 100.0	Level 3 1.00 Level 9 150.0	Level 4 2.00 Level 10 200.0	Level 5 5.00	Level 6 20.00	Curve	b	m1	m2	%RSD or R^2	Q
2-Butanone	NE	1292	2498	5418	11771	47830						
	130179	264221	407629	555896			LINR	0.06050	0.15346		0.99924	
Methacrylonitrile	NE	0.44770	0.36475	0.34993	0.34840	0.34235						
	0.32328	0.32565	0.34081	0.34351			AVRG		0.35404		10.52608	
2,2-Dichloropropane	NE	0.70167	0.65466	0.60521	0.61866	0.59289						
	0.62063	0.61027	0.64008	0.65162			AVRG		0.63286		5.25207	
cis-1,2-Dichloroethene	NE	0.61803	0.49622	0.52999	0.50446	0.48374						
	0.49985	0.48778	0.51710	0.51455			AVRG		0.51686		7.86616	
Chloroform	NE	0.87547	0.86252	0.85352	0.84666	0.79238						
	0.81023	0.78725	0.84612	0.84457			AVRG		0.83541		3.73708	
Bromochloromethane	NE	0.32093	0.29857	0.28124	0.29319	0.26077						
	0.26364	0.26287	0.28290	0.28282			AVRG		0.28299		6.91423	
1,1,1-Trichloroethane	NE	0.76105	0.65666	0.60049	0.64387	0.63152						
	0.65703	0.64156	0.67604	0.69720			AVRG		0.66283		6.90392	
1,1-Dichloropropene	NE	0.35889	0.34245	0.33027	0.34789	0.34406						
	0.37084	0.35979	0.36734	0.37324			AVRG		0.35497		4.12237	
1,2-Dichloroethane	NE	0.45501	0.40587	0.39492	0.41104	0.39842						
	0.39909	0.40154	0.41082	0.41030			AVRG		0.40967		4.39762	
Carbon Tetrachloride	NE	0.40179	0.45347	0.40515	0.35265	0.34370						
	0.36348	0.35355	0.36349	0.37429			AVRG		0.37906		9.25223	
Benzene	NE	1.34410	1.19304	1.18322	1.19608	1.14722						
	1.17241	1.15323	1.17461	1.18197			AVRG		1.19399		4.90945	
Trichloroethene	NE	0.37562	0.31723	0.33885	0.33109	0.33079						
	0.33750	0.33140	0.33891	0.34649			AVRG		0.33865		4.73809	

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits

Initial Calibration Data

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder HS23030396

RunID VOA6_424237

ICAL Start Date 16-DEC-2022 1138 **ICAL End Date** 16-DEC-2022 1507

Compound	Level 1 0.250 / Level 7 50.0	Level 2 0.500 / Level 8 100.0	Level 3 1.00 / Level 9 150.0	Level 4 2.00 / Level 10 200.0	Level 5 5.00	Level 6 20.00	Curve	b	m1	m2	%RSD or R^2	Q
Bromodichloromethane	NE / 0.42913	0.53078 / 0.42602	0.45893 / 0.44706	0.43689 / 0.45009	0.42833	0.42563	AVRG		0.44810		7.41292	
Methyl Methacrylate	NE / 0.32238	0.38746 / 0.32465	0.34921 / 0.34726	0.33881 / 0.35704	0.33548	0.30606	AVRG		0.34093		6.87301	
2-Chloroethylvinyl ether	NE / 0.13057	0.13531 / 0.12541	0.11670 / 0.12799	0.12141 / 0.12973	0.12912	0.13108	AVRG		0.12748		4.37734	
1,2-Dichloropropane	NE / 0.31044	0.35613 / 0.30521	0.33560 / 0.31542	0.29692 / 0.31856	0.31629	0.30391	AVRG		0.31761		5.71516	
2-Nitropropane	NE / 0.73644	1.05598 / 0.73807	0.76159 / 0.78445	0.80915 / 0.80253	0.77468	0.75211	AVRG		0.80167		12.32619	
Dibromomethane	NE / 0.20672	0.25085 / 0.20317	0.21183 / 0.21324	0.22317 / 0.21357	0.21081	0.20954	AVRG		0.21588		6.58330	
4-Methyl-2-Pentanone	NE / 0.25814	0.28987 / 0.25156	0.26418 / 0.26114	0.28502 / 0.26166	0.26684	0.26684	AVRG		0.26725		4.64865	
cis-1,3-Dichloropropene	NE / 0.52860	0.53732 / 0.53368	0.47650 / 0.55605	0.50179 / 0.56353	0.51804	0.52075	AVRG		0.52625		5.04185	
Ethyl Methacrylate	NE / 0.20804	0.28138 / 0.22619	0.24077 / 0.24786	0.23910 / 0.26163	0.20135	0.21276	AVRG		0.23545		11.14205	
Toluene	NE / 1.36202	1.60765 / 1.32088	1.37997 / 1.35198	1.37463 / 1.35870	1.36957	1.31273	AVRG		1.38201		6.34459	
trans-1,3-Dichloropropene	NE / 0.44682	0.44236 / 0.44877	0.39493 / 0.47075	0.40065 / 0.48573	0.41433	0.42619	AVRG		0.43673		7.01005	
2-Hexanone	NE / 0.17839	0.19991 / 0.17192	0.17409 / 0.18312	0.17972 / 0.18566	0.18386	0.17978	AVRG		0.18183		4.45920	

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits

Initial Calibration Data

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder HS23030396

RunID VOA6_424237

ICAL Start Date 16-DEC-2022 1138 **ICAL End Date** 16-DEC-2022 1507

Compound	Level 1 0.250 Level 7 50.0	Level 2 0.500 Level 8 100.0	Level 3 1.00 Level 9 150.0	Level 4 2.00 Level 10 200.0	Level 5 5.00	Level 6 20.00	Curve	b	m1	m2	%RSD or R^2	Q
1,1,2-Trichloroethane	NE 0.26479	0.32419 0.25654	0.26954 0.26825	0.29087 0.26649	0.28491	0.26973	AVRG		0.27726		7.37510	
1,3-Dichloropropane	NE 0.53007	0.62065 0.51166	0.55587 0.53587	0.54217 0.53590	0.54663	0.53274	AVRG		0.54573		5.60982	
Dibromochloromethane	NE 0.39906	0.43810 0.39075	0.38701 0.40792	0.39402 0.40793	0.38762	0.38903	AVRG		0.40016		4.08851	
Tetrachloroethene	NE 0.29836	0.33024 0.28012	0.25660 0.28506	0.28292 0.28889	0.26322	0.28810	AVRG		0.28594		7.36821	
1,2-Dibromoethane	NE 0.35151	0.36263 0.33998	0.33509 0.35512	0.32714 0.35096	0.35422	0.34322	AVRG		0.34665		3.22017	
1-Chlorohexane	NE 0.24556	0.26597 0.23682	0.22998 0.25047	0.21386 0.26558	0.22191	0.24457	AVRG		0.24163		7.44215	
Chlorobenzene	NE 0.95622	1.20054 0.92158	0.96715 0.96470	0.94773 0.97511	0.95913	0.93014	AVRG		0.98026		8.61127	
1,1,1,2-Tetrachloroethane	NE 0.36060	0.42477 0.35457	0.34549 0.36940	0.36191 0.37188	0.34596	0.34861	AVRG		0.36480		6.70616	
Ethylbenzene	NE 0.47797	0.47482 0.45902	0.43893 0.46986	0.45503 0.47447	0.45171	0.45394	AVRG		0.46175		2.86128	
m,p-Xylenes	NE 0.60205	0.69860 0.58346	0.55710 0.60071	0.56286 0.61493	0.56012	0.57743	AVRG		0.59525		7.35638	
o-Xylene	NE 0.59049	0.68372 0.57562	0.51381 0.60058	0.56977 0.61516	0.56849	0.56994	AVRG		0.58751		7.79066	
Styrene	NE 1.03116	1.02806 1.01266	0.79991 1.07651	0.88633 1.09594	0.95404	0.97800	AVRG		0.98473		9.52837	

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits

Initial Calibration Data

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder HS23030396

RunID VOA6_424237

ICAL Start Date 16-DEC-2022 1138 **ICAL End Date** 16-DEC-2022 1507

Compound	Level 1 0.250 Level 7 50.0	Level 2 0.500 Level 8 100.0	Level 3 1.00 Level 9 150.0	Level 4 2.00 Level 10 200.0	Level 5 5.00	Level 6 20.00	Curve	b	m1	m2	%RSD or R^2	Q
Bromoform	NE 0.27805	0.31195 0.27584	0.25221 0.29222	0.26817 0.29278	0.25683	0.26696	AVRG		0.27722		6.87336	
Isopropylbenzene	NE 1.41077	1.35706 1.36357	1.16805 1.42773	1.25967 1.45784	1.30607	1.32939	AVRG		1.34224		6.69875	
1,1,2,2-Tetrachloroethane	NE 0.74007	0.91828 0.71754	0.84470 0.75363	0.83187 0.73962	0.83648	0.79018	AVRG		0.79693		8.24435	
1,2,3-Trichloropropane	NE 0.53505	0.58047 0.52761	0.56626 0.60583	0.53238 0.53897	0.58048	0.54015	AVRG		0.55636		4.97536	
trans-1,4-Dichloro-2-butene	NE 0.10800	0.12274 0.10845	0.09213 0.11623	0.10381 0.11751	0.10162	0.10094	AVRG		0.10794		8.88299	
n-Propylbenzene	NE 2.90611	3.20938 2.78733	2.13608 2.90643	2.47845 2.92515	2.73904	2.83806	AVRG		2.76956		11.03336	
Bromobenzene	NE 0.80056	0.90477 0.78064	0.79060 0.82147	0.83045 0.81857	0.81066	0.82521	AVRG		0.82033		4.35370	
1,3,5-Trimethylbenzene	NE 2.12398	2.06484 2.07652	1.68256 2.18148	1.97796 2.20122	2.03460	2.07048	AVRG		2.04596		7.47801	
2-Chlorotoluene	NE 1.79455	1.93144 1.71779	1.77508 1.79669	1.90257 1.78644	1.85141	1.80074	AVRG		1.81741		3.65582	
4-Chlorotoluene	NE 2.09570	2.19766 2.05624	1.72811 2.19099	1.99610 2.20989	2.10678	2.06499	AVRG		2.07183		7.13984	
tert-Butylbenzene	NE 1.74647	1.83685 1.66742	1.33195 1.77236	1.56610 1.78580	1.66625	1.69957	AVRG		1.67475		9.03914	
1,2,4-Trimethylbenzene	NE 2.18278	2.44261 2.12445	1.84882 2.25368	2.01055 2.24326	2.12502	2.14371	AVRG		2.15277		7.66012	

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits

Initial Calibration Data

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder HS23030396

RunID VOA6_424237

ICAL Start Date 16-DEC-2022 1138 **ICAL End Date** 16-DEC-2022 1507

Compound	Level 1 0.250 Level 7 50.0	Level 2 0.500 Level 8 100.0	Level 3 1.00 Level 9 150.0	Level 4 2.00 Level 10 200.0	Level 5 5.00	Level 6 20.00	Curve	b	m1	m2	%RSD or R^2	Q
sec-Butylbenzene	NE 2.38144	2.28219 2.30322	1.76441 2.43114	1.95855 2.46321	2.17705	2.29365	AVRG		2.22832		10.32115	
p-Isopropyltoluene	NE 2.16946	2.11113 2.07989	1.42476 2.19272	1.76888 2.20460	1.95504	2.06459	AVRG		1.99679		12.72950	
1,3-Dichlorobenzene	NE 1.39279	1.34465 1.34586	1.21323 1.42324	1.32549 1.42237	1.40186	1.38449	AVRG		1.36155		4.82043	
1,4-Dichlorobenzene	NE 1.45712	1.63128 1.44362	1.40441 1.52301	1.45614 1.52190	1.47766	1.45673	AVRG		1.48576		4.44368	
Benzyl Chloride	NE 472387	3642 1009234	4632 1650494	12783 2286488	35254	163895	LINR	0.05387	0.82700		0.99832	
n-Butylbenzene	NE 696355	5149 1425779	8459 2293126	19853 3216534	54831	248190	LINR	0.03551	1.99525		0.99890	
1,2-Dichlorobenzene	NE 1.39065	1.58241 1.36532	1.22790 1.44207	1.34058 1.43128	1.42827	1.41177	AVRG		1.40225		6.73504	
1,2-Dibromo-3-Chloropropane	NE 48660	441 94321	778 149691	1619 205063	4911	18635	LINR	0.00184	0.12764		0.99948	
1,2,4-Trichlorobenzene	NE 0.95146	0.91627 0.90293	0.65608 0.94400	0.83350 0.95022	0.89445	0.91558	AVRG		0.88494		10.53488	
Hexachlorobutadiene	NE 155390	1477 299042	1928 466452	3970 654615	13454	55912	QUAD	-0.00107	2.58308	-0.07816	0.99966	
Naphthalene	NE 2.14094	2.01970 2.06230	1.60683 2.15450	1.85985 2.12714	2.04153	2.10842	AVRG		2.01347		8.78393	
1,2,3-Trichlorobenzene	NE 0.85880	1.02696 0.83163	0.68341 0.85478	0.79977 0.84995	0.84958	0.87304	AVRG		0.84755		10.42886	

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits

Initial Calibration Data

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder HS23030396

RunID VOA6_424237

ICAL Start Date 16-DEC-2022 1138 **ICAL End Date** 16-DEC-2022 1507

Compound	Level 1 0.250 Level 7 50.0	Level 2 0.500 Level 8 100.0	Level 3 1.00 Level 9 150.0	Level 4 2.00 Level 10 200.0	Level 5 5.00	Level 6 20.00	Curve	b	m1	m2	%RSD or R^2	Q
Ethyl Acetate	NE 0.37280	0.44748 0.34980	0.34909 0.38488	0.40657 0.39192	0.39985	0.40902	AVRG		0.39016		7.92750	
Methyl Acrylate	NE 0.33014	0.38247 0.33914	0.34243 0.35741	0.29817 0.35867	0.33173	0.31494	AVRG		0.33946		7.36740	
n-Butanol	NE 54418	622 124057	1171 210842	2004 297334	4891	15012	QUAD	0.80435	158	-58.97368	0.99813	*
Ethyl Acrylate	NE 420886	NE 862071	NE 1358300	9825 1836030	26414	172044	LINR	0.05859	1.02468		0.99901	*
Cyclohexanone	NE 0.01934	0.07093 0.01945	0.03374 0.01993	0.02556 0.01966	0.01884	0.01912	AVRG		0.02740		62.21369	*
1,4-Dioxane	0.00463 0.00443	0.00501 0.00442	0.00455 0.00480	0.00386 0.00497	0.00466	0.00438	AVRG		0.00457		7.29408	
n-Hexane	NE 0.39852	0.41368 0.36338	0.26016 0.39788	0.32309 0.40267	0.32437	0.35631	AVRG		0.36001		13.97418	
Freon TF	NE 0.37622	0.40111 0.36030	0.37263 0.38547	0.33005 0.39624	0.32940	0.35185	AVRG		0.36703		7.16337	
Methyl Acetate	NE 0.21071	0.27499 0.21615	0.23617 0.22455	0.22728 0.22667	0.19900	0.20937	AVRG		0.22499		9.73149	
Methylcyclohexane	NE 0.60749	0.69525 0.62521	0.49917 0.65111	0.58500 0.65095	0.56389	0.63030	AVRG		0.61204		9.36456	
Isopropyl alcohol	NE 0.01716	0.02240 0.01767	0.01652 0.01919	0.01536 0.01934	0.01833	0.01677	AVRG		0.01808		11.41496	
Amyl alcohol	NE 0.00433	NE 0.00498	NE 0.00582	NE 0.00605	0.00196	0.00315	AVRG		0.00438		36.19033	*

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits

Initial Calibration Data

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder HS23030396

RunID VOA6_424237

ICAL Start Date 16-DEC-2022 1138 **ICAL End Date** 16-DEC-2022 1507

Compound	Level 1 0.250 Level 7 50.0	Level 2 0.500 Level 8 100.0	Level 3 1.00 Level 9 150.0	Level 4 2.00 Level 10 200.0	Level 5 5.00	Level 6 20.00	Curve	b	m1	m2	%RSD or R^2	Q
Allyl alcohol	NE 0.01993	0.03347 0.01817	0.01301 0.01989	0.01615 0.02013	0.01622	0.01782	AVRG		0.01942		29.60962	*
4-Methyl-2-pentanol	NE 0.04191	0.13977 0.04448	0.06768 0.05120	0.05740 0.05444	0.04467	0.04137	AVRG		0.06032		51.38639	*
Tert-butyl alcohol	NE 0.03307	0.04145 0.03257	0.03359 0.03586	0.03291 0.03628	0.03387	0.03199	AVRG		0.03462		8.48705	
Diethyl ether	NE 0.30968	0.40393 0.31674	0.33122 0.33062	0.34807 0.33029	0.33548	0.30080	AVRG		0.33409		8.92652	
1,3-Butadiene	NE 0.33288	0.38854 0.32994	0.38107 0.34951	0.31405 0.35836	0.31693	0.31715	AVRG		0.34316		8.15203	
Cyclohexane	NE 237699	2803 432198	4003 682728	7375 943314	19859	84355	LINR	0.02522	0.51703		0.99847	
Tetrahydrofuran	NE 58181	900 109518	1361 162133	2867 219995	7598	28221	LINR	-0.06333	0.06025		0.99942	
alpha-Methylstyrene	NE 1.13399	1.35155 1.10993	0.85865 1.16502	1.02359 1.17184	1.06165	1.09458	AVRG		1.10787		11.89593	
Diisopropyl ether	NE 1.21127	1.41201 1.25239	1.35074 1.32366	1.30436 1.33324	1.25459	1.23114	AVRG		1.29704		5.00179	
Dichlorofluoromethane	NE 0.05734	NE 0.05842	NE 0.06234	NE 0.06214	0.06484	0.06089	AVRG		0.06099		4.51209	*
Propylene oxide	NE 0.03071	NE 0.03174	0.05613 0.03407	0.03062 0.03228	0.03687	0.02961	AVRG		0.03525		24.79698	*
3-Methyl-1-butanol	NE 0.00489	NE 0.00483	NE 0.00601	NE 0.00612	0.00211	0.00438	AVRG		0.00472		30.80128	*

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits

Initial Calibration Data

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder HS23030396

RunID VOA6_424237

ICAL Start Date 16-DEC-2022 1138 **ICAL End Date** 16-DEC-2022 1507

Compound	Level 1 0.250 Level 7 50.0	Level 2 0.500 Level 8 100.0	Level 3 1.00 Level 9 150.0	Level 4 2.00 Level 10 200.0	Level 5 5.00	Level 6 20.00	Curve	b	m1	m2	%RSD or R^2	Q
Butyl acrylate	NE 0.63698	0.73114 0.67566	0.58907 0.72950	0.57945 0.74630	0.58578	0.60437	AVRG		0.65314		10.52624	
1,2,3-Trimethylbenzene	NE 2.21302	2.76749 2.29498	2.61167 2.36627	2.52848 2.30685	2.25428	2.32678	AVRG		2.40776		7.74526	
Ethanol	NE 29714	458 56794	787 87890	1703 117751	3072	12594	LINR	-0.06594	0.00325		0.99956	
1-Propanol	NE 0.00727	0.00862 0.00784	0.00964 0.00802	0.00852 0.00816	0.00825	0.00721	AVRG		0.00817		9.04495	
tert-Butyl formate	NE 0.24908	NE 0.25521	NE 0.29218	0.25634 0.29283	0.33766	0.24706	AVRG		0.27577		12.14219	*
3,3-Dimethyl-1-butanol	NE 0.02235	NE 0.02388	NE 0.02628	NE 0.02679	0.01912	0.02169	AVRG		0.02335		12.46791	*
tert-Amyl methyl ether	NE 1.32775	2.53777 1.35994	1.82297 1.44272	1.67155 1.43312	1.55575	1.35887	AVRG		1.61227		23.79383	*
tert-Butyl ethyl ether	NE 1.27589	1.81984 1.30743	1.44501 1.37993	1.35004 1.39745	1.35223	1.28319	AVRG		1.40122		11.86386	
tert-Amyl alcohol	NE 0.02491	0.03129 0.02552	0.02457 0.02922	0.02972 0.02928	0.03377	0.02471	AVRG		0.02811		11.82574	
Epichlorohydrin	NE 58515	926 126478	1242 183469	2483 257397	5941	23842	LINR	0.04999	0.02268		0.99921	
Isoprene	NE 0.13550	0.20890 0.13652	0.10782 0.14294	0.12769 0.14612	0.14811	0.13210	AVRG		0.14286		19.27805	*
n-Amyl acetate	NE 0.52035	NE 0.54240	NE 0.59479	NE 0.61078	NE	0.53118	AVRG		0.55990		7.20069	*

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits

Initial Calibration Data

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder HS23030396

RunID VOA6_424237

ICAL Start Date 16-DEC-2022 1138 **ICAL End Date** 16-DEC-2022 1507

Compound	Level 1 0.250 Level 7 50.0	Level 2 0.500 Level 8 100.0	Level 3 1.00 Level 9 150.0	Level 4 2.00 Level 10 200.0	Level 5 5.00	Level 6 20.00	Curve	b	m1	m2	%RSD or R^2	Q
Isopropyl acetate	NE 0.72227	1.34716 0.73275	0.78367 0.76494	0.79130 0.76466	0.77391	0.74796	AVRG		0.82540		23.86221	*
n-Butyl acetate	NE 0.19856	0.47947 0.20815	0.28533 0.21762	0.15799 0.22438	0.22627	0.22783	AVRG		0.24729		37.68114	*
Acetaldehyde	NE 67188	NE 107798	3384 161053	5661 205547	6161	32393	LINR	-0.46573	0.02837		0.99553	
Methyl Amyl Ketone	NE 0.62641	1.24254 0.65992	0.68451 0.69377	0.63815 0.71197	0.57607	0.60726	AVRG		0.71562		28.26825	*
Dimethyl Disulfide	NE 0.67210	0.79855 0.68414	0.63899 0.70500	0.61608 0.69777	0.61366	0.66406	AVRG		0.67671		8.32695	
1,2-Dichloroethylene (total)	NE 0.45918	0.54933 0.45116	0.46024 0.47466	0.45982 0.47504	0.46309	0.44450	AVRG		0.47078		6.59168	
Xylenes (total)	NE 0.56357	0.65089 0.56191	0.51351 0.58028	0.53491 0.60523	0.53725	0.54549	AVRG		0.56589		7.37687	
Dibromofluoromethane	NE 211939	2321 438954	4769 652724	9050 856027	24255	90108	LINR	-0.00333	0.47851		0.99972	
1,2-Dichloroethane-d4	NE 222293	2849 455890	5559 686218	9783 919752	24938	92990	LINR	0.00543	0.50950		0.99982	
Toluene-d8	NE 1.18347	1.47608 1.20166	1.31472 1.16429	1.20749 1.10711	1.24798	1.21701	AVRG		1.23554		8.62469	
4-Bromofluorobenzene	NE 292753	3870 615584	7790 936681	13631 1277239	32501	116878	LINR	0.00128	0.46242		0.99992	

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits

01182589

right solutions.
right partner.

Form 6I

Initial Calibration Verification (ICV)

Volatiles by EPA 8260

Workorder

HS23030396

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Monthly Effluent Samples

03/15/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Initial Calibration Verification (ICV)

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder HS23030396

RunID VOA6_424237

Instrument ID voa6.i ICAL Date 16-DEC-2022
Lab File ID X121613.D ICAL Time 2249
?VAL? ?VAL? Conc Units ug/L
Analysis Type VOA Level LOW

Compound	Amount Added	Amount Recovered	% Recovered	Limits	Q
1,1,1,2-Tetrachlor	50.00	48.61	97.24	80-120	
1,1,1-Trichloroeth	50.00	50.16	100.33	80-120	
1,1,2,2-Tetrachlor	50.00	46.75	93.50	80-120	
Freon TF	50.00	52.90	105.81	80-120	
Methyl Acetate	50.00	48.17	96.35	80-120	
Cyclohexane	50.00	51.73	103.47	80-120	
Methylcyclohexane	50.00	50.89	101.79	80-120	
Carbon Disulfide	100.00	98.50	98.50	80-120	
2-Hexanone	100.00	96.73	96.74	80-120	
1,1,2-Trichloroeth	50.00	47.91	95.83	80-120	
1,1-Dichloroethane	50.00	48.19	96.39	80-120	
1,1-Dichloroethene	50.00	49.34	98.68	80-120	
1,1-Dichloropropen	50.00	52.11	104.24	80-120	
1,2,3-Trichloroben	50.00	52.79	105.58	80-120	
1,2,3-Trichloropro	50.00	48.07	96.16	80-120	
1,2,4-Trichloroben	50.00	54.66	109.32	80-120	
1,2,4-Trimethylben	50.00	51.32	102.65	80-120	
1,2-Dibromo-3-Chlo	50.00	50.53	101.07	80-120	
1,2-Dibromoethane	50.00	50.24	100.49	80-120	
Acrolein	100.00	95.06	95.07	80-120	
Acrylonitrile	100.00	101.42	101.43	80-120	
1,2-Dichlorobenzen	50.00	49.52	99.05	80-120	
1,2-Dichloroethane	50.00	49.52	99.05	80-120	
1,2-Dichloropropan	50.00	49.60	99.22	80-120	
1,3,5-Trimethylben	50.00	52.30	104.61	80-120	
1,3-Dichlorobenzen	50.00	51.21	102.43	80-120	
1,3-Dichloropropan	50.00	47.82	95.66	80-120	
1,4-Dichlorobenzen	50.00	49.71	99.44	80-120	
1-Chlorohexane	50.00	51.98	103.97	80-120	
2,2-Dichloropropan	50.00	50.98	101.98	80-120	
2-Butanone	100.00	97.74	97.74	80-120	
2-Chloroethylvinyl	100.00	104.19	104.19	80-120	
2-Chlorotoluene	50.00	49.94	99.89	80-120	
4-Chlorotoluene	50.00	51.25	102.51	80-120	

Initial Calibration Verification (ICV)

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder HS23030396

RunID VOA6_424237

Instrument ID voa6.i ICAL Date 16-DEC-2022
Lab File ID X121613.D ICAL Time 2249
?VAL? ?VAL? Conc Units ug/L
Analysis Type VOA Level LOW

Compound	Amount Added	Amount Recovered	% Recovered	Limits	Q
p-Isopropyltoluene	50.00	54.75	109.51	80-120	
4-Methyl-2-Pentano	100.00	94.03	94.03	80-120	
Acetone	100.00	101.89	101.90	80-120	
Acetonitrile	500.00	475.59	95.12	80-120	
Allyl Chloride	50.00	47.31	94.63	80-120	
Benzene	50.00	50.29	100.58	80-120	
Bromobenzene	50.00	49.62	99.25	80-120	
Bromochloromethane	50.00	47.25	94.51	80-120	
Bromodichlorometha	50.00	49.22	98.45	80-120	
Bromoform	50.00	49.33	98.66	80-120	
Bromomethane	50.00	50.78	101.58	80-120	
Carbon Tetrachlori	50.00	49.06	98.12	80-120	
Chlorobenzene	50.00	48.34	96.68	80-120	
Chloroethane	50.00	48.32	96.64	80-120	
Chloroform	50.00	48.45	96.91	80-120	
Chloromethane	50.00	50.17	100.35	80-120	
Chloroprene	50.00	47.74	95.50	80-120	
cis-1,2-Dichloroet	50.00	48.25	96.51	80-120	
cis-1,3-Dichloropr	50.00	52.11	104.22	80-120	
Dibromochlorometha	50.00	49.50	99.02	80-120	
Dibromomethane	50.00	49.19	98.38	80-120	
Dichlorodifluorome	50.00	52.19	104.38	80-120	
Ethylbenzene	50.00	51.31	102.63	80-120	
Ethyl Methacrylate	50.00	44.07	88.15	80-120	
Iodomethane	100.00	96.48	96.49	80-120	
Isobutyl Alcohol	1000.00	982.15	98.22	70-130	
Propionitrile	500.00	486.89	97.38	70-130	
Hexachlorobutadien	50.00	57.73	115.48	80-120	
Isopropylbenzene	50.00	52.09	104.19	80-120	
m,p-Xylenes	100.00	100.17	100.17	80-120	
Methyl tert-butyl	50.00	48.12	96.25	80-120	
Methylene Chloride	50.00	47.56	95.14	80-120	
Methacrylonitrile	50.00	46.73	93.48	80-120	
Methyl Methacrylat	50.00	47.71	95.43	80-120	

Initial Calibration Verification (ICV)

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder HS23030396

RunID VOA6_424237

Instrument ID voa6.i ICAL Date 16-DEC-2022
Lab File ID X121613.D ICAL Time 2249
?VAL? ?VAL? Conc Units ug/L
Analysis Type VOA Level LOW

Compound	Amount Added	Amount Recovered	% Recovered	Limits	Q
n-Butylbenzene	50.00	50.66	101.33	80-120	
n-Propylbenzene	50.00	52.67	105.35	80-120	
Naphthalene	50.00	52.67	105.35	80-120	
o-Xylene	50.00	49.75	99.51	80-120	
sec-Butylbenzene	50.00	54.16	108.34	80-120	
Styrene	50.00	52.09	104.20	80-120	
tert-Butylbenzene	50.00	52.83	105.67	80-120	
Tetrachloroethene	50.00	50.99	101.99	80-120	
Toluene	50.00	49.20	98.42	80-120	
trans-1,2-Dichloro	50.00	49.99	99.98	80-120	
trans-1,3-Dichloro	50.00	52.50	105.01	80-120	
trans-1,4-Dichloro	50.00	49.73	99.47	80-120	
Trichloroethene	50.00	51.28	102.56	80-120	
Trichlorofluoromet	50.00	51.00	102.02	80-120	
Vinyl Acetate	100.00	104.75	104.76	80-120	
Vinyl Chloride	50.00	50.57	101.15	80-120	
1,2-Dichloroethyle	100.00	98.24	98.25	80-120	
Xylenes (total)	150.00	149.92	99.95	80-120	
1,4-Dioxane	1000.00	1021.76	102.18	80-120	
Dibromofluorometha	50.00	50.91	101.84	71-125	
1,2-Dichloroethane	50.00	50.36	100.73	70-125	
Toluene-d8	50.00	49.50	99.00	75-125	
4-Bromofluorobenze	50.00	49.98	99.97	72-125	

01182593

right solutions.
right partner.

Form 7

Continuing Calibration Verification (CCV)

Volatiles by EPA 8260

Workorder

HS23030396

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Monthly Effluent Samples

03/15/2023

ALS Environmental–Houston Laboratory

10450 Stancliff Road, Suite 210, Houston, TX 77099

Phone (281) 530-5656 Fax (281) 530-5887

www.alsglobal.com

Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder HS23030396

RunID VOA6_429719

Instrument ID voa6.i Injection Date 09-MAR-2023 1122
Lab File ID X030903.D ICAL Date(s) 16-DEC-2022 16-DEC-2022
Analysis Type WATER ICAL Times 1138 1507
Lab Sample ID CCV Quant Type ISTD

Compound	RRF / Amount	RF50	CCV RRF50	Min RRF	%D / %Drift	Max %D / %Drift	Curve Type	Q
1,4-Dioxane	0.00457	0.00510	0.00510	0.001	-11.63238	20.0	Averaged	
1,3-Butadiene	0.34316	0.31184	0.31184	0.100	9.12724	20.0	Averaged	
Acetonitrile	0.04551	0.05355	0.05355	0.005	-17.67935	20.0	Averaged	
Acetaldehyde	200	210	0.03304	0.001	-4.82620	20.0	Linear	
alpha-Methylstyrene	1.10787	1.02306	1.02306	0.100	7.65499	20.0	Averaged	
Diisopropyl ether	1.29704	1.63386	1.63386	0.100	-25.96798	20.0	Averaged	<-
1,2,3-Trimethylbenzene	2.40776	2.33517	2.33517	0.100	3.01470	20.0	Averaged	
Dichlorodifluoromethane	50.0	45.23541	0.31612	0.100	9.52918	20.0	Linear	
Chloromethane	50.0	57.90176	0.52718	0.100	-15.80352	20.0	Linear	
Vinyl Chloride	0.43678	0.43779	0.43779	0.100	-0.23100	20.0	Averaged	
Bromomethane	50.0	42.26845	0.27741	0.100	15.46311	20.0	Linear	
Chloroethane	0.30401	0.29282	0.29282	0.100	3.68167	20.0	Averaged	
Trichlorofluoromethane	0.61122	0.54440	0.54440	0.100	10.93362	20.0	Averaged	
Acrolein	100	90.15721	0.03073	0.010	9.84279	20.0	Linear	
Acetone	100	105	0.14702	0.100	-4.79504	20.0	Linear	
1,1-Dichloroethene	0.37948	0.32419	0.32419	0.100	14.57004	20.0	Averaged	
Iodomethane	100	100	0.50106	0.100	-0.16785	20.0	Quadratic	
Acrylonitrile	0.12870	0.16937	0.16937	0.050	-31.59896	20.0	Averaged	<-
Methylene Chloride	0.52052	0.51263	0.51263	0.100	1.51610	20.0	Averaged	
Methyl tert-butyl ether	1.24211	1.49002	1.49002	0.100	-19.95867	20.0	Averaged	
Carbon Disulfide	0.99285	1.06358	1.06358	0.100	-7.12346	20.0	Averaged	
trans-1,2-Dichloroethene	0.42470	0.42131	0.42131	0.100	0.80018	20.0	Averaged	
Vinyl Acetate	1.09037	1.39845	1.39845	0.010	-28.25520	20.0	Averaged	<-
1,1-Dichloroethane	0.74536	0.79218	0.79218	0.200	-6.28103	20.0	Averaged	
2-Butanone	100	117	0.17535	0.100	-17.29022	20.0	Linear	
2,2-Dichloropropane	0.63286	0.66971	0.66971	0.100	-5.82346	20.0	Averaged	
cis-1,2-Dichloroethene	0.51686	0.50822	0.50822	0.100	1.67048	20.0	Averaged	
Chloroform	0.83541	0.82081	0.82081	0.200	1.74758	20.0	Averaged	
Bromochloromethane	0.28299	0.27059	0.27059	0.100	4.38149	20.0	Averaged	
Dibromofluoromethane	50.0	48.16147	0.46250	0.100	3.67706	20.0	Linear	
1,1,1-Trichloroethane	0.66283	0.64231	0.64231	0.100	3.09507	20.0	Averaged	
1,1-Dichloropropene	0.35497	0.35583	0.35583	0.100	-0.24190	20.0	Averaged	
1,2-Dichloroethane	0.40967	0.42265	0.42265	0.100	-3.16922	20.0	Averaged	
Carbon Tetrachloride	0.37906	0.32745	0.32745	0.100	13.61553	20.0	Averaged	

Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder HS23030396

RunID VOA6_429719

Instrument ID voa6.i Injection Date 09-MAR-2023 1122
Lab File ID X030903.D ICAL Date(s) 16-DEC-2022 16-DEC-2022
Analysis Type WATER ICAL Times 1138 1507
Lab Sample ID CCV Quant Type ISTD

Compound	$\overline{RRF}$ / Amount	RF50	CCV RRF50	Min RRF	%D / %Drift	Max %D / %Drift	Curve Type	Q
1,2-Dichloroethane-d4	50.0	52.43949	0.53159	0.100	-4.87899	20.0	Linear	
Benzene	1.19399	1.19185	1.19185	0.500	0.17895	20.0	Averaged	
Trichloroethene	0.33865	0.31604	0.31604	0.200	6.67730	20.0	Averaged	
Bromodichloromethane	0.44810	0.42956	0.42956	0.200	4.13584	20.0	Averaged	
2-Chloroethylvinyl ether	0.12748	0.12628	0.12628	0.001	0.93880	20.0	Averaged	
1,2-Dichloropropane	0.31761	0.33316	0.33316	0.100	-4.89733	20.0	Averaged	
Dibromomethane	0.21588	0.20516	0.20516	0.100	4.96667	20.0	Averaged	
4-Methyl-2-Pentanone	0.26725	0.31117	0.31117	0.100	-16.43552	20.0	Averaged	
cis-1,3-Dichloropropene	0.52625	0.56293	0.56293	0.200	-6.97003	20.0	Averaged	
Toluene-d8	1.23554	1.18194	1.18194	0.100	4.33752	20.0	Averaged	
Toluene	1.38201	1.31921	1.31921	0.400	4.54465	20.0	Averaged	
trans-1,3-Dichloropropene	0.43673	0.48005	0.48005	0.100	-9.92104	20.0	Averaged	
2-Hexanone	0.18183	0.21467	0.21467	0.100	-18.06165	20.0	Averaged	
1,1,2-Trichloroethane	0.27726	0.26628	0.26628	0.100	3.95917	20.0	Averaged	
1,3-Dichloropropane	0.54573	0.56443	0.56443	0.100	-3.42657	20.0	Averaged	
Dibromochloromethane	0.40016	0.38212	0.38212	0.100	4.50884	20.0	Averaged	
Tetrachloroethene	0.28594	0.24354	0.24354	0.200	14.82797	20.0	Averaged	
1,2-Dibromoethane	0.34665	0.34055	0.34055	0.100	1.76090	20.0	Averaged	
1-Chlorohexane	0.24163	0.22108	0.22108	0.100	8.50710	20.0	Averaged	
Chlorobenzene	0.98026	0.90080	0.90080	0.500	8.10563	20.0	Averaged	
1,1,1,2-Tetrachloroethane	0.36480	0.34340	0.34340	0.100	5.86702	20.0	Averaged	
Ethylbenzene	0.46175	0.43094	0.43094	0.100	6.67313	20.0	Averaged	
m,p-Xylenes	0.59525	0.54783	0.54783	0.100	7.96676	20.0	Averaged	
o-Xylene	0.58751	0.54861	0.54861	0.300	6.62135	20.0	Averaged	
Styrene	0.98473	0.97181	0.97181	0.300	1.31202	20.0	Averaged	
Bromoform	0.27722	0.25922	0.25922	0.100	6.49428	20.0	Averaged	
Isopropylbenzene	1.34224	1.21831	1.21831	0.100	9.23261	20.0	Averaged	
1,1,2,2-Tetrachloroethane	0.79693	0.80249	0.80249	0.300	-0.69828	20.0	Averaged	
4-Bromofluorobenzene	50.0	50.16081	0.46331	0.100	-0.32162	20.0	Linear	
1,2,3-Trichloropropane	0.55636	0.58340	0.58340	0.100	-4.86143	20.0	Averaged	
n-Propylbenzene	2.76956	2.65972	2.65972	0.100	3.96603	20.0	Averaged	
Bromobenzene	0.82033	0.76701	0.76701	0.100	6.49962	20.0	Averaged	
1,3,5-Trimethylbenzene	2.04596	2.02082	2.02082	0.100	1.22897	20.0	Averaged	
2-Chlorotoluene	1.81741	1.80322	1.80322	0.100	0.78110	20.0	Averaged	

Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder HS23030396

RunID VOA6_429719

Instrument ID voa6.i Injection Date 09-MAR-2023 1122
Lab File ID X030903.D ICAL Date(s) 16-DEC-2022 16-DEC-2022
Analysis Type WATER ICAL Times 1138 1507
Lab Sample ID CCV Quant Type ISTD

Compound	$\overline{RRF}$ / Amount	RF50	CCV RRF50	Min RRF	%D / %Drift	Max %D / %Drift	Curve Type	Q
4-Chlorotoluene	2.07183	2.08651	2.08651	0.100	-0.70868	20.0	Averaged	
tert-Butylbenzene	1.67475	1.56507	1.56507	0.100	6.54896	20.0	Averaged	
1,2,4-Trimethylbenzene	2.15277	2.08899	2.08899	0.100	2.96227	20.0	Averaged	
sec-Butylbenzene	2.22832	2.11777	2.11777	0.100	4.96119	20.0	Averaged	
p-Isopropyltoluene	1.99679	1.95038	1.95038	0.100	2.32379	20.0	Averaged	
1,3-Dichlorobenzene	1.36155	1.29392	1.29392	0.600	4.96706	20.0	Averaged	
1,4-Dichlorobenzene	1.48576	1.33616	1.33616	0.400	10.06931	20.0	Averaged	
n-Butylbenzene	50.0	42.91700	1.64175	0.500	14.16600	20.0	Linear	
1,2-Dichlorobenzene	1.40225	1.29134	1.29134	0.400	7.90970	20.0	Averaged	
1,2-Dibromo-3-Chloropropane	50.0	53.53329	0.13643	0.040	-7.06659	20.0	Linear	
1,2,4-Trichlorobenzene	0.88494	0.93654	0.93654	0.100	-5.83052	20.0	Averaged	
Hexachlorobutadiene	50.0	46.20485	0.36213	0.100	7.59030	20.0	Quadratic	
Naphthalene	2.01347	2.27660	2.27660	0.200	-13.06863	20.0	Averaged	
1,2,3-Trichlorobenzene	0.84755	0.89775	0.89775	0.010	-5.92355	20.0	Averaged	
1,2-Dichloroethylene (total	0.47078	0.46476	0.46476	0.200	1.27792	20.0	Averaged	
Xylenes (total)	0.56589	0.51721	0.51721	0.100	8.60317	20.0	Averaged	
Cyclohexane	50.0	51.12773	0.51565	0.100	-2.25547	20.0	Linear	
Freon TF	0.36703	0.29387	0.29387	0.100	19.93337	20.0	Averaged	
Methylcyclohexane	0.61204	0.75793	0.75793	0.100	-23.83610	20.0	Averaged	<-
Methyl Acetate	0.22499	0.30388	0.30388	0.100	-35.06342	20.0	Averaged	<-
Tert-butyl alcohol	0.03462	0.04318	0.04318	0.005	-24.71099	20.0	Averaged	<-
Isopropyl alcohol	0.01808	0.02426	0.02426	0.005	-34.18911	20.0	Averaged	<-

Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder HS23030396

RunID VOA6_429719

Instrument ID voa6.i Injection Date 09-MAR-2023 1431
Lab File ID X030912.D ICAL Date(s) 16-DEC-2022 16-DEC-2022
Analysis Type WATER ICAL Times 1138 1507
Lab Sample ID CCV-END Quant Type ISTD

Compound	$\overline{RRF}$ / Amount	RF50	CCV RRF50	Min RRF	%D / %Drift	Max %D / %Drift	Curve Type	Q
1,4-Dioxane	0.00457	0.00525	0.00525	0.001	-14.89618	50.0	Averaged	
1,3-Butadiene	0.34316	0.27539	0.27539	0.100	19.74925	50.0	Averaged	
Acetonitrile	0.04551	0.05032	0.05032	0.005	-10.58543	50.0	Averaged	
Acetaldehyde	200	430	0.06424	0.001	-115	50.0	Linear	
alpha-Methylstyrene	1.10787	0.97772	0.97772	0.100	11.74728	50.0	Averaged	
Diisopropyl ether	1.29704	1.62291	1.62291	0.100	-25.12350	50.0	Averaged	
1,2,3-Trimethylbenzene	2.40776	2.25934	2.25934	0.100	6.16390	50.0	Averaged	
Dichlorodifluoromethane	50.0	38.21141	0.26660	0.100	23.57718	50.0	Linear	
Chloromethane	50.0	50.50929	0.45720	0.100	-1.01858	50.0	Linear	
Vinyl Chloride	0.43678	0.38023	0.38023	0.100	12.94738	50.0	Averaged	
Bromomethane	50.0	38.70103	0.25298	0.100	22.59793	50.0	Linear	
Chloroethane	0.30401	0.39337	0.39337	0.100	-29.39183	50.0	Averaged	
Trichlorofluoromethane	0.61122	0.46420	0.46420	0.100	24.05486	50.0	Averaged	
Acrolein	100	80.81998	0.02745	0.010	19.18002	50.0	Linear	
Acetone	100	84.29836	0.11827	0.100	15.70164	50.0	Linear	
1,1-Dichloroethene	0.37948	0.28645	0.28645	0.100	24.51365	50.0	Averaged	
Iodomethane	100	56.39378	0.26940	0.100	43.60622	50.0	Quadratic	
Acrylonitrile	0.12870	0.16666	0.16666	0.050	-29.48993	50.0	Averaged	
Methylene Chloride	0.52052	0.49553	0.49553	0.100	4.80181	50.0	Averaged	
Methyl tert-butyl ether	1.24211	1.44976	1.44976	0.100	-16.71795	50.0	Averaged	
Carbon Disulfide	0.99285	0.96124	0.96124	0.100	3.18383	50.0	Averaged	
trans-1,2-Dichloroethene	0.42470	0.38595	0.38595	0.100	9.12482	50.0	Averaged	
Vinyl Acetate	1.09037	1.36519	1.36519	0.010	-25.20508	50.0	Averaged	
1,1-Dichloroethane	0.74536	0.74583	0.74583	0.200	-0.06301	50.0	Averaged	
2-Butanone	100	108	0.16180	0.100	-8.46099	50.0	Linear	
2,2-Dichloropropane	0.63286	0.61106	0.61106	0.100	3.44322	50.0	Averaged	
cis-1,2-Dichloroethene	0.51686	0.48070	0.48070	0.100	6.99513	50.0	Averaged	
Chloroform	0.83541	0.79639	0.79639	0.200	4.67067	50.0	Averaged	
Bromochloromethane	0.28299	0.25586	0.25586	0.100	9.58603	50.0	Averaged	
Dibromofluoromethane	50.0	47.21032	0.45340	0.100	5.57936	50.0	Linear	
1,1,1-Trichloroethane	0.66283	0.60156	0.60156	0.100	9.24283	50.0	Averaged	
1,1-Dichloropropene	0.35497	0.33291	0.33291	0.100	6.21613	50.0	Averaged	
1,2-Dichloroethane	0.40967	0.41474	0.41474	0.100	-1.23919	50.0	Averaged	
Carbon Tetrachloride	0.37906	0.30249	0.30249	0.100	20.20159	50.0	Averaged	

Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder HS23030396

RunID VOA6_429719

Instrument ID voa6.i Injection Date 09-MAR-2023 1431
Lab File ID X030912.D ICAL Date(s) 16-DEC-2022 16-DEC-2022
Analysis Type WATER ICAL Times 1138 1507
Lab Sample ID CCV-END Quant Type ISTD

Compound	$\overline{RRF}$ / Amount	RF50	CCV RRF50	Min RRF	%D / %Drift	Max %D / %Drift	Curve Type	Q
1,2-Dichloroethane-d4	50.0	51.82355	0.52532	0.100	-3.64710	50.0	Linear	
Benzene	1.19399	1.13847	1.13847	0.500	4.64997	50.0	Averaged	
Trichloroethene	0.33865	0.29617	0.29617	0.200	12.54419	50.0	Averaged	
Bromodichloromethane	0.44810	0.41106	0.41106	0.200	8.26581	50.0	Averaged	
2-Chloroethylvinyl ether	0.12748	0.11643	0.11643	0.001	8.66681	50.0	Averaged	
1,2-Dichloropropane	0.31761	0.31949	0.31949	0.100	-0.59296	50.0	Averaged	
Dibromomethane	0.21588	0.19794	0.19794	0.100	8.31034	50.0	Averaged	
4-Methyl-2-Pentanone	0.26725	0.30392	0.30392	0.100	-13.72110	50.0	Averaged	
cis-1,3-Dichloropropene	0.52625	0.53904	0.53904	0.200	-2.42967	50.0	Averaged	
Toluene-d8	1.23554	1.17077	1.17077	0.100	5.24201	50.0	Averaged	
Toluene	1.38201	1.27265	1.27265	0.400	7.91365	50.0	Averaged	
trans-1,3-Dichloropropene	0.43673	0.45318	0.45318	0.100	-3.76800	50.0	Averaged	
2-Hexanone	0.18183	0.19839	0.19839	0.100	-9.11053	50.0	Averaged	
1,1,2-Trichloroethane	0.27726	0.26375	0.26375	0.100	4.87070	50.0	Averaged	
1,3-Dichloropropane	0.54573	0.55419	0.55419	0.100	-1.55107	50.0	Averaged	
Dibromochloromethane	0.40016	0.37080	0.37080	0.100	7.33618	50.0	Averaged	
Tetrachloroethene	0.28594	0.23531	0.23531	0.200	17.70931	50.0	Averaged	
1,2-Dibromoethane	0.34665	0.33529	0.33529	0.100	3.27798	50.0	Averaged	
1-Chlorohexane	0.24163	0.20816	0.20816	0.100	13.85391	50.0	Averaged	
Chlorobenzene	0.98026	0.87568	0.87568	0.500	10.66795	50.0	Averaged	
1,1,1,2-Tetrachloroethane	0.36480	0.33534	0.33534	0.100	8.07575	50.0	Averaged	
Ethylbenzene	0.46175	0.41609	0.41609	0.100	9.88870	50.0	Averaged	
m,p-Xylenes	0.59525	0.53573	0.53573	0.100	10.00001	50.0	Averaged	
o-Xylene	0.58751	0.53245	0.53245	0.300	9.37102	50.0	Averaged	
Styrene	0.98473	0.94397	0.94397	0.300	4.13995	50.0	Averaged	
Bromoform	0.27722	0.25177	0.25177	0.100	9.18102	50.0	Averaged	
Isopropylbenzene	1.34224	1.19236	1.19236	0.100	11.16589	50.0	Averaged	
1,1,2,2-Tetrachloroethane	0.79693	0.77332	0.77332	0.300	2.96178	50.0	Averaged	
4-Bromofluorobenzene	50.0	50.01520	0.46197	0.100	-0.03040	50.0	Linear	
1,2,3-Trichloropropane	0.55636	0.64934	0.64934	0.100	-16.71310	50.0	Averaged	
n-Propylbenzene	2.76956	2.53413	2.53413	0.100	8.50057	50.0	Averaged	
Bromobenzene	0.82033	0.72250	0.72250	0.100	11.92502	50.0	Averaged	
1,3,5-Trimethylbenzene	2.04596	1.94045	1.94045	0.100	5.15678	50.0	Averaged	
2-Chlorotoluene	1.81741	1.73446	1.73446	0.100	4.56456	50.0	Averaged	

Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder HS23030396

RunID VOA6_429719

Instrument ID voa6.i Injection Date 09-MAR-2023 1431
Lab File ID X030912.D ICAL Date(s) 16-DEC-2022 16-DEC-2022
Analysis Type WATER ICAL Times 1138 1507
Lab Sample ID CCV-END Quant Type ISTD

Compound	$\overline{RRF}$ / Amount	RF50	CCV RRF50	Min RRF	%D / %Drift	Max %D / %Drift	Curve Type	Q
4-Chlorotoluene	2.07183	2.00439	2.00439	0.100	3.25504	50.0	Averaged	
tert-Butylbenzene	1.67475	1.50668	1.50668	0.100	10.03546	50.0	Averaged	
1,2,4-Trimethylbenzene	2.15277	2.03839	2.03839	0.100	5.31294	50.0	Averaged	
sec-Butylbenzene	2.22832	2.03595	2.03595	0.100	8.63265	50.0	Averaged	
p-Isopropyltoluene	1.99679	1.86103	1.86103	0.100	6.79861	50.0	Averaged	
1,3-Dichlorobenzene	1.36155	1.24753	1.24753	0.600	8.37431	50.0	Averaged	
1,4-Dichlorobenzene	1.48576	1.30034	1.30034	0.400	12.48017	50.0	Averaged	
n-Butylbenzene	50.0	41.16132	1.57169	0.500	17.67736	50.0	Linear	
1,2-Dichlorobenzene	1.40225	1.26155	1.26155	0.400	10.03410	50.0	Averaged	
1,2-Dibromo-3-Chloropropane	50.0	50.88261	0.12966	0.040	-1.76522	50.0	Linear	
1,2,4-Trichlorobenzene	0.88494	0.89461	0.89461	0.100	-1.09190	50.0	Averaged	
Hexachlorobutadiene	50.0	40.56035	0.31751	0.100	18.87930	50.0	Quadratic	
Naphthalene	2.01347	2.13958	2.13958	0.200	-6.26366	50.0	Averaged	
1,2,3-Trichlorobenzene	0.84755	0.84158	0.84158	0.010	0.70371	50.0	Averaged	
1,2-Dichloroethylene (total	0.47078	0.43333	0.43333	0.200	7.95575	50.0	Averaged	
Xylenes (total)	0.56589	0.50018	0.50018	0.100	11.61204	50.0	Averaged	
Cyclohexane	50.0	46.70071	0.46988	0.100	6.59857	50.0	Linear	
Freon TF	0.36703	0.26500	0.26500	0.100	27.80020	50.0	Averaged	
Methylcyclohexane	0.61204	0.71877	0.71877	0.100	-17.43778	50.0	Averaged	
Methyl Acetate	0.22499	0.29679	0.29679	0.100	-31.91493	50.0	Averaged	
Tert-butyl alcohol	0.03462	0.04106	0.04106	0.005	-18.58620	50.0	Averaged	
Isopropyl alcohol	0.01808	0.02335	0.02335	0.005	-29.13906	50.0	Averaged	

01182600

right solutions.
right partner.

Form 8

Internal Standard Area and RT Summary

Volatiles by EPA 8260

Workorder

HS23030396

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Monthly Effluent Samples

03/15/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Form 8 - Internal Standard Area and RT Summary

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder
HS23030396

RunID
VOA6_429719

		IS1				IS2				IS3				IS4			
Sample ID	File ID	Area		RT		Area		RT		Area		RT		Area		RT	
12-HOUR STD (CCV)	X030903	396693	#	4.18	#	626698	#	4.97	#	591391	#	7.67	#	320525	#	9.66	#
CCB	X030904	554395		4.18		794437		4.97		697728		7.67		343540		9.66	
VLCSW-230309	X030905	389968		4.18		615261		4.97		579746		7.67		321789		9.66	
VBLKW-230309	X030907	552444		4.18		795153		4.97		692385		7.67		351711		9.66	
HS23030396-03	X030908	556026		4.18		804071		4.97		704315		7.67		363266		9.66	
HS23030396-01	X030909	551458		4.18		802707		4.97		700767		7.67		355243		9.66	
HS23030396-01MS	X030910	549572		4.18		791201		4.97		685431		7.67		358334		9.66	
HS23030396-01MSD	X030911	547882		4.18		793615		4.97		700497		7.67		385343		9.66	
CCV-END	X030912	382606		4.18		611050		4.97		571674		7.67		315288		9.66	

IS1 - Pentafluorobenzene IS2 - 1,4-Difluorobenzene IS3 - Chlorobenzene-d5 IS4 - 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of 12H STD IS Area
AREA LOWER LIMIT = - 50% of 12H STD IS Area
RT - Retention Time IS - Internal Standard

RT UPPER LIMIT = + 0.50 of 12H STD IS RT
RT LOWER LIMIT = - 0.50 of 12H STD IS RT
CCV - Continuing Calibration Verification

- Area or RT Limit Flag
* - Value Outside Area or RT limits
H - Hour STD - Standard

01182602

right solutions.
right partner.

Analysis Run Log

Volatiles by EPA 8260

Workorder

HS23030396

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Monthly Effluent Samples

03/15/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Form 13 - Analysis Run Log

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder
HS23030396

RunID
VOA6_424237

Run ID VOA6_424237 **Start Date** 12/16/22 **EndDate** 12/16/22

Inj. Time	Client Sample ID	Type	Lab Sample ID	File ID	Analysis Date	DF
11:17	BFB	TUNE	BFB	X121601.D	12/16/22	1
11:38	VSTD000.25	ICAL1	VSTD000.25	X121602.D	12/16/22	1
12:20	VSTD000.5	ICAL2	VSTD000.5	X121603.D	12/16/22	1
12:41	VSTD001	ICAL3	VSTD001	X121604.D	12/16/22	1
13:02	VSTD002	ICAL4	VSTD002	X121605.D	12/16/22	1
13:23	VSTD005	ICAL5	VSTD005	X121606.D	12/16/22	1
13:43	VSTD020	ICAL6	VSTD020	X121607.D	12/16/22	1
14:04	VSTD050	ICAL7	VSTD050	X121608.D	12/16/22	1
14:25	VSTD100	ICAL8	VSTD100	X121609.D	12/16/22	1
14:46	VSTD150	ICAL9	VSTD150	X121610.D	12/16/22	1
15:07	VSTD200	ICAL	VSTD200	X121611.D	12/16/22	1
15:49	CCV	ICV	CCV	X121613.D	12/16/22	1

Form 13 - Analysis Run Log

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder
HS23030396

RunID
VOA6_429719

Run ID VOA6_429719 **Start Date** 03/09/23 **EndDate** 03/09/23

Inj. Time	Client Sample ID	Type	Lab Sample ID	File ID	Analysis Date	DF
10:40	BFB	TUNE	BFB	X030901.D	03/09/23	1
11:22	CCV	CCV	CCV	X030903.D	03/09/23	1
11:43	CCB	CCB	CCB	X030904.D	03/09/23	1
12:04	VLCSW-230309	LCS	VLCSW-230309	X030905.D	03/09/23	1
12:46	VBLKW-230309	MBLK	VBLKW-230309	X030907.D	03/09/23	1
13:07	Trip Blank	SAMP	HS23030396-03	X030908.D	03/09/23	1
13:28	LH18/24-SP650_030723	SAMP	HS23030396-01	X030909.D	03/09/23	1
13:49	HS23030396-01MS	MS	HS23030396-01MS	X030910.D	03/09/23	1
14:10	HS23030396-01MSD	MSD	HS23030396-01MSD	X030911.D	03/09/23	1
14:31	CCV-END	CCV_END	CCV-END	X030912.D	03/09/23	1

01182605

right solutions.
right partner.

Raw Data VOA6 424237

Volatiles by EPA 8260

Workorder

HS23030396

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Monthly Effluent Samples

03/15/2023

ALS Environmental–Houston Laboratory

10450 Stancliff Road, Suite 210, Houston, TX 77099

Phone (281) 530-5656 Fax (281) 530-5887

www.alsglobal.com

Data File: \\NAHSTWS005\Target\chem\voa6.i\x221216.b\X121601.D Page 1
Report Date: 16-Dec-2022 12:08

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\x221216.b\X121601.D
Lab Smp Id: BFB Client Smp ID: BFB
Inj Date : 16-DEC-2022 11:17
Operator : PC Inst ID: voa6.i
Smp Info : BFB;BFB;3;;BFB
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\x221216.b\bfb.m
Meth Date : 01-Dec-2022 12:59 Linh.Pham Quant Type: ISTD
Cal Date : Cal File:
Als bottle: 1 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14 Sample Matrix: WATER
Processing Host: NAHSTW7051

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vf	1.000	Volumetric correction factor
Vi	2.000	Injection Volume
Cpnd Variable		Local Compound Variable

					CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/l)		
RT	EXP RT	REL RT	MASS	RESPONSE			TARGET RANGE	RATIO
1 bfb							CAS #: 460-00-4	
8.691	8.889	(0.000)	95	72328			0.00- 100.00	100.00
8.691	8.889	(0.000)	50	13272			15.00- 40.00	18.35
8.691	8.889	(0.000)	75	33368			30.00- 60.00	46.13
8.691	8.889	(0.000)	96	5178			5.00- 9.00	7.16
8.691	8.889	(0.000)	173	577			0.00- 2.00	0.90
8.691	8.889	(0.000)	174	64360			50.00- 0.00	88.98
8.691	8.889	(0.000)	175	5033			5.00- 9.00	7.82
8.691	8.889	(0.000)	176	63184			95.00- 101.00	98.17
8.691	8.889	(0.000)	177	4164			5.00- 9.00	6.59

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	18.35
75	30.00 - 60.00% of mass 95	46.13
96	5.00 - 9.00% of mass 95	7.16
173	Less than 2.00% of mass 174	0.80 (0.90)
174	Greater than 50.00% of mass 95	88.98
175	5.00 - 9.00% of mass 174	6.96 (7.82)
176	95.00 - 101.00% of mass 174	87.36 (98.17)
177	5.00 - 9.00% of mass 176	5.76 (6.59)

Data File: X121601.D
Spectrum: Scan 2160 (8.68)
Location of Maximum: 95.00
Number of points: 84

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.90	686	63.00	2521	93.00	2705	136.90	215
37.00	3051	64.10	316	94.00	9587	140.90	735
38.00	2957	66.90	155	95.00	72328	141.70	91
39.00	1321	67.90	6274	96.00	5178	142.80	683
39.90	1146	69.00	6990	96.90	213	145.60	119
42.00	114	69.90	604	103.00	58	148.00	107
42.90	301	71.80	385	104.00	313	149.80	105
44.00	1509	72.90	2986	104.70	125	153.80	54
45.00	716	74.00	11163	105.10	132	154.80	169
46.80	723	75.00	33368	105.90	451	156.80	155
48.00	503	76.00	3228	110.60	54	160.80	71
49.00	3278	76.90	395	113.00	74	171.60	83
50.00	13272	77.80	187	114.80	159	172.80	577
51.00	3648	78.90	2224	115.80	342	173.90	64360
52.10	365	79.80	718	116.90	386	174.90	5033
54.00	52	80.90	2158	117.90	425	175.90	63184
54.90	278	81.80	420	118.80	260	176.90	4164
56.00	1513	83.00	51	127.90	191	178.00	133
57.00	1763	86.90	2878	128.90	172		
59.90	665	87.80	2342	129.80	237		
61.00	3173	91.00	516	130.80	156		
62.00	3572	92.00	2006	134.70	222		

Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121601.D Page 1

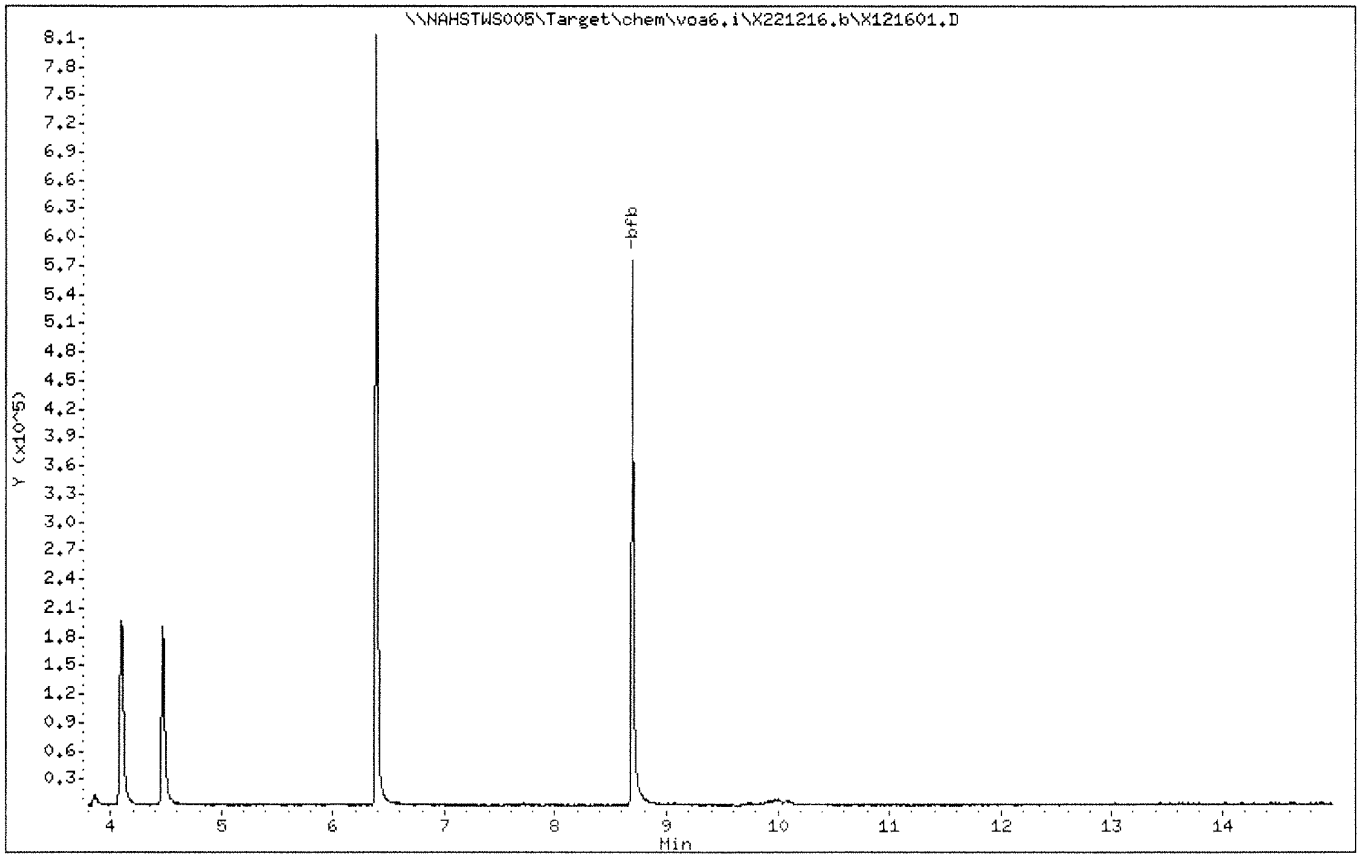
Date : 16-DEC-2022 11:17

Client ID: BFB Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0 Operator: PC

Column phase: DB624 Column diameter: 0.25



Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121601.D

Date : 16-DEC-2022 11:17

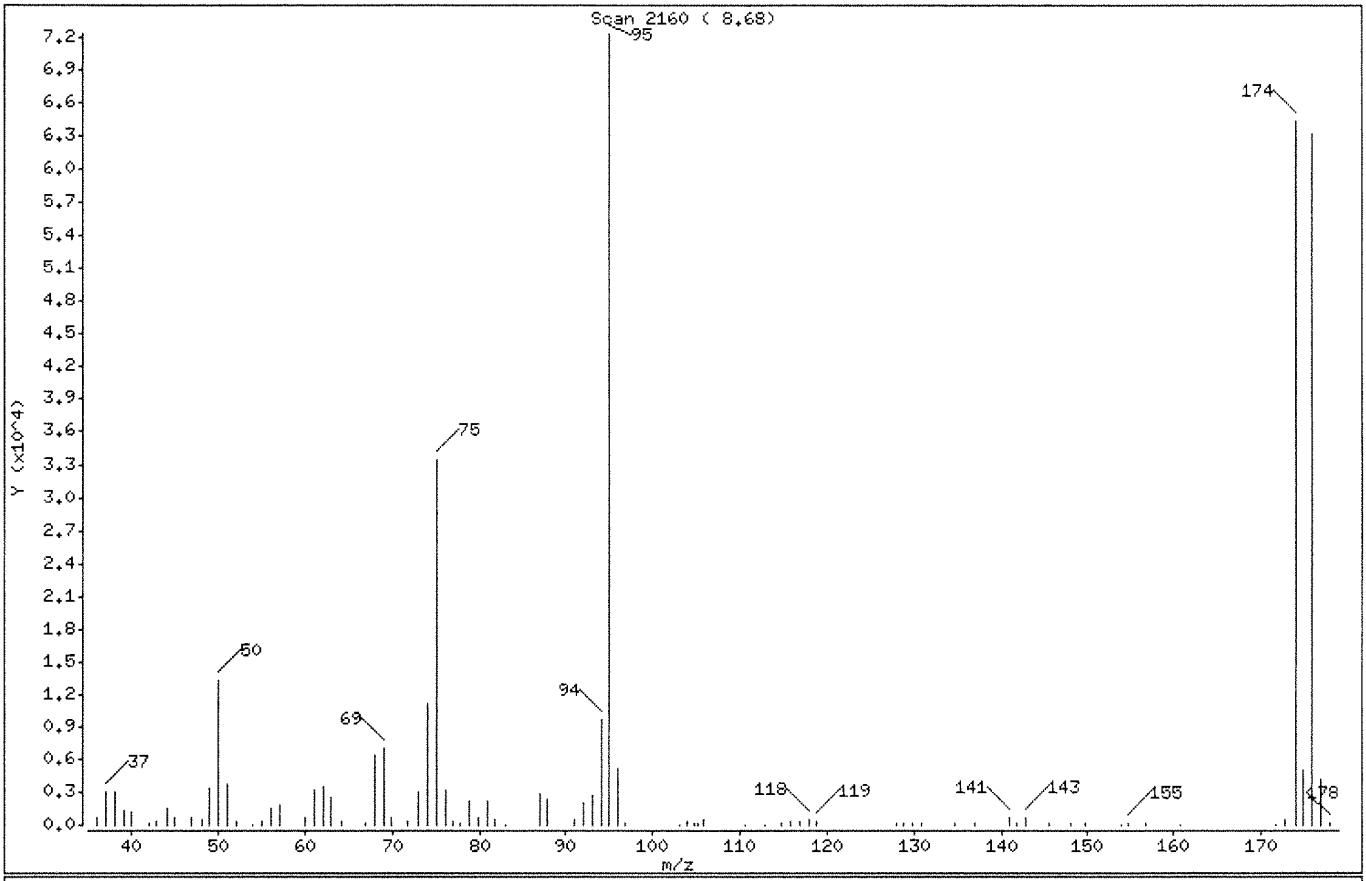
Client ID: BFB Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0 Operator: PC

Column phase: DB624 Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	18.35
75	30.00 - 60.00% of mass 95	46.13
96	5.00 - 9.00% of mass 95	7.16
173	Less than 2.00% of mass 174	0.80 (0.90)
174	Greater than 50.00% of mass 95	88.98
175	5.00 - 9.00% of mass 174	6.96 (7.82)
176	95.00 - 101.00% of mass 174	87.36 (98.17)
177	5.00 - 9.00% of mass 176	5.76 (6.59)

Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121601.D

Date : 16-DEC-2022 11:17

Client ID: BFB Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0 Operator: PC

Column phase: DB624 Column diameter: 0.25

Data File: X121601.D
Spectrum: Scan 2160 (8.68)
Location of Maximum: 95.00
Number of points: 84

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.90	686	63.00	2521	93.00	2705	136.90	215
37.00	3051	64.10	316	94.00	9587	140.90	735
38.00	2957	66.90	155	95.00	72328	141.70	91
39.00	1321	67.90	6274	96.00	5178	142.80	683
39.90	1146	69.00	6990	96.90	213	145.60	119
42.00	114	69.90	604	103.00	58	148.00	107
42.90	301	71.80	385	104.00	313	149.80	105
44.00	1509	72.90	2986	104.70	125	153.80	54
45.00	716	74.00	11163	105.10	132	154.80	169
46.80	723	75.00	33368	105.90	451	156.80	155
48.00	503	76.00	3228	110.60	54	160.80	71
49.00	3278	76.90	395	113.00	74	171.60	83
50.00	13272	77.80	187	114.80	159	172.80	577
51.00	3648	78.90	2224	115.80	342	173.90	64360
52.10	365	79.80	718	116.90	386	174.90	5033
54.00	52	80.90	2158	117.90	425	175.90	63184
54.90	278	81.80	420	118.80	260	176.90	4164
56.00	1513	83.00	51	127.90	191	178.00	133
57.00	1763	86.90	2878	128.90	172		
59.90	665	87.80	2342	129.80	237		
61.00	3173	91.00	516	130.80	156		
62.00	3572	92.00	2006	134.70	222		

Data File : \\NAHSTWS005\Target\chem\voa6.i\x221216.b\X121601.D
Inj Date : 16-DEC-2022 11:17
InstruID : voa6.i
LabSampID : BFB

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121602.D Page 1
Report Date: 27-Dec-2022 16:07

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121602.D
Lab Smp Id: VSTD000.25 Client Smp ID: VSTD000.25
Inj Date : 16-DEC-2022 11:38
Operator : PC Inst ID: voa6.i
Smp Info : VSTD000.25;VSTD000.25;1;1;
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\8260W.m
Meth Date : 27-Dec-2022 16:07 voa6.i Quant Type: ISTD
Cal Date : 16-DEC-2022 14:04 Cal File: X121608.D
Als bottle: 2 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260V6.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1	Pentafluorobenzene	168	4.178	4.178	(1.000)	461807	50.0000	
135	1,4-Dioxane	88	5.625	5.625	(1.346)	214	5.00000	5.06(M)
140	1,3-Butadiene	54	1.164	1.164	(0.279)	1172	0.25000	0.36
25	Methacrylonitrile	41	3.855	3.855	(0.923)	5876	0.25000	1.79
12	Isobutyl Alcohol	43	4.687	4.687	(1.122)	2537	5.00000	4.88(TM)
13	Acetonitrile	39	2.202	2.202	(0.527)	730	2.50000	1.73
14	Allyl Chloride	41	2.206	2.206	(0.528)	1591	0.25000	0.19
4	Propionitrile	54	3.702	3.702	(0.886)	1165	2.50000	2.47(M)
72	trans-1,4-Dichloro-2-butene	53	8.931	8.931	(1.164)	280	0.25000	0.19(M)
145	alpha-Methylstyrene	118	9.268	9.268	(0.959)	2322	0.25000	0.30
200	Dimethyl Disulfide	94	6.213	6.213	(0.810)	1870	0.25000	0.21
139	Diethyl ether	59	1.760	1.760	(0.421)	687	0.25000	0.22
49	Ethyl Methacrylate	69	6.738	6.738	(1.357)	625	0.25000	0.19
142	Tetrahydrofuran	42	3.836	3.836	(0.918)	358	0.50000	(M)
166	1,2,3-Trimethylbenzene	105	9.737	9.737	(1.008)	4360	0.25000	0.25
2	Dichlorodifluoromethane	85	0.969	0.969	(0.232)	801	0.25000	0.63(M)
3	Chloromethane	50	1.077	1.077	(0.258)	1420	0.25000	2.53
5	Vinyl Chloride	62	1.141	1.141	(0.273)	1134	0.25000	0.28(M)
6	Bromomethane	94	1.340	1.340	(0.321)	1009	0.25000	2.08(M)
8	Trichlorofluoromethane	101	1.561	1.561	(0.374)	1468	0.25000	0.26

10 Acetone	43	1.977	1.977 (0.473)	2727	0.50000	2.07
11 1,1-Dichloroethene	96	1.910	1.910 (0.457)	1010	0.25000	0.28(M)

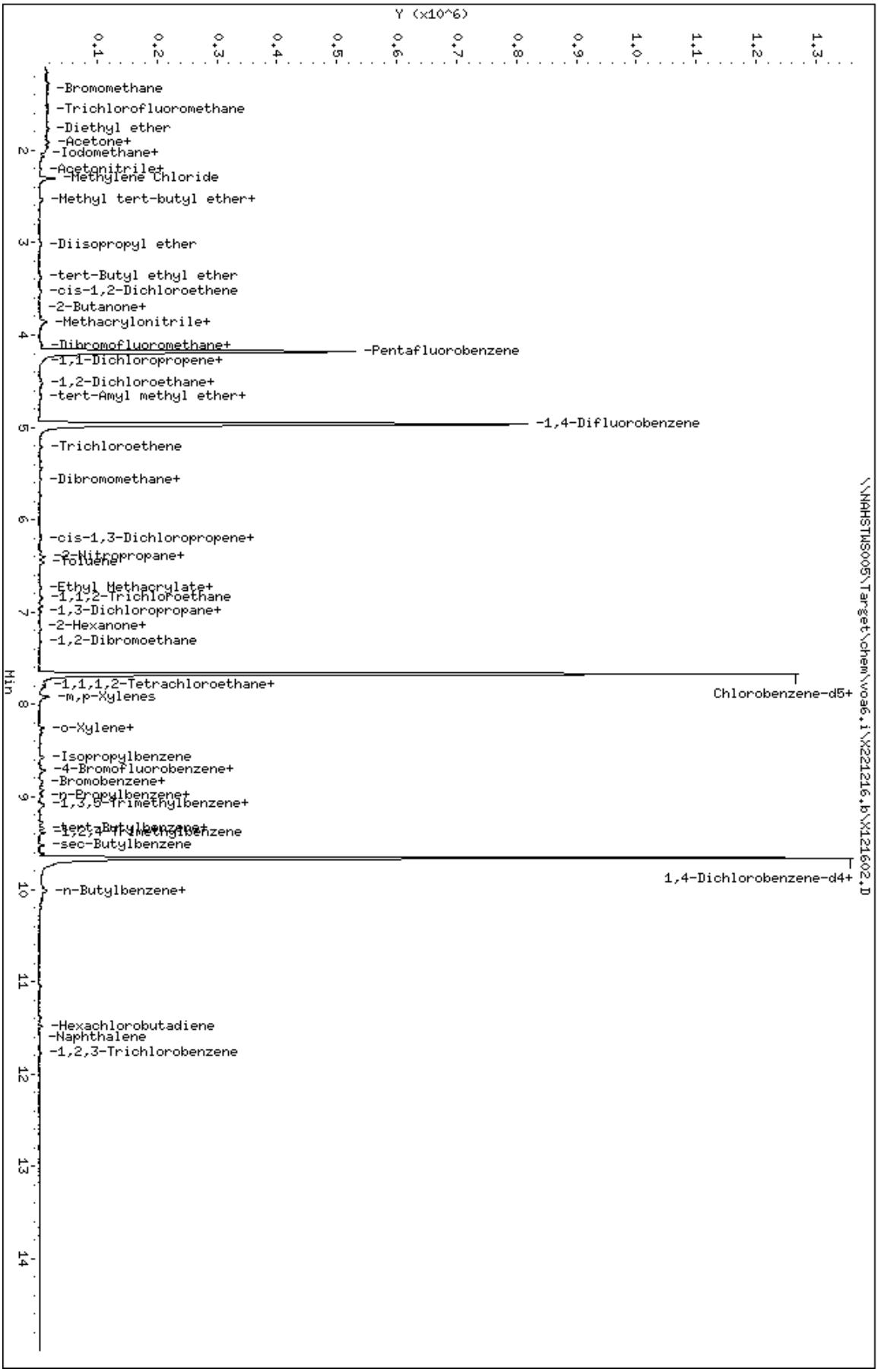
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
15	Iodomethane	142	2.026	2.026	(0.485)	1106	0.50000	3.56(T)
17	Methylene Chloride	84	2.292	2.292	(0.549)	1436	0.25000	0.29(M)
18	Methyl tert-butyl ether	73	2.536	2.536	(0.607)	2787	0.25000	0.24
19	Carbon Disulfide	76	2.071	2.071	(0.496)	5999	0.50000	0.65
20	trans-1,2-Dichloroethene	96	2.539	2.539	(0.608)	1302	0.25000	0.33
24	2-Butanone	43	3.698	3.698	(0.885)	1014	0.50000	3.74
27	cis-1,2-Dichloroethene	96	3.533	3.533	(0.846)	1402	0.25000	0.29
28	Chloroform	83	3.908	3.908	(0.935)	2553	0.25000	0.33
29	Bromochloromethane	128	3.799	3.799	(0.909)	802	0.25000	0.30(M)
$ 30	Dibromofluoromethane	113	4.103	4.103	(0.982)	1706	0.25000	0.21
31	1,1,1-Trichloroethane	97	4.076	4.076	(0.976)	1648	0.25000	0.26
32	1,1-Dichloropropene	75	4.286	4.286	(0.863)	2114	0.25000	0.43
33	1,2-Dichloroethane	62	4.571	4.571	(0.921)	2167	0.25000	0.38
34	Carbon Tetrachloride	117	4.256	4.256	(0.857)	1685	0.25000	0.32(M)
$ 35	1,2-Dichloroethane-d4	65	4.481	4.481	(1.073)	2260	0.25000	0.75(T)
* 36	1,4-Difluorobenzene	114	4.965	4.965	(1.000)	690224	50.0000	
37	Benzene	78	4.522	4.522	(0.911)	5768	0.25000	0.34
38	Trichloroethene	130	5.212	5.212	(1.050)	1544	0.25000	0.33
44	Dibromomethane	93	5.565	5.565	(1.121)	1046	0.25000	0.35
45	4-Methyl-2-Pentanone	43	6.352	6.352	(0.828)	2297	0.50000	0.65
46	cis-1,3-Dichloropropene	75	6.168	6.168	(1.242)	1839	0.25000	0.25
* 47	Chlorobenzene-d5	117	7.671	7.671	(1.000)	653787	50.0000	
$ 48	Toluene-d8	98	6.401	6.401	(0.834)	6828	0.25000	0.42(T)
50	Toluene	91	6.457	6.457	(0.842)	6778	0.25000	0.37
52	2-Hexanone	43	7.150	7.150	(0.932)	974	0.50000	0.40(T)
53	1,1,2-Trichloroethane	83	6.847	6.847	(0.893)	1098	0.25000	0.30
54	1,3-Dichloropropane	76	6.993	6.993	(0.912)	2278	0.25000	0.31
55	Dibromochloromethane	129	7.184	7.184	(0.936)	1732	0.25000	0.33
56	Tetrachloroethene	164	6.933	6.933	(0.904)	1051	0.25000	0.28
57	1,2-Dibromoethane	107	7.278	7.278	(0.949)	1100	0.25000	0.24
58	1-Chlorohexane	55	7.668	7.668	(1.544)	6570	0.25000	1.96
59	Chlorobenzene	112	7.694	7.694	(1.003)	3981	0.25000	0.31
60	1,1,1,2-Tetrachloroethane	131	7.780	7.780	(1.014)	1245	0.25000	0.26
61	Ethylbenzene	106	7.810	7.810	(1.018)	1854	0.25000	0.30
62	m,p-Xylenes	106	7.915	7.915	(1.032)	5083	0.50000	0.65
63	o-Xylene	106	8.252	8.252	(1.076)	2471	0.25000	0.32
64	Styrene	104	8.297	8.297	(1.082)	3214	0.25000	0.24
67	Isopropylbenzene	105	8.575	8.575	(1.118)	5495	0.25000	0.31
$ 69	4-Bromofluorobenzene	95	8.706	8.706	(1.135)	4271	0.25000	0.77
* 70	1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	348702	50.0000	
71	1,2,3-Trichloropropane	75	8.875	8.875	(0.919)	766	0.25000	0.19(M)
73	n-Propylbenzene	91	8.931	8.931	(0.924)	5570	0.25000	0.28
74	Bromobenzene	156	8.826	8.826	(0.913)	1517	0.25000	0.26
75	1,3,5-Trimethylbenzene	105	9.081	9.081	(0.940)	4893	0.25000	0.34
76	2-Chlorotoluene	91	8.991	8.991	(0.931)	4890	0.25000	0.38
77	4-Chlorotoluene	91	9.107	9.107	(0.943)	3881	0.25000	0.26
78	tert-Butylbenzene	119	9.343	9.343	(0.967)	4059	0.25000	0.34
79	1,2,4-Trimethylbenzene	105	9.392	9.392	(0.972)	5202	0.25000	0.34
81	sec-Butylbenzene	105	9.523	9.523	(0.986)	4818	0.25000	0.31
82	p-Isopropyltoluene	119	9.662	9.662	(1.000)	4406	0.25000	0.31
83	1,3-Dichlorobenzene	146	9.621	9.621	(0.996)	3005	0.25000	0.31
84	1,4-Dichlorobenzene	146	9.684	9.684	(1.002)	3674	0.25000	0.35

87	n-Butylbenzene	91	10.033	10.033 (1.038)	1595	0.25000	1.89
88	1,2-Dichlorobenzene	146	10.010	10.010 (1.036)	2937	0.25000	0.30

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	91 Hexachlorobutadiene	225	11.484	11.484	(1.189)	726	0.25000	0.21(M)
	92 Naphthalene	128	11.607	11.607	(1.201)	1969	0.25000	0.14
	93 1,2,3-Trichlorobenzene	180	11.769	11.769	(1.218)	1816	0.25000	0.30(M)
M	94 1,2-Dichloroethylene (total)	96				2704	0.50000	
M	95 Xylenes (total)	106				7554	0.75000	
	141 Cyclohexane	56	4.125	4.125	(0.987)	1235	0.25000	1.51(M)
	138 Freon TF	101	1.917	1.917	(0.459)	765	0.25000	0.22(M)

QC Flag Legend

T - Target compound detected outside RT window.
M - Compound response manually integrated.



Data File: \\NAHSTWS005\Target\chem\voa6,i\X221216,b\X121602,D
Date : 16-DEC-2022 11:38
Client ID: VSTD000,25
Sample Info: VSTD000,25;VSTD000,25;1;1;
Purge Volume: 5,0
Column phase: DB624

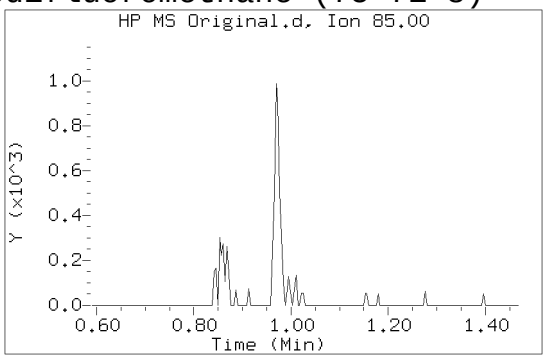
Instrument: voa6,i
Operator: PC
Column diameter: 0,18

Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121602.D
Inj Date : 16-DEC-2022 11:38
InstruID : voa6.i
LabSampID : VSTD000.25

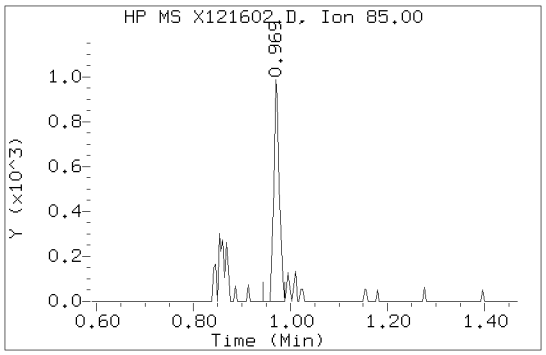
Dichlorodifluoromethane (75-71-8)

Reason Code:

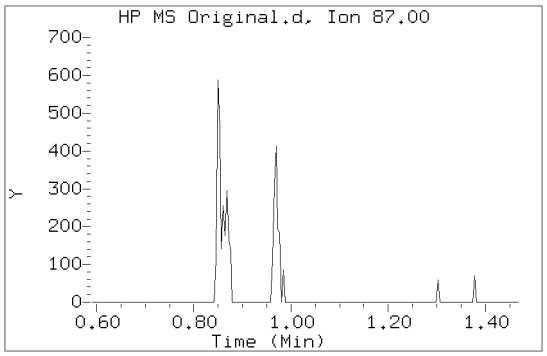
BEFORE
MASS
50
AREA
1420
HEIGHT
1809
16-Dec-2022
11:54
ALSHS
Server



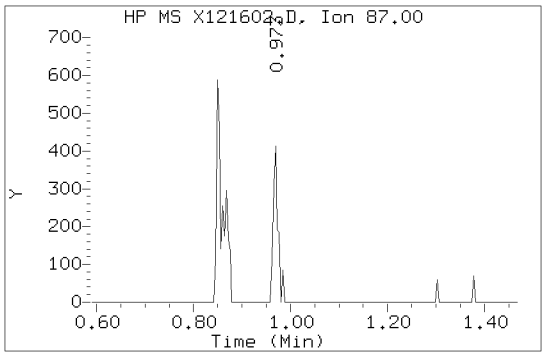
AFTER
MASS
85
AREA
801
HEIGHT
987
27-Dec-2022
16:07
ALSHS
Ser



BEFORE
MASS
52
AREA
731
HEIGHT
740
16-Dec-2022
11:54
ALSHS
Server



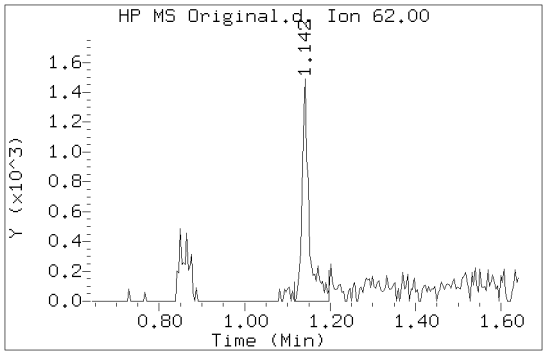
AFTER
MASS
87
AREA
0
HEIGHT
0
27-Dec-2022
16:07
ALSHS
Ser



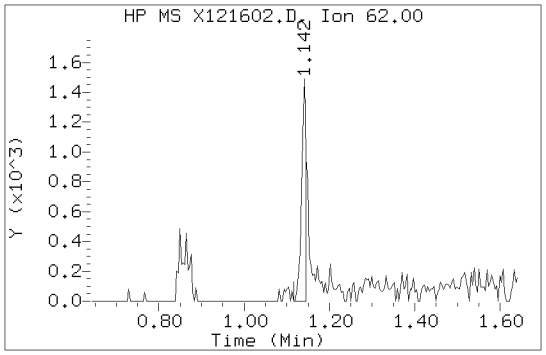
Vinyl Chloride (75-01-4)

Reason Code:

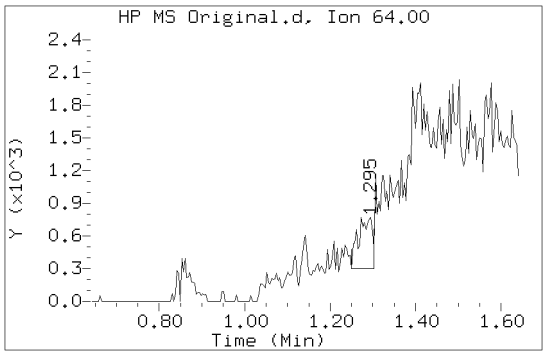
BEFORE
MASS
94
AREA
1572
HEIGHT
983
16-Dec-2022
11:54
ALSHS
Server



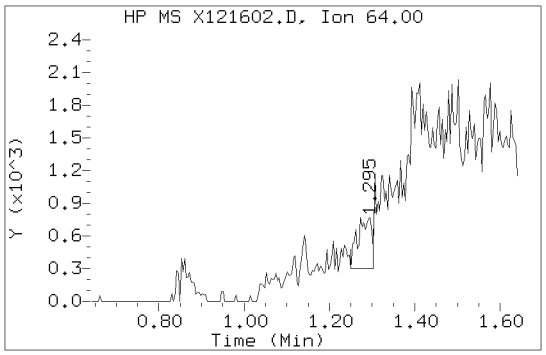
AFTER
MASS
62
AREA
1134
HEIGHT
1490
27-Dec-2022
16:07
ALSHS
Ser



BEFORE
MASS
96
AREA
1330
HEIGHT
961
16-Dec-2022
11:54
ALSHS
Server



AFTER
MASS
64
AREA
1053
HEIGHT
470
27-Dec-2022
16:07
ALSHS
Ser

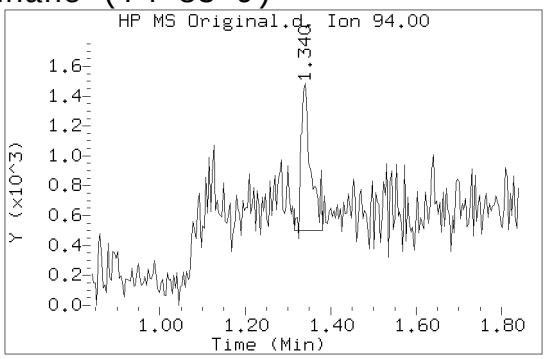


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121602.D
Inj Date : 16-DEC-2022 11:38
InstruID : voa6.i
LabSampID : VSTD000.25

Bromomethane (74-83-9)

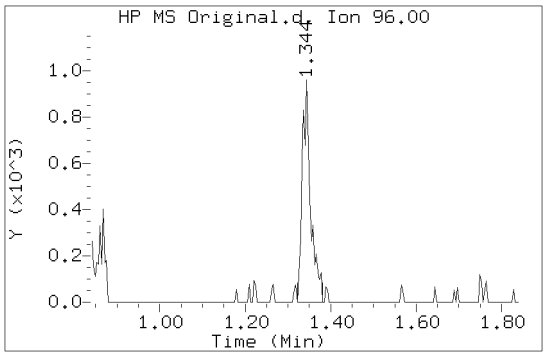
BEFORE

MASS
64
AREA
0
HEIGHT
0
16-Dec-2022
11:54
ALSHS
Server



BEFORE

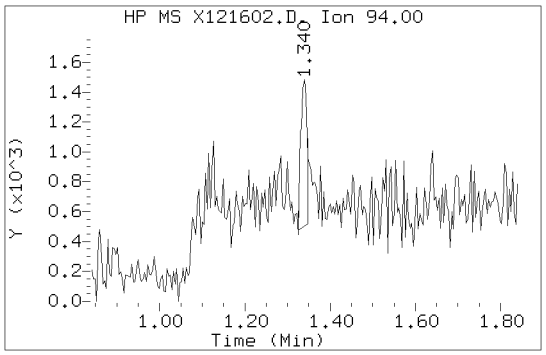
MASS
66
AREA
0
HEIGHT
0
16-Dec-2022
11:54
ALSHS
Server



Reason Code:

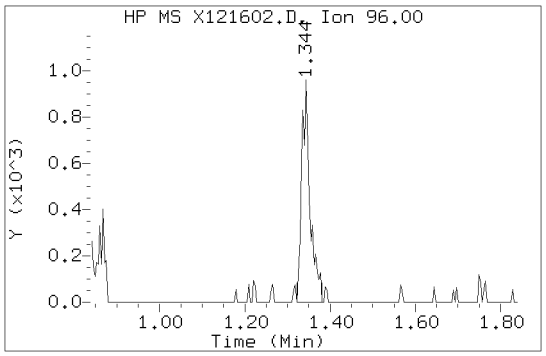
AFTER

MASS
94
AREA
1009
HEIGHT
977
27-Dec-2022
16:07
ALSHS
Ser



AFTER

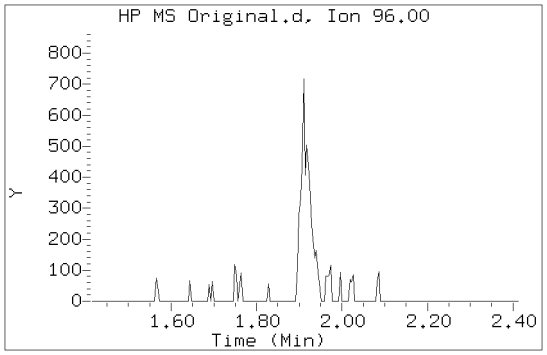
MASS
96
AREA
1330
HEIGHT
961
27-Dec-2022
16:07
ALSHS
Ser



1,1-Dichloroethene (75-35-4)

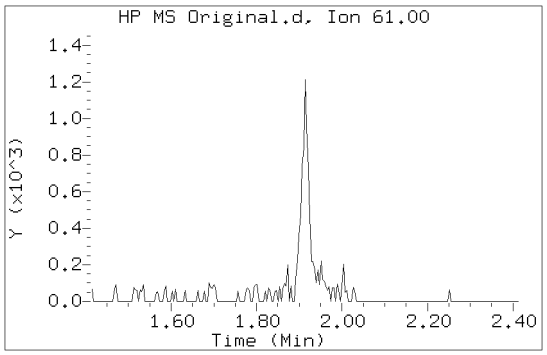
BEFORE

MASS
142
AREA
1106
HEIGHT
699
16-Dec-2022
11:54
ALSHS
Server



BEFORE

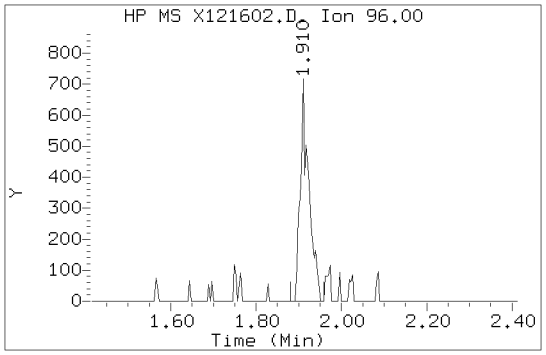
MASS
127
AREA
0
HEIGHT
0
16-Dec-2022
11:54
ALSHS
Server



Reason Code:

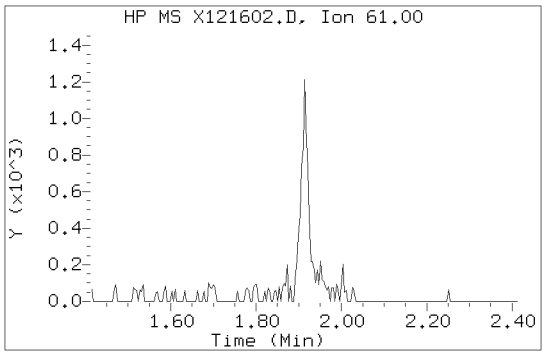
AFTER

MASS
96
AREA
1010
HEIGHT
717
27-Dec-2022
16:07
ALSHS
Ser



AFTER

MASS
61
AREA
0
HEIGHT
0
27-Dec-2022
16:07
ALSHS
Ser



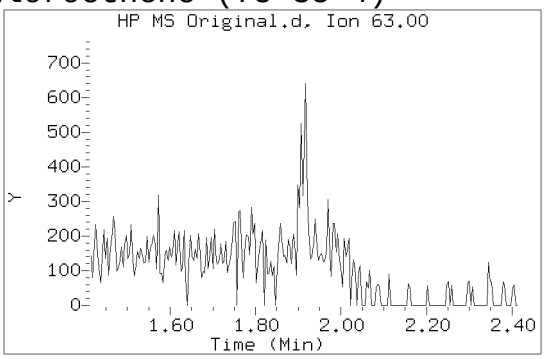
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121602.D
Inj Date : 16-DEC-2022 11:38
InstruID : voa6.i
LabSampID : VSTD000.25

1,1-Dichloroethene (75-35-4)

Reason Code:

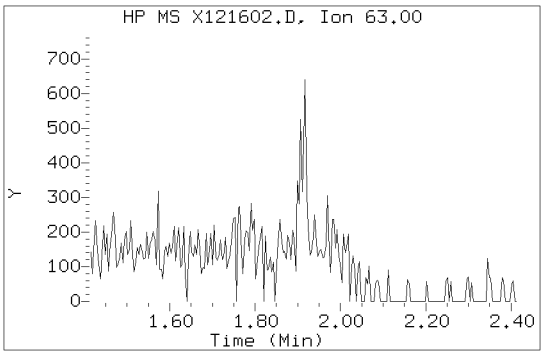
BEFORE

MASS
141
AREA
0
HEIGHT
0
16-Dec-2022
11:54
ALSHS
Server



AFTER

MASS
63
AREA
0
HEIGHT
0
27-Dec-2022
16:07
ALSHS
Ser

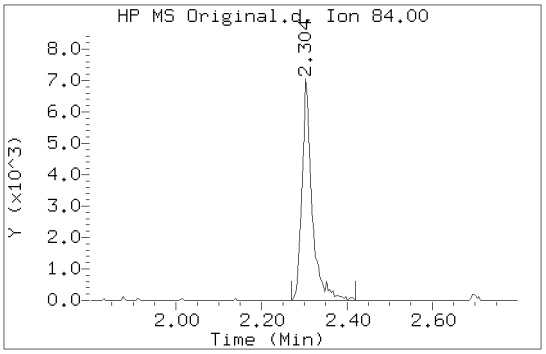


Methylene Chloride (75-09-2)

Reason Code:

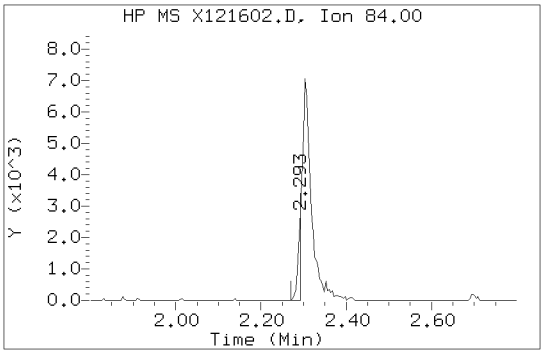
BEFORE

MASS
84
AREA
11777
HEIGHT
7057
16-Dec-2022
11:54
ALSHS
Server



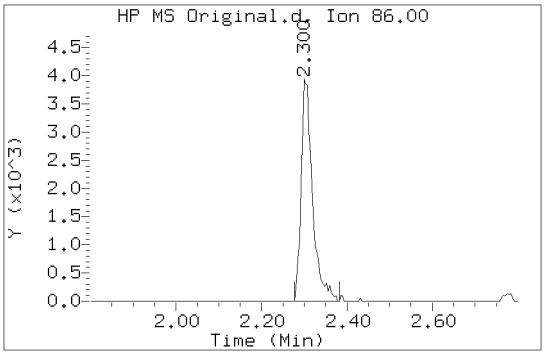
AFTER

MASS
84
AREA
1436
HEIGHT
2786
27-Dec-2022
16:07
ALSHS
Ser



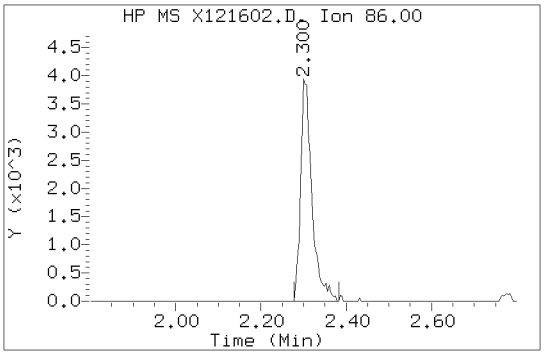
BEFORE

MASS
86
AREA
7453
HEIGHT
3944
16-Dec-2022
11:54
ALSHS
Server



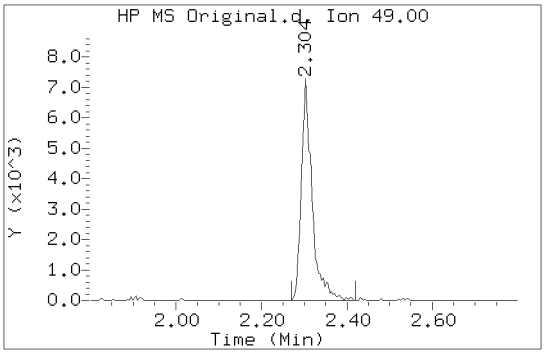
AFTER

MASS
86
AREA
7453
HEIGHT
3944
27-Dec-2022
16:07
ALSHS
Ser



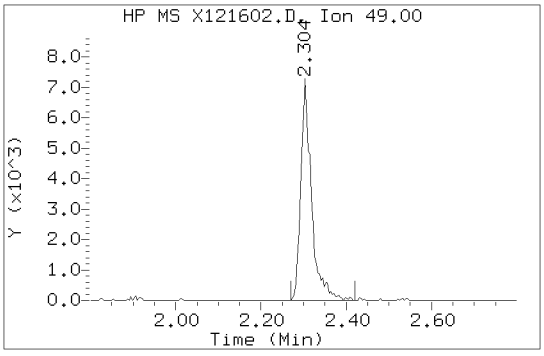
BEFORE

MASS
49
AREA
12974
HEIGHT
7289
16-Dec-2022
11:54
ALSHS
Server



AFTER

MASS
49
AREA
12974
HEIGHT
7289
27-Dec-2022
16:07
ALSHS
Ser



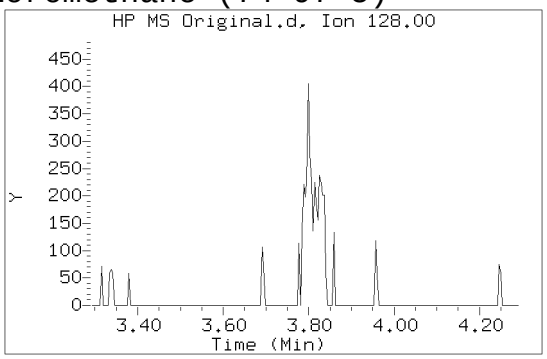
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121602.D
Inj Date : 16-DEC-2022 11:38
InstruID : voa6.i
LabSampID : VSTD000.25

Bromochloromethane (74-97-5)

Reason Code:

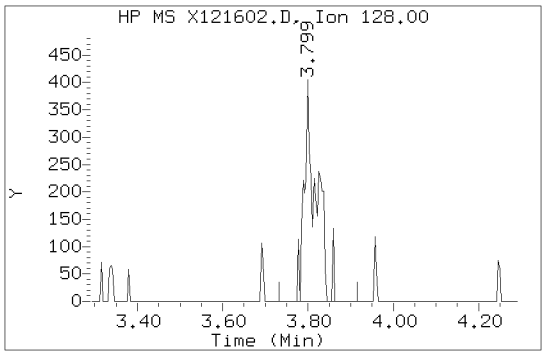
BEFORE

MASS
96
AREA
1402
HEIGHT
854
16-Dec-2022
11:54
ALSHS
Server



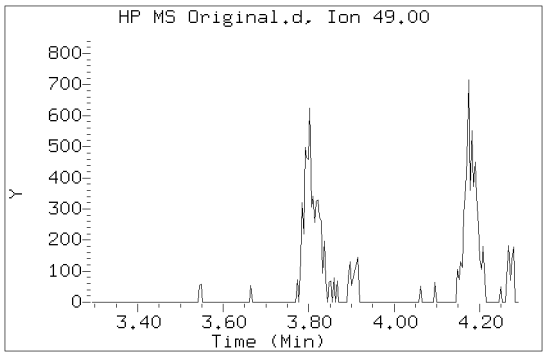
AFTER

MASS
128
AREA
802
HEIGHT
405
27-Dec-2022
16:07
ALSHS
Ser



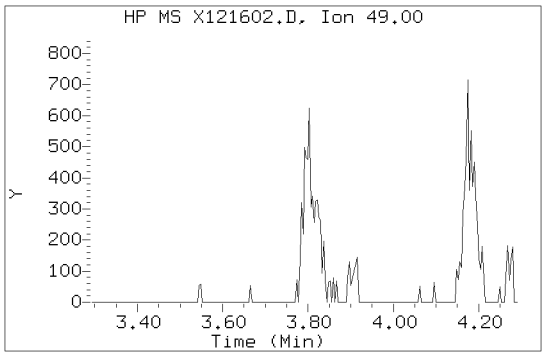
BEFORE

MASS
61
AREA
1975
HEIGHT
828
16-Dec-2022
11:54
ALSHS
Server



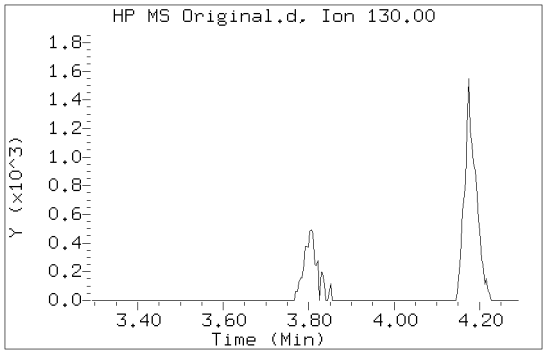
AFTER

MASS
49
AREA
0
HEIGHT
0
27-Dec-2022
16:07
ALSHS
Ser



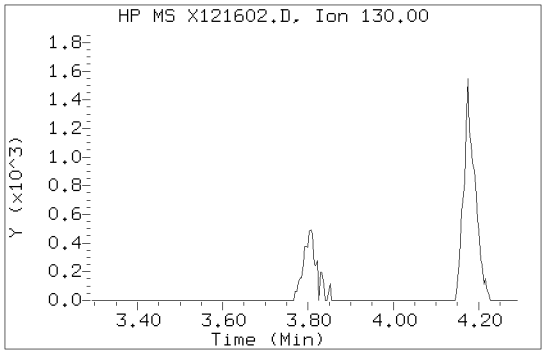
BEFORE

MASS
98
AREA
1027
HEIGHT
608
16-Dec-2022
11:54
ALSHS
Server



AFTER

MASS
130
AREA
0
HEIGHT
0
27-Dec-2022
16:07
ALSHS
Ser

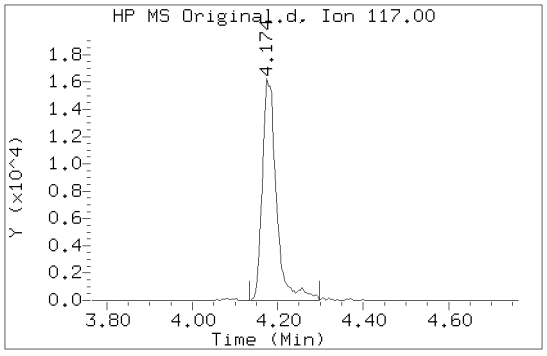


Carbon Tetrachloride (56-23-5)

Reason Code:

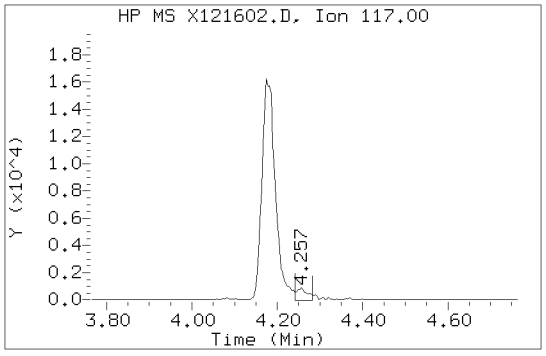
BEFORE

MASS
97
AREA
1700
HEIGHT
1016
16-Dec-2022
11:54
ALSHS
Server



AFTER

MASS
117
AREA
1685
HEIGHT
944
27-Dec-2022
16:07
ALSHS
Ser



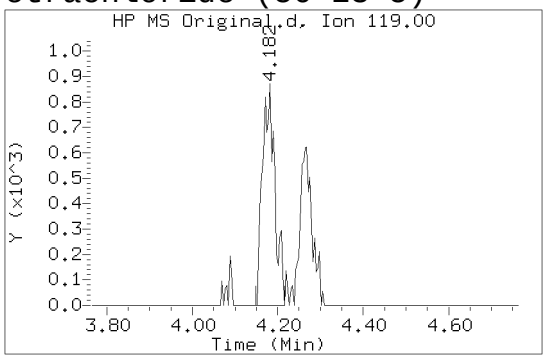
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121602.D
Inj Date : 16-DEC-2022 11:38
InstruID : voa6.i
LabSampID : VSTD000.25

Carbon Tetrachloride (56-23-5)

Reason Code:

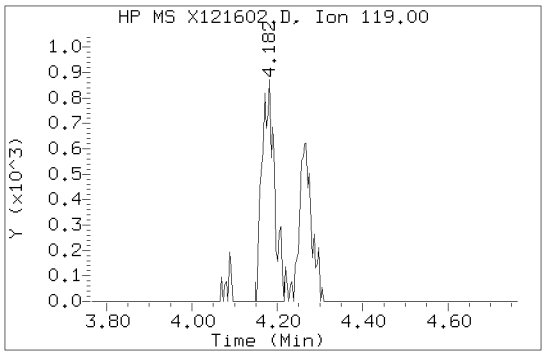
BEFORE

MASS
99
AREA
207130
HEIGHT
91368
16-Dec-2022
11:54
ALSHS
Server



AFTER

MASS
119
AREA
1748
HEIGHT
872
27-Dec-2022
16:07
ALSHS
Ser

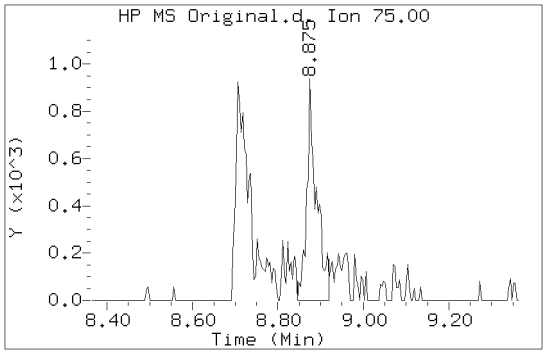


1,2,3-Trichloropropane (96-18-4)

Reason Code:

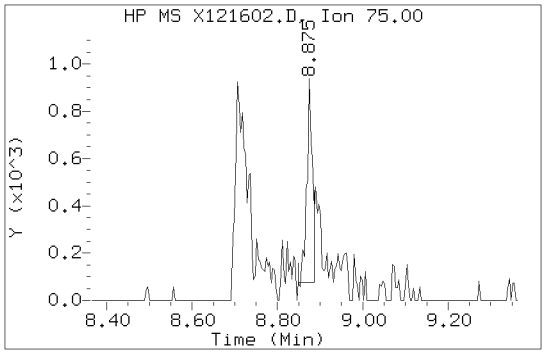
BEFORE

MASS
152
AREA
348702
HEIGHT
242350
16-Dec-2022
11:54
ALSHS
Server



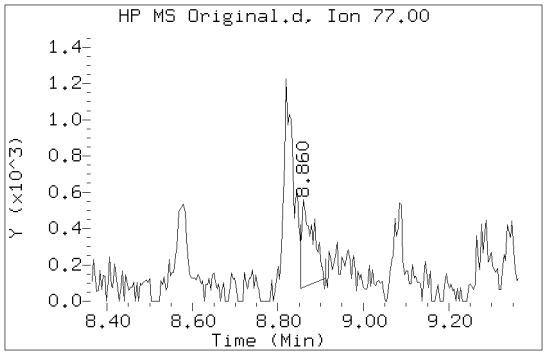
AFTER

MASS
75
AREA
766
HEIGHT
862
27-Dec-2022
16:07
ALSHS
Ser



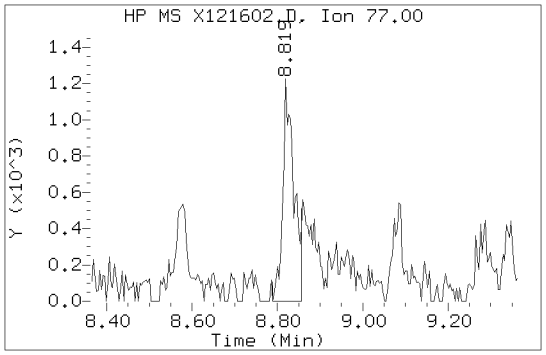
BEFORE

MASS
115
AREA
184413
HEIGHT
133835
16-Dec-2022
11:54
ALSHS
Server



AFTER

MASS
77
AREA
2223
HEIGHT
1225
27-Dec-2022
16:07
ALSHS
Ser

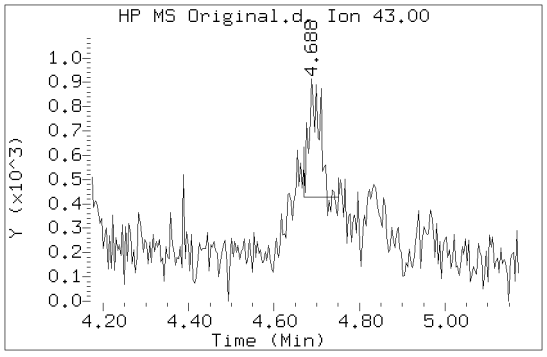


Isobutyl Alcohol (78-83-1)

Reason Code:

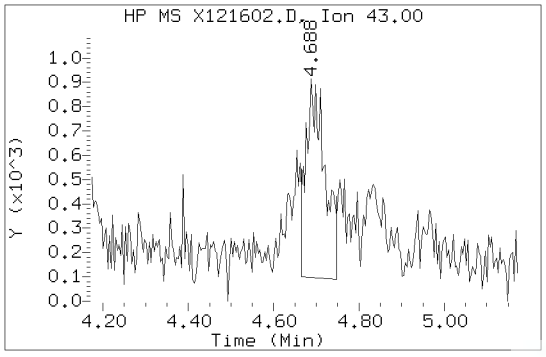
BEFORE

MASS
75
AREA
1475
HEIGHT
938
16-Dec-2022
11:54
ALSHS
Server



AFTER

MASS
43
AREA
2537
HEIGHT
816
27-Dec-2022
16:07
ALSHS
Ser

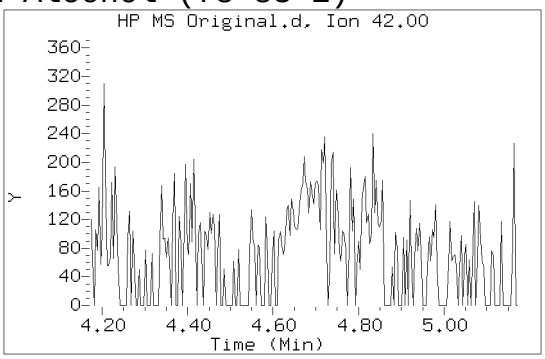


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121602.D
Inj Date : 16-DEC-2022 11:38
InstruID : voa6.i
LabSampID : VSTD000.25

Isobutyl Alcohol (78-83-1)

BEFORE

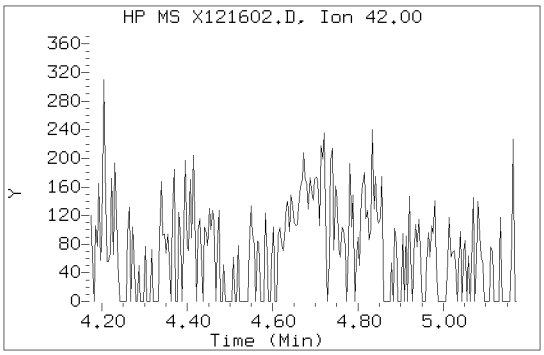
MASS
77
AREA
888
HEIGHT
483
16-Dec-2022
11:54
ALSHS
Server



Reason Code:

AFTER

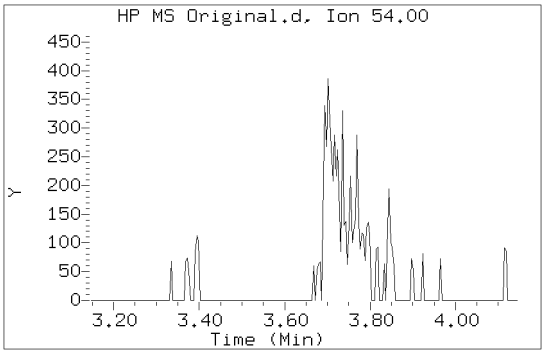
MASS
42
AREA
0
HEIGHT
0
27-Dec-2022
16:07
ALSHS
Ser



Propionitrile (107-12-0)

BEFORE

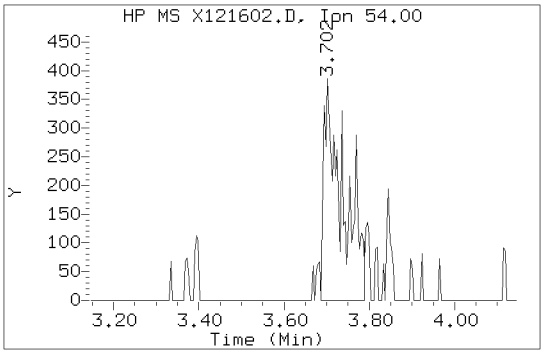
MASS
91
AREA
3881
HEIGHT
1822
16-Dec-2022
11:54
ALSHS
Server



Reason Code:

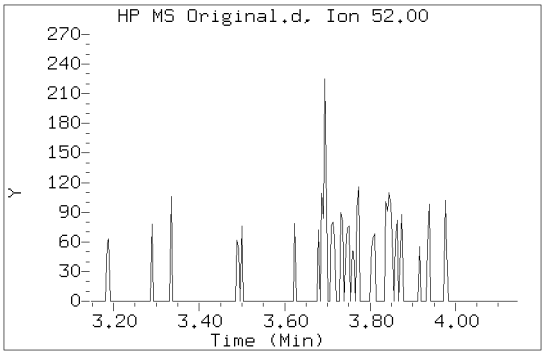
AFTER

MASS
54
AREA
1165
HEIGHT
386
27-Dec-2022
16:07
ALSHS
Ser



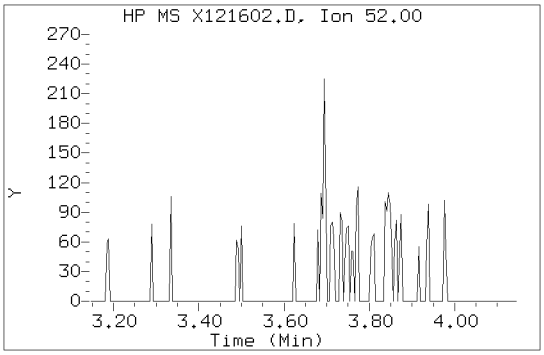
BEFORE

MASS
126
AREA
1511
HEIGHT
914
16-Dec-2022
11:54
ALSHS
Server



AFTER

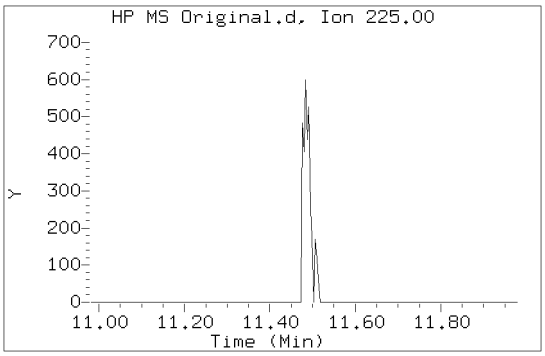
MASS
52
AREA
0
HEIGHT
0
27-Dec-2022
16:07
ALSHS
Ser



Hexachlorobutadiene (87-68-3)

BEFORE

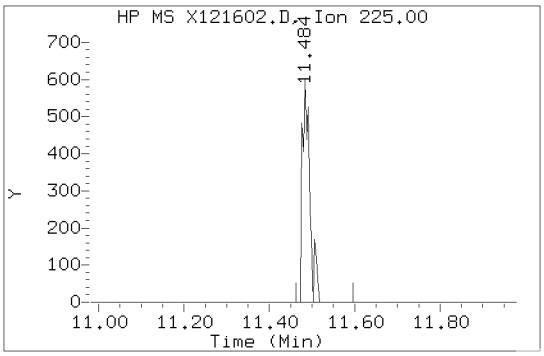
MASS
155
AREA
0
HEIGHT
0
16-Dec-2022
11:54
ALSHS
Server



Reason Code:

AFTER

MASS
225
AREA
726
HEIGHT
599
27-Dec-2022
16:07
ALSHS
Ser

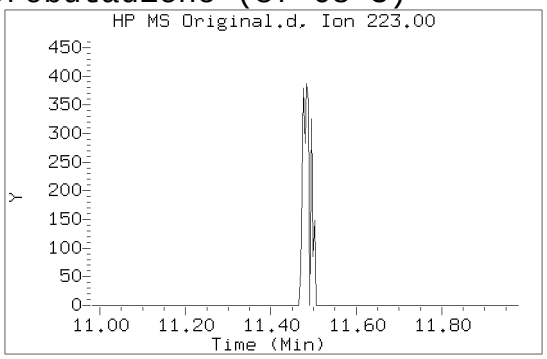


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121602.D
Inj Date : 16-DEC-2022 11:38
InstruID : voa6.i
LabSampID : VSTD000.25

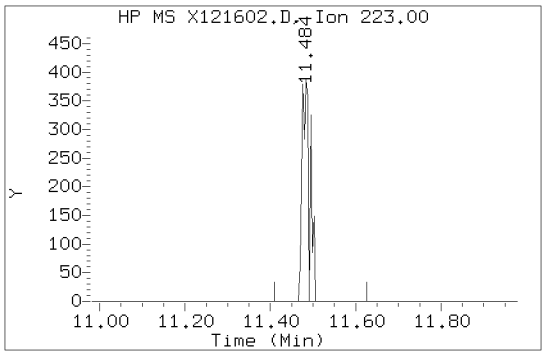
Hexachlorobutadiene (87-68-3)

Reason Code:

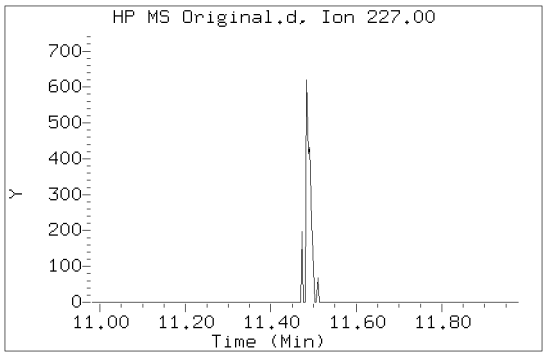
BEFORE
MASS
157
AREA
0
HEIGHT
0
16-Dec-2022
11:54
ALSHS
Server



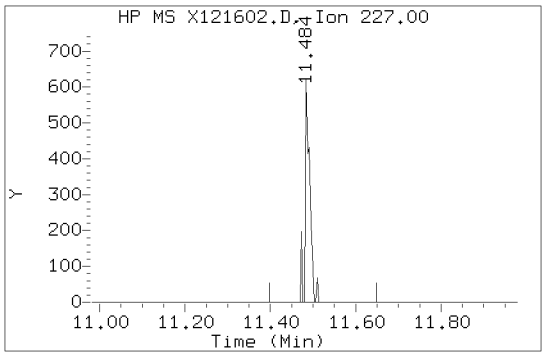
AFTER
MASS
223
AREA
502
HEIGHT
387
27-Dec-2022
16:07
ALSHS
Ser



BEFORE
MASS
75
AREA
0
HEIGHT
0
16-Dec-2022
11:54
ALSHS
Server



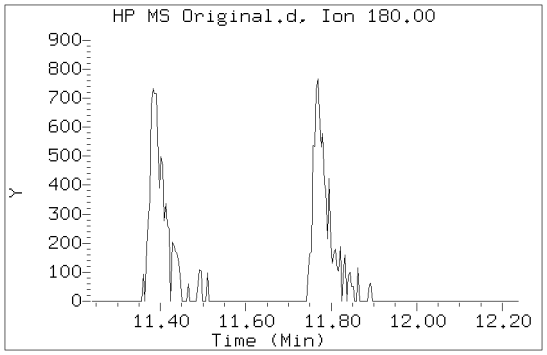
AFTER
MASS
227
AREA
469
HEIGHT
620
27-Dec-2022
16:07
ALSHS
Ser



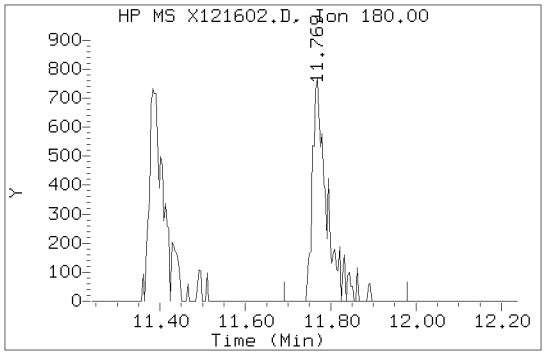
1,2,3-Trichlorobenzene (87-61-6)

Reason Code:

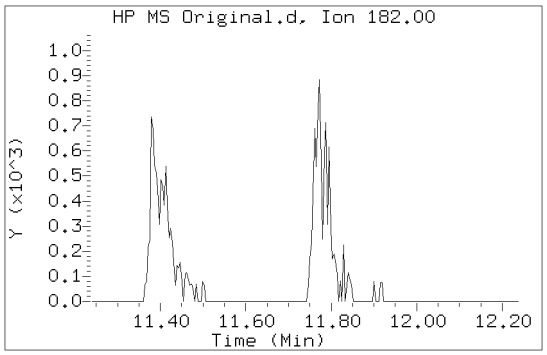
BEFORE
MASS
225
AREA
0
HEIGHT
0
16-Dec-2022
11:54
ALSHS
Server



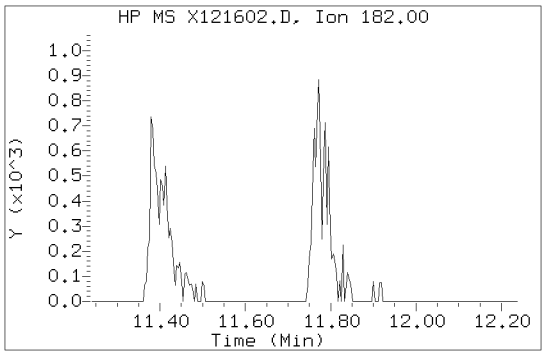
AFTER
MASS
180
AREA
1816
HEIGHT
766
27-Dec-2022
16:07
ALSHS
Ser



BEFORE
MASS
223
AREA
0
HEIGHT
0
16-Dec-2022
11:54
ALSHS
Server



AFTER
MASS
182
AREA
0
HEIGHT
0
27-Dec-2022
16:07
ALSHS
Ser

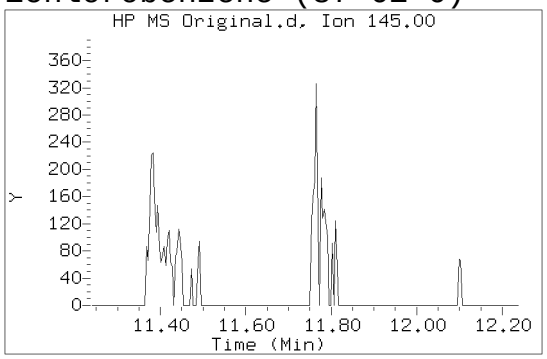


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121602.D
Inj Date : 16-DEC-2022 11:38
InstruID : voa6.i
LabSampID : VSTD000.25

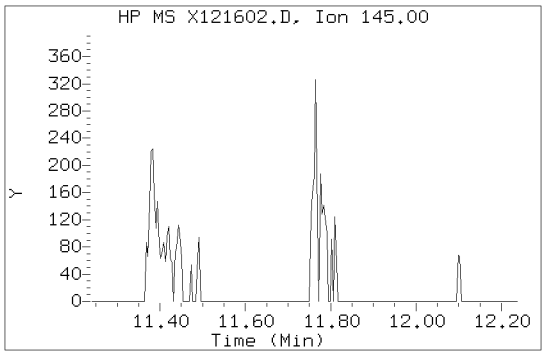
1,2,3-Trichlorobenzene (87-61-6)

Reason Code:

BEFORE
MASS
227
AREA
0
HEIGHT
0
16-Dec-2022
11:54
ALSHS
Server



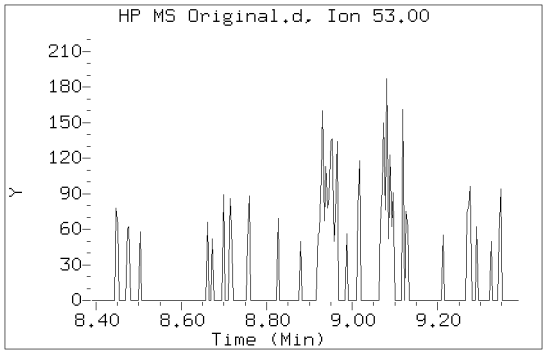
AFTER
MASS
145
AREA
0
HEIGHT
0
27-Dec-2022
16:07
ALSHS
Ser



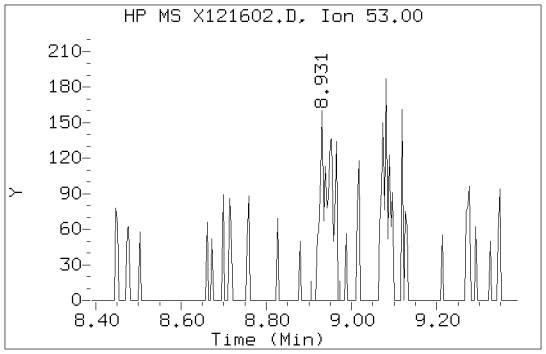
trans-1,4-Dichloro-2-butene (110-57-6)

Reason Code:

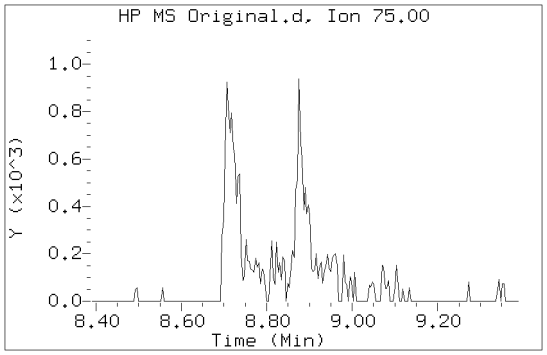
BEFORE
MASS
53
AREA
0
HEIGHT
0
16-Dec-2022
11:54
ALSHS
Server



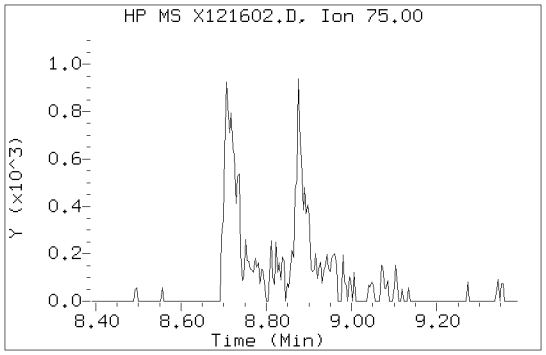
AFTER
MASS
53
AREA
280
HEIGHT
160
27-Dec-2022
16:07
ALSHS
Ser



BEFORE
MASS
88
AREA
0
HEIGHT
0
16-Dec-2022
11:54
ALSHS
Server



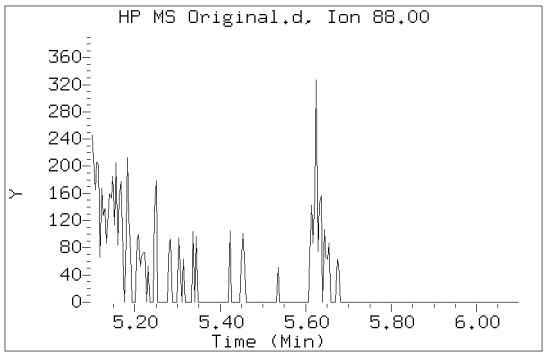
AFTER
MASS
75
AREA
0
HEIGHT
0
27-Dec-2022
16:07
ALSHS
Ser



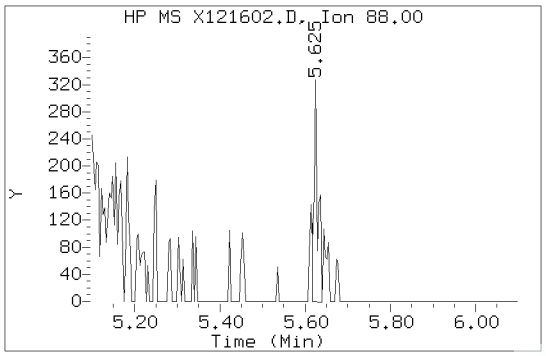
1,4-Dioxane ()

Reason Code:

BEFORE
MASS
57
AREA
0
HEIGHT
0
16-Dec-2022
11:54
ALSHS
Server



AFTER
MASS
88
AREA
214
HEIGHT
327
27-Dec-2022
16:07
ALSHS
Ser



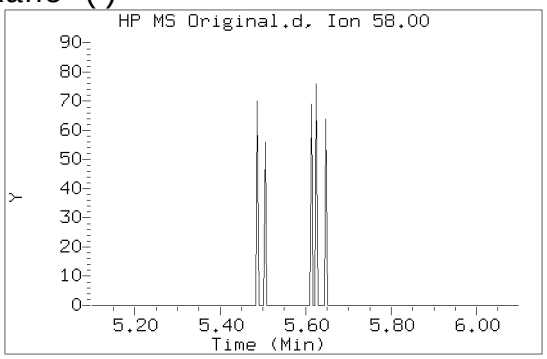
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121602.D
Inj Date : 16-DEC-2022 11:38
InstruID : voa6.i
LabSampID : VSTD000.25

1,4-Dioxane ()

Reason Code:

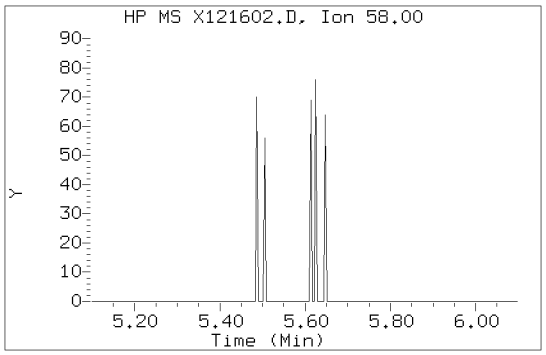
BEFORE

MASS
41
AREA
0
HEIGHT
0
16-Dec-2022
11:54
ALSHS
Server



AFTER

MASS
58
AREA
0
HEIGHT
0
27-Dec-2022
16:07
ALSHS
Ser

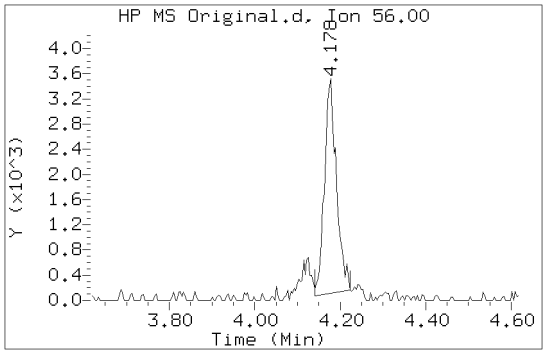


Cyclohexane (110-82-7)

Reason Code:

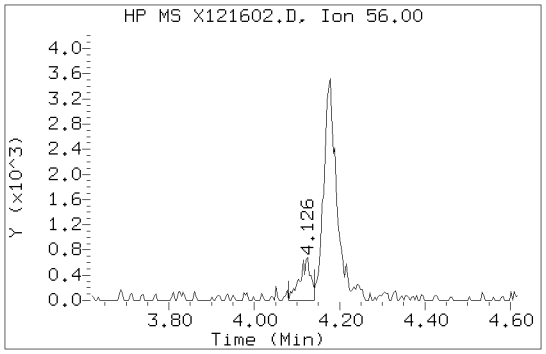
BEFORE

MASS
42
AREA
0
HEIGHT
0
16-Dec-2022
11:54
ALSHS
Server



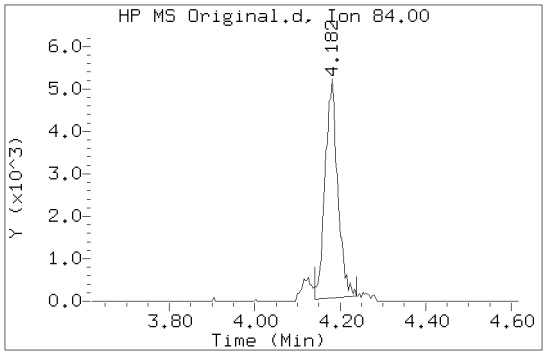
AFTER

MASS
56
AREA
1235
HEIGHT
682
27-Dec-2022
16:07
ALSHS
Ser



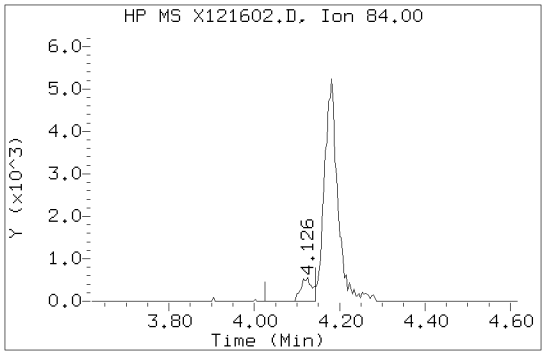
BEFORE

MASS
71
AREA
0
HEIGHT
0
16-Dec-2022
11:54
ALSHS
Server



AFTER

MASS
84
AREA
1062
HEIGHT
557
27-Dec-2022
16:07
ALSHS
Ser

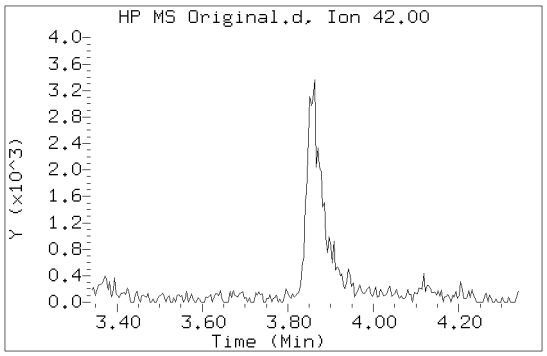


Tetrahydrofuran (109-99-9)

Reason Code:

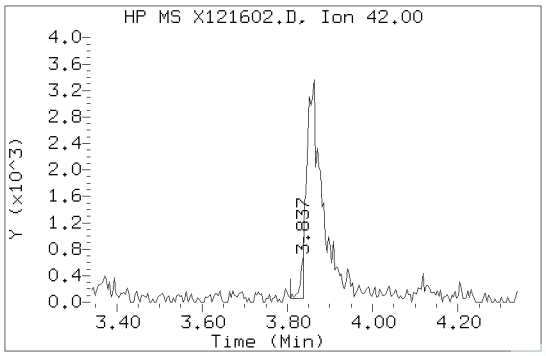
BEFORE

MASS
101
AREA
0
HEIGHT
0
16-Dec-2022
11:54
ALSHS
Server



AFTER

MASS
42
AREA
358
HEIGHT
628
27-Dec-2022
16:07
ALSHS
Ser



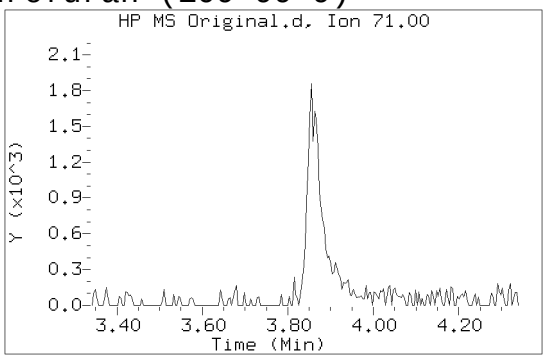
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121602.D
Inj Date : 16-DEC-2022 11:38
InstruID : voa6.i
LabSampID : VSTD000.25

Tetrahydrofuran (109-99-9)

Reason Code:

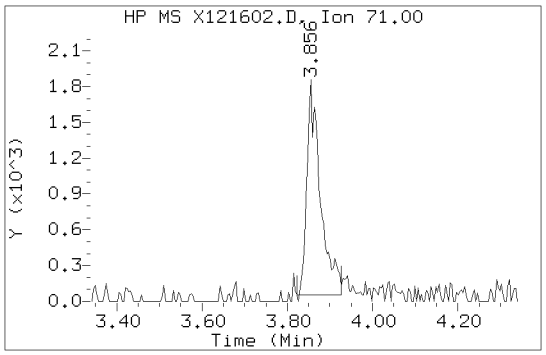
BEFORE

MASS
151
AREA
0
HEIGHT
0
16-Dec-2022
11:54
ALSHS
Server



AFTER

MASS
71
AREA
3962
HEIGHT
1803
27-Dec-2022
16:07
ALSHS
Ser

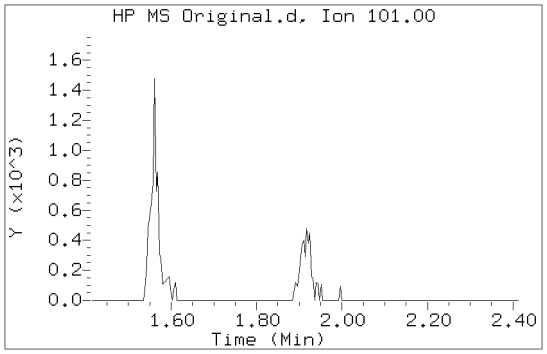


Freon TF (76-13-1)

Reason Code:

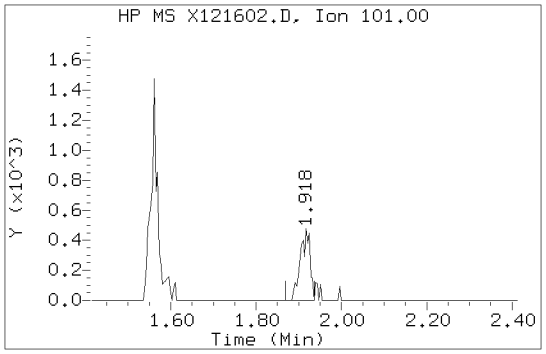
BEFORE

MASS
118
AREA
0
HEIGHT
0
16-Dec-2022
11:54
ALSHS
Server



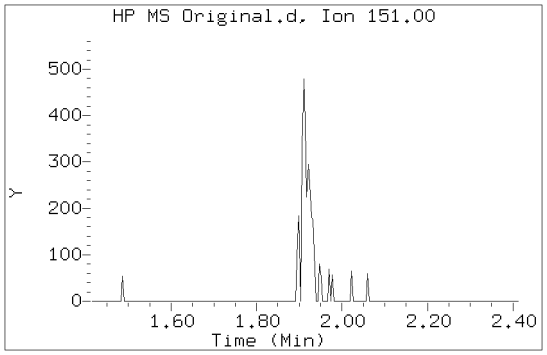
AFTER

MASS
101
AREA
765
HEIGHT
479
27-Dec-2022
16:07
ALSHS
Ser



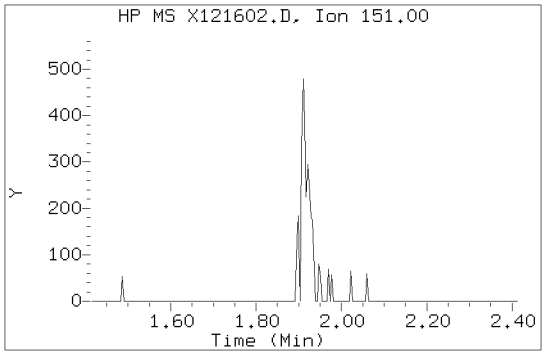
BEFORE

MASS
103
AREA
0
HEIGHT
0
16-Dec-2022
11:54
ALSHS
Server



AFTER

MASS
151
AREA
0
HEIGHT
0
27-Dec-2022
16:07
ALSHS
Ser



Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D Page 1
Report Date: 27-Dec-2022 16:07

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Lab Smp Id: VSTD000.5 Client Smp ID: VSTD000.5
Inj Date : 16-DEC-2022 12:20
Operator : PC Inst ID: voa6.i
Smp Info : VSTD000.5;VSTD000.5;1;2;
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\8260W.m
Meth Date : 27-Dec-2022 16:07 voa6.i Quant Type: ISTD
Cal Date : 16-DEC-2022 11:38 Cal File: X121602.D
Als bottle: 4 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260V6.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1	Pentafluorobenzene	168	4.178	4.178	(1.000)	461469	50.0000	
135	1,4-Dioxane	88	5.625	5.625	(1.346)	462	10.0000	10.95(M)
140	1,3-Butadiene	54	1.164	1.164	(0.279)	1793	0.50000	0.56(M)
25	Methacrylonitrile	41	3.848	3.848	(0.921)	2066	0.50000	0.63(M)
12	Isobutyl Alcohol	43	4.695	4.695	(1.124)	5178	10.0000	9.97(M)
13	Acetonitrile	39	2.210	2.210	(0.529)	2204	5.00000	5.24(M)
14	Allyl Chloride	41	2.206	2.206	(0.528)	4574	0.50000	0.57(M)
4	Propionitrile	54	3.686	3.686	(0.882)	2777	5.00000	5.89(M)
136	n-Hexane	57	2.772	2.772	(0.664)	1909	0.50000	0.57(M)
72	trans-1,4-Dichloro-2-butene	53	8.931	8.931	(1.165)	792	0.50000	0.56(M)
23	Chloroprene	53	1.771	1.771	(0.424)	900	0.50000	0.57(M)
145	alpha-Methylstyrene	118	9.272	9.272	(0.960)	4701	0.50000	0.60
200	Dimethyl Disulfide	94	6.202	6.202	(0.809)	5153	0.50000	0.59(M)
139	Diethyl ether	59	1.760	1.760	(0.421)	1864	0.50000	0.60
130	Ethyl Acetate	43	3.679	3.679	(0.881)	2065	0.50000	0.57(M)
40	Methyl Methacrylate	41	5.628	5.628	(1.347)	1788	0.50000	0.56(M)
49	Ethyl Methacrylate	69	6.727	6.727	(1.355)	1935	0.50000	0.59(M)
132	n-Butanol	56	5.291	5.291	(1.266)	622	10.0000	50.83(M)
142	Tetrahydrofuran	42	3.840	3.840	(0.919)	900	1.00000	(M)
150	Allyl alcohol	57	2.772	2.772	(0.664)	3089	10.0000	17.23

166 1,2,3-Trimethylbenzene	105	9.733	9.733 (1.007)	9626	0.50000	0.57(M)
131 Methyl Acrylate	55	3.743	3.743 (0.896)	1765	0.50000	0.56(M)

Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D Page 2
Report Date: 27-Dec-2022 16:07

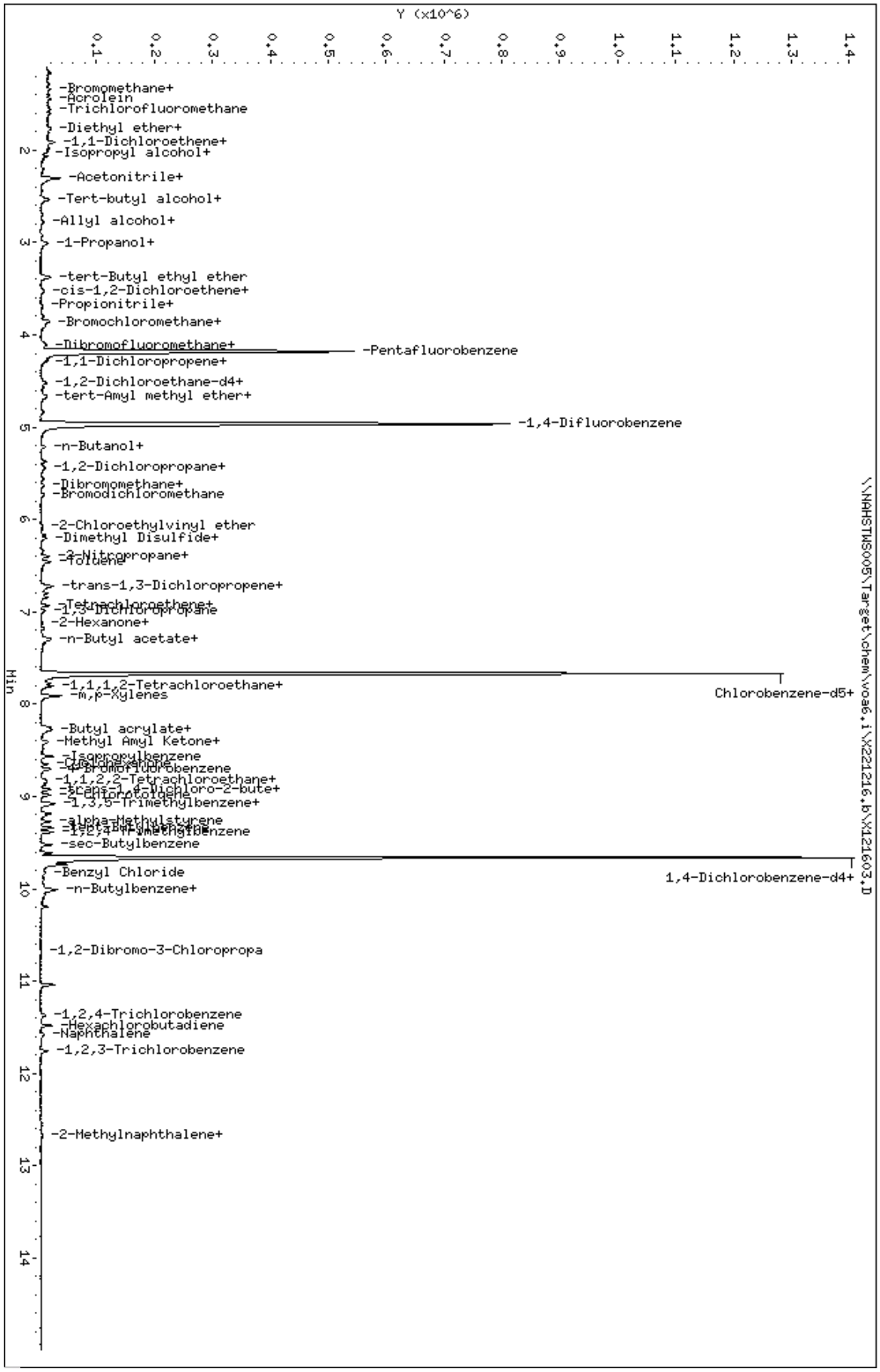
			QUANT SIG					AMOUNTS	
								CAL-AMT	ON-COL
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/l)	(ug/l)
	162	Butyl acrylate	55	8.271	8.271	(1.079)	4718	0.50000	0.55(M)
	2	Dichlorodifluoromethane	85	0.972	0.972	(0.233)	1990	0.50000	1.00(M)
	3	Chloromethane	50	1.077	1.077	(0.258)	2466	0.50000	2.77(M)
	5	Vinyl Chloride	62	1.141	1.141	(0.273)	2412	0.50000	0.59(M)
	6	Bromomethane	94	1.336	1.336	(0.320)	1893	0.50000	2.36(M)
	7	Chloroethane	64	1.407	1.407	(0.337)	1653	0.50000	0.58(M)
	8	Trichlorofluoromethane	101	1.561	1.561	(0.374)	3286	0.50000	0.58(M)
	9	Acrolein	56	1.441	1.441	(0.345)	440	1.00000	4.17(M)
	10	Acetone	43	1.977	1.977	(0.473)	2669	1.00000	2.02(M)
	11	1,1-Dichloroethene	96	1.913	1.913	(0.458)	2037	0.50000	0.58(M)
	15	Iodomethane	142	2.026	2.026	(0.485)	2397	1.00000	3.84(TM)
	16	Acrylonitrile	53	2.566	2.566	(0.614)	1118	1.00000	0.94(M)
	17	Methylene Chloride	84	2.296	2.296	(0.550)	2938	0.50000	0.61(M)
	18	Methyl tert-butyl ether	73	2.536	2.536	(0.607)	5841	0.50000	0.50(M)
	19	Carbon Disulfide	76	2.067	2.067	(0.495)	9921	1.00000	1.08(M)
	20	trans-1,2-Dichloroethene	96	2.543	2.543	(0.609)	2218	0.50000	0.56(M)
	21	Vinyl Acetate	43	3.023	3.023	(0.724)	10138	1.00000	1.00(M)
	22	1,1-Dichloroethane	63	2.926	2.926	(0.700)	3874	0.50000	0.56(M)
	24	2-Butanone	43	3.649	3.649	(0.873)	1292	1.00000	3.93(M)
	26	2,2-Dichloropropane	77	3.514	3.514	(0.841)	3238	0.50000	0.55(M)
	27	cis-1,2-Dichloroethene	96	3.544	3.544	(0.848)	2852	0.50000	0.59
	28	Chloroform	83	3.908	3.908	(0.935)	4040	0.50000	0.52(M)
	29	Bromochloromethane	128	3.799	3.799	(0.909)	1481	0.50000	0.56
$	30	Dibromofluoromethane	113	4.110	4.110	(0.984)	2321	0.50000	0.35
	31	1,1,1-Trichloroethane	97	4.084	4.084	(0.978)	3512	0.50000	0.57(M)
	32	1,1-Dichloropropene	75	4.290	4.290	(0.864)	2468	0.50000	0.50(M)
	33	1,2-Dichloroethane	62	4.567	4.567	(0.920)	3129	0.50000	0.55(M)
	34	Carbon Tetrachloride	117	4.264	4.264	(0.859)	2763	0.50000	0.52(MH)
$	35	1,2-Dichloroethane-d4	65	4.481	4.481	(1.073)	2849	0.50000	0.87(T)
*	36	1,4-Difluorobenzene	114	4.965	4.965	(1.000)	687671	50.0000	
	37	Benzene	78	4.519	4.519	(0.910)	9243	0.50000	0.56
	38	Trichloroethene	130	5.216	5.216	(1.051)	2583	0.50000	0.55(M)
	39	Bromodichloromethane	83	5.730	5.730	(1.154)	3650	0.50000	0.59(M)
	41	2-Chloroethylvinyl ether	63	6.071	6.071	(1.223)	1861	1.00000	1.06(M)
	42	1,2-Dichloropropane	63	5.441	5.441	(1.096)	2449	0.50000	0.56(M)
	44	Dibromomethane	93	5.557	5.557	(1.119)	1725	0.50000	0.58
	45	4-Methyl-2-Pentanone	43	6.337	6.337	(0.826)	3741	1.00000	1.08(M)
	46	cis-1,3-Dichloropropene	75	6.168	6.168	(1.242)	3695	0.50000	0.51(M)
*	47	Chlorobenzene-d5	117	7.668	7.668	(1.000)	645291	50.0000	
$	48	Toluene-d8	98	6.401	6.401	(0.835)	9525	0.50000	0.59
	50	Toluene	91	6.460	6.460	(0.843)	10374	0.50000	0.58(M)
	51	trans-1,3-Dichloropropene	75	6.697	6.697	(1.349)	3042	0.50000	0.50
	52	2-Hexanone	43	7.117	7.117	(0.928)	2580	1.00000	1.09
	53	1,1,2-Trichloroethane	83	6.839	6.839	(0.892)	2092	0.50000	0.58(M)
	54	1,3-Dichloropropane	76	6.993	6.993	(0.912)	4005	0.50000	0.56(M)
	55	Dibromochloromethane	129	7.180	7.180	(0.936)	2827	0.50000	0.54
	56	Tetrachloroethene	164	6.933	6.933	(0.904)	2131	0.50000	0.57(M)
	57	1,2-Dibromoethane	107	7.270	7.270	(0.948)	2340	0.50000	0.52(M)
	58	1-Chlorohexane	55	7.705	7.705	(1.552)	1829	0.50000	0.55(MH)
	59	Chlorobenzene	112	7.694	7.694	(1.003)	7747	0.50000	0.61
	60	1,1,1,2-Tetrachloroethane	131	7.784	7.784	(1.015)	2741	0.50000	0.58(M)
	61	Ethylbenzene	106	7.806	7.806	(1.018)	3064	0.50000	0.51(M)

62 m,p-Xylenes	106	7.911	7.911 (1.032)	9016	1.00000	1.17(M)
63 o-Xylene	106	8.252	8.252 (1.076)	4412	0.50000	0.58(M)

			QUANT SIG					AMOUNTS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
	64	Styrene	104	8.286	8.286	(1.081)	6634	0.50000	0.52(M)
	66	Bromoform	173	8.421	8.421	(1.098)	2013	0.50000	0.56(TM)
	67	Isopropylbenzene	105	8.567	8.567	(1.117)	8757	0.50000	0.50(M)
	68	1,1,2,2-Tetrachloroethane	83	8.845	8.845	(0.915)	3194	0.50000	0.57(M)
$	69	4-Bromofluorobenzene	95	8.706	8.706	(1.135)	3870	0.50000	0.71(M)
*	70	1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	347824	50.0000	
	71	1,2,3-Trichloropropane	75	8.871	8.871	(0.918)	2019	0.50000	0.52(M)
	73	n-Propylbenzene	91	8.923	8.923	(0.924)	11163	0.50000	0.57(M)
	74	Bromobenzene	156	8.818	8.818	(0.913)	3147	0.50000	0.55(M)
	75	1,3,5-Trimethylbenzene	105	9.073	9.073	(0.939)	7182	0.50000	0.50(M)
	76	2-Chlorotoluene	91	8.983	8.983	(0.930)	6718	0.50000	0.53(M)
	77	4-Chlorotoluene	91	9.088	9.088	(0.941)	7644	0.50000	0.53(M)
	78	tert-Butylbenzene	119	9.339	9.339	(0.967)	6389	0.50000	0.54(M)
	79	1,2,4-Trimethylbenzene	105	9.384	9.384	(0.971)	8496	0.50000	0.56(M)
	81	sec-Butylbenzene	105	9.523	9.523	(0.986)	7938	0.50000	0.51(M)
	82	p-Isopropyltoluene	119	9.651	9.651	(0.999)	7343	0.50000	0.52(M)
	83	1,3-Dichlorobenzene	146	9.613	9.613	(0.995)	4677	0.50000	0.49(M)
	84	1,4-Dichlorobenzene	146	9.681	9.681	(1.002)	5674	0.50000	0.54(M)
	86	Benzyl Chloride	91	9.831	9.831	(1.282)	3642	0.50000	3.03
	87	n-Butylbenzene	91	10.014	10.014	(1.036)	5149	0.50000	2.14(M)
	88	1,2-Dichlorobenzene	146	10.010	10.010	(1.036)	5504	0.50000	0.56(M)
	89	1,2-Dibromo-3-Chloropropane	155	10.678	10.678	(1.105)	441	0.50000	0.58(M)
	90	1,2,4-Trichlorobenzene	180	11.364	11.364	(1.176)	3187	0.50000	0.51(M)
	91	Hexachlorobutadiene	225	11.480	11.480	(1.188)	1477	0.50000	0.49(M)
	92	Naphthalene	128	11.581	11.581	(1.199)	7025	0.50000	0.50
	93	1,2,3-Trichlorobenzene	180	11.765	11.765	(1.218)	3572	0.50000	0.60(M)
M	94	1,2-Dichloroethylene (total)	96				5070	1.00000	
M	95	Xylenes (total)	106				13428	1.50000	
	141	Cyclohexane	56	4.114	4.114	(0.985)	2803	0.50000	1.84(M)
	138	Freon TF	101	1.917	1.917	(0.459)	1851	0.50000	0.54(M)
	147	Methylcyclohexane	55	5.415	5.415	(1.091)	4781	0.50000	0.56(M)
	146	Methyl Acetate	43	2.240	2.240	(0.536)	1269	0.50000	0.61(M)

QC Flag Legend

T - Target compound detected outside RT window.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.



Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Date : 16-DEC-2022 12:20
Client ID: VSTD000.5
Sample Info: VSTD000.5;VSTD000.5;1;2;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

\\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D

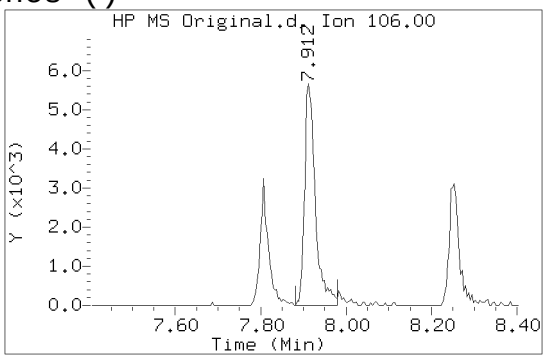
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

m,p-Xylenes ()

Reason Code:

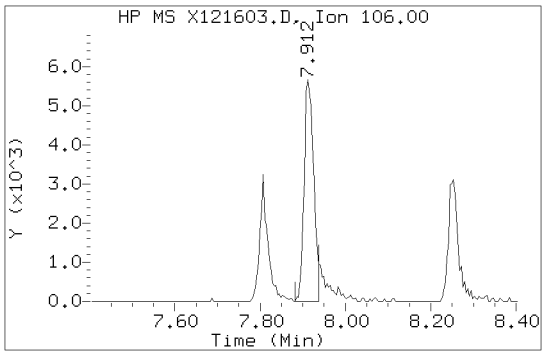
BEFORE

MASS
106
AREA
10070
HEIGHT
5666
27-Dec-2022
16:03
linh
pham



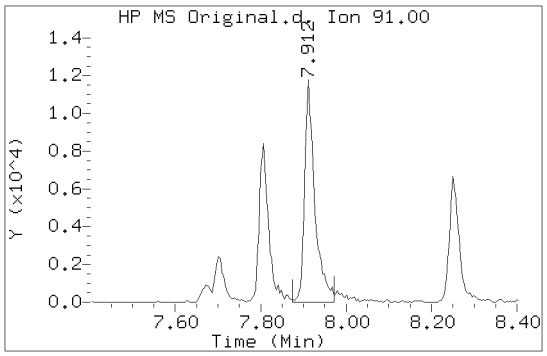
AFTER

MASS
106
AREA
9016
HEIGHT
5666
27-Dec-2022
16:07
linh
pham



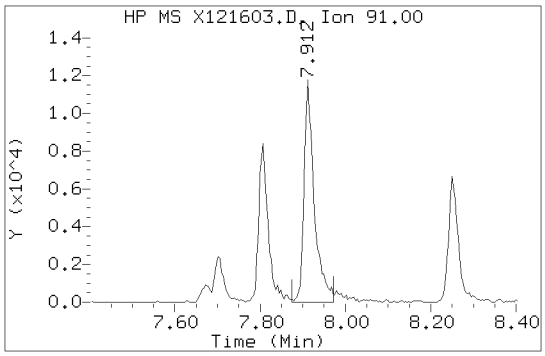
BEFORE

MASS
91
AREA
19887
HEIGHT
11768
27-Dec-2022
16:03
linh
pham



AFTER

MASS
91
AREA
19887
HEIGHT
11768
27-Dec-2022
16:07
linh
pham

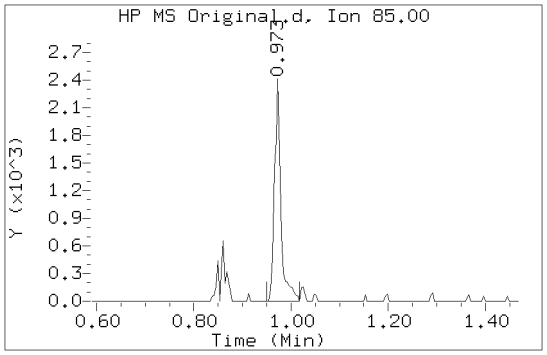


Dichlorodifluoromethane (75-71-8)

Reason Code:

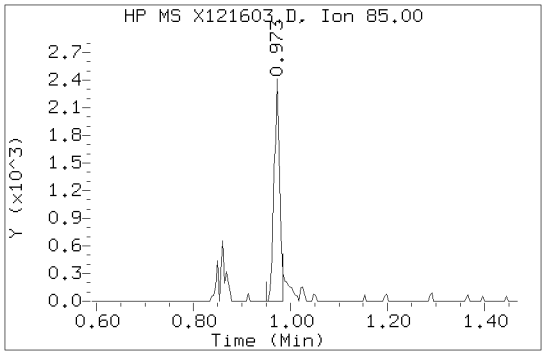
BEFORE

MASS
85
AREA
2242
HEIGHT
2413
27-Dec-2022
16:03
linh
pham



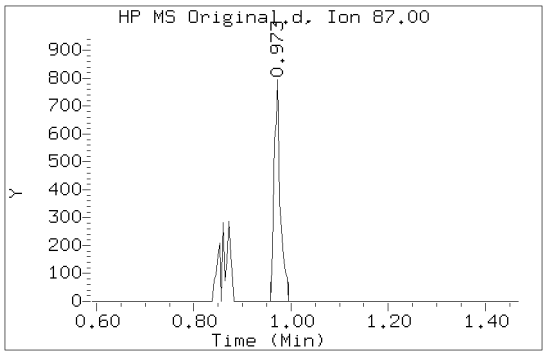
AFTER

MASS
85
AREA
1990
HEIGHT
2413
27-Dec-2022
16:07
linh
pham



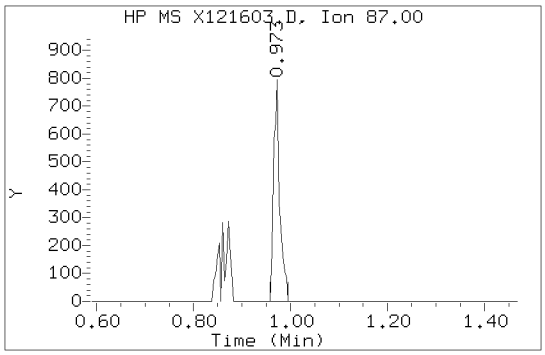
BEFORE

MASS
87
AREA
713
HEIGHT
795
27-Dec-2022
16:03
linh
pham



AFTER

MASS
87
AREA
713
HEIGHT
795
27-Dec-2022
16:07
linh
pham

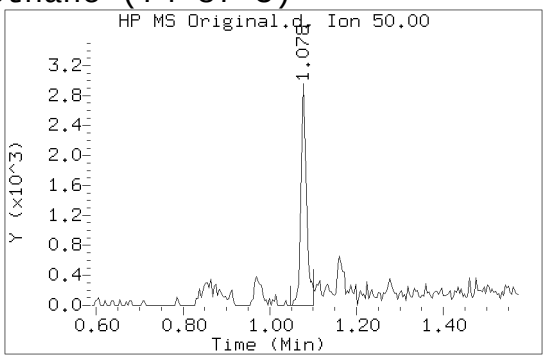


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

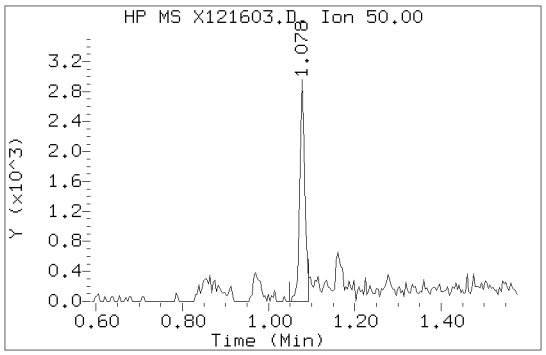
Chloromethane (74-87-3)

Reason Code:

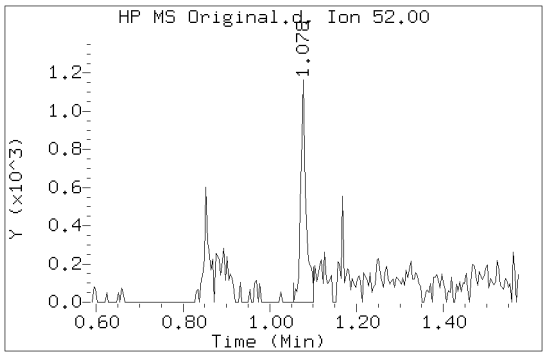
BEFORE
MASS
50
AREA
2589
HEIGHT
2959
27-Dec-2022
16:03
linh
pham



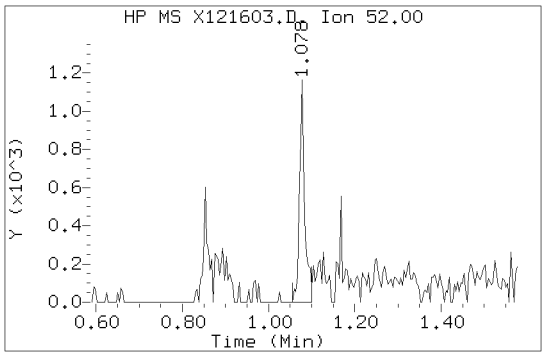
AFTER
MASS
50
AREA
2466
HEIGHT
2959
27-Dec-2022
16:07
linh
pham



BEFORE
MASS
52
AREA
985
HEIGHT
1164
27-Dec-2022
16:03
linh
pham



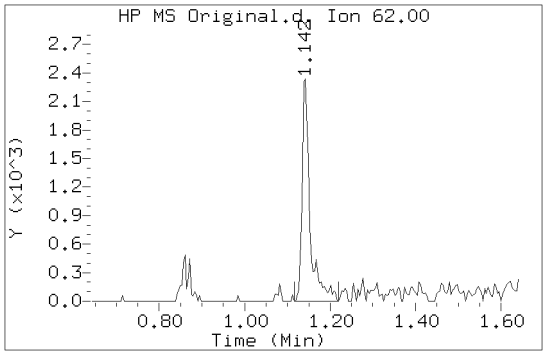
AFTER
MASS
52
AREA
985
HEIGHT
1164
27-Dec-2022
16:07
linh
pham



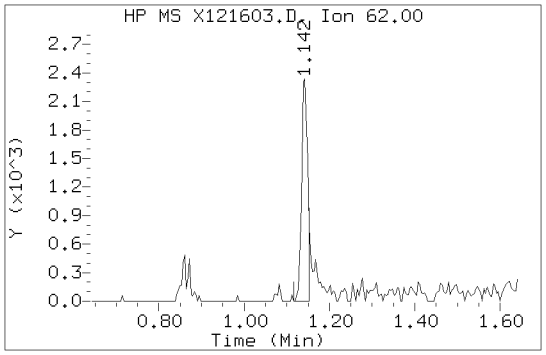
Vinyl Chloride (75-01-4)

Reason Code:

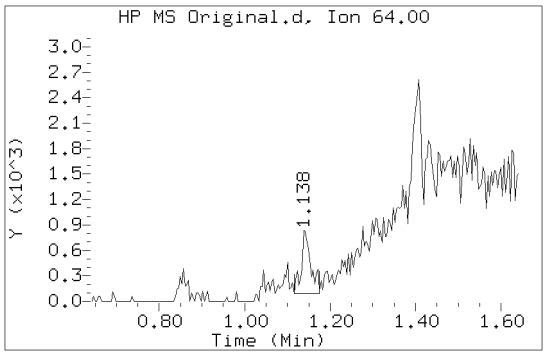
BEFORE
MASS
62
AREA
3132
HEIGHT
2337
27-Dec-2022
16:03
linh
pham



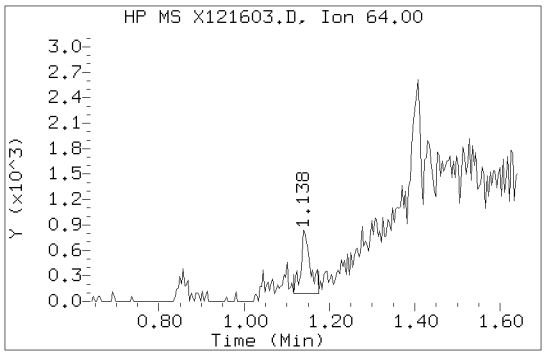
AFTER
MASS
62
AREA
2412
HEIGHT
2337
27-Dec-2022
16:07
linh
pham



BEFORE
MASS
64
AREA
1174
HEIGHT
750
27-Dec-2022
16:03
linh
pham



AFTER
MASS
64
AREA
1174
HEIGHT
750
27-Dec-2022
16:07
linh
pham

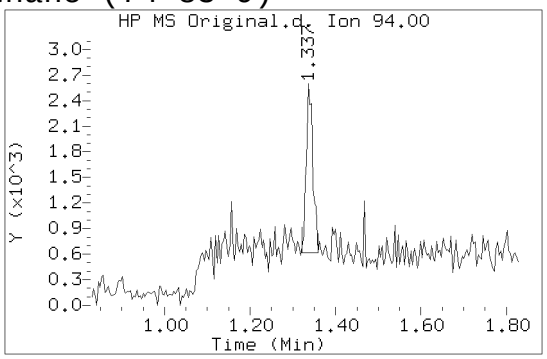


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

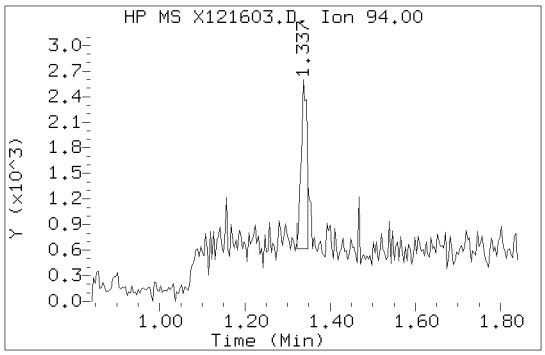
Bromomethane (74-83-9)

Reason Code:

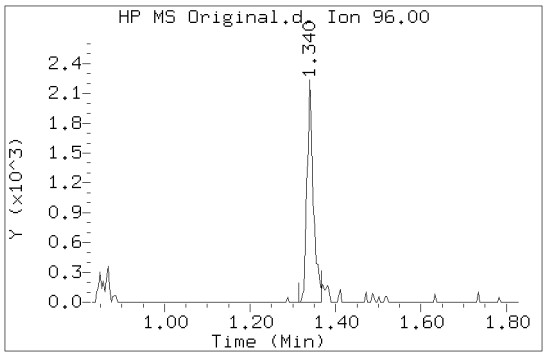
BEFORE
MASS
94
AREA
2146
HEIGHT
1983
27-Dec-2022
16:03
linh
pham



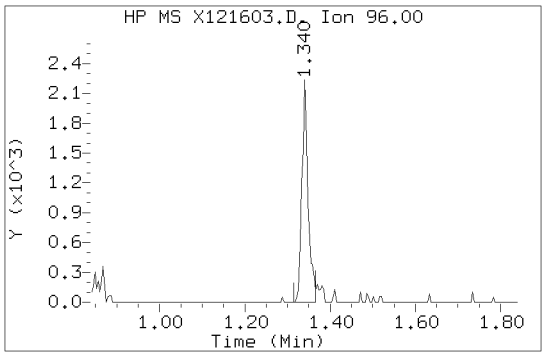
AFTER
MASS
94
AREA
1893
HEIGHT
1983
27-Dec-2022
16:07
linh
pham



BEFORE
MASS
96
AREA
2304
HEIGHT
2236
27-Dec-2022
16:03
linh
pham



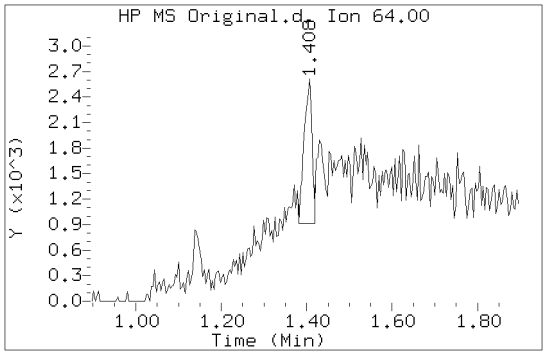
AFTER
MASS
96
AREA
2304
HEIGHT
2236
27-Dec-2022
16:07
linh
pham



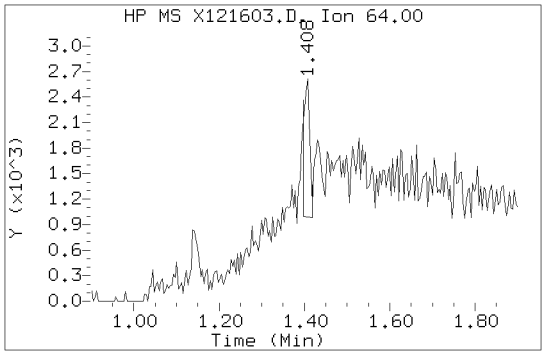
Chloroethane (75-00-3)

Reason Code:

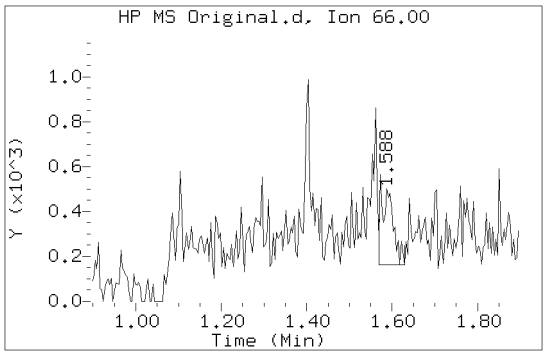
BEFORE
MASS
64
AREA
2196
HEIGHT
1702
27-Dec-2022
16:03
linh
pham



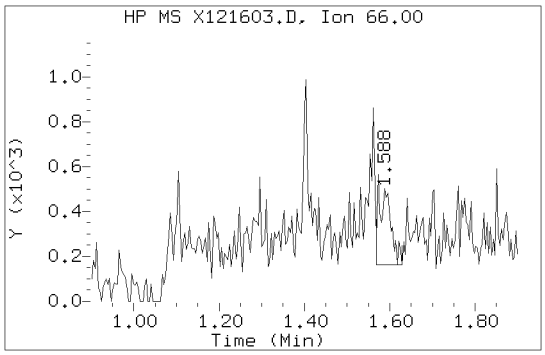
AFTER
MASS
64
AREA
1653
HEIGHT
1624
27-Dec-2022
16:07
linh
pham



BEFORE
MASS
66
AREA
677
HEIGHT
340
27-Dec-2022
16:03
linh
pham



AFTER
MASS
66
AREA
677
HEIGHT
340
27-Dec-2022
16:07
linh
pham



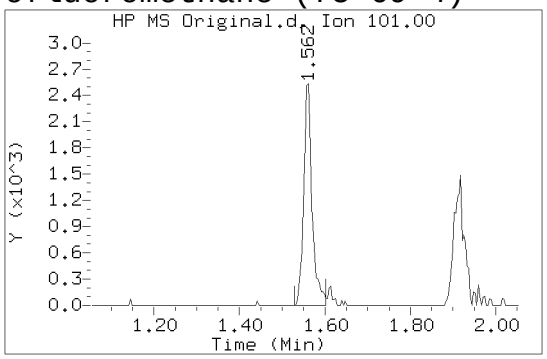
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

Trichlorofluoromethane (75-69-4)

Reason Code:

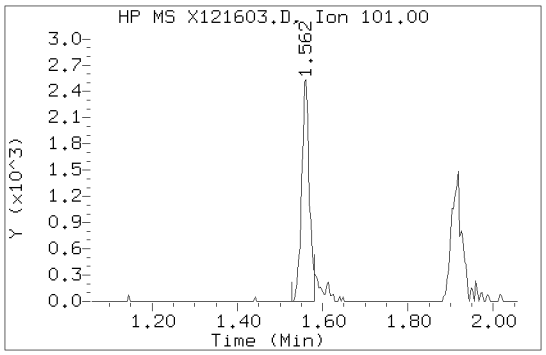
BEFORE

MASS
101
AREA
3530
HEIGHT
2534
27-Dec-2022
16:03
linh
pham



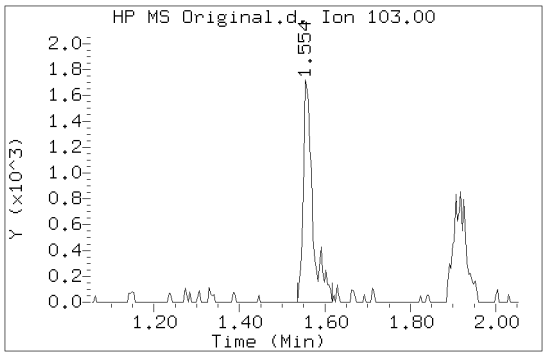
AFTER

MASS
101
AREA
3286
HEIGHT
2534
27-Dec-2022
16:07
linh
pham



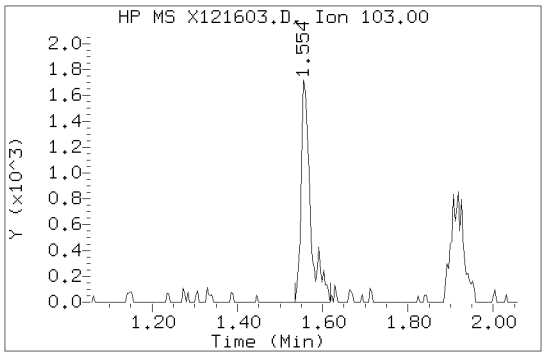
BEFORE

MASS
103
AREA
2708
HEIGHT
1720
27-Dec-2022
16:03
linh
pham



AFTER

MASS
103
AREA
2708
HEIGHT
1720
27-Dec-2022
16:07
linh
pham

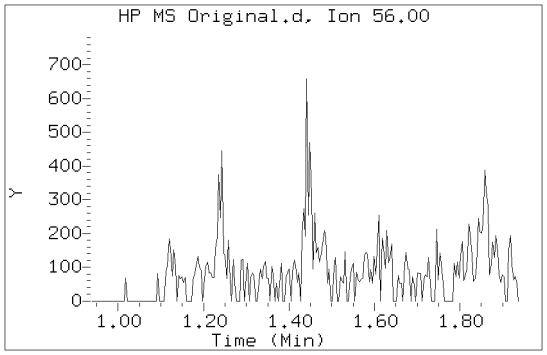


Acrolein (107-02-8)

Reason Code:

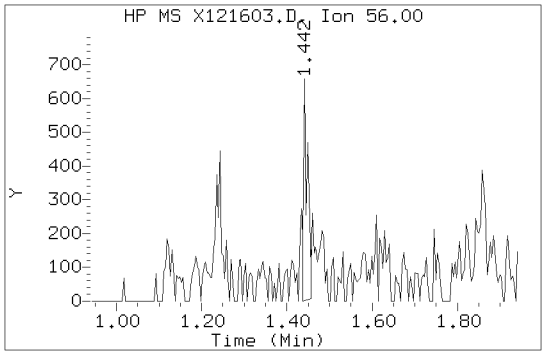
BEFORE

MASS
56
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



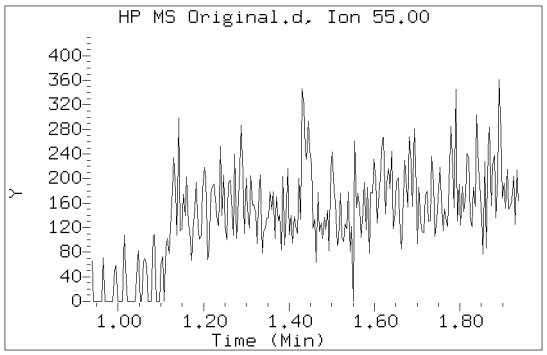
AFTER

MASS
56
AREA
440
HEIGHT
656
27-Dec-2022
16:07
linh
pham



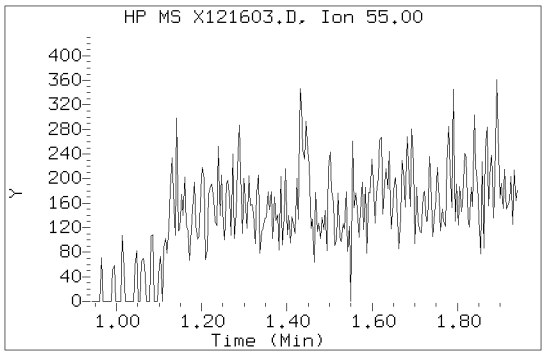
BEFORE

MASS
55
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
55
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



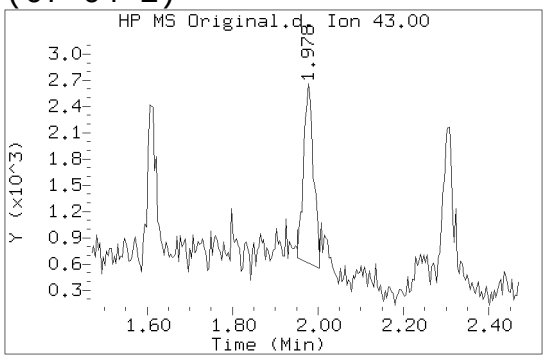
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

Acetone (67-64-1)

Reason Code:

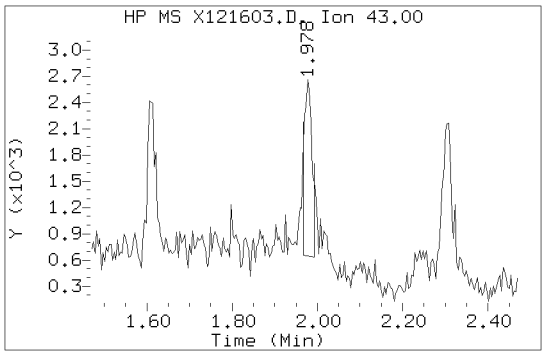
BEFORE

MASS
43
AREA
3388
HEIGHT
2046
27-Dec-2022
16:03
linh
pham



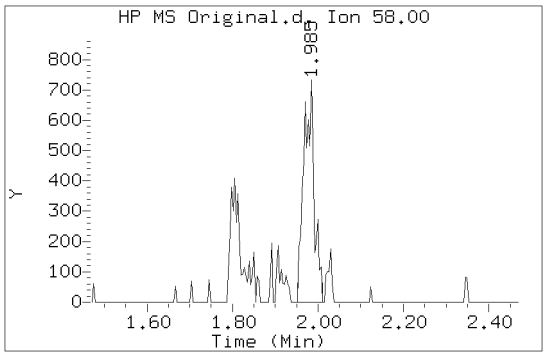
AFTER

MASS
43
AREA
2669
HEIGHT
2015
27-Dec-2022
16:07
linh
pham



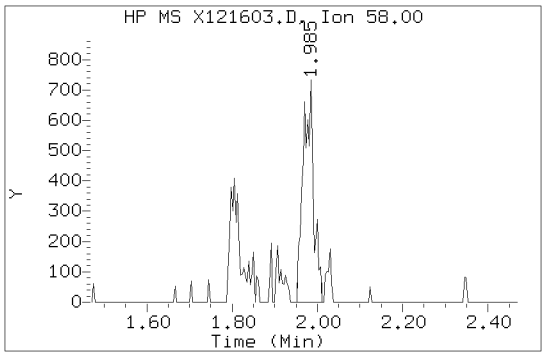
BEFORE

MASS
58
AREA
1264
HEIGHT
733
27-Dec-2022
16:03
linh
pham



AFTER

MASS
58
AREA
1264
HEIGHT
733
27-Dec-2022
16:07
linh
pham

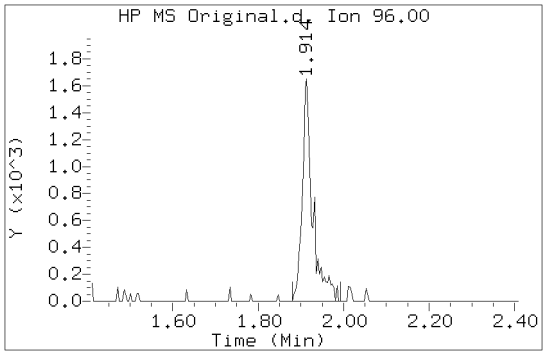


1,1-Dichloroethene (75-35-4)

Reason Code:

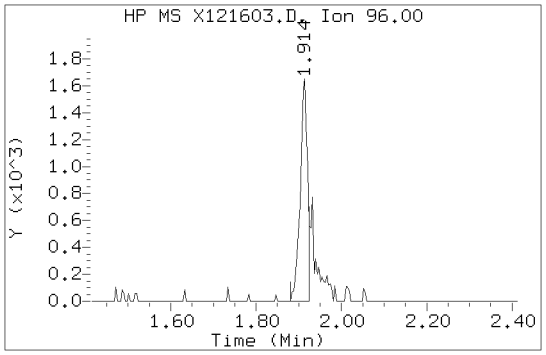
BEFORE

MASS
96
AREA
2836
HEIGHT
1651
27-Dec-2022
16:03
linh
pham



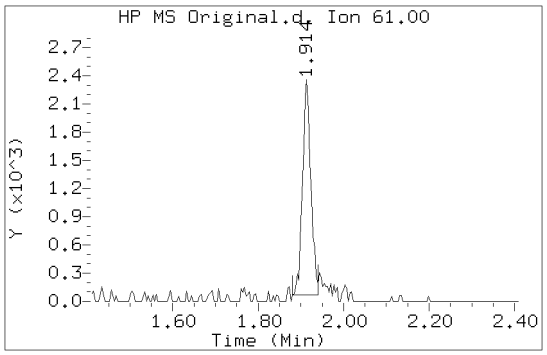
AFTER

MASS
96
AREA
2037
HEIGHT
1651
27-Dec-2022
16:07
linh
pham



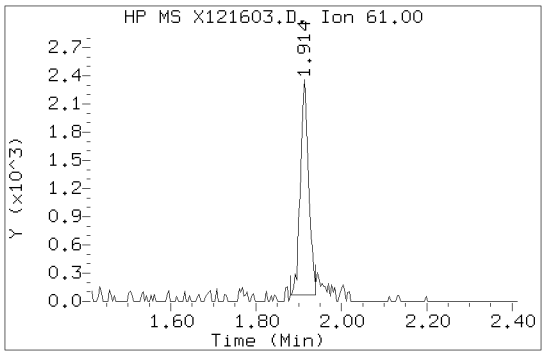
BEFORE

MASS
61
AREA
3197
HEIGHT
2293
27-Dec-2022
16:03
linh
pham



AFTER

MASS
61
AREA
3197
HEIGHT
2293
27-Dec-2022
16:07
linh
pham



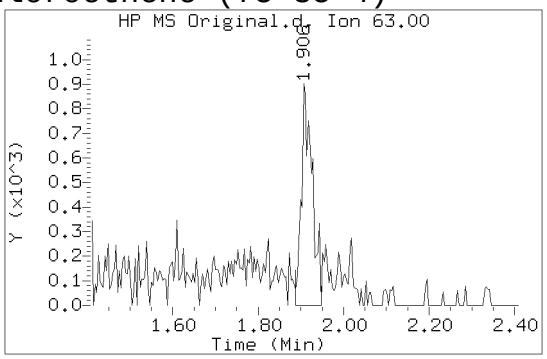
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

1,1-Dichloroethene (75-35-4)

Reason Code:

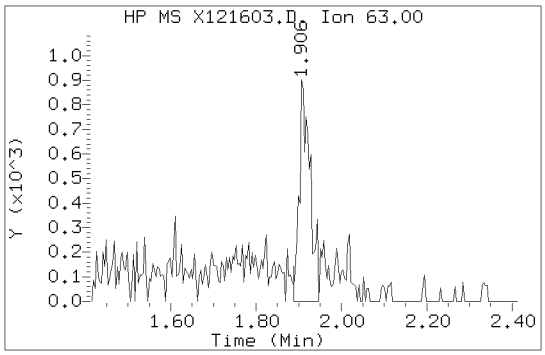
BEFORE

MASS
63
AREA
1607
HEIGHT
902
27-Dec-2022
16:03
linh
pham



AFTER

MASS
63
AREA
1607
HEIGHT
902
27-Dec-2022
16:07
linh
pham

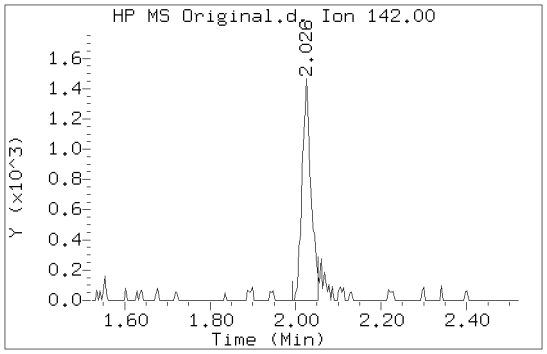


Iodomethane (74-88-4)

Reason Code:

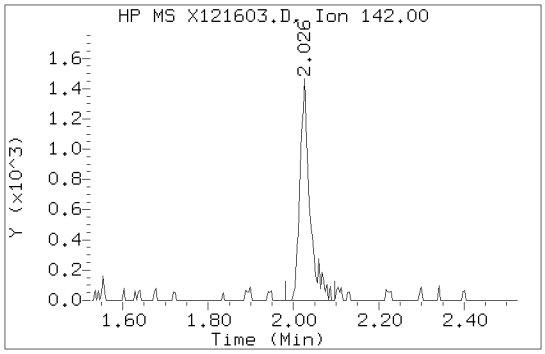
BEFORE

MASS
142
AREA
2166
HEIGHT
1466
27-Dec-2022
16:03
linh
pham



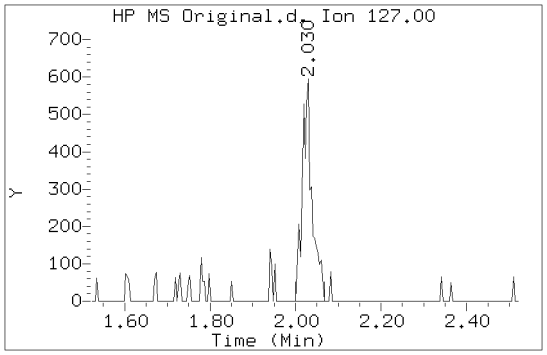
AFTER

MASS
142
AREA
2397
HEIGHT
1466
27-Dec-2022
16:07
linh
pham



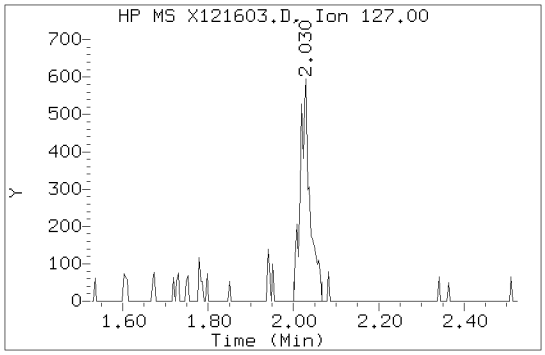
BEFORE

MASS
127
AREA
958
HEIGHT
595
27-Dec-2022
16:03
linh
pham



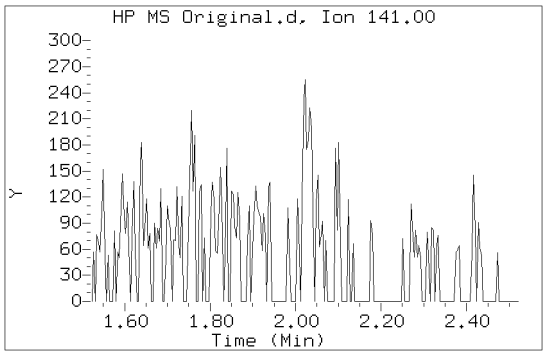
AFTER

MASS
127
AREA
958
HEIGHT
595
27-Dec-2022
16:07
linh
pham



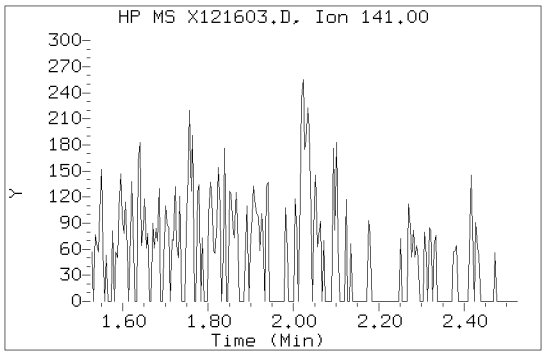
BEFORE

MASS
141
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
141
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

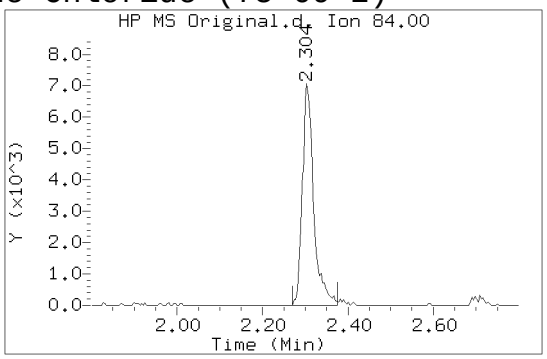


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

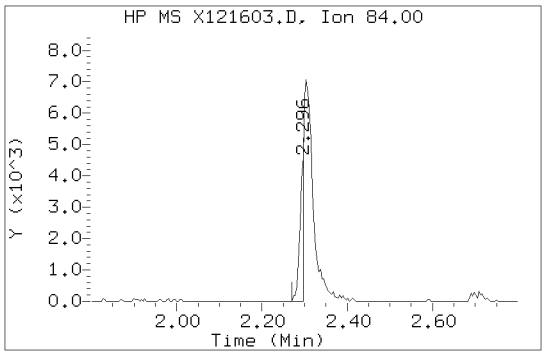
Methylene Chloride (75-09-2)

Reason Code:

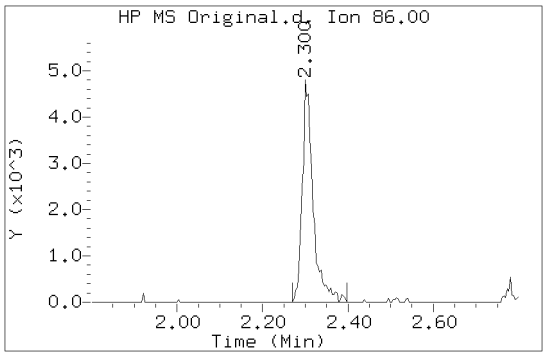
BEFORE
MASS
84
AREA
13307
HEIGHT
7067
27-Dec-2022
16:03
linh
pham



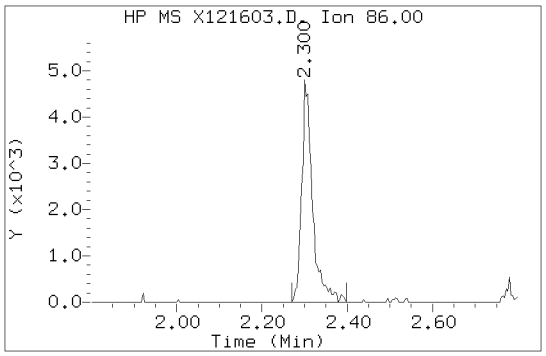
AFTER
MASS
84
AREA
2938
HEIGHT
4595
27-Dec-2022
16:07
linh
pham



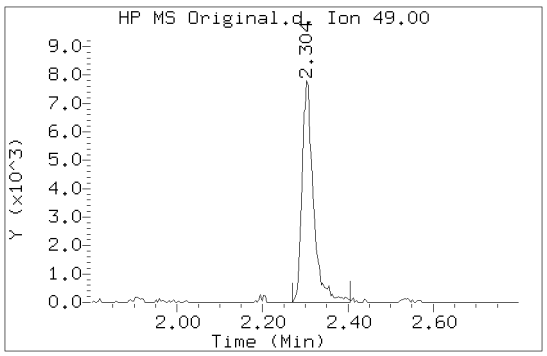
BEFORE
MASS
86
AREA
8692
HEIGHT
4802
27-Dec-2022
16:03
linh
pham



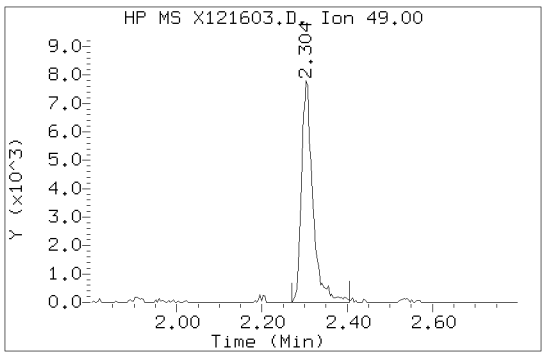
AFTER
MASS
86
AREA
8692
HEIGHT
4802
27-Dec-2022
16:07
linh
pham



BEFORE
MASS
49
AREA
14733
HEIGHT
7803
27-Dec-2022
16:03
linh
pham



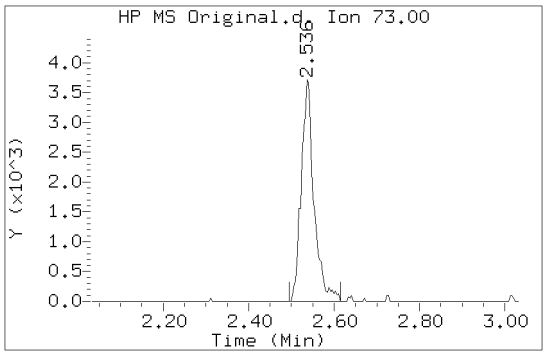
AFTER
MASS
49
AREA
14733
HEIGHT
7803
27-Dec-2022
16:07
linh
pham



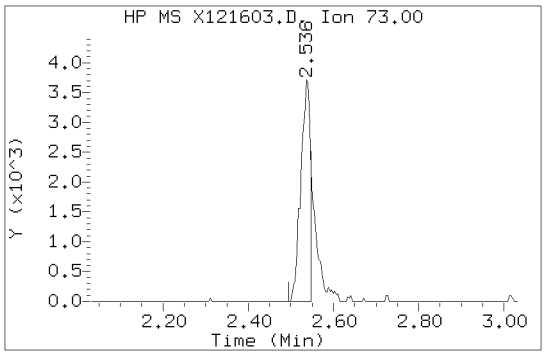
Methyl tert-butyl ether (1634-04-4)

Reason Code:

BEFORE
MASS
73
AREA
7826
HEIGHT
3716
27-Dec-2022
16:03
linh
pham



AFTER
MASS
73
AREA
5841
HEIGHT
3716
27-Dec-2022
16:07
linh
pham

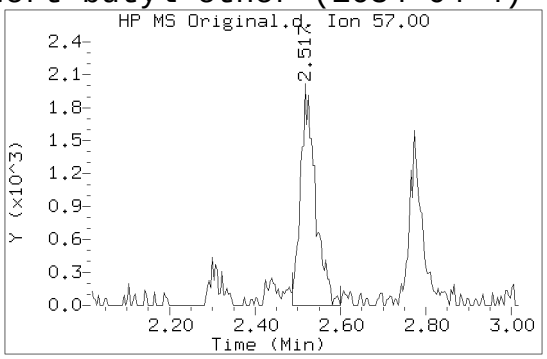


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

Methyl tert-butyl ether (1634-04-4)

BEFORE

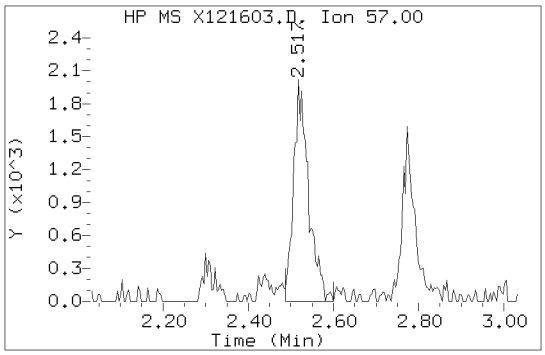
MASS
57
AREA
4915
HEIGHT
2019
27-Dec-2022
16:03
linh
pham



AFTER

MASS
57
AREA
4915
HEIGHT
2019
27-Dec-2022
16:07
linh
pham

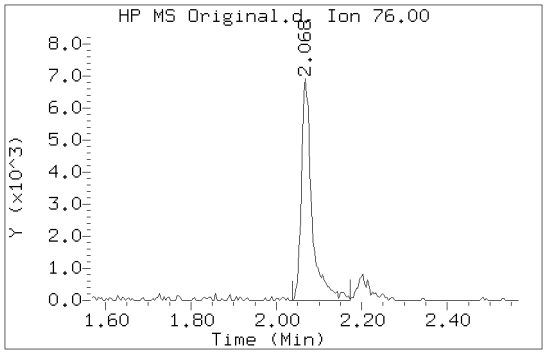
Reason Code:



Carbon Disulfide (75-15-0)

BEFORE

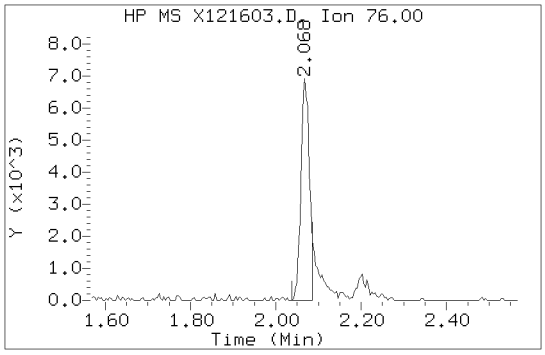
MASS
76
AREA
12313
HEIGHT
6923
27-Dec-2022
16:03
linh
pham



AFTER

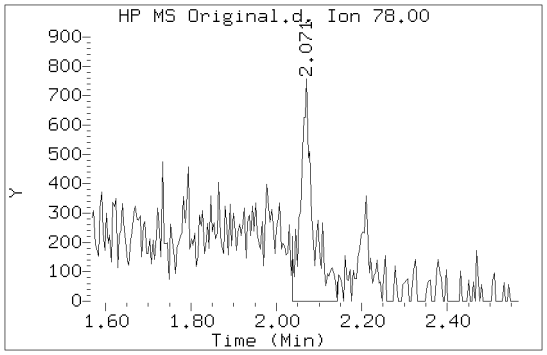
MASS
76
AREA
9921
HEIGHT
6923
27-Dec-2022
16:07
linh
pham

Reason Code:



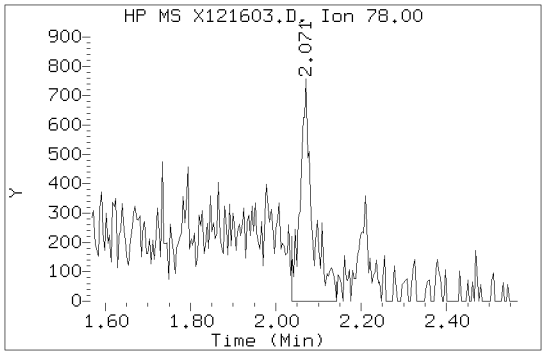
BEFORE

MASS
78
AREA
1586
HEIGHT
757
27-Dec-2022
16:03
linh
pham



AFTER

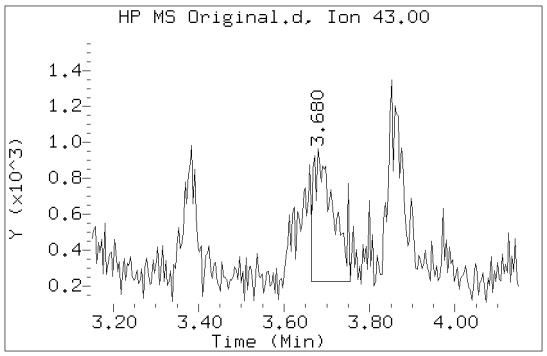
MASS
78
AREA
1586
HEIGHT
757
27-Dec-2022
16:07
linh
pham



2-Butanone (78-93-3)

BEFORE

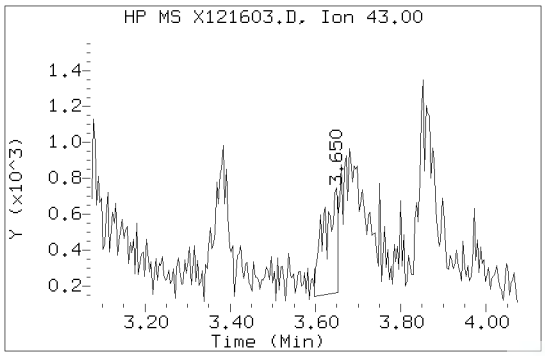
MASS
43
AREA
2415
HEIGHT
742
27-Dec-2022
16:03
linh
pham



AFTER

MASS
43
AREA
1292
HEIGHT
587
27-Dec-2022
16:07
linh
pham

Reason Code:



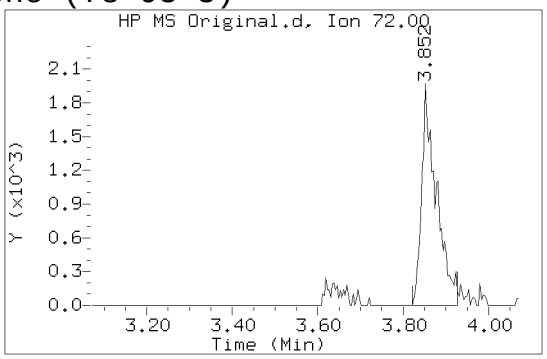
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

2-Butanone (78-93-3)

Reason Code:

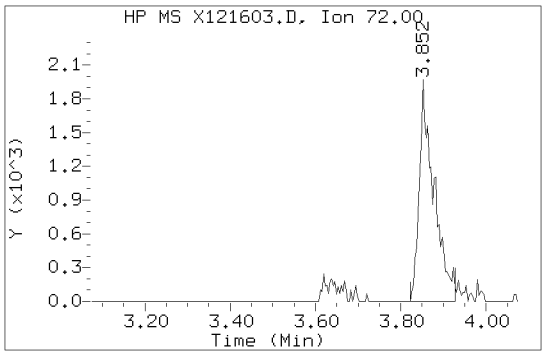
BEFORE

MASS
72
AREA
4698
HEIGHT
1970
27-Dec-2022
16:03
linh
pham



AFTER

MASS
72
AREA
4698
HEIGHT
1970
27-Dec-2022
16:07
linh
pham

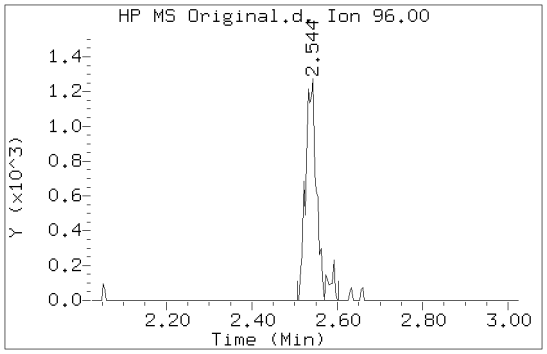


trans-1,2-Dichloroethene (156-60-5)

Reason Code:

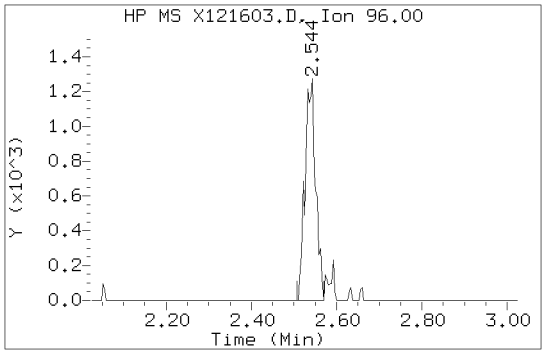
BEFORE

MASS
96
AREA
2404
HEIGHT
1274
27-Dec-2022
16:03
linh
pham



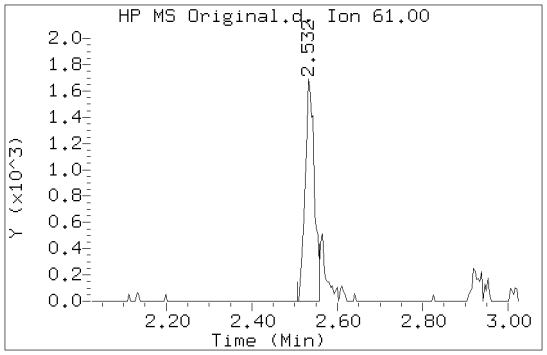
AFTER

MASS
96
AREA
2218
HEIGHT
1274
27-Dec-2022
16:07
linh
pham



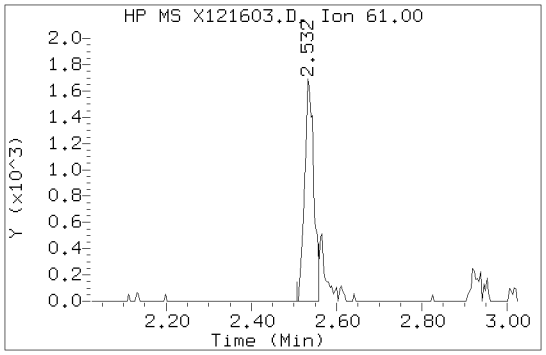
BEFORE

MASS
61
AREA
2571
HEIGHT
1692
27-Dec-2022
16:03
linh
pham



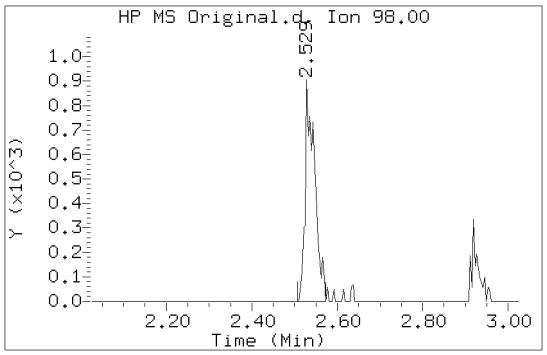
AFTER

MASS
61
AREA
2571
HEIGHT
1692
27-Dec-2022
16:07
linh
pham



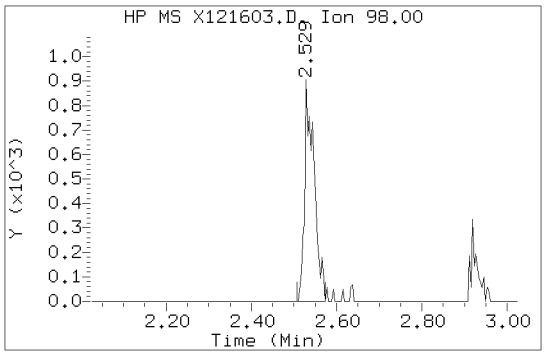
BEFORE

MASS
98
AREA
1412
HEIGHT
906
27-Dec-2022
16:03
linh
pham



AFTER

MASS
98
AREA
1412
HEIGHT
906
27-Dec-2022
16:07
linh
pham



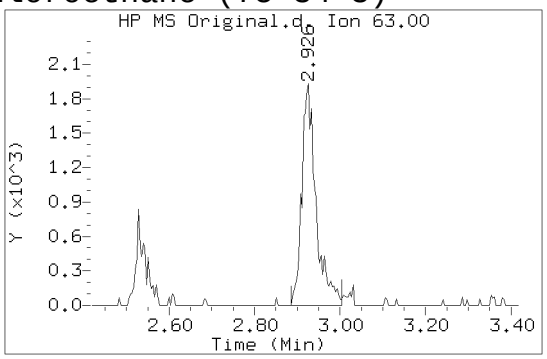
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

1,1-Dichloroethane (75-34-3)

Reason Code:

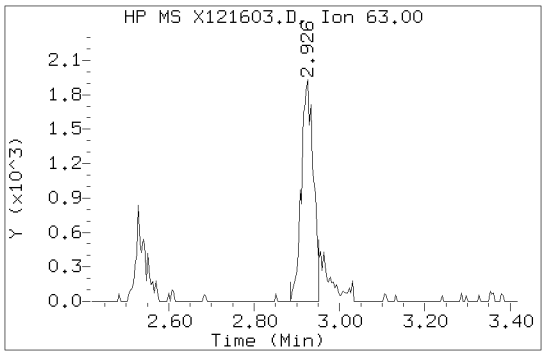
BEFORE

MASS
63
AREA
4504
HEIGHT
1931
27-Dec-2022
16:03
linh
pham



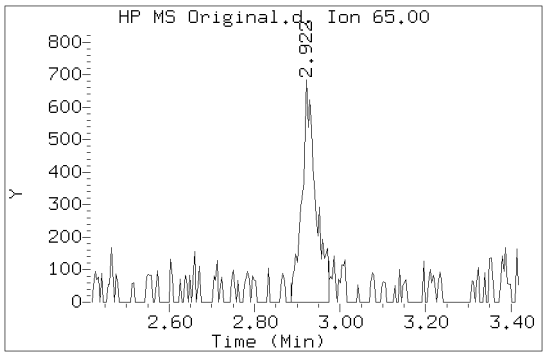
AFTER

MASS
63
AREA
3874
HEIGHT
1931
27-Dec-2022
16:07
linh
pham



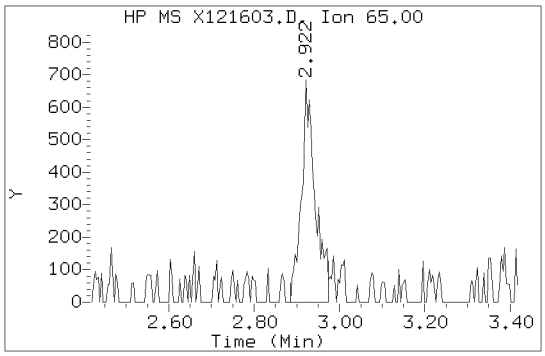
BEFORE

MASS
65
AREA
1548
HEIGHT
684
27-Dec-2022
16:03
linh
pham



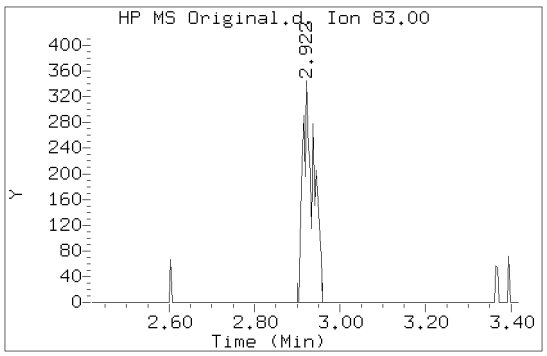
AFTER

MASS
65
AREA
1548
HEIGHT
684
27-Dec-2022
16:07
linh
pham



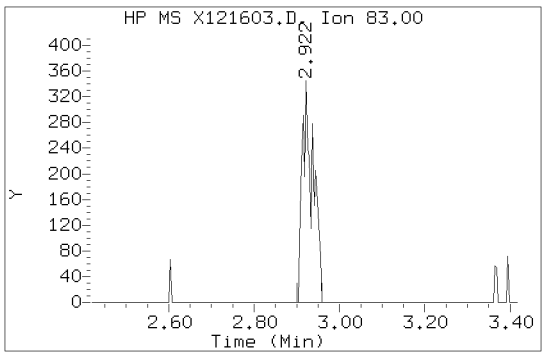
BEFORE

MASS
83
AREA
618
HEIGHT
345
27-Dec-2022
16:03
linh
pham



AFTER

MASS
83
AREA
618
HEIGHT
345
27-Dec-2022
16:07
linh
pham

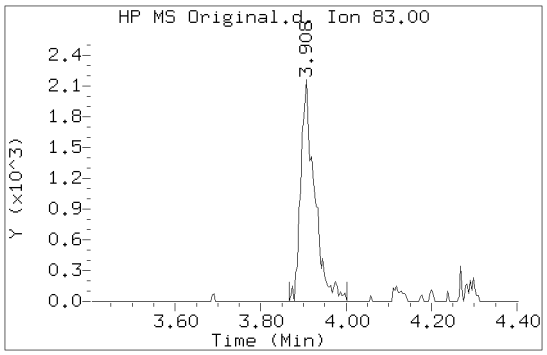


Chloroform (67-66-3)

Reason Code:

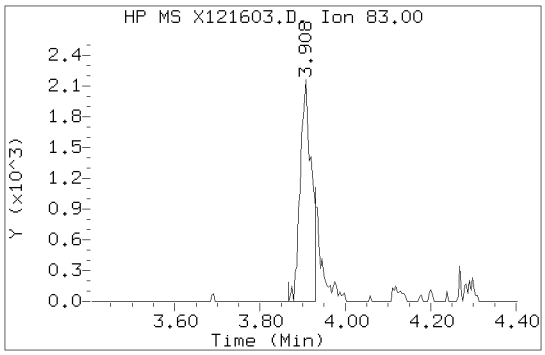
BEFORE

MASS
83
AREA
4949
HEIGHT
2160
27-Dec-2022
16:03
linh
pham



AFTER

MASS
83
AREA
4040
HEIGHT
2160
27-Dec-2022
16:07
linh
pham



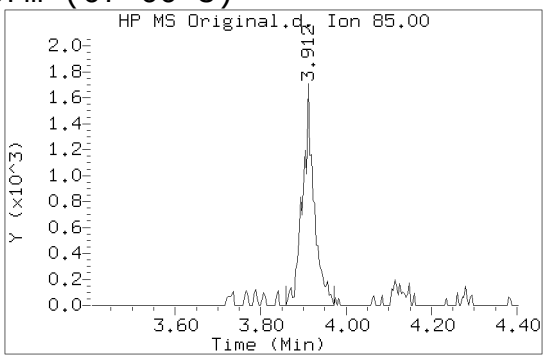
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

Chloroform (67-66-3)

Reason Code:

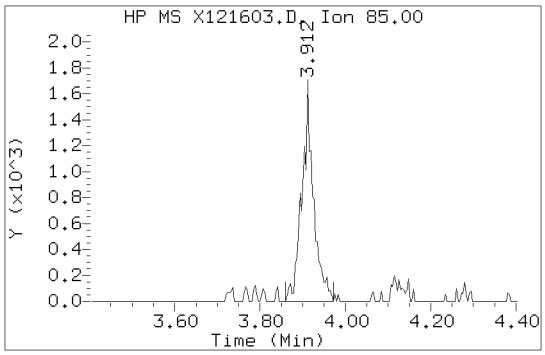
BEFORE

MASS
85
AREA
3222
HEIGHT
1709
27-Dec-2022
16:03
linh
pham



AFTER

MASS
85
AREA
3222
HEIGHT
1709
27-Dec-2022
16:07
linh
pham

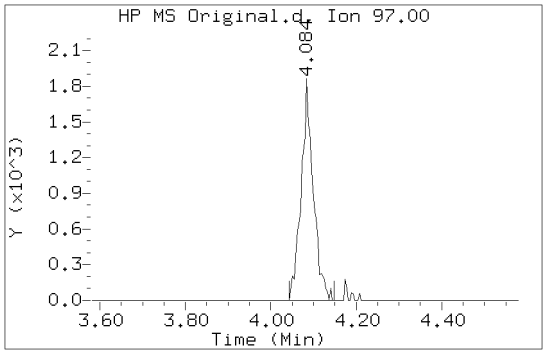


1,1,1-Trichloroethane (71-55-6)

Reason Code:

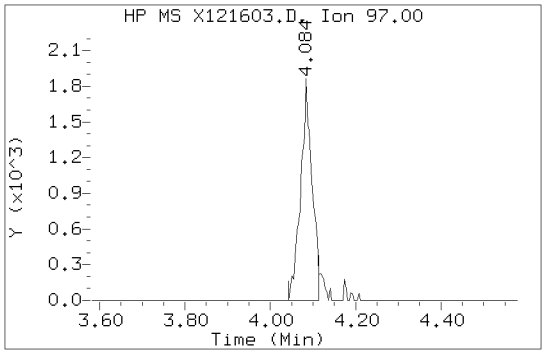
BEFORE

MASS
97
AREA
3710
HEIGHT
1863
27-Dec-2022
16:03
linh
pham



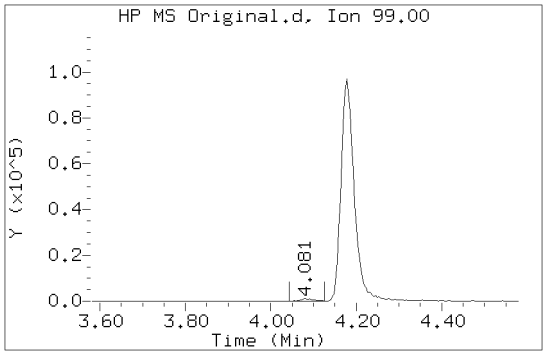
AFTER

MASS
97
AREA
3512
HEIGHT
1863
27-Dec-2022
16:07
linh
pham



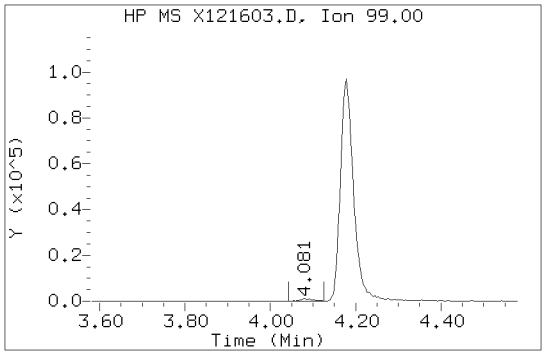
BEFORE

MASS
99
AREA
2299
HEIGHT
1029
27-Dec-2022
16:03
linh
pham



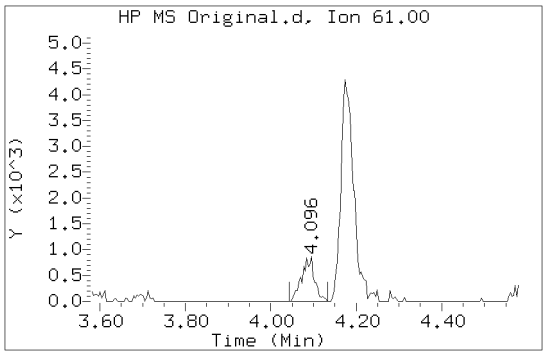
AFTER

MASS
99
AREA
2299
HEIGHT
1029
27-Dec-2022
16:07
linh
pham



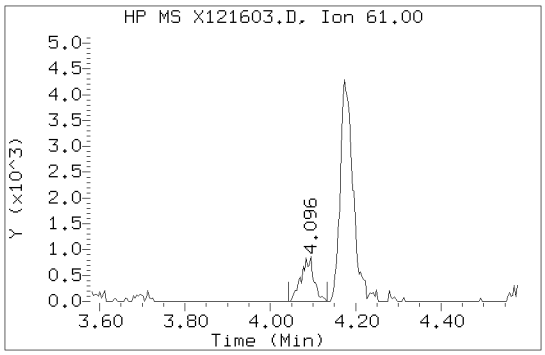
BEFORE

MASS
61
AREA
1801
HEIGHT
872
27-Dec-2022
16:03
linh
pham



AFTER

MASS
61
AREA
1801
HEIGHT
872
27-Dec-2022
16:07
linh
pham



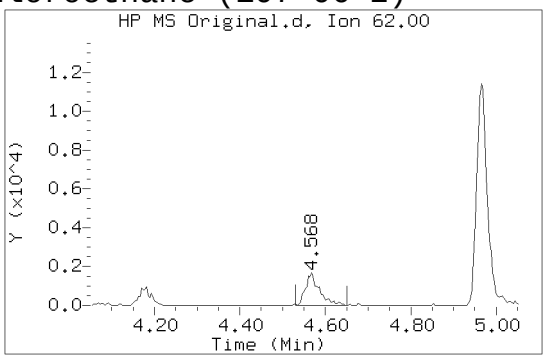
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

1,2-Dichloroethane (107-06-2)

Reason Code:

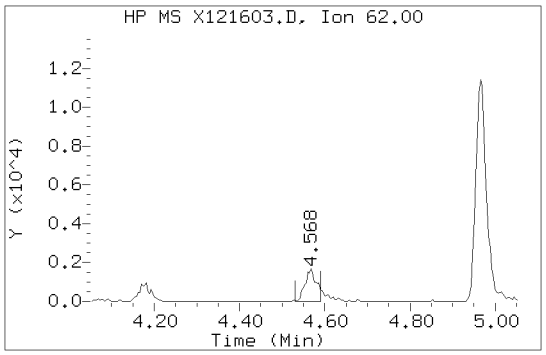
BEFORE

MASS
62
AREA
3822
HEIGHT
1678
27-Dec-2022
16:03
linh
pham



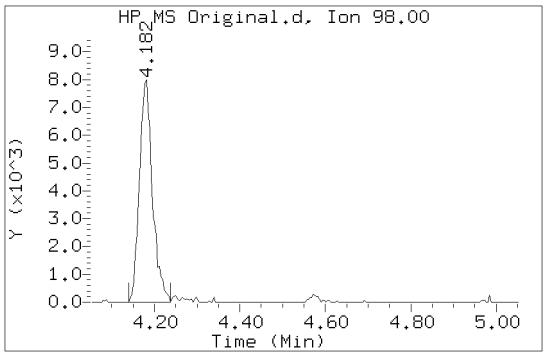
AFTER

MASS
62
AREA
3129
HEIGHT
1678
27-Dec-2022
16:07
linh
pham



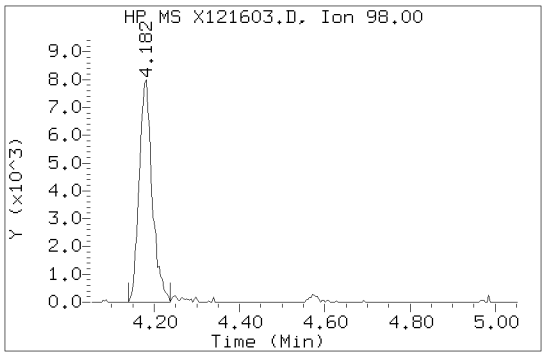
BEFORE

MASS
98
AREA
16918
HEIGHT
7987
27-Dec-2022
16:03
linh
pham



AFTER

MASS
98
AREA
16918
HEIGHT
7987
27-Dec-2022
16:07
linh
pham

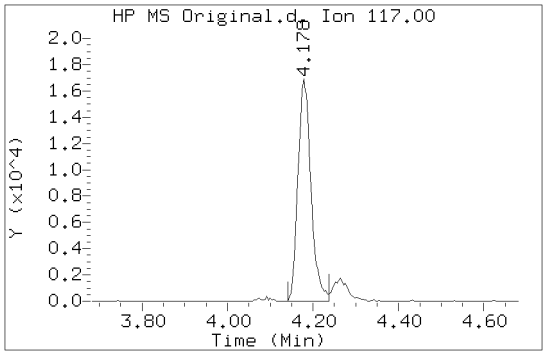


Carbon Tetrachloride (56-23-5)

Reason Code:

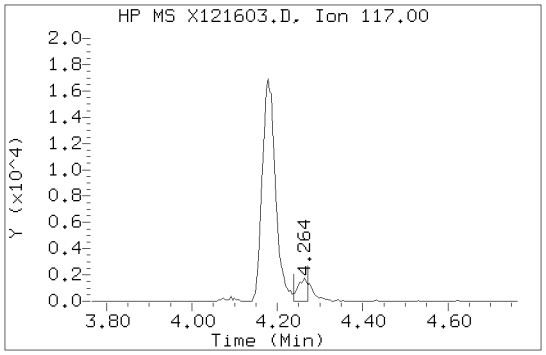
BEFORE

MASS
117
AREA
36559
HEIGHT
16920
27-Dec-2022
16:03
linh
pham



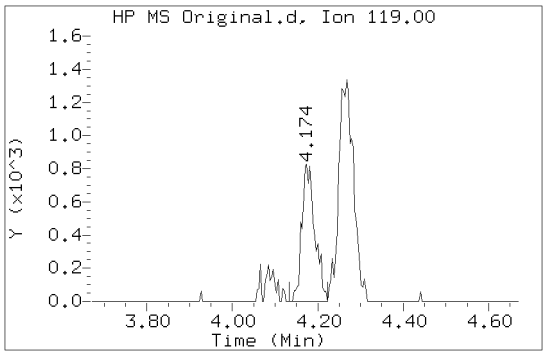
AFTER

MASS
117
AREA
2763
HEIGHT
1744
27-Dec-2022
16:07
linh
pham



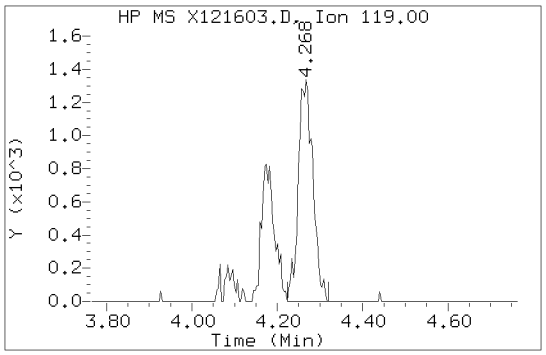
BEFORE

MASS
119
AREA
1780
HEIGHT
826
27-Dec-2022
16:03
linh
pham



AFTER

MASS
119
AREA
3227
HEIGHT
1337
27-Dec-2022
16:07
linh
pham

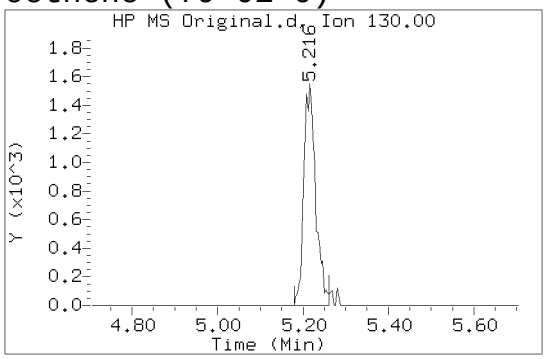


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

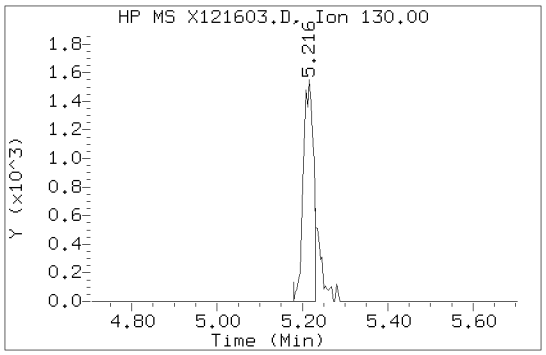
Trichloroethene (79-01-6)

Reason Code:

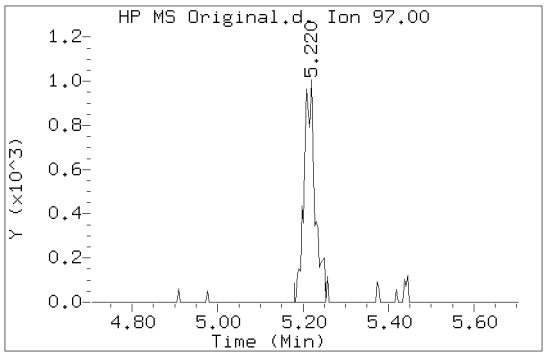
BEFORE
MASS
130
AREA
3011
HEIGHT
1551
27-Dec-2022
16:03
linh
pham



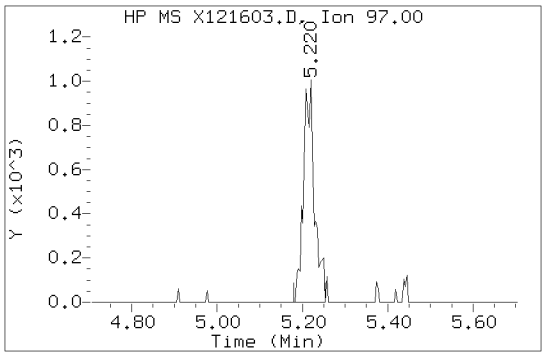
AFTER
MASS
130
AREA
2583
HEIGHT
1551
27-Dec-2022
16:07
linh
pham



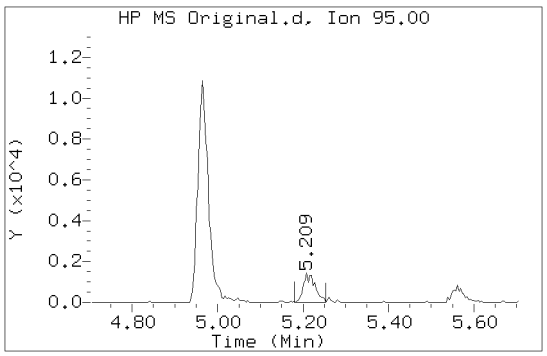
BEFORE
MASS
97
AREA
1808
HEIGHT
1006
27-Dec-2022
16:03
linh
pham



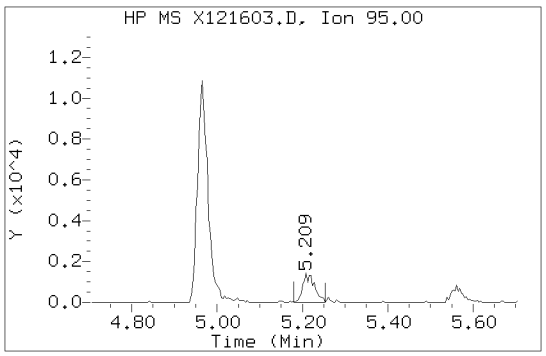
AFTER
MASS
97
AREA
1808
HEIGHT
1006
27-Dec-2022
16:07
linh
pham



BEFORE
MASS
95
AREA
2693
HEIGHT
1431
27-Dec-2022
16:03
linh
pham



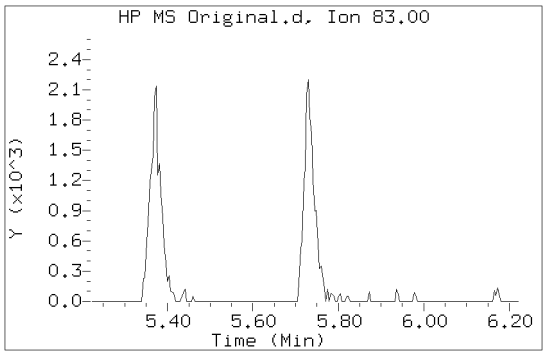
AFTER
MASS
95
AREA
2693
HEIGHT
1431
27-Dec-2022
16:07
linh
pham



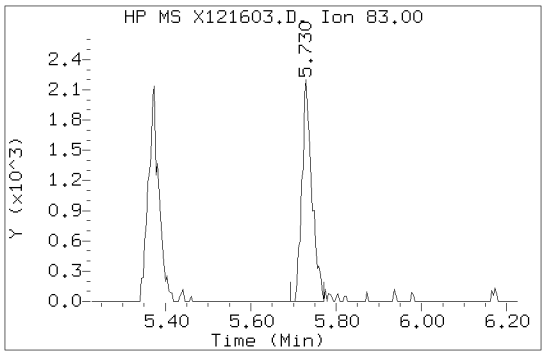
Bromodichloromethane (75-27-4)

Reason Code:

BEFORE
MASS
83
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER
MASS
83
AREA
3650
HEIGHT
2201
27-Dec-2022
16:07
linh
pham

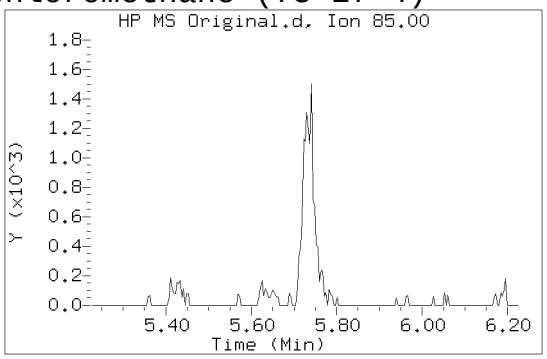


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

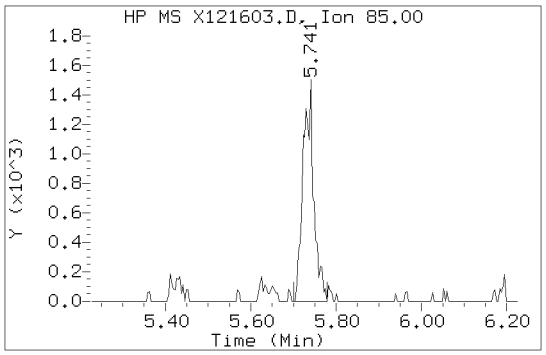
Bromodichloromethane (75-27-4)

Reason Code:

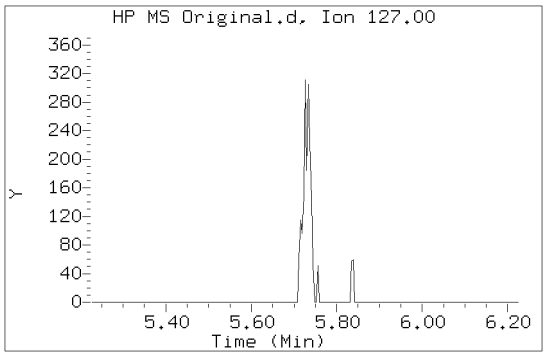
BEFORE
MASS
85
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



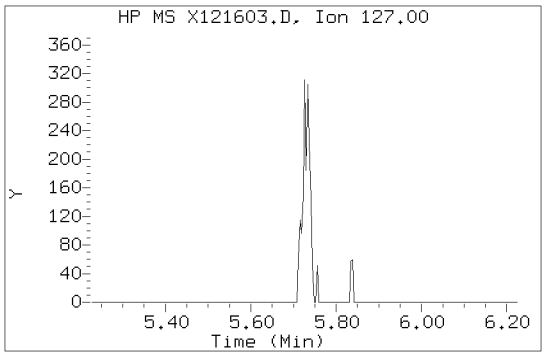
AFTER
MASS
85
AREA
2639
HEIGHT
1503
27-Dec-2022
16:07
linh
pham



BEFORE
MASS
127
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



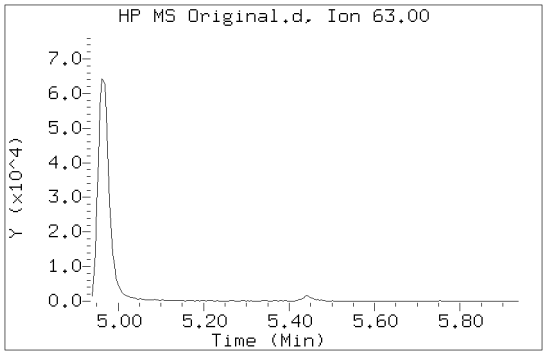
AFTER
MASS
127
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



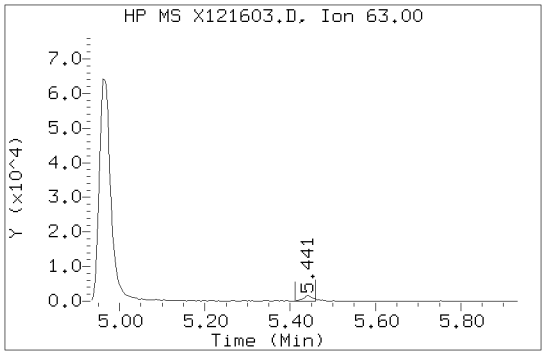
1,2-Dichloropropane (78-87-5)

Reason Code:

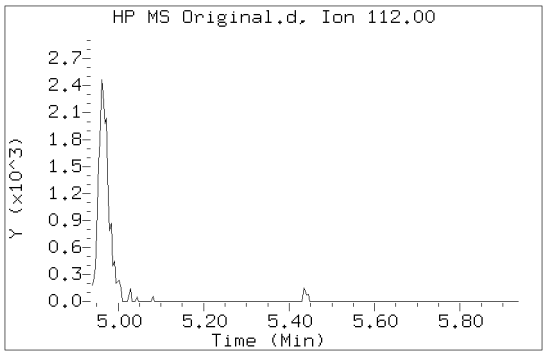
BEFORE
MASS
63
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



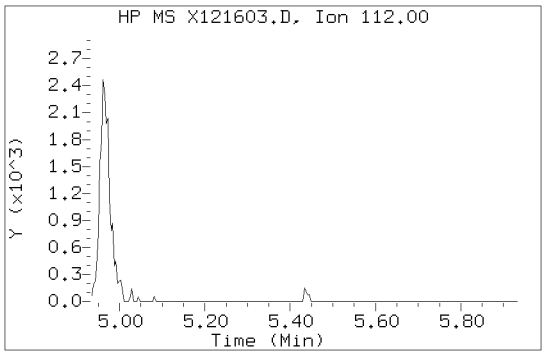
AFTER
MASS
63
AREA
2449
HEIGHT
1587
27-Dec-2022
16:07
linh
pham



BEFORE
MASS
112
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER
MASS
112
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



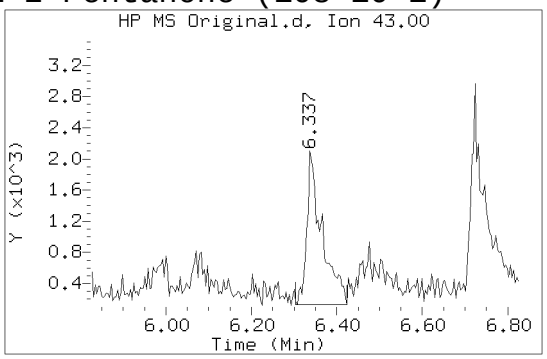
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

4-Methyl-2-Pentanone (108-10-1)

Reason Code:

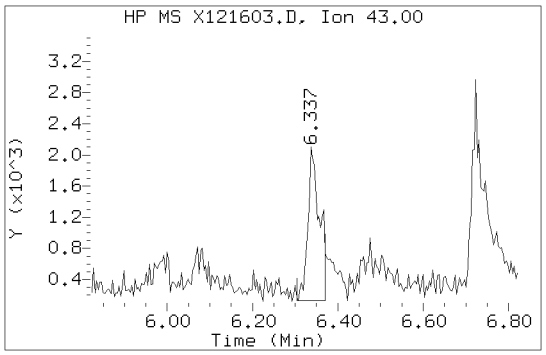
BEFORE

MASS
43
AREA
4873
HEIGHT
1970
27-Dec-2022
16:03
linh
pham



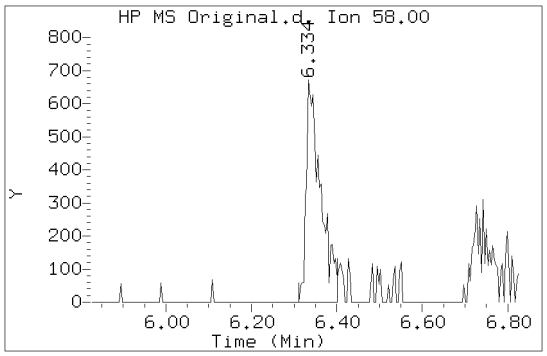
AFTER

MASS
43
AREA
3741
HEIGHT
1970
27-Dec-2022
16:07
linh
pham



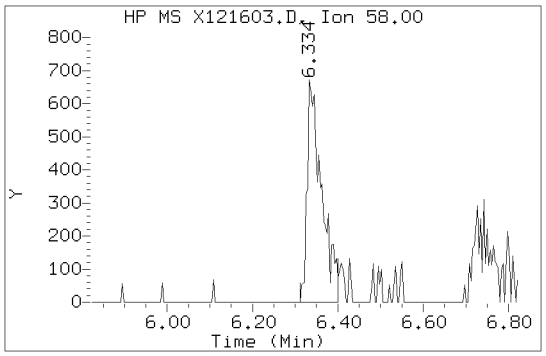
BEFORE

MASS
58
AREA
1585
HEIGHT
672
27-Dec-2022
16:03
linh
pham



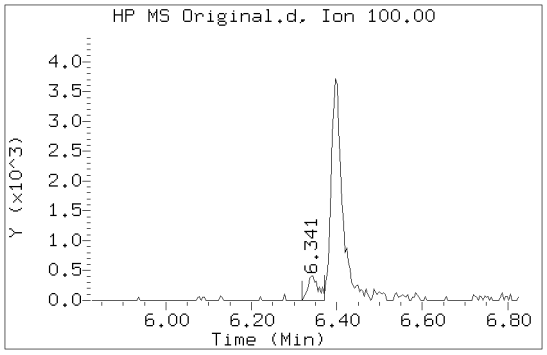
AFTER

MASS
58
AREA
1585
HEIGHT
672
27-Dec-2022
16:07
linh
pham



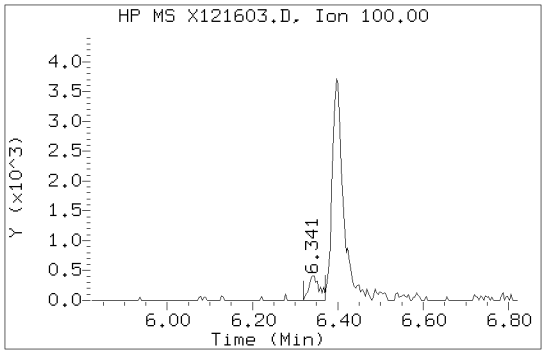
BEFORE

MASS
100
AREA
714
HEIGHT
412
27-Dec-2022
16:03
linh
pham



AFTER

MASS
100
AREA
714
HEIGHT
412
27-Dec-2022
16:07
linh
pham

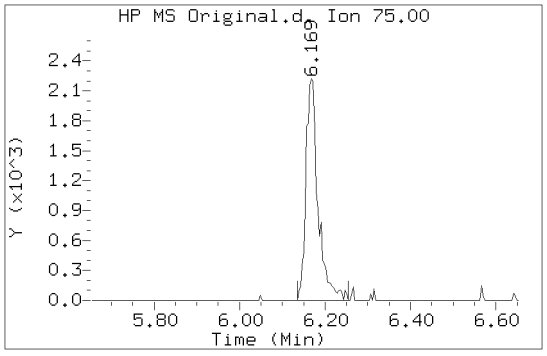


cis-1,3-Dichloropropene (10061-01-5)

Reason Code:

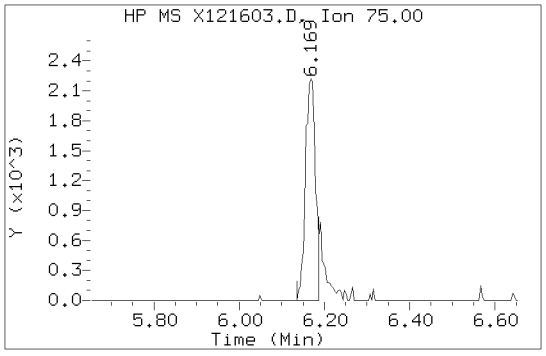
BEFORE

MASS
75
AREA
4432
HEIGHT
2222
27-Dec-2022
16:03
linh
pham



AFTER

MASS
75
AREA
3695
HEIGHT
2222
27-Dec-2022
16:07
linh
pham

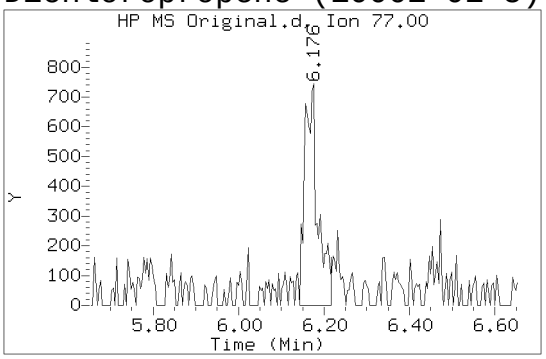


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

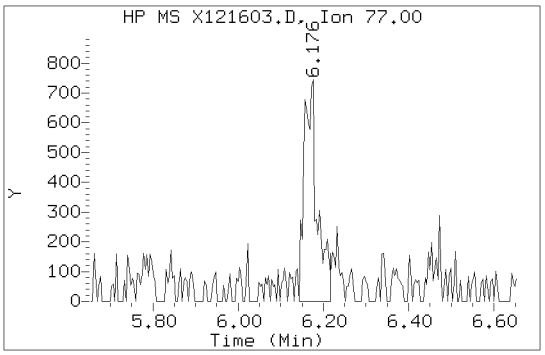
cis-1,3-Dichloropropene (10061-01-5)

Reason Code:

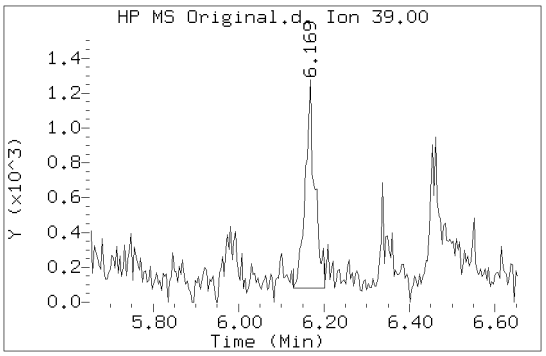
BEFORE
MASS
77
AREA
1607
HEIGHT
745
27-Dec-2022
16:03
linh
pham



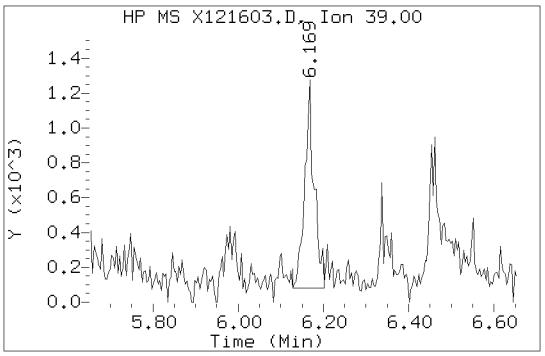
AFTER
MASS
77
AREA
1607
HEIGHT
745
27-Dec-2022
16:07
linh
pham



BEFORE
MASS
39
AREA
1836
HEIGHT
1193
27-Dec-2022
16:03
linh
pham



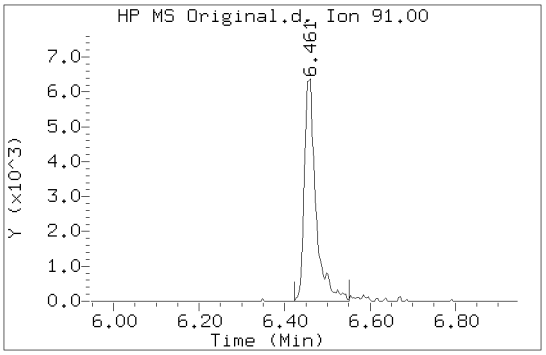
AFTER
MASS
39
AREA
1836
HEIGHT
1193
27-Dec-2022
16:07
linh
pham



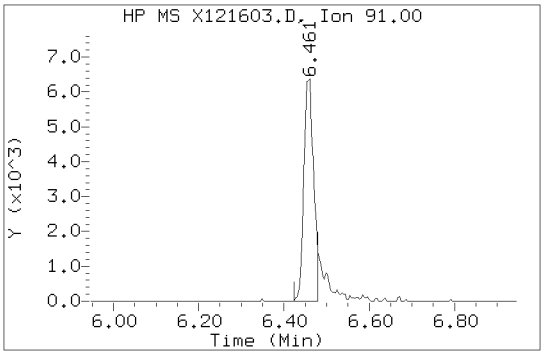
Toluene (108-88-3)

Reason Code:

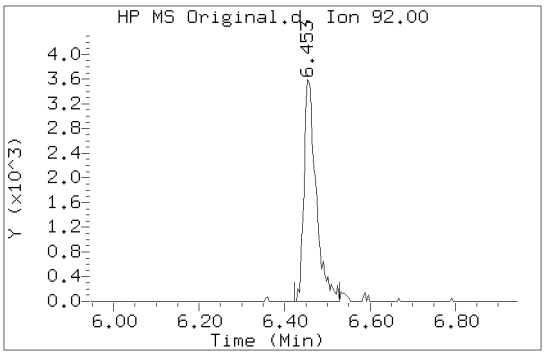
BEFORE
MASS
91
AREA
12225
HEIGHT
6374
27-Dec-2022
16:03
linh
pham



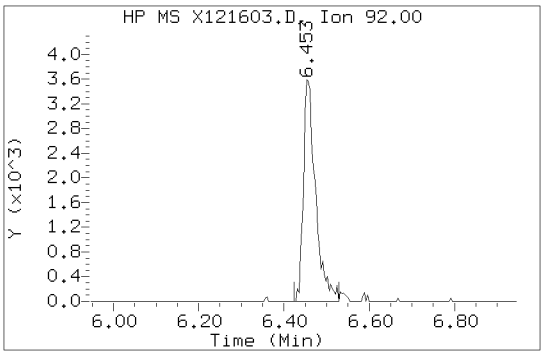
AFTER
MASS
91
AREA
10374
HEIGHT
6374
27-Dec-2022
16:07
linh
pham



BEFORE
MASS
92
AREA
7180
HEIGHT
3591
27-Dec-2022
16:03
linh
pham



AFTER
MASS
92
AREA
7180
HEIGHT
3591
27-Dec-2022
16:07
linh
pham



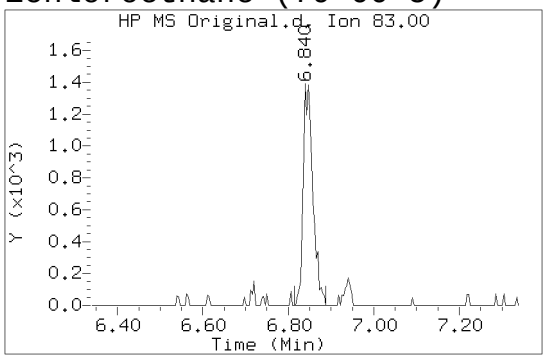
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

1,1,2-Trichloroethane (79-00-5)

Reason Code:

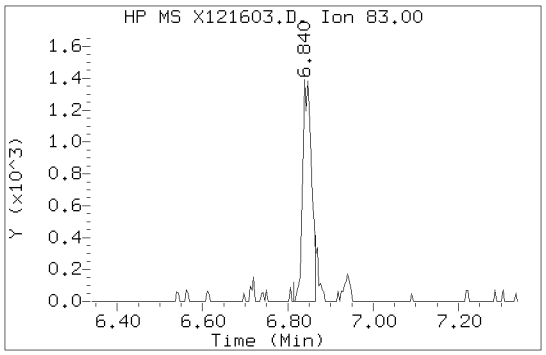
BEFORE

MASS
83
AREA
2247
HEIGHT
1391
27-Dec-2022
16:03
linh
pham



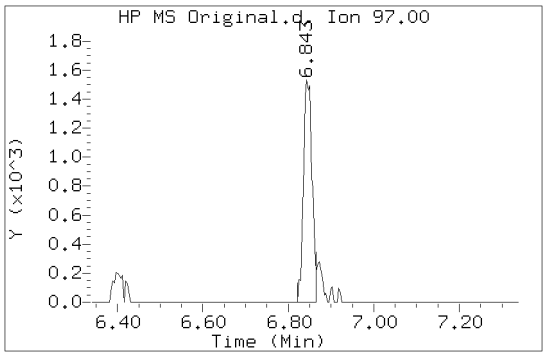
AFTER

MASS
83
AREA
2092
HEIGHT
1391
27-Dec-2022
16:07
linh
pham



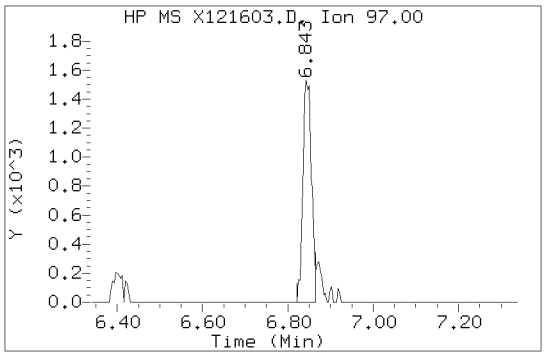
BEFORE

MASS
97
AREA
2224
HEIGHT
1532
27-Dec-2022
16:03
linh
pham



AFTER

MASS
97
AREA
2224
HEIGHT
1532
27-Dec-2022
16:07
linh
pham

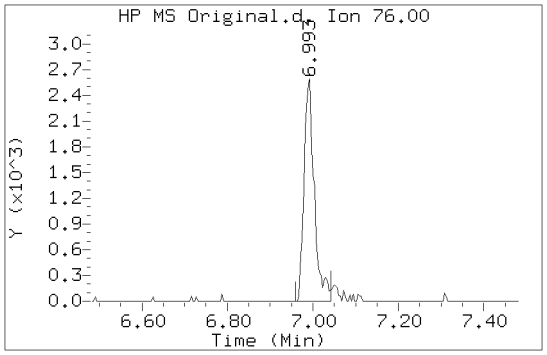


1,3-Dichloropropane (142-28-9)

Reason Code:

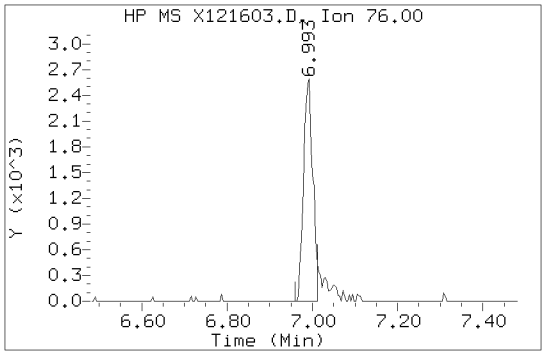
BEFORE

MASS
76
AREA
4415
HEIGHT
2592
27-Dec-2022
16:03
linh
pham



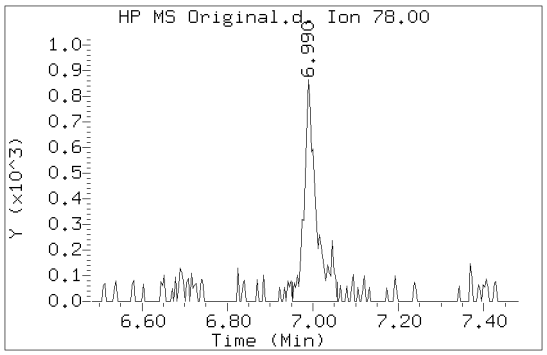
AFTER

MASS
76
AREA
4005
HEIGHT
2592
27-Dec-2022
16:07
linh
pham



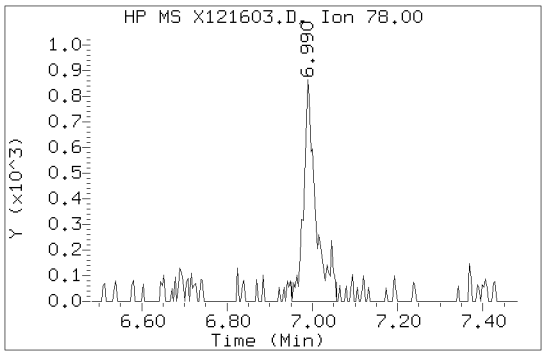
BEFORE

MASS
78
AREA
1727
HEIGHT
864
27-Dec-2022
16:03
linh
pham



AFTER

MASS
78
AREA
1727
HEIGHT
864
27-Dec-2022
16:07
linh
pham



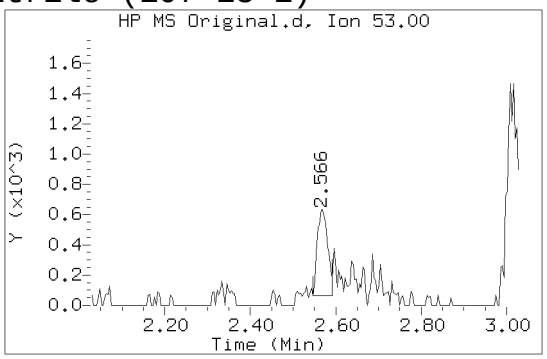
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

Acrylonitrile (107-13-1)

Reason Code:

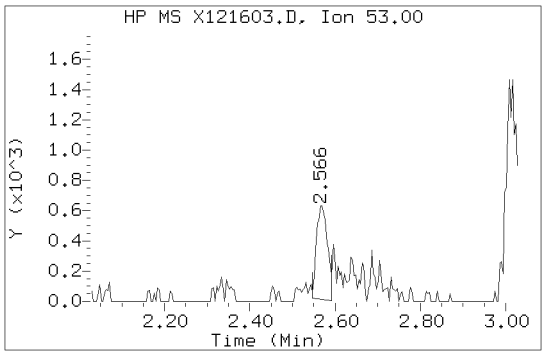
BEFORE

MASS
53
AREA
975
HEIGHT
571
27-Dec-2022
16:03
linh
pham



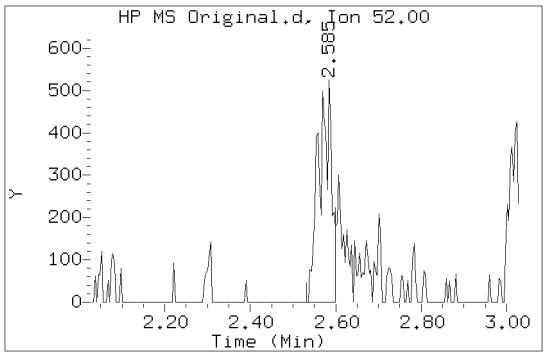
AFTER

MASS
53
AREA
1118
HEIGHT
618
27-Dec-2022
16:07
linh
pham



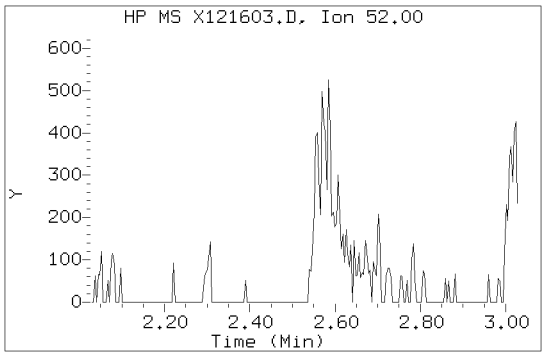
BEFORE

MASS
52
AREA
1100
HEIGHT
525
27-Dec-2022
16:03
linh
pham



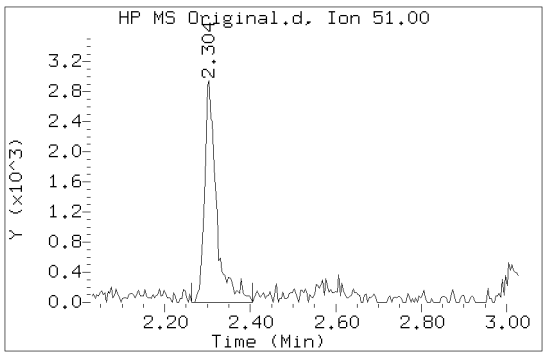
AFTER

MASS
52
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



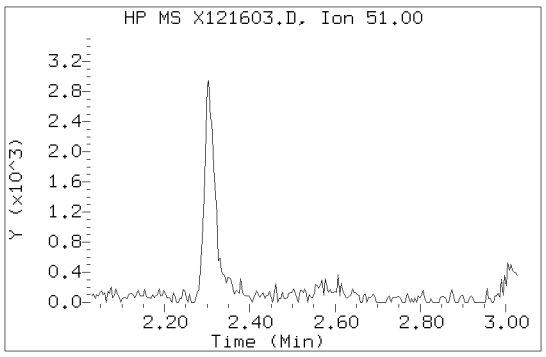
BEFORE

MASS
51
AREA
5708
HEIGHT
2946
27-Dec-2022
16:03
linh
pham



AFTER

MASS
51
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

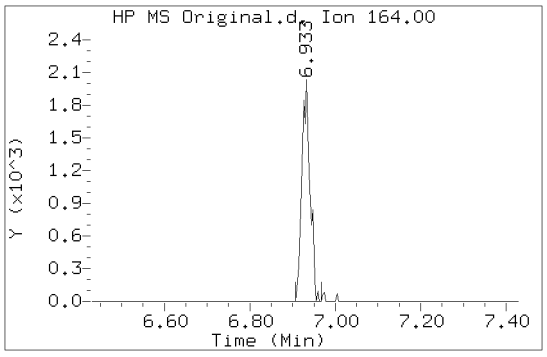


Tetrachloroethene (127-18-4)

Reason Code:

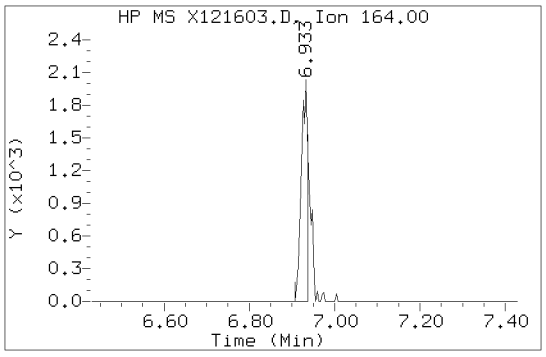
BEFORE

MASS
164
AREA
2777
HEIGHT
2036
27-Dec-2022
16:03
linh
pham



AFTER

MASS
164
AREA
2131
HEIGHT
2036
27-Dec-2022
16:07
linh
pham



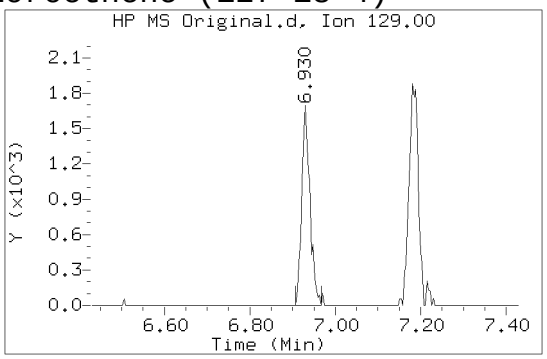
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

Tetrachloroethene (127-18-4)

Reason Code:

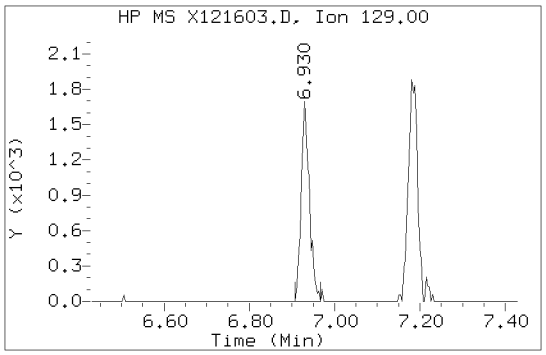
BEFORE

MASS
129
AREA
2342
HEIGHT
1697
27-Dec-2022
16:03
linh
pham



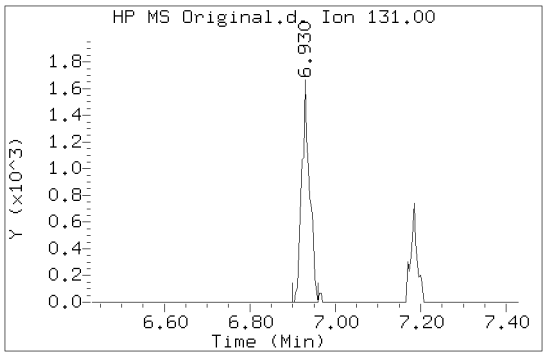
AFTER

MASS
129
AREA
2342
HEIGHT
1697
27-Dec-2022
16:07
linh
pham



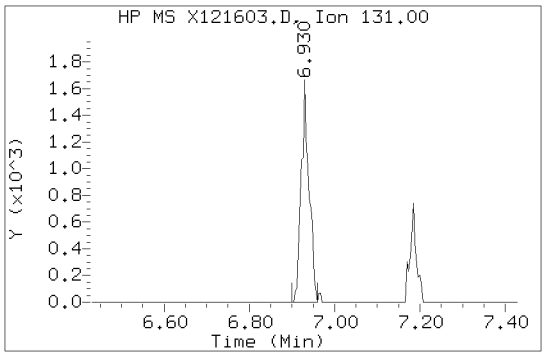
BEFORE

MASS
131
AREA
2193
HEIGHT
1665
27-Dec-2022
16:03
linh
pham



AFTER

MASS
131
AREA
2193
HEIGHT
1665
27-Dec-2022
16:07
linh
pham

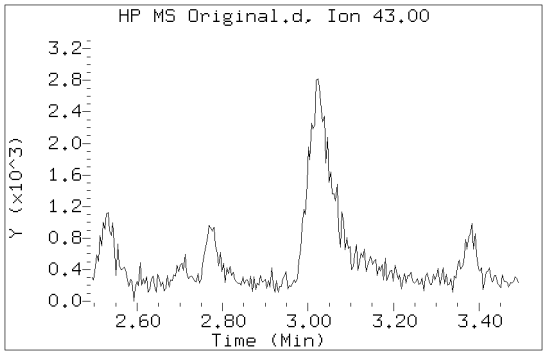


Vinyl Acetate (108-05-4)

Reason Code:

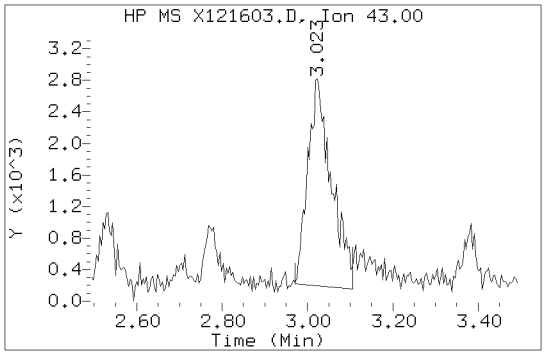
BEFORE

MASS
43
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



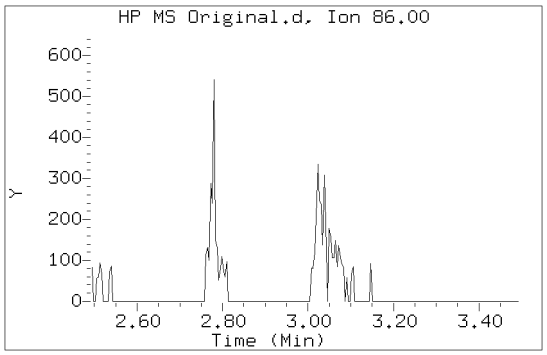
AFTER

MASS
43
AREA
10138
HEIGHT
2622
27-Dec-2022
16:07
linh
pham



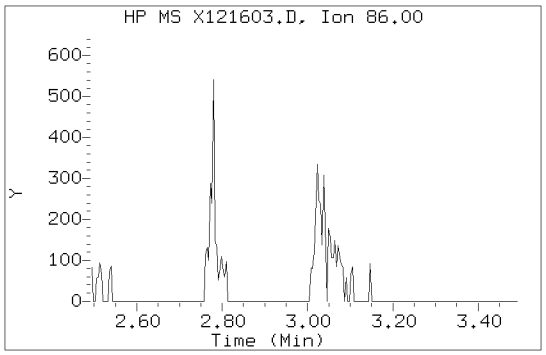
BEFORE

MASS
86
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
86
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

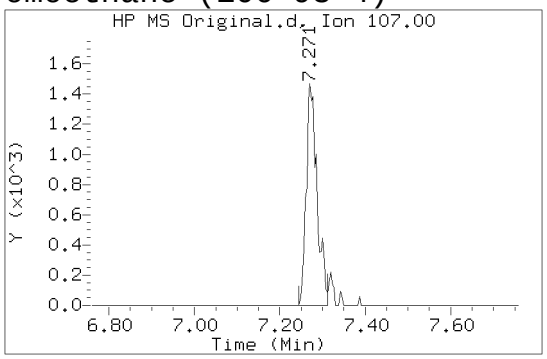


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

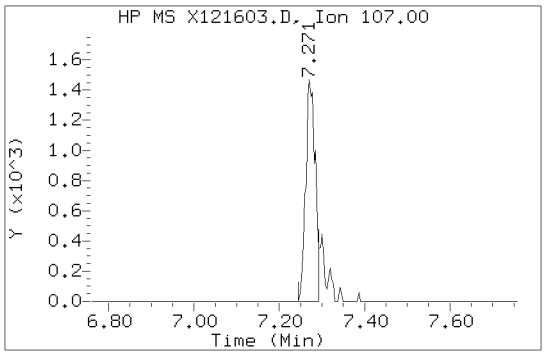
1,2-Dibromoethane (106-93-4)

Reason Code:

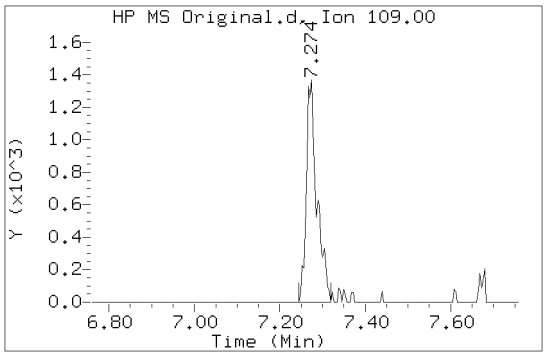
BEFORE
MASS
107
AREA
2627
HEIGHT
1469
27-Dec-2022
16:03
linh
pham



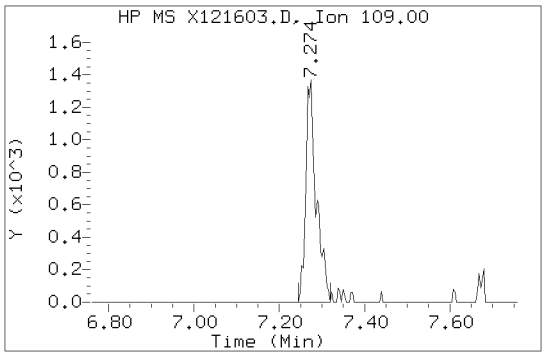
AFTER
MASS
107
AREA
2340
HEIGHT
1469
27-Dec-2022
16:07
linh
pham



BEFORE
MASS
109
AREA
2396
HEIGHT
1369
27-Dec-2022
16:03
linh
pham



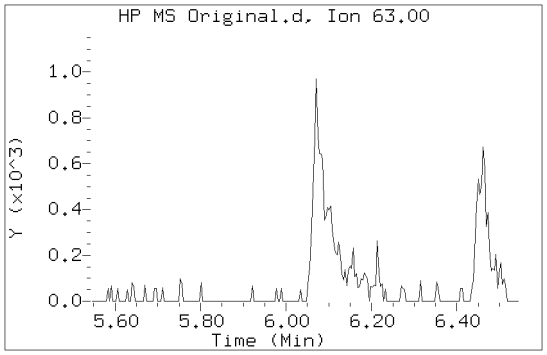
AFTER
MASS
109
AREA
2396
HEIGHT
1369
27-Dec-2022
16:07
linh
pham



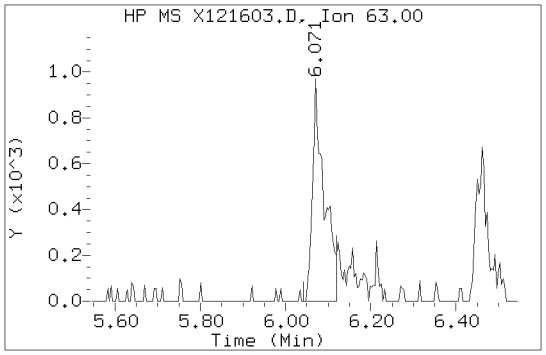
2-Chloroethylvinyl ether (110-75-8)

Reason Code:

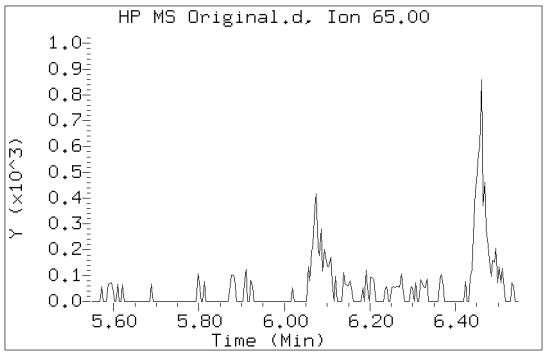
BEFORE
MASS
63
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



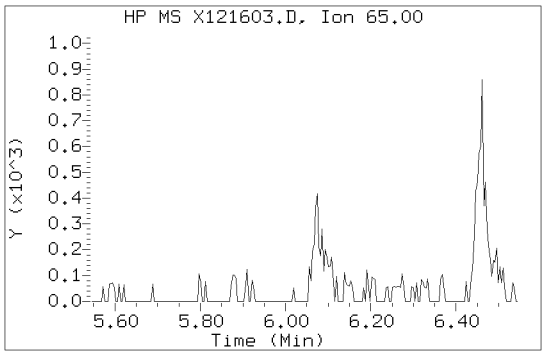
AFTER
MASS
63
AREA
1861
HEIGHT
970
27-Dec-2022
16:07
linh
pham



BEFORE
MASS
65
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER
MASS
65
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



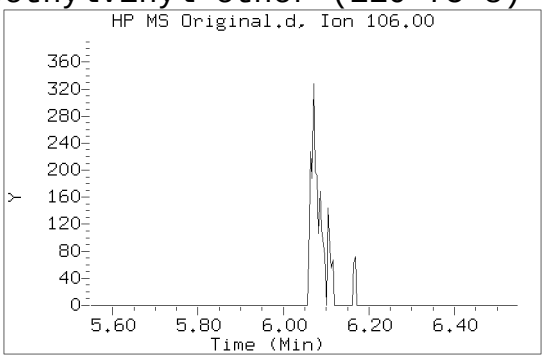
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

2-Chloroethylvinyl ether (110-75-8)

Reason Code:

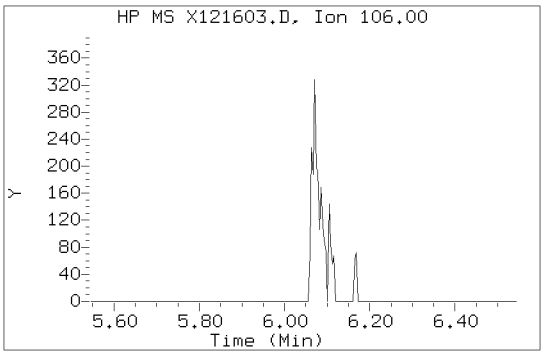
BEFORE

MASS
106
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
106
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

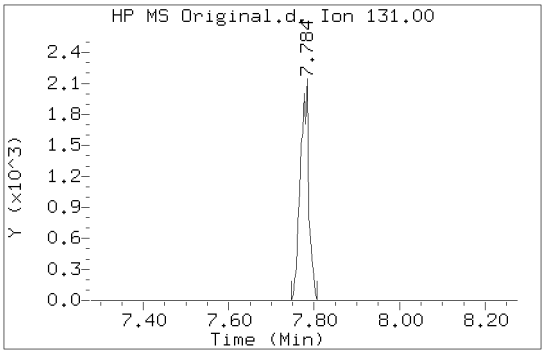


1,1,1,2-Tetrachloroethane (630-20-6)

Reason Code:

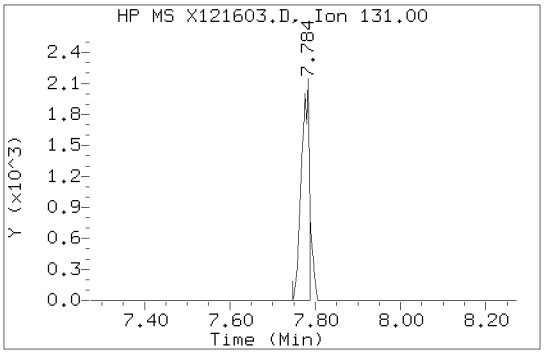
BEFORE

MASS
131
AREA
3036
HEIGHT
2146
27-Dec-2022
16:03
linh
pham



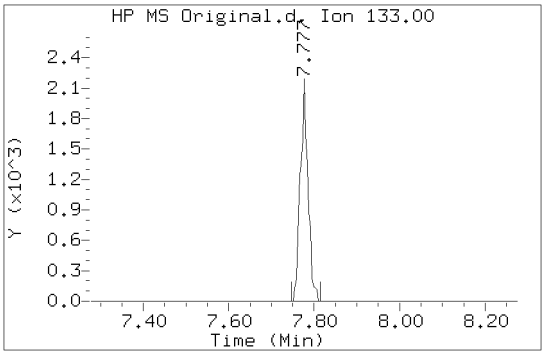
AFTER

MASS
131
AREA
2741
HEIGHT
2146
27-Dec-2022
16:07
linh
pham



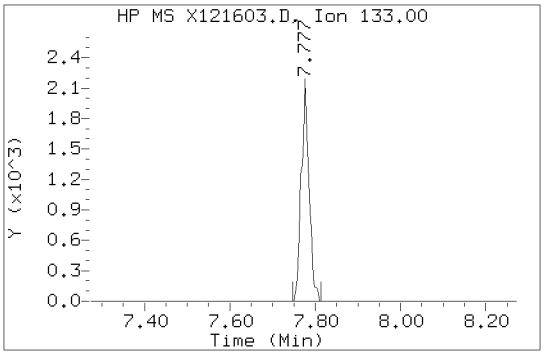
BEFORE

MASS
133
AREA
2829
HEIGHT
2191
27-Dec-2022
16:03
linh
pham



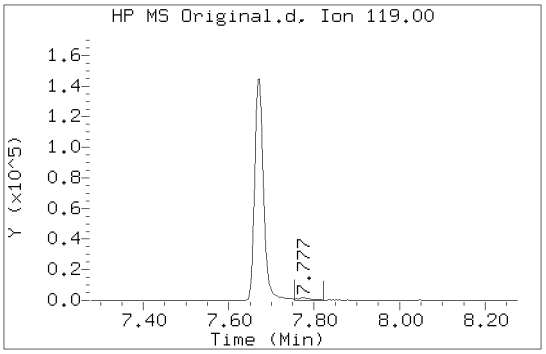
AFTER

MASS
133
AREA
2829
HEIGHT
2191
27-Dec-2022
16:07
linh
pham



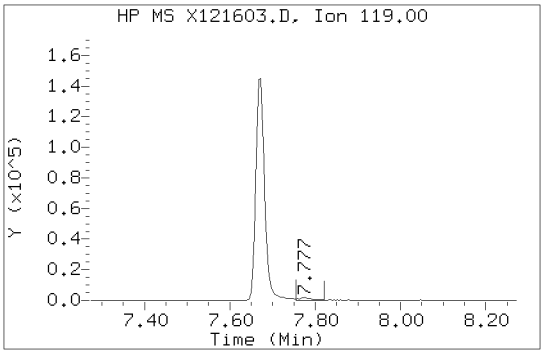
BEFORE

MASS
119
AREA
2971
HEIGHT
1971
27-Dec-2022
16:03
linh
pham



AFTER

MASS
119
AREA
2971
HEIGHT
1971
27-Dec-2022
16:07
linh
pham



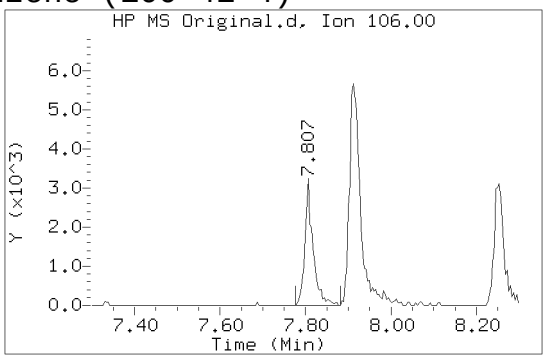
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

Ethylbenzene (100-41-4)

Reason Code:

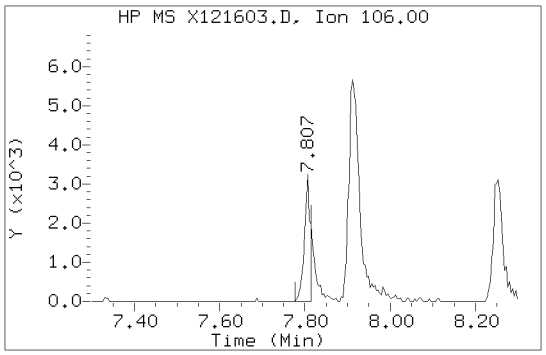
BEFORE

MASS
106
AREA
4331
HEIGHT
3242
27-Dec-2022
16:03
linh
pham



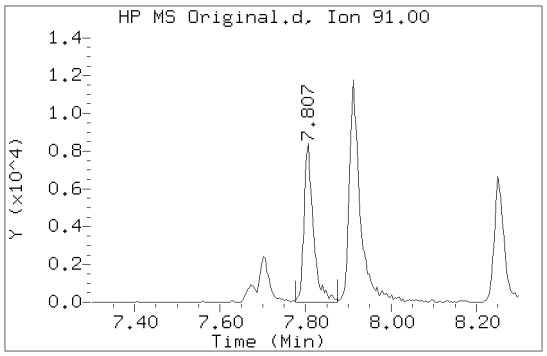
AFTER

MASS
106
AREA
3064
HEIGHT
3242
27-Dec-2022
16:07
linh
pham



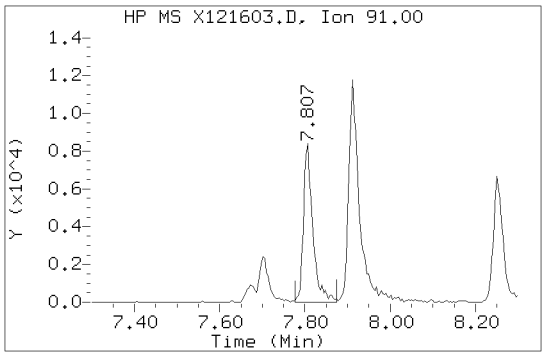
BEFORE

MASS
91
AREA
13136
HEIGHT
8410
27-Dec-2022
16:03
linh
pham



AFTER

MASS
91
AREA
13136
HEIGHT
8410
27-Dec-2022
16:07
linh
pham

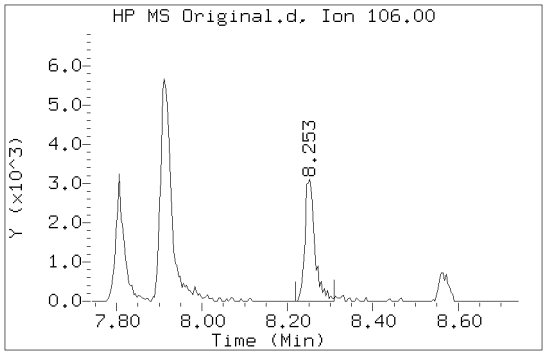


o-Xylene (95-47-6)

Reason Code:

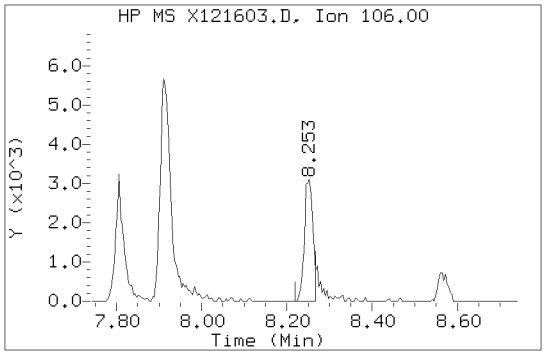
BEFORE

MASS
106
AREA
5100
HEIGHT
3111
27-Dec-2022
16:03
linh
pham



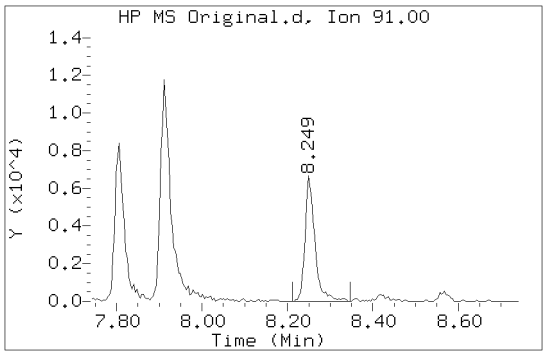
AFTER

MASS
106
AREA
4412
HEIGHT
3111
27-Dec-2022
16:07
linh
pham



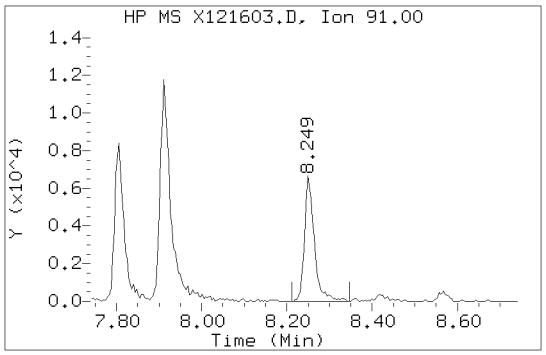
BEFORE

MASS
91
AREA
10808
HEIGHT
6665
27-Dec-2022
16:03
linh
pham



AFTER

MASS
91
AREA
10808
HEIGHT
6665
27-Dec-2022
16:07
linh
pham

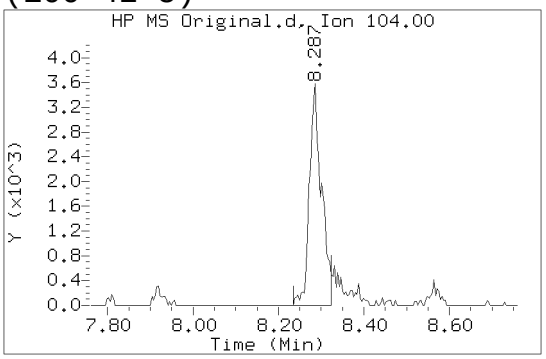


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

Styrene (100-42-5)

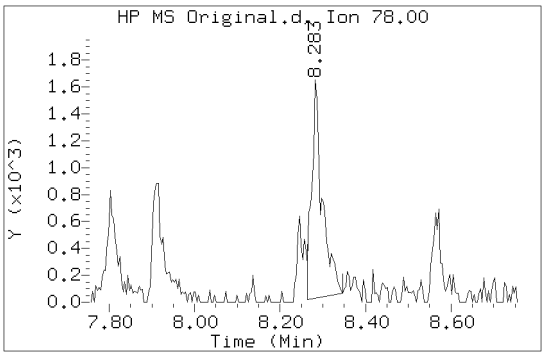
BEFORE

MASS
104
AREA
7074
HEIGHT
3581
27-Dec-2022
16:03
linh
pham



BEFORE

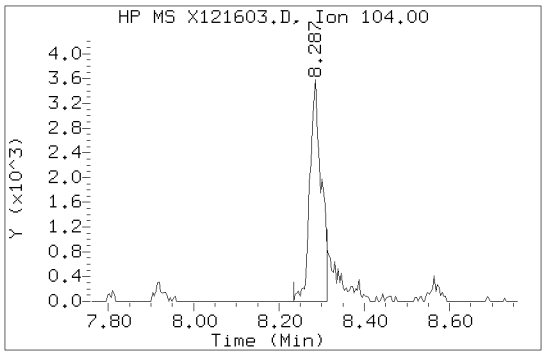
MASS
78
AREA
2827
HEIGHT
1622
27-Dec-2022
16:03
linh
pham



Reason Code:

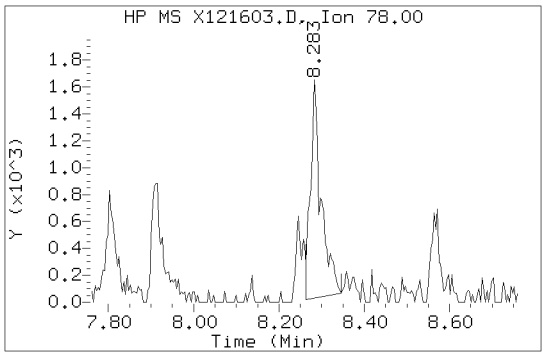
AFTER

MASS
104
AREA
6634
HEIGHT
3581
27-Dec-2022
16:07
linh
pham



AFTER

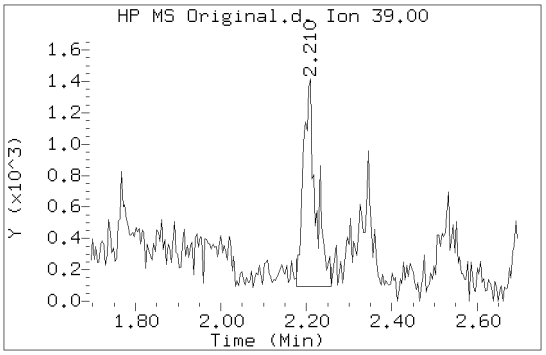
MASS
78
AREA
2827
HEIGHT
1622
27-Dec-2022
16:07
linh
pham



Acetonitrile (75-05-8)

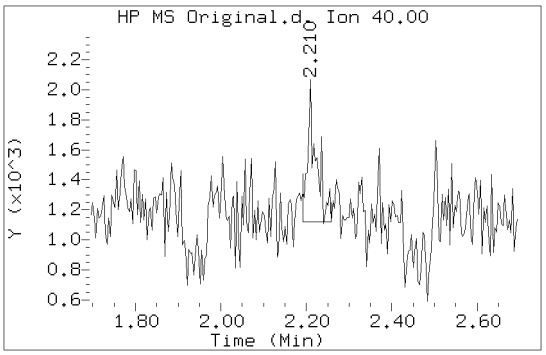
BEFORE

MASS
39
AREA
2674
HEIGHT
1321
27-Dec-2022
16:03
linh
pham



BEFORE

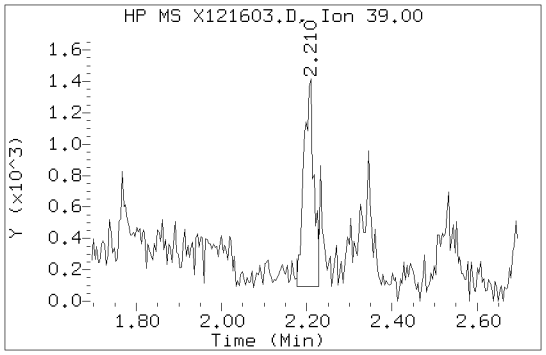
MASS
40
AREA
1296
HEIGHT
946
27-Dec-2022
16:03
linh
pham



Reason Code:

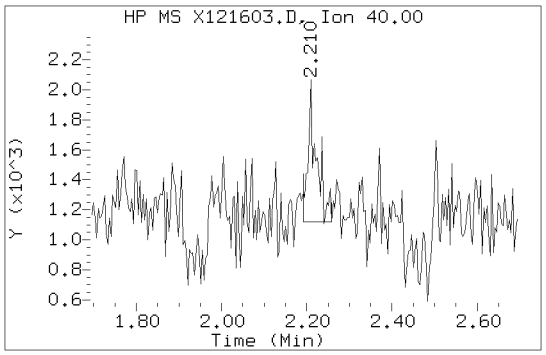
AFTER

MASS
39
AREA
2204
HEIGHT
1321
27-Dec-2022
16:07
linh
pham



AFTER

MASS
40
AREA
1296
HEIGHT
946
27-Dec-2022
16:07
linh
pham



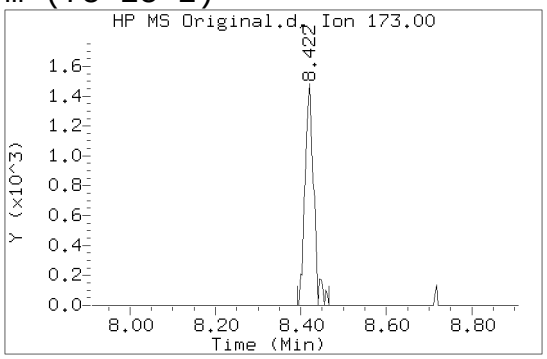
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

Bromoform (75-25-2)

Reason Code:

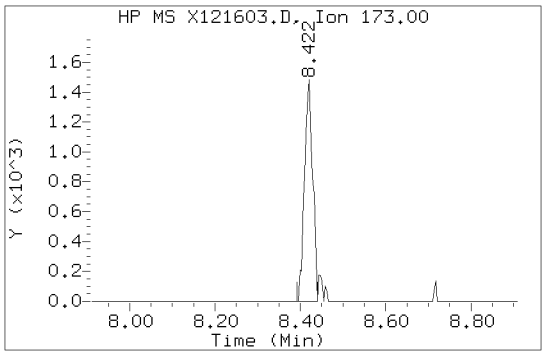
BEFORE

MASS
173
AREA
2158
HEIGHT
1483
27-Dec-2022
16:03
linh
pham



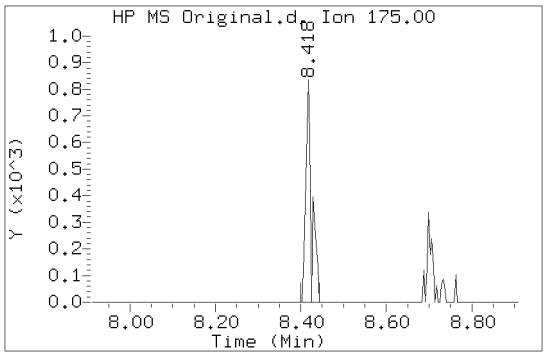
AFTER

MASS
173
AREA
2013
HEIGHT
1483
27-Dec-2022
16:07
linh
pham



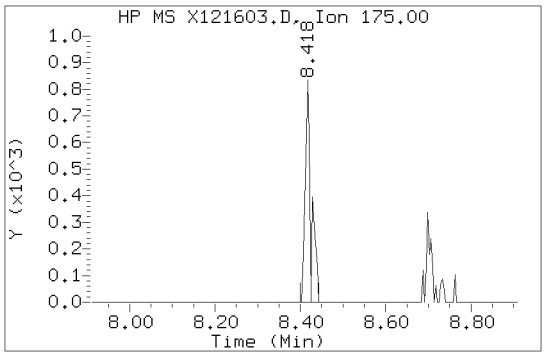
BEFORE

MASS
175
AREA
807
HEIGHT
835
27-Dec-2022
16:03
linh
pham



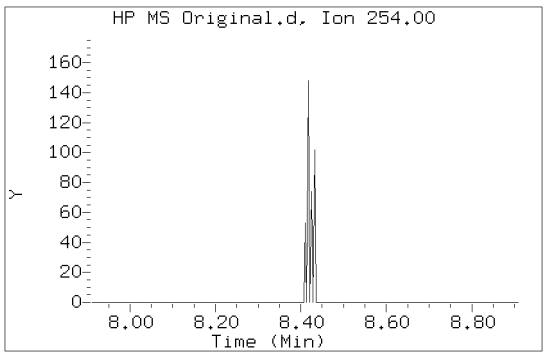
AFTER

MASS
175
AREA
807
HEIGHT
835
27-Dec-2022
16:07
linh
pham



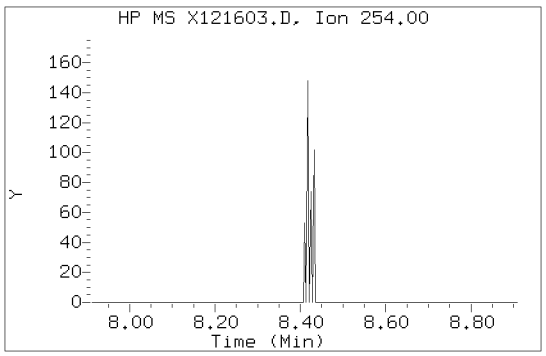
BEFORE

MASS
254
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
254
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

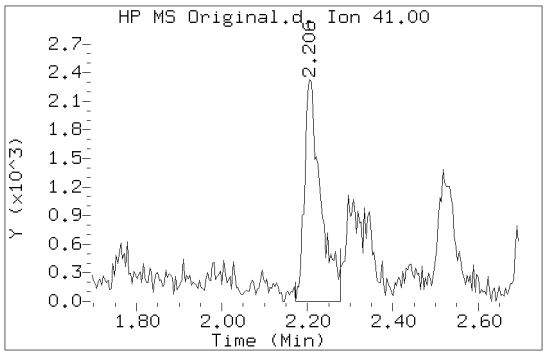


Allyl Chloride (107-05-1)

Reason Code:

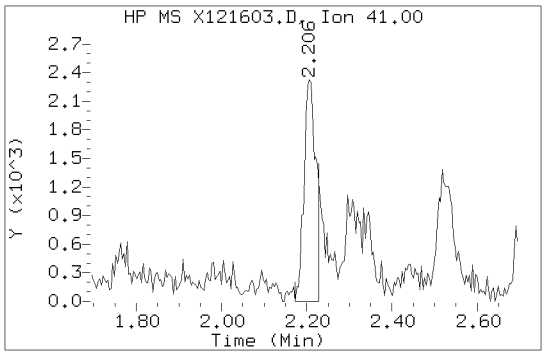
BEFORE

MASS
41
AREA
6169
HEIGHT
2326
27-Dec-2022
16:03
linh
pham



AFTER

MASS
41
AREA
4574
HEIGHT
2326
27-Dec-2022
16:07
linh
pham



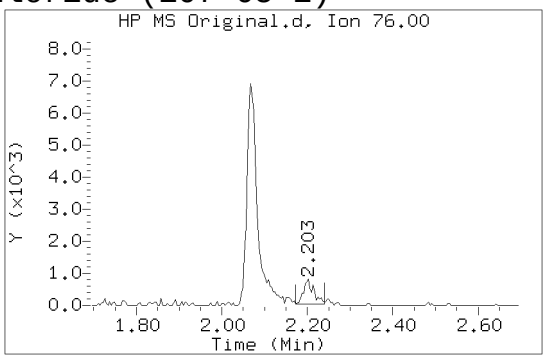
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

Allyl Chloride (107-05-1)

Reason Code:

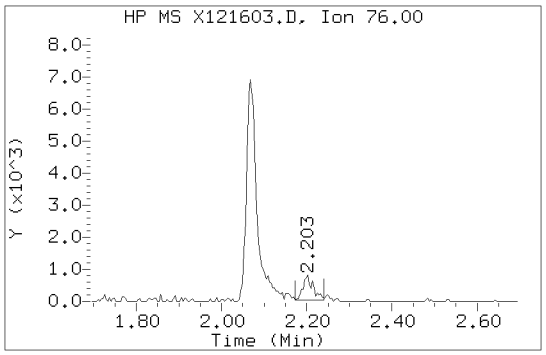
BEFORE

MASS
76
AREA
1254
HEIGHT
763
27-Dec-2022
16:03
linh
pham



AFTER

MASS
76
AREA
1254
HEIGHT
763
27-Dec-2022
16:07
linh
pham

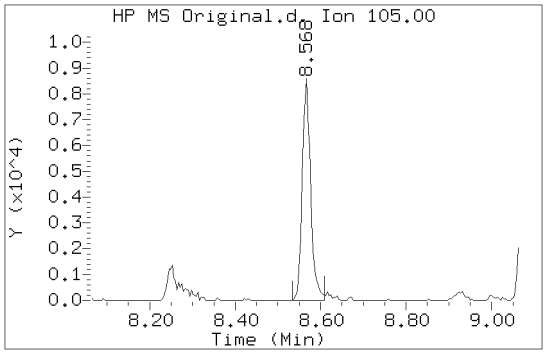


Isopropylbenzene (98-82-8)

Reason Code:

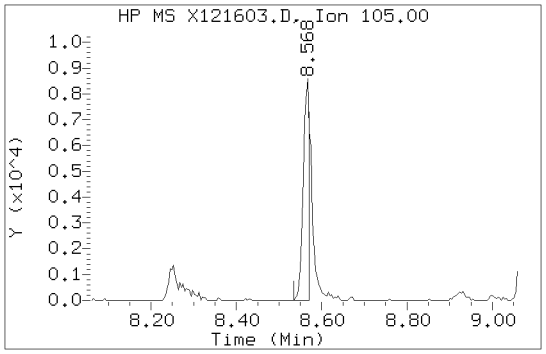
BEFORE

MASS
105
AREA
12091
HEIGHT
8588
27-Dec-2022
16:03
linh
pham



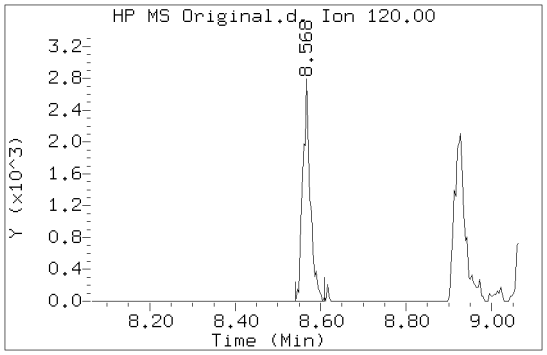
AFTER

MASS
105
AREA
8757
HEIGHT
8588
27-Dec-2022
16:07
linh
pham



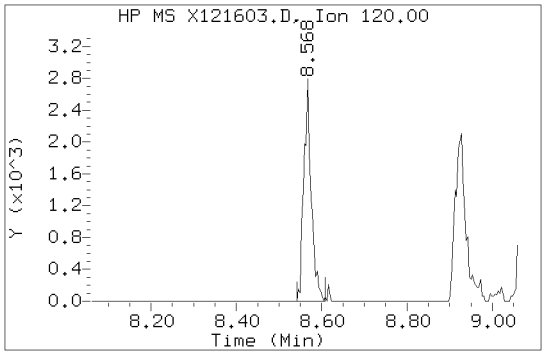
BEFORE

MASS
120
AREA
3462
HEIGHT
2793
27-Dec-2022
16:03
linh
pham



AFTER

MASS
120
AREA
3462
HEIGHT
2793
27-Dec-2022
16:07
linh
pham

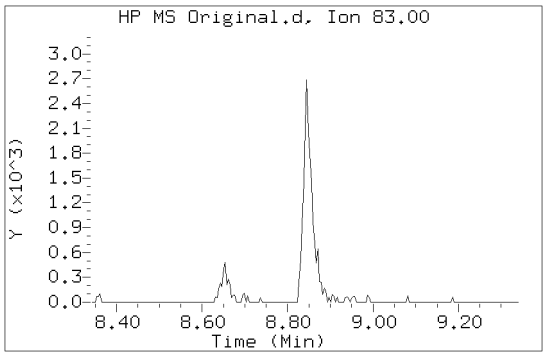


1,1,2,2-Tetrachloroethane (79-34-5)

Reason Code:

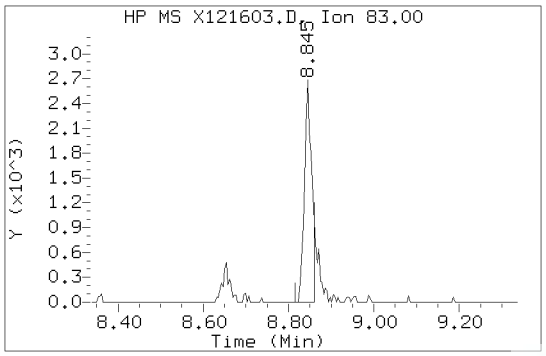
BEFORE

MASS
83
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
83
AREA
3194
HEIGHT
2685
27-Dec-2022
16:07
linh
pham



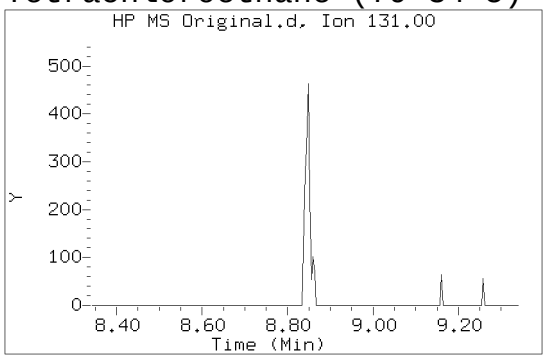
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

1,1,2,2-Tetrachloroethane (79-34-5)

Reason Code:

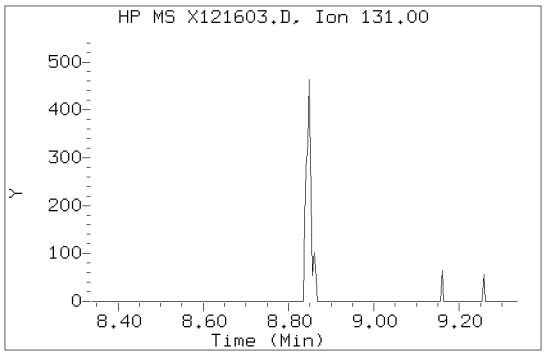
BEFORE

MASS
131
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



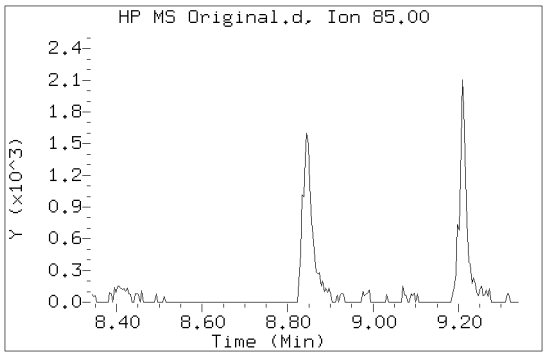
AFTER

MASS
131
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



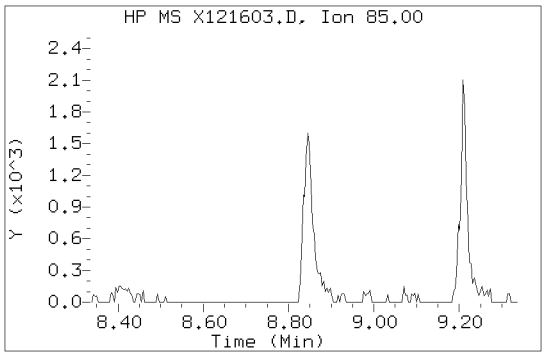
BEFORE

MASS
85
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
85
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

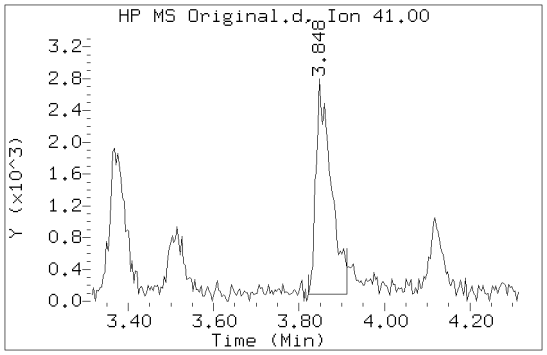


Methacrylonitrile (126-98-7)

Reason Code:

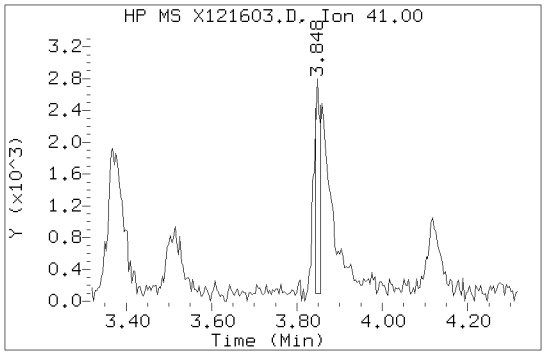
BEFORE

MASS
41
AREA
6587
HEIGHT
2708
27-Dec-2022
16:03
linh
pham



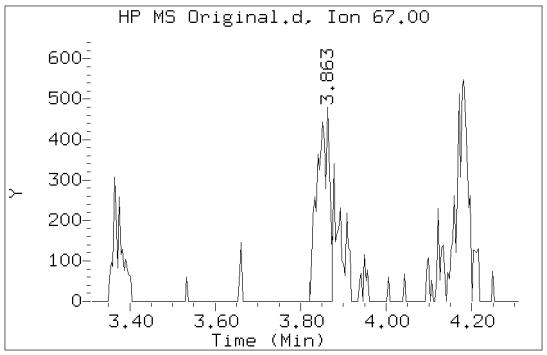
AFTER

MASS
41
AREA
2066
HEIGHT
2701
27-Dec-2022
16:07
linh
pham



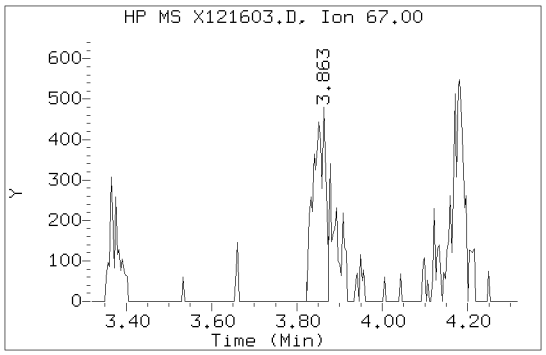
BEFORE

MASS
67
AREA
937
HEIGHT
480
27-Dec-2022
16:03
linh
pham



AFTER

MASS
67
AREA
937
HEIGHT
480
27-Dec-2022
16:07
linh
pham



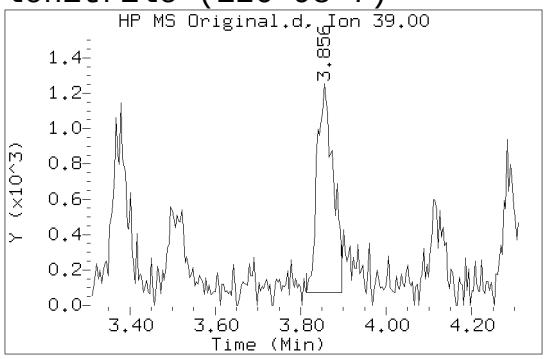
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

Methacrylonitrile (126-98-7)

Reason Code:

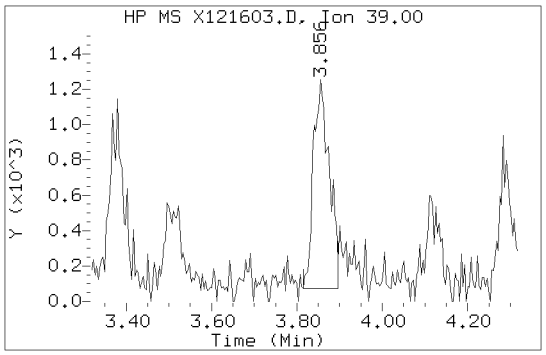
BEFORE

MASS
39
AREA
3048
HEIGHT
1181
27-Dec-2022
16:03
linh
pham



AFTER

MASS
39
AREA
3048
HEIGHT
1181
27-Dec-2022
16:07
linh
pham

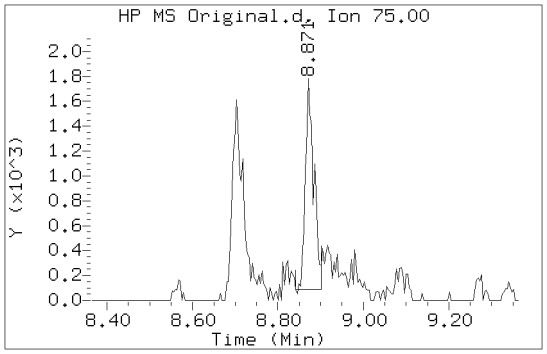


1,2,3-Trichloropropane (96-18-4)

Reason Code:

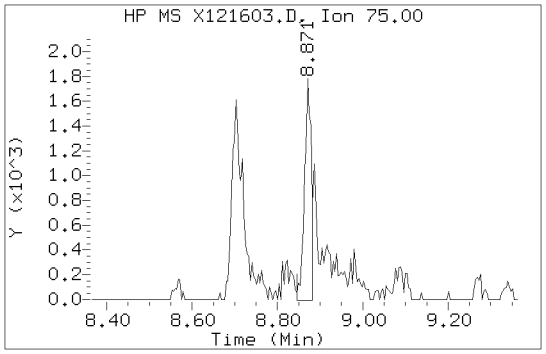
BEFORE

MASS
75
AREA
2351
HEIGHT
1693
27-Dec-2022
16:03
linh
pham



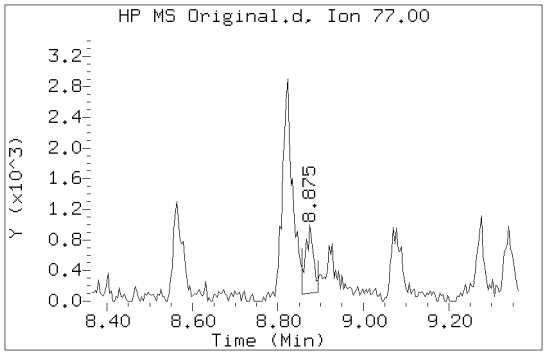
AFTER

MASS
75
AREA
2019
HEIGHT
1788
27-Dec-2022
16:07
linh
pham



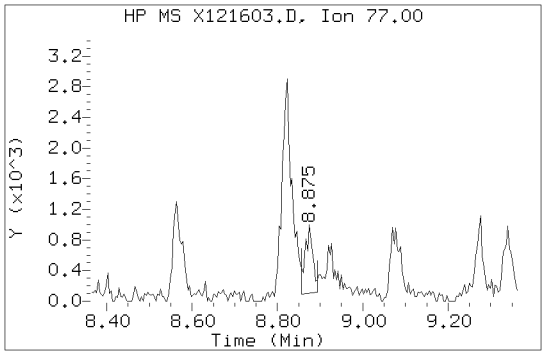
BEFORE

MASS
77
AREA
1161
HEIGHT
895
27-Dec-2022
16:03
linh
pham



AFTER

MASS
77
AREA
1161
HEIGHT
895
27-Dec-2022
16:07
linh
pham

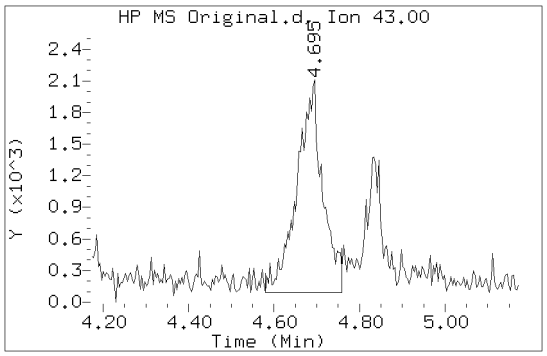


Isobutyl Alcohol (78-83-1)

Reason Code:

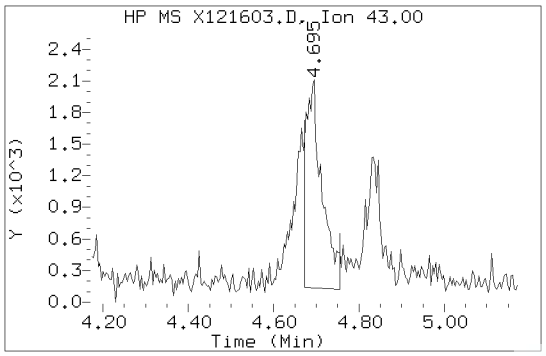
BEFORE

MASS
43
AREA
8478
HEIGHT
2018
27-Dec-2022
16:03
linh
pham



AFTER

MASS
43
AREA
5178
HEIGHT
1973
27-Dec-2022
16:07
linh
pham

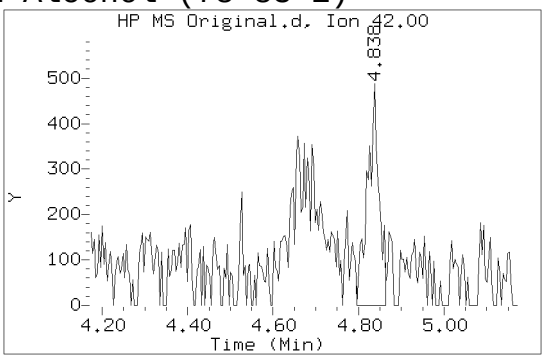


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

Isobutyl Alcohol (78-83-1)

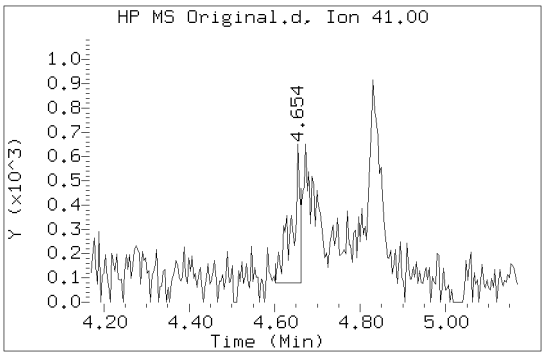
BEFORE

MASS
42
AREA
904
HEIGHT
488
27-Dec-2022
16:03
linh
pham



BEFORE

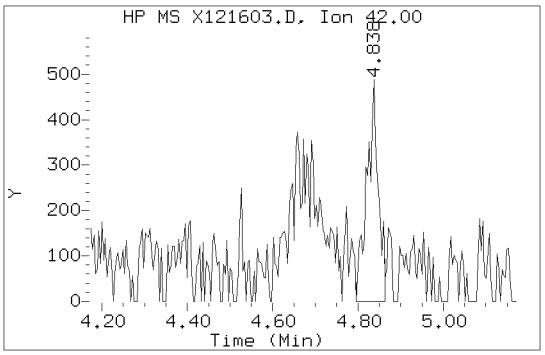
MASS
41
AREA
776
HEIGHT
572
27-Dec-2022
16:03
linh
pham



Reason Code:

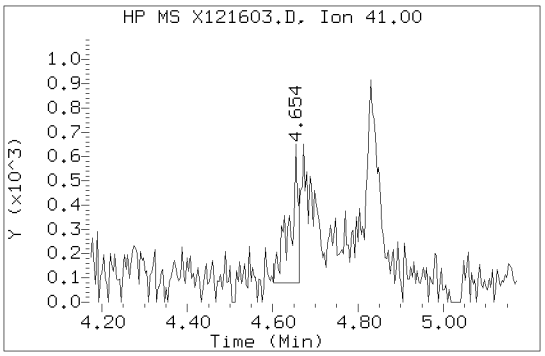
AFTER

MASS
42
AREA
904
HEIGHT
488
27-Dec-2022
16:07
linh
pham



AFTER

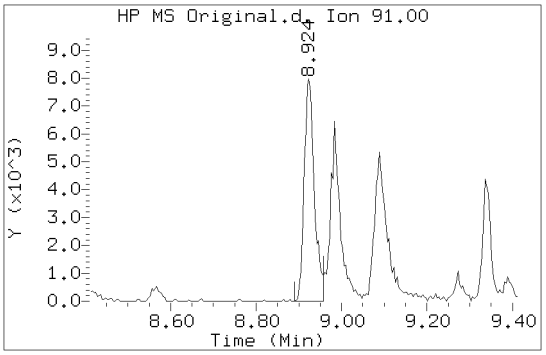
MASS
41
AREA
776
HEIGHT
572
27-Dec-2022
16:07
linh
pham



n-Propylbenzene (106-65-1)

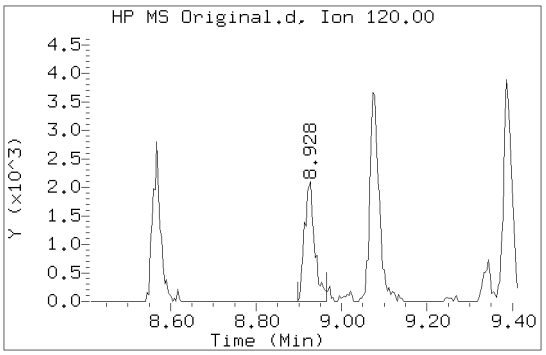
BEFORE

MASS
91
AREA
13496
HEIGHT
7972
27-Dec-2022
16:03
linh
pham



BEFORE

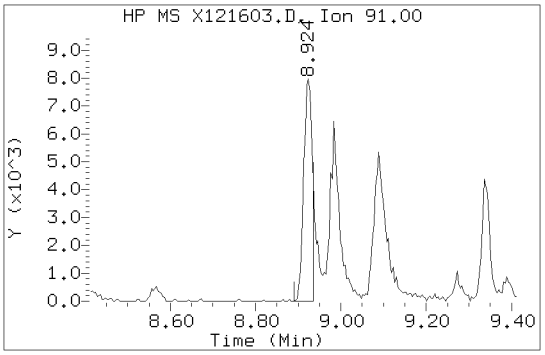
MASS
120
AREA
3559
HEIGHT
2104
27-Dec-2022
16:03
linh
pham



Reason Code:

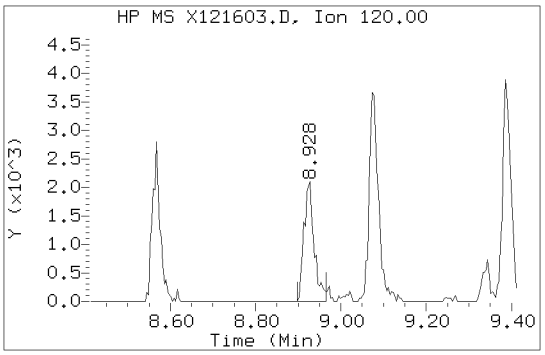
AFTER

MASS
91
AREA
11163
HEIGHT
7972
27-Dec-2022
16:07
linh
pham



AFTER

MASS
120
AREA
3559
HEIGHT
2104
27-Dec-2022
16:07
linh
pham

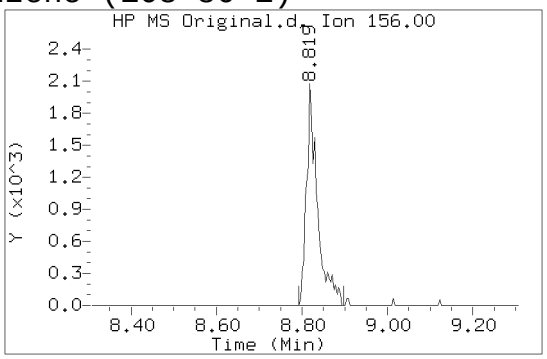


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

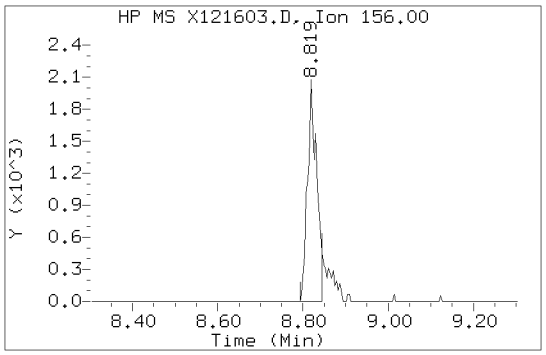
Bromobenzene (108-86-1)

Reason Code:

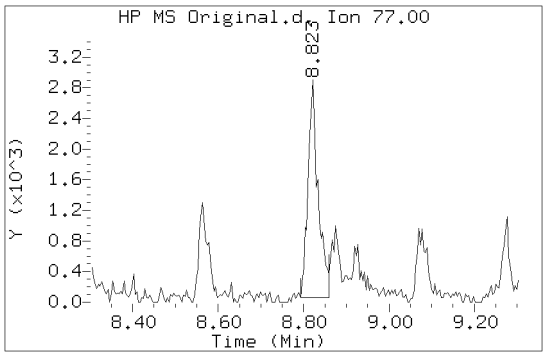
BEFORE
MASS
156
AREA
3747
HEIGHT
2077
27-Dec-2022
16:03
linh
pham



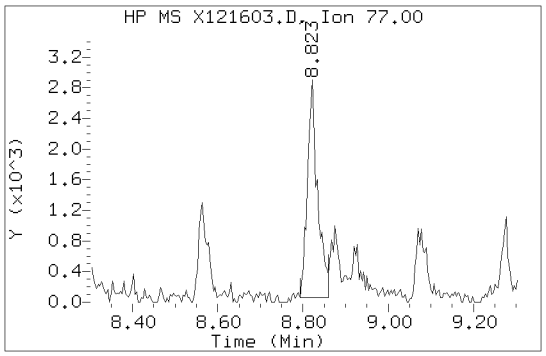
AFTER
MASS
156
AREA
3147
HEIGHT
2077
27-Dec-2022
16:07
linh
pham



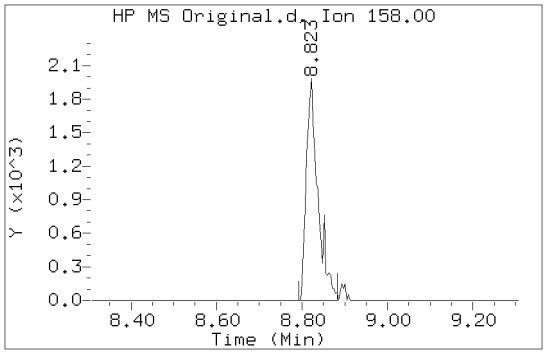
BEFORE
MASS
77
AREA
4719
HEIGHT
2841
27-Dec-2022
16:03
linh
pham



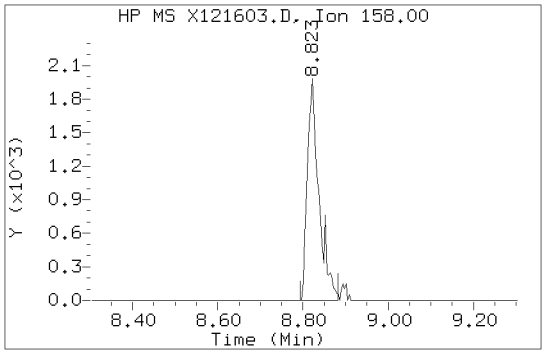
AFTER
MASS
77
AREA
4719
HEIGHT
2841
27-Dec-2022
16:07
linh
pham



BEFORE
MASS
158
AREA
3772
HEIGHT
1983
27-Dec-2022
16:03
linh
pham



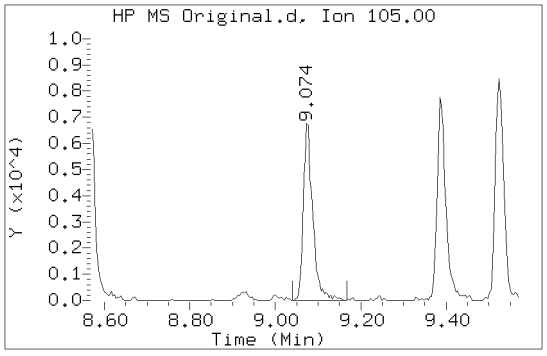
AFTER
MASS
158
AREA
3772
HEIGHT
1983
27-Dec-2022
16:07
linh
pham



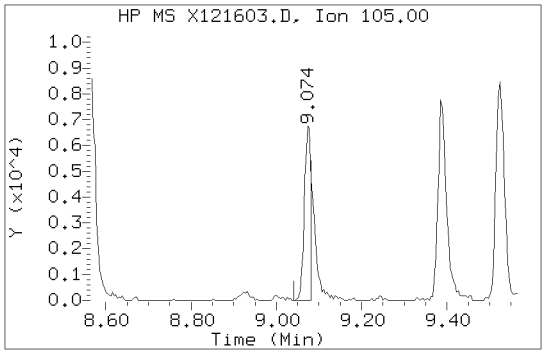
1,3,5-Trimethylbenzene (108-67-8)

Reason Code:

BEFORE
MASS
105
AREA
10555
HEIGHT
6758
27-Dec-2022
16:03
linh
pham



AFTER
MASS
105
AREA
7182
HEIGHT
6758
27-Dec-2022
16:07
linh
pham



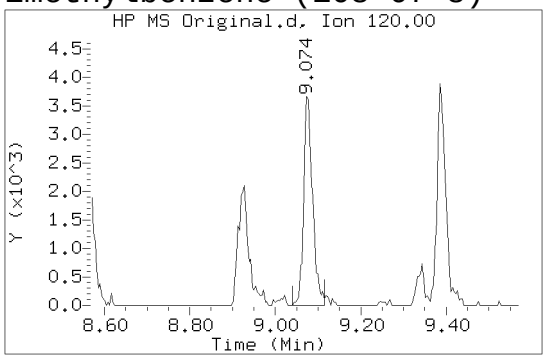
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

1,3,5-Trimethylbenzene (108-67-8)

Reason Code:

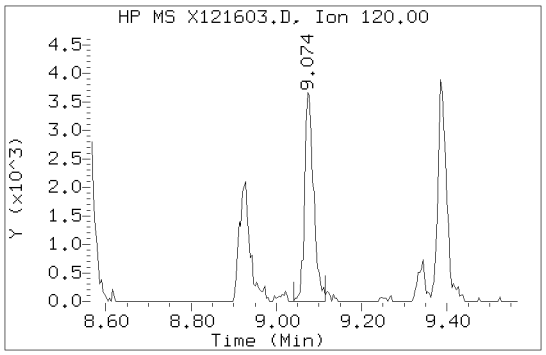
BEFORE

MASS
120
AREA
5450
HEIGHT
3663
27-Dec-2022
16:03
linh
pham



AFTER

MASS
120
AREA
5450
HEIGHT
3663
27-Dec-2022
16:07
linh
pham

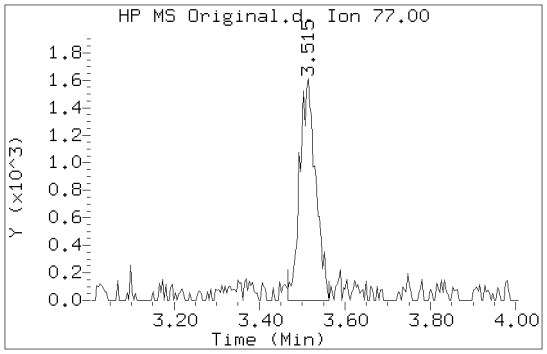


2,2-Dichloropropane (594-20-7)

Reason Code:

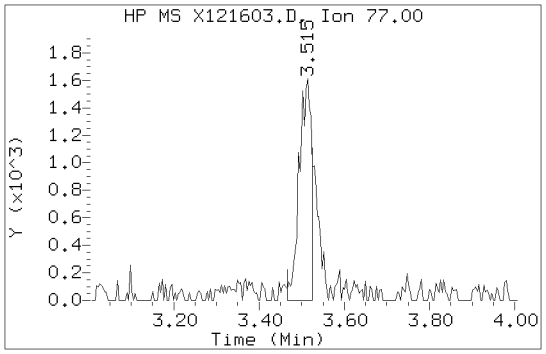
BEFORE

MASS
77
AREA
4217
HEIGHT
1612
27-Dec-2022
16:03
linh
pham



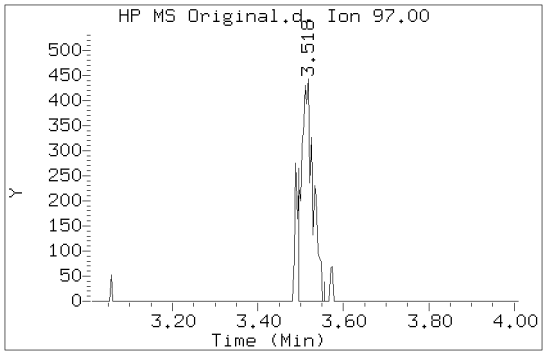
AFTER

MASS
77
AREA
3238
HEIGHT
1612
27-Dec-2022
16:07
linh
pham



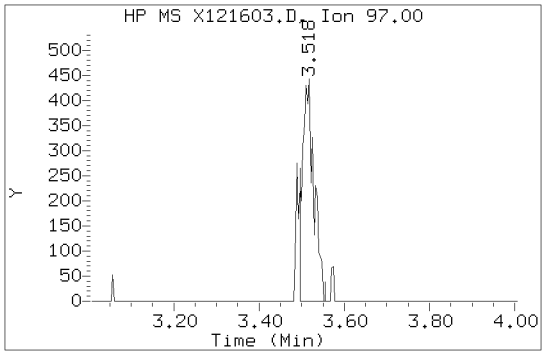
BEFORE

MASS
97
AREA
843
HEIGHT
443
27-Dec-2022
16:03
linh
pham



AFTER

MASS
97
AREA
843
HEIGHT
443
27-Dec-2022
16:07
linh
pham

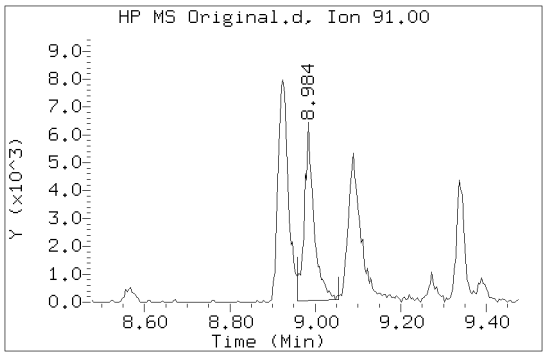


2-Chlorotoluene (95-49-8)

Reason Code:

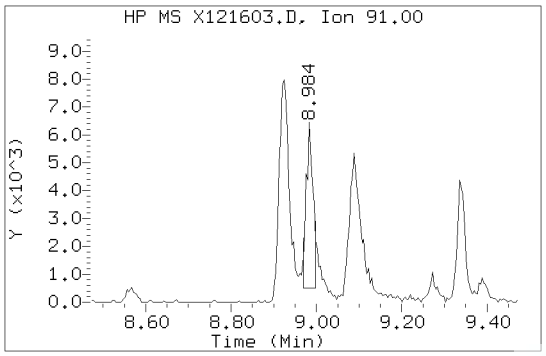
BEFORE

MASS
91
AREA
10128
HEIGHT
6401
27-Dec-2022
16:03
linh
pham



AFTER

MASS
91
AREA
6718
HEIGHT
5942
27-Dec-2022
16:07
linh
pham



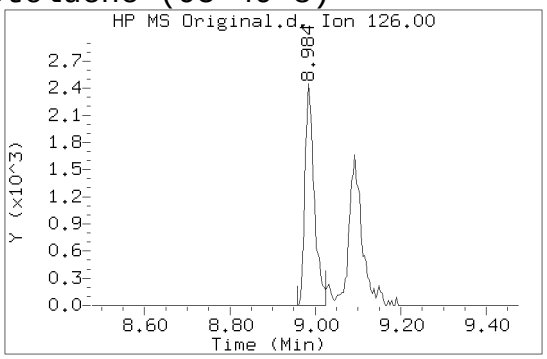
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

2-Chlorotoluene (95-49-8)

Reason Code:

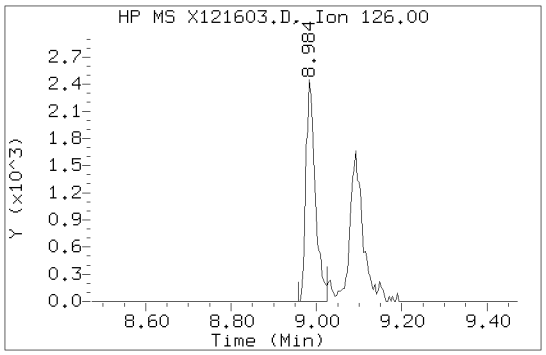
BEFORE

MASS
126
AREA
3761
HEIGHT
2450
27-Dec-2022
16:03
linh
pham



AFTER

MASS
126
AREA
3761
HEIGHT
2450
27-Dec-2022
16:07
linh
pham

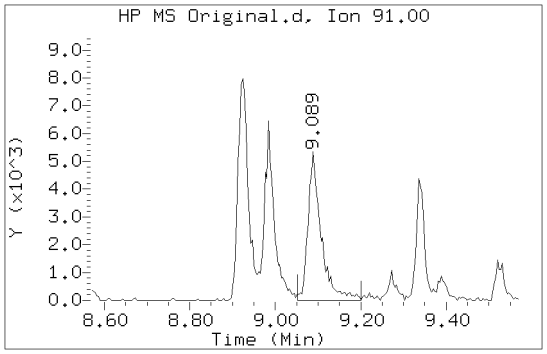


4-Chlorotoluene (106-43-4)

Reason Code:

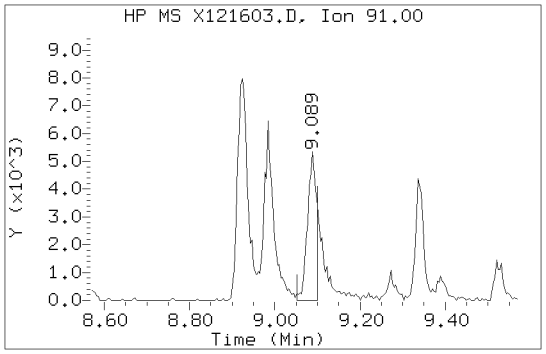
BEFORE

MASS
91
AREA
11481
HEIGHT
5337
27-Dec-2022
16:03
linh
pham



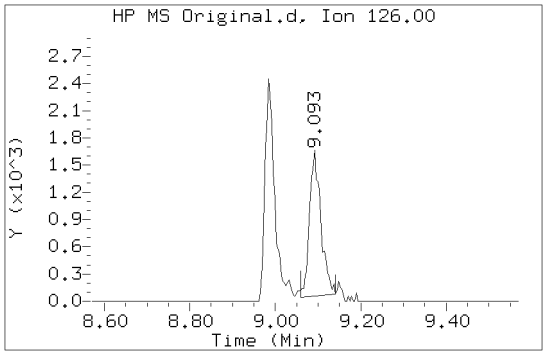
AFTER

MASS
91
AREA
7644
HEIGHT
5337
27-Dec-2022
16:07
linh
pham



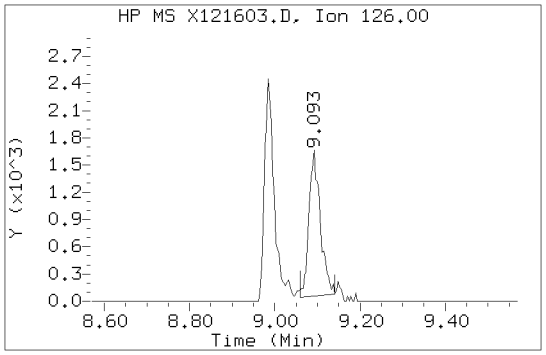
BEFORE

MASS
126
AREA
3008
HEIGHT
1612
27-Dec-2022
16:03
linh
pham



AFTER

MASS
126
AREA
3008
HEIGHT
1612
27-Dec-2022
16:07
linh
pham

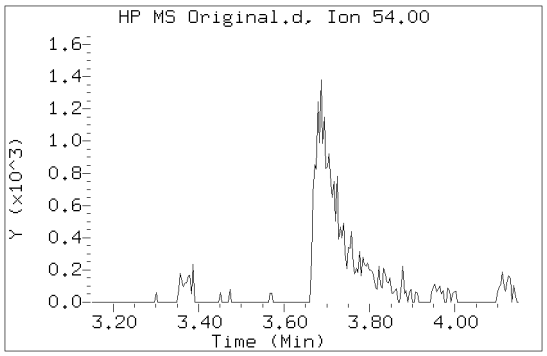


Propionitrile (107-12-0)

Reason Code:

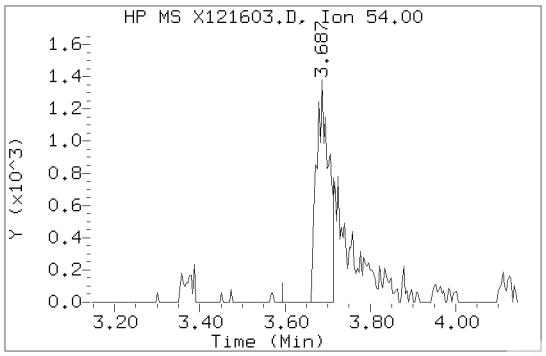
BEFORE

MASS
54
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
54
AREA
2777
HEIGHT
1380
27-Dec-2022
16:07
linh
pham



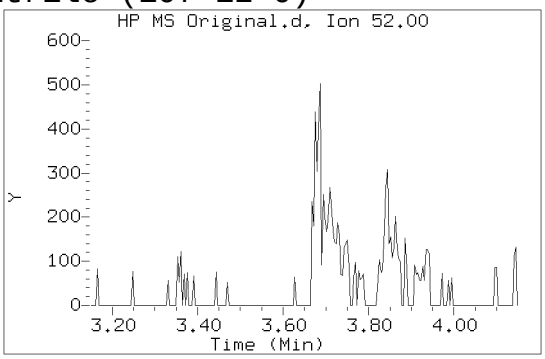
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

Propionitrile (107-12-0)

Reason Code:

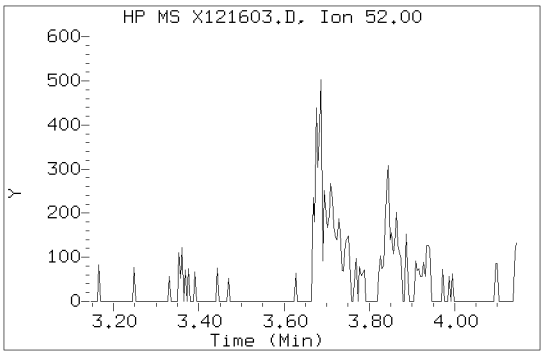
BEFORE

MASS
52
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



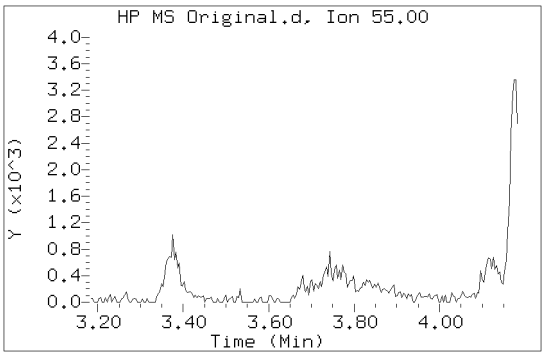
AFTER

MASS
52
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



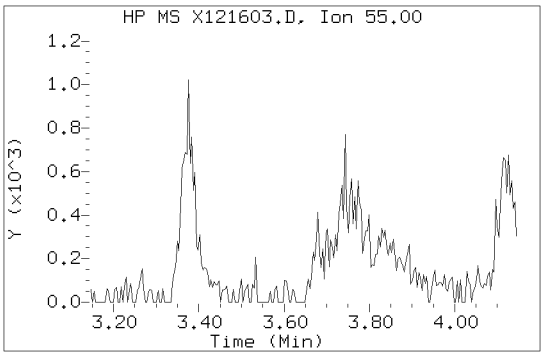
BEFORE

MASS
55
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
55
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

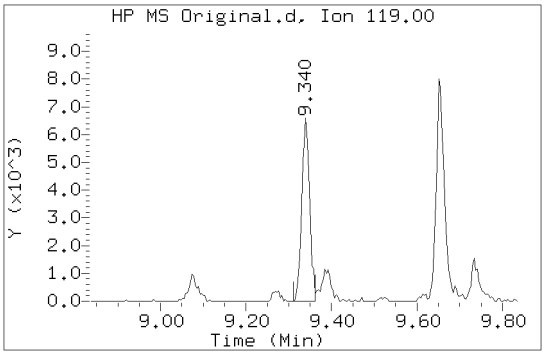


tert-Butylbenzene (98-06-6)

Reason Code:

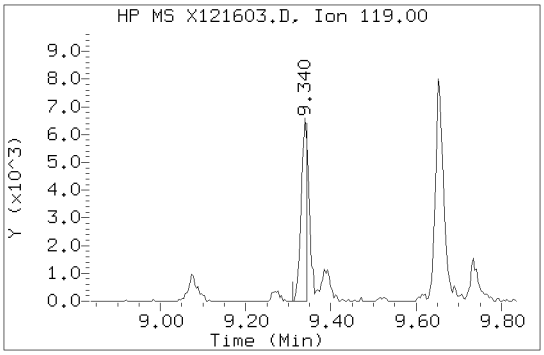
BEFORE

MASS
119
AREA
8660
HEIGHT
6598
27-Dec-2022
16:03
linh
pham



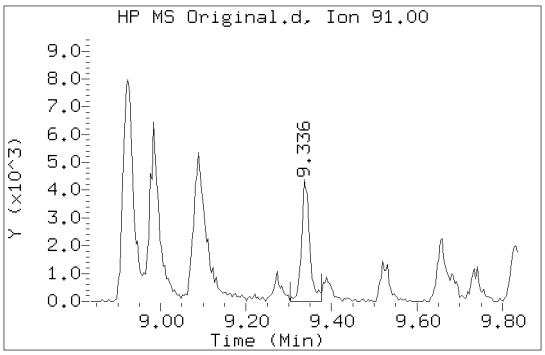
AFTER

MASS
119
AREA
6389
HEIGHT
6598
27-Dec-2022
16:07
linh
pham



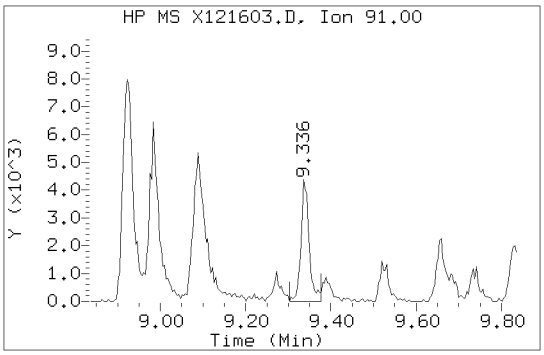
BEFORE

MASS
91
AREA
6013
HEIGHT
4378
27-Dec-2022
16:03
linh
pham



AFTER

MASS
91
AREA
6013
HEIGHT
4378
27-Dec-2022
16:07
linh
pham



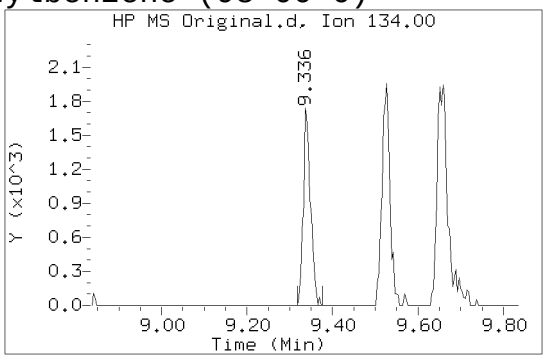
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

tert-Butylbenzene (98-06-6)

Reason Code:

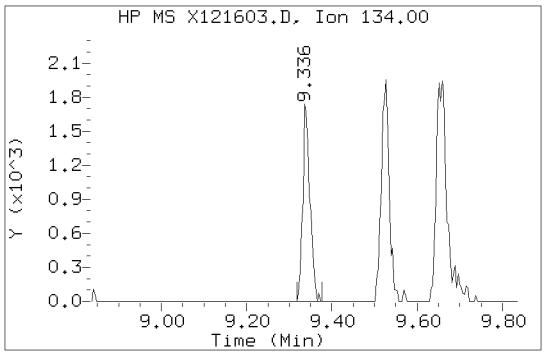
BEFORE

MASS
134
AREA
2112
HEIGHT
1740
27-Dec-2022
16:03
linh
pham



AFTER

MASS
134
AREA
2112
HEIGHT
1740
27-Dec-2022
16:07
linh
pham

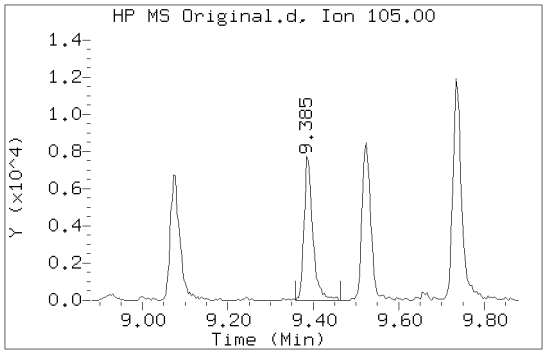


1,2,4-Trimethylbenzene (95-63-6)

Reason Code:

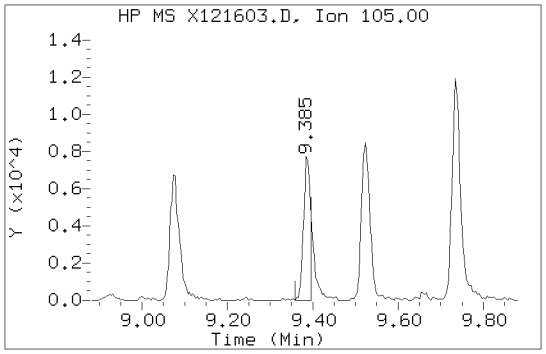
BEFORE

MASS
105
AREA
11065
HEIGHT
7775
27-Dec-2022
16:03
linh
pham



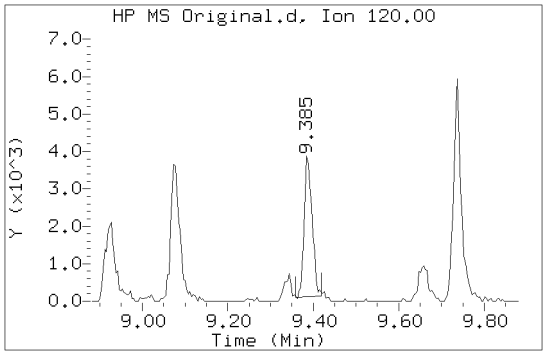
AFTER

MASS
105
AREA
8496
HEIGHT
7775
27-Dec-2022
16:07
linh
pham



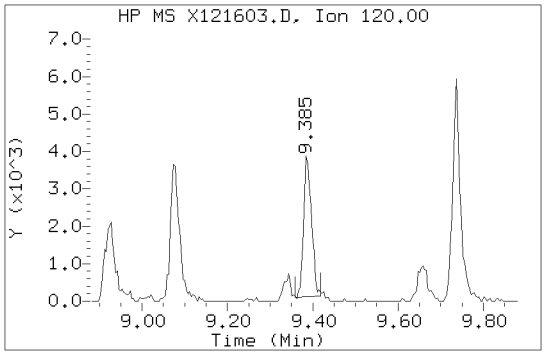
BEFORE

MASS
120
AREA
4898
HEIGHT
3773
27-Dec-2022
16:03
linh
pham



AFTER

MASS
120
AREA
4898
HEIGHT
3773
27-Dec-2022
16:07
linh
pham

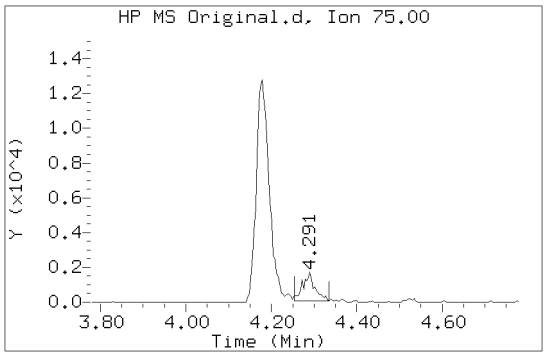


1,1-Dichloropropene (563-58-6)

Reason Code:

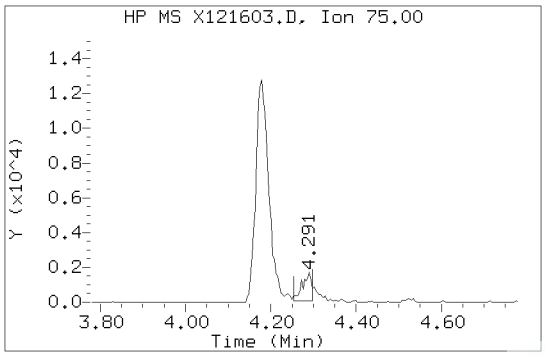
BEFORE

MASS
75
AREA
3235
HEIGHT
1674
27-Dec-2022
16:03
linh
pham



AFTER

MASS
75
AREA
2468
HEIGHT
1674
27-Dec-2022
16:07
linh
pham



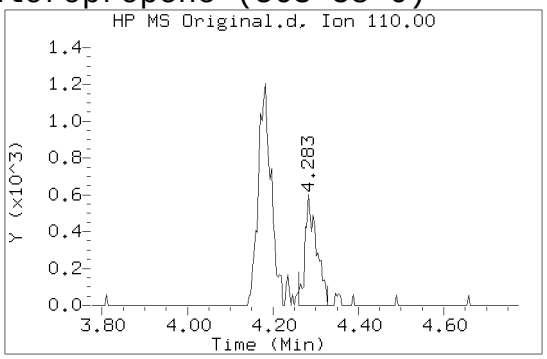
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

1,1-Dichloropropene (563-58-6)

Reason Code:

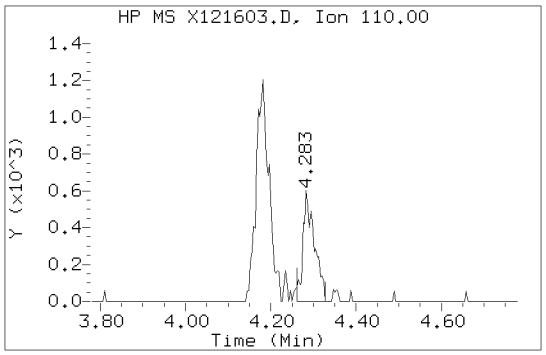
BEFORE

MASS
110
AREA
1143
HEIGHT
603
27-Dec-2022
16:03
linh
pham



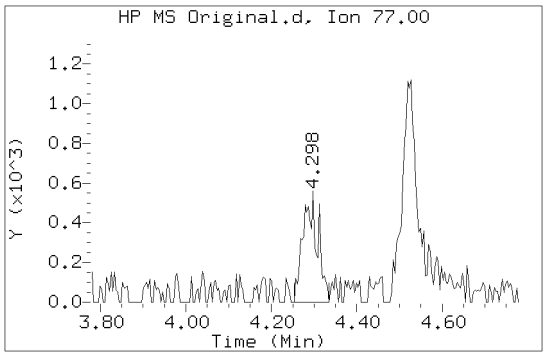
AFTER

MASS
110
AREA
1143
HEIGHT
603
27-Dec-2022
16:07
linh
pham



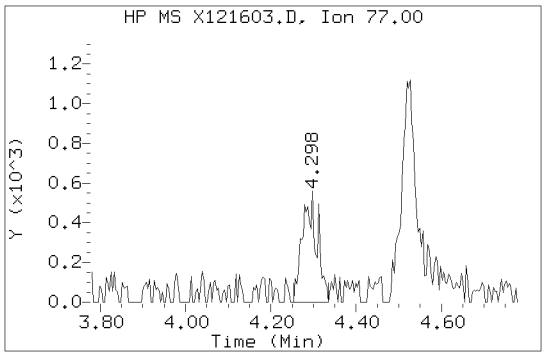
BEFORE

MASS
77
AREA
1342
HEIGHT
559
27-Dec-2022
16:03
linh
pham



AFTER

MASS
77
AREA
1342
HEIGHT
559
27-Dec-2022
16:07
linh
pham

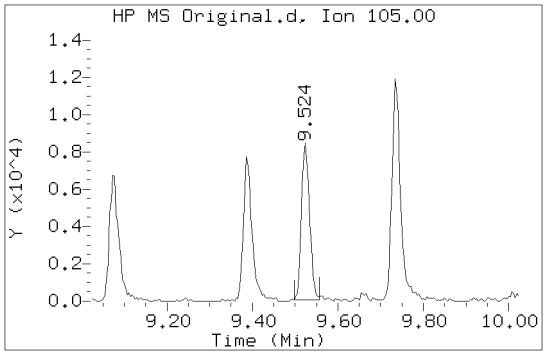


sec-Butylbenzene (135-98-8)

Reason Code:

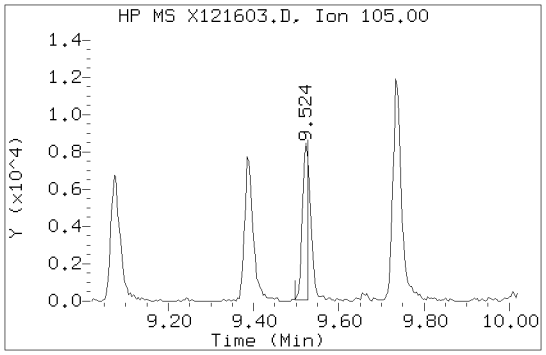
BEFORE

MASS
105
AREA
11512
HEIGHT
8394
27-Dec-2022
16:03
linh
pham



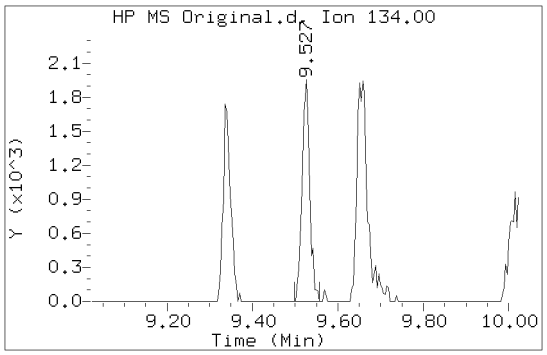
AFTER

MASS
105
AREA
7938
HEIGHT
8394
27-Dec-2022
16:07
linh
pham



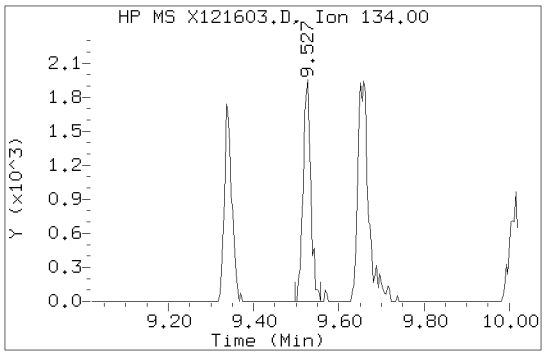
BEFORE

MASS
134
AREA
2519
HEIGHT
1955
27-Dec-2022
16:03
linh
pham



AFTER

MASS
134
AREA
2519
HEIGHT
1955
27-Dec-2022
16:07
linh
pham

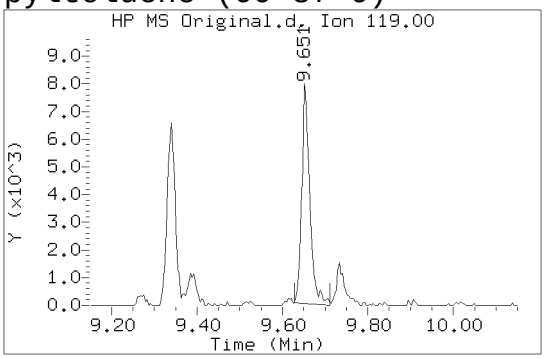


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

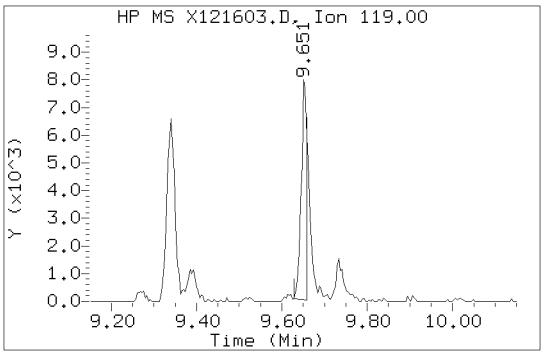
p-Isopropyltoluene (99-87-6)

Reason Code:

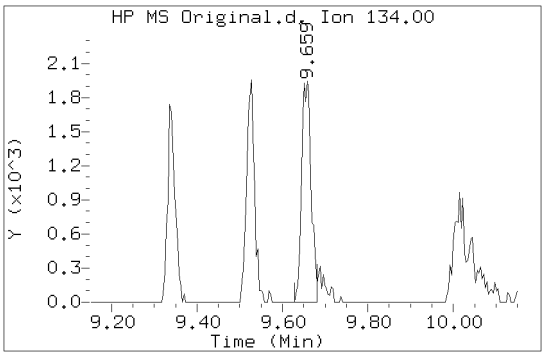
BEFORE
MASS
119
AREA
10660
HEIGHT
7944
27-Dec-2022
16:03
linh
pham



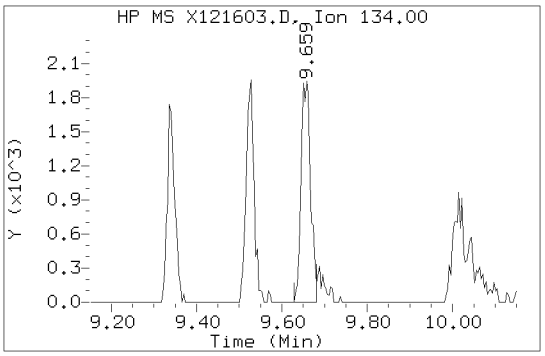
AFTER
MASS
119
AREA
7343
HEIGHT
7944
27-Dec-2022
16:07
linh
pham



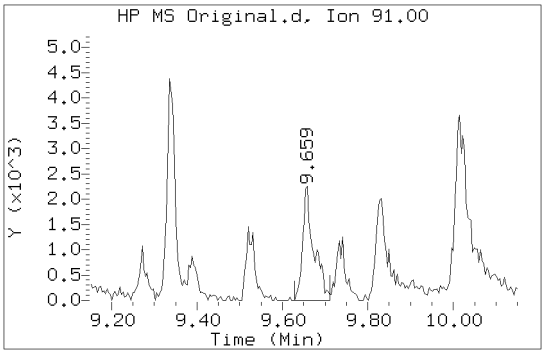
BEFORE
MASS
134
AREA
3102
HEIGHT
1946
27-Dec-2022
16:03
linh
pham



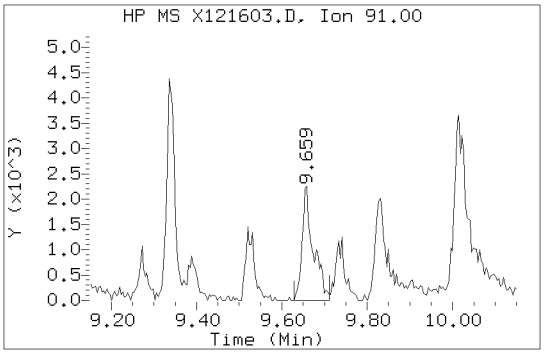
AFTER
MASS
134
AREA
3102
HEIGHT
1946
27-Dec-2022
16:07
linh
pham



BEFORE
MASS
91
AREA
4191
HEIGHT
2256
27-Dec-2022
16:03
linh
pham



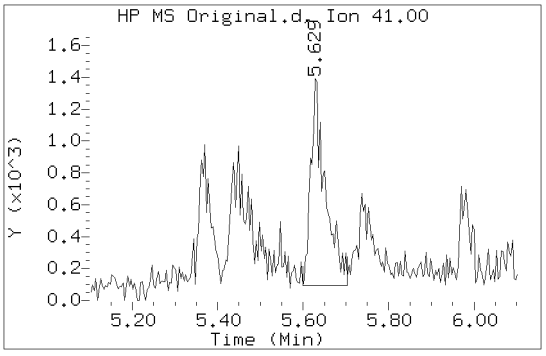
AFTER
MASS
91
AREA
4191
HEIGHT
2256
27-Dec-2022
16:07
linh
pham



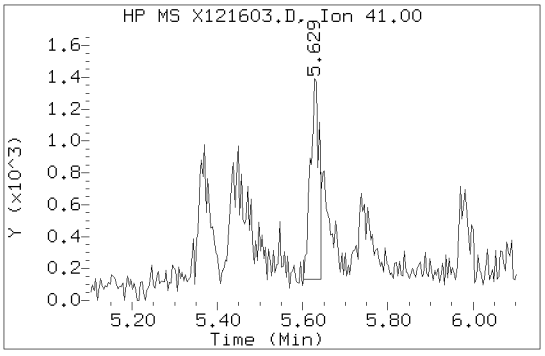
Methyl Methacrylate (80-62-6)

Reason Code:

BEFORE
MASS
41
AREA
3067
HEIGHT
1299
27-Dec-2022
16:03
linh
pham



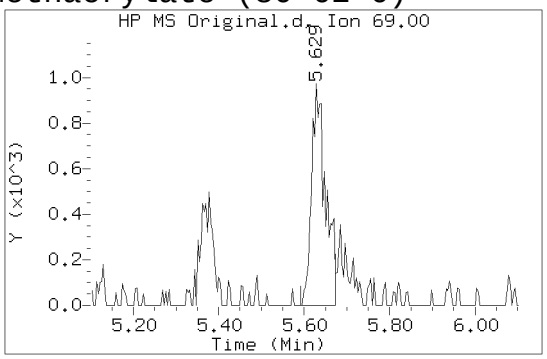
AFTER
MASS
41
AREA
1788
HEIGHT
1257
27-Dec-2022
16:07
linh
pham



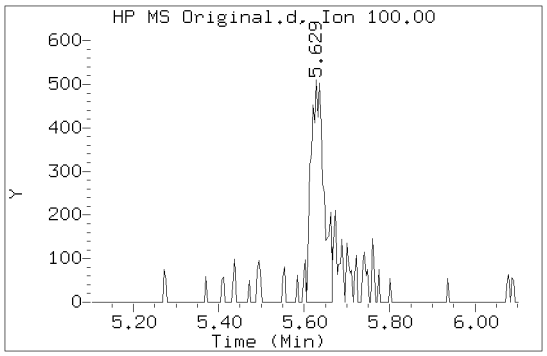
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

Methyl Methacrylate (80-62-6)

BEFORE
MASS
69
AREA
2216
HEIGHT
973
27-Dec-2022
16:03
linh
pham

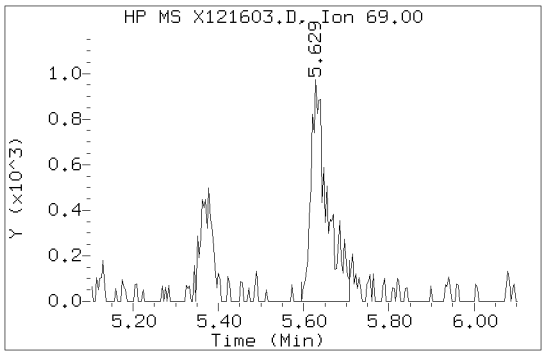


BEFORE
MASS
100
AREA
1074
HEIGHT
510
27-Dec-2022
16:03
linh
pham

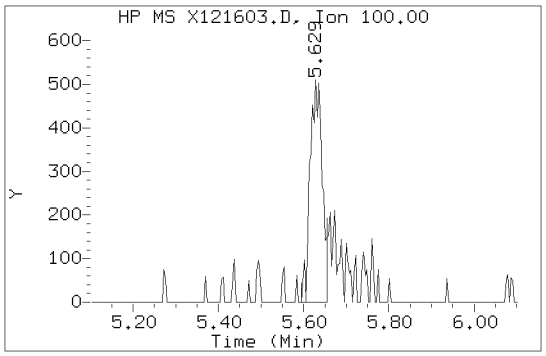


Reason Code:

AFTER
MASS
69
AREA
2595
HEIGHT
973
27-Dec-2022
16:07
linh
pham

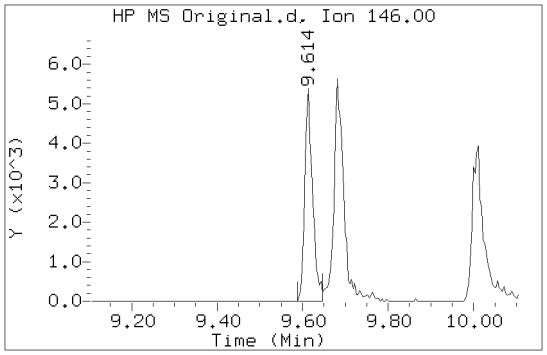


AFTER
MASS
100
AREA
1011
HEIGHT
510
27-Dec-2022
16:07
linh
pham

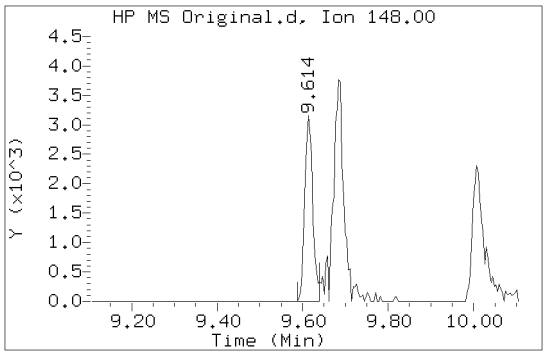


1,3-Dichlorobenzene (541-73-1)

BEFORE
MASS
146
AREA
6964
HEIGHT
5387
27-Dec-2022
16:03
linh
pham

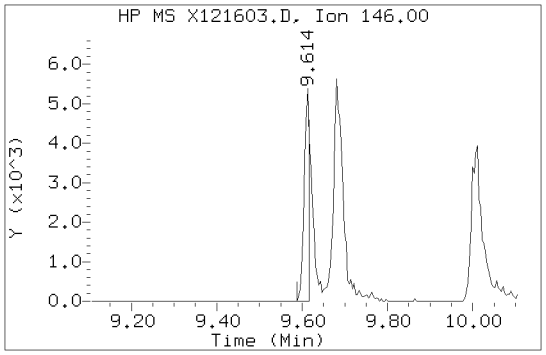


BEFORE
MASS
148
AREA
4216
HEIGHT
3157
27-Dec-2022
16:03
linh
pham

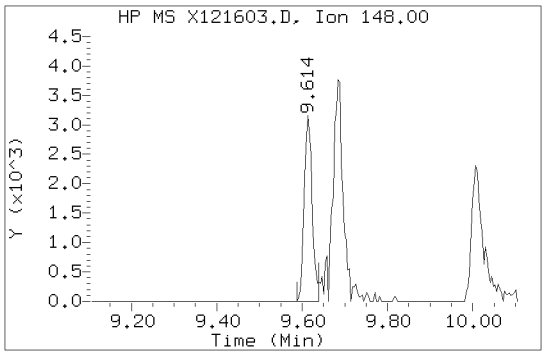


Reason Code:

AFTER
MASS
146
AREA
4677
HEIGHT
5387
27-Dec-2022
16:07
linh
pham



AFTER
MASS
148
AREA
4216
HEIGHT
3157
27-Dec-2022
16:07
linh
pham



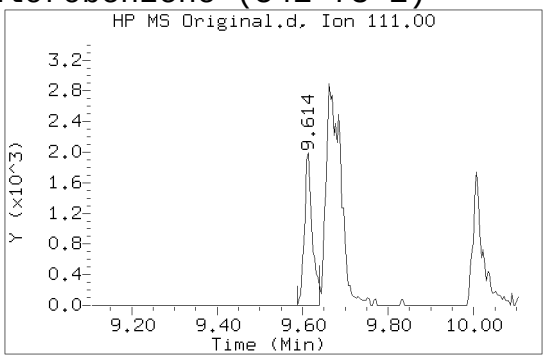
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

1,3-Dichlorobenzene (541-73-1)

Reason Code:

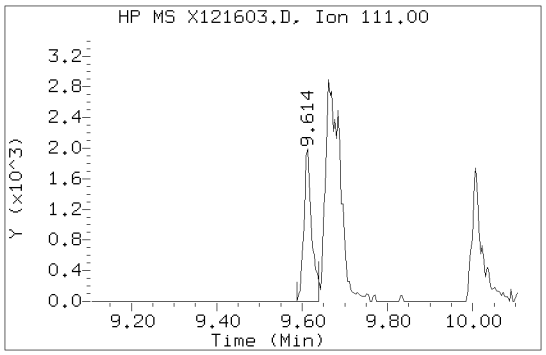
BEFORE

MASS
111
AREA
2596
HEIGHT
1995
27-Dec-2022
16:03
linh
pham



AFTER

MASS
111
AREA
2596
HEIGHT
1995
27-Dec-2022
16:07
linh
pham

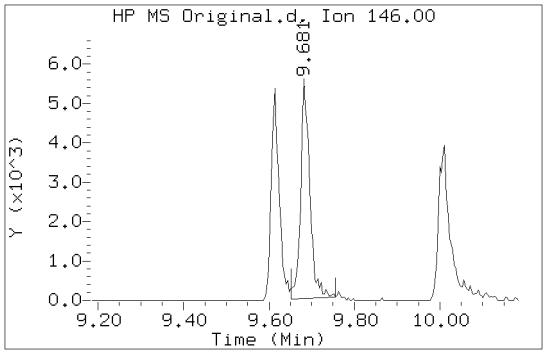


1,4-Dichlorobenzene (106-46-7)

Reason Code:

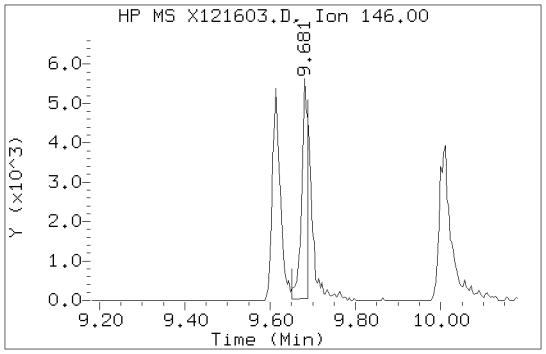
BEFORE

MASS
146
AREA
8510
HEIGHT
5586
27-Dec-2022
16:03
linh
pham



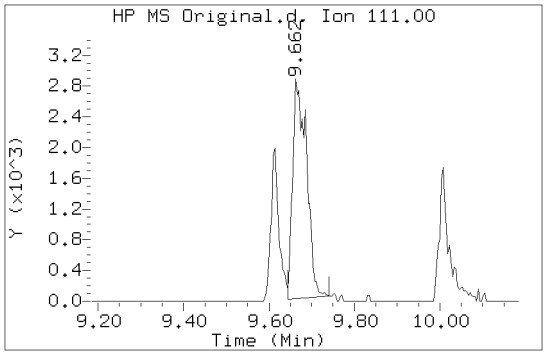
AFTER

MASS
146
AREA
5674
HEIGHT
5587
27-Dec-2022
16:07
linh
pham



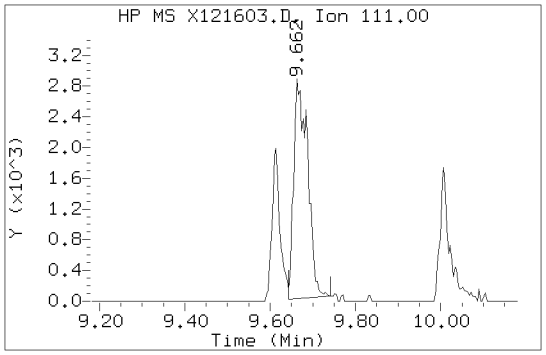
BEFORE

MASS
111
AREA
6571
HEIGHT
2862
27-Dec-2022
16:03
linh
pham



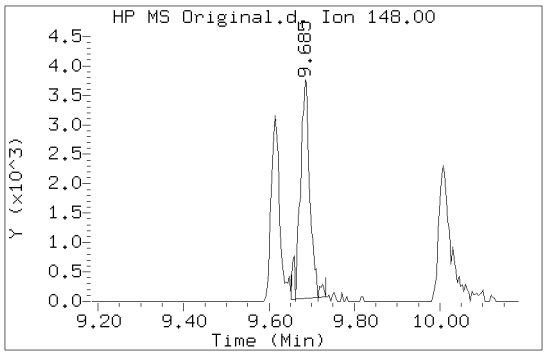
AFTER

MASS
111
AREA
6571
HEIGHT
2862
27-Dec-2022
16:07
linh
pham



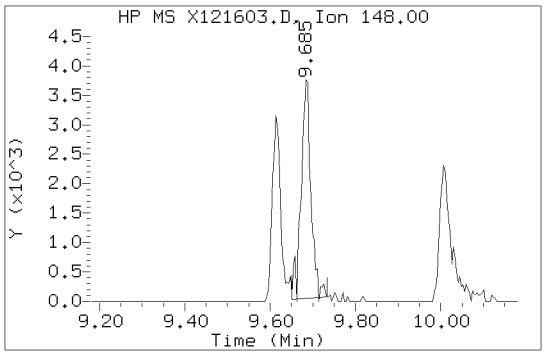
BEFORE

MASS
148
AREA
6083
HEIGHT
3714
27-Dec-2022
16:03
linh
pham



AFTER

MASS
148
AREA
6083
HEIGHT
3714
27-Dec-2022
16:07
linh
pham



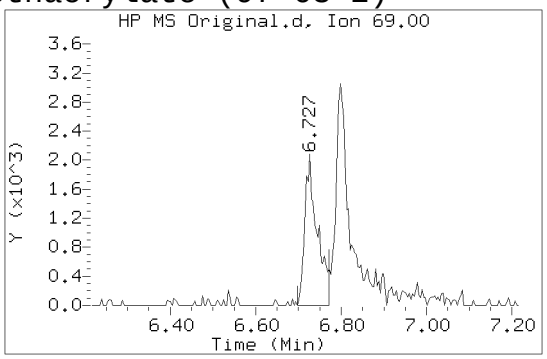
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

Ethyl Methacrylate (97-63-2)

Reason Code:

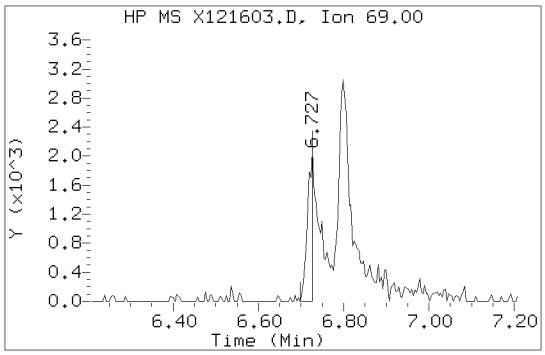
BEFORE

MASS
69
AREA
4283
HEIGHT
2083
27-Dec-2022
16:03
linh
pham



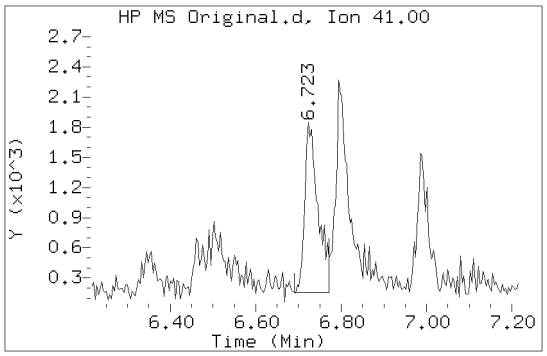
AFTER

MASS
69
AREA
1935
HEIGHT
2083
27-Dec-2022
16:07
linh
pham



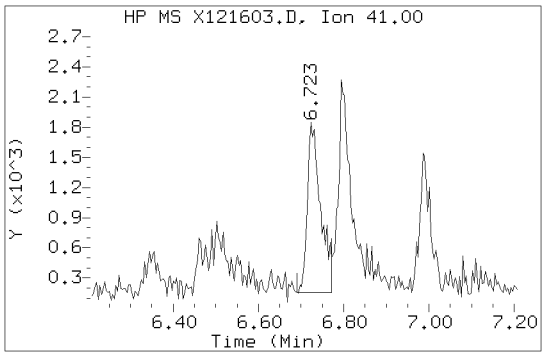
BEFORE

MASS
41
AREA
3701
HEIGHT
1688
27-Dec-2022
16:03
linh
pham



AFTER

MASS
41
AREA
3701
HEIGHT
1688
27-Dec-2022
16:07
linh
pham

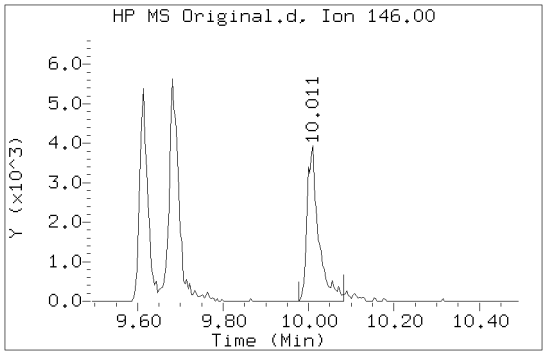


1,2-Dichlorobenzene (95-50-1)

Reason Code:

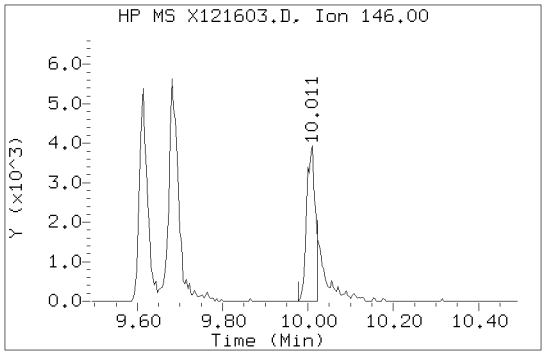
BEFORE

MASS
146
AREA
7400
HEIGHT
3934
27-Dec-2022
16:03
linh
pham



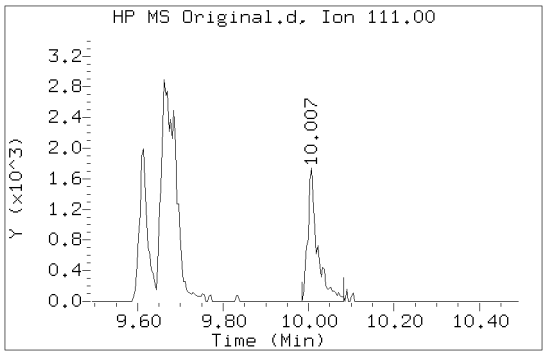
AFTER

MASS
146
AREA
5504
HEIGHT
3934
27-Dec-2022
16:07
linh
pham



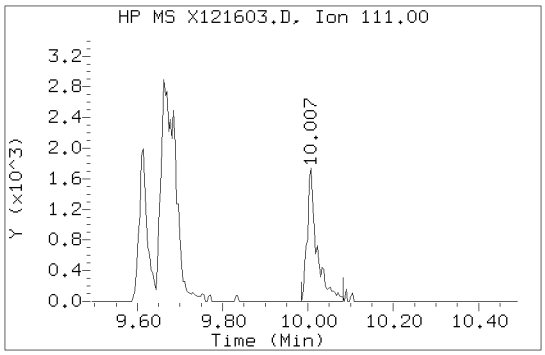
BEFORE

MASS
111
AREA
2768
HEIGHT
1741
27-Dec-2022
16:03
linh
pham



AFTER

MASS
111
AREA
2768
HEIGHT
1741
27-Dec-2022
16:07
linh
pham



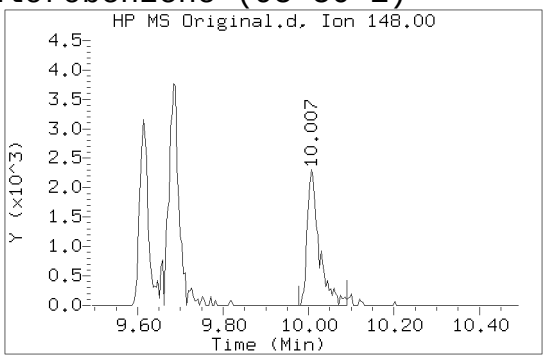
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

1,2-Dichlorobenzene (95-50-1)

Reason Code:

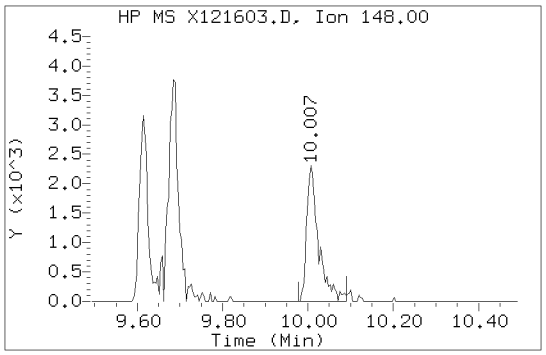
BEFORE

MASS
148
AREA
4515
HEIGHT
2306
27-Dec-2022
16:03
linh
pham



AFTER

MASS
148
AREA
4515
HEIGHT
2306
27-Dec-2022
16:07
linh
pham

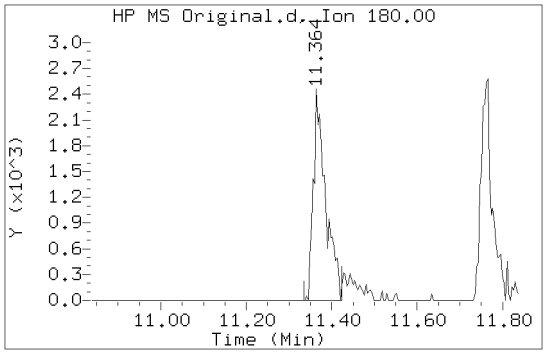


1,2,4-Trichlorobenzene (120-82-1)

Reason Code:

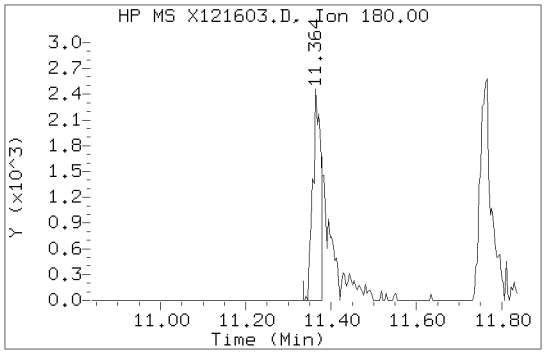
BEFORE

MASS
180
AREA
4912
HEIGHT
2459
27-Dec-2022
16:03
linh
pham



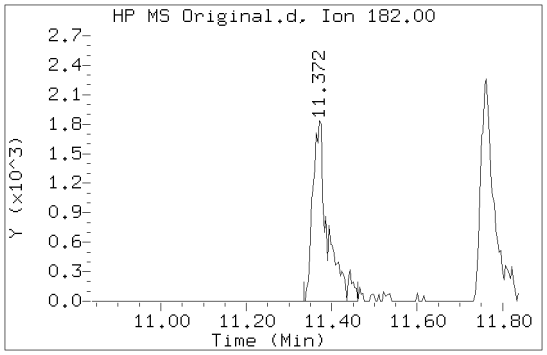
AFTER

MASS
180
AREA
3187
HEIGHT
2459
27-Dec-2022
16:07
linh
pham



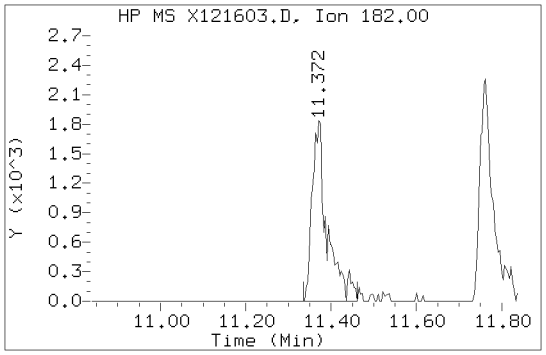
BEFORE

MASS
182
AREA
4514
HEIGHT
1835
27-Dec-2022
16:03
linh
pham



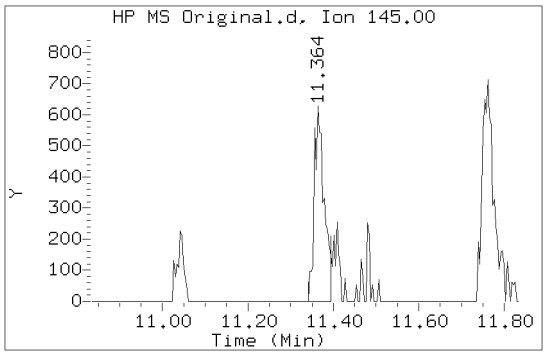
AFTER

MASS
182
AREA
4514
HEIGHT
1835
27-Dec-2022
16:07
linh
pham



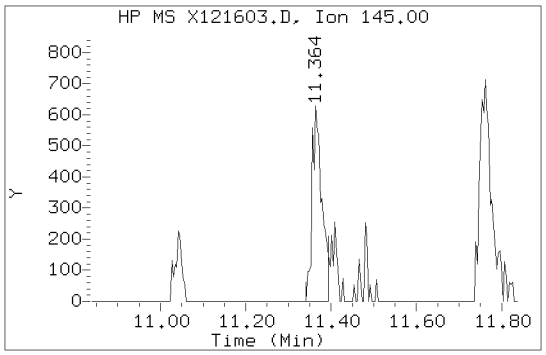
BEFORE

MASS
145
AREA
1003
HEIGHT
629
27-Dec-2022
16:03
linh
pham



AFTER

MASS
145
AREA
1003
HEIGHT
629
27-Dec-2022
16:07
linh
pham

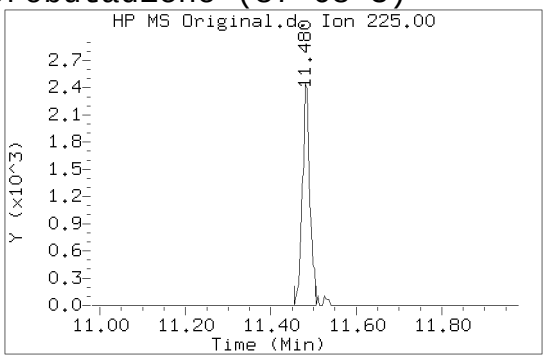


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

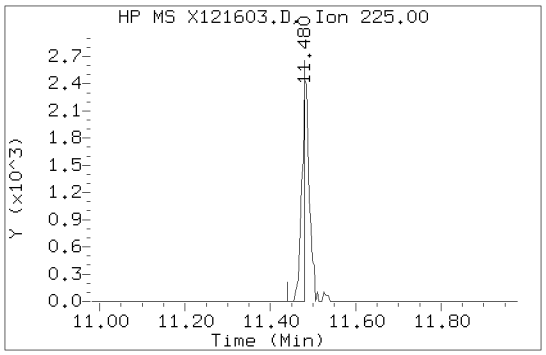
Hexachlorobutadiene (87-68-3)

Reason Code:

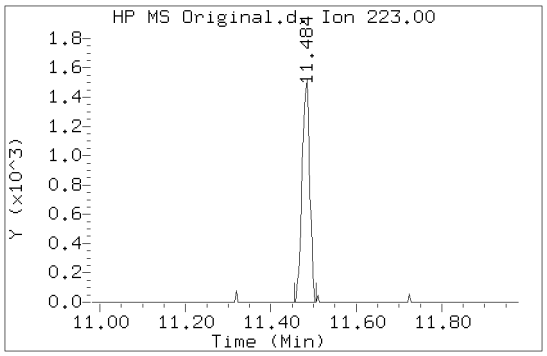
BEFORE
MASS
225
AREA
3038
HEIGHT
2444
27-Dec-2022
16:03
linh
pham



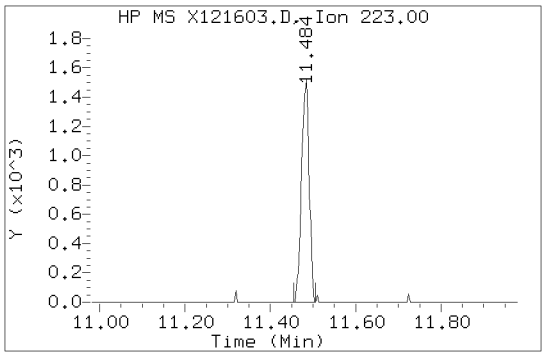
AFTER
MASS
225
AREA
1477
HEIGHT
2444
27-Dec-2022
16:07
linh
pham



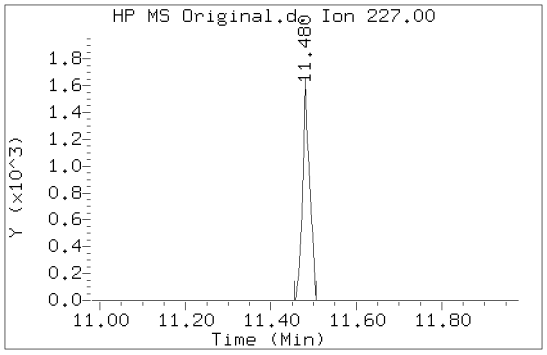
BEFORE
MASS
223
AREA
1952
HEIGHT
1518
27-Dec-2022
16:03
linh
pham



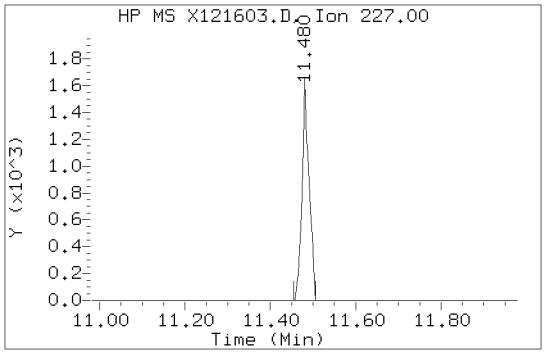
AFTER
MASS
223
AREA
1952
HEIGHT
1518
27-Dec-2022
16:07
linh
pham



BEFORE
MASS
227
AREA
1938
HEIGHT
1652
27-Dec-2022
16:03
linh
pham



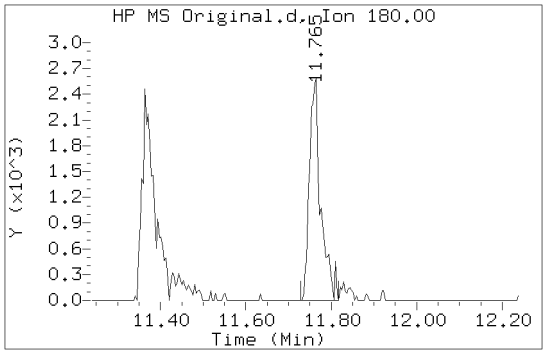
AFTER
MASS
227
AREA
1938
HEIGHT
1652
27-Dec-2022
16:07
linh
pham



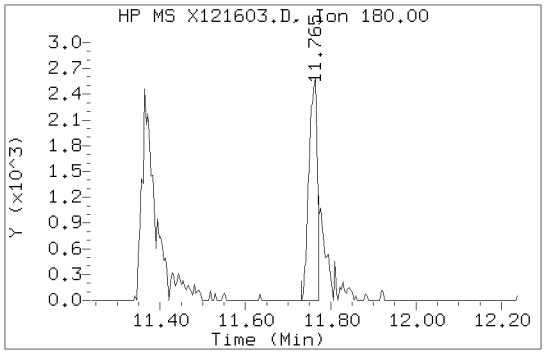
1,2,3-Trichlorobenzene (87-61-6)

Reason Code:

BEFORE
MASS
180
AREA
4741
HEIGHT
2580
27-Dec-2022
16:03
linh
pham



AFTER
MASS
180
AREA
3572
HEIGHT
2580
27-Dec-2022
16:07
linh
pham



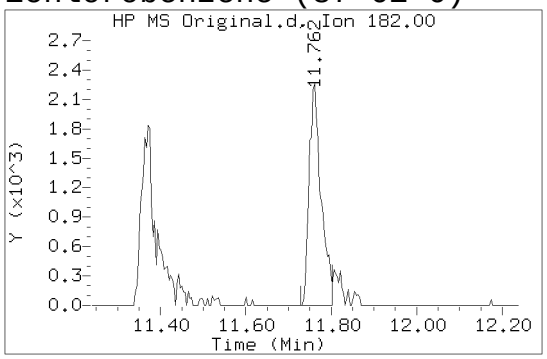
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

1,2,3-Trichlorobenzene (87-61-6)

Reason Code:

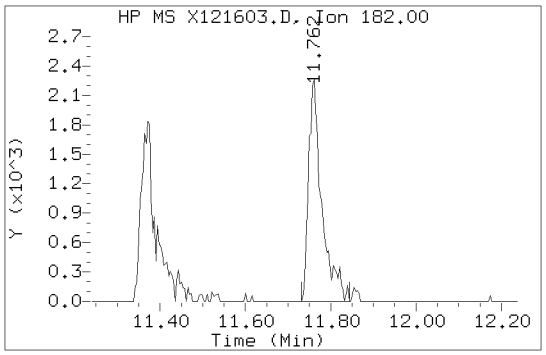
BEFORE

MASS
182
AREA
4404
HEIGHT
2261
27-Dec-2022
16:03
linh
pham



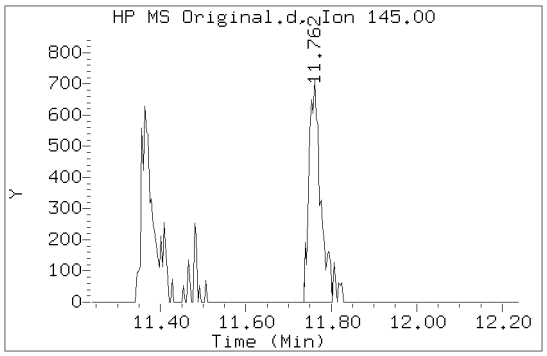
AFTER

MASS
182
AREA
4881
HEIGHT
2261
27-Dec-2022
16:07
linh
pham



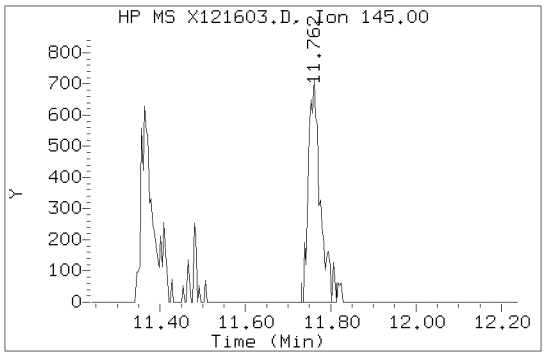
BEFORE

MASS
145
AREA
1338
HEIGHT
713
27-Dec-2022
16:03
linh
pham



AFTER

MASS
145
AREA
1384
HEIGHT
713
27-Dec-2022
16:07
linh
pham

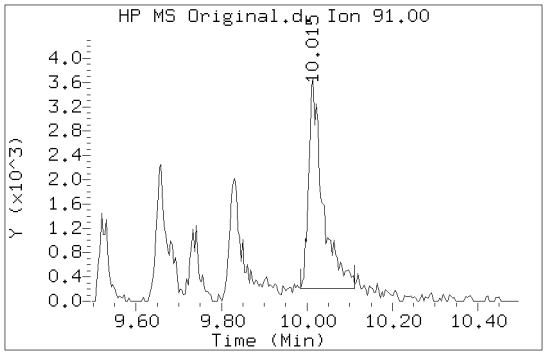


n-Butylbenzene (104-51-8)

Reason Code:

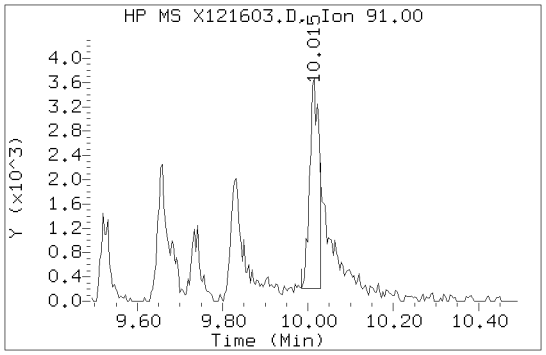
BEFORE

MASS
91
AREA
8005
HEIGHT
3451
27-Dec-2022
16:03
linh
pham



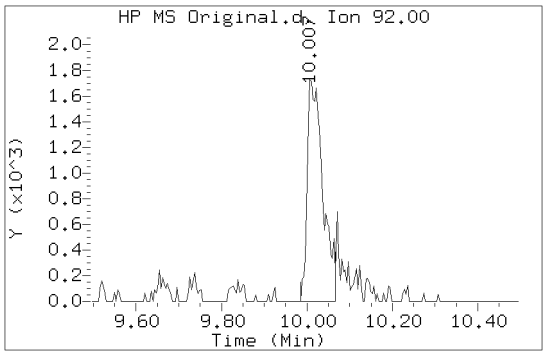
AFTER

MASS
91
AREA
5149
HEIGHT
3451
27-Dec-2022
16:07
linh
pham



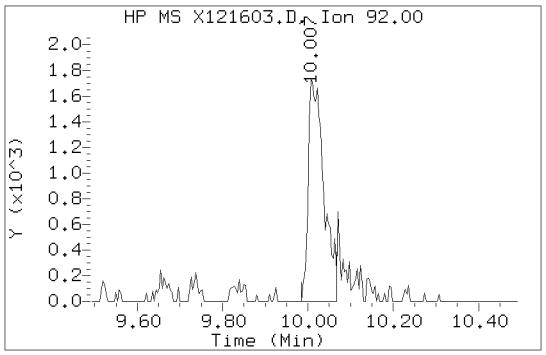
BEFORE

MASS
92
AREA
4404
HEIGHT
1727
27-Dec-2022
16:03
linh
pham



AFTER

MASS
92
AREA
4404
HEIGHT
1727
27-Dec-2022
16:07
linh
pham



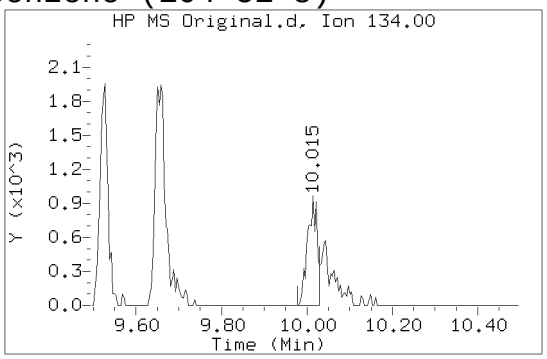
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

n-Butylbenzene (104-51-8)

Reason Code:

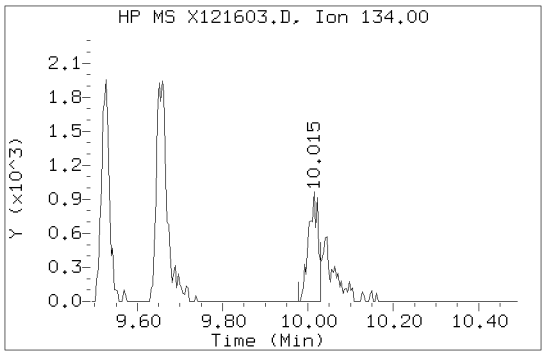
BEFORE

MASS
134
AREA
1502
HEIGHT
969
27-Dec-2022
16:03
linh
pham



AFTER

MASS
134
AREA
1502
HEIGHT
969
27-Dec-2022
16:07
linh
pham

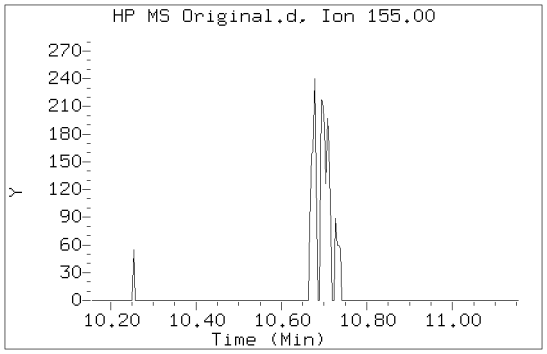


1,2-Dibromo-3-Chloropropane (96-12-8)

Reason Code:

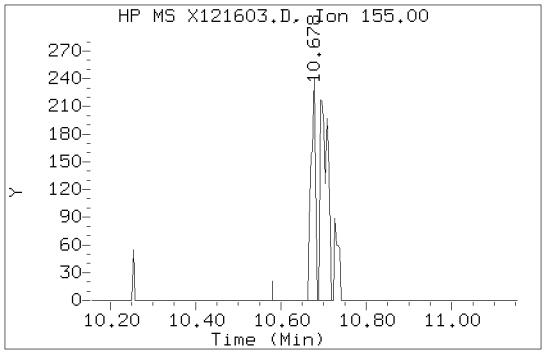
BEFORE

MASS
155
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



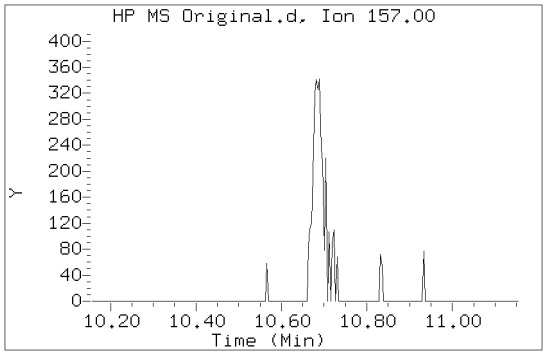
AFTER

MASS
155
AREA
441
HEIGHT
240
27-Dec-2022
16:07
linh
pham



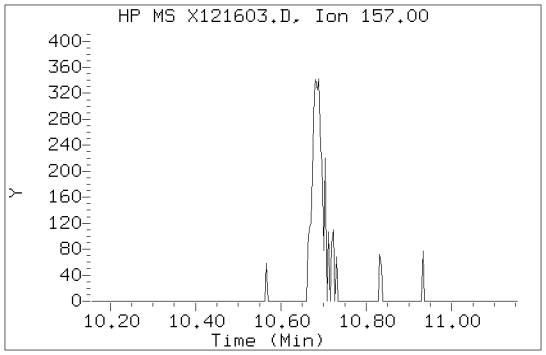
BEFORE

MASS
157
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



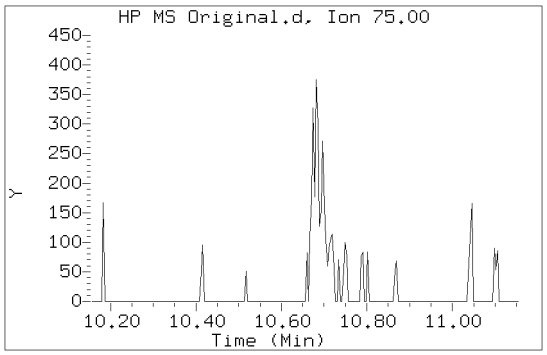
AFTER

MASS
157
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



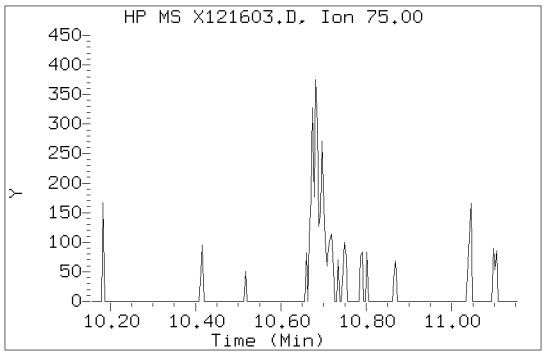
BEFORE

MASS
75
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
75
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



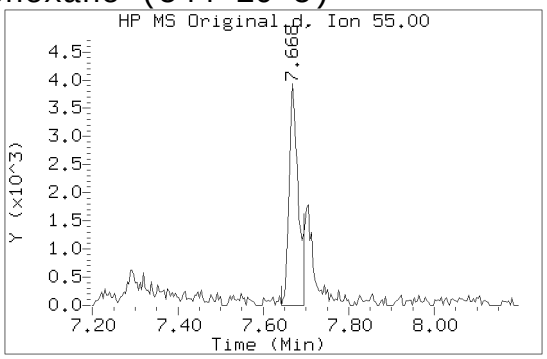
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

1-Chlorohexane (544-10-5)

Reason Code:

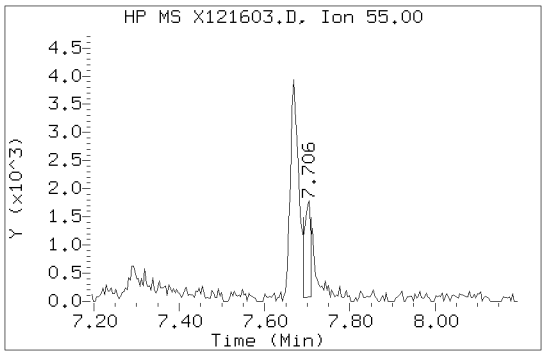
BEFORE

MASS
55
AREA
5785
HEIGHT
3936
27-Dec-2022
16:03
linh
pham



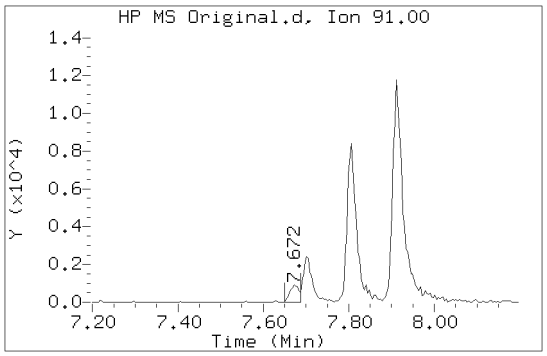
AFTER

MASS
55
AREA
1829
HEIGHT
1707
27-Dec-2022
16:07
linh
pham



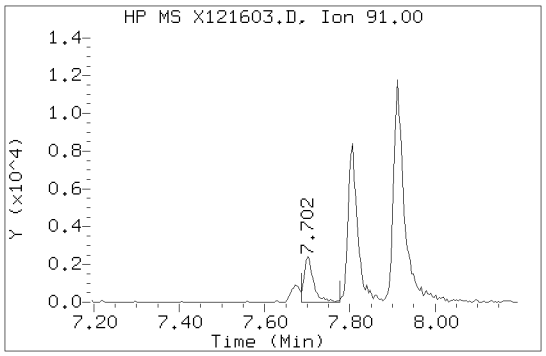
BEFORE

MASS
91
AREA
1355
HEIGHT
933
27-Dec-2022
16:03
linh
pham



AFTER

MASS
91
AREA
3802
HEIGHT
2430
27-Dec-2022
16:07
linh
pham

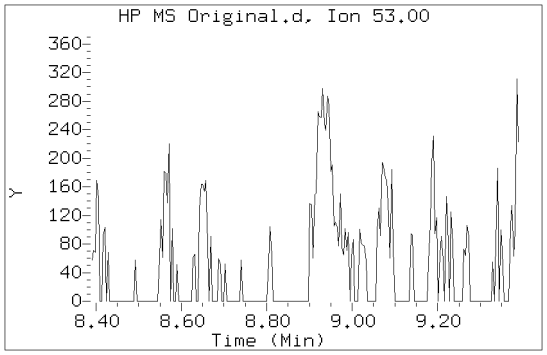


trans-1,4-Dichloro-2-butene (110-57-6)

Reason Code:

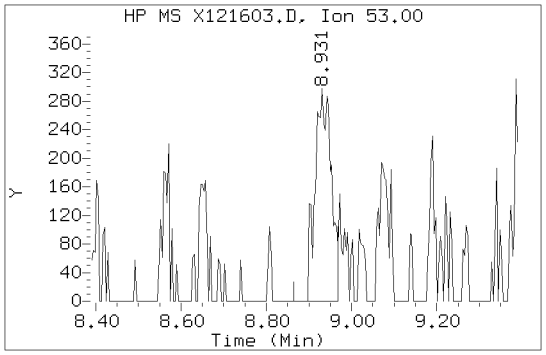
BEFORE

MASS
53
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



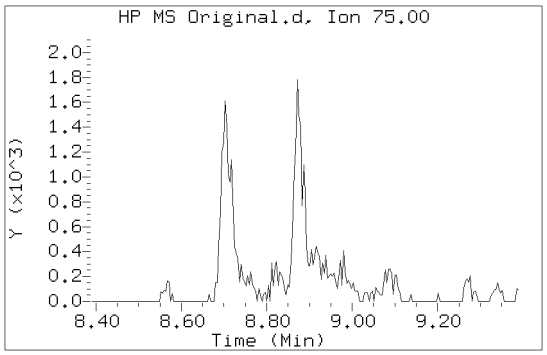
AFTER

MASS
53
AREA
792
HEIGHT
298
27-Dec-2022
16:07
linh
pham



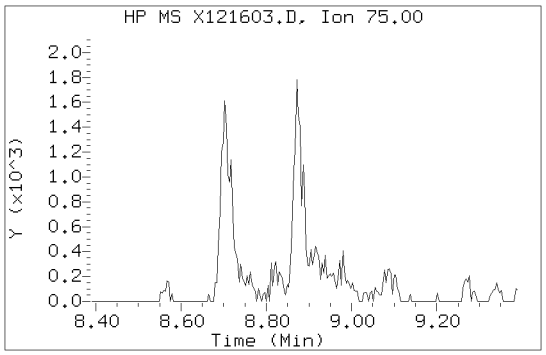
BEFORE

MASS
75
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
75
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

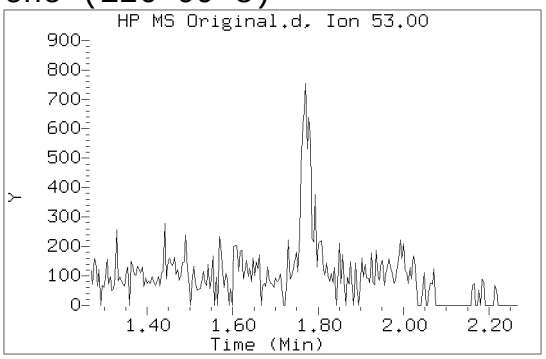


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

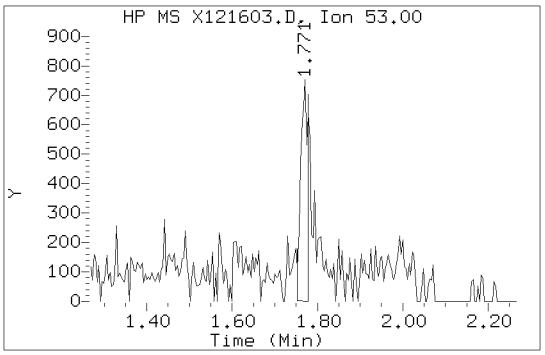
Chloroprene (126-99-8)

Reason Code:

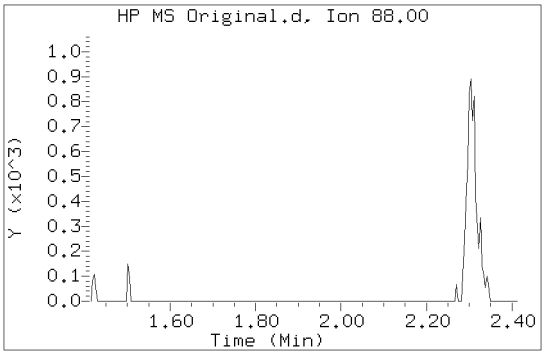
BEFORE
MASS
53
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



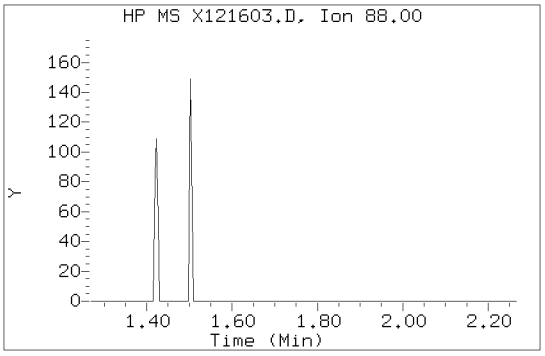
AFTER
MASS
53
AREA
900
HEIGHT
751
27-Dec-2022
16:07
linh
pham



BEFORE
MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



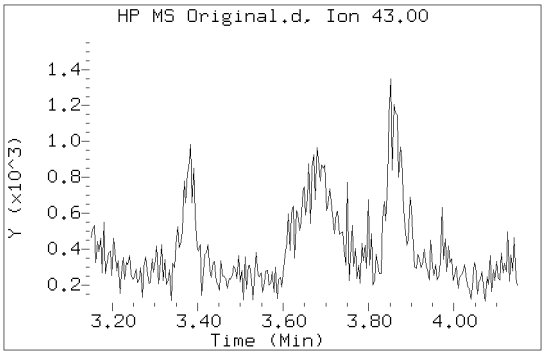
AFTER
MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



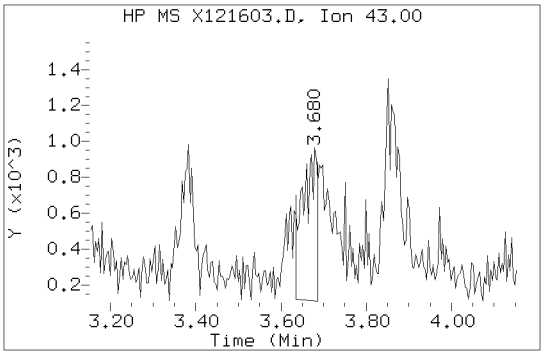
Ethyl Acetate (141-78-6)

Reason Code:

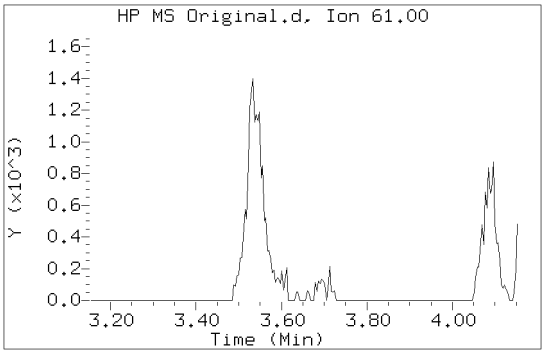
BEFORE
MASS
43
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



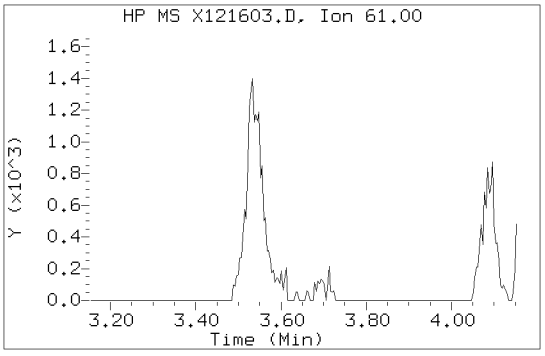
AFTER
MASS
43
AREA
2065
HEIGHT
853
27-Dec-2022
16:07
linh
pham



BEFORE
MASS
61
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER
MASS
61
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



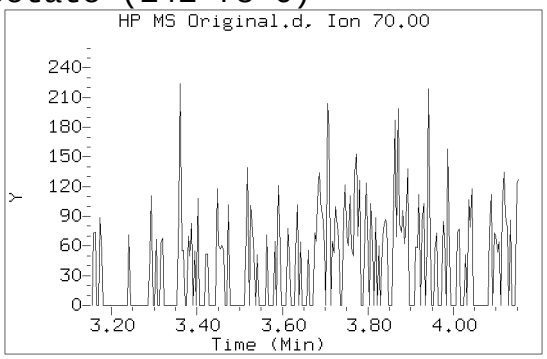
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

Ethyl Acetate (141-78-6)

Reason Code:

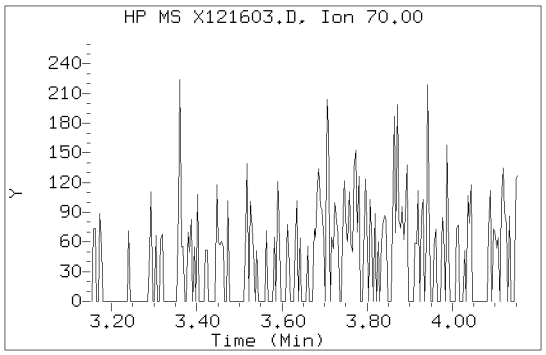
BEFORE

MASS
70
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
70
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

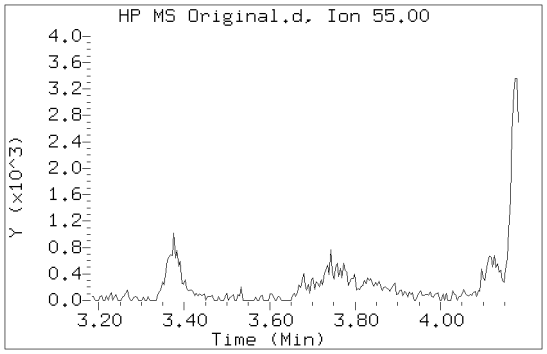


Methyl Acrylate (96-33-3)

Reason Code:

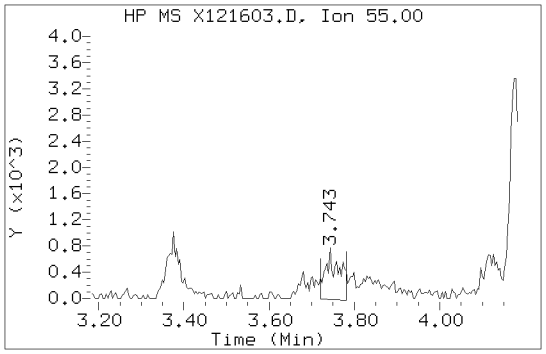
BEFORE

MASS
55
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



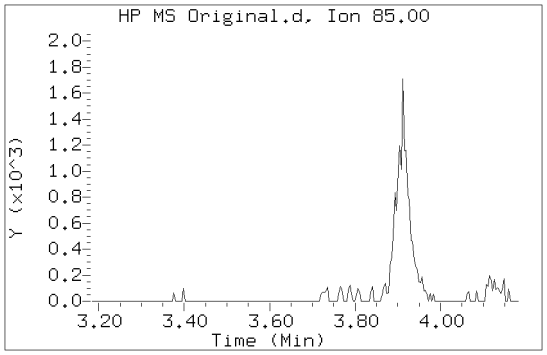
AFTER

MASS
55
AREA
1765
HEIGHT
787
27-Dec-2022
16:07
linh
pham



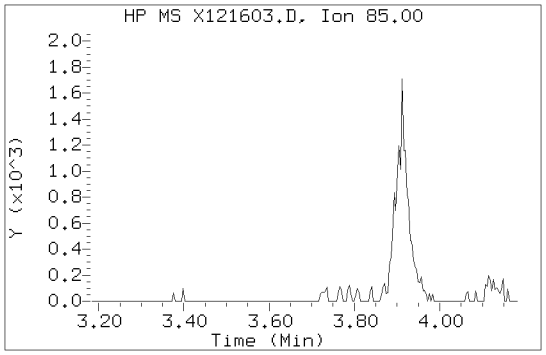
BEFORE

MASS
85
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
85
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

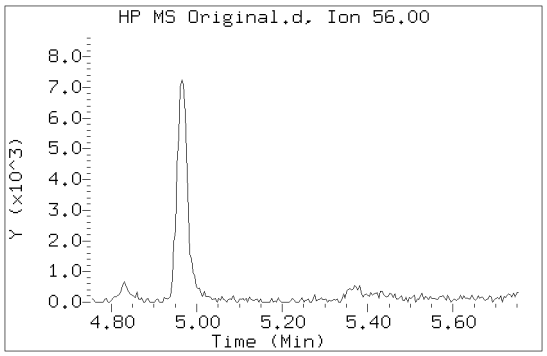


n-Butanol (71-36-3)

Reason Code:

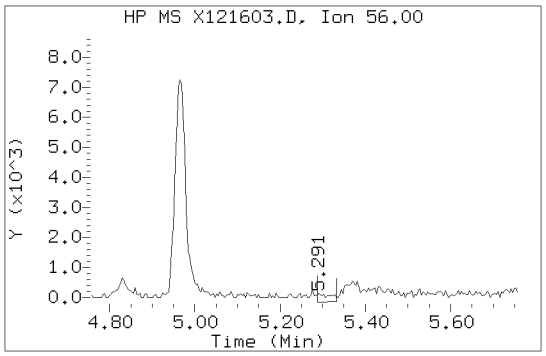
BEFORE

MASS
56
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
56
AREA
622
HEIGHT
300
27-Dec-2022
16:07
linh
pham



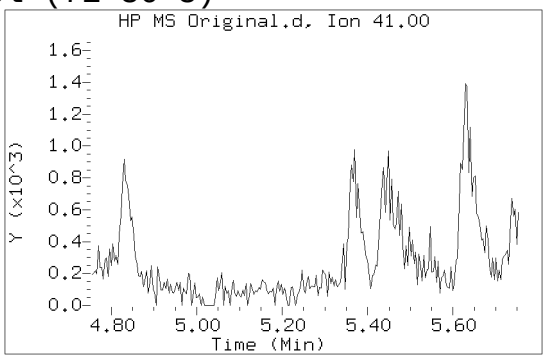
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

n-Butanol (71-36-3)

Reason Code:

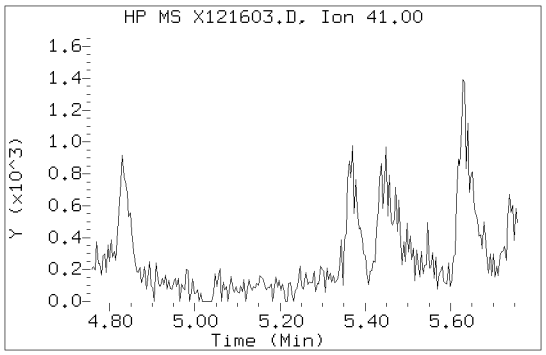
BEFORE

MASS
41
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
41
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

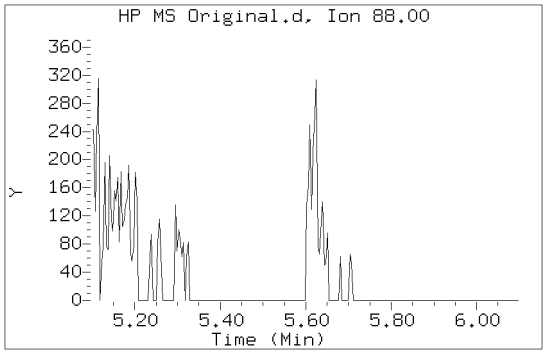


1,4-Dioxane ()

Reason Code:

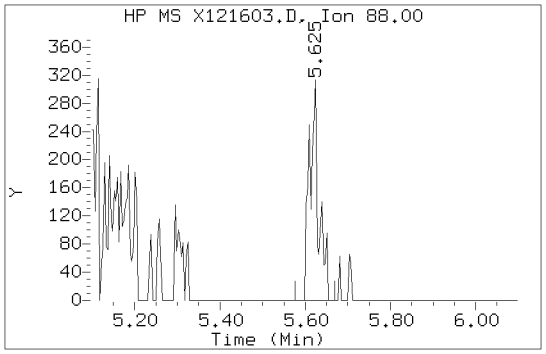
BEFORE

MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



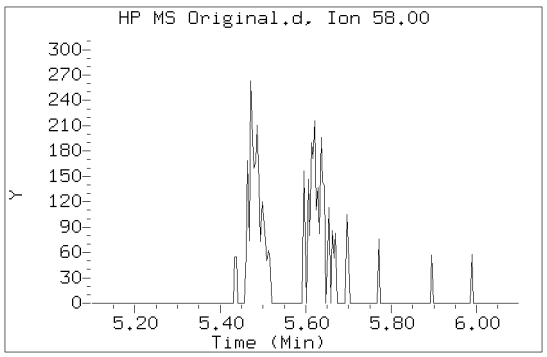
AFTER

MASS
88
AREA
462
HEIGHT
313
27-Dec-2022
16:07
linh
pham



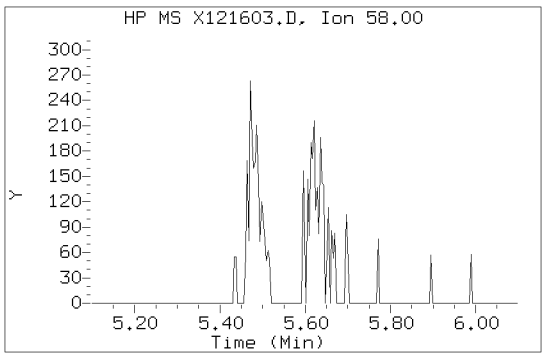
BEFORE

MASS
58
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
58
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

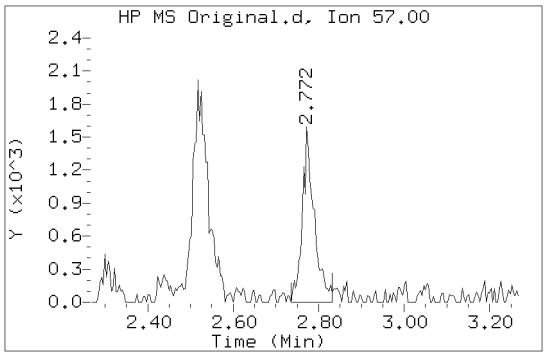


n-Hexane (110-54-3)

Reason Code:

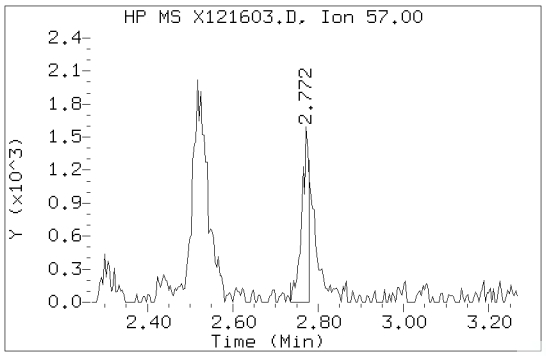
BEFORE

MASS
57
AREA
3089
HEIGHT
1591
27-Dec-2022
16:03
linh
pham



AFTER

MASS
57
AREA
1909
HEIGHT
1591
27-Dec-2022
16:07
linh
pham

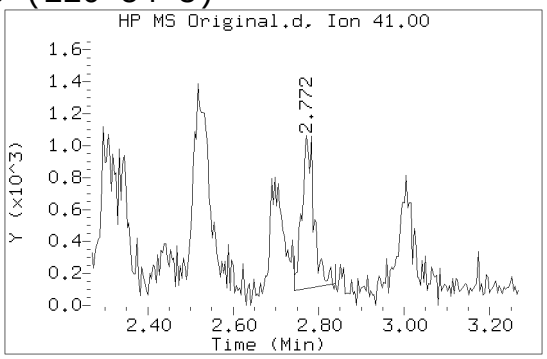


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

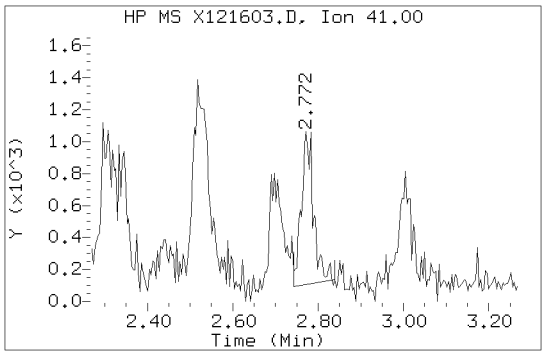
n-Hexane (110-54-3)

Reason Code:

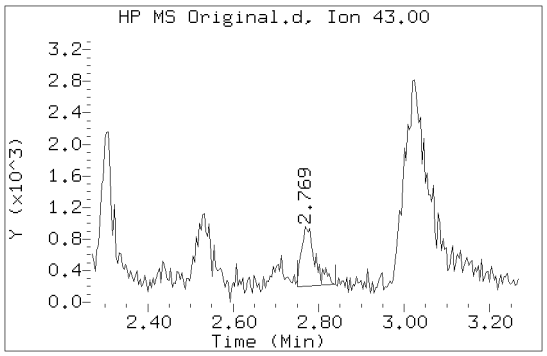
BEFORE
MASS
41
AREA
1918
HEIGHT
958
27-Dec-2022
16:03
linh
pham



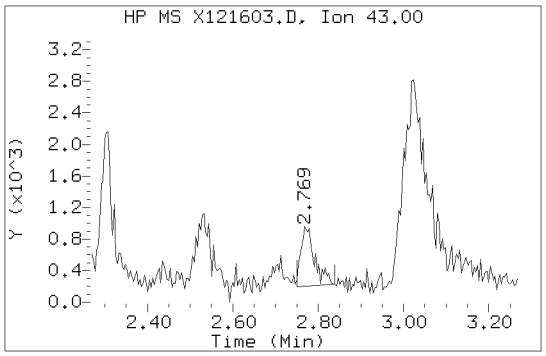
AFTER
MASS
41
AREA
1918
HEIGHT
958
27-Dec-2022
16:07
linh
pham



BEFORE
MASS
43
AREA
1726
HEIGHT
759
27-Dec-2022
16:03
linh
pham



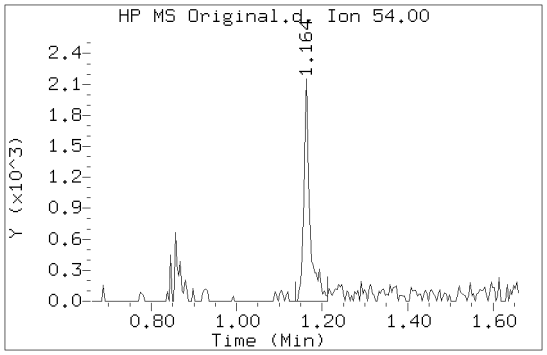
AFTER
MASS
43
AREA
1726
HEIGHT
759
27-Dec-2022
16:07
linh
pham



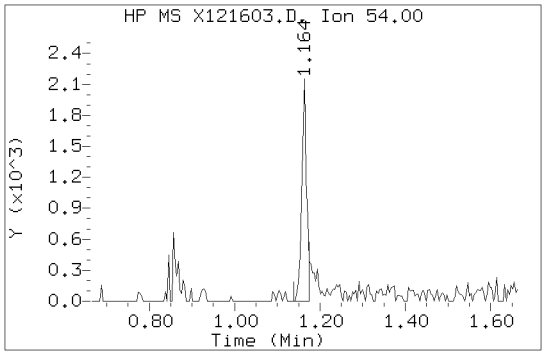
1,3-Butadiene (106-99-0)

Reason Code:

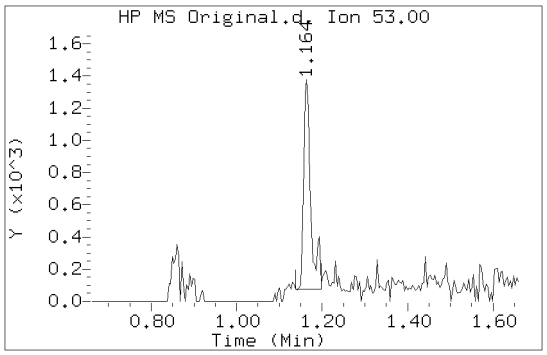
BEFORE
MASS
54
AREA
2206
HEIGHT
2153
27-Dec-2022
16:03
linh
pham



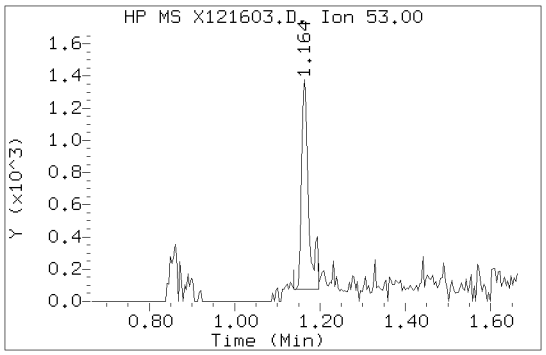
AFTER
MASS
54
AREA
1793
HEIGHT
2153
27-Dec-2022
16:07
linh
pham



BEFORE
MASS
53
AREA
1535
HEIGHT
1301
27-Dec-2022
16:03
linh
pham



AFTER
MASS
53
AREA
1535
HEIGHT
1301
27-Dec-2022
16:07
linh
pham

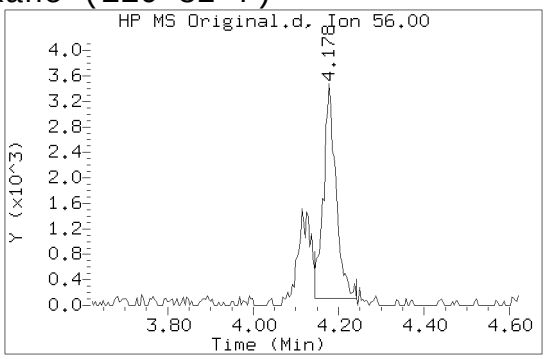


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

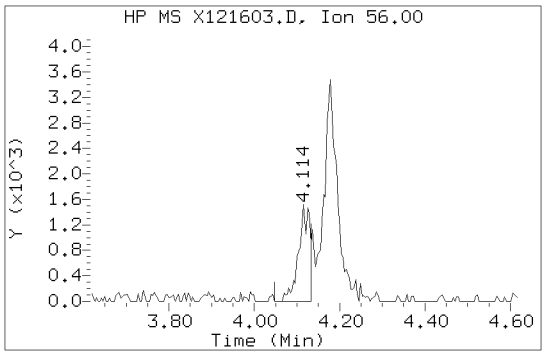
Cyclohexane (110-82-7)

Reason Code:

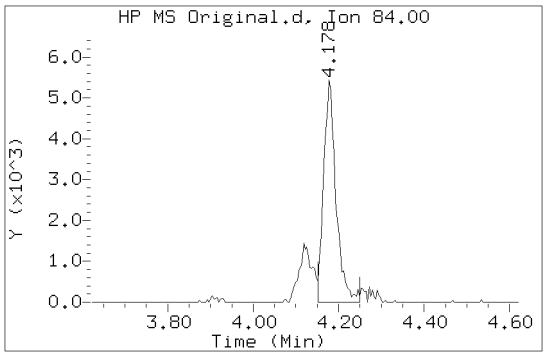
BEFORE
MASS
56
AREA
6884
HEIGHT
3363
27-Dec-2022
16:03
linh
pham



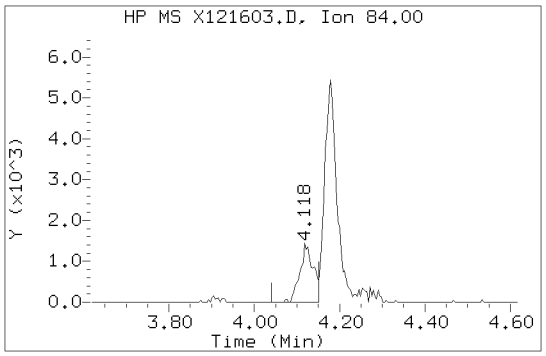
AFTER
MASS
56
AREA
2803
HEIGHT
1514
27-Dec-2022
16:07
linh
pham



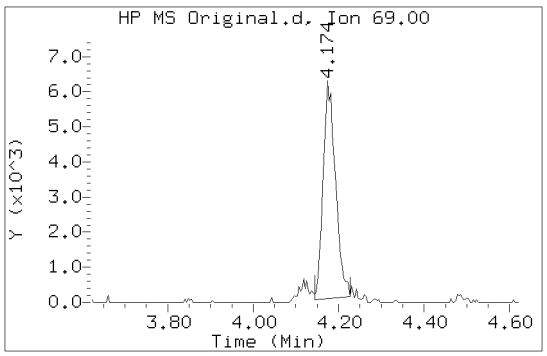
BEFORE
MASS
84
AREA
10951
HEIGHT
5440
27-Dec-2022
16:03
linh
pham



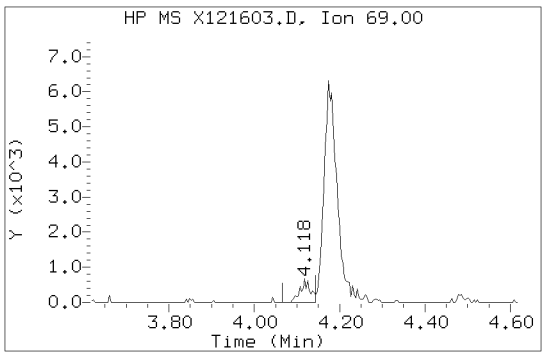
AFTER
MASS
84
AREA
3197
HEIGHT
1443
27-Dec-2022
16:07
linh
pham



BEFORE
MASS
69
AREA
12449
HEIGHT
6206
27-Dec-2022
16:03
linh
pham



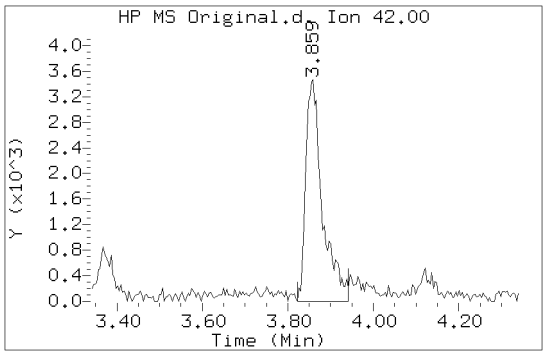
AFTER
MASS
69
AREA
1108
HEIGHT
681
27-Dec-2022
16:07
linh
pham



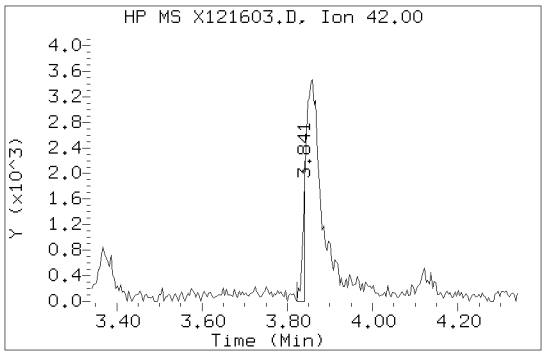
Tetrahydrofuran (109-99-9)

Reason Code:

BEFORE
MASS
42
AREA
9468
HEIGHT
3467
27-Dec-2022
16:03
linh
pham



AFTER
MASS
42
AREA
900
HEIGHT
1891
27-Dec-2022
16:07
linh
pham



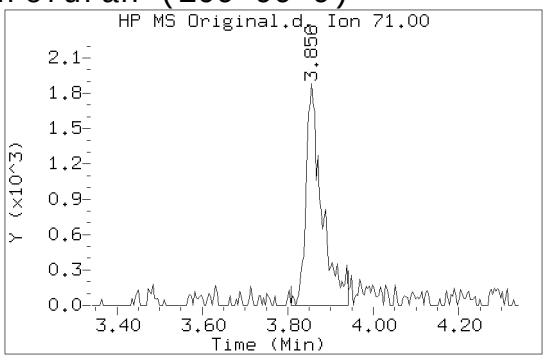
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

Tetrahydrofuran (109-99-9)

Reason Code:

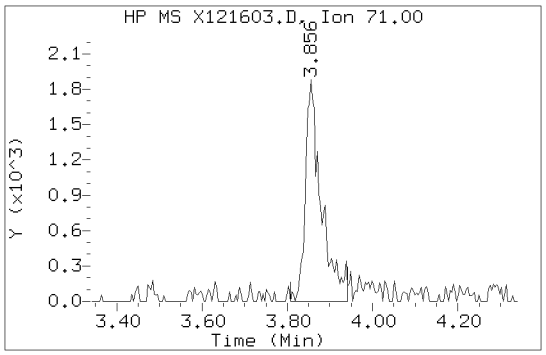
BEFORE

MASS
71
AREA
4885
HEIGHT
1881
27-Dec-2022
16:03
linh
pham



AFTER

MASS
71
AREA
4885
HEIGHT
1881
27-Dec-2022
16:07
linh
pham

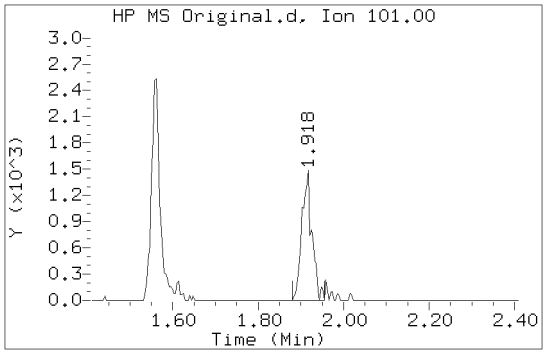


Freon TF (76-13-1)

Reason Code:

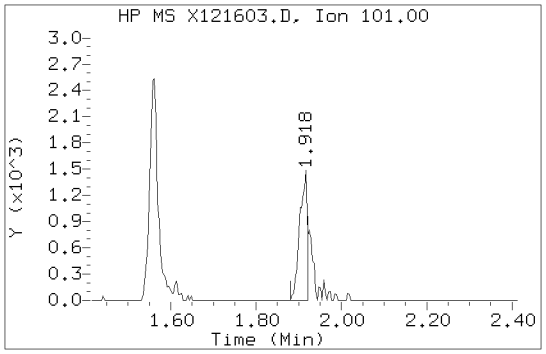
BEFORE

MASS
101
AREA
2478
HEIGHT
1484
27-Dec-2022
16:03
linh
pham



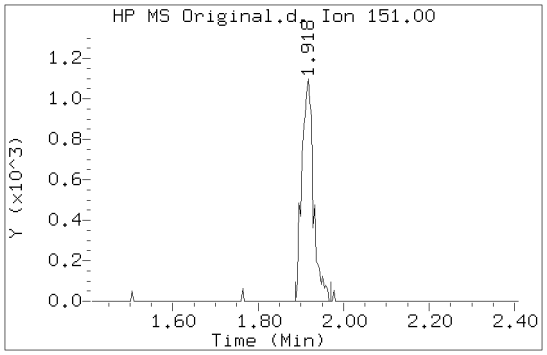
AFTER

MASS
101
AREA
1851
HEIGHT
1484
27-Dec-2022
16:07
linh
pham



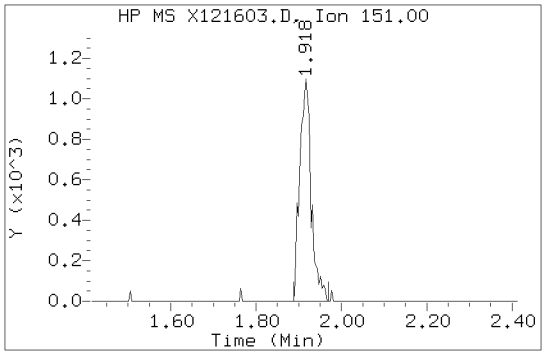
BEFORE

MASS
151
AREA
2095
HEIGHT
1098
27-Dec-2022
16:03
linh
pham



AFTER

MASS
151
AREA
2095
HEIGHT
1098
27-Dec-2022
16:07
linh
pham

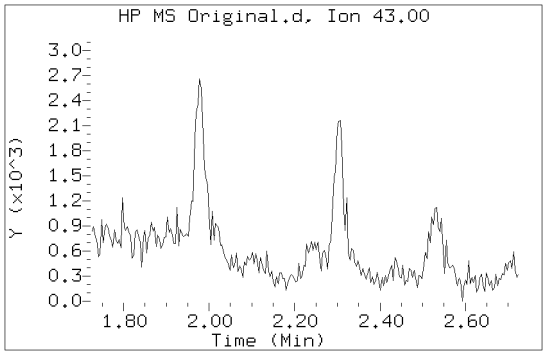


Methyl Acetate (79-20-9)

Reason Code:

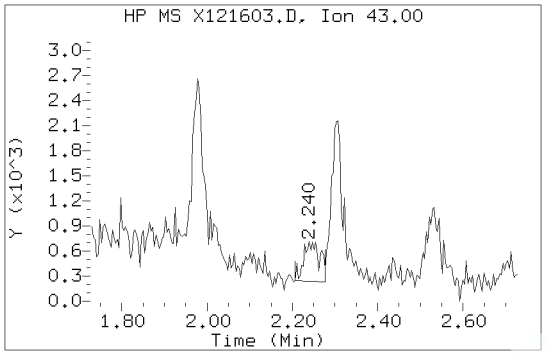
BEFORE

MASS
43
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
43
AREA
1269
HEIGHT
477
27-Dec-2022
16:07
linh
pham

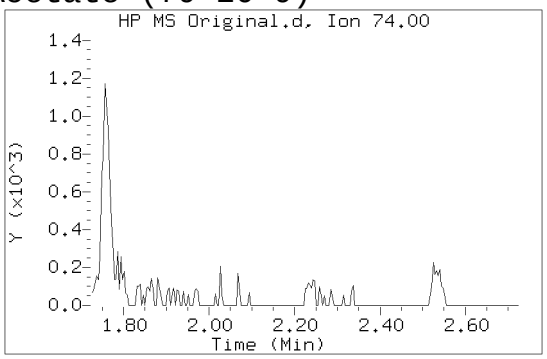


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

Methyl Acetate (79-20-9)

BEFORE

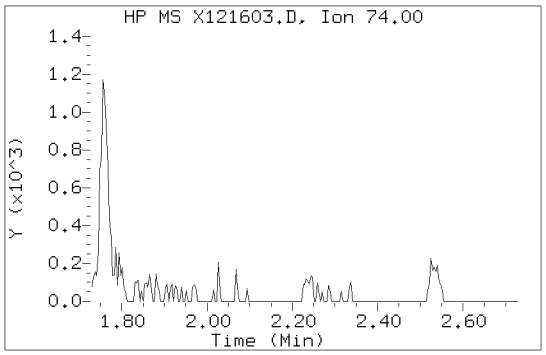
MASS
74
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
74
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

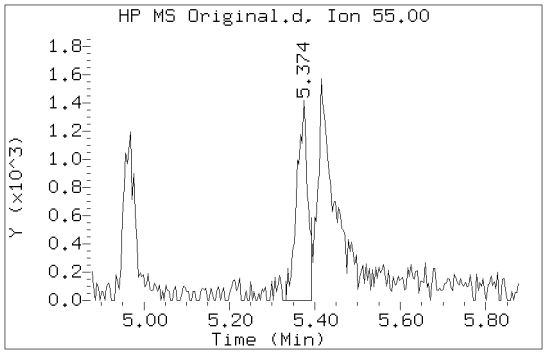
Reason Code:



Methylcyclohexane (108-87-2)

BEFORE

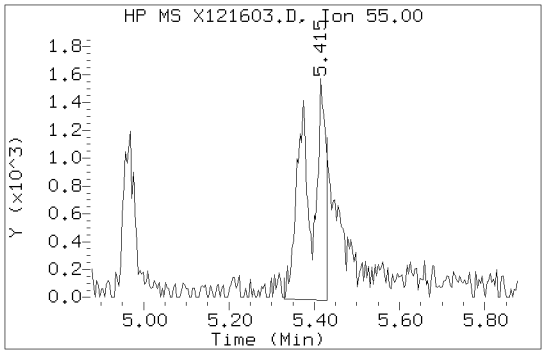
MASS
55
AREA
2505
HEIGHT
1416
27-Dec-2022
16:03
linh
pham



AFTER

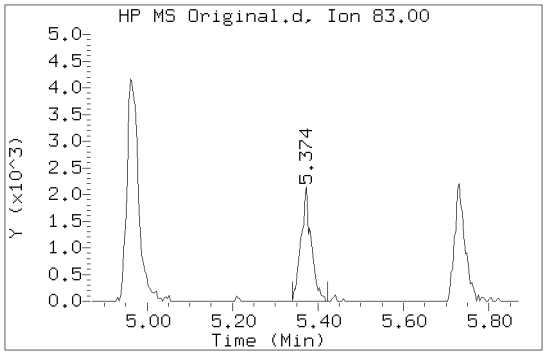
MASS
55
AREA
4781
HEIGHT
1590
27-Dec-2022
16:07
linh
pham

Reason Code:



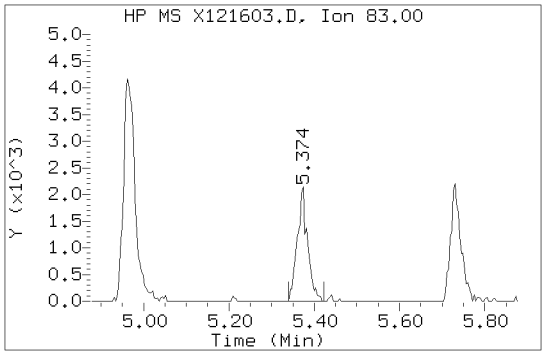
BEFORE

MASS
83
AREA
3627
HEIGHT
2141
27-Dec-2022
16:03
linh
pham



AFTER

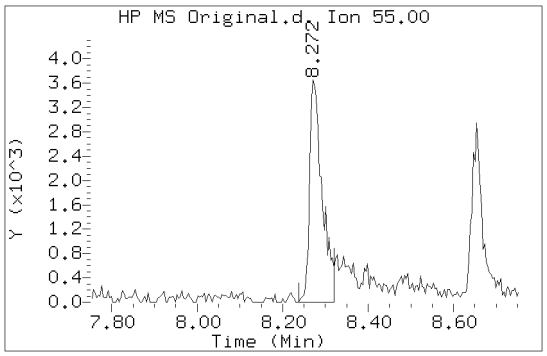
MASS
83
AREA
3627
HEIGHT
2141
27-Dec-2022
16:07
linh
pham



Butyl acrylate (141-32-2)

BEFORE

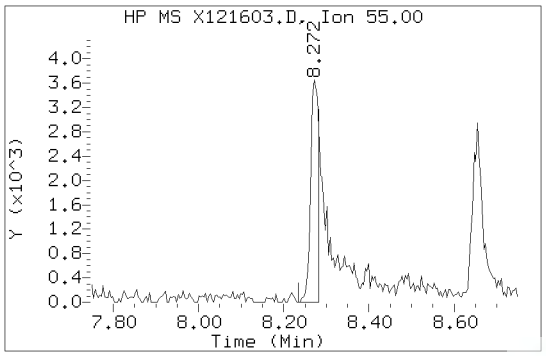
MASS
55
AREA
7480
HEIGHT
3653
27-Dec-2022
16:03
linh
pham



AFTER

MASS
55
AREA
4718
HEIGHT
3653
27-Dec-2022
16:07
linh
pham

Reason Code:



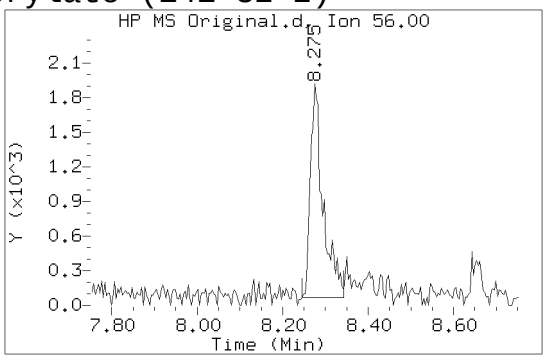
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

Butyl acrylate (141-32-2)

Reason Code:

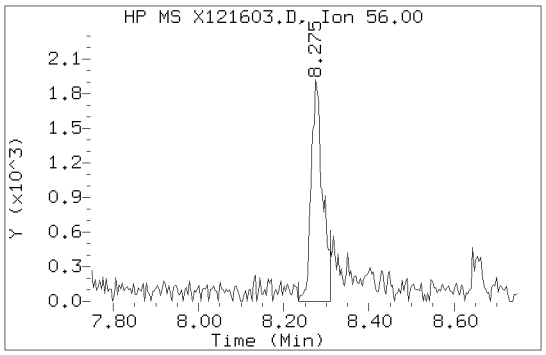
BEFORE

MASS
56
AREA
3795
HEIGHT
1858
27-Dec-2022
16:03
linh
pham



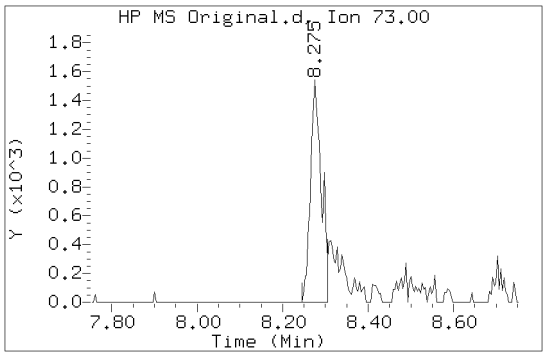
AFTER

MASS
56
AREA
3566
HEIGHT
1923
27-Dec-2022
16:07
linh
pham



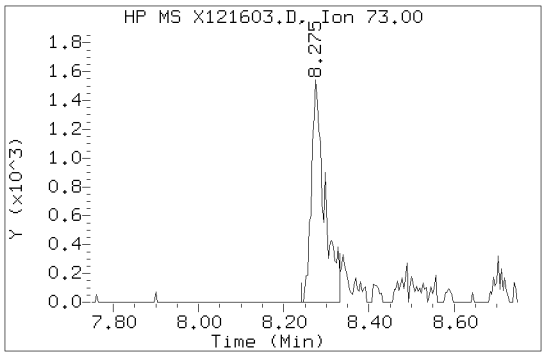
BEFORE

MASS
73
AREA
2742
HEIGHT
1542
27-Dec-2022
16:03
linh
pham



AFTER

MASS
73
AREA
3276
HEIGHT
1542
27-Dec-2022
16:07
linh
pham

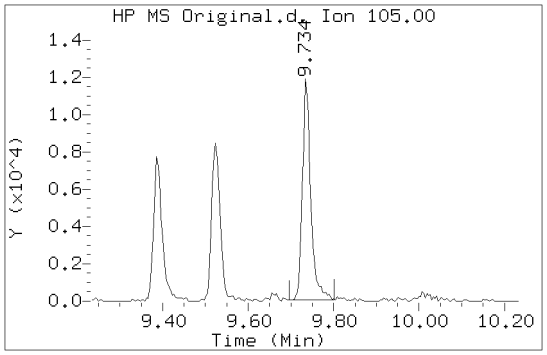


1,2,3-Trimethylbenzene (526-73-8)

Reason Code:

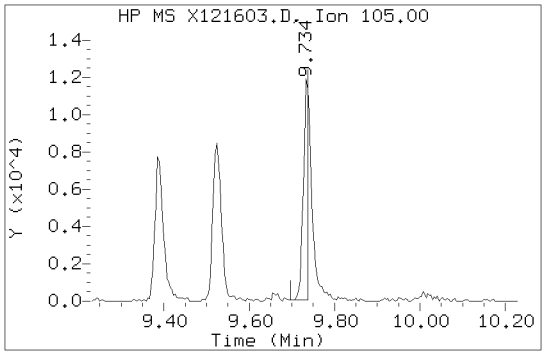
BEFORE

MASS
105
AREA
16642
HEIGHT
11860
27-Dec-2022
16:03
linh
pham



AFTER

MASS
105
AREA
9626
HEIGHT
11860
27-Dec-2022
16:07
linh
pham

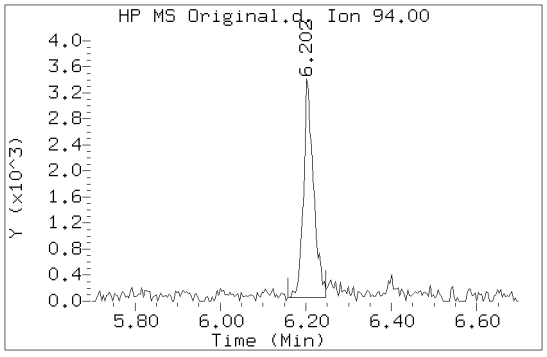


Dimethyl Disulfide (624-92-0)

Reason Code:

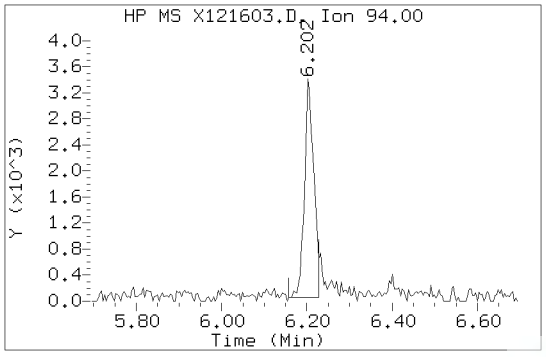
BEFORE

MASS
94
AREA
5523
HEIGHT
3352
27-Dec-2022
16:03
linh
pham



AFTER

MASS
94
AREA
5153
HEIGHT
3352
27-Dec-2022
16:07
linh
pham

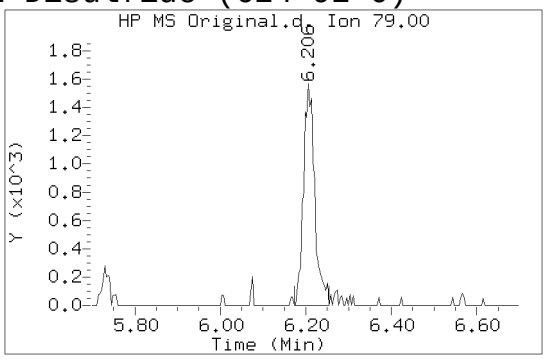


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

Dimethyl Disulfide (624-92-0)

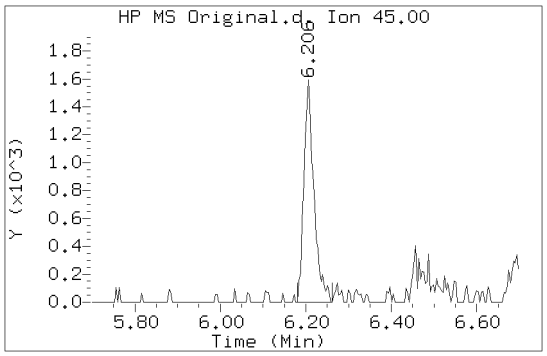
BEFORE

MASS
79
AREA
2905
HEIGHT
1568
27-Dec-2022
16:03
linh
pham



BEFORE

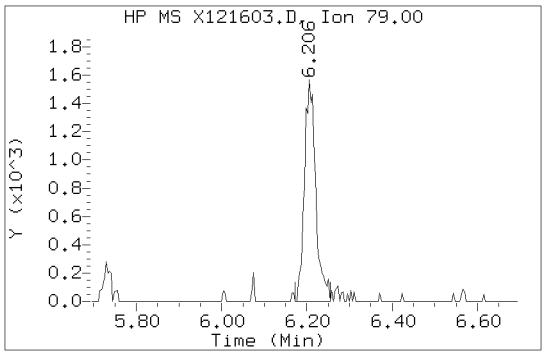
MASS
45
AREA
2647
HEIGHT
1593
27-Dec-2022
16:03
linh
pham



Reason Code:

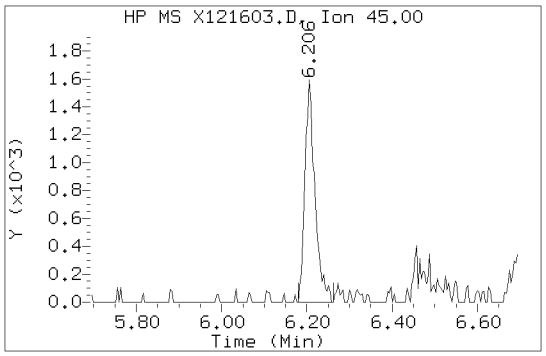
AFTER

MASS
79
AREA
2905
HEIGHT
1568
27-Dec-2022
16:07
linh
pham



AFTER

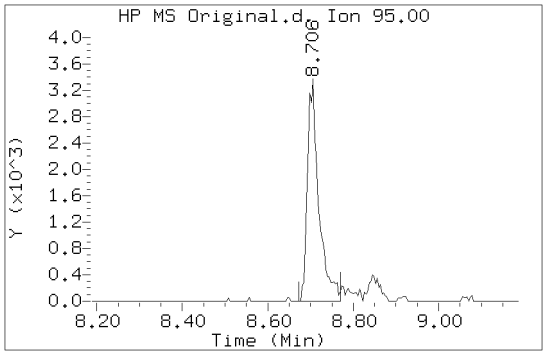
MASS
45
AREA
2647
HEIGHT
1593
27-Dec-2022
16:07
linh
pham



4-Bromofluorobenzene (460-00-4)

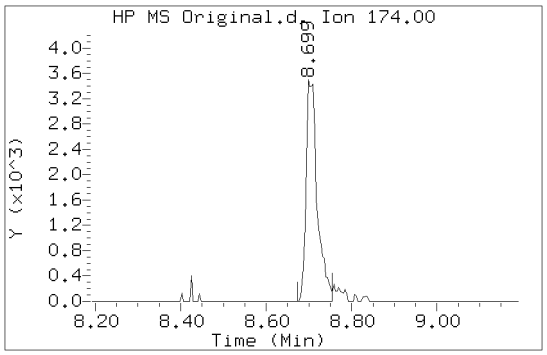
BEFORE

MASS
95
AREA
6240
HEIGHT
3372
27-Dec-2022
16:03
linh
pham



BEFORE

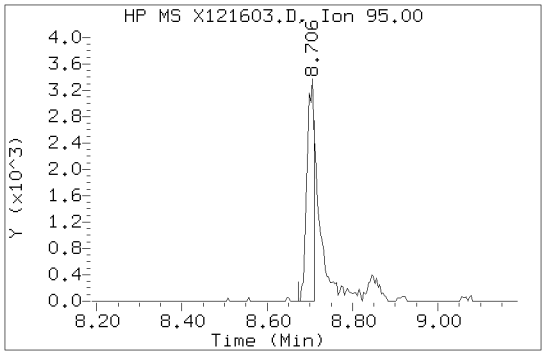
MASS
174
AREA
6370
HEIGHT
3502
27-Dec-2022
16:03
linh
pham



Reason Code:

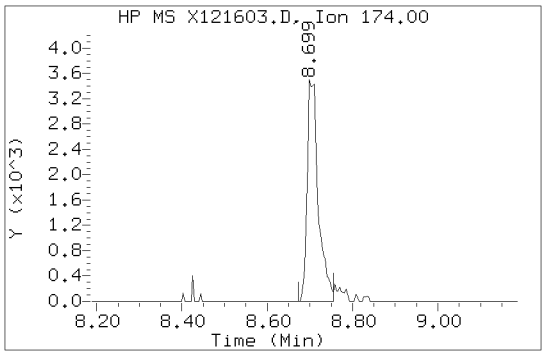
AFTER

MASS
95
AREA
3870
HEIGHT
3372
27-Dec-2022
16:07
linh
pham



AFTER

MASS
174
AREA
6370
HEIGHT
3502
27-Dec-2022
16:07
linh
pham



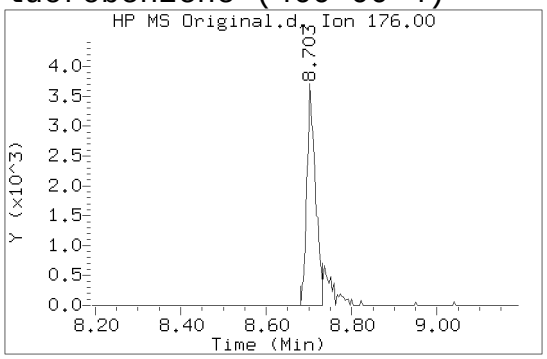
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121603.D
Inj Date : 16-DEC-2022 12:20
InstruID : voa6.i
LabSampID : VSTD000.5

4-Bromofluorobenzene (460-00-4)

Reason Code:

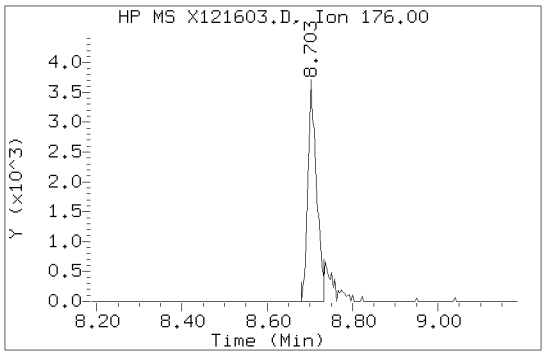
BEFORE

MASS
176
AREA
5204
HEIGHT
3711
27-Dec-2022
16:03
linh
pham



AFTER

MASS
176
AREA
5204
HEIGHT
3711
27-Dec-2022
16:07
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D Page 1
Report Date: 27-Dec-2022 16:07

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Lab Smp Id: VSTD001 Client Smp ID: VSTD001
Inj Date : 16-DEC-2022 12:41
Operator : PC Inst ID: voa6.i
Smp Info : VSTD001;VSTD001;1;3;
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\8260W.m
Meth Date : 27-Dec-2022 16:07 voa6.i Quant Type: ISTD
Cal Date : 16-DEC-2022 12:20 Cal File: X121603.D
Als bottle: 5 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260V6.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1	Pentafluorobenzene	168	4.178	4.178	(1.000)	450308	50.0000	
135	1,4-Dioxane	88	5.610	5.610	(1.343)	820	20.0000	19.92(M)
140	1,3-Butadiene	54	1.160	1.160	(0.278)	3432	1.00000	1.11
25	Methacrylonitrile	41	3.852	3.852	(0.922)	3285	1.00000	1.03(M)
12	Isobutyl Alcohol	43	4.695	4.695	(1.124)	9436	20.0000	18.62(M)
13	Acetonitrile	39	2.198	2.198	(0.526)	4183	10.0000	10.20
14	Allyl Chloride	41	2.202	2.202	(0.527)	8574	1.00000	1.09
4	Propionitrile	54	3.687	3.687	(0.882)	4742	10.0000	10.32(M)
136	n-Hexane	57	2.776	2.776	(0.664)	2343	1.00000	0.72
72	trans-1,4-Dichloro-2-butene	53	8.920	8.920	(1.163)	1196	1.00000	0.85(M)
194	Acetaldehyde	44	1.212	1.212	(0.290)	3384	4.00000	(M)
23	Chloroprene	53	1.767	1.767	(0.423)	1686	1.00000	1.10(M)
145	alpha-Methylstyrene	118	9.272	9.272	(0.960)	6032	1.00000	0.77
200	Dimethyl Disulfide	94	6.206	6.206	(0.809)	8295	1.00000	0.94
139	Diethyl ether	59	1.760	1.760	(0.421)	2983	1.00000	0.99
130	Ethyl Acetate	43	3.675	3.675	(0.880)	3144	1.00000	0.89(M)
40	Methyl Methacrylate	41	5.628	5.628	(1.347)	3145	1.00000	1.02
49	Ethyl Methacrylate	69	6.727	6.727	(1.355)	3303	1.00000	1.02(M)
132	n-Butanol	56	5.239	5.239	(1.254)	1171	20.0000	60.69(M)
142	Tetrahydrofuran	42	3.844	3.844	(0.920)	1361	2.00000	(M)

150	Allyl alcohol	57	2.776	2.776 (0.664)	2343	20.0000	13.39
166	1,2,3-Trimethylbenzene	105	9.733	9.733 (1.007)	18347	1.00000	1.08

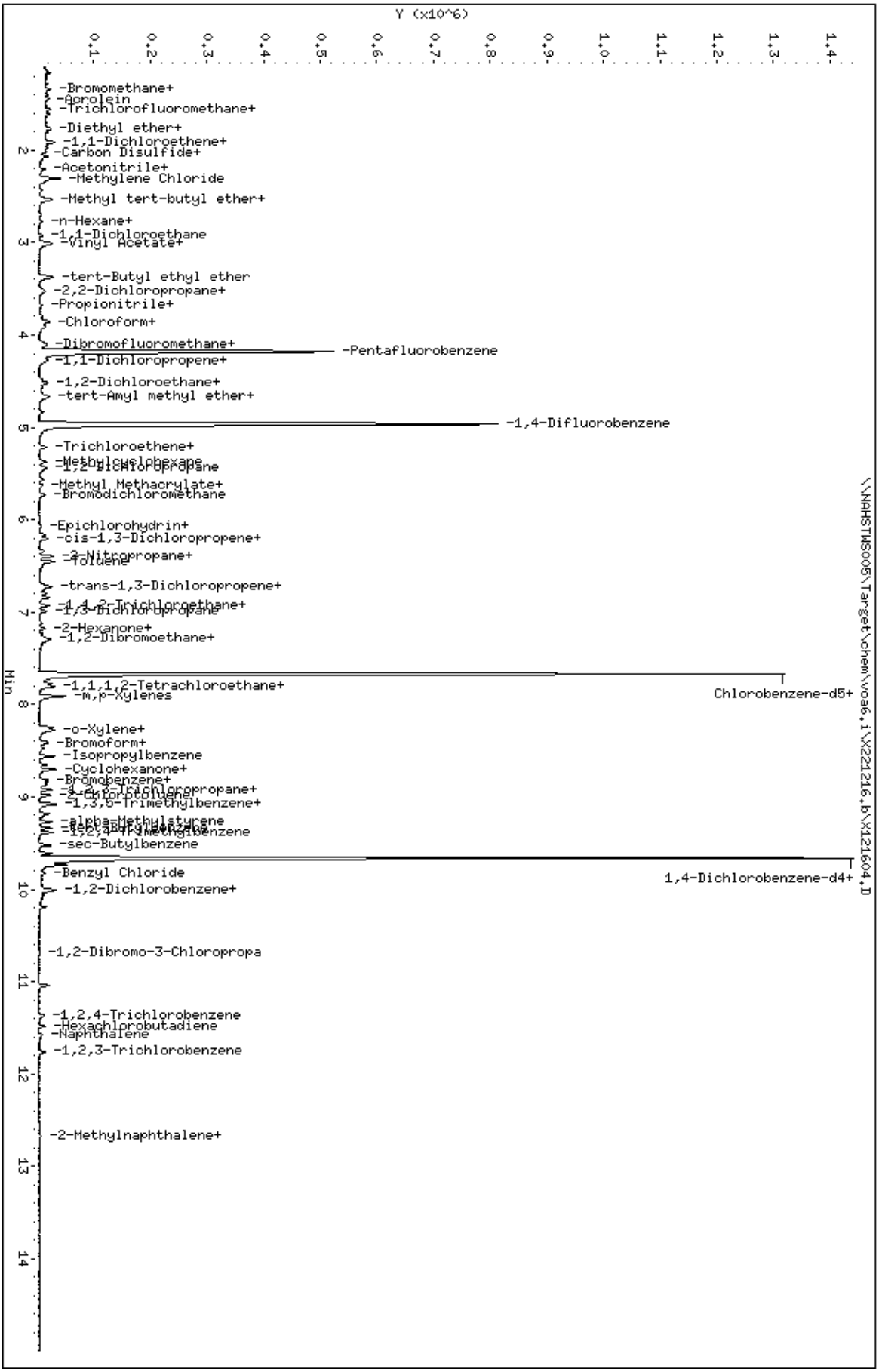
			QUANT SIG					AMOUNTS	
								CAL-AMT	ON-COL
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/l)	(ug/l)
	131	Methyl Acrylate	55	3.743	3.743	(0.896)	3084	1.00000	1.00(M)
	162	Butyl acrylate	55	8.271	8.271	(1.078)	7647	1.00000	0.90
	2	Dichlorodifluoromethane	85	0.969	0.969	(0.232)	2911	1.00000	1.30
	3	Chloromethane	50	1.078	1.078	(0.258)	3670	1.00000	3.07
	5	Vinyl Chloride	62	1.141	1.141	(0.273)	3645	1.00000	0.92
	6	Bromomethane	94	1.340	1.340	(0.321)	3293	1.00000	2.83
	7	Chloroethane	64	1.400	1.400	(0.335)	2516	1.00000	0.91(M)
	8	Trichlorofluoromethane	101	1.554	1.554	(0.372)	4906	1.00000	0.89
	9	Acrolein	56	1.452	1.452	(0.348)	761	2.00000	5.22(M)
	10	Acetone	43	1.977	1.977	(0.473)	4787	2.00000	3.75(M)
	11	1,1-Dichloroethene	96	1.913	1.913	(0.458)	3238	1.00000	0.94
	15	Iodomethane	142	2.026	2.026	(0.485)	3865	2.00000	4.18(TM)
	16	Acrylonitrile	53	2.554	2.554	(0.612)	2258	2.00000	1.94(M)
	17	Methylene Chloride	84	2.300	2.300	(0.550)	5355	1.00000	1.14(M)
	18	Methyl tert-butyl ether	73	2.536	2.536	(0.607)	12521	1.00000	1.11
	19	Carbon Disulfide	76	2.067	2.067	(0.495)	18122	2.00000	2.02
	20	trans-1,2-Dichloroethene	96	2.532	2.532	(0.606)	3821	1.00000	0.99
	21	Vinyl Acetate	43	3.012	3.012	(0.721)	17842	2.00000	1.81
	22	1,1-Dichloroethane	63	2.922	2.922	(0.699)	7218	1.00000	1.07
	24	2-Butanone	43	3.619	3.619	(0.866)	2498	2.00000	4.83(M)
	26	2,2-Dichloropropane	77	3.514	3.514	(0.841)	5896	1.00000	1.03
	27	cis-1,2-Dichloroethene	96	3.540	3.540	(0.847)	4469	1.00000	0.96
	28	Chloroform	83	3.908	3.908	(0.935)	7768	1.00000	1.03
	29	Bromochloromethane	128	3.803	3.803	(0.910)	2689	1.00000	1.05
$	30	Dibromofluoromethane	113	4.103	4.103	(0.982)	4769	1.00000	0.94
	31	1,1,1-Trichloroethane	97	4.088	4.088	(0.978)	5914	1.00000	0.99
	32	1,1-Dichloropropene	75	4.286	4.286	(0.863)	4698	1.00000	0.96
	33	1,2-Dichloroethane	62	4.564	4.564	(0.919)	5568	1.00000	0.99
	34	Carbon Tetrachloride	117	4.271	4.271	(0.860)	6221	1.00000	1.19
$	35	1,2-Dichloroethane-d4	65	4.485	4.485	(1.074)	5559	1.00000	1.48
*	36	1,4-Difluorobenzene	114	4.965	4.965	(1.000)	685937	50.0000	
	37	Benzene	78	4.515	4.515	(0.909)	16367	1.00000	0.99
	38	Trichloroethene	130	5.216	5.216	(1.051)	4352	1.00000	0.93
	39	Bromodichloromethane	83	5.730	5.730	(1.154)	6296	1.00000	1.02(M)
	41	2-Chloroethylvinyl ether	63	6.071	6.071	(1.223)	3202	2.00000	1.83(M)
	42	1,2-Dichloropropane	63	5.445	5.445	(1.097)	4604	1.00000	1.05(M)
	44	Dibromomethane	93	5.557	5.557	(1.119)	2906	1.00000	0.98
	45	4-Methyl-2-Pentanone	43	6.341	6.341	(0.827)	6859	2.00000	1.97
	46	cis-1,3-Dichloropropene	75	6.168	6.168	(1.242)	6537	1.00000	0.90
*	47	Chlorobenzene-d5	117	7.671	7.671	(1.000)	649074	50.0000	
$	48	Toluene-d8	98	6.401	6.401	(0.834)	17067	1.00000	1.06
	50	Toluene	91	6.457	6.457	(0.842)	17914	1.00000	0.99
	51	trans-1,3-Dichloropropene	75	6.693	6.693	(1.348)	5418	1.00000	0.90
	52	2-Hexanone	43	7.109	7.109	(0.927)	4520	2.00000	1.91
	53	1,1,2-Trichloroethane	83	6.843	6.843	(0.892)	3499	1.00000	0.97
	54	1,3-Dichloropropane	76	6.989	6.989	(0.911)	7216	1.00000	1.01
	55	Dibromochloromethane	129	7.177	7.177	(0.936)	5024	1.00000	0.96
	56	Tetrachloroethene	164	6.933	6.933	(0.904)	3331	1.00000	0.89
	57	1,2-Dibromoethane	107	7.270	7.270	(0.948)	4350	1.00000	0.96
	58	1-Chlorohexane	55	7.705	7.705	(1.552)	3155	1.00000	0.95(MH)
	59	Chlorobenzene	112	7.698	7.698	(1.003)	12555	1.00000	0.98
	60	1,1,1,2-Tetrachloroethane	131	7.776	7.776	(1.014)	4485	1.00000	0.94

61 Ethylbenzene	106	7.806	7.806 (1.018)	5698	1.00000	0.95
62 m,p-Xylenes	106	7.911	7.911 (1.031)	14464	2.00000	1.87

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	63 o-Xylene	106	8.249	8.249	(1.075)	6670	1.00000	0.87
	64 Styrene	104	8.282	8.282	(1.080)	10384	1.00000	0.81
	66 Bromoform	173	8.417	8.417	(1.097)	3274	1.00000	0.90(T)
	67 Isopropylbenzene	105	8.564	8.564	(1.116)	15163	1.00000	0.87
	68 1,1,2,2-Tetrachloroethane	83	8.845	8.845	(0.915)	5934	1.00000	1.05(M)
$	69 4-Bromofluorobenzene	95	8.702	8.702	(1.134)	7790	1.00000	1.36(M)
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	351251	50.0000	
	71 1,2,3-Trichloropropane	75	8.871	8.871	(0.918)	3978	1.00000	1.01
	73 n-Propylbenzene	91	8.923	8.923	(0.924)	15006	1.00000	0.77
	74 Bromobenzene	156	8.818	8.818	(0.913)	5554	1.00000	0.96
	75 1,3,5-Trimethylbenzene	105	9.073	9.073	(0.939)	11820	1.00000	0.82
	76 2-Chlorotoluene	91	8.980	8.980	(0.929)	12470	1.00000	0.97
	77 4-Chlorotoluene	91	9.085	9.085	(0.940)	12140	1.00000	0.83
	78 tert-Butylbenzene	119	9.340	9.340	(0.967)	9357	1.00000	0.79
	79 1,2,4-Trimethylbenzene	105	9.385	9.385	(0.971)	12988	1.00000	0.85
	81 sec-Butylbenzene	105	9.523	9.523	(0.986)	12395	1.00000	0.79
	82 p-Isopropyltoluene	119	9.651	9.651	(0.999)	10009	1.00000	0.71
	83 1,3-Dichlorobenzene	146	9.609	9.609	(0.995)	8523	1.00000	0.89
	84 1,4-Dichlorobenzene	146	9.681	9.681	(1.002)	9866	1.00000	0.94
	86 Benzyl Chloride	91	9.823	9.823	(1.280)	4632	1.00000	3.12
	87 n-Butylbenzene	91	10.014	10.014	(1.036)	8459	1.00000	2.37(M)
	88 1,2-Dichlorobenzene	146	10.007	10.007	(1.036)	8626	1.00000	0.87
	89 1,2-Dibromo-3-Chloropropane	155	10.689	10.689	(1.106)	778	1.00000	0.95(M)
	90 1,2,4-Trichlorobenzene	180	11.371	11.371	(1.177)	4609	1.00000	0.74
	91 Hexachlorobutadiene	225	11.480	11.480	(1.188)	1928	1.00000	0.65
	92 Naphthalene	128	11.574	11.574	(1.198)	11288	1.00000	0.79(M)
	93 1,2,3-Trichlorobenzene	180	11.754	11.754	(1.216)	4801	1.00000	0.80
M	94 1,2-Dichloroethylene (total)	96				8290	2.00000	
M	95 Xylenes (total)	106				21134	3.00000	
	141 Cyclohexane	56	4.125	4.125	(0.987)	4003	1.00000	2.12(H)
	138 Freon TF	101	1.906	1.906	(0.456)	3356	1.00000	1.01
	147 Methylcyclohexane	55	5.377	5.377	(1.083)	6848	1.00000	0.81(M)
	146 Methyl Acetate	43	2.236	2.236	(0.535)	2127	1.00000	1.04(M)
	148 Tert-Butyl alcohol	59	2.438	2.438	(0.584)	6051	20.0000	19.40(a)

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.



Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Date : 16-DEC-2022 12:41
Client ID: VSTD001
Sample Info: VSTD001;VSTD001;1;3;
Purge Volume: 5.0
Column phase: DB624

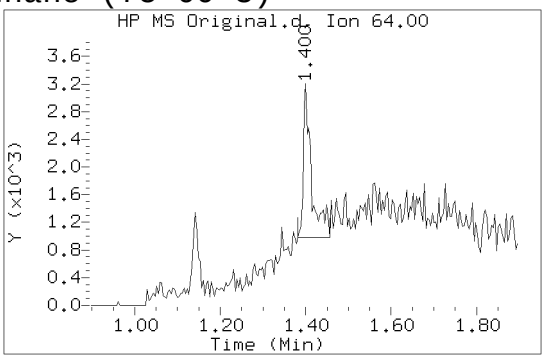
Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

Chloroethane (75-00-3)

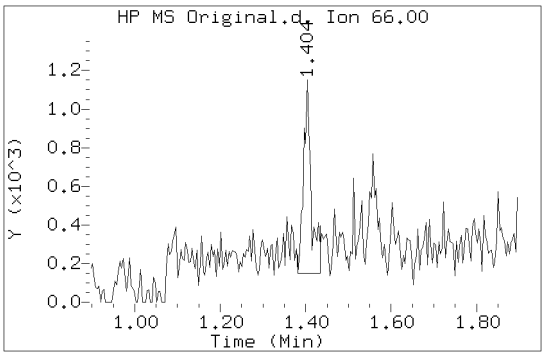
BEFORE

MASS
64
AREA
2984
HEIGHT
2221
27-Dec-2022
16:03
linh
pham



BEFORE

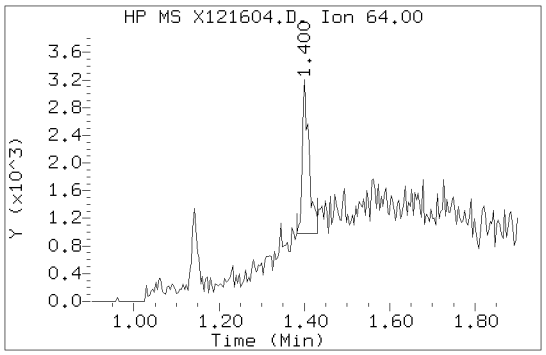
MASS
66
AREA
1262
HEIGHT
1002
27-Dec-2022
16:03
linh
pham



Reason Code:

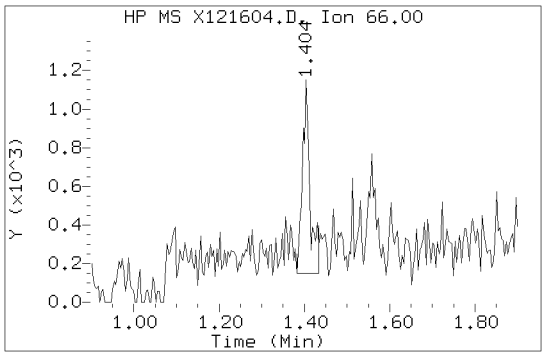
AFTER

MASS
64
AREA
2516
HEIGHT
2221
27-Dec-2022
16:07
linh
pham



AFTER

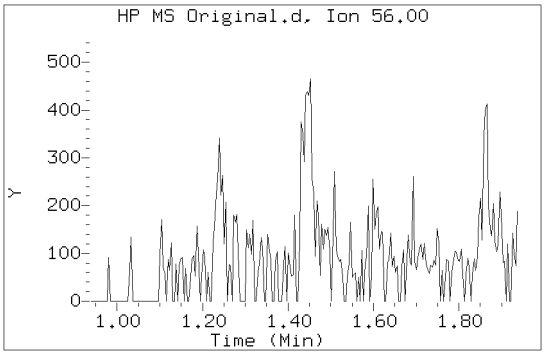
MASS
66
AREA
1262
HEIGHT
1002
27-Dec-2022
16:07
linh
pham



Acrolein (107-02-8)

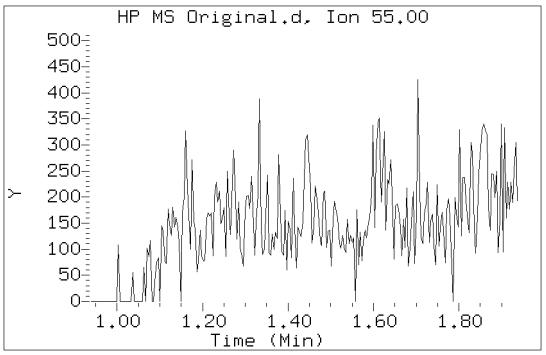
BEFORE

MASS
56
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



BEFORE

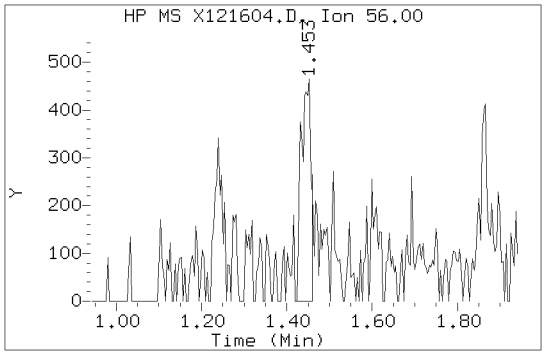
MASS
55
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



Reason Code:

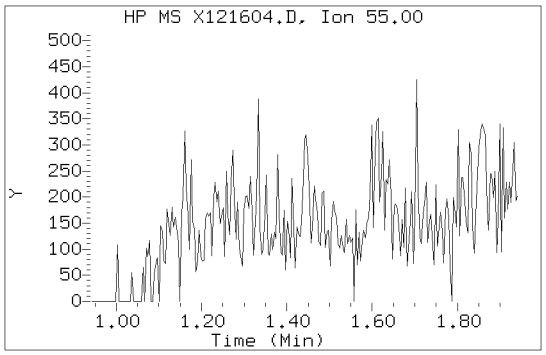
AFTER

MASS
56
AREA
761
HEIGHT
465
27-Dec-2022
16:07
linh
pham



AFTER

MASS
55
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

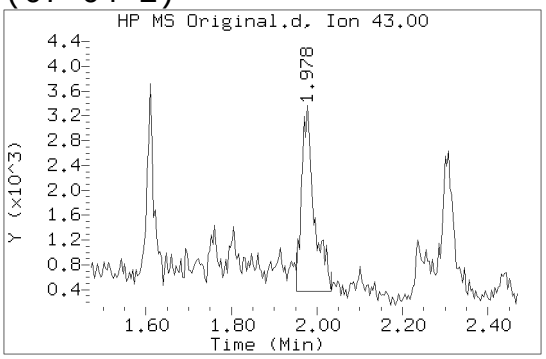


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

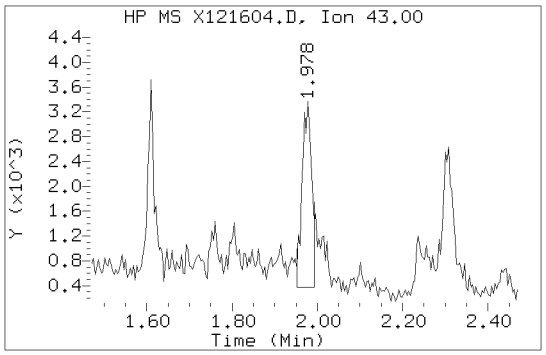
Acetone (67-64-1)

Reason Code:

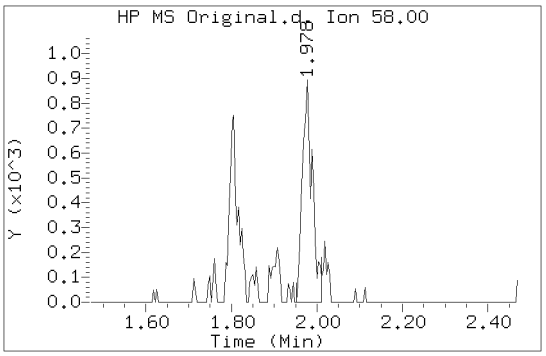
BEFORE
MASS
43
AREA
6265
HEIGHT
2993
27-Dec-2022
16:03
linh
pham



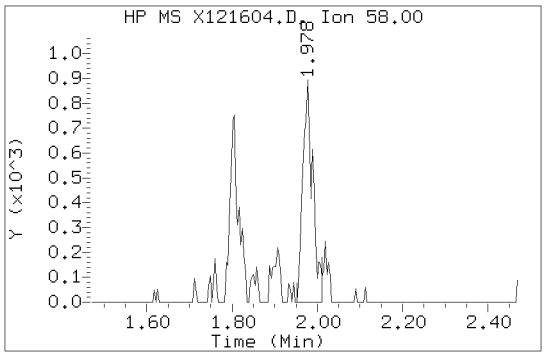
AFTER
MASS
43
AREA
4787
HEIGHT
2993
27-Dec-2022
16:07
linh
pham



BEFORE
MASS
58
AREA
1474
HEIGHT
894
27-Dec-2022
16:03
linh
pham



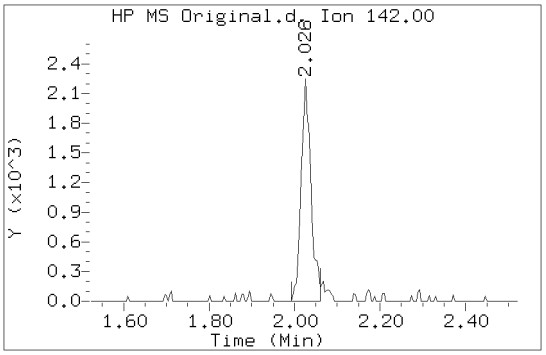
AFTER
MASS
58
AREA
1474
HEIGHT
894
27-Dec-2022
16:07
linh
pham



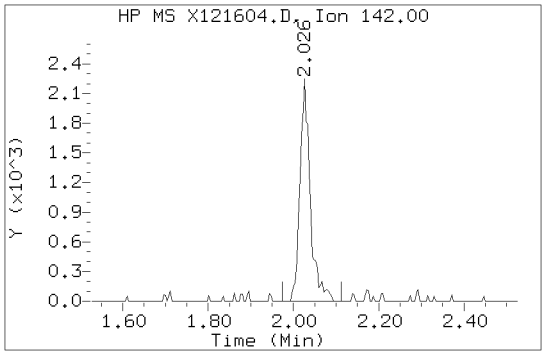
Iodomethane (74-88-4)

Reason Code:

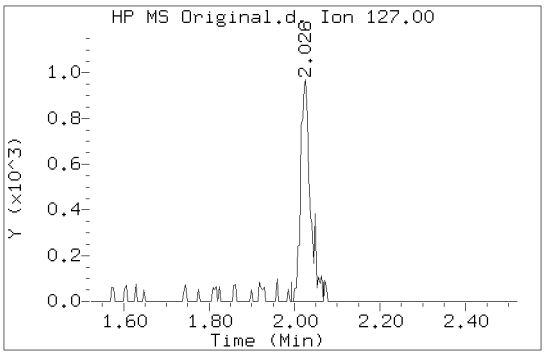
BEFORE
MASS
142
AREA
3661
HEIGHT
2248
27-Dec-2022
16:03
linh
pham



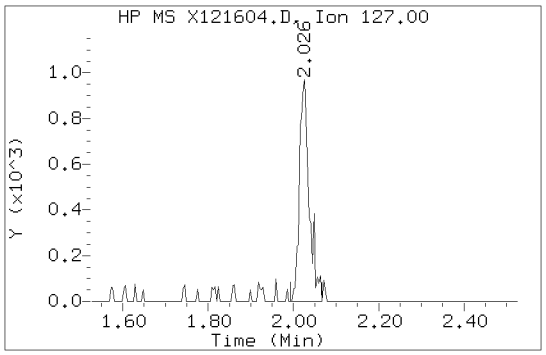
AFTER
MASS
142
AREA
3865
HEIGHT
2248
27-Dec-2022
16:07
linh
pham



BEFORE
MASS
127
AREA
1585
HEIGHT
970
27-Dec-2022
16:03
linh
pham



AFTER
MASS
127
AREA
1585
HEIGHT
970
27-Dec-2022
16:07
linh
pham



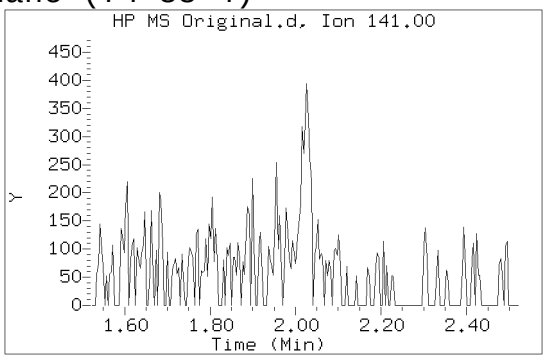
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

Iodomethane (74-88-4)

Reason Code:

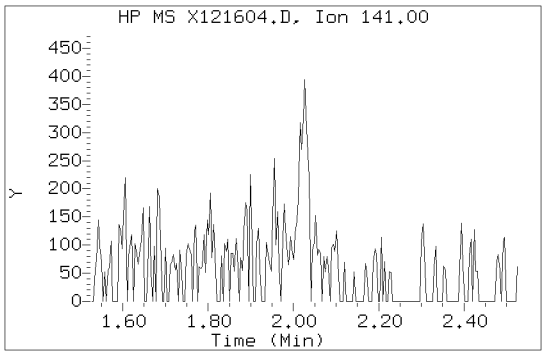
BEFORE

MASS
141
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
141
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

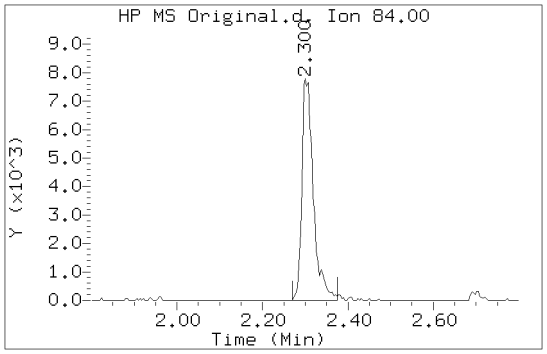


Methylene Chloride (75-09-2)

Reason Code:

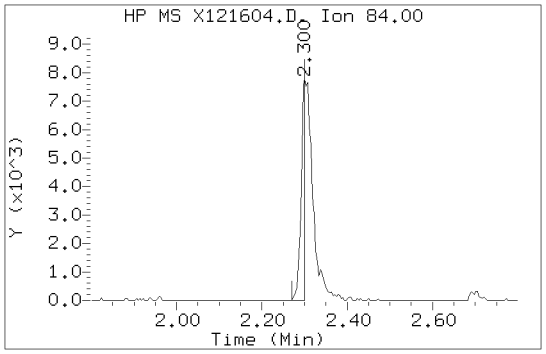
BEFORE

MASS
84
AREA
14864
HEIGHT
7788
27-Dec-2022
16:03
linh
pham



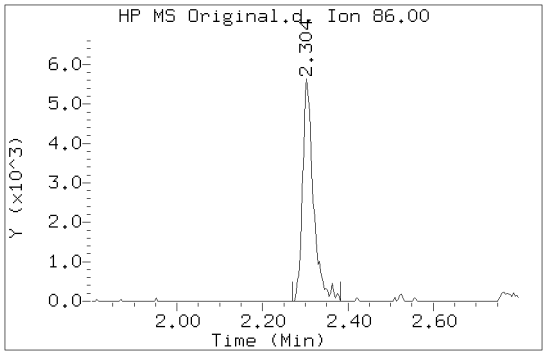
AFTER

MASS
84
AREA
5355
HEIGHT
7788
27-Dec-2022
16:07
linh
pham



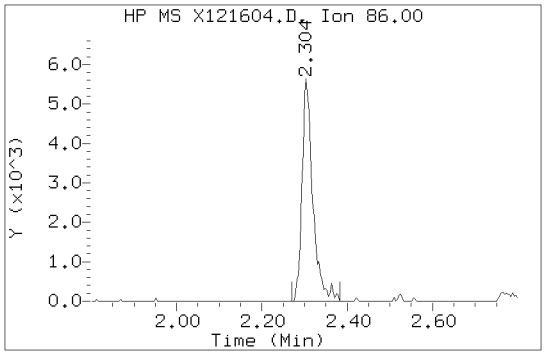
BEFORE

MASS
86
AREA
10161
HEIGHT
5637
27-Dec-2022
16:03
linh
pham



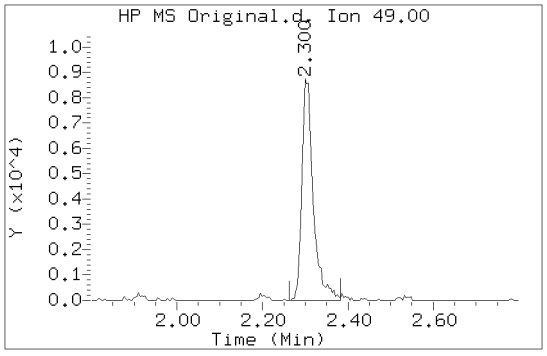
AFTER

MASS
86
AREA
10161
HEIGHT
5637
27-Dec-2022
16:07
linh
pham



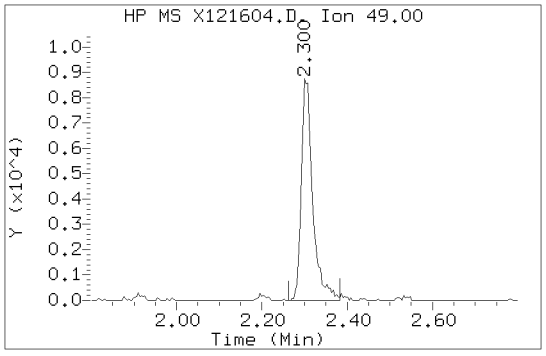
BEFORE

MASS
49
AREA
16641
HEIGHT
8752
27-Dec-2022
16:03
linh
pham



AFTER

MASS
49
AREA
16641
HEIGHT
8752
27-Dec-2022
16:07
linh
pham

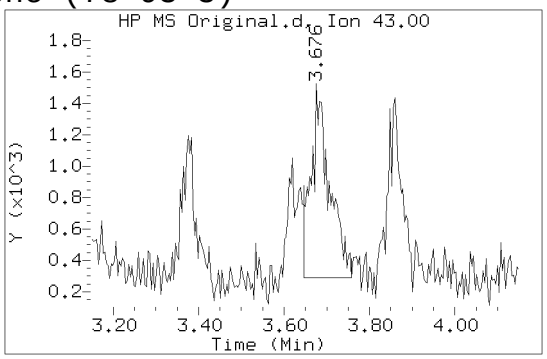


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

2-Butanone (78-93-3)

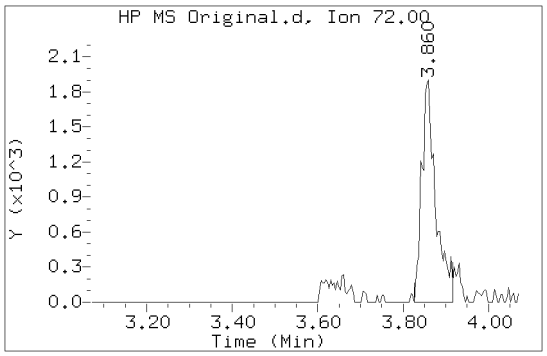
BEFORE

MASS
43
AREA
3758
HEIGHT
1236
27-Dec-2022
16:03
linh
pham



BEFORE

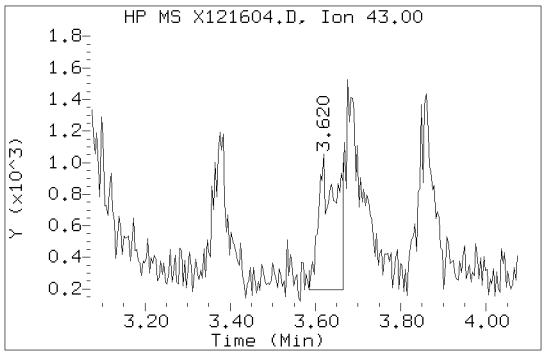
MASS
72
AREA
4320
HEIGHT
1902
27-Dec-2022
16:03
linh
pham



Reason Code:

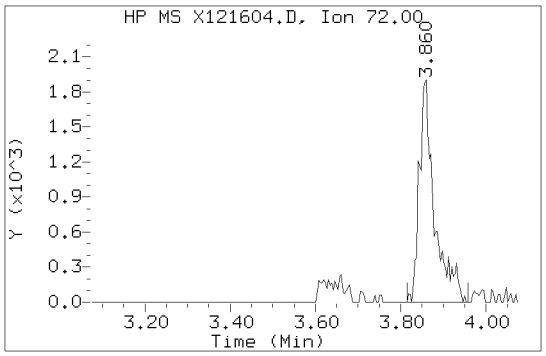
AFTER

MASS
43
AREA
2498
HEIGHT
859
27-Dec-2022
16:07
linh
pham



AFTER

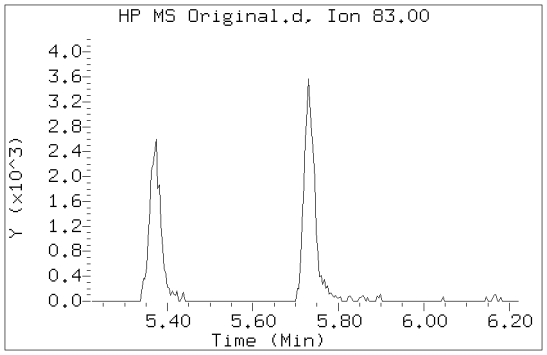
MASS
72
AREA
4690
HEIGHT
1902
27-Dec-2022
16:07
linh
pham



Bromodichloromethane (75-27-4)

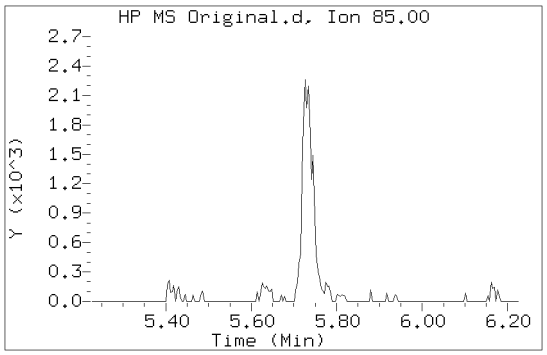
BEFORE

MASS
83
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



BEFORE

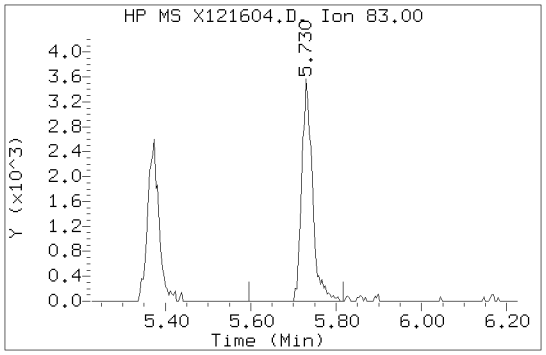
MASS
85
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



Reason Code:

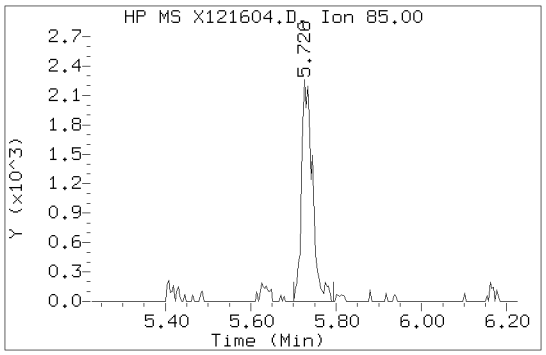
AFTER

MASS
83
AREA
6296
HEIGHT
3568
27-Dec-2022
16:07
linh
pham



AFTER

MASS
85
AREA
4084
HEIGHT
2261
27-Dec-2022
16:07
linh
pham



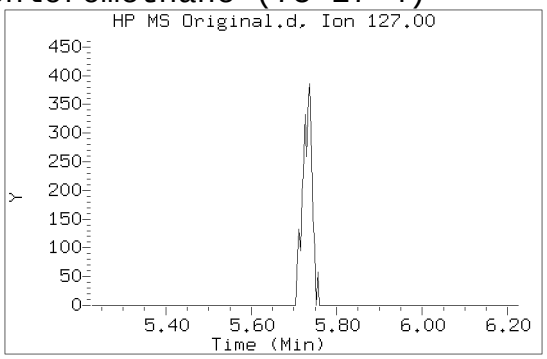
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

Bromodichloromethane (75-27-4)

Reason Code:

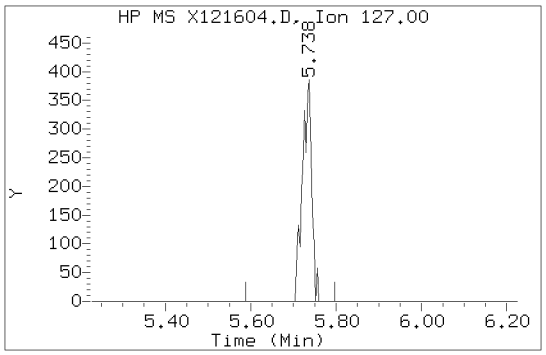
BEFORE

MASS
127
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
127
AREA
595
HEIGHT
386
27-Dec-2022
16:07
linh
pham

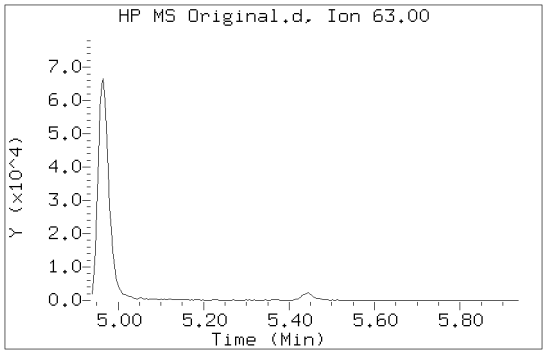


1,2-Dichloropropane (78-87-5)

Reason Code:

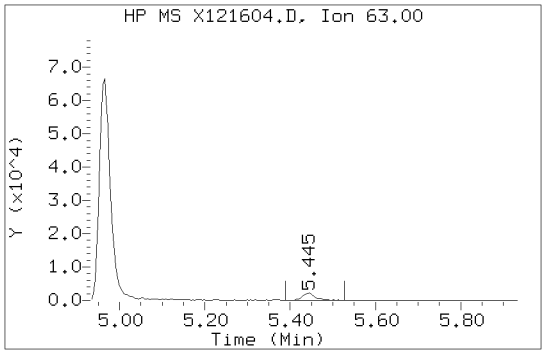
BEFORE

MASS
63
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



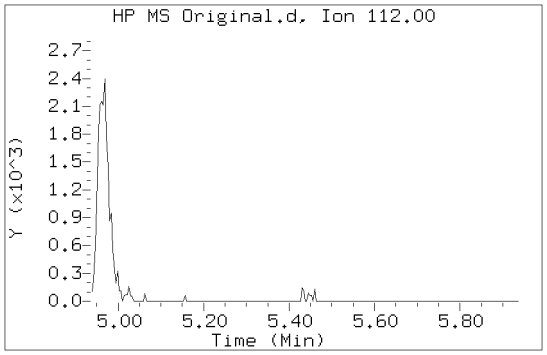
AFTER

MASS
63
AREA
4604
HEIGHT
2381
27-Dec-2022
16:07
linh
pham



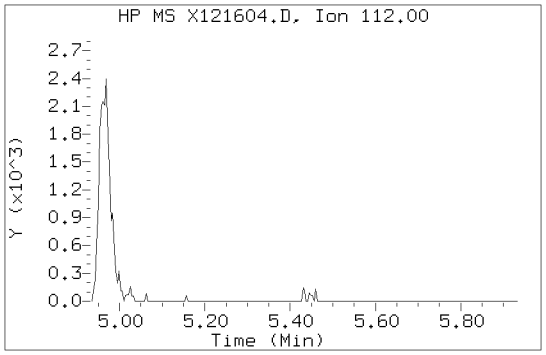
BEFORE

MASS
112
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
112
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

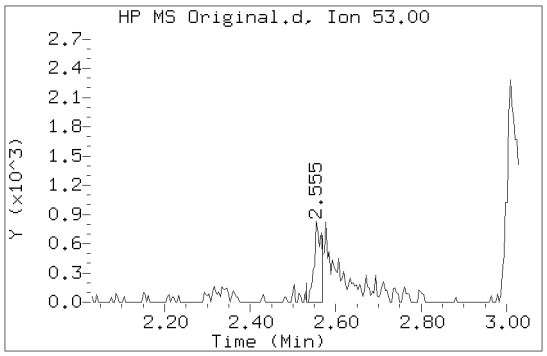


Acrylonitrile (107-13-1)

Reason Code:

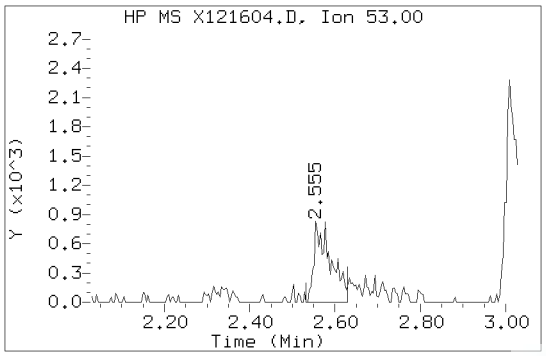
BEFORE

MASS
53
AREA
967
HEIGHT
834
27-Dec-2022
16:03
linh
pham



AFTER

MASS
53
AREA
2258
HEIGHT
834
27-Dec-2022
16:07
linh
pham



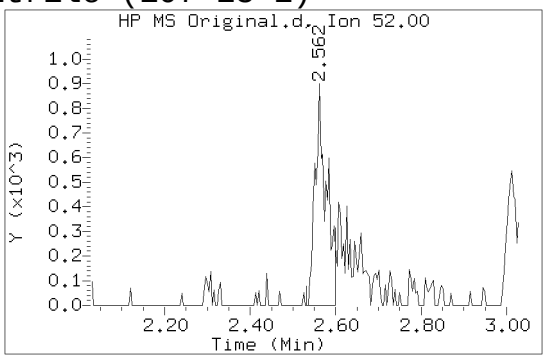
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

Acrylonitrile (107-13-1)

Reason Code:

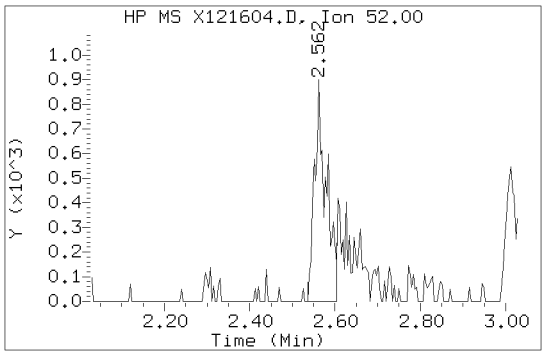
BEFORE

MASS
52
AREA
1657
HEIGHT
900
27-Dec-2022
16:03
linh
pham



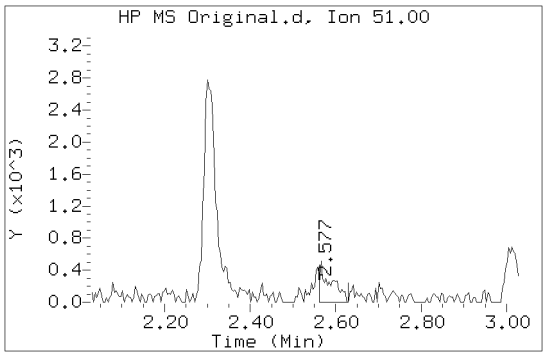
AFTER

MASS
52
AREA
1692
HEIGHT
900
27-Dec-2022
16:07
linh
pham



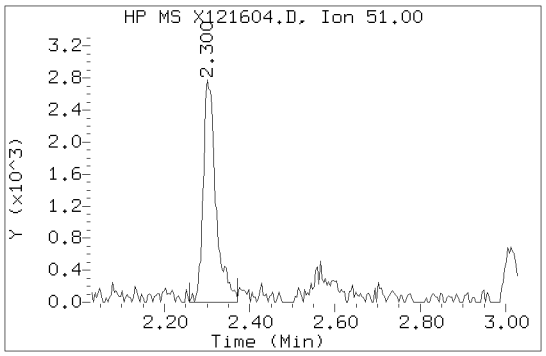
BEFORE

MASS
51
AREA
901
HEIGHT
301
27-Dec-2022
16:03
linh
pham



AFTER

MASS
51
AREA
5757
HEIGHT
2777
27-Dec-2022
16:07
linh
pham

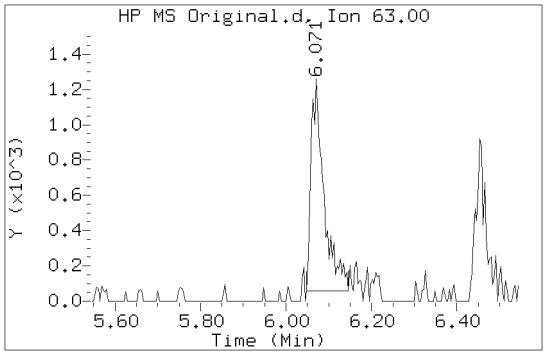


2-Chloroethylvinyl ether (110-75-8)

Reason Code:

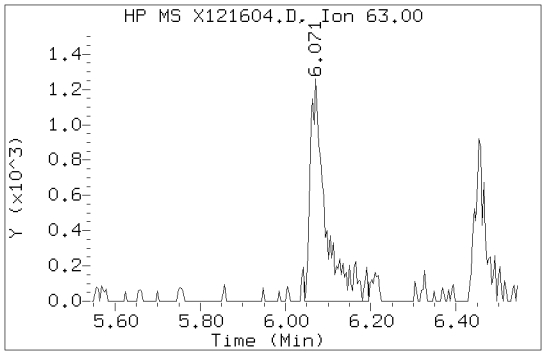
BEFORE

MASS
63
AREA
2513
HEIGHT
1202
27-Dec-2022
16:03
linh
pham



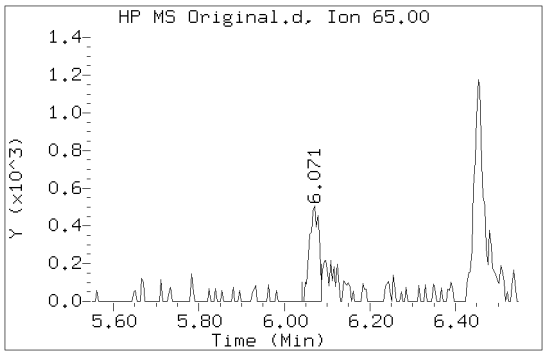
AFTER

MASS
63
AREA
3202
HEIGHT
1260
27-Dec-2022
16:07
linh
pham



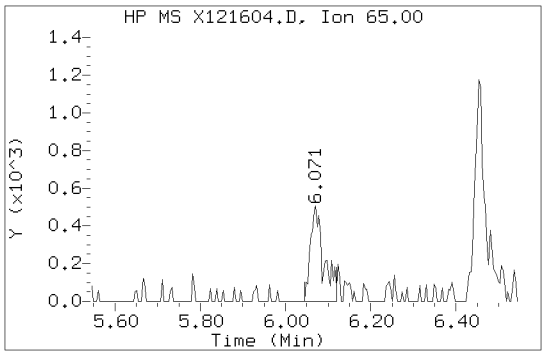
BEFORE

MASS
65
AREA
775
HEIGHT
507
27-Dec-2022
16:03
linh
pham



AFTER

MASS
65
AREA
1093
HEIGHT
507
27-Dec-2022
16:07
linh
pham



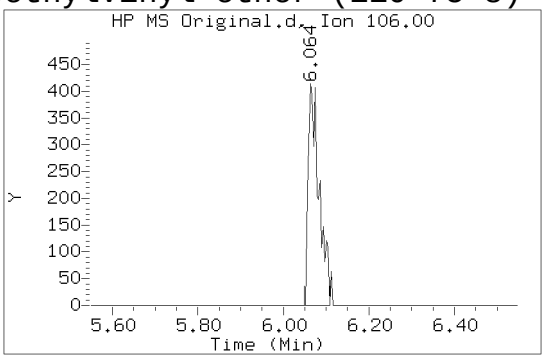
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

2-Chloroethylvinyl ether (110-75-8)

Reason Code:

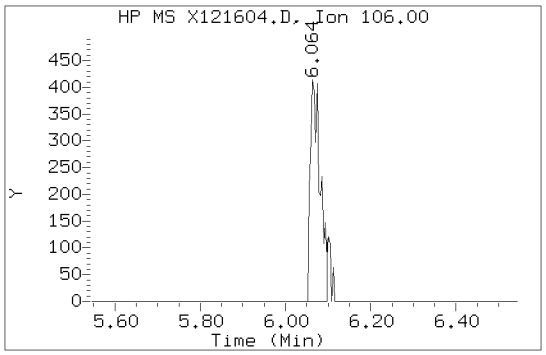
BEFORE

MASS
106
AREA
725
HEIGHT
414
27-Dec-2022
16:03
linh
pham



AFTER

MASS
106
AREA
673
HEIGHT
414
27-Dec-2022
16:07
linh
pham

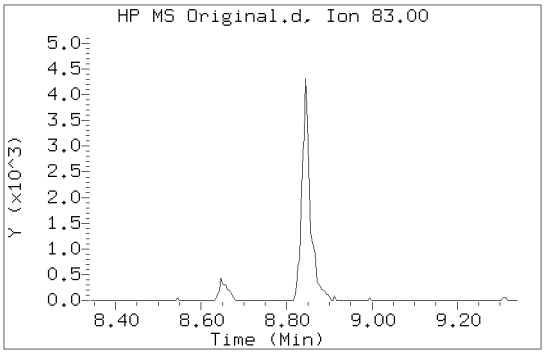


1,1,2,2-Tetrachloroethane (79-34-5)

Reason Code:

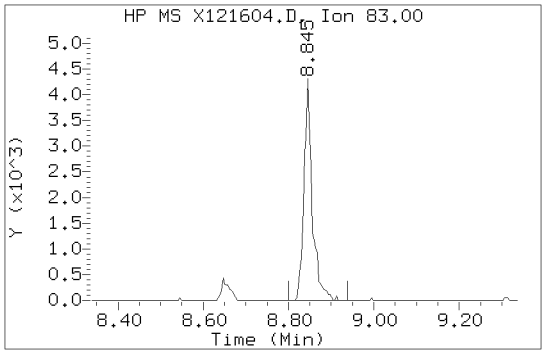
BEFORE

MASS
83
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



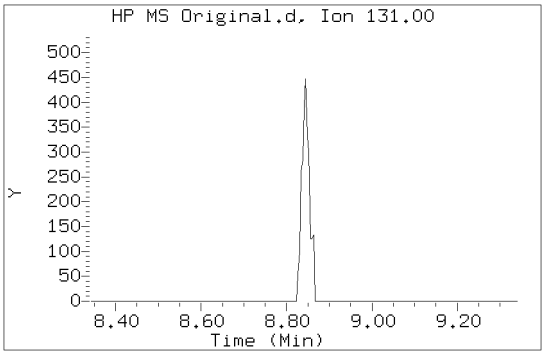
AFTER

MASS
83
AREA
5934
HEIGHT
4312
27-Dec-2022
16:07
linh
pham



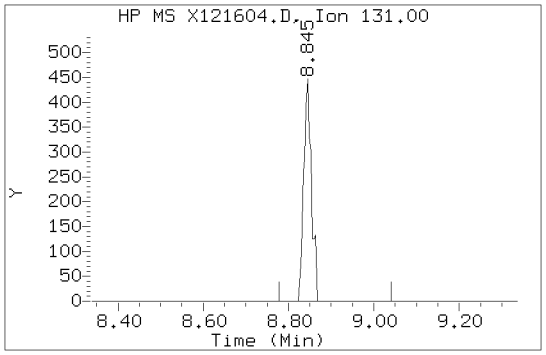
BEFORE

MASS
131
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



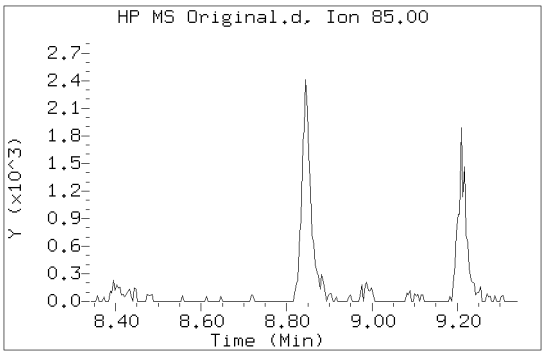
AFTER

MASS
131
AREA
574
HEIGHT
447
27-Dec-2022
16:07
linh
pham



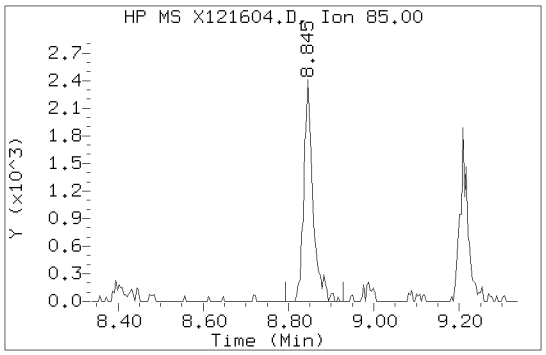
BEFORE

MASS
85
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
85
AREA
3682
HEIGHT
2411
27-Dec-2022
16:07
linh
pham



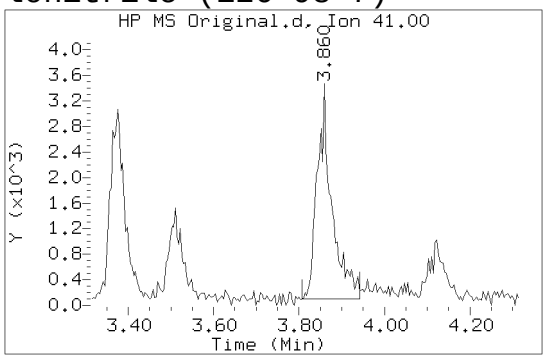
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

Methacrylonitrile (126-98-7)

Reason Code:

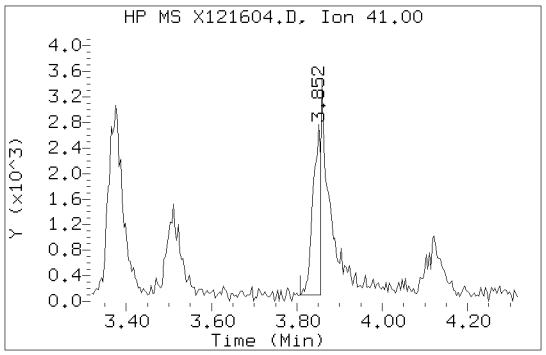
BEFORE

MASS
41
AREA
7966
HEIGHT
3370
27-Dec-2022
16:03
linh
pham



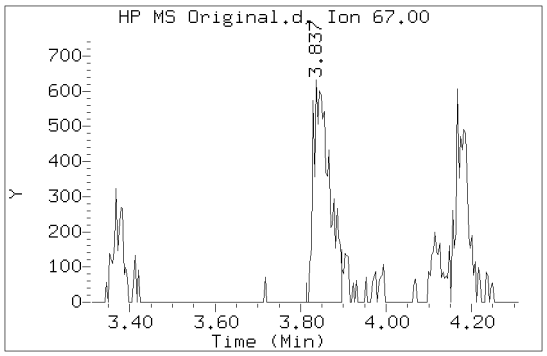
AFTER

MASS
41
AREA
3285
HEIGHT
2668
27-Dec-2022
16:07
linh
pham



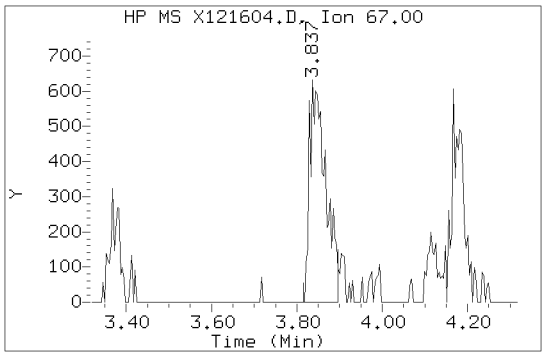
BEFORE

MASS
67
AREA
1649
HEIGHT
632
27-Dec-2022
16:03
linh
pham



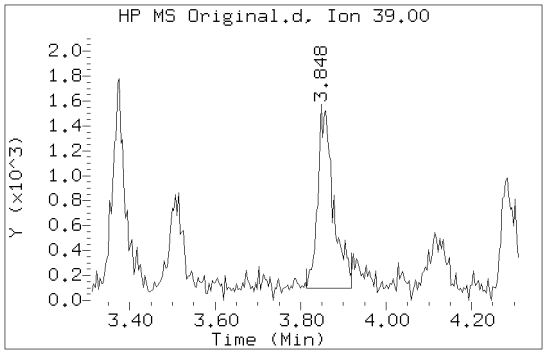
AFTER

MASS
67
AREA
1649
HEIGHT
632
27-Dec-2022
16:07
linh
pham



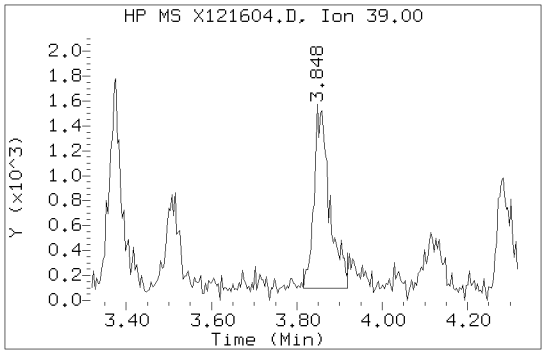
BEFORE

MASS
39
AREA
3700
HEIGHT
1473
27-Dec-2022
16:03
linh
pham



AFTER

MASS
39
AREA
3700
HEIGHT
1473
27-Dec-2022
16:07
linh
pham

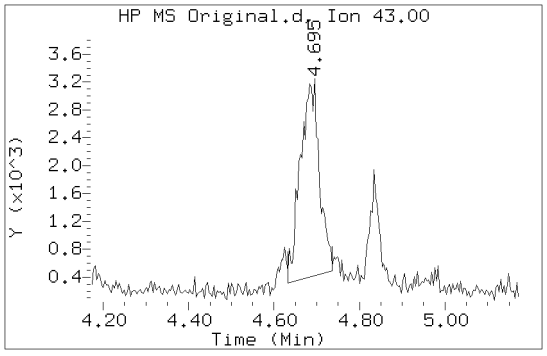


Isobutyl Alcohol (78-83-1)

Reason Code:

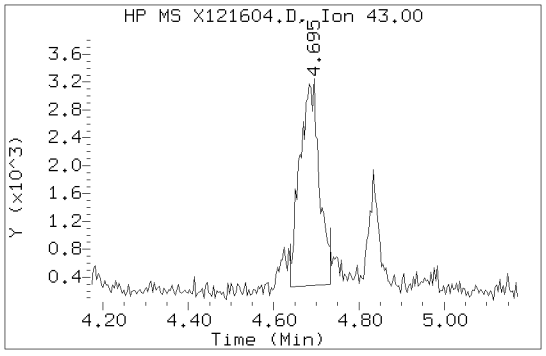
BEFORE

MASS
43
AREA
8847
HEIGHT
2826
27-Dec-2022
16:03
linh
pham



AFTER

MASS
43
AREA
9436
HEIGHT
2966
27-Dec-2022
16:07
linh
pham



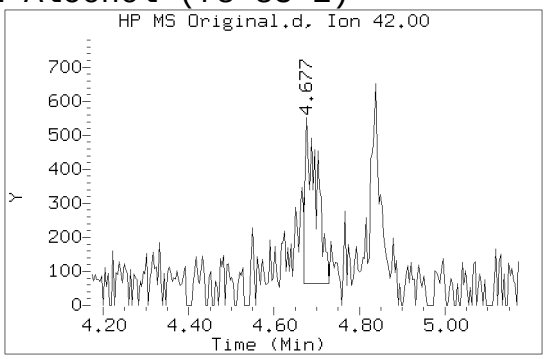
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

Isobutyl Alcohol (78-83-1)

Reason Code:

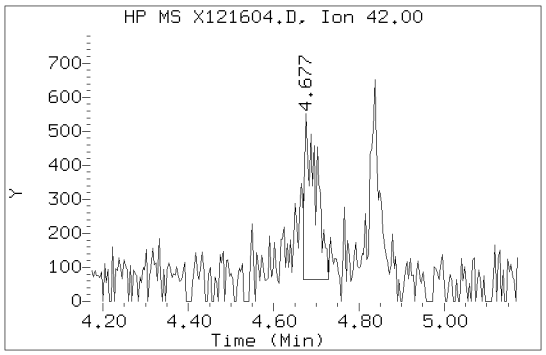
BEFORE

MASS
42
AREA
953
HEIGHT
488
27-Dec-2022
16:03
linh
pham



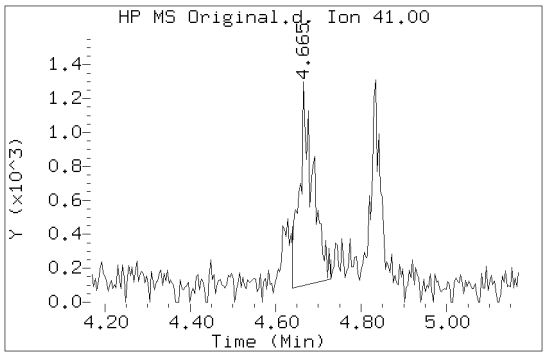
AFTER

MASS
42
AREA
953
HEIGHT
488
27-Dec-2022
16:07
linh
pham



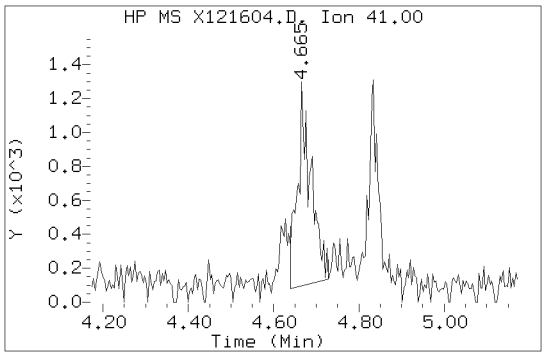
BEFORE

MASS
41
AREA
2650
HEIGHT
1200
27-Dec-2022
16:03
linh
pham



AFTER

MASS
41
AREA
2656
HEIGHT
1201
27-Dec-2022
16:07
linh
pham

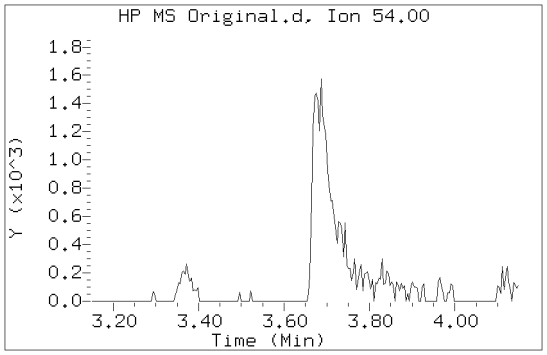


Propionitrile (107-12-0)

Reason Code:

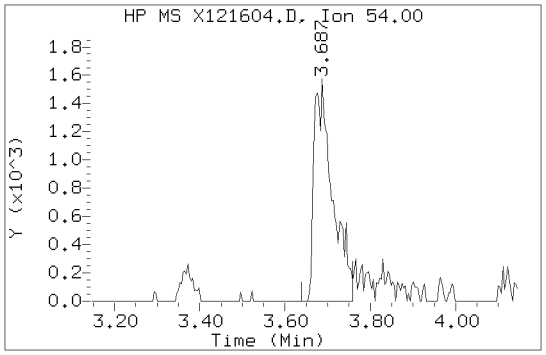
BEFORE

MASS
54
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



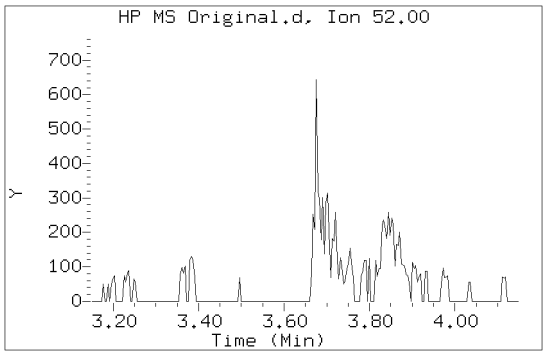
AFTER

MASS
54
AREA
4742
HEIGHT
1574
27-Dec-2022
16:07
linh
pham



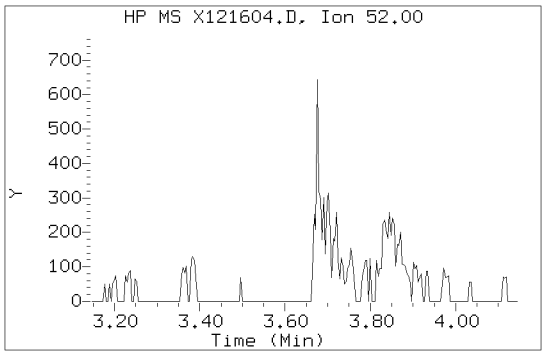
BEFORE

MASS
52
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
52
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



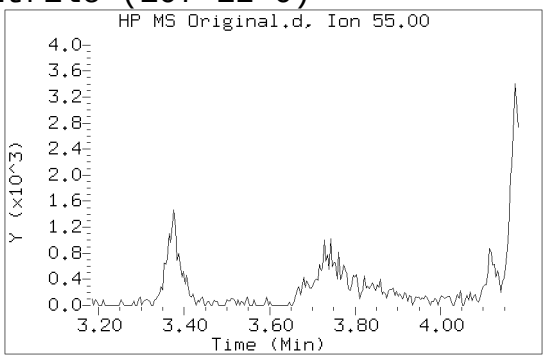
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

Propionitrile (107-12-0)

Reason Code:

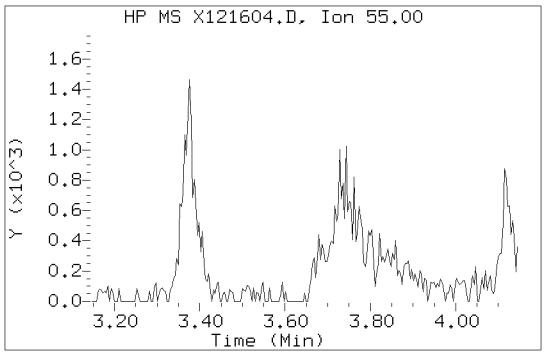
BEFORE

MASS
55
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
55
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

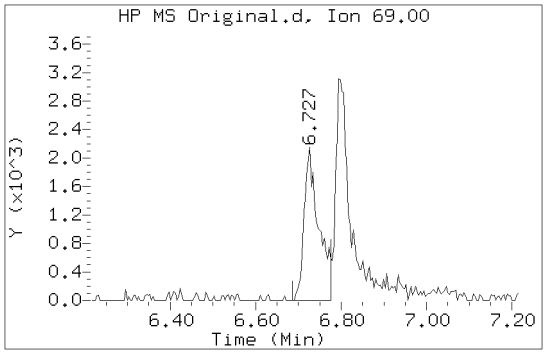


Ethyl Methacrylate (97-63-2)

Reason Code:

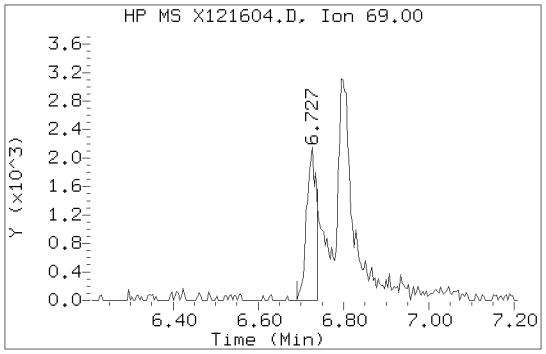
BEFORE

MASS
69
AREA
5177
HEIGHT
2156
27-Dec-2022
16:03
linh
pham



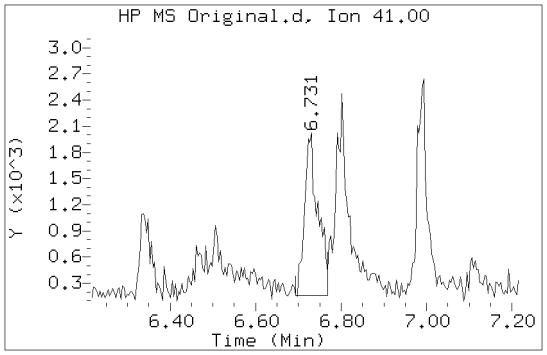
AFTER

MASS
69
AREA
3303
HEIGHT
2156
27-Dec-2022
16:07
linh
pham



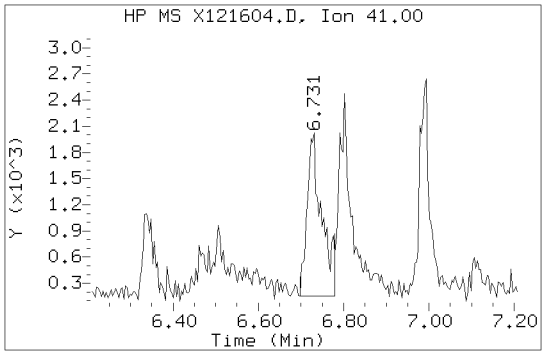
BEFORE

MASS
41
AREA
4059
HEIGHT
1867
27-Dec-2022
16:03
linh
pham



AFTER

MASS
41
AREA
4485
HEIGHT
1872
27-Dec-2022
16:07
linh
pham

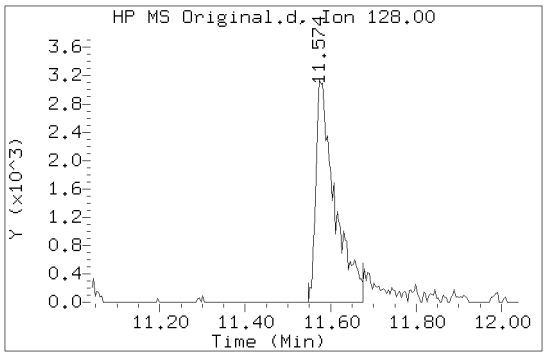


Naphthalene (91-20-3)

Reason Code:

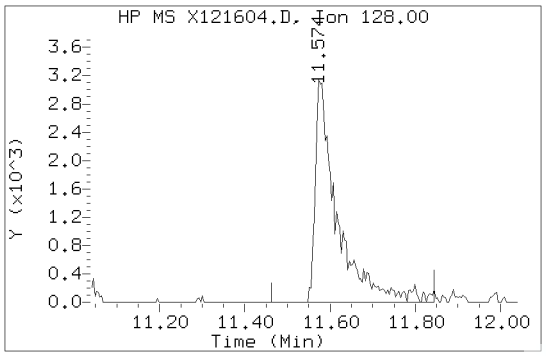
BEFORE

MASS
128
AREA
9627
HEIGHT
3139
27-Dec-2022
16:03
linh
pham



AFTER

MASS
128
AREA
11288
HEIGHT
3139
27-Dec-2022
16:07
linh
pham



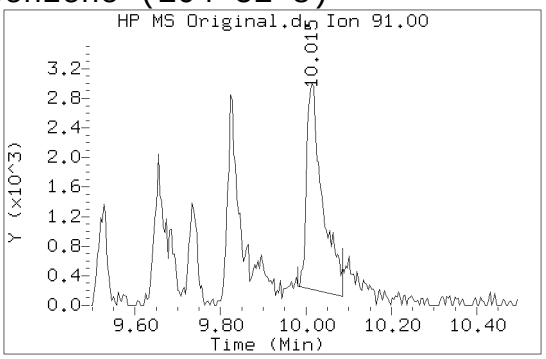
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

n-Butylbenzene (104-51-8)

Reason Code:

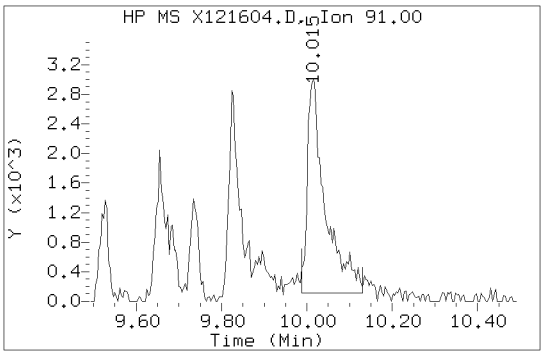
BEFORE

MASS
91
AREA
7194
HEIGHT
2783
27-Dec-2022
16:03
linh
pham



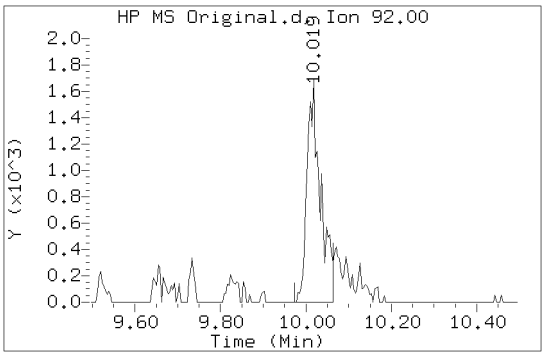
AFTER

MASS
91
AREA
8459
HEIGHT
2887
27-Dec-2022
16:07
linh
pham



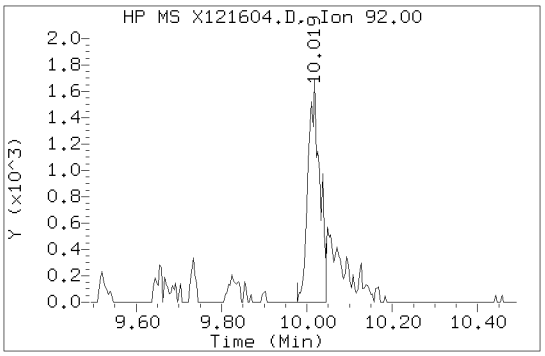
BEFORE

MASS
92
AREA
3696
HEIGHT
1686
27-Dec-2022
16:03
linh
pham



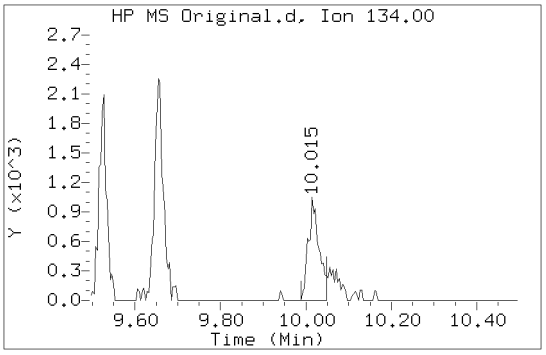
AFTER

MASS
92
AREA
3188
HEIGHT
1686
27-Dec-2022
16:07
linh
pham



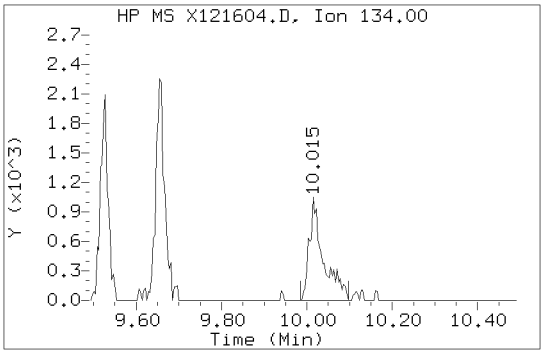
BEFORE

MASS
134
AREA
1829
HEIGHT
1051
27-Dec-2022
16:03
linh
pham



AFTER

MASS
134
AREA
2397
HEIGHT
1051
27-Dec-2022
16:07
linh
pham

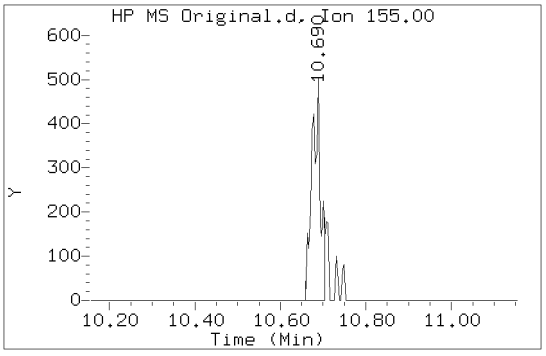


1,2-Dibromo-3-Chloropropane (96-12-8)

Reason Code:

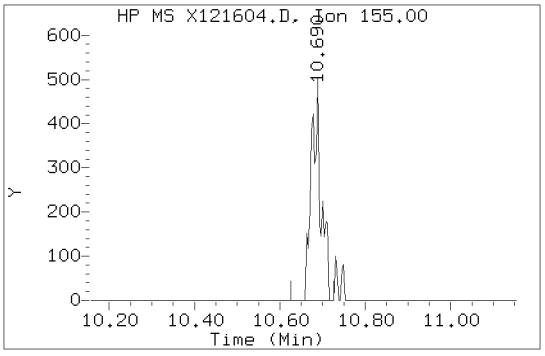
BEFORE

MASS
155
AREA
699
HEIGHT
502
27-Dec-2022
16:03
linh
pham



AFTER

MASS
155
AREA
778
HEIGHT
502
27-Dec-2022
16:07
linh
pham



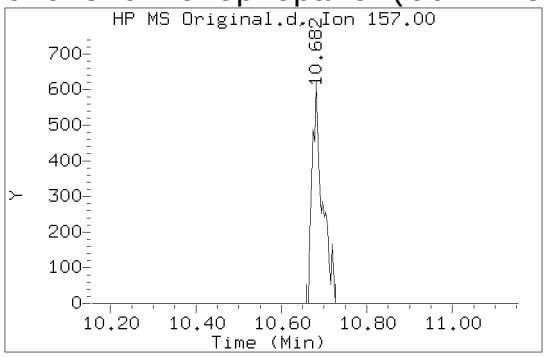
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

1,2-Dibromo-3-Chloropropane (96-12-8)

Reason Code:

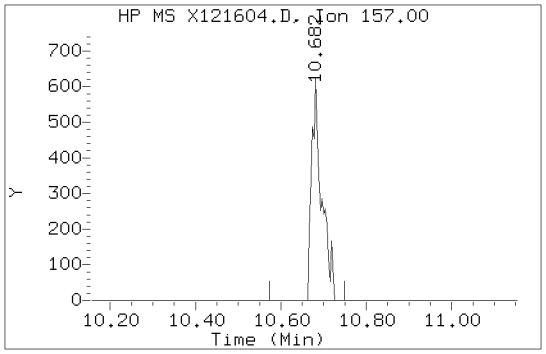
BEFORE

MASS
157
AREA
1023
HEIGHT
622
27-Dec-2022
16:03
linh
pham



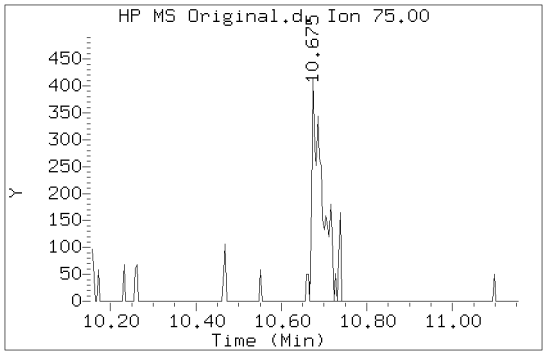
AFTER

MASS
157
AREA
1023
HEIGHT
622
27-Dec-2022
16:07
linh
pham



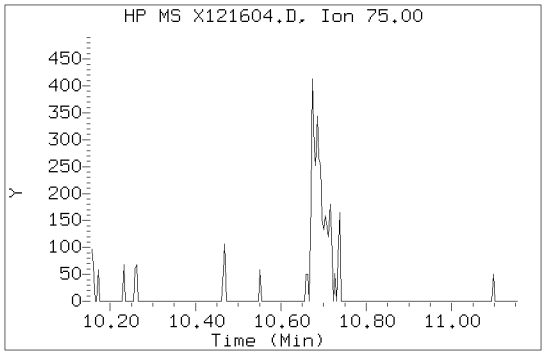
BEFORE

MASS
75
AREA
742
HEIGHT
413
27-Dec-2022
16:03
linh
pham



AFTER

MASS
75
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

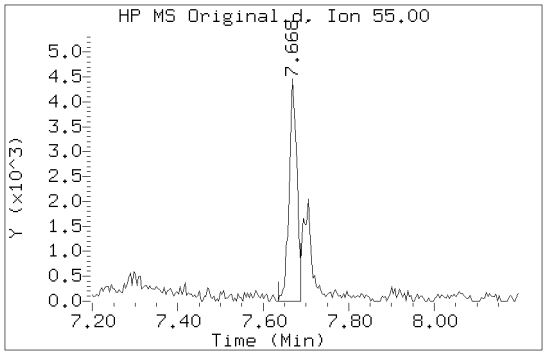


1-Chlorohexane (544-10-5)

Reason Code:

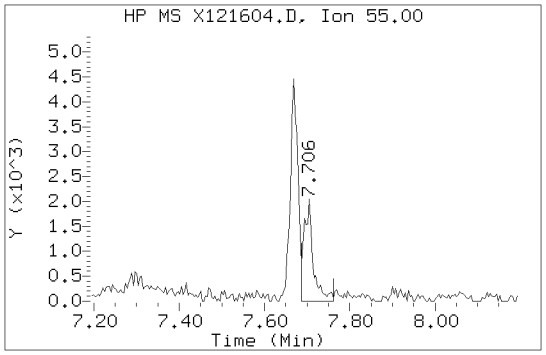
BEFORE

MASS
55
AREA
5660
HEIGHT
4460
27-Dec-2022
16:03
linh
pham



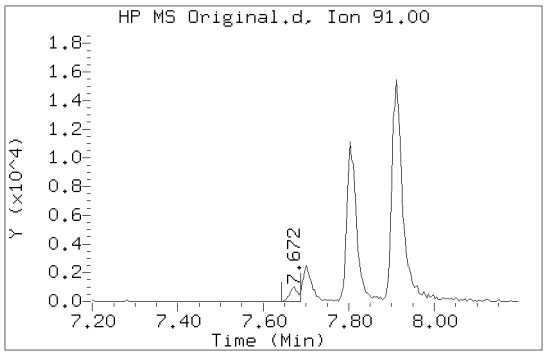
AFTER

MASS
55
AREA
3155
HEIGHT
2048
27-Dec-2022
16:07
linh
pham



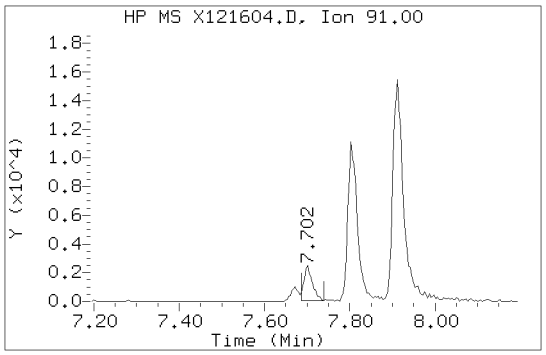
BEFORE

MASS
91
AREA
1392
HEIGHT
1029
27-Dec-2022
16:03
linh
pham



AFTER

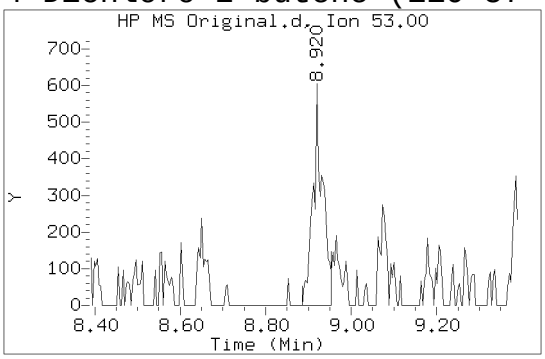
MASS
91
AREA
3448
HEIGHT
2478
27-Dec-2022
16:07
linh
pham



Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

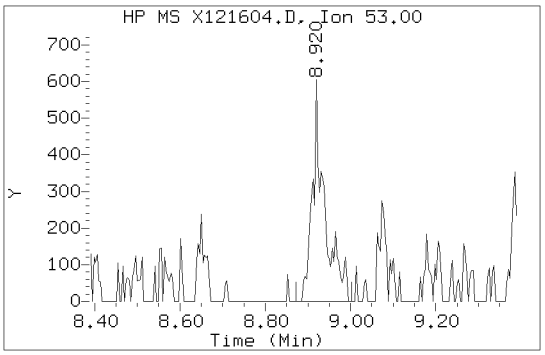
trans-1,4-Dichloro-2-butene (110-57-6)

BEFORE
MASS
53
AREA
956
HEIGHT
605
27-Dec-2022
16:03
linh
pham

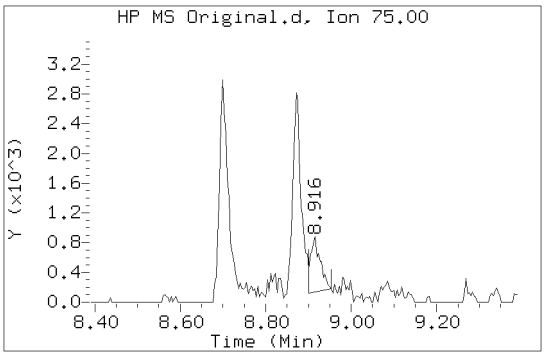


Reason Code:

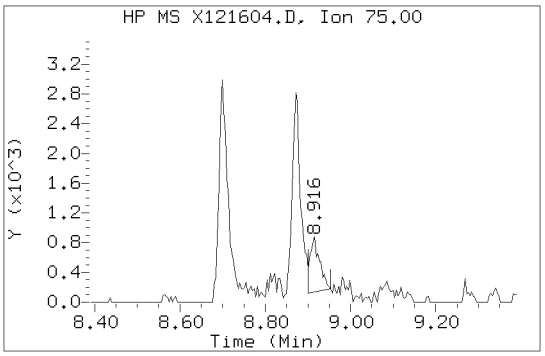
AFTER
MASS
53
AREA
1196
HEIGHT
605
27-Dec-2022
16:07
linh
pham



BEFORE
MASS
75
AREA
1166
HEIGHT
745
27-Dec-2022
16:03
linh
pham

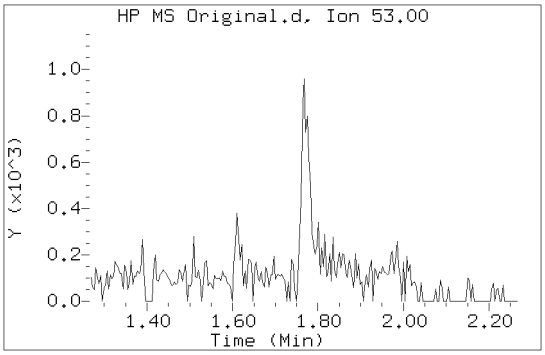


AFTER
MASS
75
AREA
1166
HEIGHT
745
27-Dec-2022
16:07
linh
pham



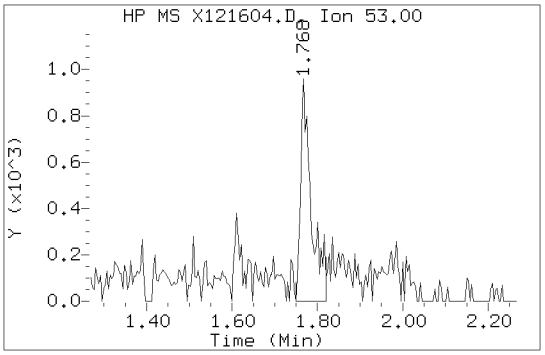
Chloroprene (126-99-8)

BEFORE
MASS
53
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham

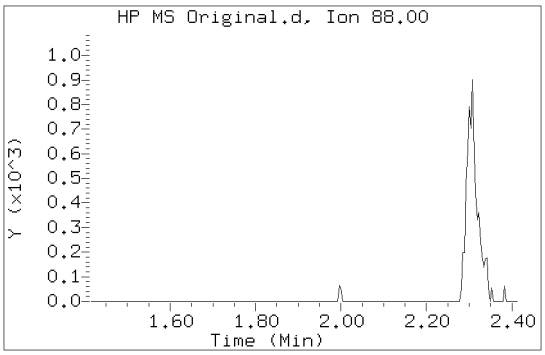


Reason Code:

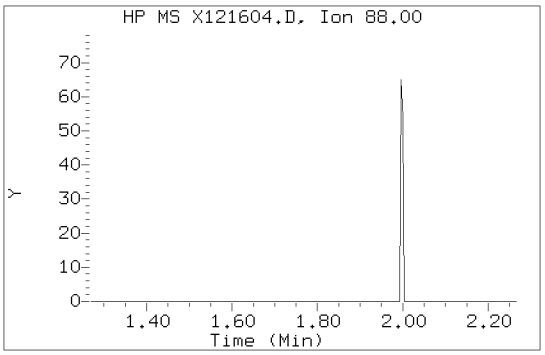
AFTER
MASS
53
AREA
1686
HEIGHT
959
27-Dec-2022
16:07
linh
pham



BEFORE
MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER
MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

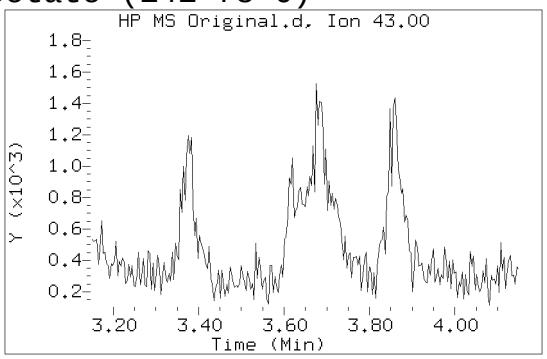


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

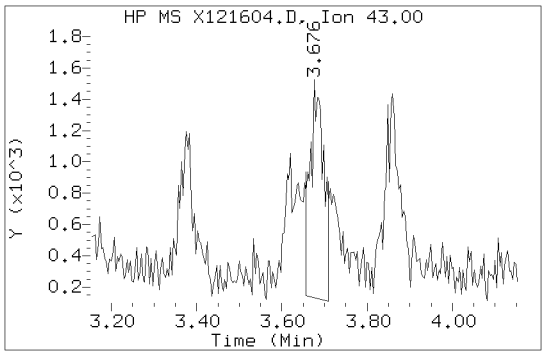
Ethyl Acetate (141-78-6)

Reason Code:

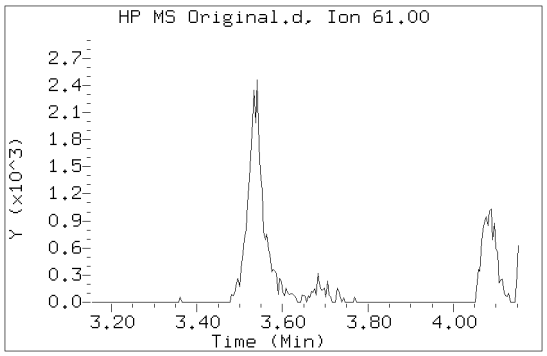
BEFORE
MASS
43
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



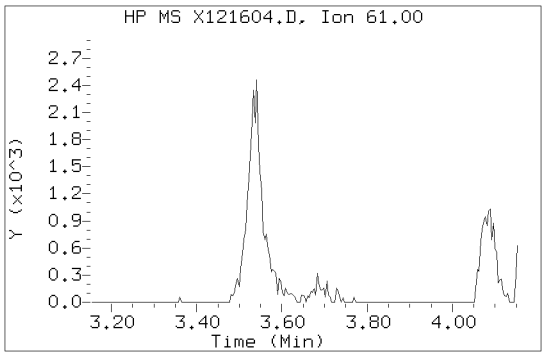
AFTER
MASS
43
AREA
3144
HEIGHT
1392
27-Dec-2022
16:07
linh
pham



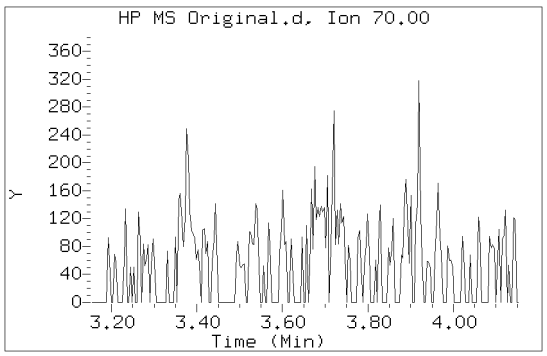
BEFORE
MASS
61
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



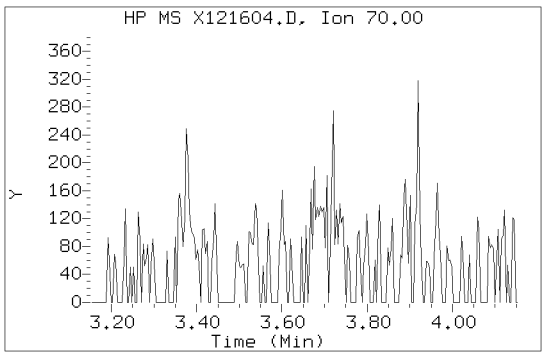
AFTER
MASS
61
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



BEFORE
MASS
70
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



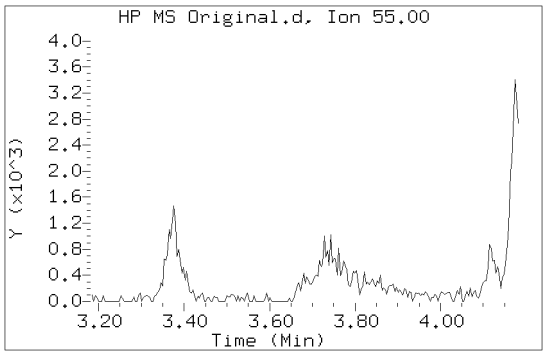
AFTER
MASS
70
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



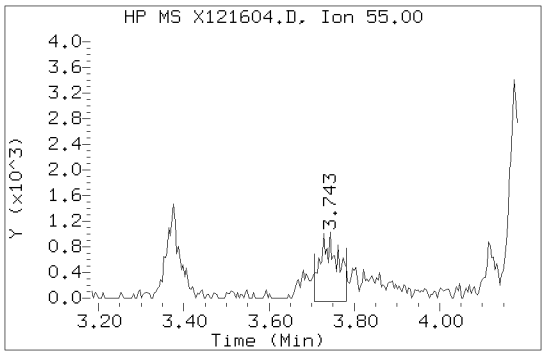
Methyl Acrylate (96-33-3)

Reason Code:

BEFORE
MASS
55
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER
MASS
55
AREA
3084
HEIGHT
1078
27-Dec-2022
16:07
linh
pham

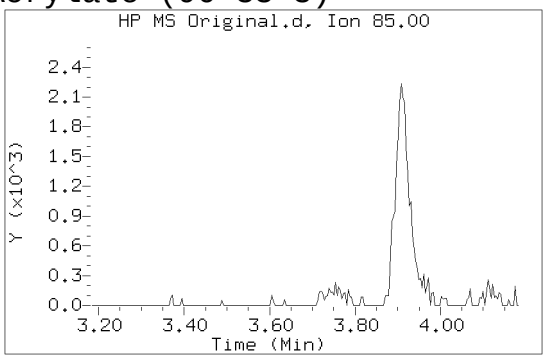


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

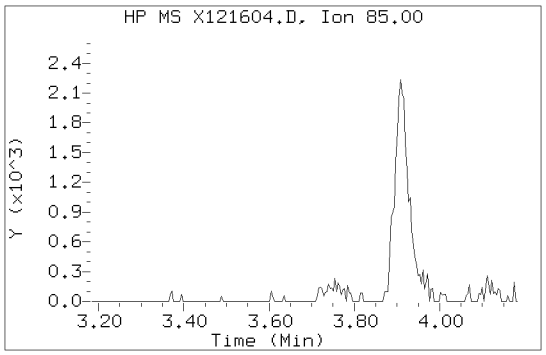
Methyl Acrylate (96-33-3)

Reason Code:

BEFORE
MASS
85
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



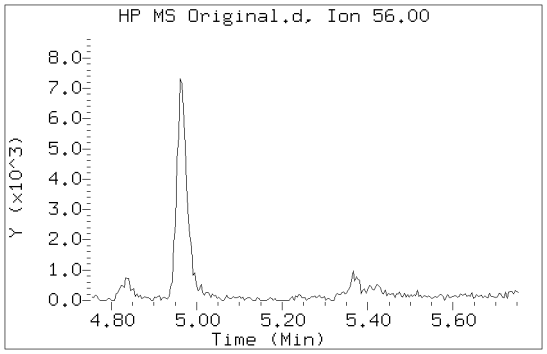
AFTER
MASS
85
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



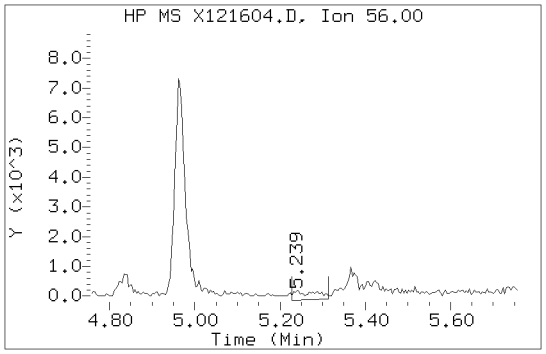
n-Butanol (71-36-3)

Reason Code:

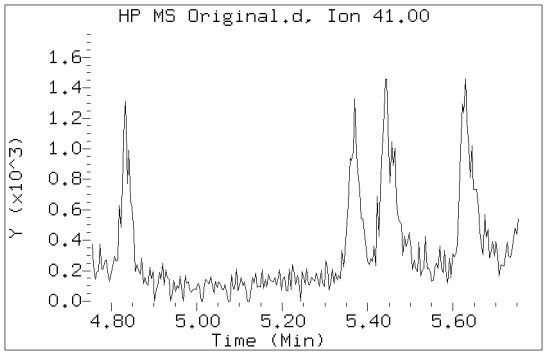
BEFORE
MASS
56
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



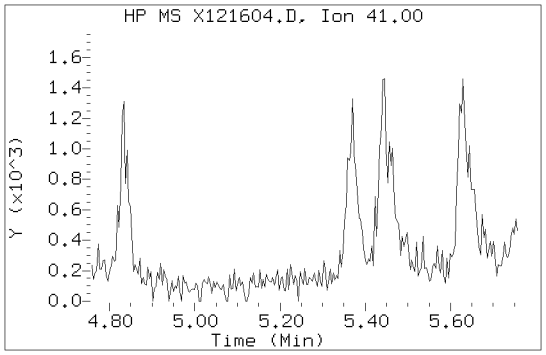
AFTER
MASS
56
AREA
1171
HEIGHT
317
27-Dec-2022
16:07
linh
pham



BEFORE
MASS
41
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



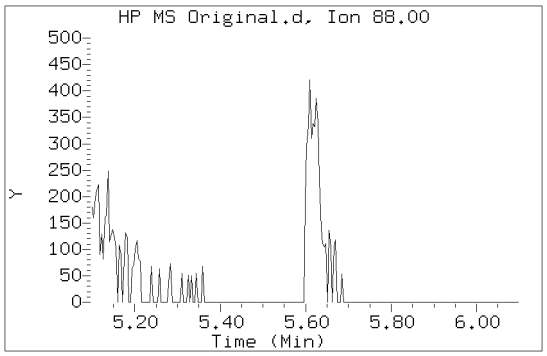
AFTER
MASS
41
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



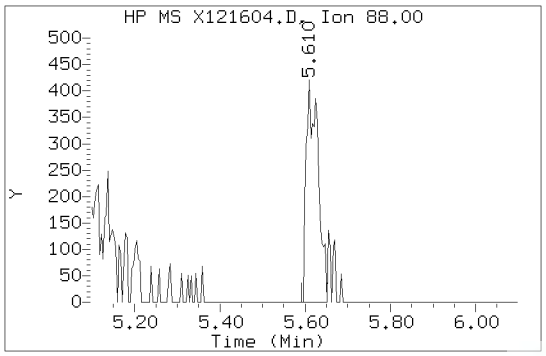
1,4-Dioxane ()

Reason Code:

BEFORE
MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER
MASS
88
AREA
820
HEIGHT
421
27-Dec-2022
16:07
linh
pham



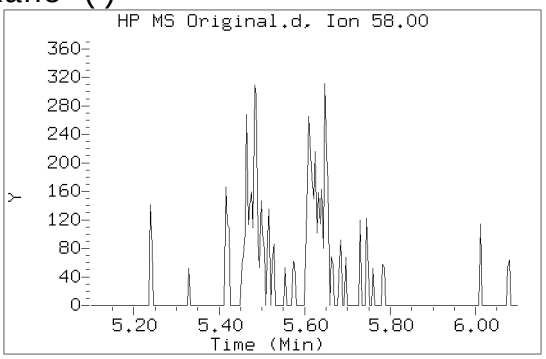
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

1,4-Dioxane ()

Reason Code:

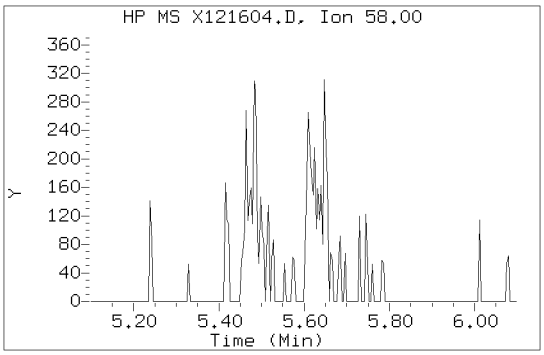
BEFORE

MASS
58
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
58
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

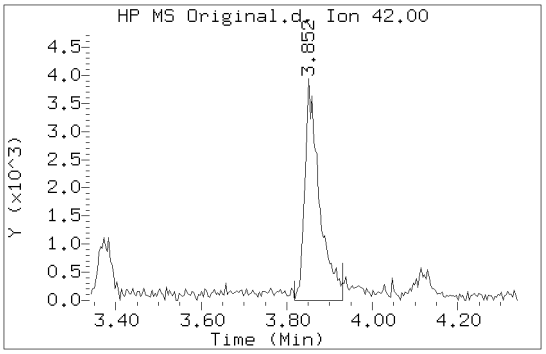


Tetrahydrofuran (109-99-9)

Reason Code:

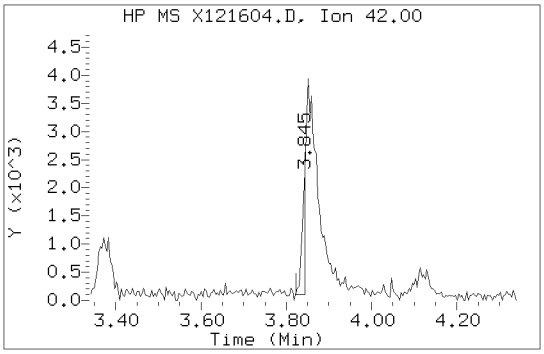
BEFORE

MASS
42
AREA
9396
HEIGHT
3939
27-Dec-2022
16:03
linh
pham



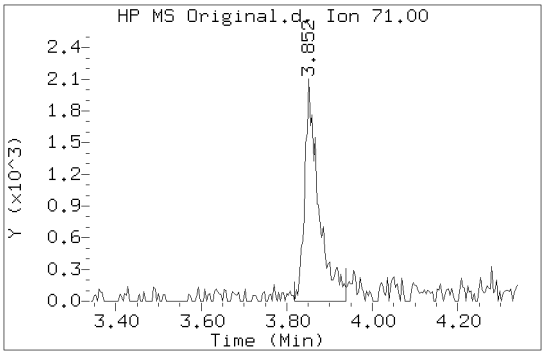
AFTER

MASS
42
AREA
1361
HEIGHT
2190
27-Dec-2022
16:07
linh
pham



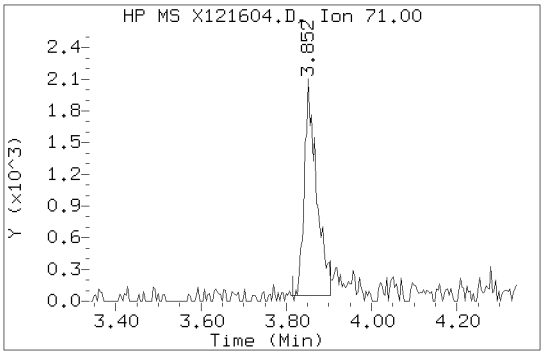
BEFORE

MASS
71
AREA
4781
HEIGHT
2103
27-Dec-2022
16:03
linh
pham



AFTER

MASS
71
AREA
4046
HEIGHT
2046
27-Dec-2022
16:07
linh
pham

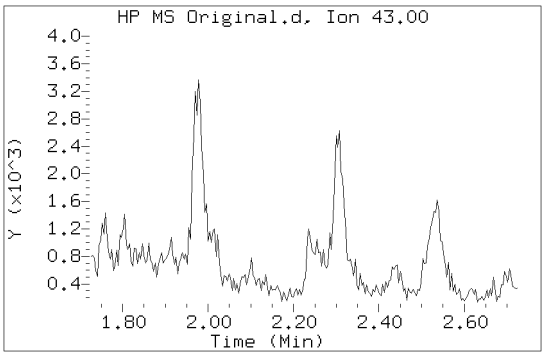


Methyl Acetate (79-20-9)

Reason Code:

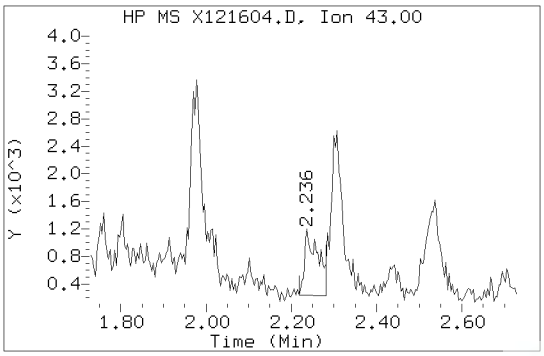
BEFORE

MASS
43
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
43
AREA
2127
HEIGHT
968
27-Dec-2022
16:07
linh
pham



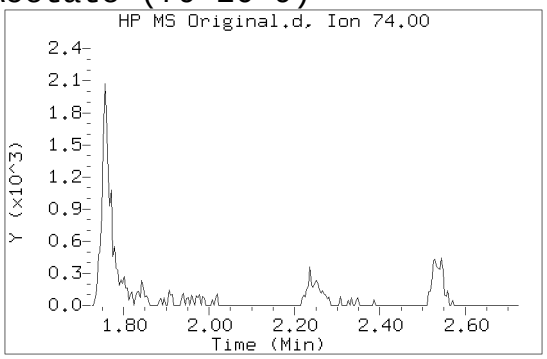
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

Methyl Acetate (79-20-9)

Reason Code:

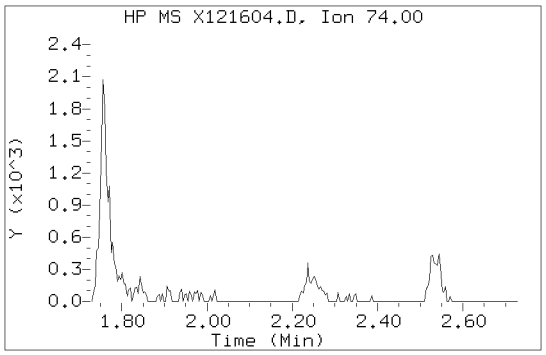
BEFORE

MASS
74
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
74
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

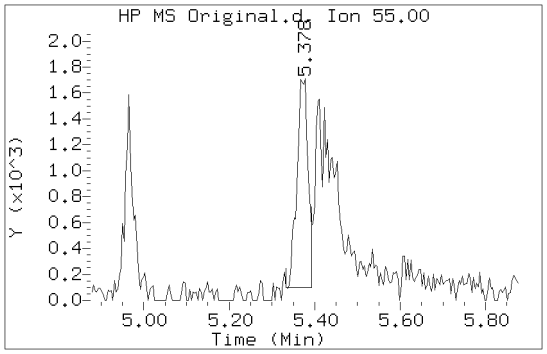


Methylcyclohexane (108-87-2)

Reason Code:

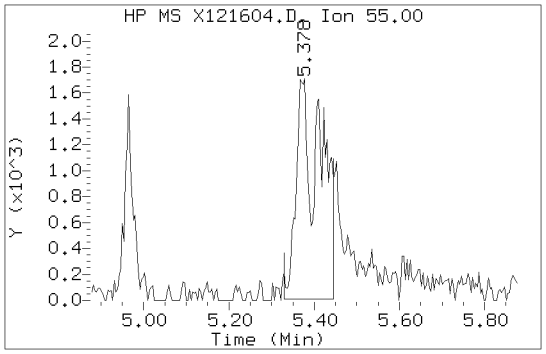
BEFORE

MASS
55
AREA
2998
HEIGHT
1612
27-Dec-2022
16:03
linh
pham



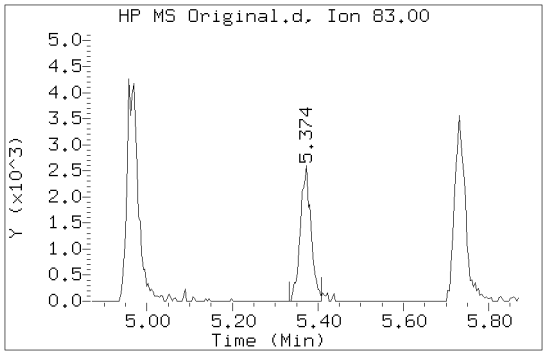
AFTER

MASS
55
AREA
6848
HEIGHT
1699
27-Dec-2022
16:07
linh
pham



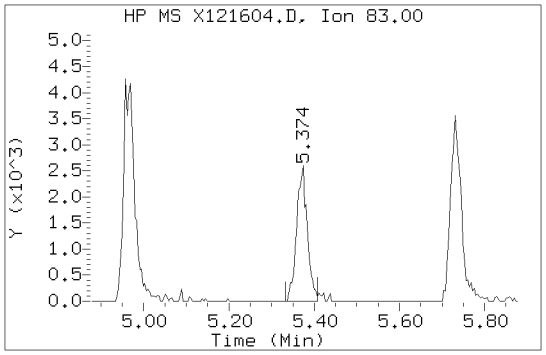
BEFORE

MASS
83
AREA
4577
HEIGHT
2601
27-Dec-2022
16:03
linh
pham



AFTER

MASS
83
AREA
4577
HEIGHT
2601
27-Dec-2022
16:07
linh
pham

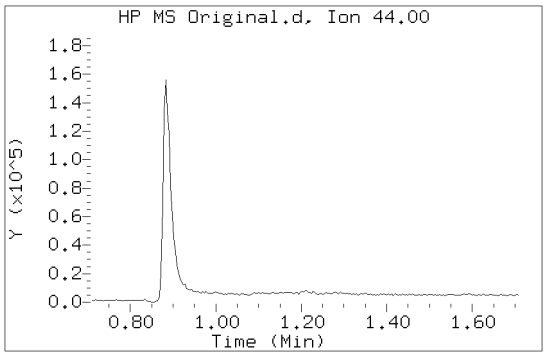


Acetaldehyde (75-07-0)

Reason Code:

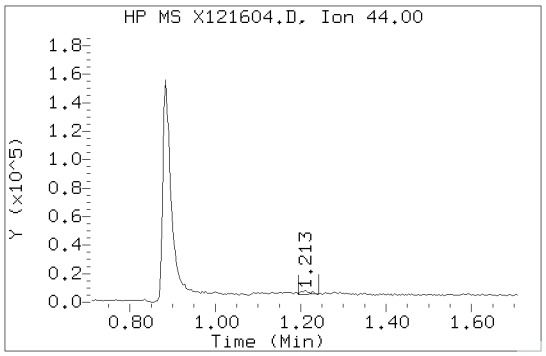
BEFORE

MASS
44
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
44
AREA
3384
HEIGHT
2655
27-Dec-2022
16:07
linh
pham

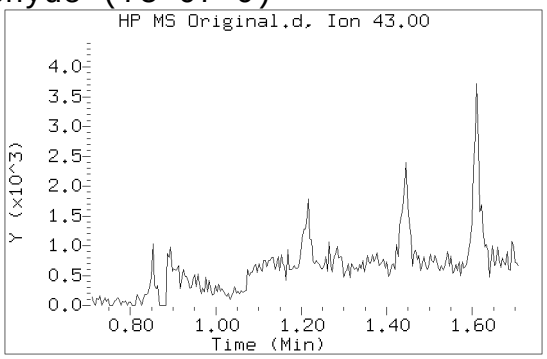


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

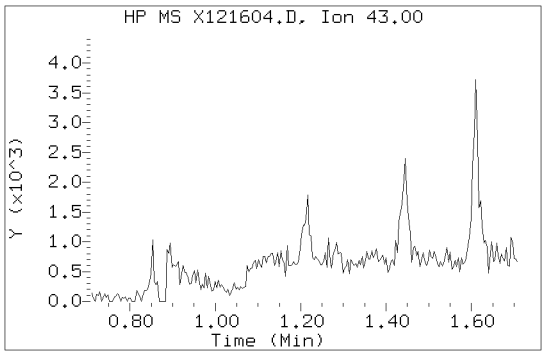
Acetaldehyde (75-07-0)

Reason Code:

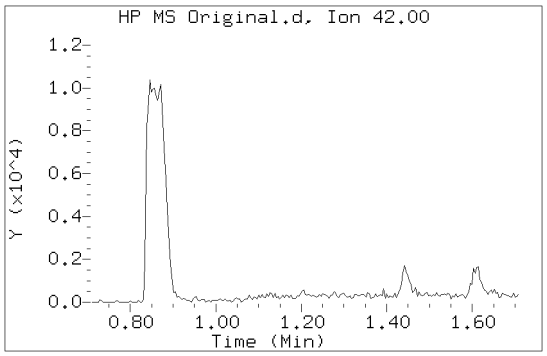
BEFORE
MASS
43
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



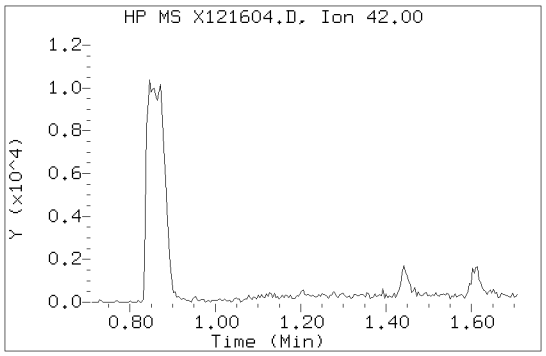
AFTER
MASS
43
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



BEFORE
MASS
42
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



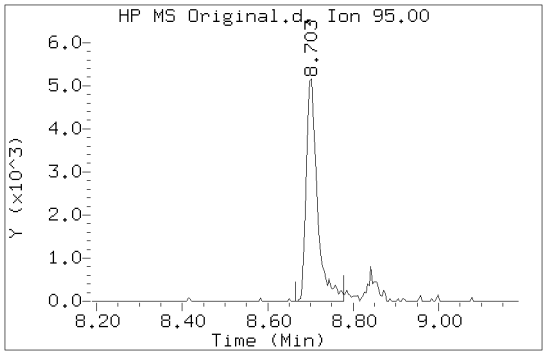
AFTER
MASS
42
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



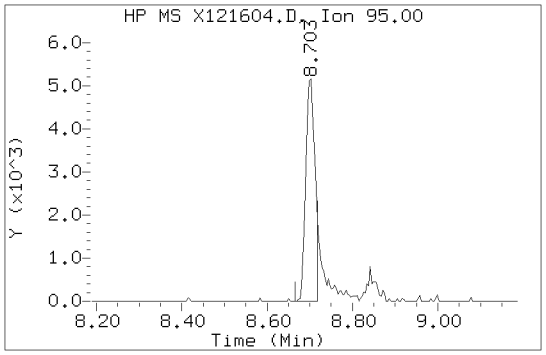
4-Bromofluorobenzene (460-00-4)

Reason Code:

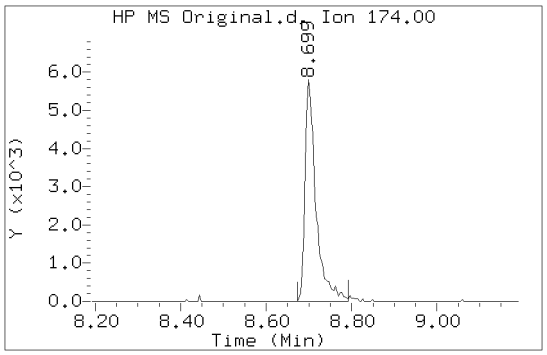
BEFORE
MASS
95
AREA
9514
HEIGHT
5159
27-Dec-2022
16:03
linh
pham



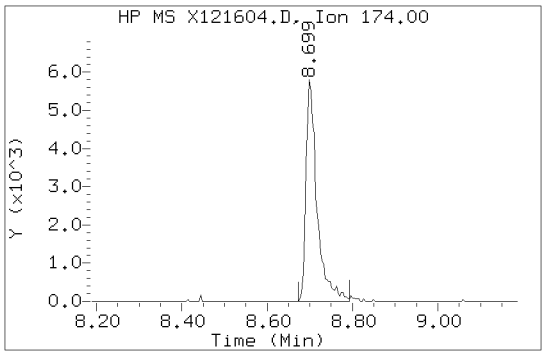
AFTER
MASS
95
AREA
7790
HEIGHT
5159
27-Dec-2022
16:07
linh
pham



BEFORE
MASS
174
AREA
10505
HEIGHT
5802
27-Dec-2022
16:03
linh
pham



AFTER
MASS
174
AREA
10505
HEIGHT
5802
27-Dec-2022
16:07
linh
pham



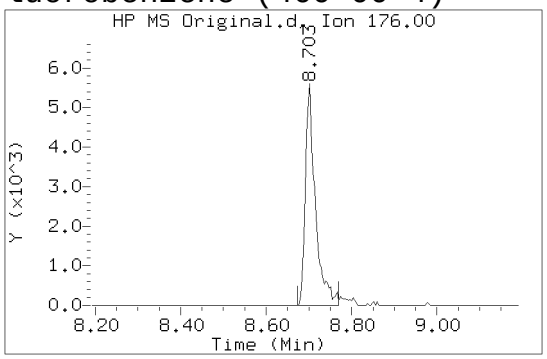
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121604.D
Inj Date : 16-DEC-2022 12:41
InstruID : voa6.i
LabSampID : VSTD001

4-Bromofluorobenzene (460-00-4)

Reason Code:

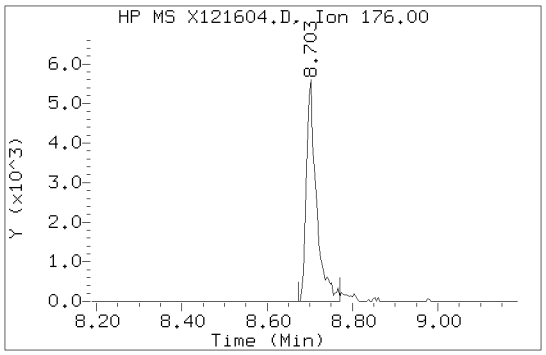
BEFORE

MASS
176
AREA
9226
HEIGHT
5603
27-Dec-2022
16:03
linh
pham



AFTER

MASS
176
AREA
9226
HEIGHT
5603
27-Dec-2022
16:07
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D Page 1
Report Date: 27-Dec-2022 16:07

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D
Lab Smp Id: VSTD002 Client Smp ID: VSTD002
Inj Date : 16-DEC-2022 13:02
Operator : PC Inst ID: voa6.i
Smp Info : VSTD002;VSTD002;1;4;
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\8260W.m
Meth Date : 27-Dec-2022 16:07 voa6.i Quant Type: ISTD
Cal Date : 16-DEC-2022 12:41 Cal File: X121604.D
Als bottle: 6 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260V6.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.178	4.178	(1.000)	456374	50.0000	
135 1,4-Dioxane	88	5.610	5.610	(1.343)	1409	40.0000	33.77(M)
140 1,3-Butadiene	54	1.160	1.160	(0.278)	5733	2.00000	1.83
25 Methacrylonitrile	41	3.859	3.859	(0.924)	6388	2.00000	1.97(M)
12 Isobutyl Alcohol	43	4.684	4.684	(1.121)	20629	40.0000	40.18(M)
13 Acetonitrile	39	2.198	2.198	(0.526)	7764	20.0000	18.69
14 Allyl Chloride	41	2.206	2.206	(0.528)	14911	2.00000	1.88
4 Propionitrile	54	3.675	3.675	(0.880)	8651	20.0000	18.57
136 n-Hexane	57	2.768	2.768	(0.663)	5898	2.00000	1.79
72 trans-1,4-Dichloro-2-butene	53	8.920	8.920	(1.163)	2690	2.00000	1.92(M)
194 Acetaldehyde	44	1.212	1.212	(0.290)	5661	8.00000	(M)
23 Chloroprene	53	1.771	1.771	(0.424)	3126	2.00000	2.01(M)
145 alpha-Methylstyrene	118	9.268	9.268	(0.959)	14447	2.00000	1.84
200 Dimethyl Disulfide	94	6.202	6.202	(0.808)	15964	2.00000	1.82
139 Diethyl ether	59	1.756	1.756	(0.420)	6354	2.00000	2.08
130 Ethyl Acetate	43	3.675	3.675	(0.880)	7422	2.00000	2.08(M)
40 Methyl Methacrylate	41	5.617	5.617	(1.345)	6185	2.00000	1.98
49 Ethyl Methacrylate	69	6.715	6.715	(1.353)	6546	2.00000	2.03
132 n-Butanol	56	5.343	5.343	(1.279)	2004	40.0000	74.77(TM)
142 Tetrahydrofuran	42	3.848	3.848	(0.921)	2867	4.00000	2.04(M)

150	Allyl alcohol	57	2.768	2.768 (0.663)	5898	40.0000	33.27
166	1,2,3-Trimethylbenzene	105	9.733	9.733 (1.007)	35687	2.00000	2.10

Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D Page 2
Report Date: 27-Dec-2022 16:07

			QUANT SIG					AMOUNTS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
	131	Methyl Acrylate	55	3.720	3.720	(0.891)	5443	2.00000	1.75(M)
	162	Butyl acrylate	55	8.267	8.267	(1.078)	15015	2.00000	1.77
	2	Dichlorodifluoromethane	85	0.969	0.969	(0.232)	6239	2.00000	2.33
	3	Chloromethane	50	1.077	1.077	(0.258)	8057	2.00000	4.07
	5	Vinyl Chloride	62	1.141	1.141	(0.273)	7263	2.00000	1.82
	6	Bromomethane	94	1.340	1.340	(0.321)	5996	2.00000	3.68(M)
	7	Chloroethane	64	1.400	1.400	(0.335)	5667	2.00000	2.04(M)
	8	Trichlorofluoromethane	101	1.561	1.561	(0.374)	10463	2.00000	1.87
	9	Acrolein	56	1.441	1.441	(0.345)	1317	4.00000	6.92(M)
	10	Acetone	43	1.973	1.973	(0.472)	7041	4.00000	5.46(M)
	11	1,1-Dichloroethene	96	1.910	1.910	(0.457)	6862	2.00000	1.98
	15	Iodomethane	142	2.022	2.022	(0.484)	8702	4.00000	5.23
	16	Acrylonitrile	53	2.554	2.554	(0.611)	4557	4.00000	3.87(M)
	17	Methylene Chloride	84	2.303	2.303	(0.551)	9194	2.00000	1.93(M)
	18	Methyl tert-butyl ether	73	2.536	2.536	(0.607)	23231	2.00000	2.04
	19	Carbon Disulfide	76	2.067	2.067	(0.495)	34948	4.00000	3.85
	20	trans-1,2-Dichloroethene	96	2.532	2.532	(0.606)	7113	2.00000	1.83
	21	Vinyl Acetate	43	3.008	3.008	(0.720)	38835	4.00000	3.90
	22	1,1-Dichloroethane	63	2.922	2.922	(0.699)	12778	2.00000	1.87
	24	2-Butanone	43	3.604	3.604	(0.863)	5418	4.00000	6.89(M)
	26	2,2-Dichloropropane	77	3.507	3.507	(0.839)	11048	2.00000	1.91
	27	cis-1,2-Dichloroethene	96	3.529	3.529	(0.845)	9675	2.00000	2.05
	28	Chloroform	83	3.908	3.908	(0.935)	15581	2.00000	2.04
	29	Bromochloromethane	128	3.803	3.803	(0.910)	5134	2.00000	1.98
$	30	Dibromofluoromethane	113	4.106	4.106	(0.983)	9050	2.00000	1.90
	31	1,1,1-Trichloroethane	97	4.080	4.080	(0.977)	10962	2.00000	1.81
	32	1,1-Dichloropropene	75	4.286	4.286	(0.863)	9042	2.00000	1.86
	33	1,2-Dichloroethane	62	4.560	4.560	(0.918)	10812	2.00000	1.92
	34	Carbon Tetrachloride	117	4.264	4.264	(0.859)	11092	2.00000	2.13(M)
$	35	1,2-Dichloroethane-d4	65	4.477	4.477	(1.072)	9783	2.00000	2.37
*	36	1,4-Difluorobenzene	114	4.965	4.965	(1.000)	684444	50.0000	
	37	Benzene	78	4.515	4.515	(0.909)	32394	2.00000	1.98
	38	Trichloroethene	130	5.216	5.216	(1.051)	9277	2.00000	2.00
	39	Bromodichloromethane	83	5.733	5.733	(1.155)	11961	2.00000	1.94
	41	2-Chloroethylvinyl ether	63	6.059	6.059	(1.220)	6648	4.00000	3.80
	42	1,2-Dichloropropane	63	5.441	5.441	(1.096)	8129	2.00000	1.86(M)
	44	Dibromomethane	93	5.553	5.553	(1.119)	6110	2.00000	2.06
	45	4-Methyl-2-Pentanone	43	6.337	6.337	(0.826)	14771	4.00000	4.26
	46	cis-1,3-Dichloropropene	75	6.161	6.161	(1.241)	13738	2.00000	1.90
*	47	Chlorobenzene-d5	117	7.671	7.671	(1.000)	647809	50.0000	
$	48	Toluene-d8	98	6.393	6.393	(0.833)	31289	2.00000	1.95
	50	Toluene	91	6.453	6.453	(0.841)	35620	2.00000	1.98
	51	trans-1,3-Dichloropropene	75	6.693	6.693	(1.348)	10969	2.00000	1.83
	52	2-Hexanone	43	7.105	7.105	(0.926)	9314	4.00000	3.95
	53	1,1,2-Trichloroethane	83	6.843	6.843	(0.892)	7537	2.00000	2.09
	54	1,3-Dichloropropane	76	6.989	6.989	(0.911)	14049	2.00000	1.98
	55	Dibromochloromethane	129	7.180	7.180	(0.936)	10210	2.00000	1.96
	56	Tetrachloroethene	164	6.929	6.929	(0.903)	7331	2.00000	1.97
	57	1,2-Dibromoethane	107	7.263	7.263	(0.947)	8477	2.00000	1.88
	58	1-Chlorohexane	55	7.697	7.697	(1.550)	5855	2.00000	1.77(MH)
	59	Chlorobenzene	112	7.694	7.694	(1.003)	24558	2.00000	1.93
	60	1,1,1,2-Tetrachloroethane	131	7.772	7.772	(1.013)	9378	2.00000	1.98

61 Ethylbenzene	106	7.802	7.802 (1.017)	11791	2.00000	1.97
62 m,p-Xylenes	106	7.911	7.911 (1.031)	29170	4.00000	3.78

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	63 o-Xylene	106	8.249	8.249	(1.075)	14764	2.00000	1.93
	64 Styrene	104	8.271	8.271	(1.078)	22967	2.00000	1.80
	66 Bromoform	173	8.417	8.417	(1.097)	6949	2.00000	1.93(T)
	67 Isopropylbenzene	105	8.563	8.563	(1.116)	32641	2.00000	1.87
	68 1,1,2,2-Tetrachloroethane	83	8.841	8.841	(0.915)	11741	2.00000	2.08
$	69 4-Bromofluorobenzene	95	8.698	8.698	(1.134)	13631	2.00000	2.33
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	352851	50.0000	
	71 1,2,3-Trichloropropane	75	8.867	8.867	(0.918)	7514	2.00000	1.91
	73 n-Propylbenzene	91	8.916	8.916	(0.923)	34981	2.00000	1.78
	74 Bromobenzene	156	8.815	8.815	(0.912)	11721	2.00000	2.02
	75 1,3,5-Trimethylbenzene	105	9.073	9.073	(0.939)	27917	2.00000	1.93
	76 2-Chlorotoluene	91	8.980	8.980	(0.929)	26853	2.00000	2.09
	77 4-Chlorotoluene	91	9.077	9.077	(0.939)	28173	2.00000	1.92
	78 tert-Butylbenzene	119	9.336	9.336	(0.966)	22104	2.00000	1.87
	79 1,2,4-Trimethylbenzene	105	9.384	9.384	(0.971)	28377	2.00000	1.86
	81 sec-Butylbenzene	105	9.519	9.519	(0.985)	27643	2.00000	1.75
	82 p-Isopropyltoluene	119	9.651	9.651	(0.999)	24966	2.00000	1.77
	83 1,3-Dichlorobenzene	146	9.613	9.613	(0.995)	18708	2.00000	1.94
	84 1,4-Dichlorobenzene	146	9.684	9.684	(1.002)	20552	2.00000	1.96
	86 Benzyl Chloride	91	9.819	9.819	(1.280)	12783	2.00000	3.88
	87 n-Butylbenzene	91	10.003	10.003	(1.035)	19853	2.00000	3.18(M)
	88 1,2-Dichlorobenzene	146	9.999	9.999	(1.035)	18921	2.00000	1.91
	89 1,2-Dibromo-3-Chloropropane	155	10.678	10.678	(1.105)	1619	2.00000	1.88(M)
	90 1,2,4-Trichlorobenzene	180	11.352	11.352	(1.175)	11764	2.00000	1.88(M)
	91 Hexachlorobutadiene	225	11.480	11.480	(1.188)	3970	2.00000	1.39
	92 Naphthalene	128	11.559	11.559	(1.196)	26250	2.00000	1.84(M)
	93 1,2,3-Trichlorobenzene	180	11.750	11.750	(1.216)	11288	2.00000	1.88
M	94 1,2-Dichloroethylene (total)	96				16788	4.00000	
M	95 Xylenes (total)	106				43934	6.00000	
	141 Cyclohexane	56	4.125	4.125	(0.987)	7375	2.00000	2.82(H)
	138 Freon TF	101	1.917	1.917	(0.459)	6025	2.00000	1.79
	147 Methylcyclohexane	55	5.373	5.373	(1.082)	16016	2.00000	1.91(M)
	146 Methyl Acetate	43	2.247	2.247	(0.538)	4149	2.00000	2.02
	148 Tert-Butyl alcohol	59	2.434	2.434	(0.583)	12015	40.0000	38.02(a)
	149 Isopropyl Alcohol	45	2.101	2.101	(0.503)	5607	40.0000	33.97

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

01182718

Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D

Page 1

Date : 16-DEC-2022 13:02

Client ID: VSTD002

Instrument: voa6.i

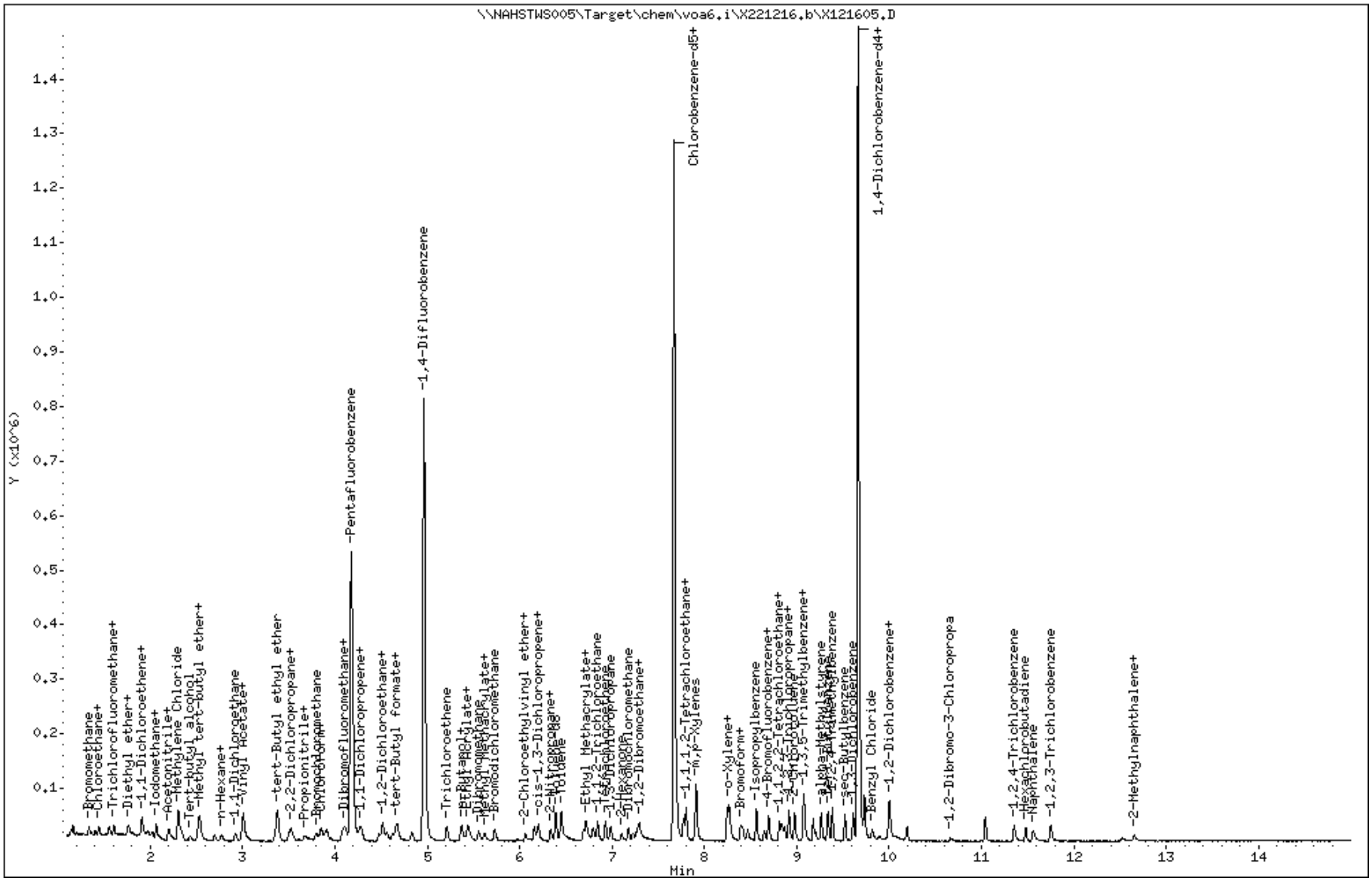
Sample Info: VSTD002;VSTD002;1;4;

Purge Volume: 5.0

Operator: PC

Column phase: DB624

Column diameter: 0.18

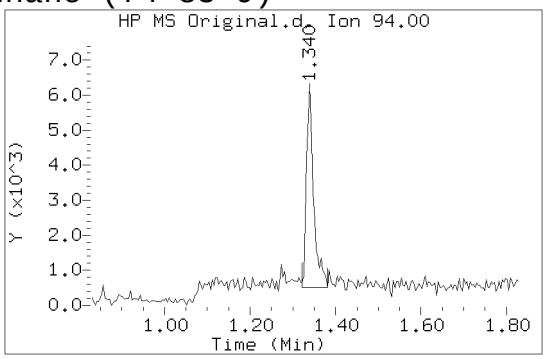


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D
Inj Date : 16-DEC-2022 13:02
InstruID : voa6.i
LabSampID : VSTD002

Bromomethane (74-83-9)

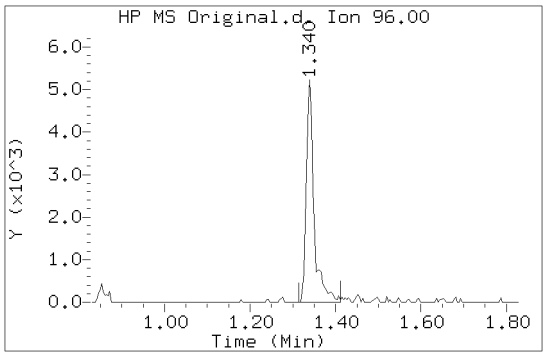
BEFORE

MASS
94
AREA
6762
HEIGHT
5808
27-Dec-2022
16:03
linh
pham



BEFORE

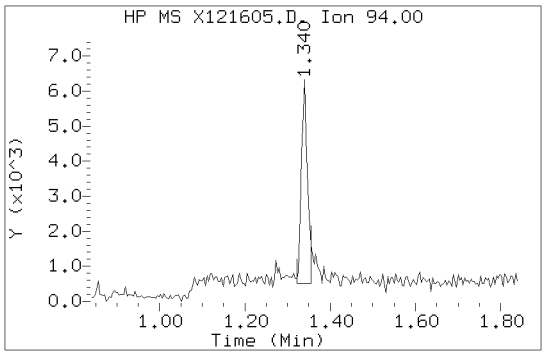
MASS
96
AREA
6661
HEIGHT
5227
27-Dec-2022
16:03
linh
pham



Reason Code:

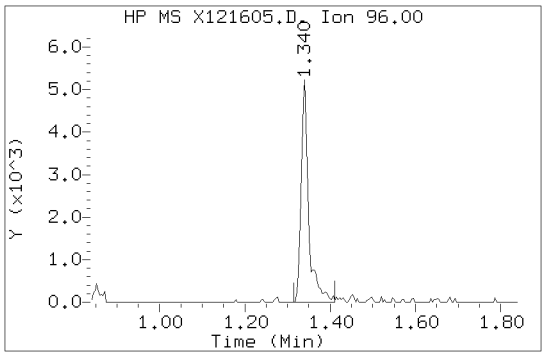
AFTER

MASS
94
AREA
5996
HEIGHT
5808
27-Dec-2022
16:07
linh
pham



AFTER

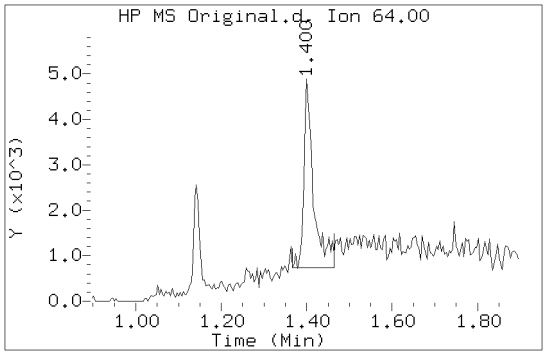
MASS
96
AREA
6661
HEIGHT
5227
27-Dec-2022
16:07
linh
pham



Chloroethane (75-00-3)

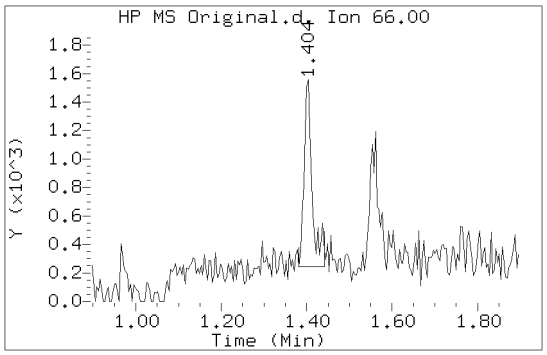
BEFORE

MASS
64
AREA
6641
HEIGHT
4162
27-Dec-2022
16:03
linh
pham



BEFORE

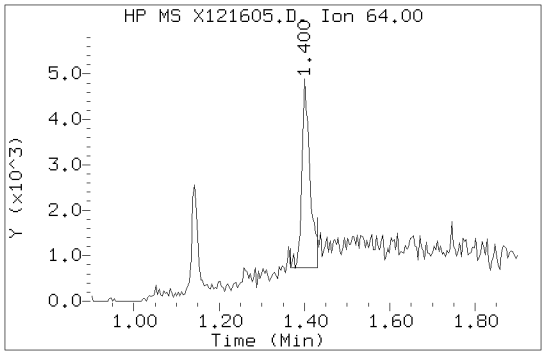
MASS
66
AREA
1745
HEIGHT
1315
27-Dec-2022
16:03
linh
pham



Reason Code:

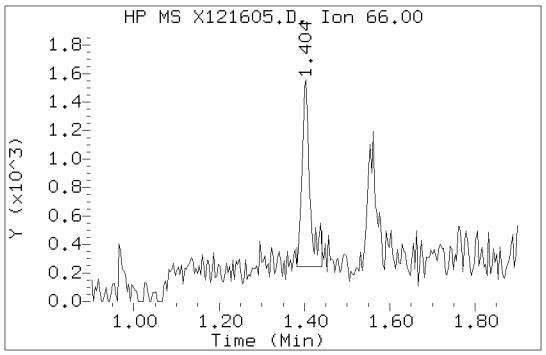
AFTER

MASS
64
AREA
5667
HEIGHT
4162
27-Dec-2022
16:07
linh
pham



AFTER

MASS
66
AREA
1745
HEIGHT
1315
27-Dec-2022
16:07
linh
pham



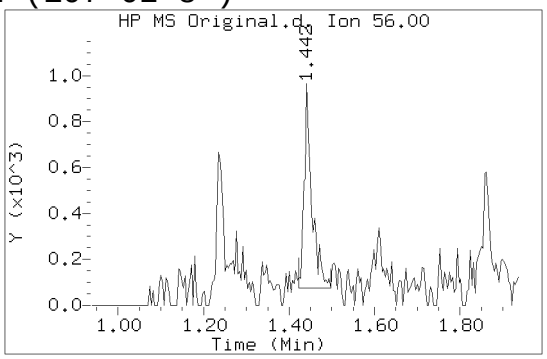
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D
Inj Date : 16-DEC-2022 13:02
InstruID : voa6.i
LabSampID : VSTD002

Acrolein (107-02-8)

Reason Code:

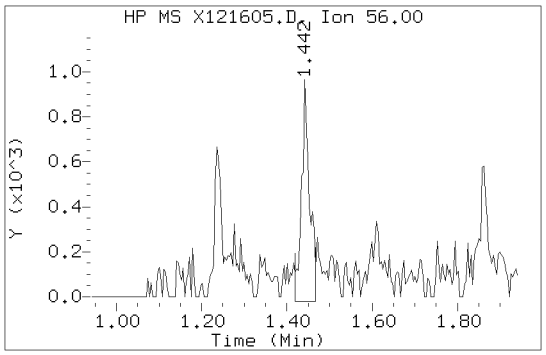
BEFORE

MASS
56
AREA
1122
HEIGHT
890
27-Dec-2022
16:03
linh
pham



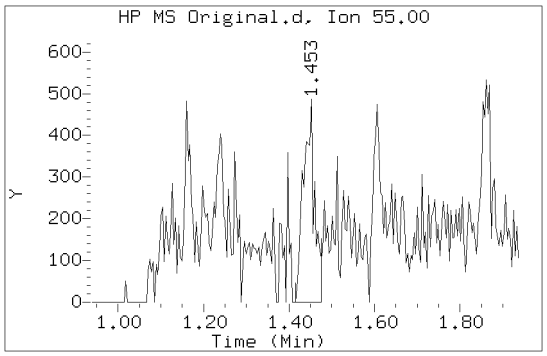
AFTER

MASS
56
AREA
1317
HEIGHT
985
27-Dec-2022
16:07
linh
pham



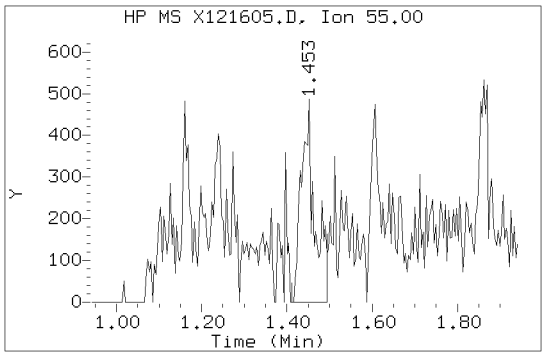
BEFORE

MASS
55
AREA
885
HEIGHT
487
27-Dec-2022
16:03
linh
pham



AFTER

MASS
55
AREA
1067
HEIGHT
487
27-Dec-2022
16:07
linh
pham

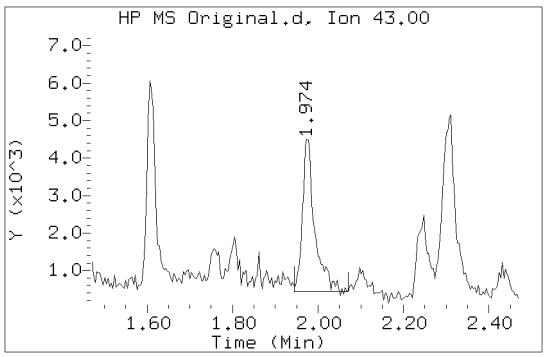


Acetone (67-64-1)

Reason Code:

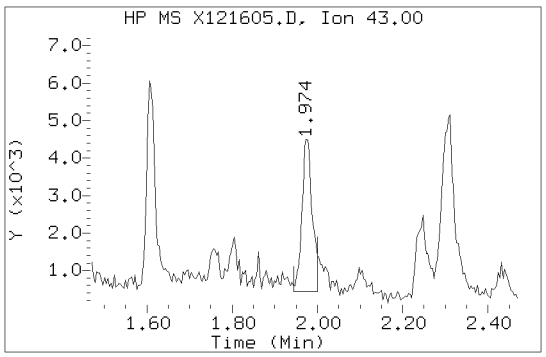
BEFORE

MASS
43
AREA
8369
HEIGHT
4066
27-Dec-2022
16:03
linh
pham



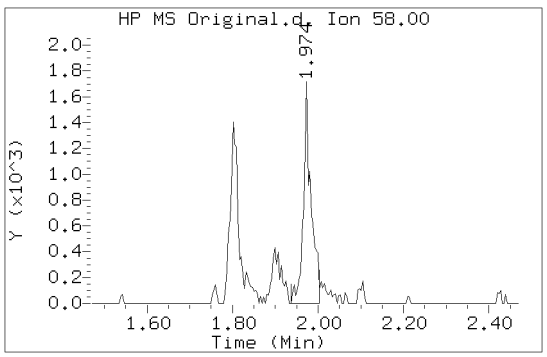
AFTER

MASS
43
AREA
7041
HEIGHT
4066
27-Dec-2022
16:07
linh
pham



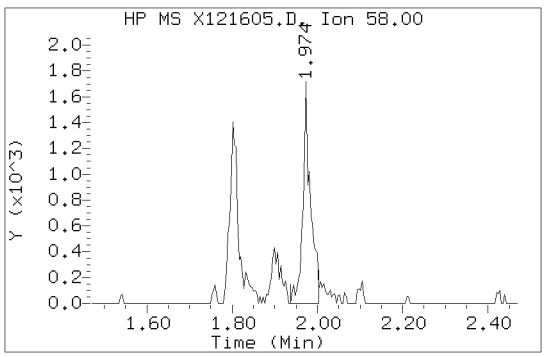
BEFORE

MASS
58
AREA
2165
HEIGHT
1717
27-Dec-2022
16:03
linh
pham



AFTER

MASS
58
AREA
2165
HEIGHT
1717
27-Dec-2022
16:07
linh
pham

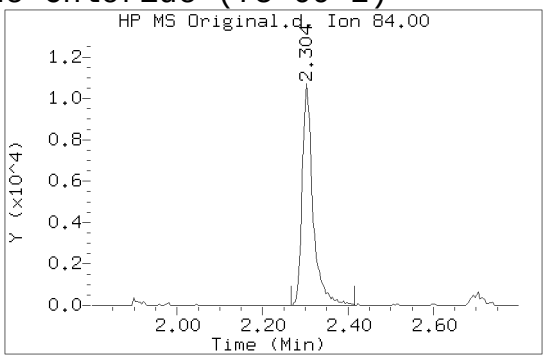


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D
Inj Date : 16-DEC-2022 13:02
InstruID : voa6.i
LabSampID : VSTD002

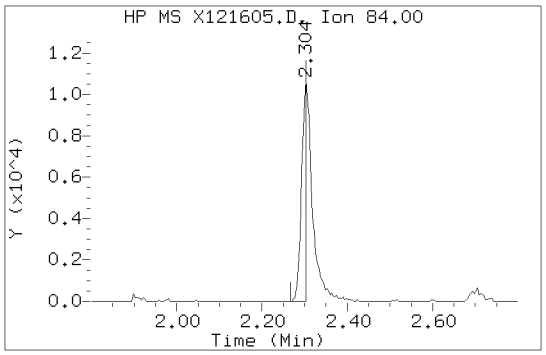
Methylene Chloride (75-09-2)

Reason Code:

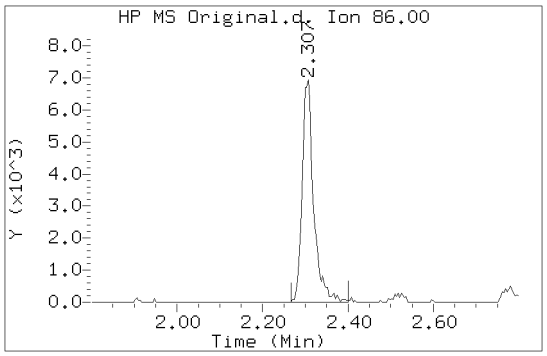
BEFORE
MASS
84
AREA
19299
HEIGHT
10710
27-Dec-2022
16:03
linh
pham



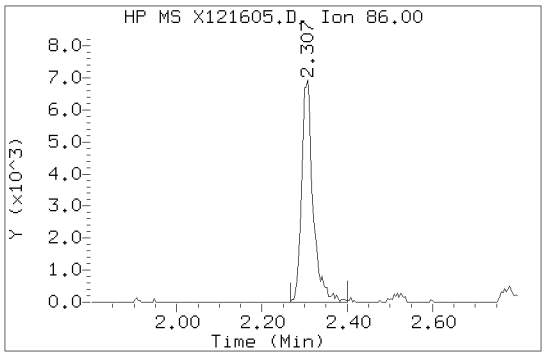
AFTER
MASS
84
AREA
9194
HEIGHT
10710
27-Dec-2022
16:07
linh
pham



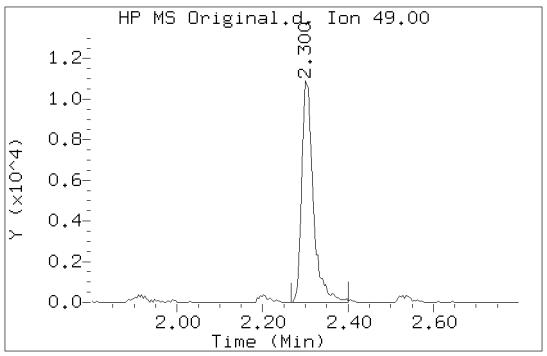
BEFORE
MASS
86
AREA
13231
HEIGHT
6936
27-Dec-2022
16:03
linh
pham



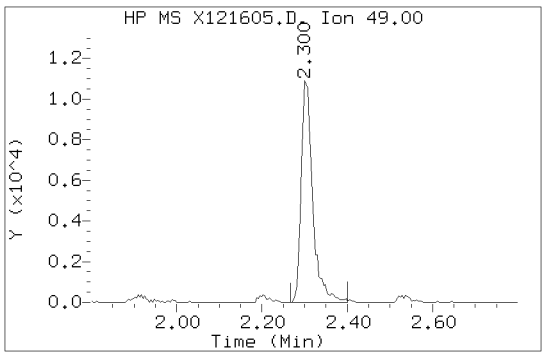
AFTER
MASS
86
AREA
13231
HEIGHT
6936
27-Dec-2022
16:07
linh
pham



BEFORE
MASS
49
AREA
21067
HEIGHT
10905
27-Dec-2022
16:03
linh
pham



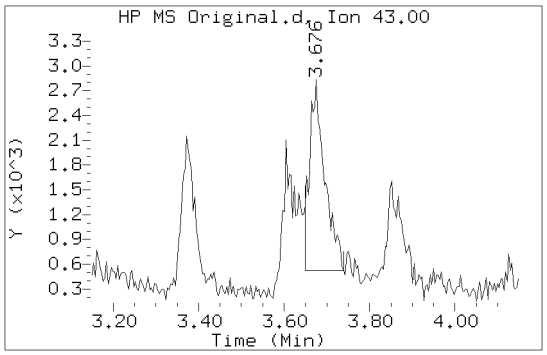
AFTER
MASS
49
AREA
21067
HEIGHT
10905
27-Dec-2022
16:07
linh
pham



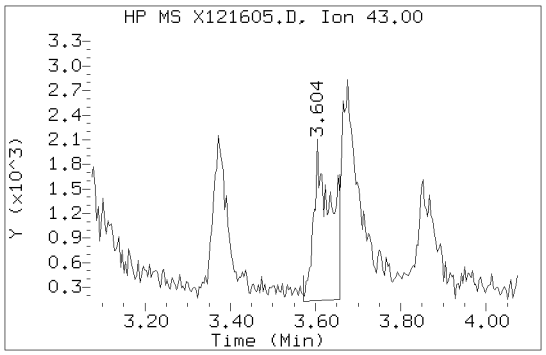
2-Butanone (78-93-3)

Reason Code:

BEFORE
MASS
43
AREA
5778
HEIGHT
2307
27-Dec-2022
16:03
linh
pham



AFTER
MASS
43
AREA
5418
HEIGHT
1969
27-Dec-2022
16:07
linh
pham



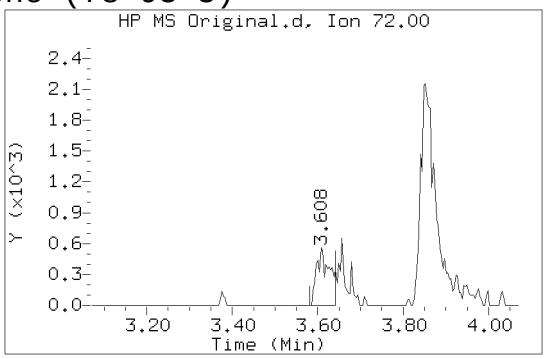
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D
Inj Date : 16-DEC-2022 13:02
InstruID : voa6.i
LabSampID : VSTD002

2-Butanone (78-93-3)

Reason Code:

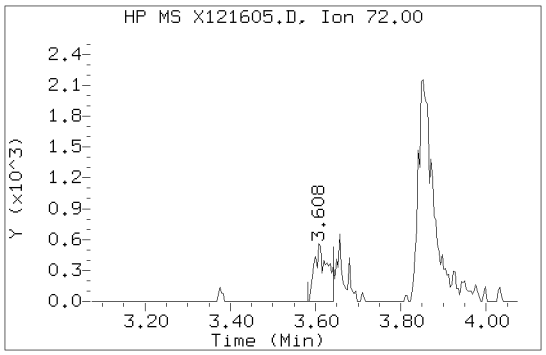
BEFORE

MASS
72
AREA
1209
HEIGHT
563
27-Dec-2022
16:03
linh
pham



AFTER

MASS
72
AREA
1209
HEIGHT
563
27-Dec-2022
16:07
linh
pham

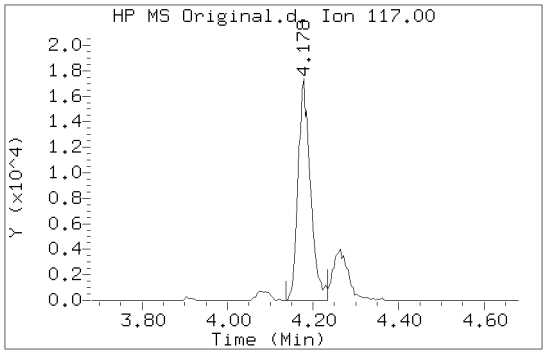


Carbon Tetrachloride (56-23-5)

Reason Code:

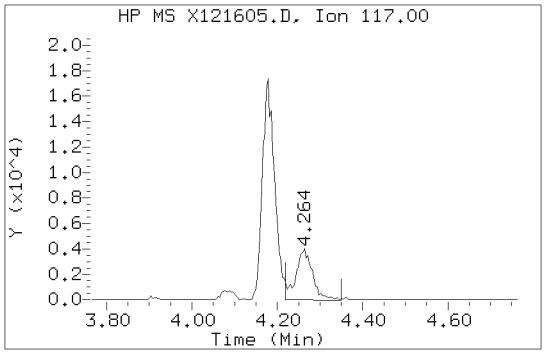
BEFORE

MASS
117
AREA
35555
HEIGHT
17376
27-Dec-2022
16:03
linh
pham



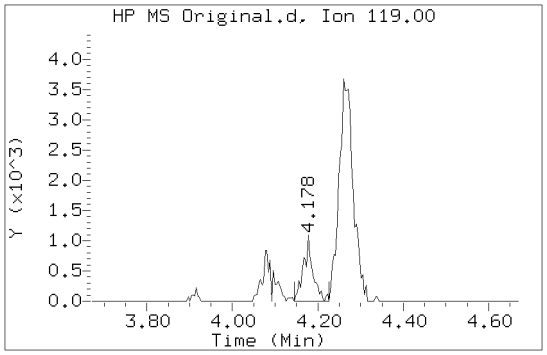
AFTER

MASS
117
AREA
11092
HEIGHT
4036
27-Dec-2022
16:07
linh
pham



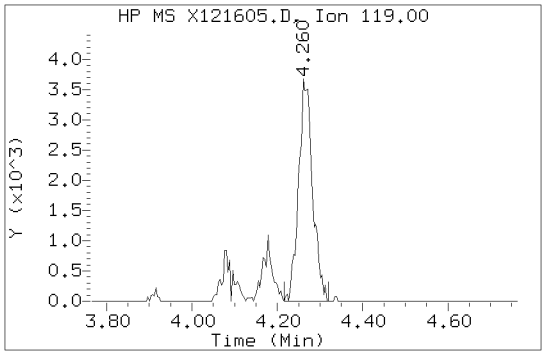
BEFORE

MASS
119
AREA
1692
HEIGHT
1100
27-Dec-2022
16:03
linh
pham



AFTER

MASS
119
AREA
8494
HEIGHT
3676
27-Dec-2022
16:07
linh
pham

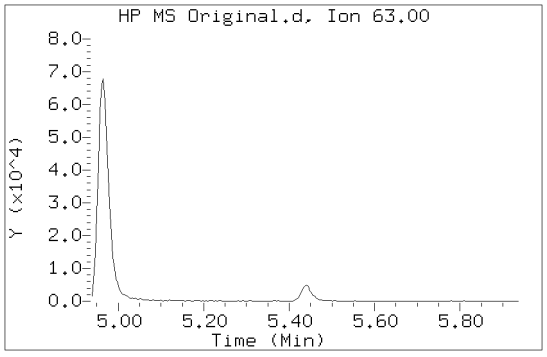


1,2-Dichloropropane (78-87-5)

Reason Code:

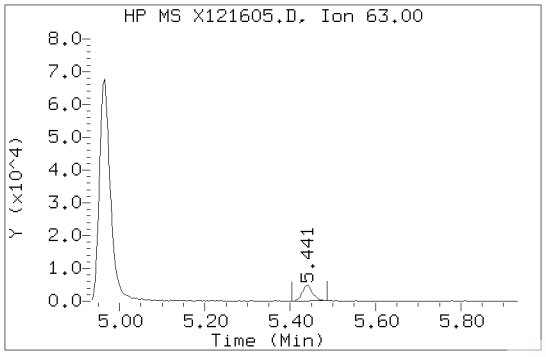
BEFORE

MASS
63
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
63
AREA
8129
HEIGHT
4705
27-Dec-2022
16:07
linh
pham



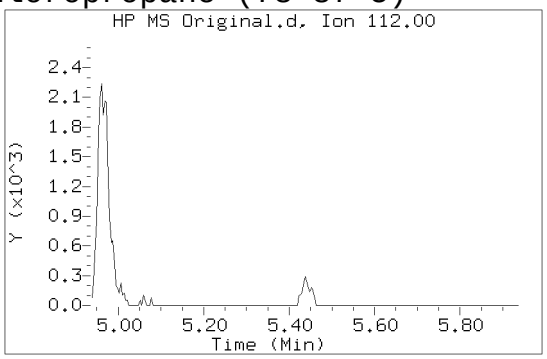
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D
Inj Date : 16-DEC-2022 13:02
InstruID : voa6.i
LabSampID : VSTD002

1,2-Dichloropropane (78-87-5)

Reason Code:

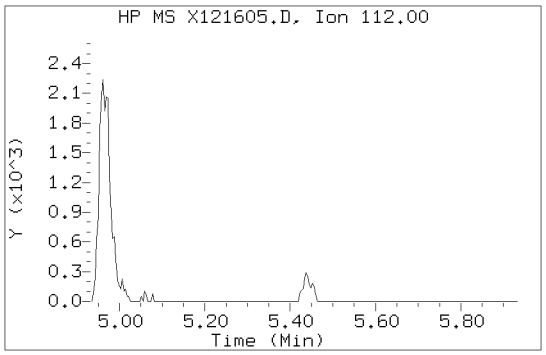
BEFORE

MASS
112
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
112
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

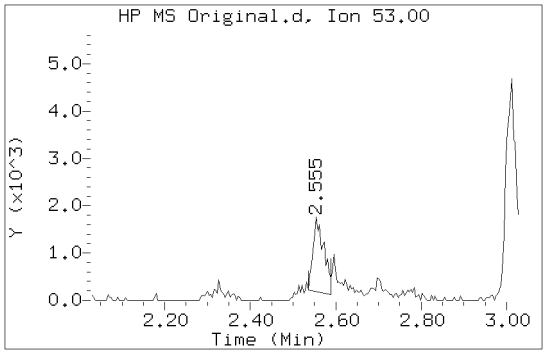


Acrylonitrile (107-13-1)

Reason Code:

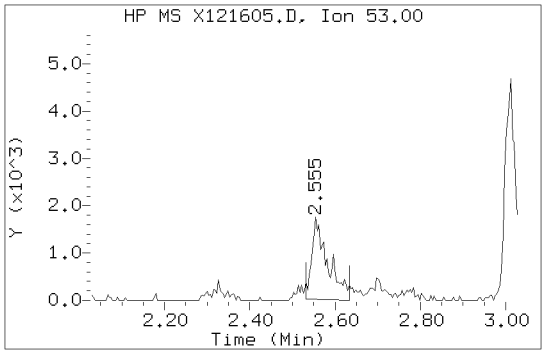
BEFORE

MASS
53
AREA
2810
HEIGHT
1577
27-Dec-2022
16:03
linh
pham



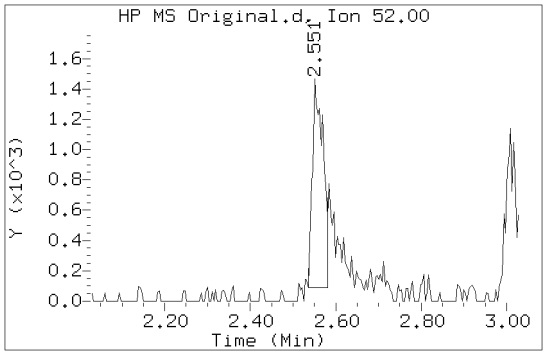
AFTER

MASS
53
AREA
4557
HEIGHT
1735
27-Dec-2022
16:07
linh
pham



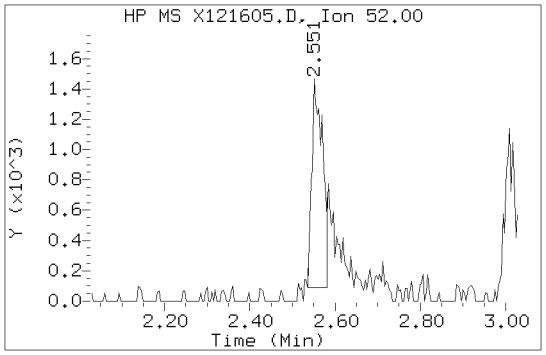
BEFORE

MASS
52
AREA
2408
HEIGHT
1379
27-Dec-2022
16:03
linh
pham



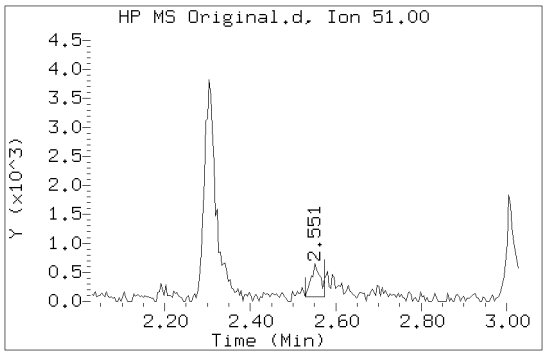
AFTER

MASS
52
AREA
2408
HEIGHT
1379
27-Dec-2022
16:07
linh
pham



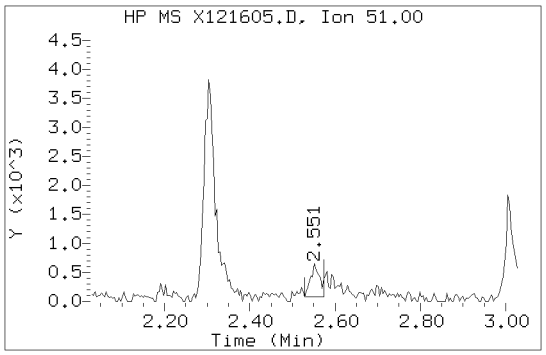
BEFORE

MASS
51
AREA
876
HEIGHT
575
27-Dec-2022
16:03
linh
pham



AFTER

MASS
51
AREA
876
HEIGHT
575
27-Dec-2022
16:07
linh
pham

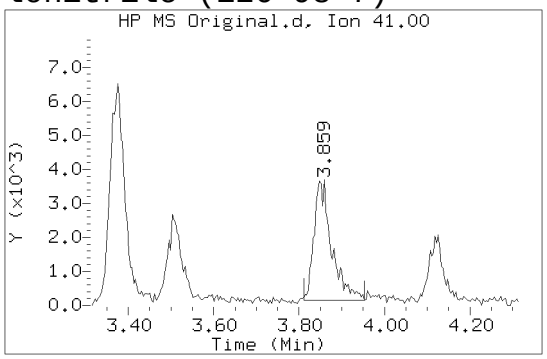


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D
Inj Date : 16-DEC-2022 13:02
InstruID : voa6.i
LabSampID : VSTD002

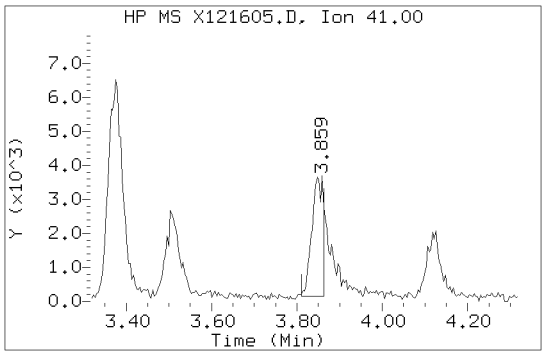
Methacrylonitrile (126-98-7)

Reason Code:

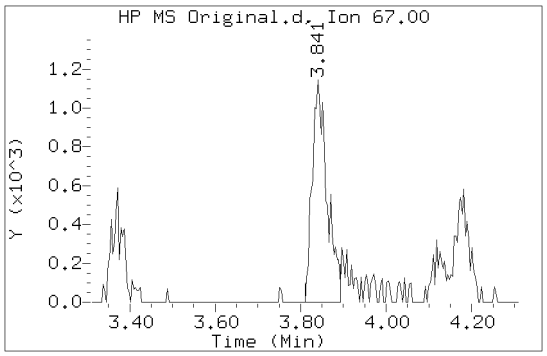
BEFORE
MASS
41
AREA
10013
HEIGHT
3544
27-Dec-2022
16:03
linh
pham



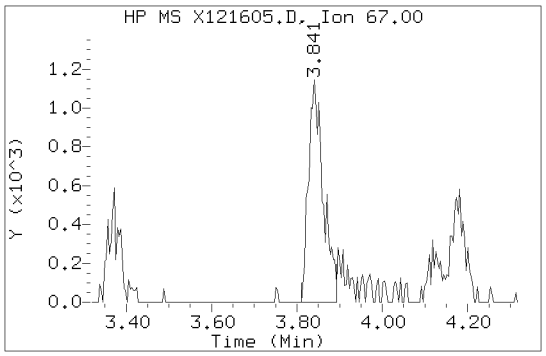
AFTER
MASS
41
AREA
6388
HEIGHT
3544
27-Dec-2022
16:07
linh
pham



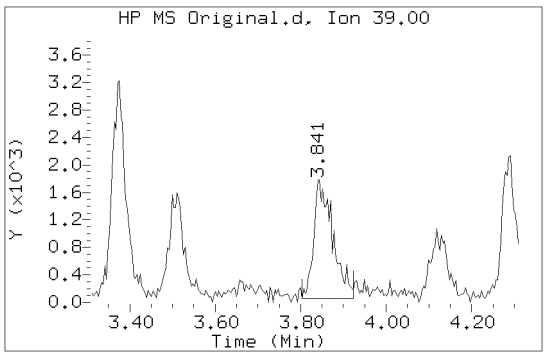
BEFORE
MASS
67
AREA
2751
HEIGHT
1145
27-Dec-2022
16:03
linh
pham



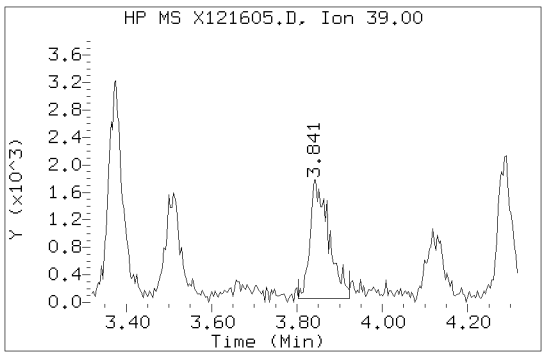
AFTER
MASS
67
AREA
2751
HEIGHT
1145
27-Dec-2022
16:07
linh
pham



BEFORE
MASS
39
AREA
5310
HEIGHT
1724
27-Dec-2022
16:03
linh
pham



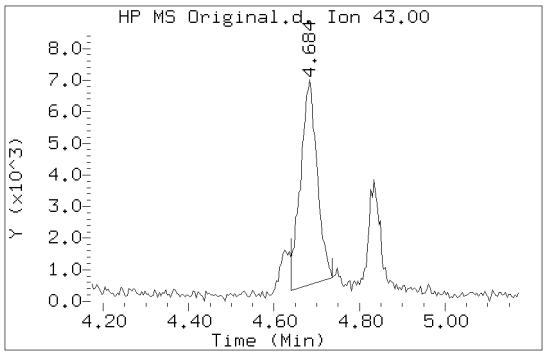
AFTER
MASS
39
AREA
5310
HEIGHT
1724
27-Dec-2022
16:07
linh
pham



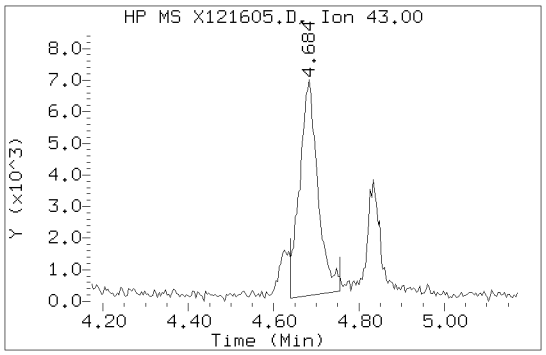
Isobutyl Alcohol (78-83-1)

Reason Code:

BEFORE
MASS
43
AREA
17811
HEIGHT
6479
27-Dec-2022
16:03
linh
pham



AFTER
MASS
43
AREA
20629
HEIGHT
6832
27-Dec-2022
16:07
linh
pham



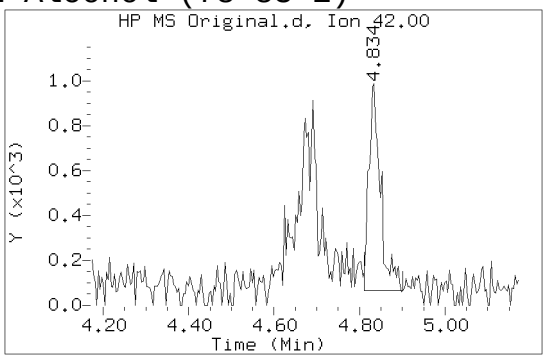
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D
Inj Date : 16-DEC-2022 13:02
InstruID : voa6.i
LabSampID : VSTD002

Isobutyl Alcohol (78-83-1)

Reason Code:

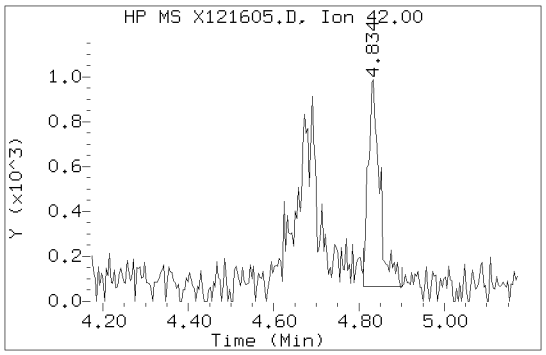
BEFORE

MASS
42
AREA
1728
HEIGHT
920
27-Dec-2022
16:03
linh
pham



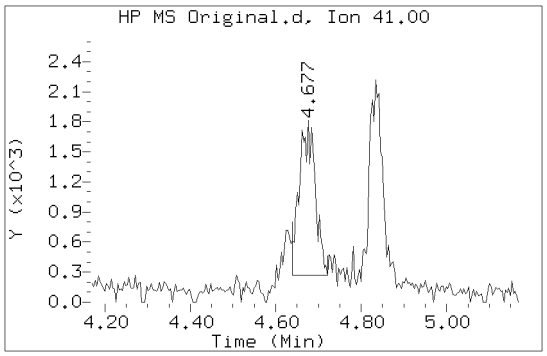
AFTER

MASS
42
AREA
1728
HEIGHT
920
27-Dec-2022
16:07
linh
pham



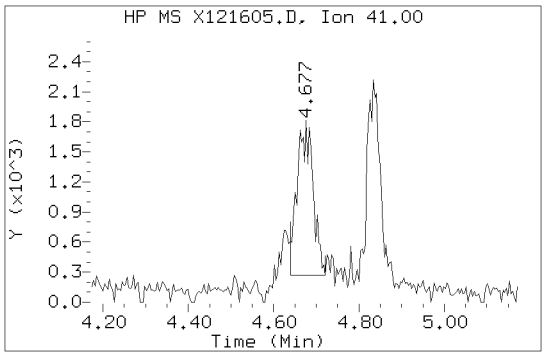
BEFORE

MASS
41
AREA
4067
HEIGHT
1547
27-Dec-2022
16:03
linh
pham



AFTER

MASS
41
AREA
4067
HEIGHT
1547
27-Dec-2022
16:07
linh
pham

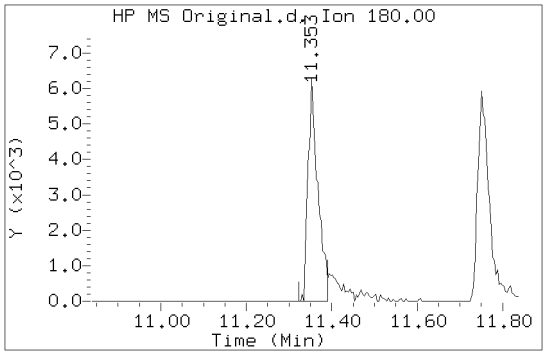


1,2,4-Trichlorobenzene (120-82-1)

Reason Code:

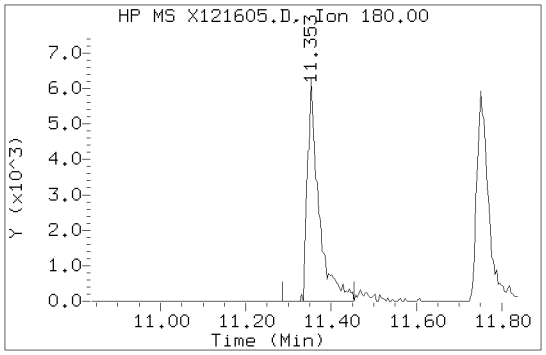
BEFORE

MASS
180
AREA
10131
HEIGHT
6269
27-Dec-2022
16:03
linh
pham



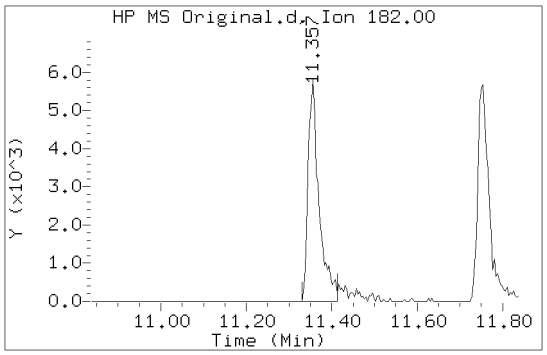
AFTER

MASS
180
AREA
11764
HEIGHT
6269
27-Dec-2022
16:07
linh
pham



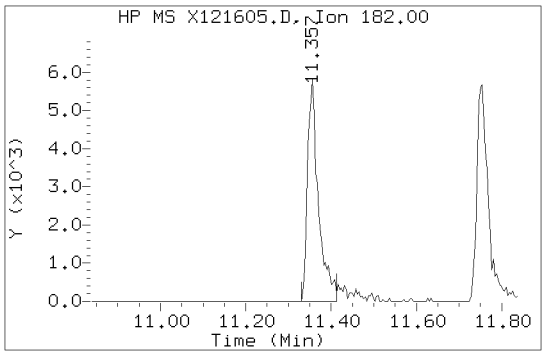
BEFORE

MASS
182
AREA
10317
HEIGHT
5807
27-Dec-2022
16:03
linh
pham



AFTER

MASS
182
AREA
10317
HEIGHT
5807
27-Dec-2022
16:07
linh
pham



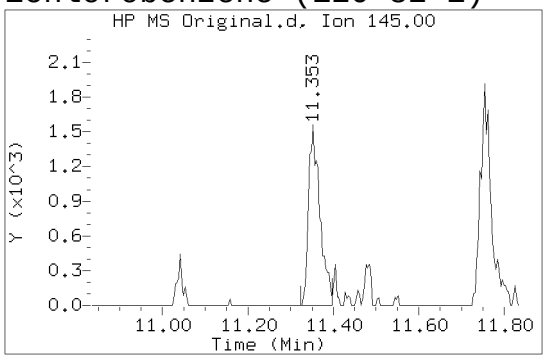
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D
Inj Date : 16-DEC-2022 13:02
InstruID : voa6.i
LabSampID : VSTD002

1,2,4-Trichlorobenzene (120-82-1)

Reason Code:

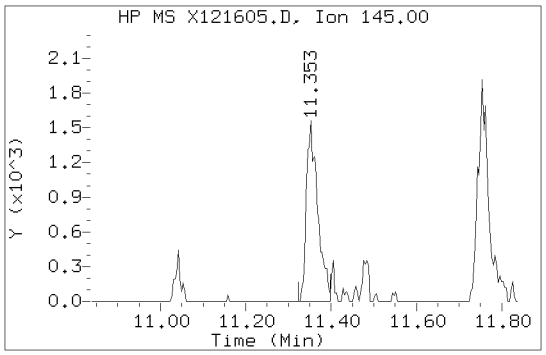
BEFORE

MASS
145
AREA
2887
HEIGHT
1565
27-Dec-2022
16:03
linh
pham



AFTER

MASS
145
AREA
2887
HEIGHT
1565
27-Dec-2022
16:07
linh
pham

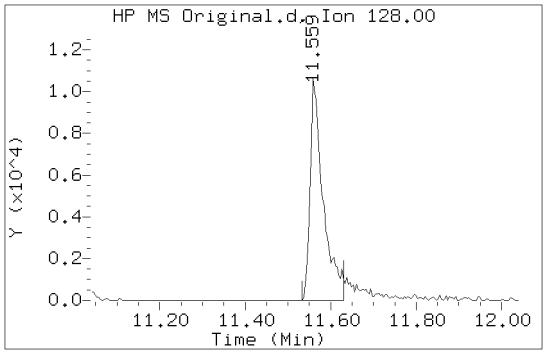


Naphthalene (91-20-3)

Reason Code:

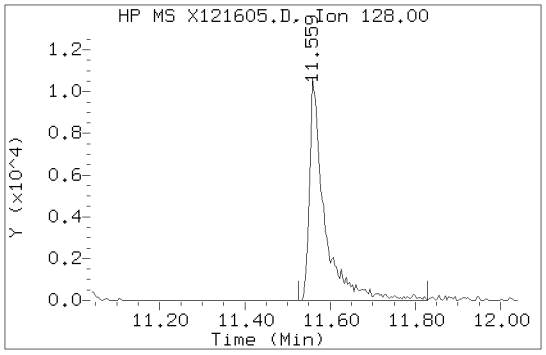
BEFORE

MASS
128
AREA
22581
HEIGHT
10616
27-Dec-2022
16:03
linh
pham



AFTER

MASS
128
AREA
26250
HEIGHT
10616
27-Dec-2022
16:07
linh
pham

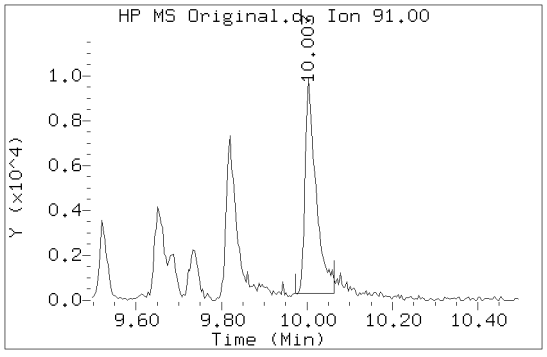


n-Butylbenzene (104-51-8)

Reason Code:

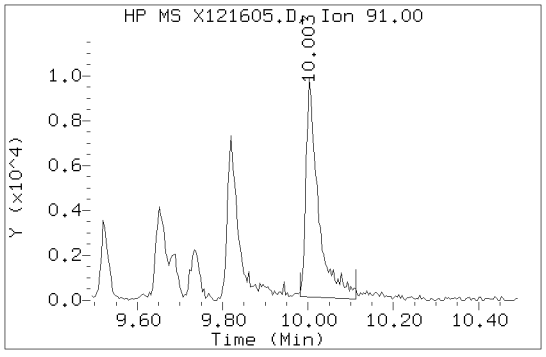
BEFORE

MASS
91
AREA
17181
HEIGHT
9558
27-Dec-2022
16:03
linh
pham



AFTER

MASS
91
AREA
19853
HEIGHT
9720
27-Dec-2022
16:07
linh
pham



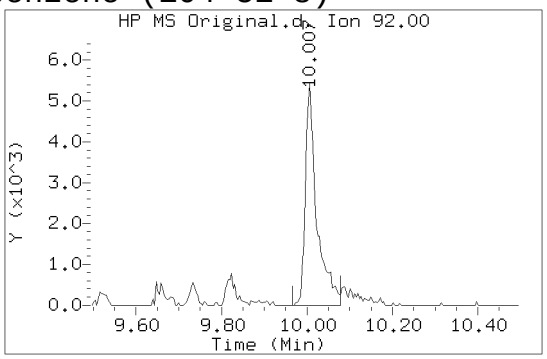
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D
Inj Date : 16-DEC-2022 13:02
InstruID : voa6.i
LabSampID : VSTD002

n-Butylbenzene (104-51-8)

Reason Code:

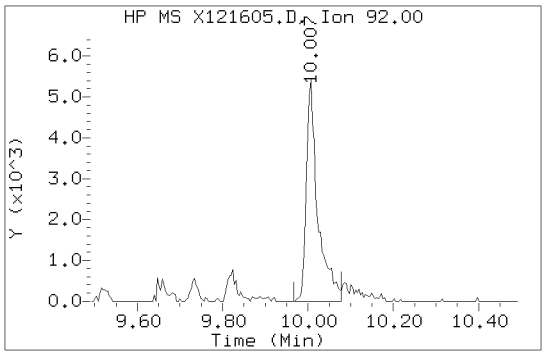
BEFORE

MASS
92
AREA
10185
HEIGHT
5422
27-Dec-2022
16:03
linh
pham



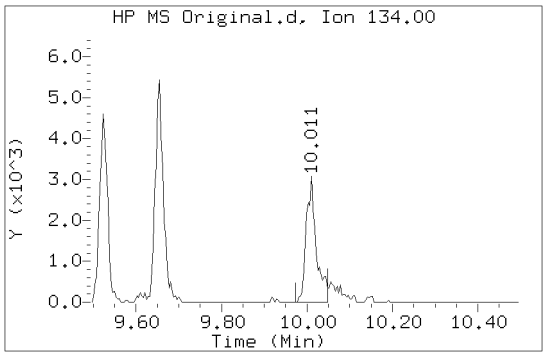
AFTER

MASS
92
AREA
10185
HEIGHT
5422
27-Dec-2022
16:07
linh
pham



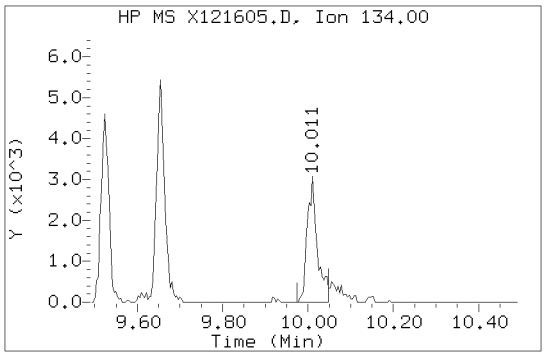
BEFORE

MASS
134
AREA
5059
HEIGHT
3076
27-Dec-2022
16:03
linh
pham



AFTER

MASS
134
AREA
5059
HEIGHT
3076
27-Dec-2022
16:07
linh
pham

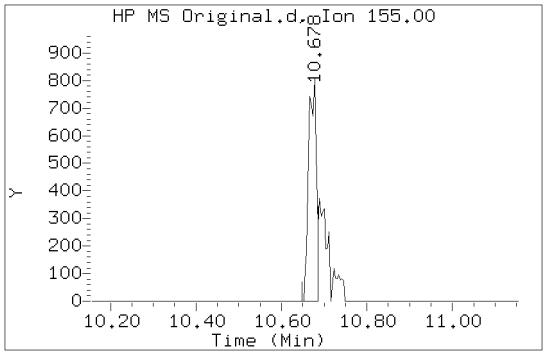


1,2-Dibromo-3-Chloropropane (96-12-8)

Reason Code:

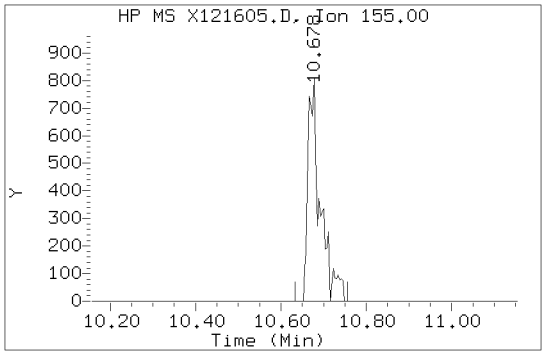
BEFORE

MASS
155
AREA
1026
HEIGHT
806
27-Dec-2022
16:03
linh
pham



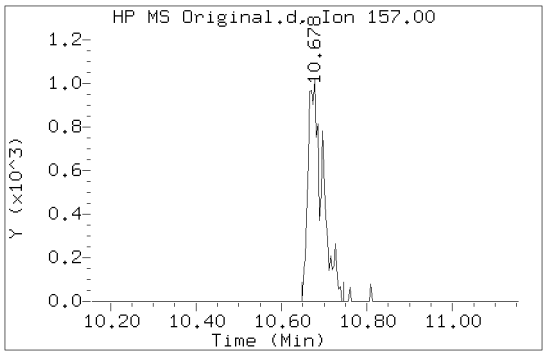
AFTER

MASS
155
AREA
1619
HEIGHT
806
27-Dec-2022
16:07
linh
pham



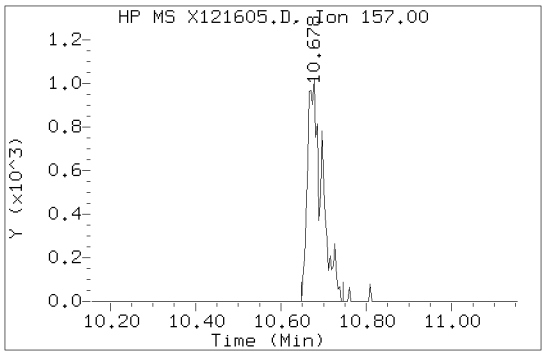
BEFORE

MASS
157
AREA
2422
HEIGHT
1016
27-Dec-2022
16:03
linh
pham



AFTER

MASS
157
AREA
2422
HEIGHT
1016
27-Dec-2022
16:07
linh
pham



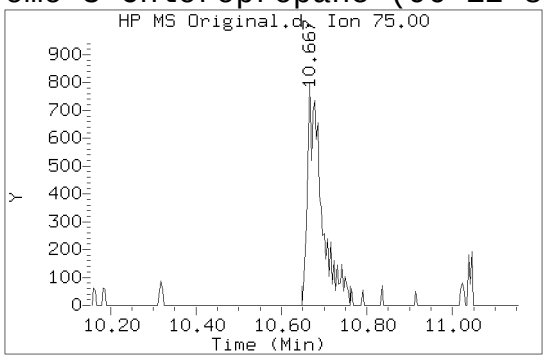
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D
Inj Date : 16-DEC-2022 13:02
InstruID : voa6.i
LabSampID : VSTD002

1,2-Dibromo-3-Chloropropane (96-12-8)

Reason Code:

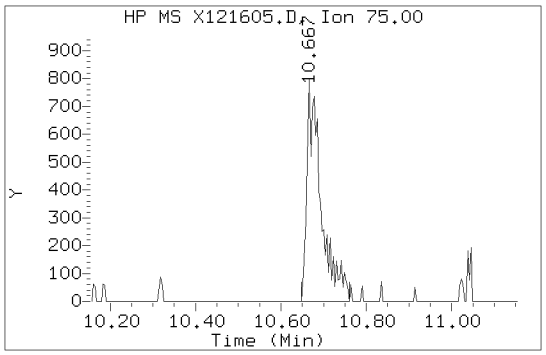
BEFORE

MASS
75
AREA
1843
HEIGHT
796
27-Dec-2022
16:03
linh
pham



AFTER

MASS
75
AREA
1843
HEIGHT
796
27-Dec-2022
16:07
linh
pham

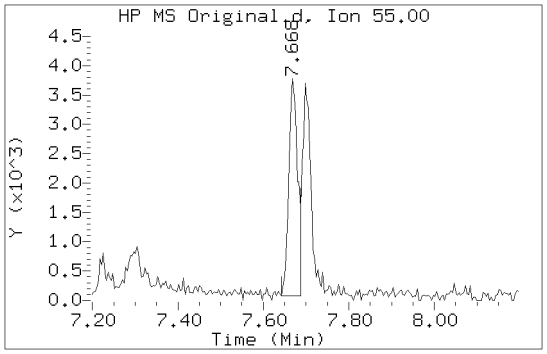


1-Chlorohexane (544-10-5)

Reason Code:

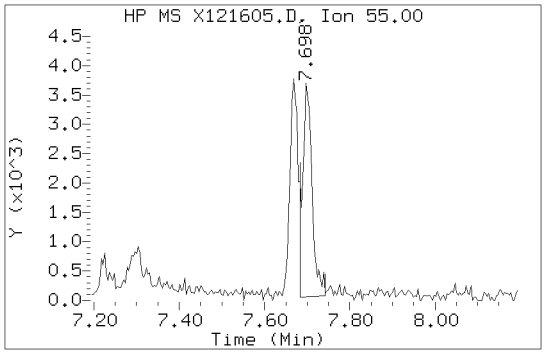
BEFORE

MASS
55
AREA
5357
HEIGHT
3703
27-Dec-2022
16:03
linh
pham



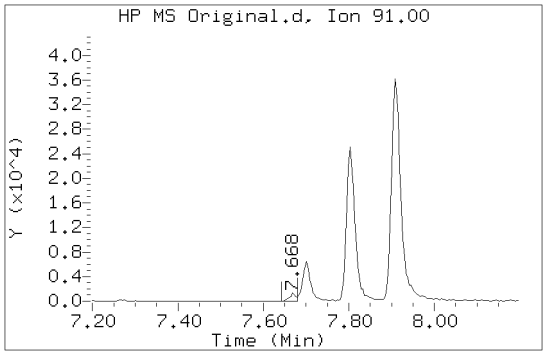
AFTER

MASS
55
AREA
5855
HEIGHT
3647
27-Dec-2022
16:07
linh
pham



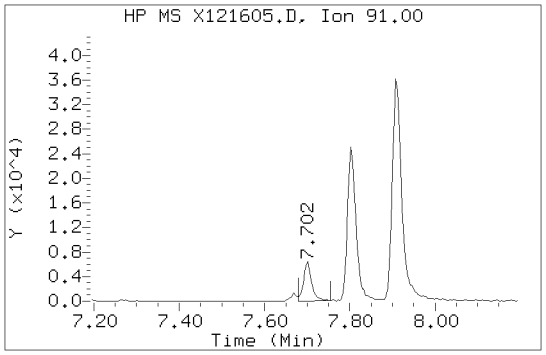
BEFORE

MASS
91
AREA
1356
HEIGHT
1324
27-Dec-2022
16:03
linh
pham



AFTER

MASS
91
AREA
8682
HEIGHT
6440
27-Dec-2022
16:07
linh
pham

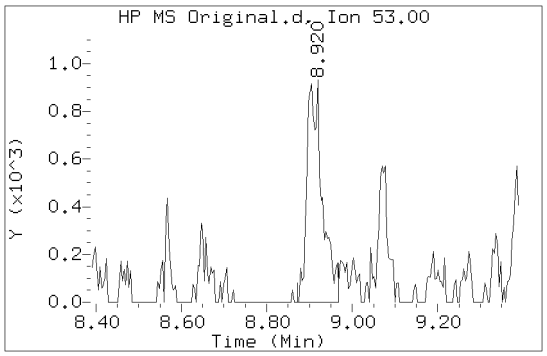


trans-1,4-Dichloro-2-butene (110-57-6)

Reason Code:

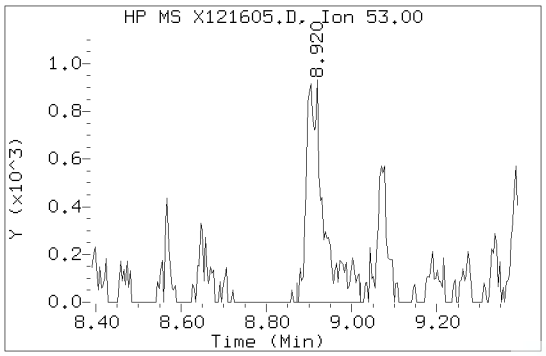
BEFORE

MASS
53
AREA
2313
HEIGHT
932
27-Dec-2022
16:03
linh
pham



AFTER

MASS
53
AREA
2690
HEIGHT
932
27-Dec-2022
16:07
linh
pham



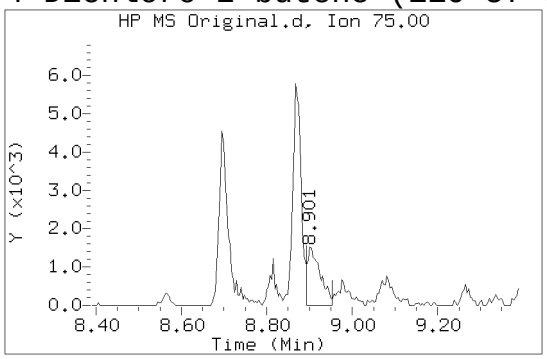
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D
Inj Date : 16-DEC-2022 13:02
InstruID : voa6.i
LabSampID : VSTD002

trans-1,4-Dichloro-2-butene (110-57-6)

Reason Code:

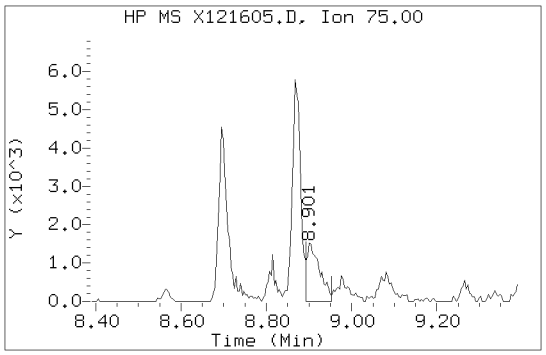
BEFORE

MASS
75
AREA
3228
HEIGHT
1526
27-Dec-2022
16:03
linh
pham



AFTER

MASS
75
AREA
3228
HEIGHT
1526
27-Dec-2022
16:07
linh
pham

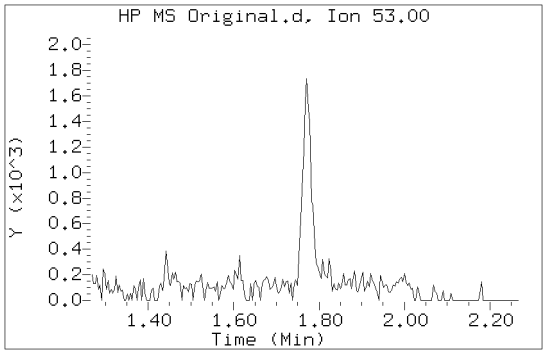


Chloroprene (126-99-8)

Reason Code:

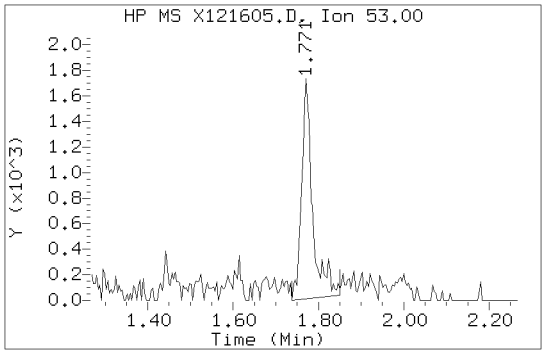
BEFORE

MASS
53
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



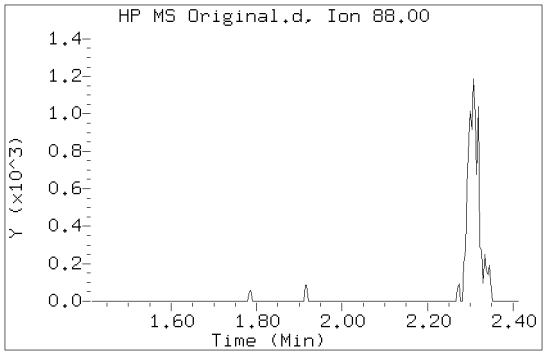
AFTER

MASS
53
AREA
3126
HEIGHT
1722
27-Dec-2022
16:07
linh
pham



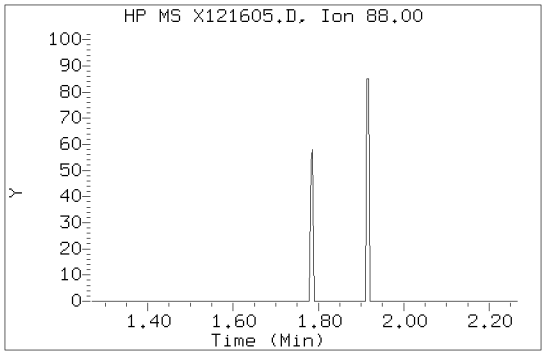
BEFORE

MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

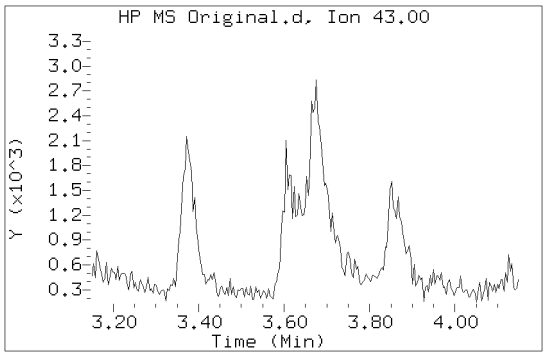


Ethyl Acetate (141-78-6)

Reason Code:

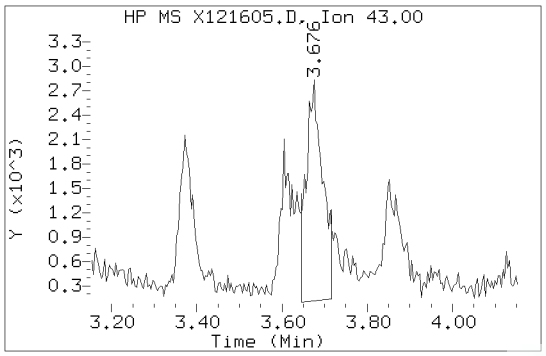
BEFORE

MASS
43
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

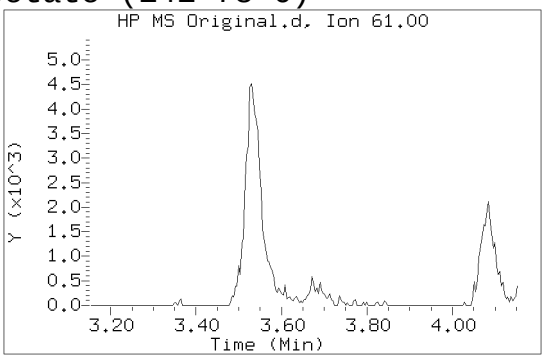
MASS
43
AREA
7422
HEIGHT
2716
27-Dec-2022
16:07
linh
pham



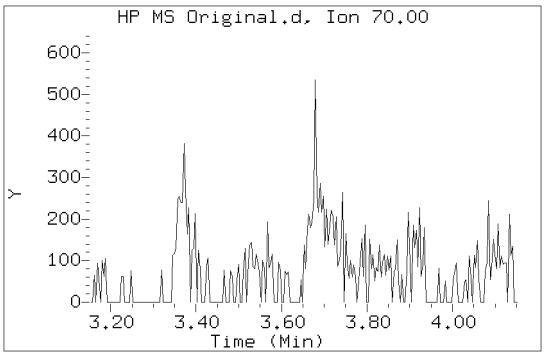
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D
Inj Date : 16-DEC-2022 13:02
InstruID : voa6.i
LabSampID : VSTD002

Ethyl Acetate (141-78-6)

BEFORE
MASS
61
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham

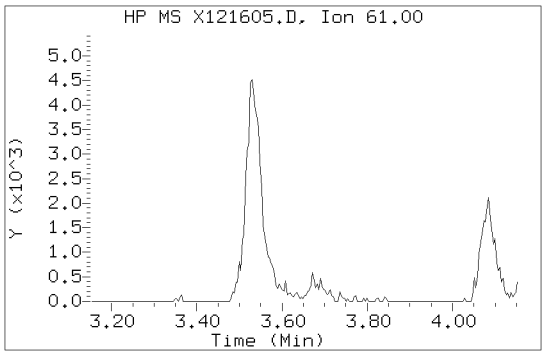


BEFORE
MASS
70
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham

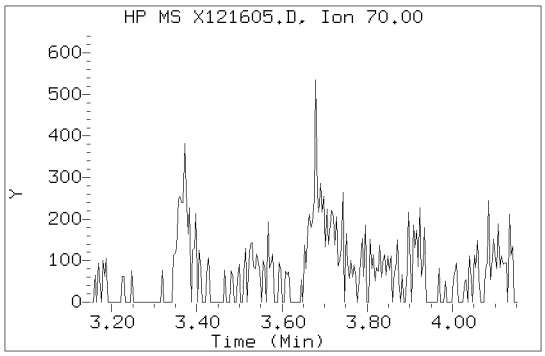


Reason Code:

AFTER
MASS
61
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

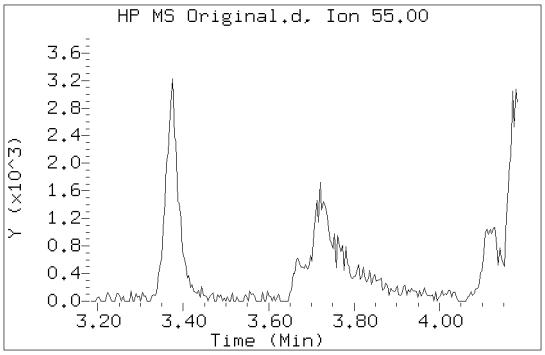


AFTER
MASS
70
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

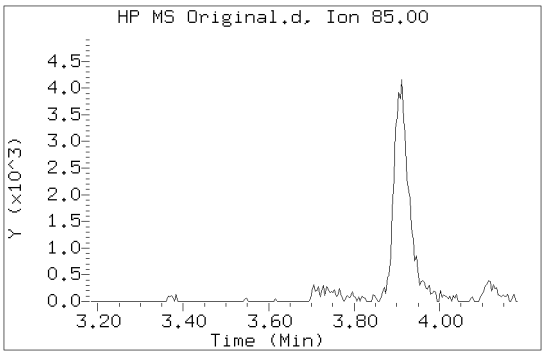


Methyl Acrylate (96-33-3)

BEFORE
MASS
55
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham

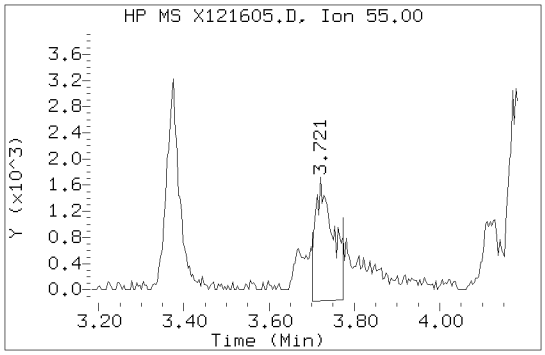


BEFORE
MASS
85
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham

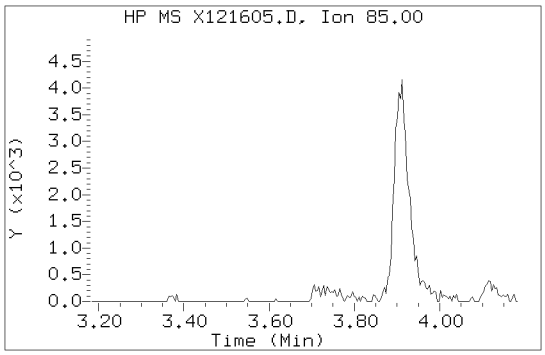


Reason Code:

AFTER
MASS
55
AREA
5443
HEIGHT
1892
27-Dec-2022
16:07
linh
pham



AFTER
MASS
85
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



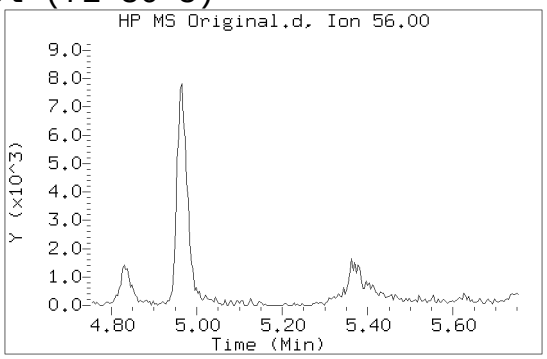
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D
Inj Date : 16-DEC-2022 13:02
InstruID : voa6.i
LabSampID : VSTD002

n-Butanol (71-36-3)

Reason Code:

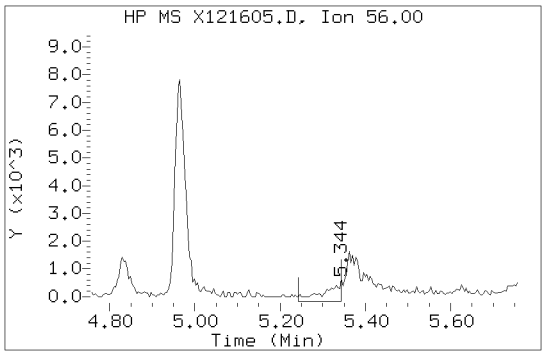
BEFORE

MASS
56
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



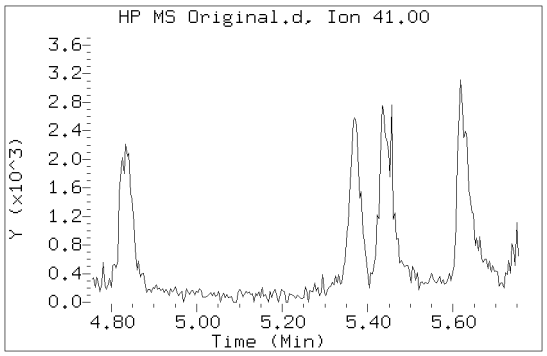
AFTER

MASS
56
AREA
2004
HEIGHT
808
27-Dec-2022
16:07
linh
pham



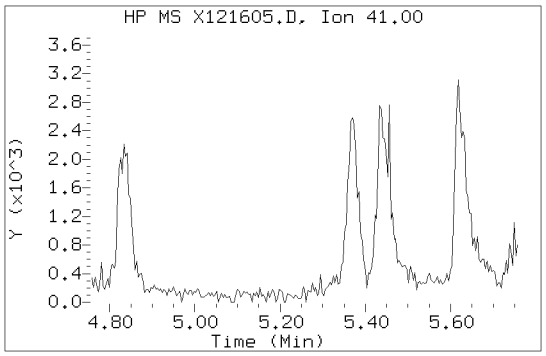
BEFORE

MASS
41
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
41
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham

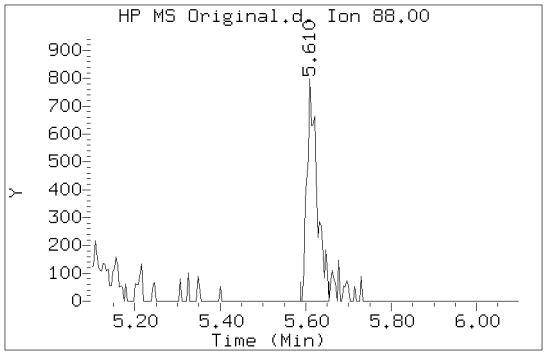


1,4-Dioxane ()

Reason Code:

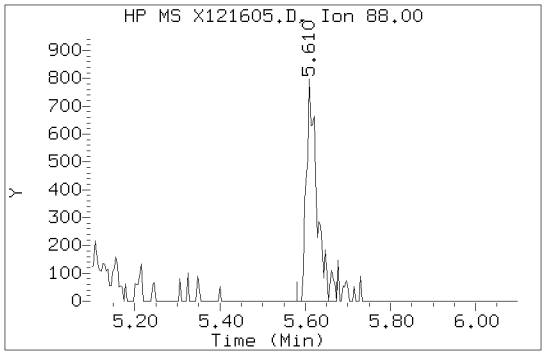
BEFORE

MASS
88
AREA
1335
HEIGHT
798
27-Dec-2022
16:03
linh
pham



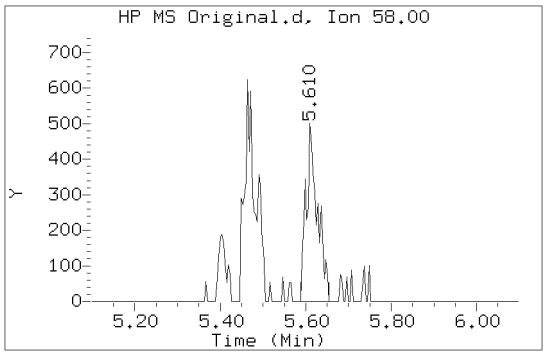
AFTER

MASS
88
AREA
1409
HEIGHT
798
27-Dec-2022
16:07
linh
pham



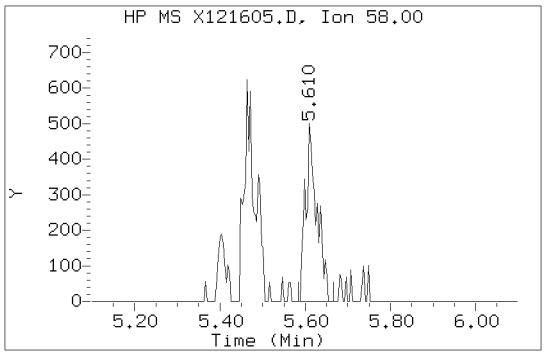
BEFORE

MASS
58
AREA
934
HEIGHT
501
27-Dec-2022
16:03
linh
pham



AFTER

MASS
58
AREA
934
HEIGHT
501
27-Dec-2022
16:07
linh
pham



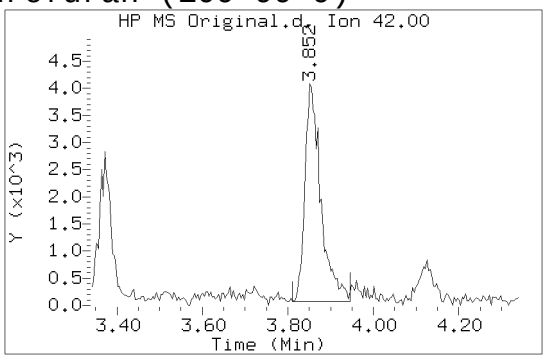
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D
Inj Date : 16-DEC-2022 13:02
InstruID : voa6.i
LabSampID : VSTD002

Tetrahydrofuran (109-99-9)

Reason Code:

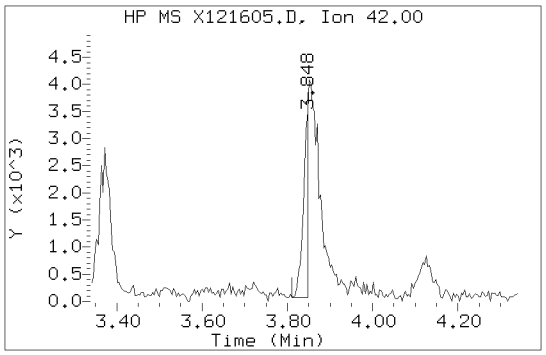
BEFORE

MASS
42
AREA
10469
HEIGHT
4012
27-Dec-2022
16:03
linh
pham



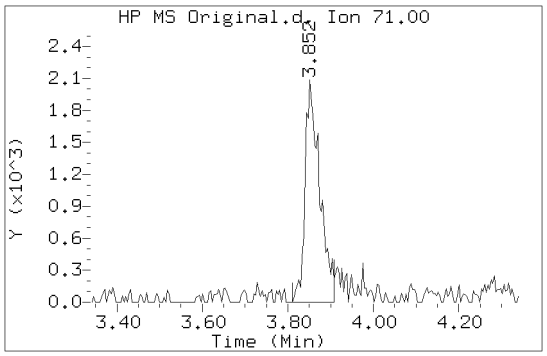
AFTER

MASS
42
AREA
2867
HEIGHT
3419
27-Dec-2022
16:07
linh
pham



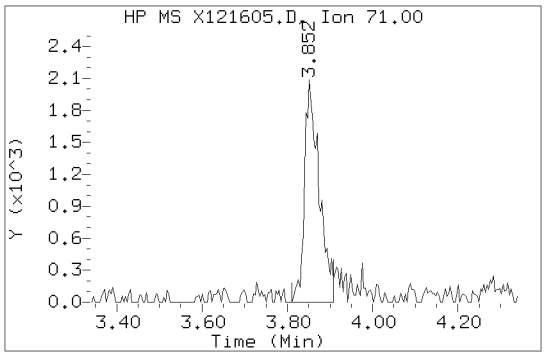
BEFORE

MASS
71
AREA
5020
HEIGHT
2086
27-Dec-2022
16:03
linh
pham



AFTER

MASS
71
AREA
5020
HEIGHT
2086
27-Dec-2022
16:07
linh
pham

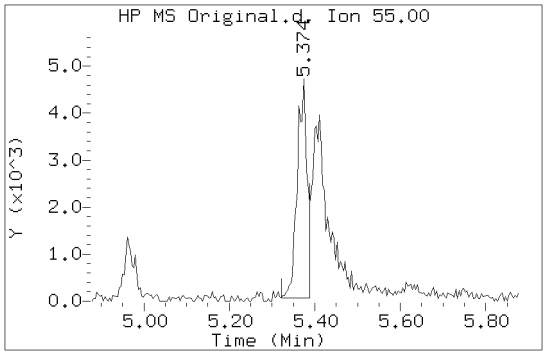


Methylcyclohexane (108-87-2)

Reason Code:

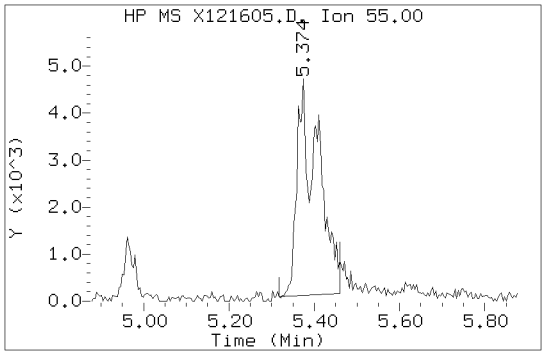
BEFORE

MASS
55
AREA
7676
HEIGHT
4656
27-Dec-2022
16:03
linh
pham



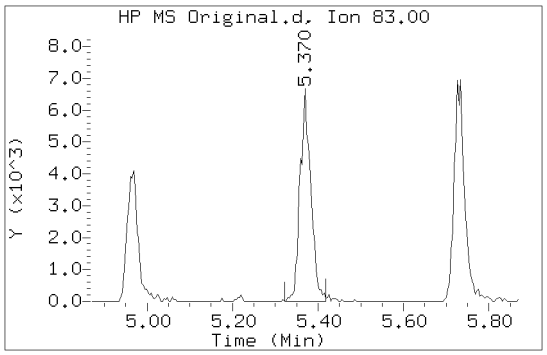
AFTER

MASS
55
AREA
16016
HEIGHT
4611
27-Dec-2022
16:07
linh
pham



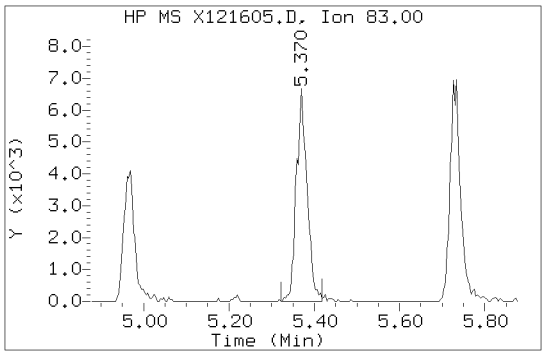
BEFORE

MASS
83
AREA
11881
HEIGHT
6672
27-Dec-2022
16:03
linh
pham



AFTER

MASS
83
AREA
11881
HEIGHT
6672
27-Dec-2022
16:07
linh
pham

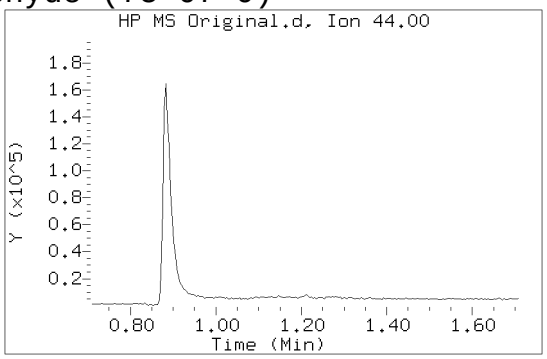


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121605.D
Inj Date : 16-DEC-2022 13:02
InstruID : voa6.i
LabSampID : VSTD002

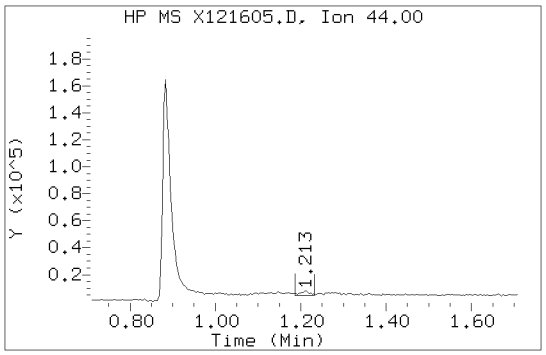
Acetaldehyde (75-07-0)

Reason Code:

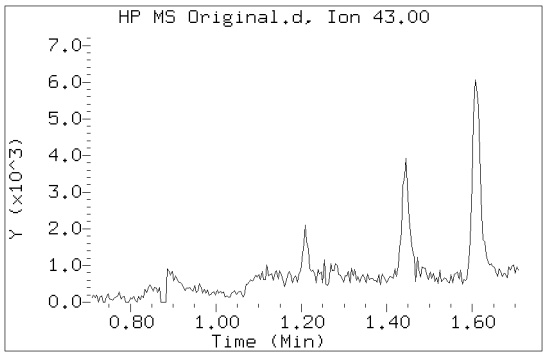
BEFORE
MASS
44
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



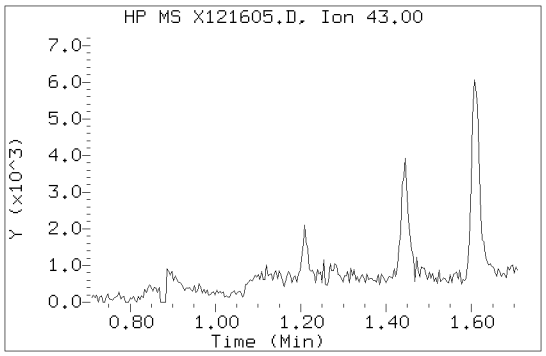
AFTER
MASS
44
AREA
5661
HEIGHT
3463
27-Dec-2022
16:07
linh
pham



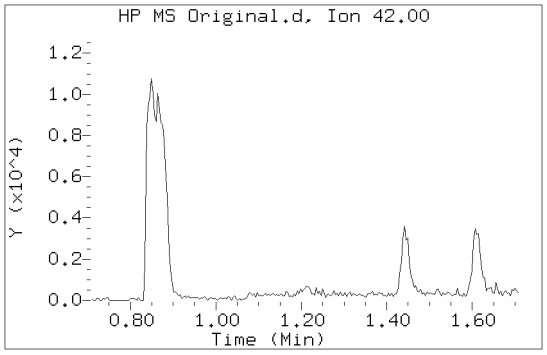
BEFORE
MASS
43
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



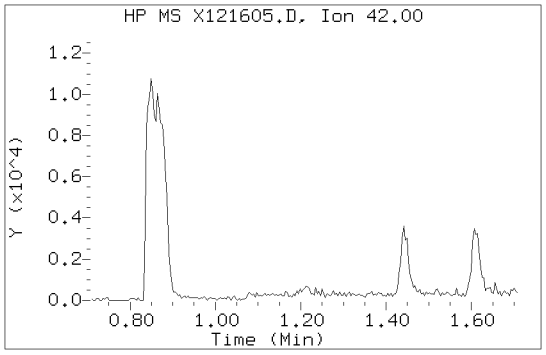
AFTER
MASS
43
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



BEFORE
MASS
42
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER
MASS
42
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121606.D Page 1
Report Date: 27-Dec-2022 16:07

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121606.D
Lab Smp Id: VSTD005 Client Smp ID: VSTD005
Inj Date : 16-DEC-2022 13:23
Operator : PC Inst ID: voa6.i
Smp Info : VSTD005;VSTD005;1;5;
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\8260W.m
Meth Date : 27-Dec-2022 16:07 voa6.i Quant Type: ISTD
Cal Date : 16-DEC-2022 13:02 Cal File: X121605.D
Als bottle: 7 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260V6.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.178	4.178	(1.000)	450664	50.0000	
135 1,4-Dioxane	88	5.602	5.602	(1.341)	4197	100.000	101.88(M)
140 1,3-Butadiene	54	1.164	1.164	(0.279)	14283	5.00000	4.61
25 Methacrylonitrile	41	3.840	3.840	(0.919)	15701	5.00000	4.92(M)
12 Isobutyl Alcohol	43	4.680	4.680	(1.120)	51624	100.000	101.84
13 Acetonitrile	39	2.198	2.198	(0.526)	19635	50.0000	47.87
14 Allyl Chloride	41	2.198	2.198	(0.526)	37993	5.00000	4.86
4 Propionitrile	54	3.660	3.660	(0.876)	23049	50.0000	50.12
136 n-Hexane	57	2.772	2.772	(0.664)	14618	5.00000	4.50
72 trans-1,4-Dichloro-2-butene	53	8.901	8.901	(1.161)	6648	5.00000	4.70(M)
194 Acetaldehyde	44	1.209	1.209	(0.289)	6161	20.0000	0.80(M)
23 Chloroprene	53	1.771	1.771	(0.424)	7154	5.00000	4.66(M)
145 alpha-Methylstyrene	118	9.261	9.261	(0.958)	37831	5.00000	4.79
200 Dimethyl Disulfide	94	6.198	6.198	(0.808)	40144	5.00000	4.53
139 Diethyl ether	59	1.756	1.756	(0.420)	15119	5.00000	5.02
130 Ethyl Acetate	43	3.660	3.660	(0.876)	18020	5.00000	5.12(M)
40 Methyl Methacrylate	41	5.617	5.617	(1.345)	15119	5.00000	4.92
49 Ethyl Methacrylate	69	6.715	6.715	(1.353)	13801	5.00000	4.27
132 n-Butanol	56	5.287	5.287	(1.266)	4891	100.000	125.41(M)
142 Tetrahydrofuran	42	3.848	3.848	(0.921)	7598	10.0000	10.82(M)

150	Allyl alcohol	57	2.772	2.772 (0.664)	14618	100.000	83.50
166	1,2,3-Trimethylbenzene	105	9.733	9.733 (1.007)	80329	5.00000	4.68

Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121606.D Page 2
Report Date: 27-Dec-2022 16:07

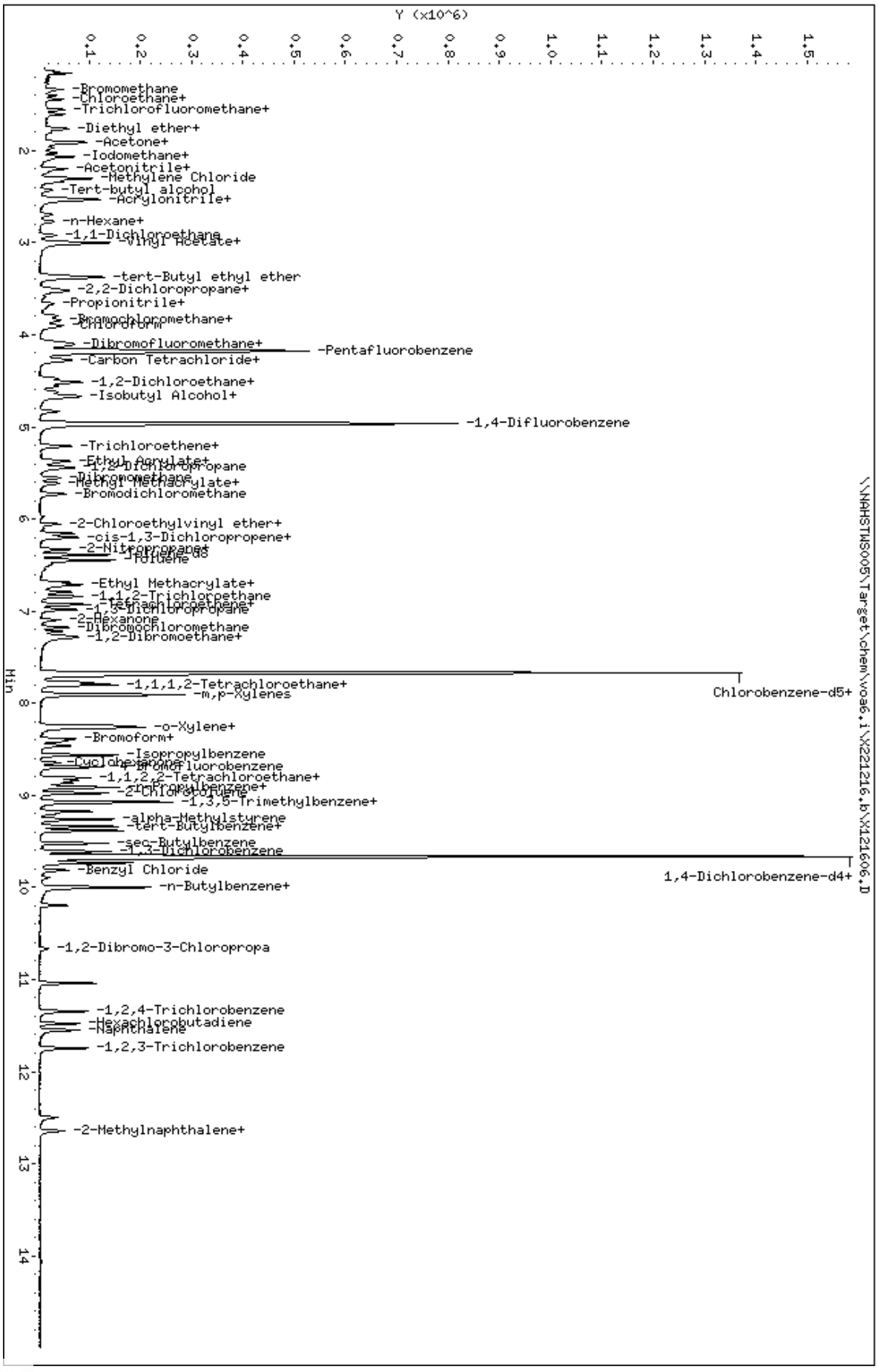
			QUANT SIG					AMOUNTS	
								CAL-AMT	ON-COL
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/l)	(ug/l)
	131	Methyl Acrylate	55	3.705	3.705	(0.887)	14950	5.00000	4.88(M)
	162	Butyl acrylate	55	8.260	8.260	(1.077)	38320	5.00000	4.48
	2	Dichlorodifluoromethane	85	0.972	0.972	(0.233)	15008	5.00000	5.11
	3	Chloromethane	50	1.077	1.077	(0.258)	19623	5.00000	6.81
	5	Vinyl Chloride	62	1.141	1.141	(0.273)	19002	5.00000	4.82
	6	Bromomethane	94	1.336	1.336	(0.320)	15112	5.00000	6.66
	7	Chloroethane	64	1.400	1.400	(0.335)	14167	5.00000	5.17
	8	Trichlorofluoromethane	101	1.557	1.557	(0.373)	26620	5.00000	4.83
	9	Acrolein	56	1.441	1.441	(0.345)	2699	10.0000	11.33
	10	Acetone	43	1.973	1.973	(0.472)	17632	10.0000	13.91
	11	1,1-Dichloroethene	96	1.910	1.910	(0.457)	16850	5.00000	4.92
	15	Iodomethane	142	2.026	2.026	(0.485)	26708	10.0000	9.27
	16	Acrylonitrile	53	2.551	2.551	(0.611)	11047	10.0000	9.52
	17	Methylene Chloride	84	2.303	2.303	(0.551)	22932	5.00000	4.88(M)
	18	Methyl tert-butyl ether	73	2.532	2.532	(0.606)	56330	5.00000	5.03
	19	Carbon Disulfide	76	2.067	2.067	(0.495)	85418	10.0000	9.54
	20	trans-1,2-Dichloroethene	96	2.532	2.532	(0.606)	19006	5.00000	4.96
	21	Vinyl Acetate	43	3.000	3.000	(0.718)	101238	10.0000	10.30
	22	1,1-Dichloroethane	63	2.922	2.922	(0.699)	33810	5.00000	5.03
	24	2-Butanone	43	3.600	3.600	(0.862)	11771	10.0000	11.53(H)
	26	2,2-Dichloropropane	77	3.507	3.507	(0.839)	27881	5.00000	4.88
	27	cis-1,2-Dichloroethene	96	3.533	3.533	(0.846)	22734	5.00000	4.88
	28	Chloroform	83	3.904	3.904	(0.935)	38156	5.00000	5.06
	29	Bromochloromethane	128	3.799	3.799	(0.909)	13213	5.00000	5.18
$	30	Dibromofluoromethane	113	4.103	4.103	(0.982)	24255	5.00000	5.45
	31	1,1,1-Trichloroethane	97	4.080	4.080	(0.977)	29017	5.00000	4.85
	32	1,1-Dichloropropene	75	4.279	4.279	(0.862)	23845	5.00000	4.90(M)
	33	1,2-Dichloroethane	62	4.556	4.556	(0.918)	28173	5.00000	5.01
	34	Carbon Tetrachloride	117	4.264	4.264	(0.859)	24171	5.00000	4.65
$	35	1,2-Dichloroethane-d4	65	4.477	4.477	(1.072)	24938	5.00000	5.70(M)
*	36	1,4-Difluorobenzene	114	4.965	4.965	(1.000)	685413	50.0000	
	37	Benzene	78	4.511	4.511	(0.909)	81981	5.00000	5.00
	38	Trichloroethene	130	5.208	5.208	(1.049)	22693	5.00000	4.88
	39	Bromodichloromethane	83	5.729	5.729	(1.154)	29358	5.00000	4.77
	41	2-Chloroethylvinyl ether	63	6.056	6.056	(1.220)	17700	10.0000	10.12
	42	1,2-Dichloropropane	63	5.437	5.437	(1.095)	21679	5.00000	4.97
	44	Dibromomethane	93	5.557	5.557	(1.119)	14449	5.00000	4.88
	45	4-Methyl-2-Pentanone	43	6.329	6.329	(0.825)	34912	10.0000	9.98
	46	cis-1,3-Dichloropropene	75	6.161	6.161	(1.241)	35507	5.00000	4.92
*	47	Chlorobenzene-d5	117	7.668	7.668	(1.000)	654176	50.0000	
$	48	Toluene-d8	98	6.389	6.389	(0.833)	81640	5.00000	5.05
	50	Toluene	91	6.449	6.449	(0.841)	89594	5.00000	4.95
	51	trans-1,3-Dichloropropene	75	6.689	6.689	(1.347)	28399	5.00000	4.74(M)
	52	2-Hexanone	43	7.094	7.094	(0.925)	24056	10.0000	10.11
	53	1,1,2-Trichloroethane	83	6.839	6.839	(0.892)	18638	5.00000	5.13
	54	1,3-Dichloropropane	76	6.985	6.985	(0.911)	35759	5.00000	5.00
	55	Dibromochloromethane	129	7.176	7.176	(0.936)	25357	5.00000	4.84
	56	Tetrachloroethene	164	6.929	6.929	(0.904)	17219	5.00000	4.60
	57	1,2-Dibromoethane	107	7.263	7.263	(0.947)	23172	5.00000	5.10
	58	1-Chlorohexane	55	7.698	7.698	(1.550)	15210	5.00000	4.59(MH)
	59	Chlorobenzene	112	7.694	7.694	(1.003)	62744	5.00000	4.89
	60	1,1,1,2-Tetrachloroethane	131	7.776	7.776	(1.014)	22632	5.00000	4.74

61 Ethylbenzene	106	7.802	7.802 (1.018)	29550	5.00000	4.89
62 m,p-Xylenes	106	7.907	7.907 (1.031)	73283	10.0000	9.40

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	63 o-Xylene	106	8.245	8.245	(1.075)	37189	5.00000	4.83
	64 Styrene	104	8.267	8.267	(1.078)	62411	5.00000	4.84
	66 Bromoform	173	8.414	8.414	(1.097)	16801	5.00000	4.63
	67 Isopropylbenzene	105	8.563	8.563	(1.117)	85440	5.00000	4.86
	68 1,1,2,2-Tetrachloroethane	83	8.841	8.841	(0.915)	29807	5.00000	5.24
$	69 4-Bromofluorobenzene	95	8.695	8.695	(1.134)	32501	5.00000	5.43
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	356340	50.0000	
	71 1,2,3-Trichloropropane	75	8.867	8.867	(0.918)	20685	5.00000	5.21(M)
	73 n-Propylbenzene	91	8.916	8.916	(0.923)	97603	5.00000	4.94
	74 Bromobenzene	156	8.811	8.811	(0.912)	28887	5.00000	4.94
	75 1,3,5-Trimethylbenzene	105	9.070	9.070	(0.939)	72501	5.00000	4.97
	76 2-Chlorotoluene	91	8.976	8.976	(0.929)	65973	5.00000	5.09
	77 4-Chlorotoluene	91	9.077	9.077	(0.939)	75073	5.00000	5.08
	78 tert-Butylbenzene	119	9.336	9.336	(0.966)	59375	5.00000	4.97
	79 1,2,4-Trimethylbenzene	105	9.381	9.381	(0.971)	75723	5.00000	4.93
	81 sec-Butylbenzene	105	9.523	9.523	(0.986)	77577	5.00000	4.88
	82 p-Isopropyltoluene	119	9.651	9.651	(0.999)	69666	5.00000	4.89
	83 1,3-Dichlorobenzene	146	9.609	9.609	(0.995)	49954	5.00000	5.14
	84 1,4-Dichlorobenzene	146	9.684	9.684	(1.002)	52655	5.00000	4.97
	86 Benzyl Chloride	91	9.816	9.816	(1.280)	35254	5.00000	5.95
	87 n-Butylbenzene	91	9.999	9.999	(1.035)	54831	5.00000	5.63
	88 1,2-Dichlorobenzene	146	9.995	9.995	(1.035)	50895	5.00000	5.09
	89 1,2-Dibromo-3-Chloropropane	155	10.670	10.670	(1.104)	4911	5.00000	5.49
	90 1,2,4-Trichlorobenzene	180	11.345	11.345	(1.174)	31873	5.00000	5.05
	91 Hexachlorobutadiene	225	11.480	11.480	(1.188)	13454	5.00000	4.81
	92 Naphthalene	128	11.551	11.551	(1.196)	72748	5.00000	5.06
	93 1,2,3-Trichlorobenzene	180	11.746	11.746	(1.216)	30274	5.00000	5.01
M	94 1,2-Dichloroethylene (total)	96				41740	10.0000	
M	95 Xylenes (total)	106				110472	15.0000	
	141 Cyclohexane	56	4.118	4.118	(0.986)	19859	5.00000	5.52(H)
	138 Freon TF	101	1.913	1.913	(0.458)	14845	5.00000	4.48
	147 Methylcyclohexane	55	5.388	5.388	(1.085)	38650	5.00000	4.60(M)
	146 Methyl Acetate	43	2.236	2.236	(0.535)	8968	5.00000	4.42
	148 Tert-Butyl alcohol	59	2.431	2.431	(0.582)	30525	100.000	97.81
	149 Isopropyl Alcohol	45	2.097	2.097	(0.502)	16518	100.000	101.35(T)

QC Flag Legend

T - Target compound detected outside RT window.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.



Data File: \\NAHSTWS005\Target\chem\voa6,i\X221216,b\X121606.D
Date : 16-DEC-2022 13:23
Client ID: VSTD005
Sample Info: VSTD005;VSTD005;1;5;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6,i
Operator: PC
Column diameter: 0.18

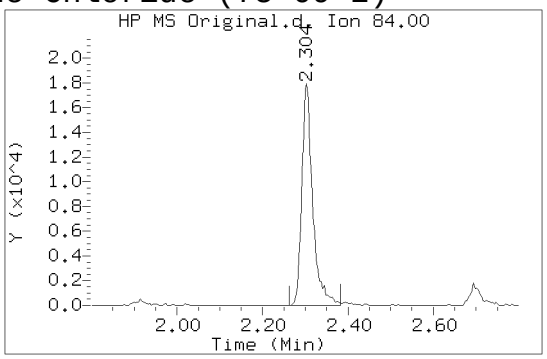
\\NAHSTWS005\Target\chem\voa6,i\X221216,b\X121606.D

Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121606.D
Inj Date : 16-DEC-2022 13:23
InstruID : voa6.i
LabSampID : VSTD005

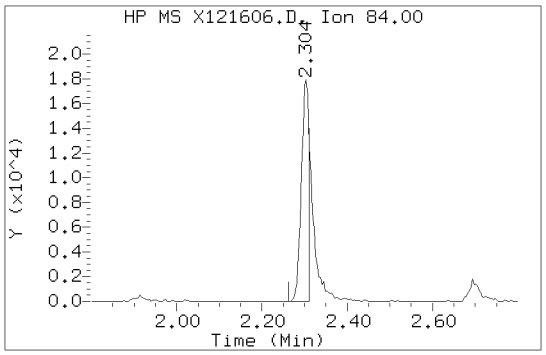
Methylene Chloride (75-09-2)

Reason Code:

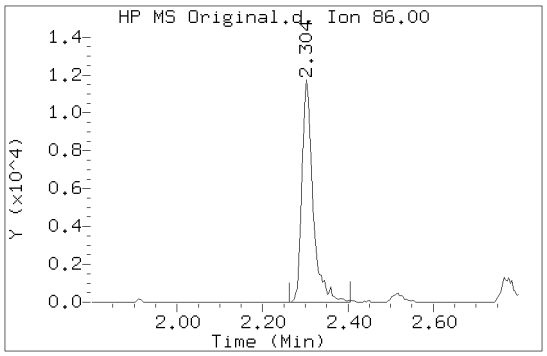
BEFORE
MASS
84
AREA
32325
HEIGHT
17936
27-Dec-2022
16:03
linh
pham



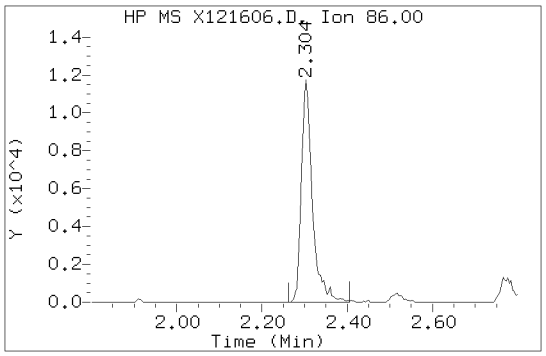
AFTER
MASS
84
AREA
22932
HEIGHT
17936
27-Dec-2022
16:07
linh
pham



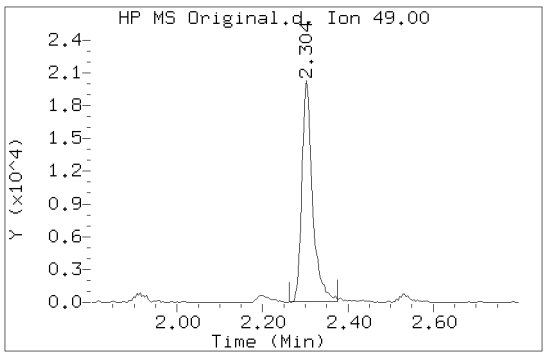
BEFORE
MASS
86
AREA
21691
HEIGHT
11740
27-Dec-2022
16:03
linh
pham



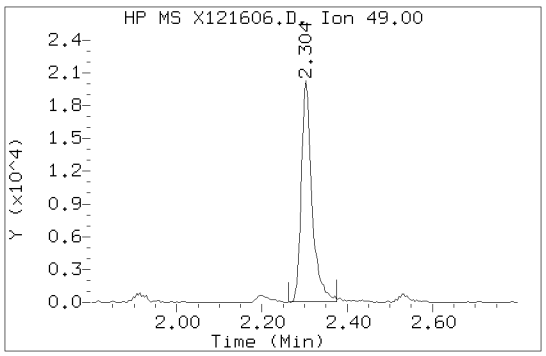
AFTER
MASS
86
AREA
21691
HEIGHT
11740
27-Dec-2022
16:07
linh
pham



BEFORE
MASS
49
AREA
35909
HEIGHT
20222
27-Dec-2022
16:03
linh
pham



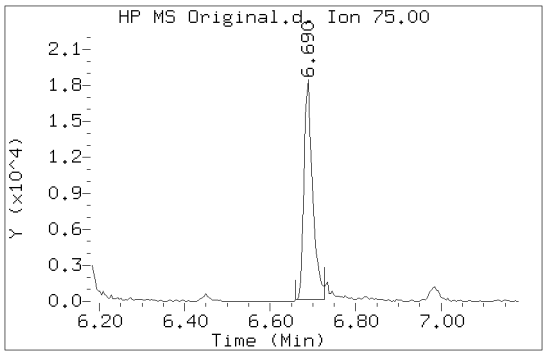
AFTER
MASS
49
AREA
35909
HEIGHT
20222
27-Dec-2022
16:07
linh
pham



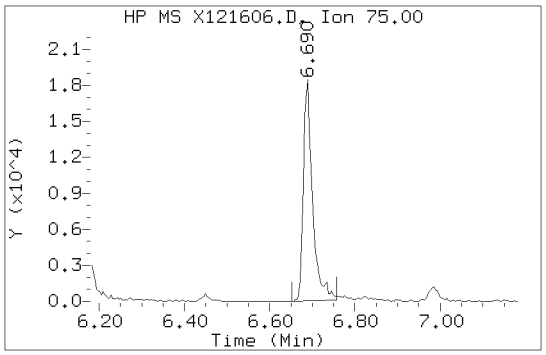
trans-1,3-Dichloropropene (10061-02-6)

Reason Code:

BEFORE
MASS
75
AREA
26483
HEIGHT
18306
27-Dec-2022
16:03
linh
pham



AFTER
MASS
75
AREA
28399
HEIGHT
18443
27-Dec-2022
16:07
linh
pham



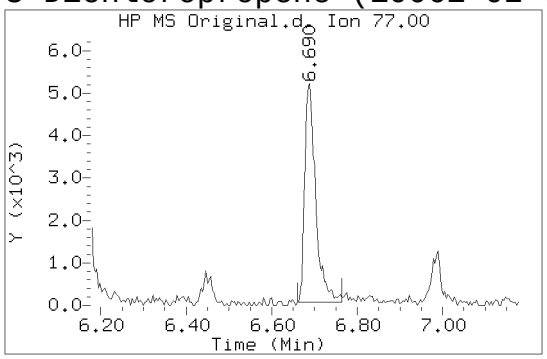
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121606.D
Inj Date : 16-DEC-2022 13:23
InstruID : voa6.i
LabSampID : VSTD005

trans-1,3-Dichloropropene (10061-02-6)

Reason Code:

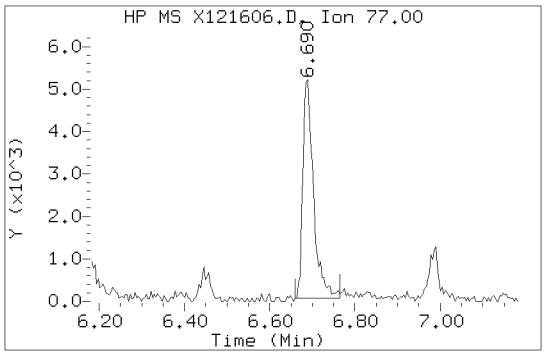
BEFORE

MASS
77
AREA
9244
HEIGHT
5154
27-Dec-2022
16:03
linh
pham



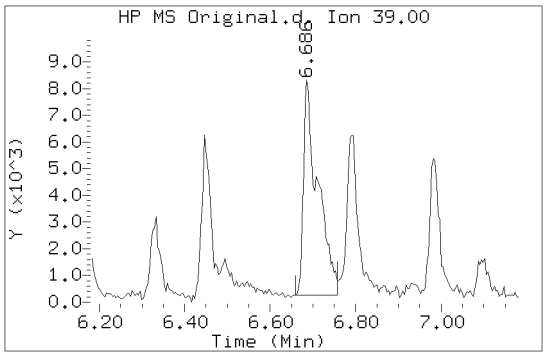
AFTER

MASS
77
AREA
9244
HEIGHT
5154
27-Dec-2022
16:07
linh
pham



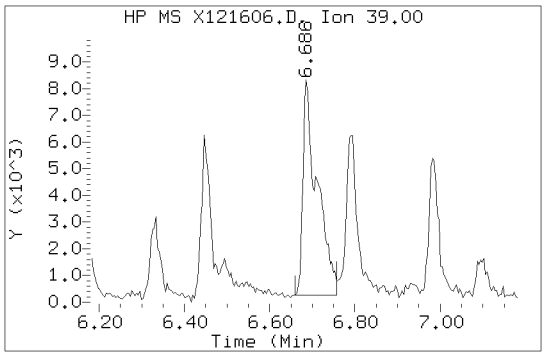
BEFORE

MASS
39
AREA
19092
HEIGHT
8065
27-Dec-2022
16:03
linh
pham



AFTER

MASS
39
AREA
19092
HEIGHT
8065
27-Dec-2022
16:07
linh
pham

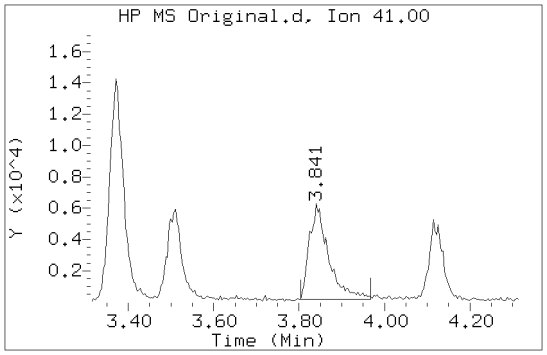


Methacrylonitrile (126-98-7)

Reason Code:

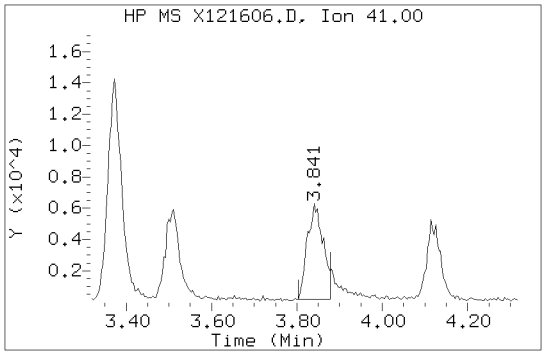
BEFORE

MASS
41
AREA
18790
HEIGHT
6109
27-Dec-2022
16:03
linh
pham



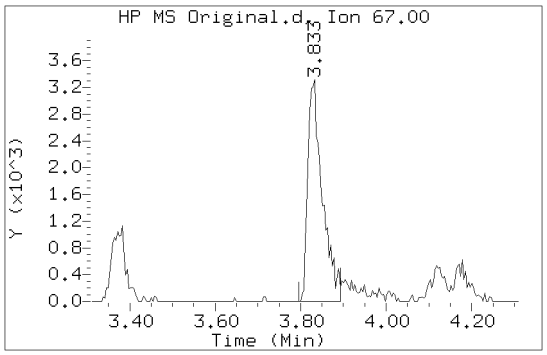
AFTER

MASS
41
AREA
15701
HEIGHT
6109
27-Dec-2022
16:07
linh
pham



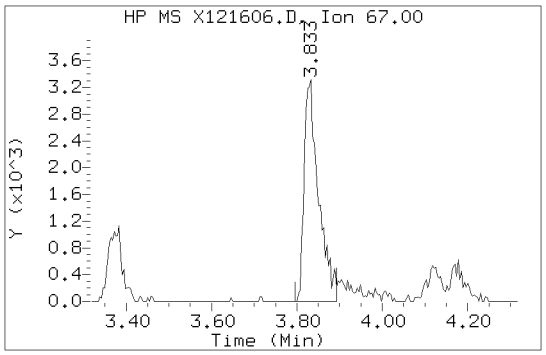
BEFORE

MASS
67
AREA
7866
HEIGHT
3315
27-Dec-2022
16:03
linh
pham



AFTER

MASS
67
AREA
7866
HEIGHT
3315
27-Dec-2022
16:07
linh
pham

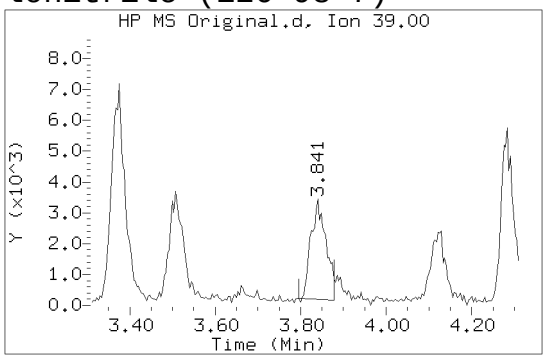


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121606.D
Inj Date : 16-DEC-2022 13:23
InstruID : voa6.i
LabSampID : VSTD005

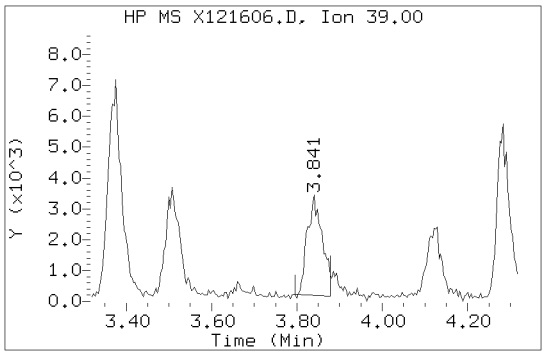
Methacrylonitrile (126-98-7)

Reason Code:

BEFORE
MASS
39
AREA
7951
HEIGHT
3252
27-Dec-2022
16:03
linh
pham



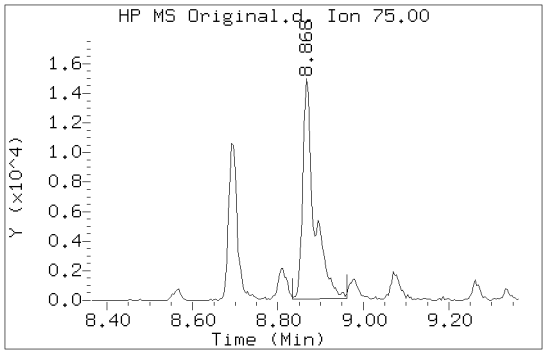
AFTER
MASS
39
AREA
7951
HEIGHT
3252
27-Dec-2022
16:07
linh
pham



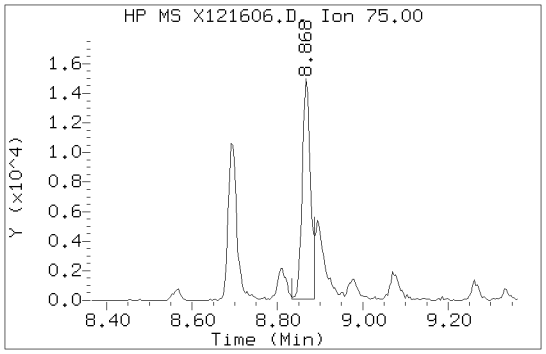
1,2,3-Trichloropropane (96-18-4)

Reason Code:

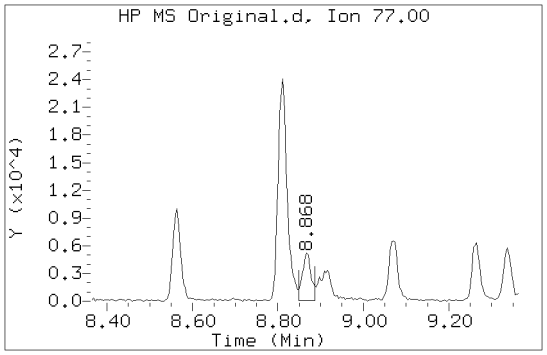
BEFORE
MASS
75
AREA
28905
HEIGHT
14911
27-Dec-2022
16:03
linh
pham



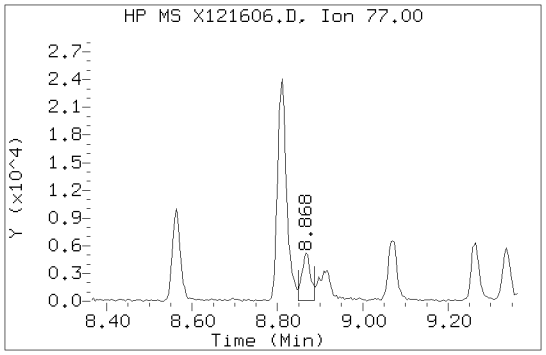
AFTER
MASS
75
AREA
20685
HEIGHT
14911
27-Dec-2022
16:07
linh
pham



BEFORE
MASS
77
AREA
7524
HEIGHT
5143
27-Dec-2022
16:03
linh
pham



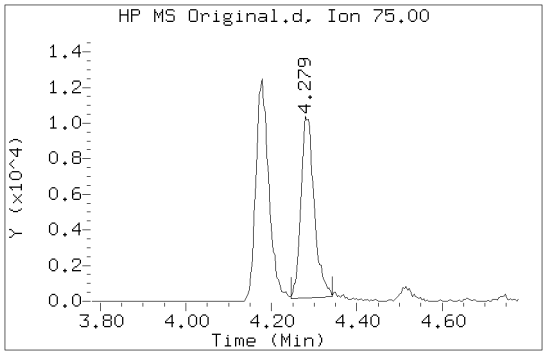
AFTER
MASS
77
AREA
7524
HEIGHT
5143
27-Dec-2022
16:07
linh
pham



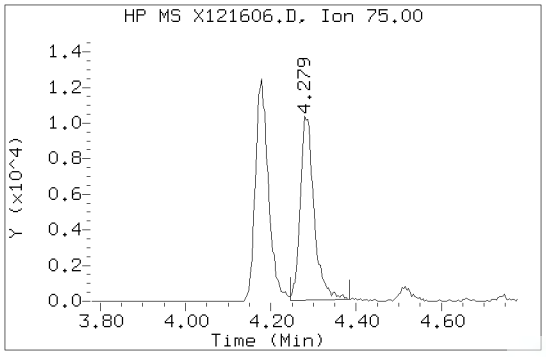
1,1-Dichloropropene (563-58-6)

Reason Code:

BEFORE
MASS
75
AREA
22411
HEIGHT
10201
27-Dec-2022
16:03
linh
pham



AFTER
MASS
75
AREA
23845
HEIGHT
10354
27-Dec-2022
16:07
linh
pham



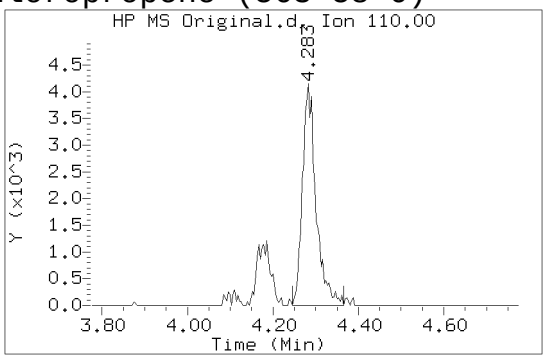
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121606.D
Inj Date : 16-DEC-2022 13:23
InstruID : voa6.i
LabSampID : VSTD005

1,1-Dichloropropene (563-58-6)

Reason Code:

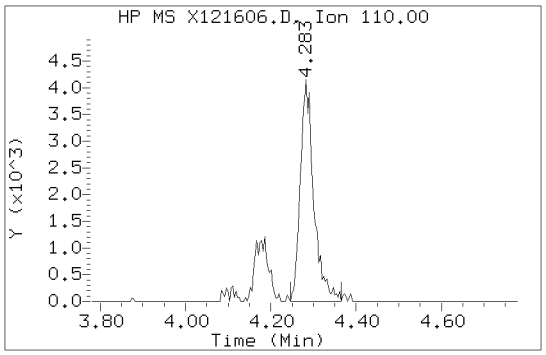
BEFORE

MASS
110
AREA
9244
HEIGHT
4151
27-Dec-2022
16:03
linh
pham



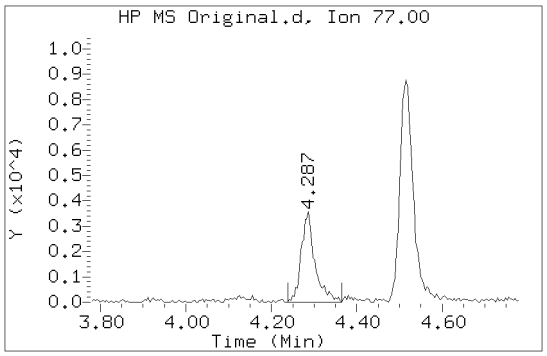
AFTER

MASS
110
AREA
9244
HEIGHT
4151
27-Dec-2022
16:07
linh
pham



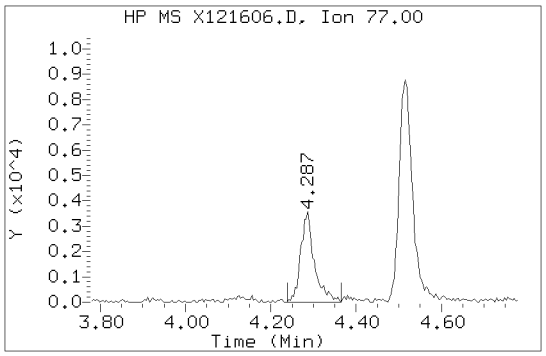
BEFORE

MASS
77
AREA
8083
HEIGHT
3567
27-Dec-2022
16:03
linh
pham



AFTER

MASS
77
AREA
8083
HEIGHT
3567
27-Dec-2022
16:07
linh
pham

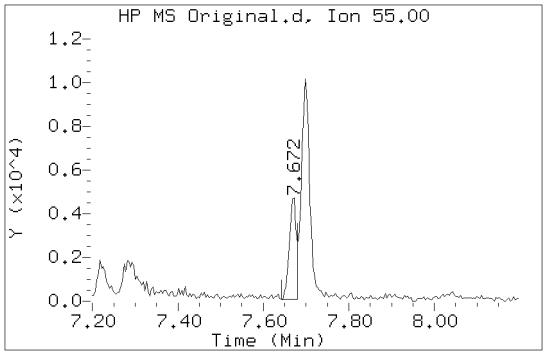


1-Chlorohexane (544-10-5)

Reason Code:

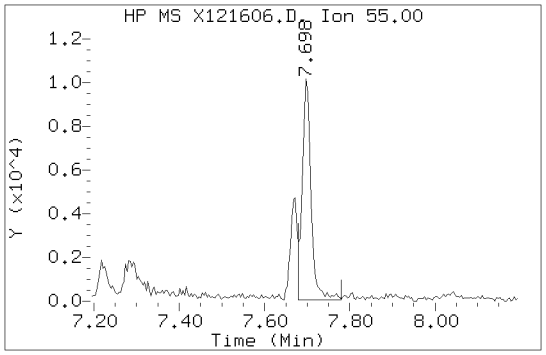
BEFORE

MASS
55
AREA
5371
HEIGHT
4660
27-Dec-2022
16:03
linh
pham



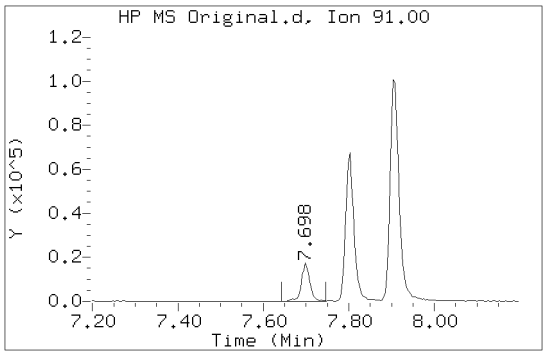
AFTER

MASS
55
AREA
15210
HEIGHT
10126
27-Dec-2022
16:07
linh
pham



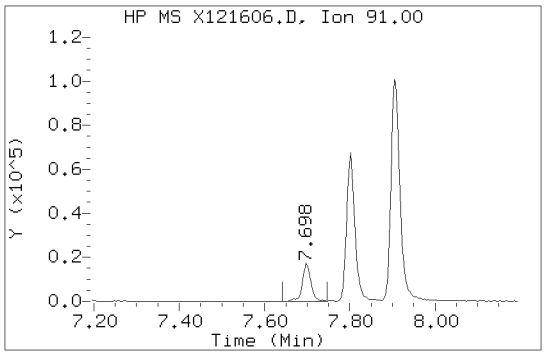
BEFORE

MASS
91
AREA
24578
HEIGHT
17336
27-Dec-2022
16:03
linh
pham



AFTER

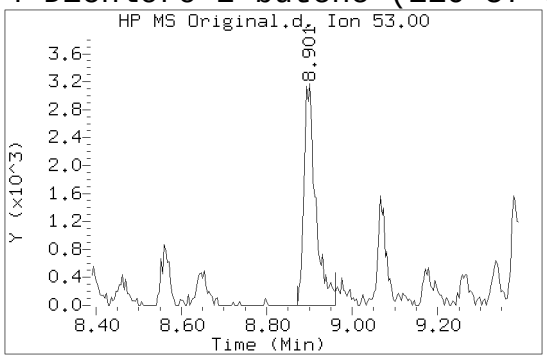
MASS
91
AREA
24578
HEIGHT
17336
27-Dec-2022
16:07
linh
pham



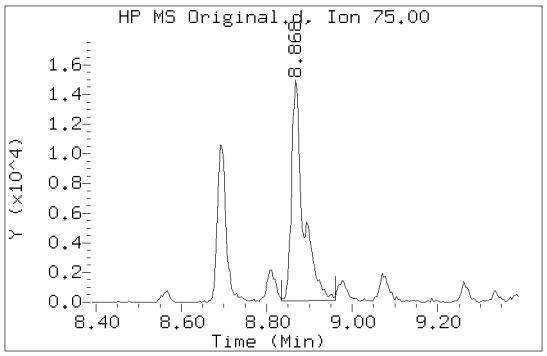
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121606.D
Inj Date : 16-DEC-2022 13:23
InstruID : voa6.i
LabSampID : VSTD005

trans-1,4-Dichloro-2-butene (110-57-6)

BEFORE
MASS
53
AREA
6122
HEIGHT
3172
27-Dec-2022
16:03
linh
pham

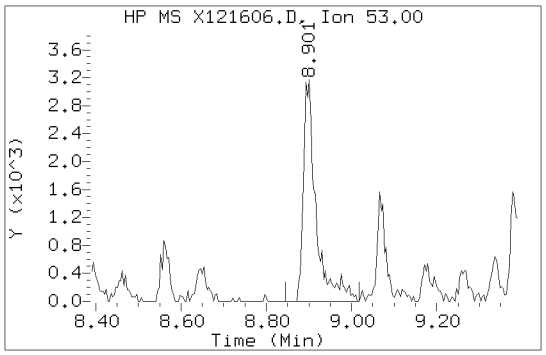


BEFORE
MASS
75
AREA
28905
HEIGHT
14911
27-Dec-2022
16:03
linh
pham

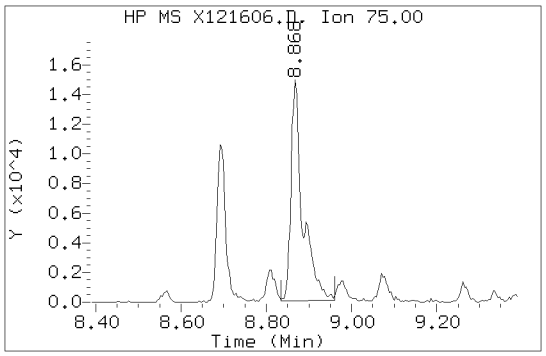


Reason Code:

AFTER
MASS
53
AREA
6648
HEIGHT
3172
27-Dec-2022
16:07
linh
pham

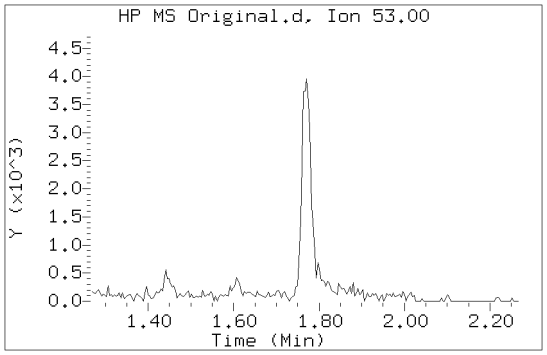


AFTER
MASS
75
AREA
28905
HEIGHT
14911
27-Dec-2022
16:07
linh
pham

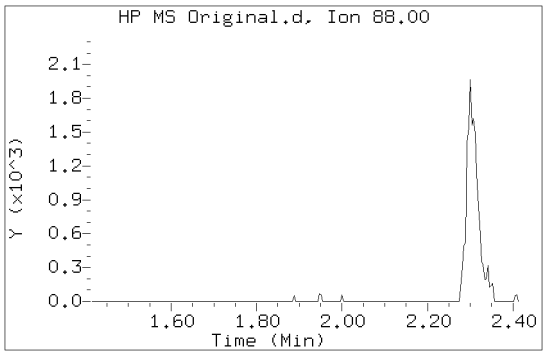


Chloroprene (126-99-8)

BEFORE
MASS
53
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham

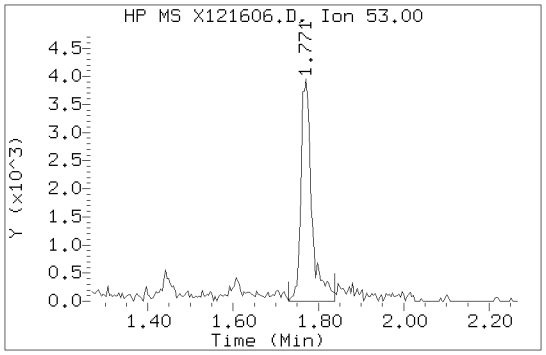


BEFORE
MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham

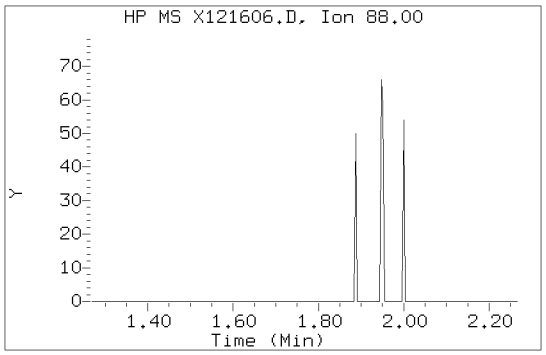


Reason Code:

AFTER
MASS
53
AREA
7154
HEIGHT
3955
27-Dec-2022
16:07
linh
pham



AFTER
MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



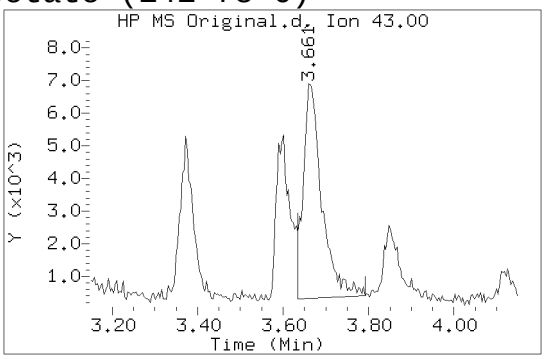
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121606.D
Inj Date : 16-DEC-2022 13:23
InstruID : voa6.i
LabSampID : VSTD005

Ethyl Acetate (141-78-6)

Reason Code:

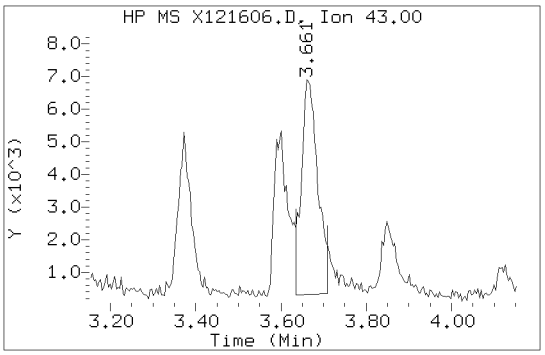
BEFORE

MASS
43
AREA
20113
HEIGHT
6576
27-Dec-2022
16:03
linh
pham



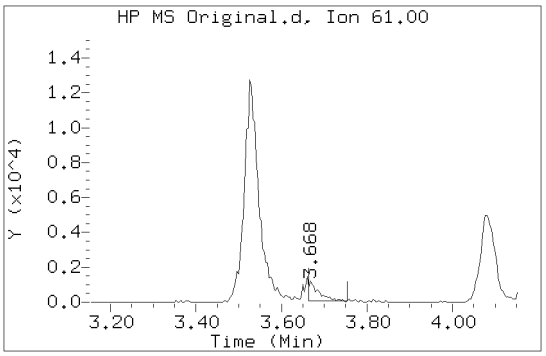
AFTER

MASS
43
AREA
18020
HEIGHT
6576
27-Dec-2022
16:07
linh
pham



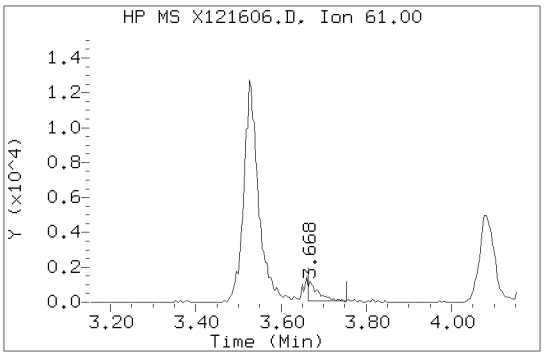
BEFORE

MASS
61
AREA
1766
HEIGHT
1155
27-Dec-2022
16:03
linh
pham



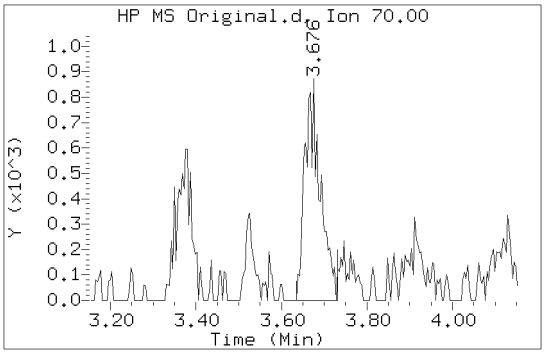
AFTER

MASS
61
AREA
1766
HEIGHT
1155
27-Dec-2022
16:07
linh
pham



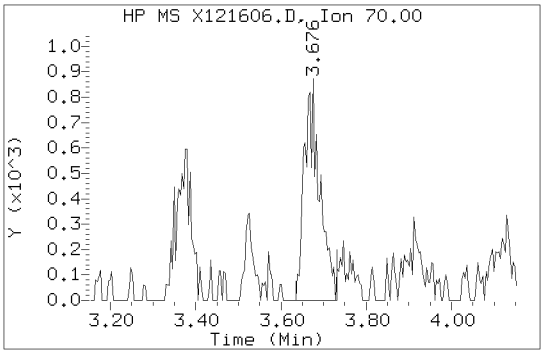
BEFORE

MASS
70
AREA
2205
HEIGHT
873
27-Dec-2022
16:03
linh
pham



AFTER

MASS
70
AREA
2205
HEIGHT
873
27-Dec-2022
16:07
linh
pham

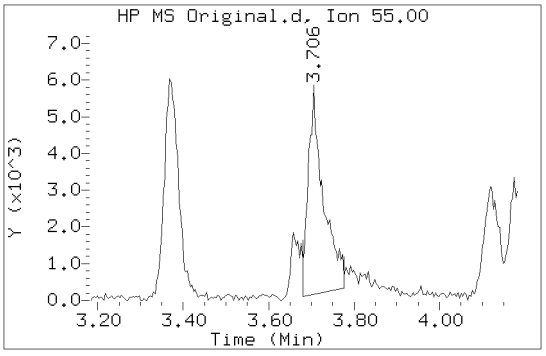


Methyl Acrylate (96-33-3)

Reason Code:

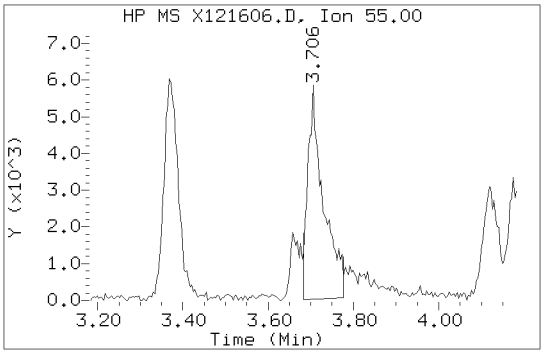
BEFORE

MASS
55
AREA
14157
HEIGHT
5696
27-Dec-2022
16:03
linh
pham



AFTER

MASS
55
AREA
14950
HEIGHT
5831
27-Dec-2022
16:07
linh
pham



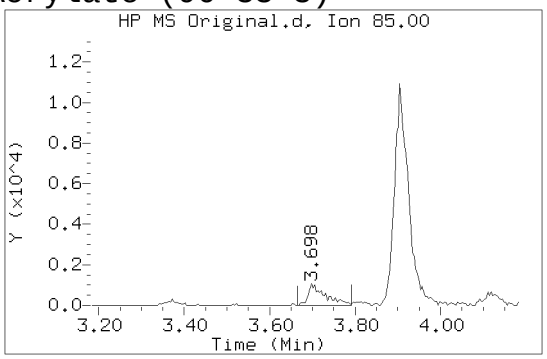
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121606.D
Inj Date : 16-DEC-2022 13:23
InstruID : voa6.i
LabSampID : VSTD005

Methyl Acrylate (96-33-3)

Reason Code:

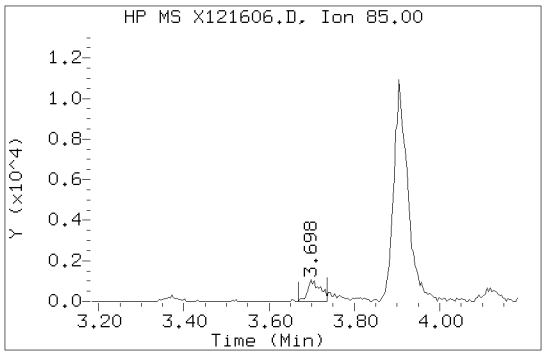
BEFORE

MASS
85
AREA
2934
HEIGHT
1073
27-Dec-2022
16:03
linh
pham



AFTER

MASS
85
AREA
2159
HEIGHT
1073
27-Dec-2022
16:07
linh
pham

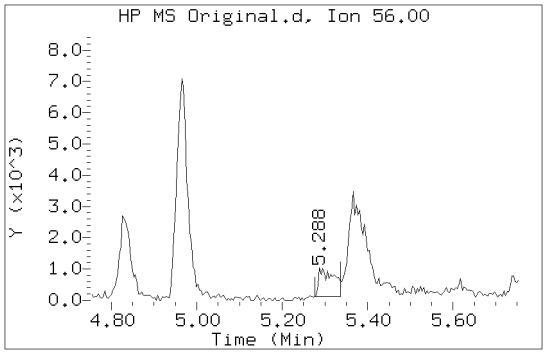


n-Butanol (71-36-3)

Reason Code:

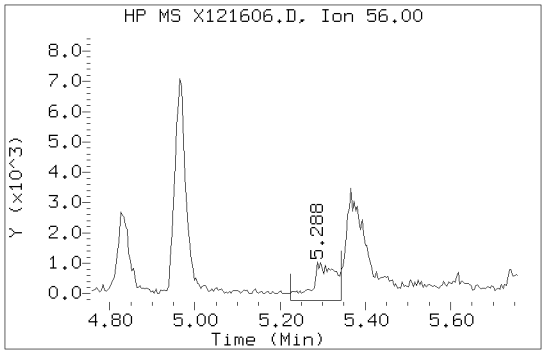
BEFORE

MASS
56
AREA
2243
HEIGHT
922
27-Dec-2022
16:03
linh
pham



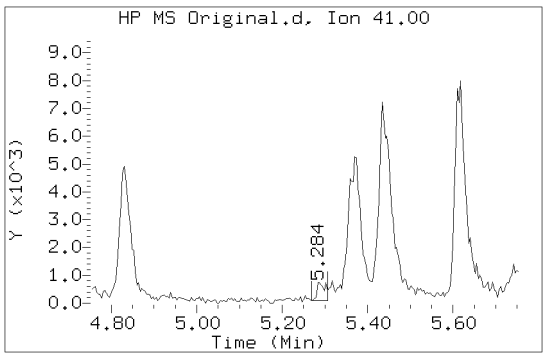
AFTER

MASS
56
AREA
4891
HEIGHT
1266
27-Dec-2022
16:07
linh
pham



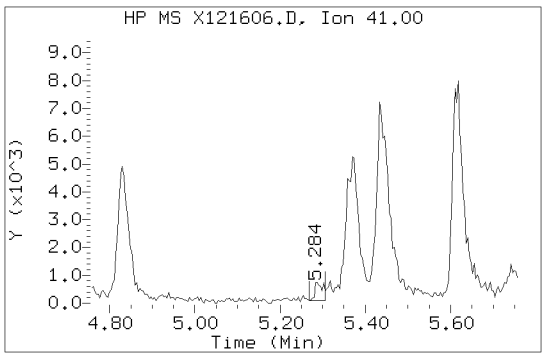
BEFORE

MASS
41
AREA
876
HEIGHT
641
27-Dec-2022
16:03
linh
pham



AFTER

MASS
41
AREA
876
HEIGHT
641
27-Dec-2022
16:07
linh
pham

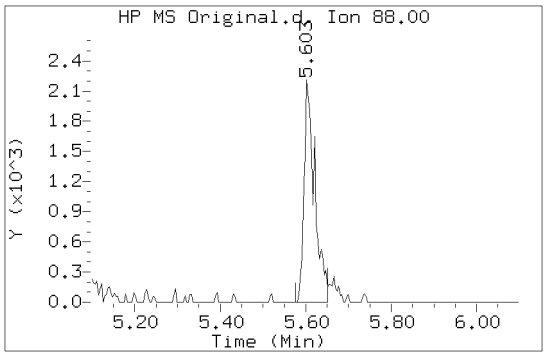


1,4-Dioxane ()

Reason Code:

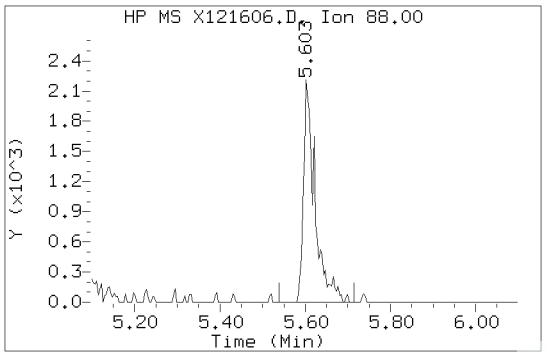
BEFORE

MASS
88
AREA
3873
HEIGHT
2211
27-Dec-2022
16:03
linh
pham



AFTER

MASS
88
AREA
4197
HEIGHT
2211
27-Dec-2022
16:07
linh
pham



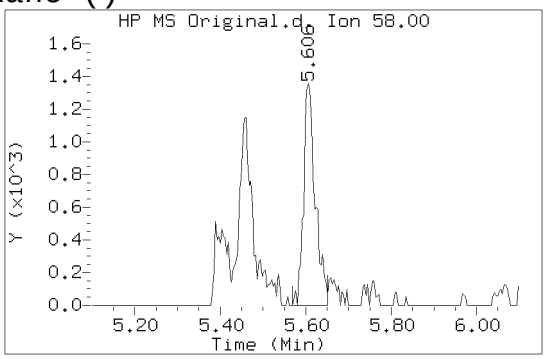
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121606.D
Inj Date : 16-DEC-2022 13:23
InstruID : voa6.i
LabSampID : VSTD005

1,4-Dioxane ()

Reason Code:

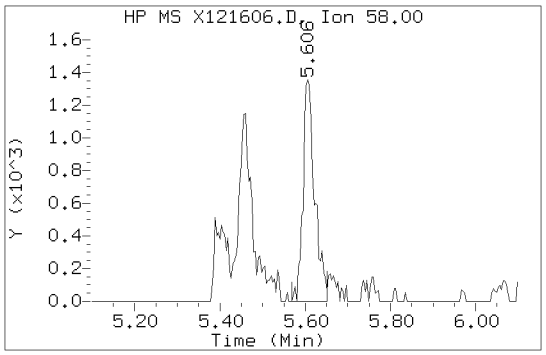
BEFORE

MASS
58
AREA
2625
HEIGHT
1356
27-Dec-2022
16:03
linh
pham



AFTER

MASS
58
AREA
2625
HEIGHT
1356
27-Dec-2022
16:07
linh
pham

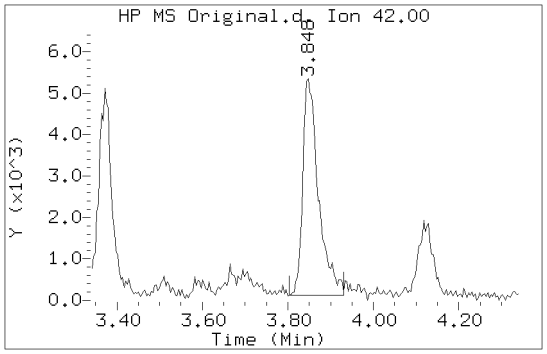


Tetrahydrofuran (109-99-9)

Reason Code:

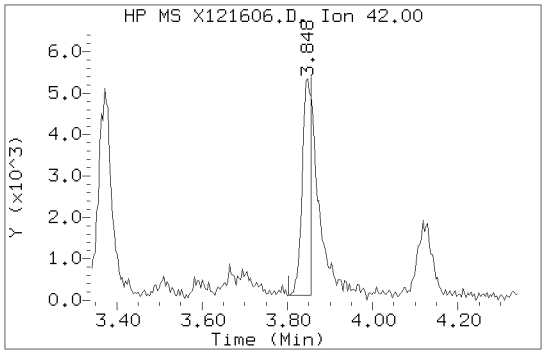
BEFORE

MASS
42
AREA
13557
HEIGHT
5225
27-Dec-2022
16:03
linh
pham



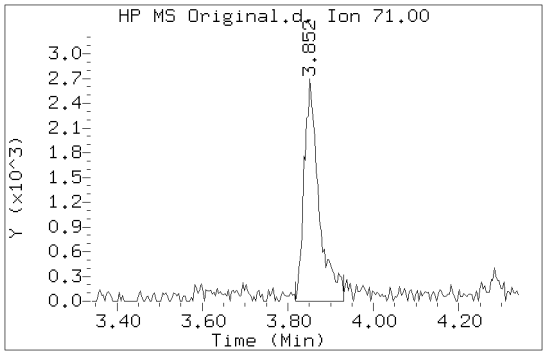
AFTER

MASS
42
AREA
7598
HEIGHT
5225
27-Dec-2022
16:07
linh
pham



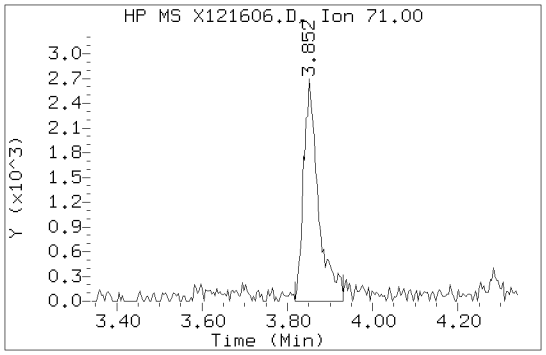
BEFORE

MASS
71
AREA
6572
HEIGHT
2695
27-Dec-2022
16:03
linh
pham



AFTER

MASS
71
AREA
6572
HEIGHT
2695
27-Dec-2022
16:07
linh
pham

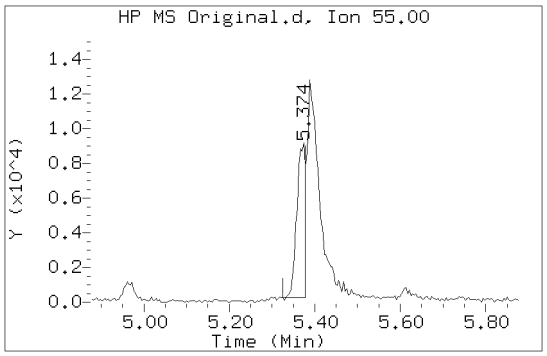


Methylcyclohexane (108-87-2)

Reason Code:

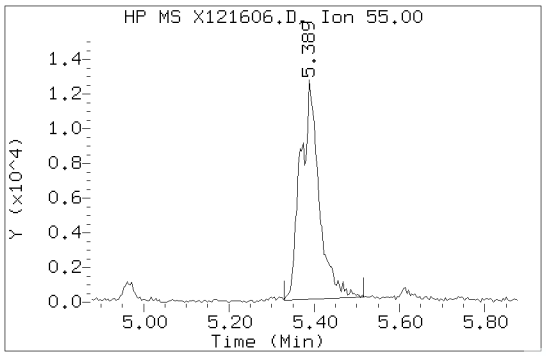
BEFORE

MASS
55
AREA
12381
HEIGHT
8941
27-Dec-2022
16:03
linh
pham



AFTER

MASS
55
AREA
38650
HEIGHT
12647
27-Dec-2022
16:07
linh
pham

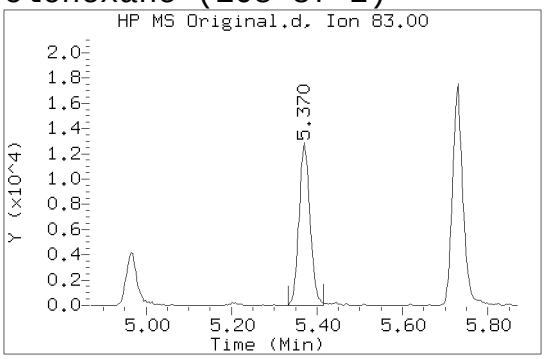


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121606.D
Inj Date : 16-DEC-2022 13:23
InstruID : voa6.i
LabSampID : VSTD005

Methylcyclohexane (108-87-2)

BEFORE

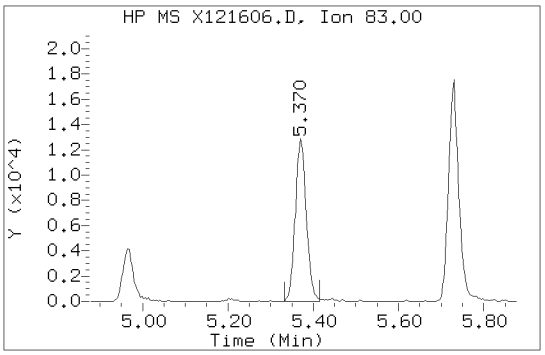
MASS
83
AREA
23564
HEIGHT
12870
27-Dec-2022
16:03
linh
pham



Reason Code:

AFTER

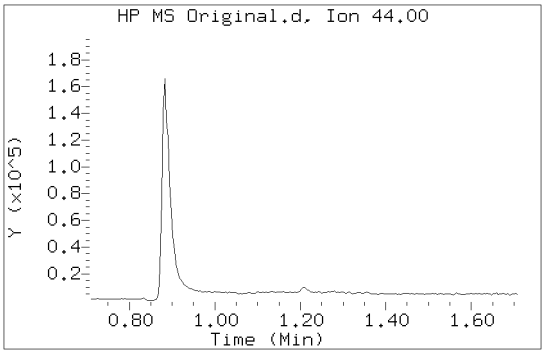
MASS
83
AREA
23564
HEIGHT
12870
27-Dec-2022
16:07
linh
pham



Acetaldehyde (75-07-0)

BEFORE

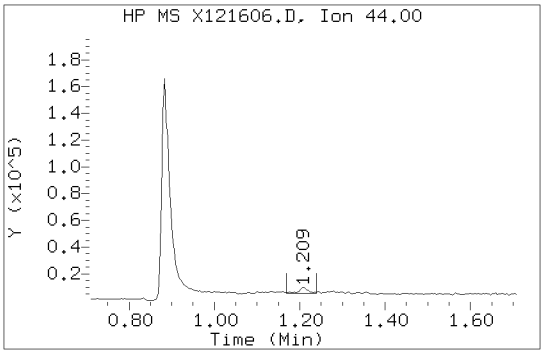
MASS
44
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



Reason Code:

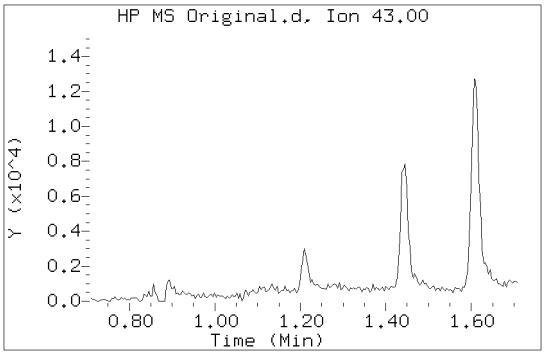
AFTER

MASS
44
AREA
6161
HEIGHT
4314
27-Dec-2022
16:07
linh
pham



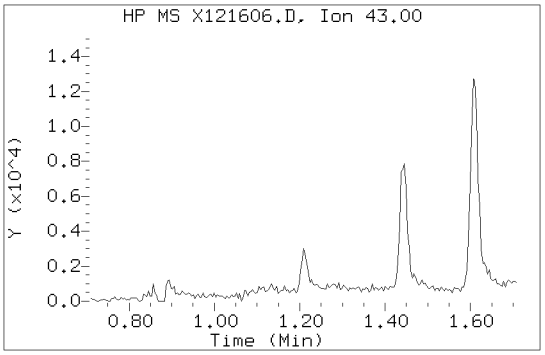
BEFORE

MASS
43
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



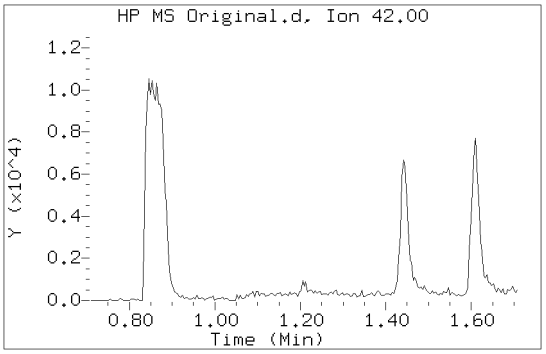
AFTER

MASS
43
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



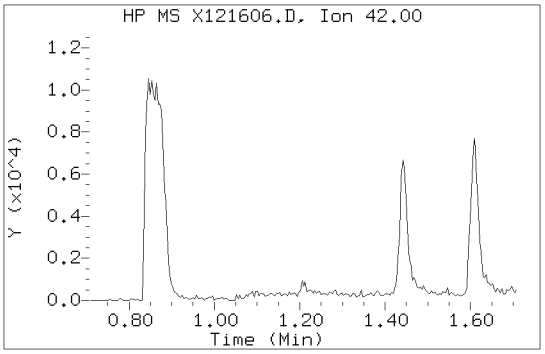
BEFORE

MASS
42
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
42
AREA
0
HEIGHT
0
27-Dec-2022
16:07
linh
pham



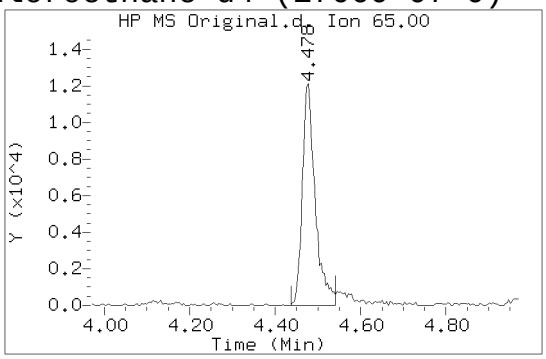
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121606.D
Inj Date : 16-DEC-2022 13:23
InstruID : voa6.i
LabSampID : VSTD005

1,2-Dichloroethane-d4 (17060-07-0)

Reason Code:

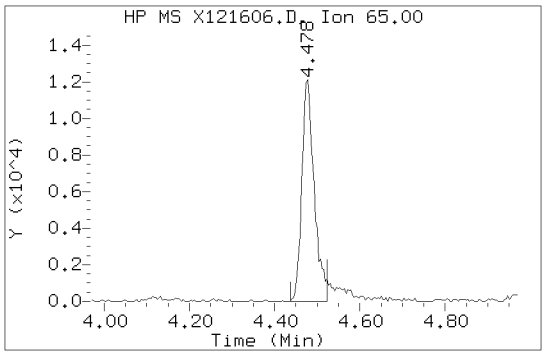
BEFORE

MASS
65
AREA
25815
HEIGHT
12121
27-Dec-2022
16:03
linh
pham



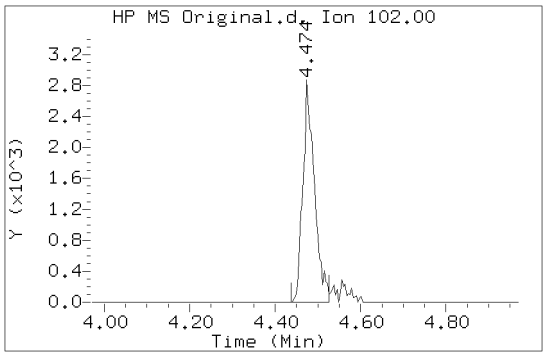
AFTER

MASS
65
AREA
24938
HEIGHT
12121
27-Dec-2022
16:07
linh
pham



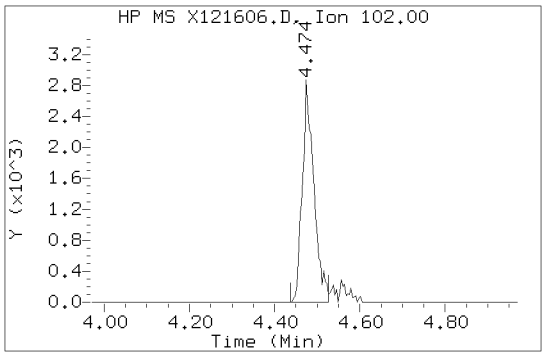
BEFORE

MASS
102
AREA
5492
HEIGHT
2873
27-Dec-2022
16:03
linh
pham



AFTER

MASS
102
AREA
5492
HEIGHT
2873
27-Dec-2022
16:07
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121607.D Page 1
Report Date: 27-Dec-2022 16:07

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121607.D
Lab Smp Id: VSTD020 Client Smp ID: VSTD020
Inj Date : 16-DEC-2022 13:43
Operator : PC Inst ID: voa6.i
Smp Info : VSTD020;VSTD020;1;6;
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\8260W.m
Meth Date : 27-Dec-2022 16:07 voa6.i Quant Type: ISTD
Cal Date : 16-DEC-2022 13:23 Cal File: X121606.D
Als bottle: 8 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260V6.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.178	4.178	(1.000)	459407	50.0000	
135 1,4-Dioxane	88	5.598	5.598	(1.340)	16105	400.000	383.50(M)
140 1,3-Butadiene	54	1.164	1.164	(0.279)	58280	20.0000	18.48
25 Methacrylonitrile	41	3.821	3.821	(0.915)	62911	20.0000	19.33
12 Isobutyl Alcohol	43	4.672	4.672	(1.118)	201008	400.000	388.99
13 Acetonitrile	39	2.195	2.195	(0.525)	81163	200.000	194.11
14 Allyl Chloride	41	2.195	2.195	(0.525)	150748	20.0000	18.93
4 Propionitrile	54	3.653	3.653	(0.874)	85562	200.000	182.52
136 n-Hexane	57	2.768	2.768	(0.663)	65476	20.0000	19.79
72 trans-1,4-Dichloro-2-butene	53	8.893	8.893	(1.160)	26140	20.0000	18.70
194 Acetaldehyde	44	1.209	1.209	(0.289)	32393	80.0000	100.98(M)
23 Chloroprene	53	1.767	1.767	(0.423)	27967	20.0000	17.90(M)
145 alpha-Methylstyrene	118	9.261	9.261	(0.958)	155968	20.0000	19.76
200 Dimethyl Disulfide	94	6.198	6.198	(0.808)	171978	20.0000	19.62
139 Diethyl ether	59	1.756	1.756	(0.420)	55275	20.0000	18.00
130 Ethyl Acetate	43	3.660	3.660	(0.876)	75163	20.0000	20.96
40 Methyl Methacrylate	41	5.606	5.606	(1.342)	56242	20.0000	17.95
49 Ethyl Methacrylate	69	6.712	6.712	(1.352)	58073	20.0000	18.07
132 n-Butanol	56	5.268	5.268	(1.261)	15012	400.000	294.62
142 Tetrahydrofuran	42	3.848	3.848	(0.921)	28221	40.0000	47.81

150	Allyl alcohol	57	2.768	2.768 (0.663)	65476	400.000	366.93
166	1,2,3-Trimethylbenzene	105	9.729	9.729 (1.007)	331546	20.0000	19.32

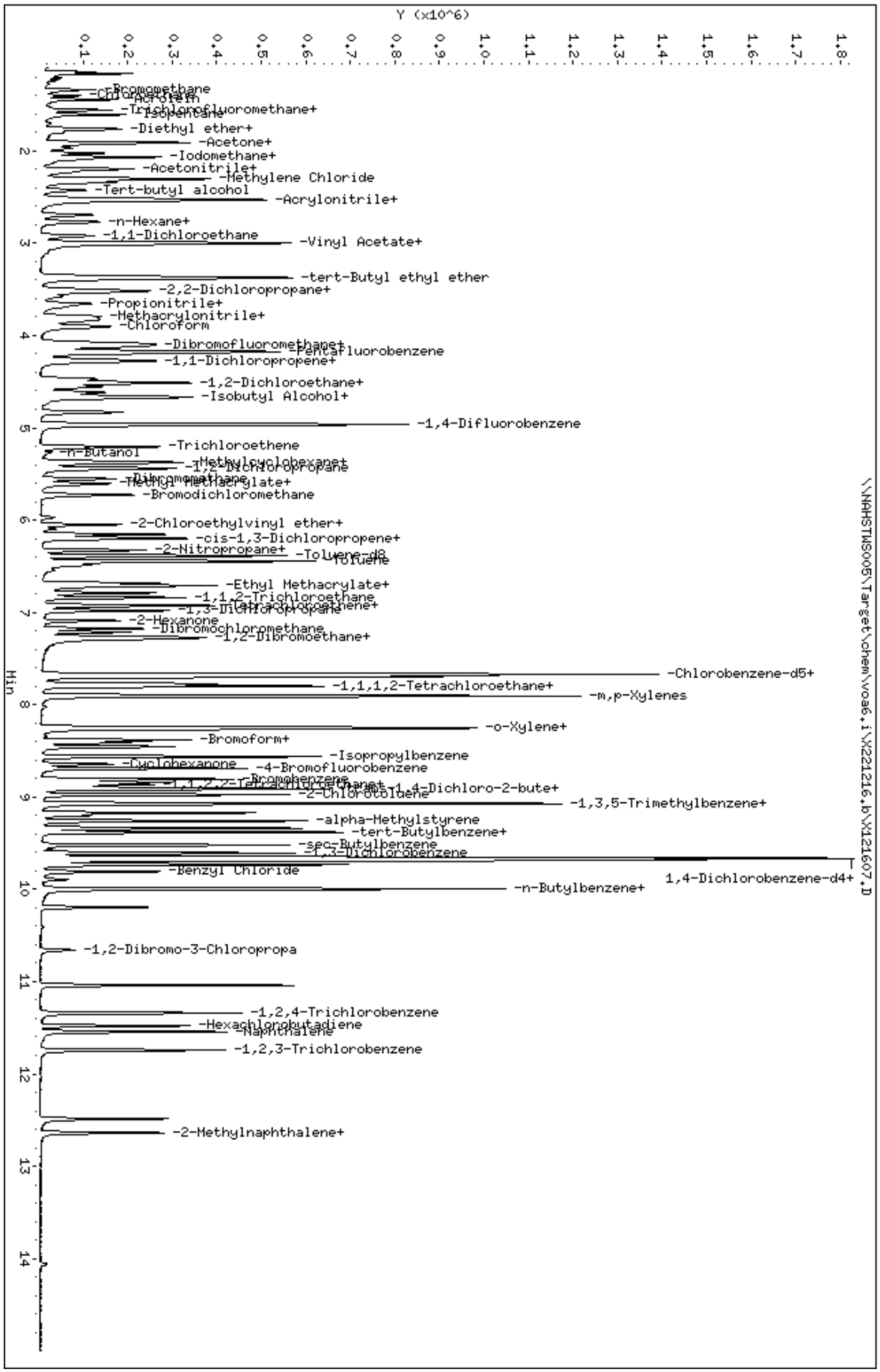
							AMOUNTS	
		QUANT SIG					CAL-AMT	ON-COL
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/l)	(ug/l)
	131 Methyl Acrylate	55	3.690	3.690	(0.883)	57874	20.0000	18.55(M)
	162 Butyl acrylate	55	8.252	8.252	(1.076)	156518	20.0000	18.50
	2 Dichlorodifluoromethane	85	0.972	0.972	(0.233)	63382	20.0000	19.96
	3 Chloromethane	50	1.077	1.077	(0.258)	72324	20.0000	18.84
	5 Vinyl Chloride	62	1.141	1.141	(0.273)	74461	20.0000	18.55
	6 Bromomethane	94	1.340	1.340	(0.321)	52034	20.0000	18.30
	7 Chloroethane	64	1.400	1.400	(0.335)	52021	20.0000	18.62
	8 Trichlorofluoromethane	101	1.557	1.557	(0.373)	106188	20.0000	18.90
	9 Acrolein	56	1.441	1.441	(0.345)	12279	40.0000	40.80
	10 Acetone	43	1.973	1.973	(0.472)	50987	40.0000	39.53
	11 1,1-Dichloroethene	96	1.913	1.913	(0.458)	65650	20.0000	18.82
	15 Iodomethane	142	2.026	2.026	(0.485)	143457	40.0000	34.36
	16 Acrylonitrile	53	2.532	2.532	(0.606)	46552	40.0000	39.36
	17 Methylene Chloride	84	2.303	2.303	(0.551)	94402	20.0000	19.73
	18 Methyl tert-butyl ether	73	2.532	2.532	(0.606)	214504	20.0000	18.79
	19 Carbon Disulfide	76	2.067	2.067	(0.495)	337289	40.0000	36.97
	20 trans-1,2-Dichloroethene	96	2.524	2.524	(0.604)	74471	20.0000	19.08
	21 Vinyl Acetate	43	2.997	2.997	(0.717)	387538	40.0000	38.68
	22 1,1-Dichloroethane	63	2.918	2.918	(0.699)	129644	20.0000	18.93
	24 2-Butanone	43	3.578	3.578	(0.856)	47830	40.0000	36.94(H)
	26 2,2-Dichloropropane	77	3.507	3.507	(0.839)	108952	20.0000	18.73
	27 cis-1,2-Dichloroethene	96	3.525	3.525	(0.844)	88894	20.0000	18.71
	28 Chloroform	83	3.904	3.904	(0.935)	145610	20.0000	18.96
	29 Bromochloromethane	128	3.795	3.795	(0.908)	47919	20.0000	18.42
$	30 Dibromofluoromethane	113	4.099	4.099	(0.981)	90108	20.0000	20.32
	31 1,1,1-Trichloroethane	97	4.080	4.080	(0.977)	116049	20.0000	19.05
	32 1,1-Dichloropropene	75	4.279	4.279	(0.862)	93914	20.0000	19.38
	33 1,2-Dichloroethane	62	4.556	4.556	(0.918)	108750	20.0000	19.45
	34 Carbon Tetrachloride	117	4.260	4.260	(0.858)	93815	20.0000	18.13
$	35 1,2-Dichloroethane-d4	65	4.470	4.470	(1.070)	92990	20.0000	20.13
*	36 1,4-Difluorobenzene	114	4.965	4.965	(1.000)	682389	50.0000	
	37 Benzene	78	4.511	4.511	(0.909)	313141	20.0000	19.21
	38 Trichloroethene	130	5.205	5.205	(1.048)	90292	20.0000	19.53
	39 Bromodichloromethane	83	5.726	5.726	(1.153)	116178	20.0000	18.99
	41 2-Chloroethylvinyl ether	63	6.048	6.048	(1.218)	71559	40.0000	41.12
	42 1,2-Dichloropropane	63	5.437	5.437	(1.095)	82954	20.0000	19.13
	44 Dibromomethane	93	5.553	5.553	(1.119)	57196	20.0000	19.41
	45 4-Methyl-2-Pentanone	43	6.326	6.326	(0.825)	138209	40.0000	39.93
	46 cis-1,3-Dichloropropene	75	6.153	6.153	(1.239)	142141	20.0000	19.79
*	47 Chlorobenzene-d5	117	7.668	7.668	(1.000)	647445	50.0000	
$	48 Toluene-d8	98	6.385	6.385	(0.833)	315179	20.0000	19.70
	50 Toluene	91	6.445	6.445	(0.841)	339968	20.0000	18.99
	51 trans-1,3-Dichloropropene	75	6.682	6.682	(1.346)	116330	20.0000	19.51
	52 2-Hexanone	43	7.086	7.086	(0.924)	93119	40.0000	39.54
	53 1,1,2-Trichloroethane	83	6.839	6.839	(0.892)	69855	20.0000	19.45
	54 1,3-Dichloropropane	76	6.982	6.982	(0.911)	137967	20.0000	19.52
	55 Dibromochloromethane	129	7.176	7.176	(0.936)	100749	20.0000	19.44
	56 Tetrachloroethene	164	6.925	6.925	(0.903)	74611	20.0000	20.15
	57 1,2-Dibromoethane	107	7.263	7.263	(0.947)	88886	20.0000	19.80
	58 1-Chlorohexane	55	7.694	7.694	(1.550)	66757	20.0000	20.24
	59 Chlorobenzene	112	7.694	7.694	(1.003)	240885	20.0000	18.97
	60 1,1,1,2-Tetrachloroethane	131	7.772	7.772	(1.014)	90283	20.0000	19.11

61 Ethylbenzene	106	7.799	7.799 (1.017)	117560	20.0000	19.66
62 m,p-Xylenes	106	7.904	7.904 (1.031)	299082	40.0000	38.80

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	63 o-Xylene	106	8.241	8.241	(1.075)	147602	20.0000	19.40
	64 Styrene	104	8.260	8.260	(1.077)	253280	20.0000	19.86
	66 Bromoform	173	8.410	8.410	(1.097)	69137	20.0000	19.25
	67 Isopropylbenzene	105	8.560	8.560	(1.116)	344283	20.0000	19.80
	68 1,1,2,2-Tetrachloroethane	83	8.837	8.837	(0.915)	112594	20.0000	19.83
$	69 4-Bromofluorobenzene	95	8.691	8.691	(1.133)	116878	20.0000	19.58
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	356229	50.0000	
	71 1,2,3-Trichloropropane	75	8.863	8.863	(0.917)	76967	20.0000	19.41
	73 n-Propylbenzene	91	8.912	8.912	(0.922)	404399	20.0000	20.49
	74 Bromobenzene	156	8.803	8.803	(0.911)	117586	20.0000	20.11
	75 1,3,5-Trimethylbenzene	105	9.070	9.070	(0.939)	295026	20.0000	20.23
	76 2-Chlorotoluene	91	8.976	8.976	(0.929)	256591	20.0000	19.81
	77 4-Chlorotoluene	91	9.070	9.070	(0.939)	294244	20.0000	19.93
	78 tert-Butylbenzene	119	9.336	9.336	(0.966)	242174	20.0000	20.29
	79 1,2,4-Trimethylbenzene	105	9.381	9.381	(0.971)	305461	20.0000	19.91
	81 sec-Butylbenzene	105	9.519	9.519	(0.985)	326826	20.0000	20.58
	82 p-Isopropyltoluene	119	9.651	9.651	(0.999)	294187	20.0000	20.67
	83 1,3-Dichlorobenzene	146	9.606	9.606	(0.994)	197278	20.0000	20.33
	84 1,4-Dichlorobenzene	146	9.684	9.684	(1.002)	207572	20.0000	19.60
	86 Benzyl Chloride	91	9.808	9.808	(1.279)	163895	20.0000	17.99
	87 n-Butylbenzene	91	9.995	9.995	(1.035)	248190	20.0000	19.23
	88 1,2-Dichlorobenzene	146	9.995	9.995	(1.035)	201166	20.0000	20.13
	89 1,2-Dibromo-3-Chloropropane	155	10.663	10.663	(1.104)	18635	20.0000	20.58
	90 1,2,4-Trichlorobenzene	180	11.337	11.337	(1.173)	130463	20.0000	20.69
	91 Hexachlorobutadiene	225	11.480	11.480	(1.188)	55912	20.0000	20.12
	92 Naphthalene	128	11.544	11.544	(1.195)	300432	20.0000	20.94
	93 1,2,3-Trichlorobenzene	180	11.742	11.742	(1.215)	124401	20.0000	20.60
M	94 1,2-Dichloroethylene (total)	96				163365	40.0000	
M	95 Xylenes (total)	106				446684	60.0000	
	141 Cyclohexane	56	4.118	4.118	(0.986)	84355	20.0000	19.01(M)
	138 Freon TF	101	1.910	1.910	(0.457)	64657	20.0000	19.17
	147 Methylcyclohexane	55	5.381	5.381	(1.084)	172044	20.0000	20.59
	146 Methyl Acetate	43	2.228	2.228	(0.533)	38475	20.0000	18.61
	148 Tert-Butyl alcohol	59	2.423	2.423	(0.580)	117583	400.000	369.63
	149 Isopropyl Alcohol	45	2.090	2.090	(0.500)	61646	400.000	371.06

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.



Data File: \\NAHSTMS005\Target\chem\voa6.i\X221216.b\X121607.D
Date : 16-DEC-2022 13:43
Client ID: VSTD020
Sample Info: VSTD020;VSTD020;1;6;
Purge Volume: 5.0
Column phase: DB624

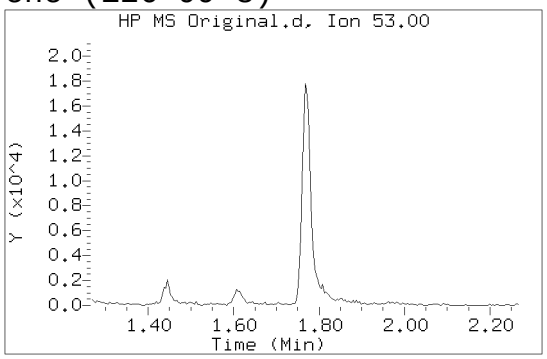
Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121607.D
Inj Date : 16-DEC-2022 13:43
InstruID : voa6.i
LabSampID : VSTD020

Chloroprene (126-99-8)

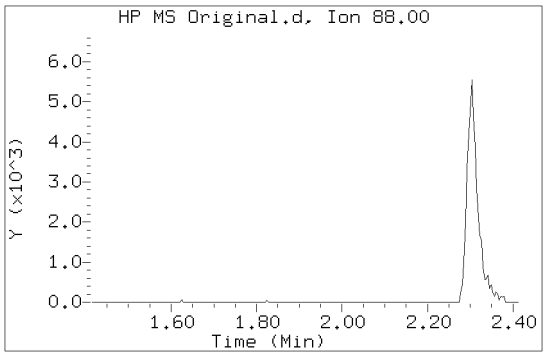
BEFORE

MASS
53
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



BEFORE

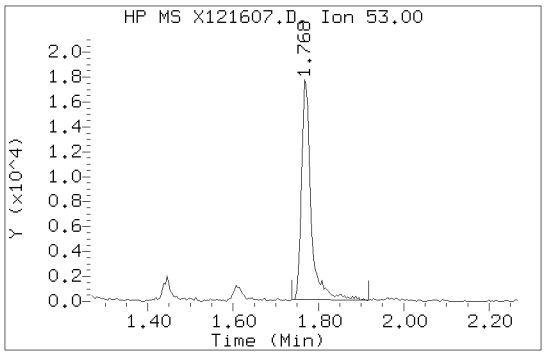
MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



Reason Code:

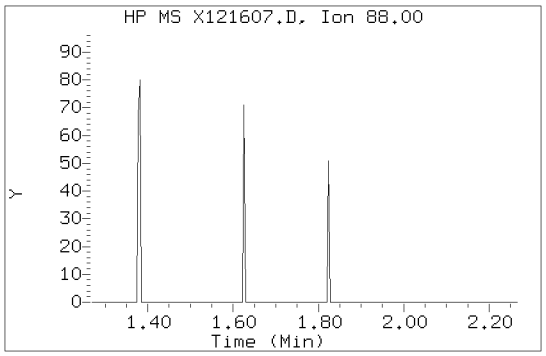
AFTER

MASS
53
AREA
27967
HEIGHT
17627
27-Dec-2022
16:06
linh
pham



AFTER

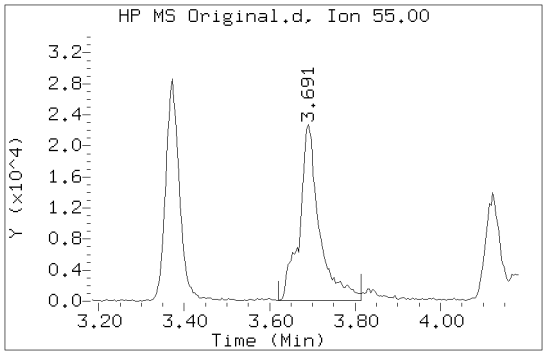
MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:06
linh
pham



Methyl Acrylate (96-33-3)

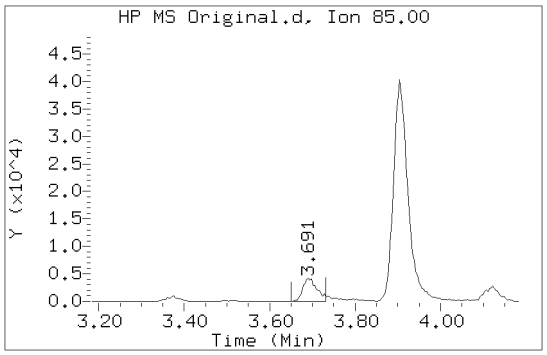
BEFORE

MASS
55
AREA
74503
HEIGHT
22672
27-Dec-2022
16:03
linh
pham



BEFORE

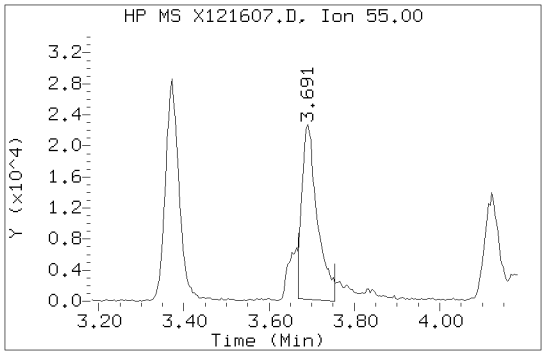
MASS
85
AREA
9792
HEIGHT
4239
27-Dec-2022
16:03
linh
pham



Reason Code:

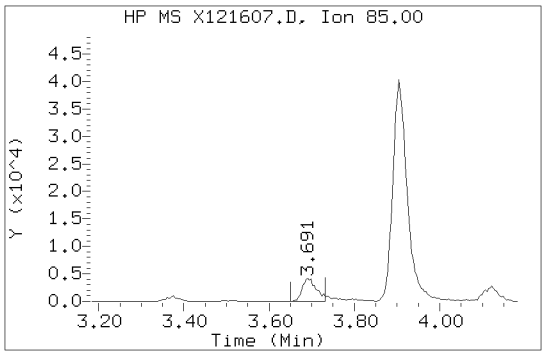
AFTER

MASS
55
AREA
57874
HEIGHT
22490
27-Dec-2022
16:06
linh
pham



AFTER

MASS
85
AREA
9792
HEIGHT
4239
27-Dec-2022
16:06
linh
pham



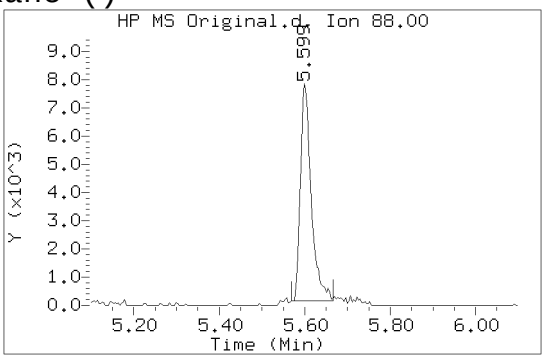
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121607.D
Inj Date : 16-DEC-2022 13:43
InstruID : voa6.i
LabSampID : VSTD020

1,4-Dioxane ()

Reason Code:

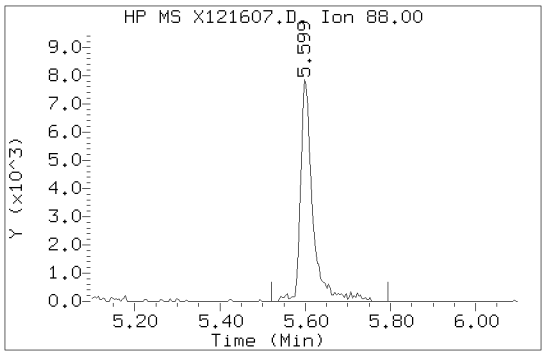
BEFORE

MASS
88
AREA
13920
HEIGHT
7701
27-Dec-2022
16:03
linh
pham



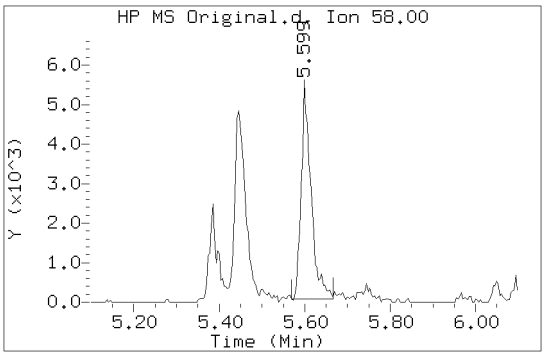
AFTER

MASS
88
AREA
16105
HEIGHT
7857
27-Dec-2022
16:06
linh
pham



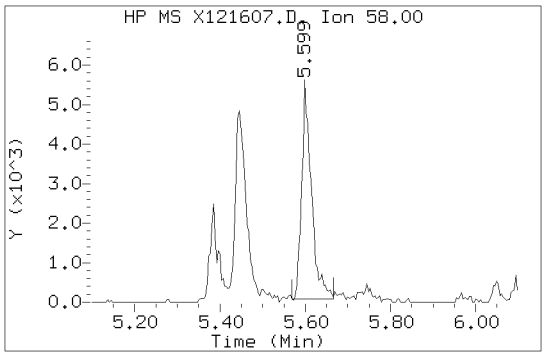
BEFORE

MASS
58
AREA
8930
HEIGHT
5535
27-Dec-2022
16:03
linh
pham



AFTER

MASS
58
AREA
8930
HEIGHT
5535
27-Dec-2022
16:06
linh
pham

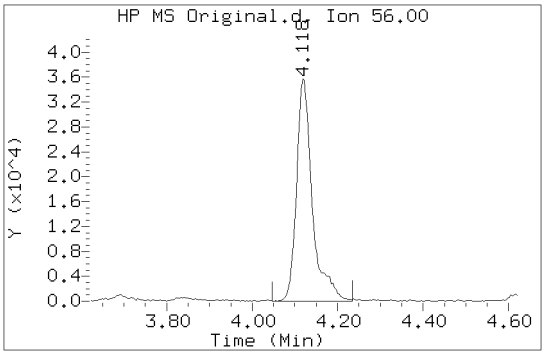


Cyclohexane (110-82-7)

Reason Code:

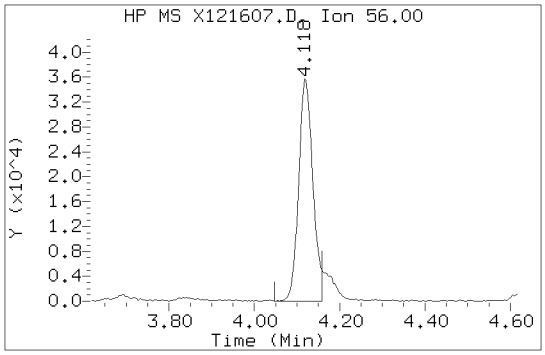
BEFORE

MASS
56
AREA
93540
HEIGHT
35720
27-Dec-2022
16:03
linh
pham



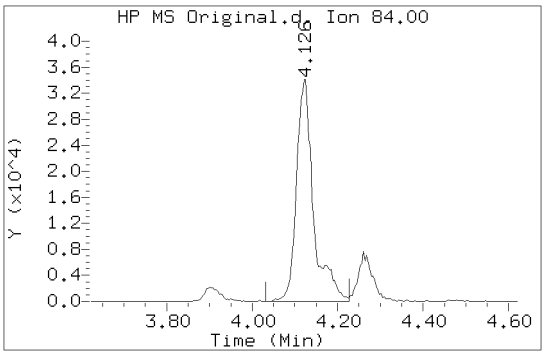
AFTER

MASS
56
AREA
84355
HEIGHT
35720
27-Dec-2022
16:06
linh
pham



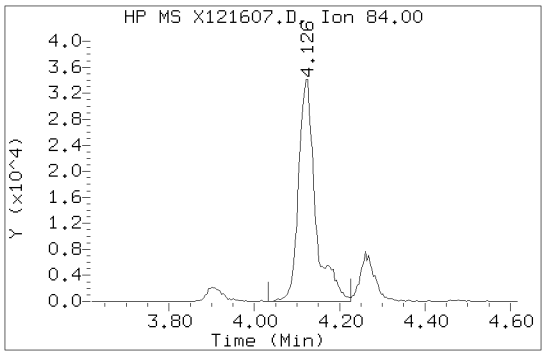
BEFORE

MASS
84
AREA
95724
HEIGHT
34088
27-Dec-2022
16:03
linh
pham



AFTER

MASS
84
AREA
95724
HEIGHT
34088
27-Dec-2022
16:06
linh
pham



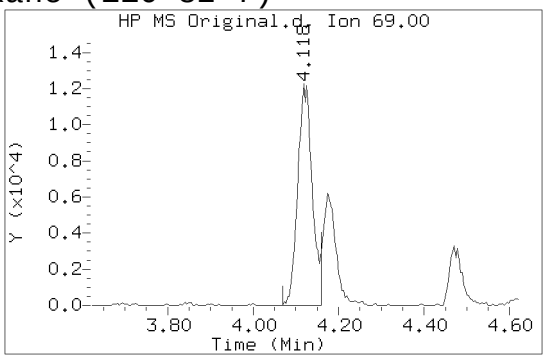
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121607.D
Inj Date : 16-DEC-2022 13:43
InstruID : voa6.i
LabSampID : VSTD020

Cyclohexane (110-82-7)

Reason Code:

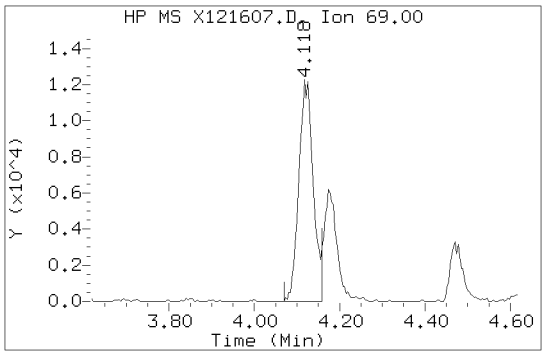
BEFORE

MASS
69
AREA
29515
HEIGHT
12273
27-Dec-2022
16:03
linh
pham



AFTER

MASS
69
AREA
29515
HEIGHT
12273
27-Dec-2022
16:06
linh
pham

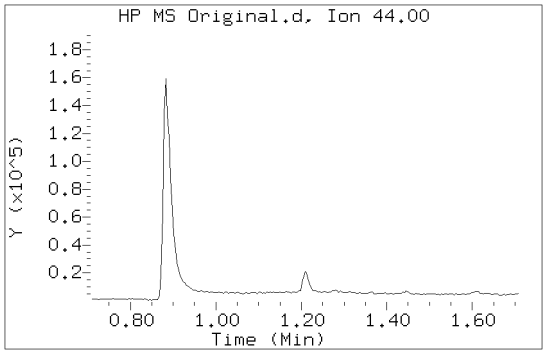


Acetaldehyde (75-07-0)

Reason Code:

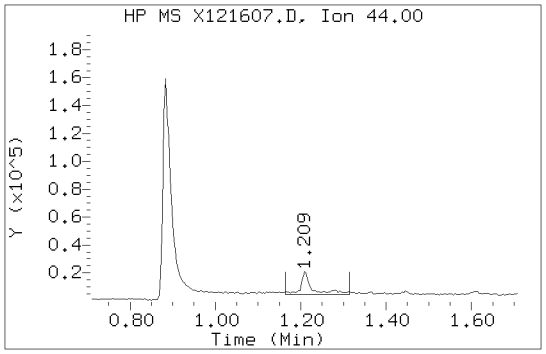
BEFORE

MASS
44
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



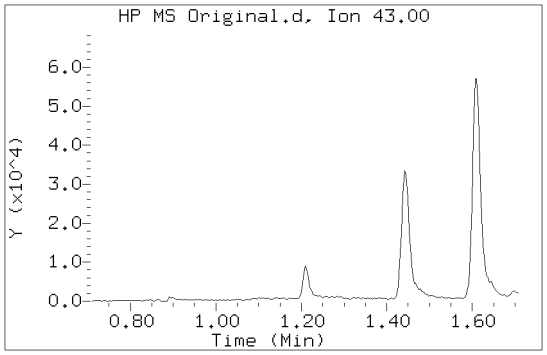
AFTER

MASS
44
AREA
32393
HEIGHT
16632
27-Dec-2022
16:06
linh
pham



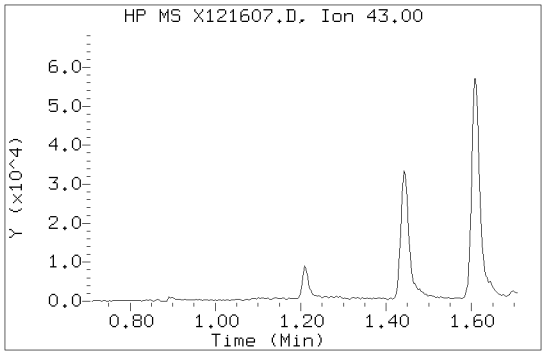
BEFORE

MASS
43
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



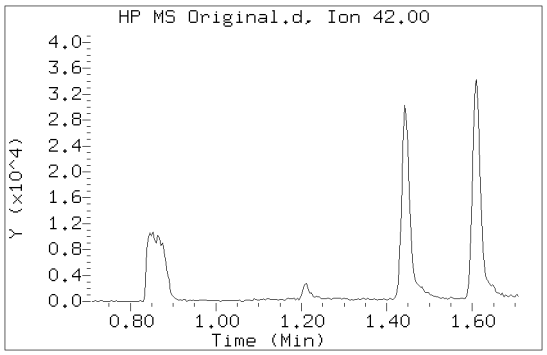
AFTER

MASS
43
AREA
0
HEIGHT
0
27-Dec-2022
16:06
linh
pham



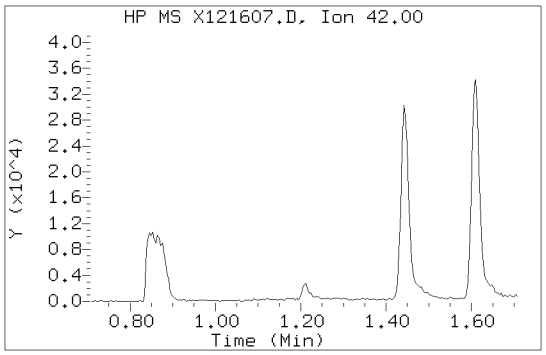
BEFORE

MASS
42
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



AFTER

MASS
42
AREA
0
HEIGHT
0
27-Dec-2022
16:06
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121608.D Page 1
Report Date: 27-Dec-2022 16:07

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121608.D
Lab Smp Id: VSTD050 Client Smp ID: VSTD050
Inj Date : 16-DEC-2022 14:04
Operator : PC Inst ID: voa6.i
Smp Info : VSTD050;VSTD050;1;7;
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\8260W.m
Meth Date : 27-Dec-2022 16:07 voa6.i Quant Type: ISTD
Cal Date : 16-DEC-2022 13:43 Cal File: X121607.D
Als bottle: 9 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260V6.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.178	4.178	(1.000)	457591	50.0000	
135 1,4-Dioxane	88	5.595	5.595	(1.339)	40509	1000.00	968.45
140 1,3-Butadiene	54	1.160	1.160	(0.278)	152324	50.0000	48.50
25 Methacrylonitrile	41	3.821	3.821	(0.915)	147931	50.0000	45.65
12 Isobutyl Alcohol	43	4.672	4.672	(1.118)	499872	1000.00	971.21
13 Acetonitrile	39	2.195	2.195	(0.525)	202696	500.000	486.70
14 Allyl Chloride	41	2.195	2.195	(0.525)	372130	50.0000	46.91
4 Propionitrile	54	3.645	3.645	(0.873)	221995	500.000	475.45
136 n-Hexane	57	2.768	2.768	(0.663)	182358	50.0000	55.34
72 trans-1,4-Dichloro-2-butene	53	8.890	8.890	(1.159)	70497	50.0000	50.03
194 Acetaldehyde	44	1.209	1.209	(0.289)	67188	200.000	235.49(M)
23 Chloroprene	53	1.767	1.767	(0.423)	73877	50.0000	47.48(M)
145 alpha-Methylstyrene	118	9.257	9.257	(0.958)	423646	50.0000	51.17
200 Dimethyl Disulfide	94	6.194	6.194	(0.808)	438695	50.0000	49.65
139 Diethyl ether	59	1.756	1.756	(0.420)	141705	50.0000	46.34
130 Ethyl Acetate	43	3.649	3.649	(0.873)	170590	50.0000	47.77
40 Methyl Methacrylate	41	5.606	5.606	(1.342)	147516	50.0000	47.27
49 Ethyl Methacrylate	69	6.712	6.712	(1.352)	144135	50.0000	44.17
132 n-Butanol	56	5.253	5.253	(1.257)	54418	1000.00	935.85
142 Tetrahydrofuran	42	3.844	3.844	(0.920)	58181	100.000	102.34

150	Allyl alcohol	57	2.768	2.768 (0.663)	182358	1000.00	1026.00
166	1,2,3-Trimethylbenzene	105	9.729	9.729 (1.007)	826758	50.0000	45.95

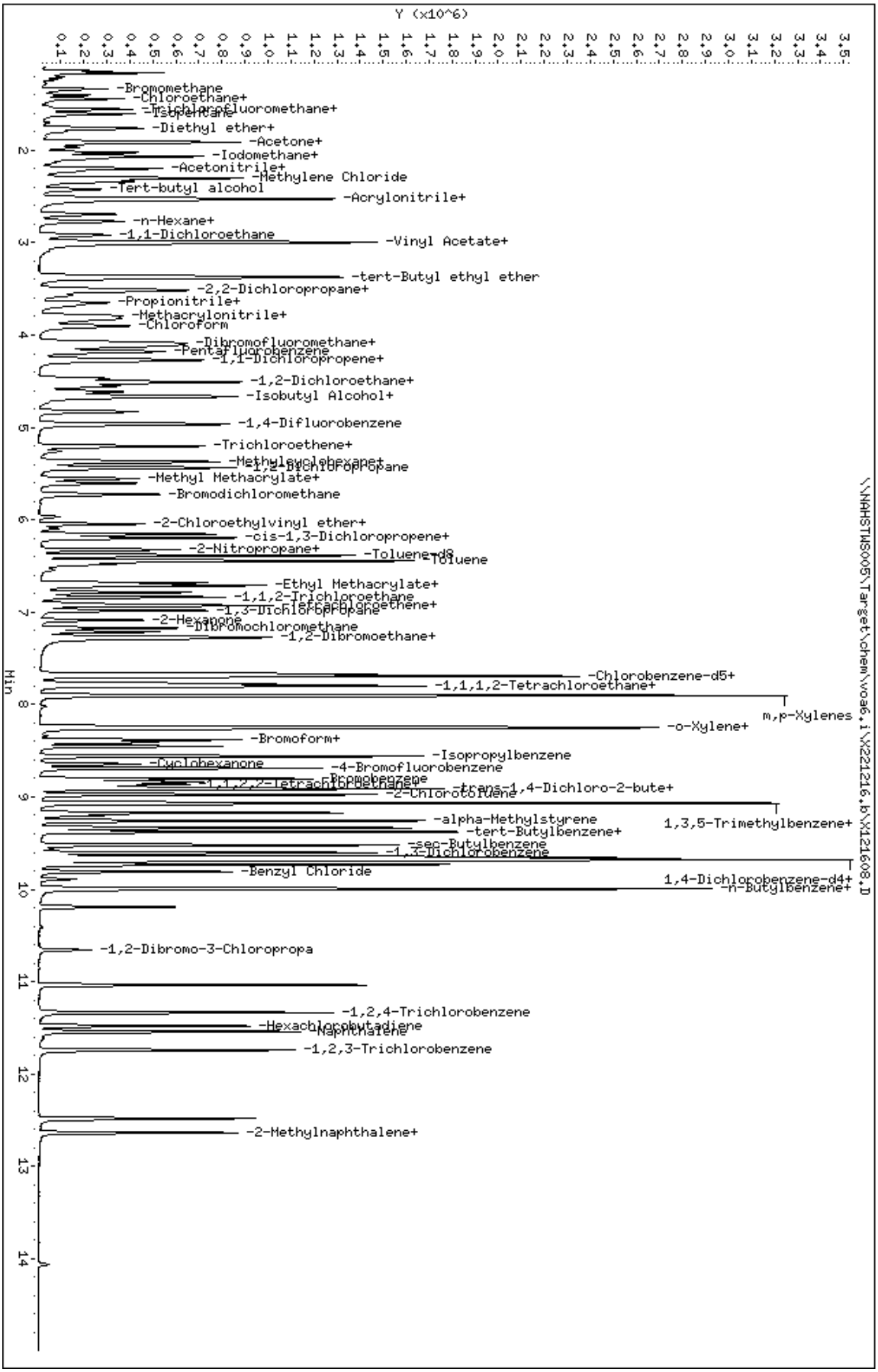
							AMOUNTS	
		QUANT SIG					CAL-AMT	ON-COL
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/l)	(ug/l)
	131 Methyl Acrylate	55	3.683	3.683	(0.882)	151068	50.0000	48.62(M)
	162 Butyl acrylate	55	8.252	8.252	(1.076)	415774	50.0000	48.76
	2 Dichlorodifluoromethane	85	0.969	0.969	(0.232)	160392	50.0000	50.11
	3 Chloromethane	50	1.077	1.077	(0.258)	192710	50.0000	46.69
	5 Vinyl Chloride	62	1.141	1.141	(0.273)	201812	50.0000	50.48
	6 Bromomethane	94	1.336	1.336	(0.320)	139689	50.0000	46.33
	7 Chloroethane	64	1.400	1.400	(0.335)	134745	50.0000	48.43
	8 Trichlorofluoromethane	101	1.557	1.557	(0.373)	278013	50.0000	49.70
	9 Acrolein	56	1.441	1.441	(0.345)	27445	100.000	88.04
	10 Acetone	43	1.970	1.970	(0.472)	124798	100.000	97.19
	11 1,1-Dichloroethene	96	1.910	1.910	(0.457)	168905	50.0000	48.63
	15 Iodomethane	142	2.022	2.022	(0.484)	455792	100.000	99.60
	16 Acrylonitrile	53	2.528	2.528	(0.605)	118697	100.000	100.77
	17 Methylene Chloride	84	2.300	2.300	(0.550)	225642	50.0000	47.36
	18 Methyl tert-butyl ether	73	2.532	2.532	(0.606)	534667	50.0000	47.03
	19 Carbon Disulfide	76	2.067	2.067	(0.495)	892690	100.000	98.24
	20 trans-1,2-Dichloroethene	96	2.524	2.524	(0.604)	191505	50.0000	49.27
	21 Vinyl Acetate	43	2.993	2.993	(0.716)	983875	100.000	98.59
	22 1,1-Dichloroethane	63	2.918	2.918	(0.699)	330037	50.0000	48.38
	24 2-Butanone	43	3.574	3.574	(0.856)	130179	100.000	95.71(H)
	26 2,2-Dichloropropane	77	3.507	3.507	(0.839)	283996	50.0000	49.03
	27 cis-1,2-Dichloroethene	96	3.525	3.525	(0.844)	228729	50.0000	48.35
	28 Chloroform	83	3.904	3.904	(0.935)	370755	50.0000	48.49
	29 Bromochloromethane	128	3.788	3.788	(0.907)	120638	50.0000	46.58
$	30 Dibromofluoromethane	113	4.095	4.095	(0.980)	211939	50.0000	48.23
	31 1,1,1-Trichloroethane	97	4.080	4.080	(0.977)	300650	50.0000	49.56
	32 1,1-Dichloropropene	75	4.279	4.279	(0.862)	256928	50.0000	52.23
	33 1,2-Dichloroethane	62	4.552	4.552	(0.917)	276500	50.0000	48.70
	34 Carbon Tetrachloride	117	4.260	4.260	(0.858)	251833	50.0000	47.94
$	35 1,2-Dichloroethane-d4	65	4.470	4.470	(1.070)	222293	50.0000	47.94
*	36 1,4-Difluorobenzene	114	4.965	4.965	(1.000)	692830	50.0000	
	37 Benzene	78	4.507	4.507	(0.908)	812279	50.0000	49.09
	38 Trichloroethene	130	5.205	5.205	(1.048)	233833	50.0000	49.83
	39 Bromodichloromethane	83	5.722	5.722	(1.153)	297315	50.0000	47.88
	41 2-Chloroethylvinyl ether	63	6.048	6.048	(1.218)	180920	100.000	102.42
	42 1,2-Dichloropropane	63	5.433	5.433	(1.094)	215079	50.0000	48.87
	44 Dibromomethane	93	5.553	5.553	(1.119)	143223	50.0000	47.87
	45 4-Methyl-2-Pentanone	43	6.322	6.322	(0.824)	336990	100.000	96.59
	46 cis-1,3-Dichloropropene	75	6.153	6.153	(1.239)	366231	50.0000	50.22
*	47 Chlorobenzene-d5	117	7.668	7.668	(1.000)	652727	50.0000	
$	48 Toluene-d8	98	6.386	6.386	(0.833)	772486	50.0000	47.89
	50 Toluene	91	6.446	6.446	(0.841)	889029	50.0000	49.27
	51 trans-1,3-Dichloropropene	75	6.682	6.682	(1.346)	309568	50.0000	51.15
	52 2-Hexanone	43	7.087	7.087	(0.924)	232879	100.000	98.10
	53 1,1,2-Trichloroethane	83	6.839	6.839	(0.892)	172833	50.0000	47.75
	54 1,3-Dichloropropane	76	6.982	6.982	(0.911)	345991	50.0000	48.56
	55 Dibromochloromethane	129	7.176	7.176	(0.936)	260477	50.0000	49.86
	56 Tetrachloroethene	164	6.925	6.925	(0.903)	194749	50.0000	52.17
	57 1,2-Dibromoethane	107	7.259	7.259	(0.947)	229442	50.0000	50.70
	58 1-Chlorohexane	55	7.694	7.694	(1.550)	170128	50.0000	50.81
	59 Chlorobenzene	112	7.694	7.694	(1.003)	624151	50.0000	48.77
	60 1,1,1,2-Tetrachloroethane	131	7.773	7.773	(1.014)	235373	50.0000	49.42

61 Ethylbenzene	106	7.799	7.799 (1.017)	311983	50.0000	51.75
62 m,p-Xylenes	106	7.904	7.904 (1.031)	785955	100.000	101.14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	63 o-Xylene	106	8.241	8.241	(1.075)	385427	50.0000	50.25
	64 Styrene	104	8.260	8.260	(1.077)	673066	50.0000	52.35
	66 Bromoform	173	8.410	8.410	(1.097)	181492	50.0000	50.14
	67 Isopropylbenzene	105	8.560	8.560	(1.116)	920845	50.0000	52.55
	68 1,1,2,2-Tetrachloroethane	83	8.837	8.837	(0.915)	276483	50.0000	46.43
$	69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	292753	50.0000	48.55
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	373588	50.0000	
	71 1,2,3-Trichloropropane	75	8.863	8.863	(0.917)	199888	50.0000	48.08(M)
	73 n-Propylbenzene	91	8.912	8.912	(0.922)	1085689	50.0000	52.46
	74 Bromobenzene	156	8.803	8.803	(0.911)	299078	50.0000	48.79
	75 1,3,5-Trimethylbenzene	105	9.066	9.066	(0.938)	793494	50.0000	51.90
	76 2-Chlorotoluene	91	8.972	8.972	(0.929)	670422	50.0000	49.37
	77 4-Chlorotoluene	91	9.070	9.070	(0.939)	782927	50.0000	50.57
	78 tert-Butylbenzene	119	9.336	9.336	(0.966)	652461	50.0000	52.14
	79 1,2,4-Trimethylbenzene	105	9.381	9.381	(0.971)	815460	50.0000	50.69
	81 sec-Butylbenzene	105	9.519	9.519	(0.985)	889679	50.0000	53.43
	82 p-Isopropyltoluene	119	9.651	9.651	(0.999)	810483	50.0000	54.32
	83 1,3-Dichlorobenzene	146	9.606	9.606	(0.994)	520329	50.0000	51.14
	84 1,4-Dichlorobenzene	146	9.681	9.681	(1.002)	544362	50.0000	49.03
	86 Benzyl Chloride	91	9.808	9.808	(1.279)	472387	50.0000	46.44
	87 n-Butylbenzene	91	9.995	9.995	(1.035)	696355	50.0000	48.48
	88 1,2-Dichlorobenzene	146	9.992	9.992	(1.034)	519532	50.0000	49.58
	89 1,2-Dibromo-3-Chloropropane	155	10.655	10.655	(1.103)	48660	50.0000	51.11
	90 1,2,4-Trichlorobenzene	180	11.337	11.337	(1.173)	355455	50.0000	53.75
	91 Hexachlorobutadiene	225	11.480	11.480	(1.188)	155390	50.0000	52.99
	92 Naphthalene	128	11.540	11.540	(1.194)	799829	50.0000	53.16
	93 1,2,3-Trichlorobenzene	180	11.742	11.742	(1.215)	320836	50.0000	50.66
M	94 1,2-Dichloroethylene (total)	96				420234	100.000	
M	95 Xylenes (total)	106				1171382	150.000	
	141 Cyclohexane	56	4.121	4.121	(0.987)	237699	50.0000	51.49
	138 Freon TF	101	1.913	1.913	(0.458)	172155	50.0000	51.25
	147 Methylcyclohexane	55	5.377	5.377	(1.083)	420886	50.0000	49.62
	146 Methyl Acetate	43	2.228	2.228	(0.533)	96420	50.0000	46.82
	148 Tert-Butyl alcohol	59	2.423	2.423	(0.580)	302677	1000.00	955.26
	149 Isopropyl Alcohol	45	2.090	2.090	(0.500)	157082	1000.00	949.28

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.



Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121608.D
Date : 16-DEC-2022 14:04
Client ID: VSTD050
Sample Info: VSTD050;VSTD050;1;7;
Purge Volume: 5.0
Column phase: DB624

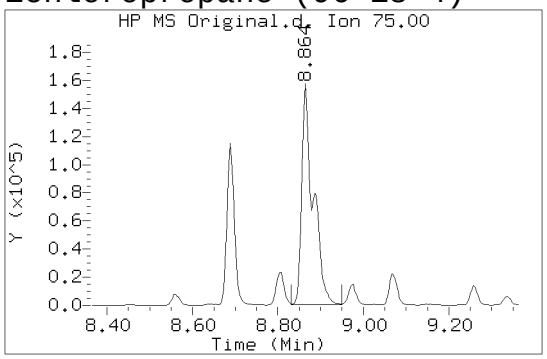
Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121608.D
Inj Date : 16-DEC-2022 14:04
InstruID : voa6.i
LabSampID : VSTD050

1,2,3-Trichloropropane (96-18-4)

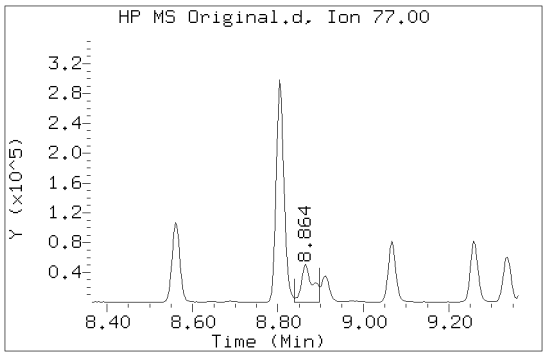
BEFORE

MASS
75
AREA
298610
HEIGHT
157256
27-Dec-2022
16:03
linh
pham



BEFORE

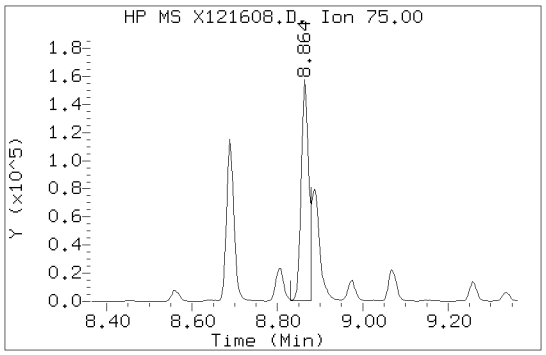
MASS
77
AREA
96560
HEIGHT
50650
27-Dec-2022
16:03
linh
pham



Reason Code:

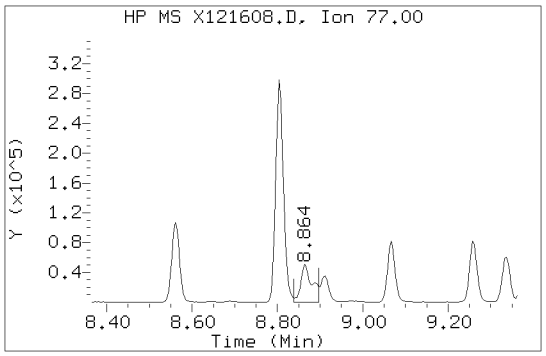
AFTER

MASS
75
AREA
199888
HEIGHT
157257
27-Dec-2022
16:06
linh
pham



AFTER

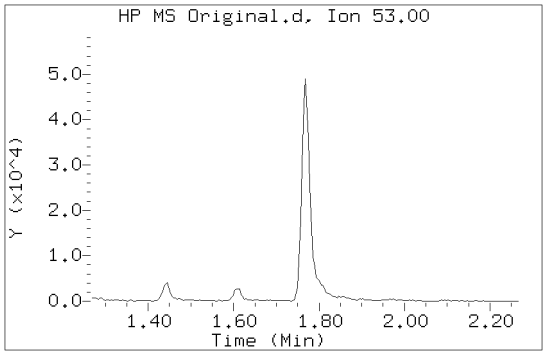
MASS
77
AREA
96560
HEIGHT
50650
27-Dec-2022
16:06
linh
pham



Chloroprene (126-99-8)

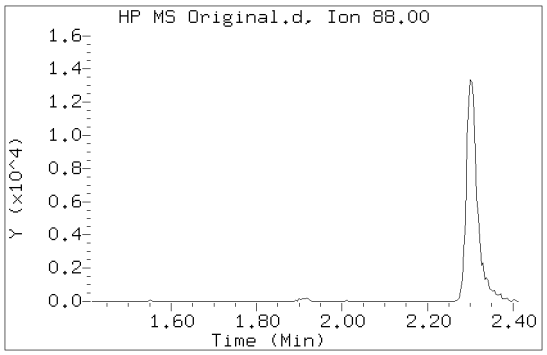
BEFORE

MASS
53
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



BEFORE

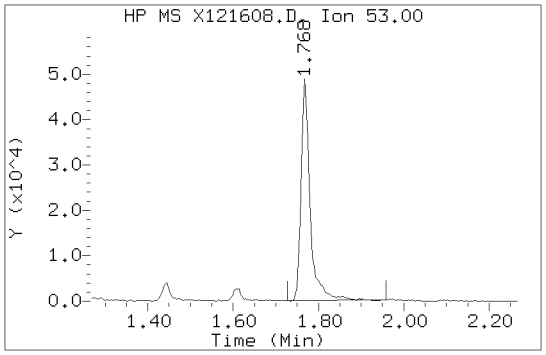
MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



Reason Code:

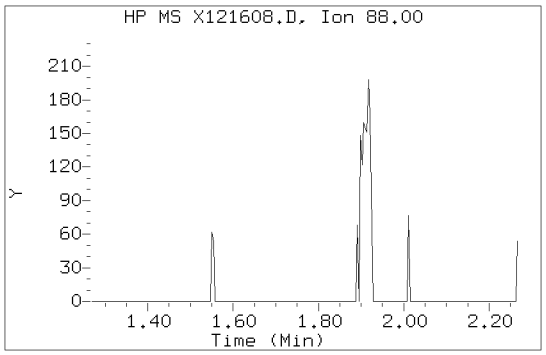
AFTER

MASS
53
AREA
73877
HEIGHT
48802
27-Dec-2022
16:06
linh
pham



AFTER

MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:06
linh
pham

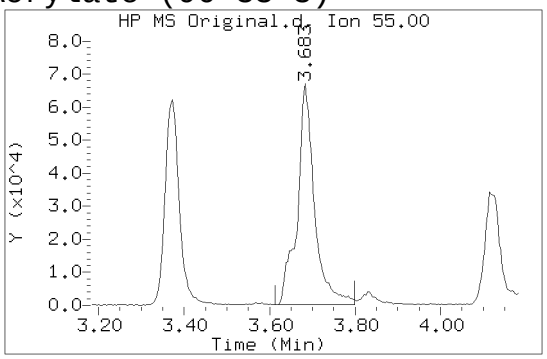


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121608.D
Inj Date : 16-DEC-2022 14:04
InstruID : voa6.i
LabSampID : VSTD050

Methyl Acrylate (96-33-3)

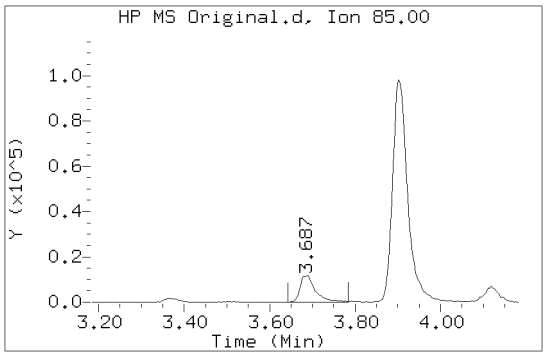
BEFORE

MASS
55
AREA
188598
HEIGHT
66813
27-Dec-2022
16:03
linh
pham



BEFORE

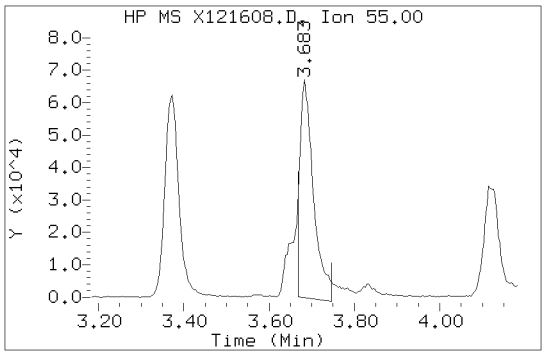
MASS
85
AREA
29996
HEIGHT
11707
27-Dec-2022
16:03
linh
pham



Reason Code:

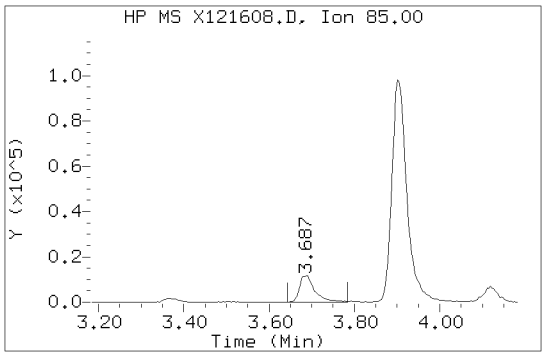
AFTER

MASS
55
AREA
151068
HEIGHT
67146
27-Dec-2022
16:06
linh
pham



AFTER

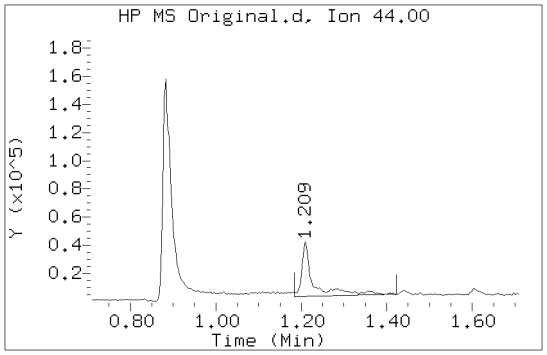
MASS
85
AREA
29996
HEIGHT
11707
27-Dec-2022
16:06
linh
pham



Acetaldehyde (75-07-0)

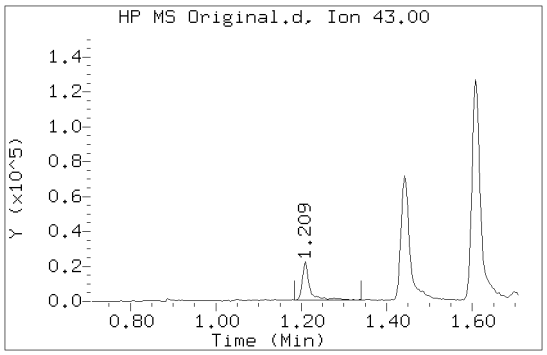
BEFORE

MASS
44
AREA
71920
HEIGHT
38656
27-Dec-2022
16:03
linh
pham



BEFORE

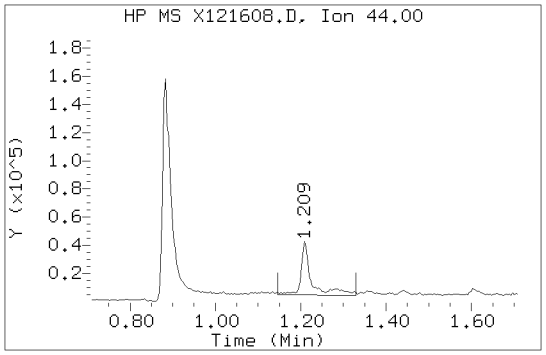
MASS
43
AREA
28032
HEIGHT
22022
27-Dec-2022
16:03
linh
pham



Reason Code:

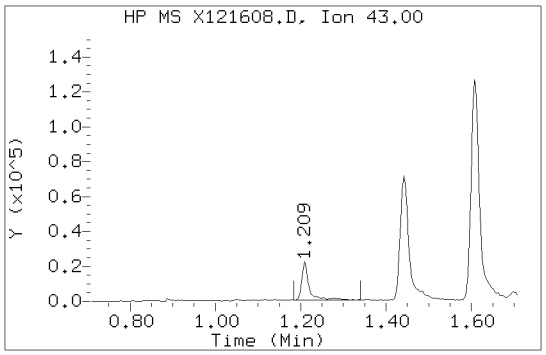
AFTER

MASS
44
AREA
67188
HEIGHT
37862
27-Dec-2022
16:06
linh
pham



AFTER

MASS
43
AREA
28032
HEIGHT
22022
27-Dec-2022
16:06
linh
pham



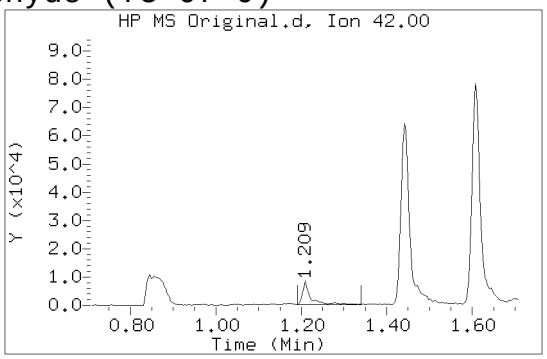
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121608.D
Inj Date : 16-DEC-2022 14:04
InstruID : voa6.i
LabSampID : VSTD050

Acetaldehyde (75-07-0)

Reason Code:

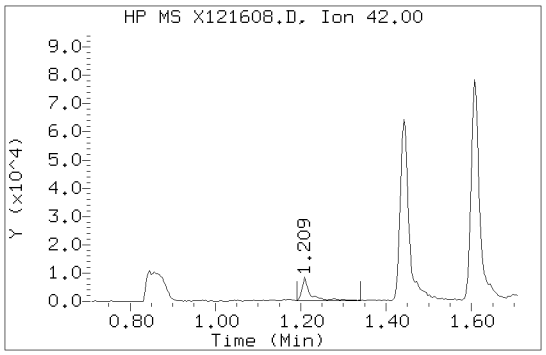
BEFORE

MASS
42
AREA
11352
HEIGHT
8504
27-Dec-2022
16:03
linh
pham



AFTER

MASS
42
AREA
11352
HEIGHT
8504
27-Dec-2022
16:06
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121609.D Page 1
Report Date: 27-Dec-2022 16:07

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121609.D
Lab Smp Id: VSTD100 Client Smp ID: VSTD100
Inj Date : 16-DEC-2022 14:25
Operator : PC Inst ID: voa6.i
Smp Info : VSTD100;VSTD100;1;8;
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\8260W.m
Meth Date : 27-Dec-2022 16:07 voa6.i Quant Type: ISTD
Cal Date : 16-DEC-2022 14:04 Cal File: X121608.D
Als bottle: 10 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260V6.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.178	4.178	(1.000)	454640	50.0000	
135 1,4-Dioxane	88	5.598	5.598	(1.340)	80329	2000.00	1932.89
140 1,3-Butadiene	54	1.160	1.160	(0.278)	300004	100.000	96.14
25 Methacrylonitrile	41	3.822	3.822	(0.915)	296105	100.000	91.97
12 Isobutyl Alcohol	43	4.672	4.672	(1.118)	1010956	2000.00	1976.95
13 Acetonitrile	39	2.195	2.195	(0.525)	413876	1000.00	1000.23
14 Allyl Chloride	41	2.195	2.195	(0.525)	756242	100.000	95.96
4 Propionitrile	54	3.645	3.645	(0.873)	447087	1000.00	963.76
136 n-Hexane	57	2.768	2.768	(0.663)	330416	100.000	100.93
72 trans-1,4-Dichloro-2-butene	53	8.890	8.890	(1.159)	144667	100.000	100.47
194 Acetaldehyde	44	1.209	1.209	(0.289)	107798	400.000	394.60(M)
23 Chloroprene	53	1.767	1.767	(0.423)	146540	100.000	94.79(M)
145 alpha-Methylstyrene	118	9.257	9.257	(0.958)	857105	100.000	100.18
200 Dimethyl Disulfide	94	6.194	6.194	(0.808)	912573	100.000	101.09
139 Diethyl ether	59	1.752	1.752	(0.420)	288002	100.000	94.80
130 Ethyl Acetate	43	3.649	3.649	(0.873)	318062	100.000	89.65
40 Methyl Methacrylate	41	5.606	5.606	(1.342)	295199	100.000	95.22
49 Ethyl Methacrylate	69	6.712	6.712	(1.352)	311883	100.000	96.06
132 n-Butanol	56	5.253	5.253	(1.258)	124057	2000.00	1971.40
142 Tetrahydrofuran	42	3.840	3.840	(0.919)	109518	200.000	196.74

150	Allyl alcohol	57	2.768	2.768 (0.663)	330416	2000.00	1871.09
166	1,2,3-Trimethylbenzene	105	9.729	9.729 (1.007)	1772216	100.000	95.31

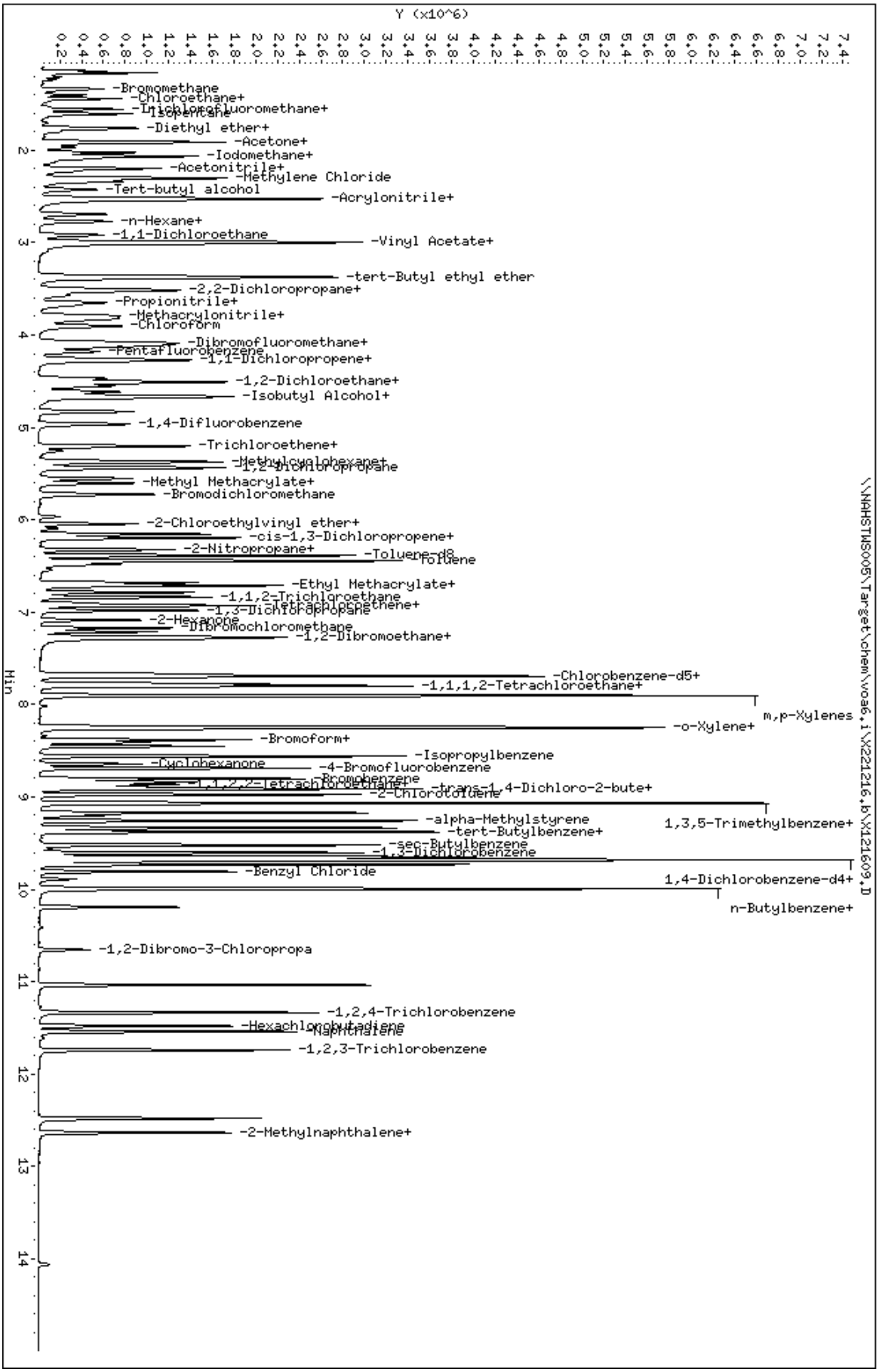
			QUANT SIG					AMOUNTS	
								CAL-AMT	ON-COL
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/l)	(ug/l)
	131	Methyl Acrylate	55	3.683	3.683	(0.882)	308372	100.000	99.90(M)
	162	Butyl acrylate	55	8.249	8.249	(1.076)	901265	100.000	103.44
	2	Dichlorodifluoromethane	85	0.969	0.969	(0.232)	309019	100.000	96.81
	3	Chloromethane	50	1.078	1.078	(0.258)	388163	100.000	92.40
	5	Vinyl Chloride	62	1.141	1.141	(0.273)	390567	100.000	98.34
	6	Bromomethane	94	1.336	1.336	(0.320)	284165	100.000	93.02
	7	Chloroethane	64	1.400	1.400	(0.335)	261091	100.000	94.45
	8	Trichlorofluoromethane	101	1.557	1.557	(0.373)	543907	100.000	97.86
	9	Acrolein	56	1.441	1.441	(0.345)	60756	200.000	192.70
	10	Acetone	43	1.970	1.970	(0.472)	243517	200.000	190.92
	11	1,1-Dichloroethene	96	1.910	1.910	(0.457)	329394	100.000	95.46
	15	Iodomethane	142	2.026	2.026	(0.485)	958603	200.000	197.72
	16	Acrylonitrile	53	2.528	2.528	(0.605)	235604	200.000	201.32
	17	Methylene Chloride	84	2.300	2.300	(0.550)	423827	100.000	89.54
	18	Methyl tert-butyl ether	73	2.532	2.532	(0.606)	1078258	100.000	95.46
	19	Carbon Disulfide	76	2.063	2.063	(0.494)	1765599	200.000	195.57
	20	trans-1,2-Dichloroethene	96	2.524	2.524	(0.604)	376933	100.000	97.60
	21	Vinyl Acetate	43	2.993	2.993	(0.716)	1955305	200.000	197.21
	22	1,1-Dichloroethane	63	2.918	2.918	(0.699)	641083	100.000	94.59
	24	2-Butanone	43	3.570	3.570	(0.855)	264221	200.000	192.38(H)
	26	2,2-Dichloropropane	77	3.507	3.507	(0.839)	554902	100.000	96.43
	27	cis-1,2-Dichloroethene	96	3.522	3.522	(0.843)	443532	100.000	94.37
	28	Chloroform	83	3.904	3.904	(0.935)	715830	100.000	94.23
	29	Bromochloromethane	128	3.792	3.792	(0.908)	239022	100.000	92.88
$	30	Dibromofluoromethane	113	4.095	4.095	(0.980)	438954	100.000	100.72
	31	1,1,1-Trichloroethane	97	4.080	4.080	(0.977)	583361	100.000	96.79
	32	1,1-Dichloropropene	75	4.275	4.275	(0.861)	496096	100.000	101.35
	33	1,2-Dichloroethane	62	4.552	4.552	(0.917)	553661	100.000	98.01
	34	Carbon Tetrachloride	117	4.260	4.260	(0.858)	487488	100.000	93.26
$	35	1,2-Dichloroethane-d4	65	4.466	4.466	(1.069)	455890	100.000	98.67
*	36	1,4-Difluorobenzene	114	4.965	4.965	(1.000)	689427	50.0000	
	37	Benzene	78	4.508	4.508	(0.908)	1590142	100.000	96.58
	38	Trichloroethene	130	5.205	5.205	(1.048)	456948	100.000	97.85
	39	Bromodichloromethane	83	5.722	5.722	(1.153)	587419	100.000	95.07
	41	2-Chloroethylvinyl ether	63	6.044	6.044	(1.217)	345852	200.000	196.75
	42	1,2-Dichloropropane	63	5.433	5.433	(1.094)	420835	100.000	96.09
	44	Dibromomethane	93	5.550	5.550	(1.118)	280146	100.000	94.11
	45	4-Methyl-2-Pentanone	43	6.322	6.322	(0.824)	671115	200.000	188.25
	46	cis-1,3-Dichloropropene	75	6.153	6.153	(1.239)	735867	100.000	101.41
*	47	Chlorobenzene-d5	117	7.668	7.668	(1.000)	666948	50.0000	
$	48	Toluene-d8	98	6.386	6.386	(0.833)	1602890	100.000	97.25
	50	Toluene	91	6.446	6.446	(0.841)	1761917	100.000	95.57
	51	trans-1,3-Dichloropropene	75	6.678	6.678	(1.345)	618784	100.000	102.75
	52	2-Hexanone	43	7.087	7.087	(0.924)	458639	200.000	189.09
	53	1,1,2-Trichloroethane	83	6.839	6.839	(0.892)	342194	100.000	92.52
	54	1,3-Dichloropropane	76	6.982	6.982	(0.911)	682500	100.000	93.75
	55	Dibromochloromethane	129	7.173	7.173	(0.935)	521219	100.000	97.64
	56	Tetrachloroethene	164	6.925	6.925	(0.903)	373651	100.000	97.96
	57	1,2-Dibromoethane	107	7.259	7.259	(0.947)	453499	100.000	98.07
	58	1-Chlorohexane	55	7.694	7.694	(1.550)	326538	100.000	98.00
	59	Chlorobenzene	112	7.694	7.694	(1.003)	1229287	100.000	94.01
	60	1,1,1,2-Tetrachloroethane	131	7.773	7.773	(1.014)	472962	100.000	97.19

61 Ethylbenzene	106	7.799	7.799 (1.017)	612289	100.000	99.40
62 m,p-Xylenes	106	7.904	7.904 (1.031)	1556563	200.000	196.03

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
63	o-Xylene	106	8.241	8.241	(1.075)	767814	100.000	97.97
64	Styrene	104	8.260	8.260	(1.077)	1350780	100.000	102.83
66	Bromoform	173	8.410	8.410	(1.097)	367943	100.000	99.50
67	Isopropylbenzene	105	8.560	8.560	(1.116)	1818857	100.000	101.58
68	1,1,2,2-Tetrachloroethane	83	8.837	8.837	(0.915)	554091	100.000	90.03
$ 69	4-Bromofluorobenzene	95	8.687	8.687	(1.133)	615584	100.000	99.86
* 70	1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	386107	50.0000	
71	1,2,3-Trichloropropane	75	8.863	8.863	(0.917)	407425	100.000	94.83(M)
73	n-Propylbenzene	91	8.912	8.912	(0.922)	2152414	100.000	100.64
74	Bromobenzene	156	8.803	8.803	(0.911)	602819	100.000	95.16
75	1,3,5-Trimethylbenzene	105	9.066	9.066	(0.938)	1603520	100.000	101.49
76	2-Chlorotoluene	91	8.972	8.972	(0.929)	1326500	100.000	94.51
77	4-Chlorotoluene	91	9.070	9.070	(0.939)	1587855	100.000	99.24
78	tert-Butylbenzene	119	9.336	9.336	(0.966)	1287608	100.000	99.56
79	1,2,4-Trimethylbenzene	105	9.381	9.381	(0.971)	1640529	100.000	98.68
81	sec-Butylbenzene	105	9.519	9.519	(0.985)	1778581	100.000	103.36
82	p-Isopropyltoluene	119	9.651	9.651	(0.999)	1606121	100.000	104.16
83	1,3-Dichlorobenzene	146	9.606	9.606	(0.994)	1039293	100.000	98.84
84	1,4-Dichlorobenzene	146	9.681	9.681	(1.002)	1114780	100.000	97.16
86	Benzyl Chloride	91	9.808	9.808	(1.279)	1009234	100.000	94.18
87	n-Butylbenzene	91	9.992	9.992	(1.034)	1425779	100.000	94.31
88	1,2-Dichlorobenzene	146	9.992	9.992	(1.034)	1054319	100.000	97.36
89	1,2-Dibromo-3-Chloropropane	155	10.655	10.655	(1.103)	94321	100.000	95.78
90	1,2,4-Trichlorobenzene	180	11.338	11.338	(1.173)	697257	100.000	102.03
91	Hexachlorobutadiene	225	11.480	11.480	(1.188)	299042	100.000	97.63
92	Naphthalene	128	11.540	11.540	(1.194)	1592534	100.000	102.42
93	1,2,3-Trichlorobenzene	180	11.739	11.739	(1.215)	642199	100.000	98.12
M 94	1,2-Dichloroethylene (total)	96				820465	200.000	
M 95	Xylenes (total)	106				2324377	300.000	
141	Cyclohexane	56	4.118	4.118	(0.986)	432198	100.000	93.19
138	Freon TF	101	1.913	1.913	(0.458)	327614	100.000	98.16
147	Methylcyclohexane	55	5.377	5.377	(1.083)	862071	100.000	102.15(A)
146	Methyl Acetate	43	2.228	2.228	(0.533)	196542	100.000	96.07
148	Tert-Butyl alcohol	59	2.427	2.427	(0.581)	592215	2000.00	1881.19
149	Isopropyl Alcohol	45	2.093	2.093	(0.501)	321288	2000.00	1954.21

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.



Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121609.D
Date : 16-DEC-2022 14:25
Client ID: VSTD100
Sample Info: VSTD100;VSTD100;1;8;
Purge Volume: 5.0
Column phase: DB624

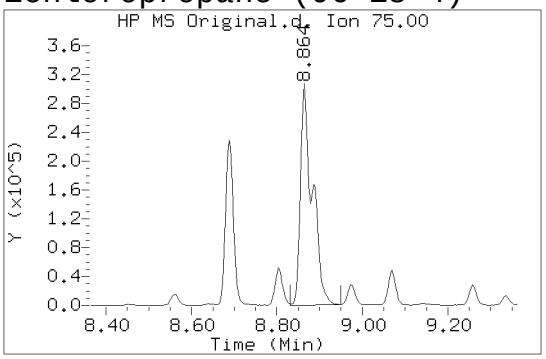
Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121609.D
Inj Date : 16-DEC-2022 14:25
InstruID : voa6.i
LabSampID : VSTD100

1,2,3-Trichloropropane (96-18-4)

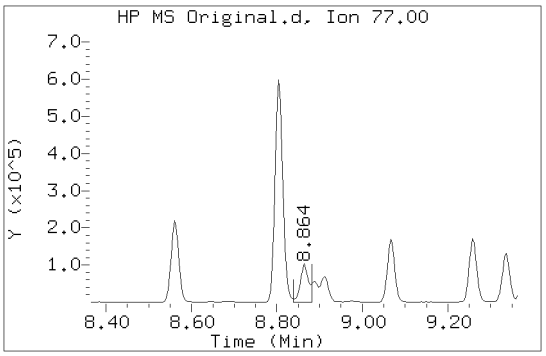
BEFORE

MASS
75
AREA
602953
HEIGHT
307037
27-Dec-2022
16:03
linh
pham



BEFORE

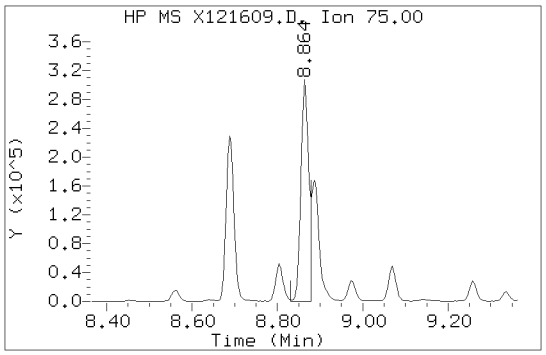
MASS
77
AREA
149362
HEIGHT
103354
27-Dec-2022
16:03
linh
pham



Reason Code:

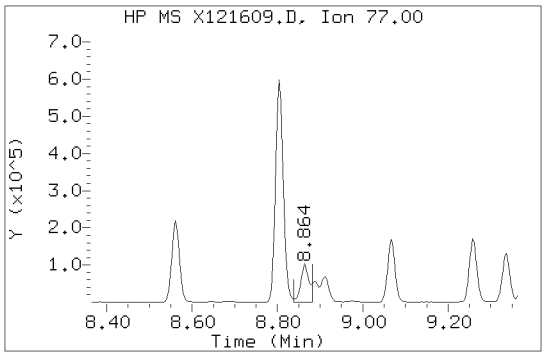
AFTER

MASS
75
AREA
407425
HEIGHT
307037
27-Dec-2022
16:06
linh
pham



AFTER

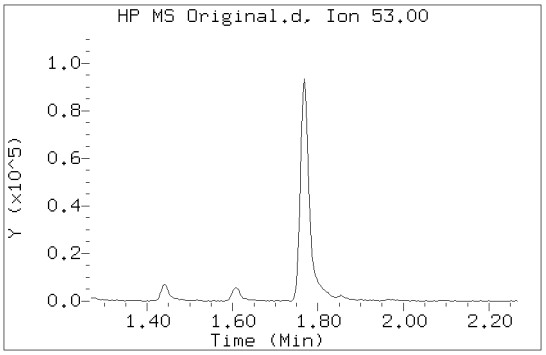
MASS
77
AREA
149362
HEIGHT
103354
27-Dec-2022
16:06
linh
pham



Chloroprene (126-99-8)

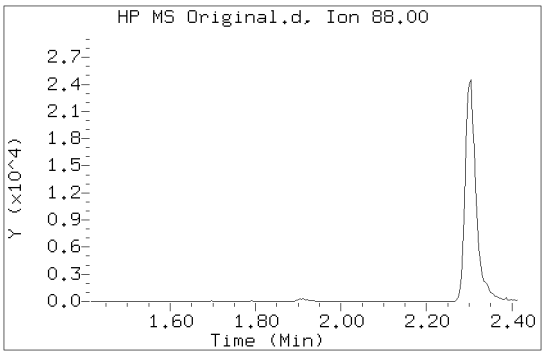
BEFORE

MASS
53
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



BEFORE

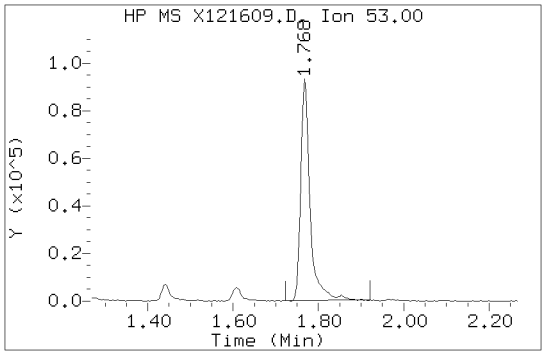
MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:03
linh
pham



Reason Code:

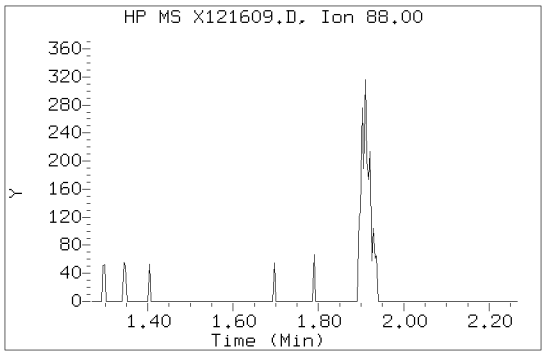
AFTER

MASS
53
AREA
146540
HEIGHT
93219
27-Dec-2022
16:06
linh
pham



AFTER

MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:06
linh
pham

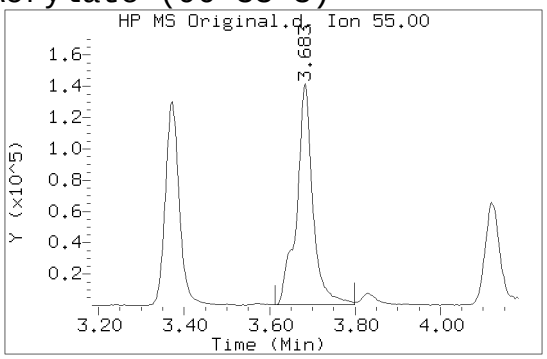


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121609.D
Inj Date : 16-DEC-2022 14:25
InstruID : voa6.i
LabSampID : VSTD100

Methyl Acrylate (96-33-3)

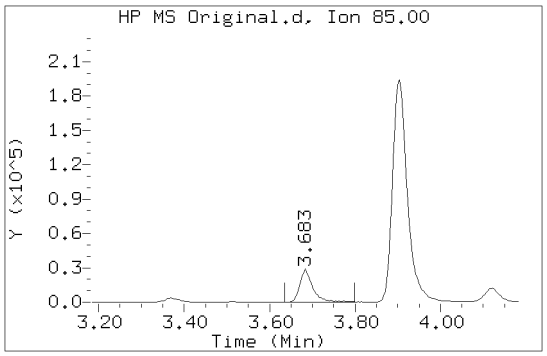
BEFORE

MASS
55
AREA
380041
HEIGHT
141345
27-Dec-2022
16:03
linh
pham



BEFORE

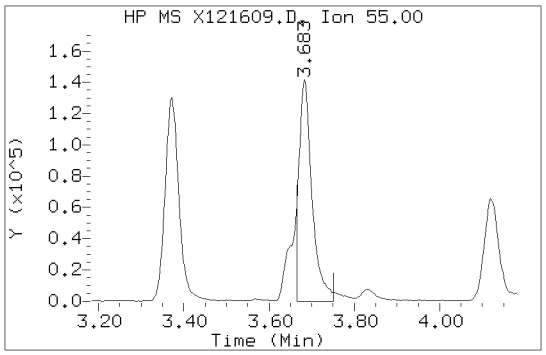
MASS
85
AREA
62241
HEIGHT
29192
27-Dec-2022
16:03
linh
pham



Reason Code:

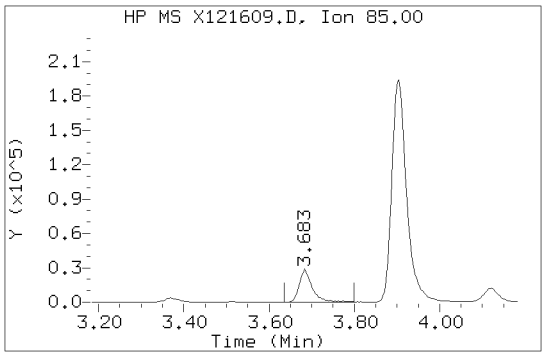
AFTER

MASS
55
AREA
308372
HEIGHT
141781
27-Dec-2022
16:06
linh
pham



AFTER

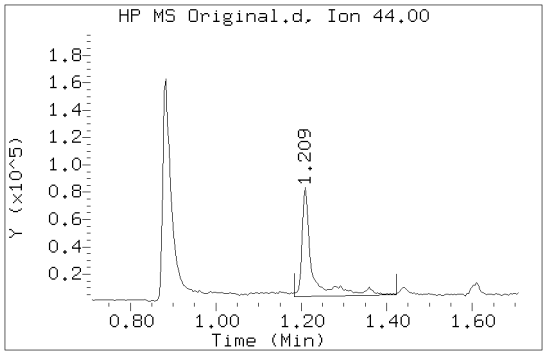
MASS
85
AREA
62241
HEIGHT
29192
27-Dec-2022
16:06
linh
pham



Acetaldehyde (75-07-0)

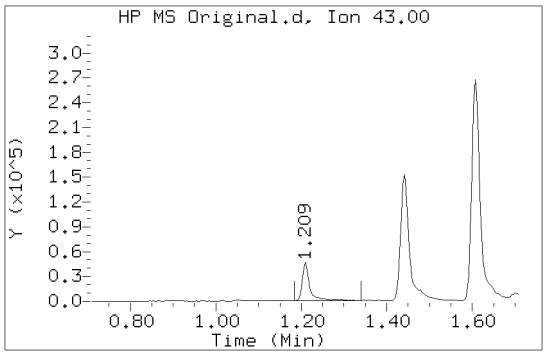
BEFORE

MASS
44
AREA
137215
HEIGHT
79995
27-Dec-2022
16:03
linh
pham



BEFORE

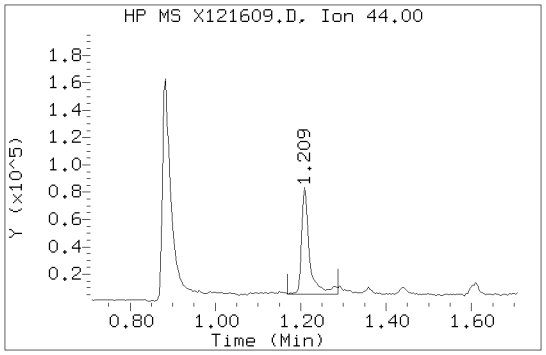
MASS
43
AREA
58307
HEIGHT
46134
27-Dec-2022
16:03
linh
pham



Reason Code:

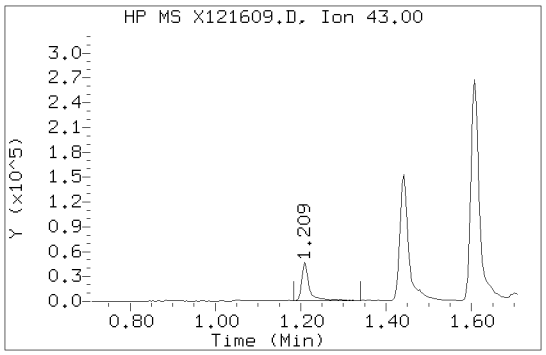
AFTER

MASS
44
AREA
107798
HEIGHT
78310
27-Dec-2022
16:06
linh
pham



AFTER

MASS
43
AREA
58307
HEIGHT
46134
27-Dec-2022
16:06
linh
pham



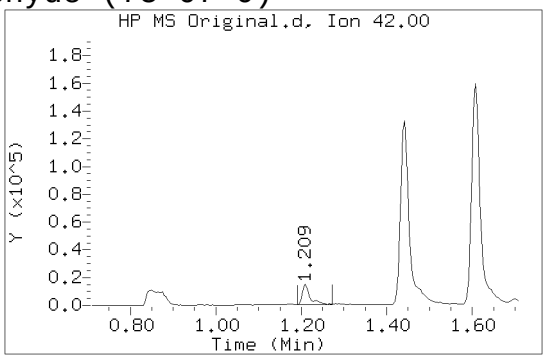
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121609.D
Inj Date : 16-DEC-2022 14:25
InstruID : voa6.i
LabSampID : VSTD100

Acetaldehyde (75-07-0)

Reason Code:

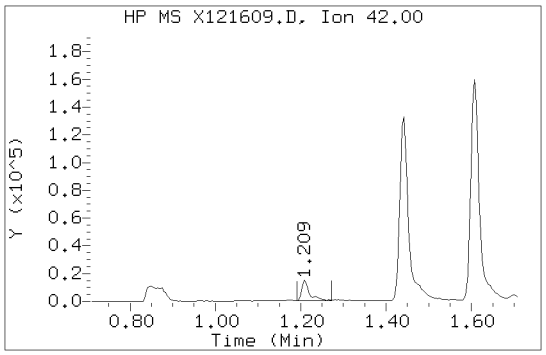
BEFORE

MASS
42
AREA
19613
HEIGHT
14674
27-Dec-2022
16:03
linh
pham



AFTER

MASS
42
AREA
19613
HEIGHT
14674
27-Dec-2022
16:06
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121610.D Page 1
Report Date: 27-Dec-2022 16:07

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121610.D
Lab Smp Id: VSTD150 Client Smp ID: VSTD150
Inj Date : 16-DEC-2022 14:46
Operator : PC Inst ID: voa6.i
Smp Info : VSTD150;VSTD150;1;9;
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\8260W.m
Meth Date : 27-Dec-2022 16:07 voa6.i Quant Type: ISTD
Cal Date : 16-DEC-2022 14:25 Cal File: X121609.D
Als bottle: 11 Calibration Sample, Level: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260V6.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.177	4.177	(1.000)	447266	50.0000	
135 1,4-Dioxane	88	5.598	5.598	(1.340)	128845	3000.00	3151.41
140 1,3-Butadiene	54	1.160	1.160	(0.278)	468966	150.000	152.77
25 Methacrylonitrile	41	3.818	3.818	(0.914)	457301	150.000	144.39
12 Isobutyl Alcohol	43	4.672	4.672	(1.118)	1595753	3000.00	3171.99
13 Acetonitrile	39	2.194	2.194	(0.525)	642798	1500.00	1579.09
14 Allyl Chloride	41	2.194	2.194	(0.525)	1164663	150.000	150.22
4 Propionitrile	54	3.649	3.649	(0.873)	694740	1500.00	1522.31
136 n-Hexane	57	2.768	2.768	(0.663)	533876	150.000	165.78
72 trans-1,4-Dichloro-2-butene	53	8.889	8.889	(1.159)	234252	150.000	161.53
194 Acetaldehyde	44	1.209	1.209	(0.289)	161053	600.000	611.34(M)
23 Chloroprene	53	1.767	1.767	(0.423)	225733	150.000	148.43
145 alpha-Methylstyrene	118	9.257	9.257	(0.958)	1351001	150.000	157.73
200 Dimethyl Disulfide	94	6.198	6.198	(0.808)	1420820	150.000	156.27
139 Diethyl ether	59	1.752	1.752	(0.419)	443624	150.000	148.44
130 Ethyl Acetate	43	3.649	3.649	(0.873)	516433	150.000	147.97
40 Methyl Methacrylate	41	5.602	5.602	(1.341)	465959	150.000	152.78
49 Ethyl Methacrylate	69	6.712	6.712	(1.352)	517063	150.000	157.90
132 n-Butanol	56	5.253	5.253	(1.258)	210842	3000.00	3100.52
142 Tetrahydrofuran	42	3.840	3.840	(0.919)	162133	300.000	297.65

150	Allyl alcohol	57	2.768	2.768 (0.663)	533876	3000.00	3073.09
166	1,2,3-Trimethylbenzene	105	9.729	9.729 (1.007)	2744011	150.000	147.41

Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121610.D Page 2
Report Date: 27-Dec-2022 16:07

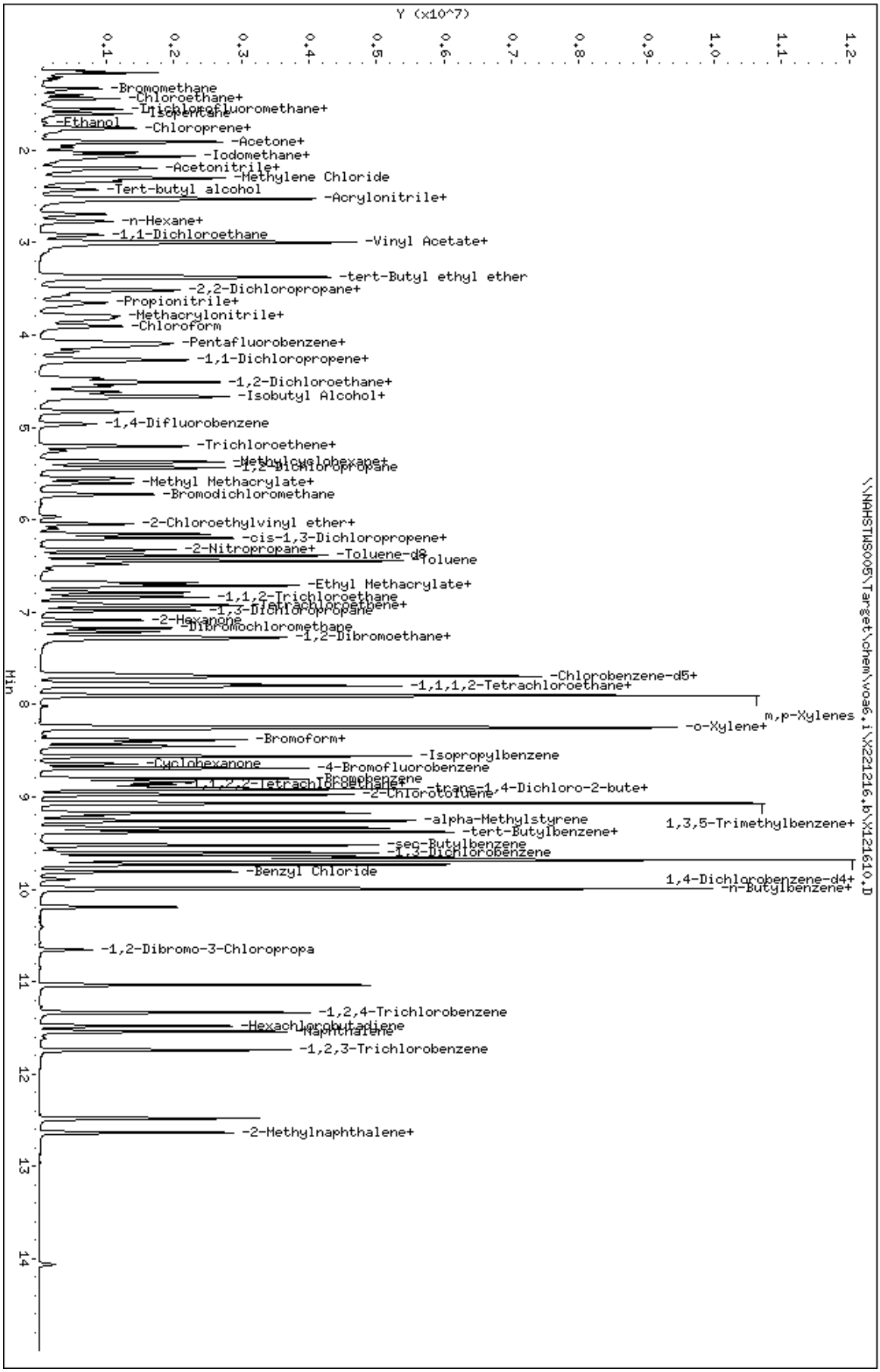
			QUANT SIG					AMOUNTS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
	131	Methyl Acrylate	55	3.683	3.683	(0.882)	479571	150.000	157.93(M)
	162	Butyl acrylate	55	8.248	8.248	(1.076)	1470193	150.000	167.53
	2	Dichlorodifluoromethane	85	0.969	0.969	(0.232)	476130	150.000	151.40
	3	Chloromethane	50	1.077	1.077	(0.258)	621048	150.000	148.89
	5	Vinyl Chloride	62	1.141	1.141	(0.273)	602774	150.000	154.27
	6	Bromomethane	94	1.332	1.332	(0.319)	470318	150.000	155.29
	7	Chloroethane	64	1.400	1.400	(0.335)	409168	150.000	150.45
	8	Trichlorofluoromethane	101	1.557	1.557	(0.373)	866865	150.000	158.54
	9	Acrolein	56	1.441	1.441	(0.345)	96139	300.000	308.25
	10	Acetone	43	1.969	1.969	(0.472)	373504	300.000	297.68
	11	1,1-Dichloroethene	96	1.910	1.910	(0.457)	516820	150.000	152.24
	15	Iodomethane	142	2.022	2.022	(0.484)	1554547	300.000	304.69
	16	Acrylonitrile	53	2.528	2.528	(0.605)	371872	300.000	323.00
	17	Methylene Chloride	84	2.299	2.299	(0.550)	656037	150.000	140.89
	18	Methyl tert-butyl ether	73	2.532	2.532	(0.606)	1661314	150.000	149.51
	19	Carbon Disulfide	76	2.063	2.063	(0.494)	2747788	300.000	309.38
	20	trans-1,2-Dichloroethene	96	2.524	2.524	(0.604)	579939	150.000	152.65
	21	Vinyl Acetate	43	2.993	2.993	(0.716)	3127175	300.000	320.61
	22	1,1-Dichloroethane	63	2.918	2.918	(0.699)	993924	150.000	149.06
	24	2-Butanone	43	3.570	3.570	(0.855)	407629	300.000	299.97(H)
	26	2,2-Dichloropropane	77	3.506	3.506	(0.839)	858853	150.000	151.71
	27	cis-1,2-Dichloroethene	96	3.521	3.521	(0.843)	693846	150.000	150.07
	28	Chloroform	83	3.904	3.904	(0.935)	1135322	150.000	151.92
	29	Bromochloromethane	128	3.791	3.791	(0.908)	379595	150.000	149.95
$	30	Dibromofluoromethane	113	4.095	4.095	(0.980)	652724	150.000	152.32
	31	1,1,1-Trichloroethane	97	4.080	4.080	(0.977)	907111	150.000	152.99
	32	1,1-Dichloropropene	75	4.279	4.279	(0.862)	766313	150.000	155.22
	33	1,2-Dichloroethane	62	4.552	4.552	(0.917)	857022	150.000	150.42
	34	Carbon Tetrachloride	117	4.264	4.264	(0.859)	758288	150.000	143.83
$	35	1,2-Dichloroethane-d4	65	4.470	4.470	(1.070)	686218	150.000	150.83
*	36	1,4-Difluorobenzene	114	4.965	4.965	(1.000)	695375	50.0000	
	37	Benzene	78	4.511	4.511	(0.909)	2450385	150.000	147.56
	38	Trichloroethene	130	5.205	5.205	(1.048)	707016	150.000	150.11
	39	Bromodichloromethane	83	5.722	5.722	(1.153)	932632	150.000	149.65
	41	2-Chloroethylvinyl ether	63	6.044	6.044	(1.217)	534005	300.000	301.19
	42	1,2-Dichloropropane	63	5.433	5.433	(1.094)	658007	150.000	148.96
	44	Dibromomethane	93	5.549	5.549	(1.118)	444851	150.000	148.16
	45	4-Methyl-2-Pentanone	43	6.325	6.325	(0.825)	1052577	300.000	293.14
	46	cis-1,3-Dichloropropene	75	6.153	6.153	(1.239)	1159982	150.000	158.49
*	47	Chlorobenzene-d5	117	7.667	7.667	(1.000)	671780	50.0000	
$	48	Toluene-d8	98	6.385	6.385	(0.833)	2346444	150.000	141.35
	50	Toluene	91	6.445	6.445	(0.841)	2724692	150.000	146.73
	51	trans-1,3-Dichloropropene	75	6.682	6.682	(1.346)	982044	150.000	161.68
	52	2-Hexanone	43	7.086	7.086	(0.924)	738082	300.000	302.12
	53	1,1,2-Trichloroethane	83	6.839	6.839	(0.892)	540625	150.000	145.13
	54	1,3-Dichloropropane	76	6.981	6.981	(0.911)	1079961	150.000	147.29
	55	Dibromochloromethane	129	7.176	7.176	(0.936)	822094	150.000	152.90
	56	Tetrachloroethene	164	6.929	6.929	(0.904)	574499	150.000	149.53
	57	1,2-Dibromoethane	107	7.259	7.259	(0.947)	715678	150.000	153.66
	58	1-Chlorohexane	55	7.697	7.697	(1.550)	522502	150.000	155.48
	59	Chlorobenzene	112	7.694	7.694	(1.003)	1944205	150.000	147.62
	60	1,1,1,2-Tetrachloroethane	131	7.772	7.772	(1.014)	744470	150.000	151.89

61 Ethylbenzene	106	7.799	7.799 (1.017)	946928	150.000	152.63
62 m,p-Xylenes	106	7.904	7.904 (1.031)	2421267	300.000	302.75

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	63 o-Xylene	106	8.241	8.241	(1.075)	1210374	150.000	153.33
	64 Styrene	104	8.260	8.260	(1.077)	2169528	150.000	163.97
	66 Bromoform	173	8.410	8.410	(1.097)	588916	150.000	158.11
	67 Isopropylbenzene	105	8.560	8.560	(1.116)	2877359	150.000	159.55
	68 1,1,2,2-Tetrachloroethane	83	8.837	8.837	(0.915)	873933	150.000	141.84
$	69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	936681	150.000	150.82
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	386546	50.0000	
	71 1,2,3-Trichloropropane	75	8.863	8.863	(0.917)	702545	150.000	163.33
	73 n-Propylbenzene	91	8.912	8.912	(0.922)	3370402	150.000	157.41
	74 Bromobenzene	156	8.803	8.803	(0.911)	952608	150.000	150.20
	75 1,3,5-Trimethylbenzene	105	9.066	9.066	(0.938)	2529726	150.000	159.93
	76 2-Chlorotoluene	91	8.976	8.976	(0.929)	2083510	150.000	148.28
	77 4-Chlorotoluene	91	9.069	9.069	(0.939)	2540753	150.000	158.62
	78 tert-Butylbenzene	119	9.336	9.336	(0.966)	2055293	150.000	158.74
	79 1,2,4-Trimethylbenzene	105	9.381	9.381	(0.971)	2613455	150.000	157.03
	81 sec-Butylbenzene	105	9.523	9.523	(0.986)	2819238	150.000	163.65
	82 p-Isopropyltoluene	119	9.650	9.650	(0.999)	2542764	150.000	164.71
	83 1,3-Dichlorobenzene	146	9.605	9.605	(0.994)	1650440	150.000	156.79
	84 1,4-Dichlorobenzene	146	9.684	9.684	(1.002)	1766146	150.000	153.76
	86 Benzyl Chloride	91	9.808	9.808	(1.279)	1650494	150.000	151.23
	87 n-Butylbenzene	91	9.992	9.992	(1.034)	2293126	150.000	150.43
	88 1,2-Dichlorobenzene	146	9.992	9.992	(1.034)	1672283	150.000	154.25
	89 1,2-Dibromo-3-Chloropropane	155	10.655	10.655	(1.103)	149691	150.000	151.78
	90 1,2,4-Trichlorobenzene	180	11.337	11.337	(1.173)	1094701	150.000	160.01
	91 Hexachlorobutadiene	225	11.480	11.480	(1.188)	466452	150.000	150.10
	92 Naphthalene	128	11.540	11.540	(1.194)	2498440	150.000	160.50
	93 1,2,3-Trichlorobenzene	180	11.738	11.738	(1.215)	991236	150.000	151.28
M	94 1,2-Dichloroethylene (total)	96				1273785	300.000	
M	95 Xylenes (total)	106				3631641	450.000	
	141 Cyclohexane	56	4.117	4.117	(0.986)	682728	150.000	148.87
	138 Freon TF	101	1.910	1.910	(0.457)	517229	150.000	157.53
	147 Methylcyclohexane	55	5.377	5.377	(1.083)	1358300	150.000	159.57(A)
	146 Methyl Acetate	43	2.224	2.224	(0.533)	301298	150.000	149.70
	148 Tert-Butyl alcohol	59	2.427	2.427	(0.581)	962267	3000.00	3107.07
	149 Isopropyl Alcohol	45	2.093	2.093	(0.501)	514966	3000.00	3183.89

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.



Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121610.D
Date : 16-DEC-2022 14:46
Client ID: VSTD150
Sample Info: VSTD150;VSTD150;1;9;
Purge Volume: 5.0
Column phase: DB624

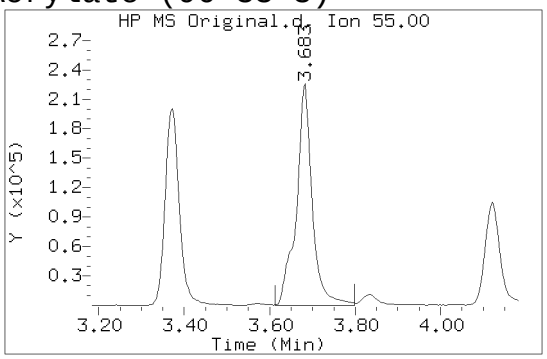
Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121610.D
Inj Date : 16-DEC-2022 14:46
InstruID : voa6.i
LabSampID : VSTD150

Methyl Acrylate (96-33-3)

BEFORE

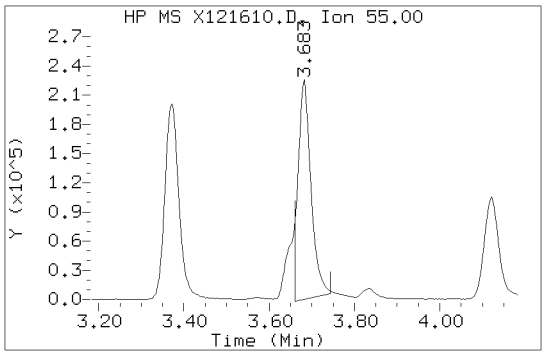
MASS
55
AREA
589884
HEIGHT
225588
27-Dec-2022
16:04
linh
pham



Reason Code:

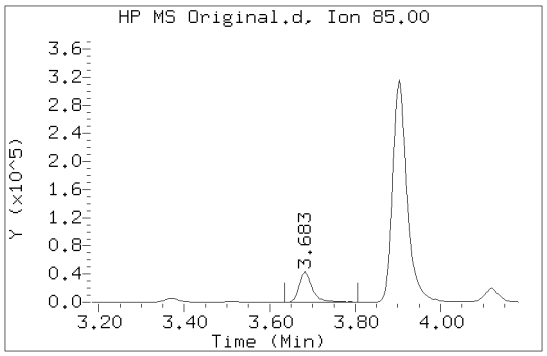
AFTER

MASS
55
AREA
479571
HEIGHT
225684
27-Dec-2022
16:06
linh
pham



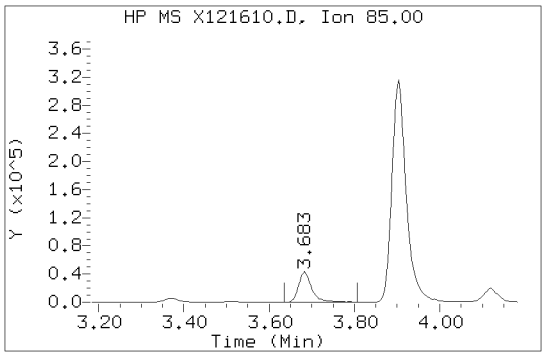
BEFORE

MASS
85
AREA
94462
HEIGHT
43984
27-Dec-2022
16:04
linh
pham



AFTER

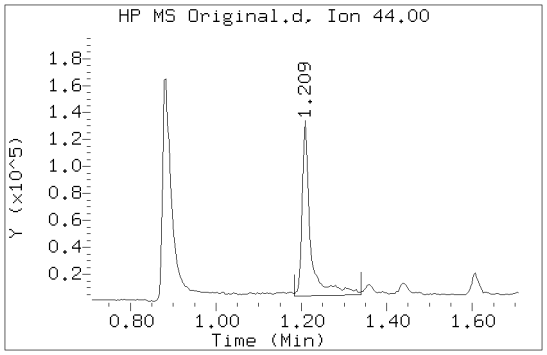
MASS
85
AREA
94462
HEIGHT
43984
27-Dec-2022
16:06
linh
pham



Acetaldehyde (75-07-0)

BEFORE

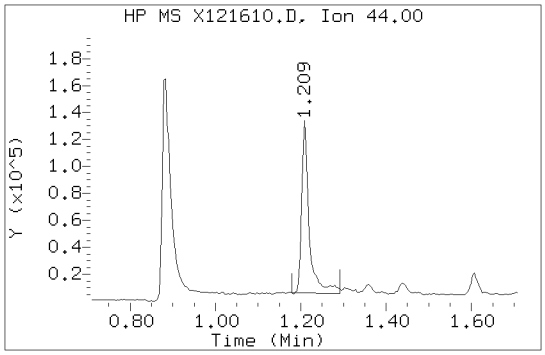
MASS
44
AREA
184291
HEIGHT
129645
27-Dec-2022
16:04
linh
pham



Reason Code:

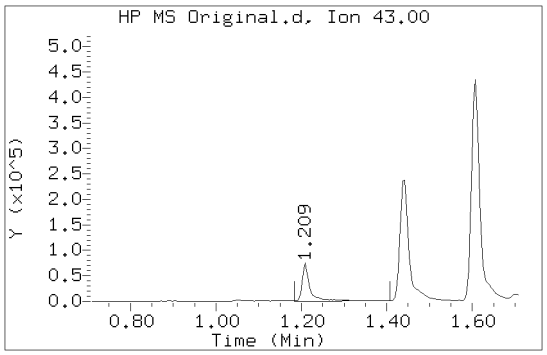
AFTER

MASS
44
AREA
161053
HEIGHT
127430
27-Dec-2022
16:06
linh
pham



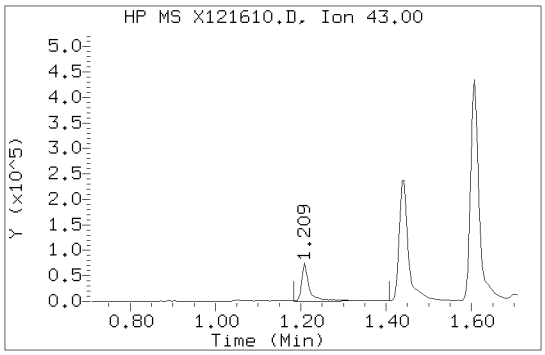
BEFORE

MASS
43
AREA
95359
HEIGHT
74827
27-Dec-2022
16:04
linh
pham



AFTER

MASS
43
AREA
95359
HEIGHT
74827
27-Dec-2022
16:06
linh
pham



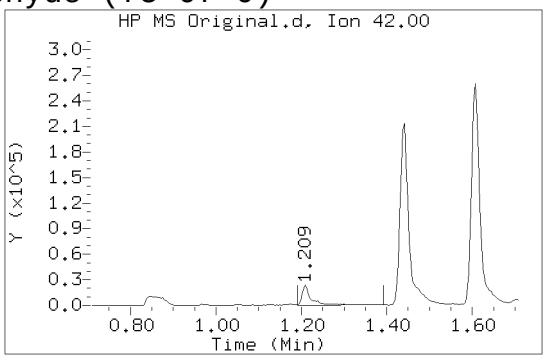
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121610.D
Inj Date : 16-DEC-2022 14:46
InstruID : voa6.i
LabSampID : VSTD150

Acetaldehyde (75-07-0)

Reason Code:

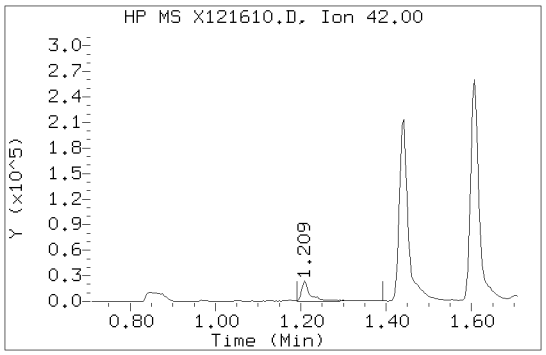
BEFORE

MASS
42
AREA
36089
HEIGHT
23932
27-Dec-2022
16:04
linh
pham



AFTER

MASS
42
AREA
36089
HEIGHT
23932
27-Dec-2022
16:06
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121611.D Page 1
Report Date: 27-Dec-2022 16:07

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121611.D
Lab Smp Id: VSTD200 Client Smp ID: VSTD200
Inj Date : 16-DEC-2022 15:07
Operator : PC Inst ID: voa6.i
Smp Info : VSTD200;VSTD200;1;10;
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\8260W.m
Meth Date : 27-Dec-2022 16:07 voa6.i Quant Type: ISTD
Cal Date : 16-DEC-2022 14:46 Cal File: X121610.D
Als bottle: 12 Calibration Sample, Level: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260V6.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.178	4.178	(1.000)	450847	50.0000	
135 1,4-Dioxane	88	5.598	5.598	(1.340)	179280	4000.00	4350.17(A)
140 1,3-Butadiene	54	1.160	1.160	(0.278)	646265	200.000	208.86(A)
25 Methacrylonitrile	41	3.814	3.814	(0.913)	619479	200.000	194.04
12 Isobutyl Alcohol	43	4.672	4.672	(1.118)	2146631	4000.00	4233.12(A)
13 Acetonitrile	39	2.195	2.195	(0.525)	854153	2000.00	2081.63(A)
14 Allyl Chloride	41	2.195	2.195	(0.525)	1558053	200.000	199.36
4 Propionitrile	54	3.649	3.649	(0.873)	933721	2000.00	2029.71(A)
136 n-Hexane	57	2.768	2.768	(0.663)	726173	200.000	223.70(A)
72 trans-1,4-Dichloro-2-butene	53	8.890	8.890	(1.159)	324976	200.000	217.73(A)
194 Acetaldehyde	44	1.209	1.209	(0.289)	205547	800.000	780.23(M)
23 Chloroprene	53	1.767	1.767	(0.423)	315248	200.000	205.64(A)
145 alpha-Methylstyrene	118	9.261	9.261	(0.958)	1880547	200.000	211.54(A)
200 Dimethyl Disulfide	94	6.198	6.198	(0.808)	1929723	200.000	206.22(A)
139 Diethyl ether	59	1.752	1.752	(0.419)	595638	200.000	197.72
130 Ethyl Acetate	43	3.649	3.649	(0.873)	706790	200.000	200.90(A)
40 Methyl Methacrylate	41	5.602	5.602	(1.341)	643877	200.000	209.45(A)
49 Ethyl Methacrylate	69	6.715	6.715	(1.353)	735246	200.000	222.23(A)
132 n-Butanol	56	5.253	5.253	(1.258)	297334	4000.00	3955.86
142 Tetrahydrofuran	42	3.840	3.840	(0.919)	219995	400.000	401.77(A)

150	Allyl alcohol	57	2.768	2.768 (0.663)	726173	4000.00	4146.79(A)
166	1,2,3-Trimethylbenzene	105	9.733	9.733 (1.007)	3701988	200.000	191.61

Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121611.D Page 2
Report Date: 27-Dec-2022 16:07

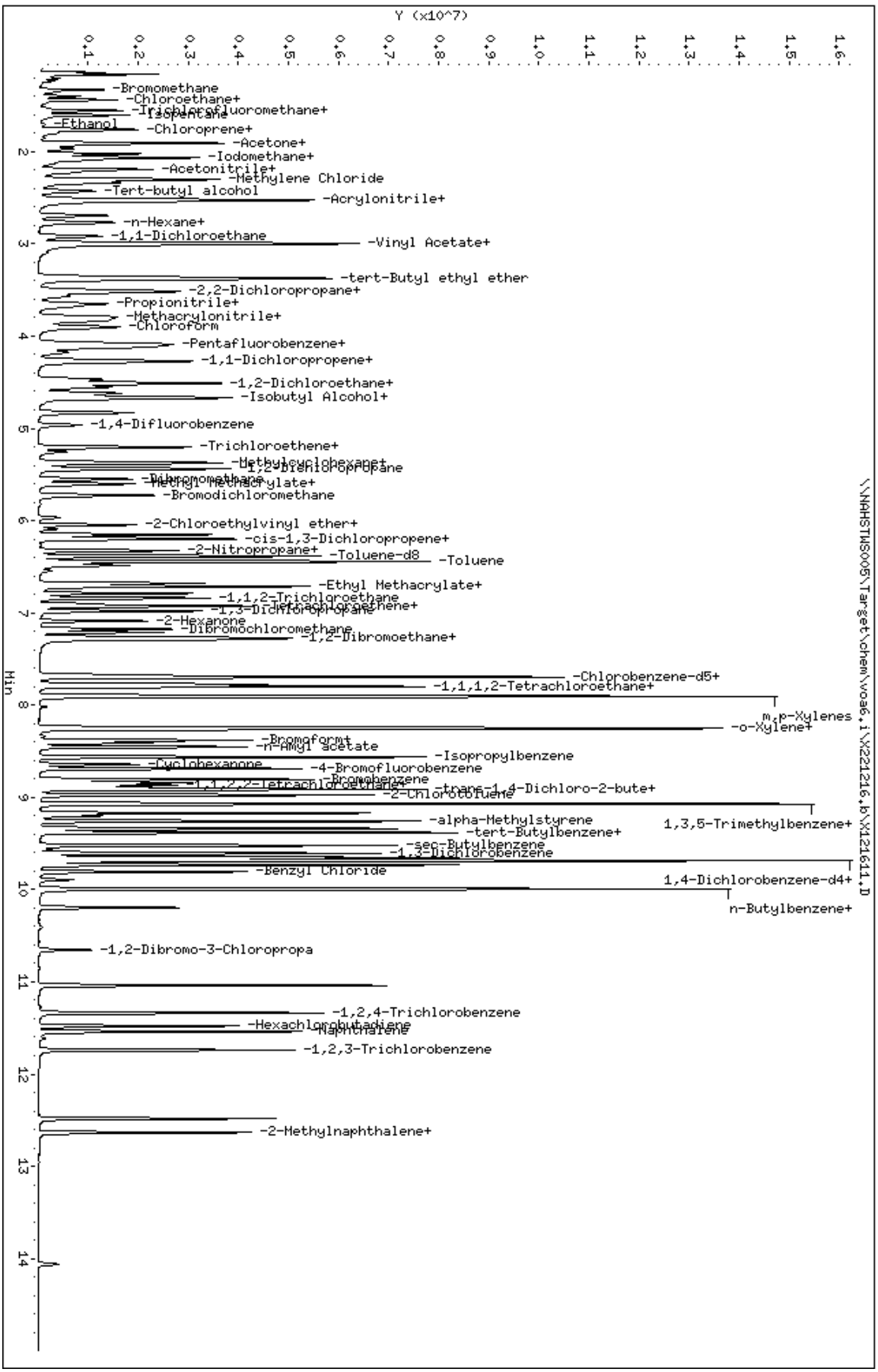
			QUANT SIG					AMOUNTS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
	131	Methyl Acrylate	55	3.683	3.683	(0.882)	646827	200.000	211.32(AM)
	162	Butyl acrylate	55	8.252	8.252	(1.076)	2063916	200.000	228.52(A)
	2	Dichlorodifluoromethane	85	0.969	0.969	(0.232)	635808	200.000	200.44(A)
	3	Chloromethane	50	1.074	1.074	(0.257)	865151	200.000	204.92(A)
	5	Vinyl Chloride	62	1.141	1.141	(0.273)	827926	200.000	210.21(A)
	6	Bromomethane	94	1.329	1.329	(0.318)	666705	200.000	217.67(A)
	7	Chloroethane	64	1.396	1.396	(0.334)	548415	200.000	200.06(A)
	8	Trichlorofluoromethane	101	1.553	1.553	(0.372)	1173529	200.000	212.92(A)
	9	Acrolein	56	1.437	1.437	(0.344)	125874	400.000	399.54
	10	Acetone	43	1.970	1.970	(0.472)	514105	400.000	406.50(A)
	11	1,1-Dichloroethene	96	1.910	1.910	(0.457)	704695	200.000	205.94(A)
	15	Iodomethane	142	2.022	2.022	(0.484)	2193685	400.000	398.07
	16	Acrylonitrile	53	2.528	2.528	(0.605)	504850	400.000	435.02(A)
	17	Methylene Chloride	84	2.299	2.299	(0.550)	863945	200.000	184.07
	18	Methyl tert-butyl ether	73	2.532	2.532	(0.606)	2237559	200.000	199.78
	19	Carbon Disulfide	76	2.067	2.067	(0.495)	3829593	400.000	427.76(A)
	20	trans-1,2-Dichloroethene	96	2.524	2.524	(0.604)	785444	200.000	205.10(A)
	21	Vinyl Acetate	43	2.993	2.993	(0.716)	4210603	400.000	428.26(A)
	22	1,1-Dichloroethane	63	2.918	2.918	(0.699)	1342786	200.000	199.79
	24	2-Butanone	43	3.570	3.570	(0.855)	555896	400.000	404.77(AH)
	26	2,2-Dichloropropane	77	3.507	3.507	(0.839)	1175128	200.000	205.93(A)
	27	cis-1,2-Dichloroethene	96	3.522	3.522	(0.843)	927934	200.000	199.10
	28	Chloroform	83	3.904	3.904	(0.935)	1523082	200.000	202.19(A)
	29	Bromochloromethane	128	3.791	3.791	(0.908)	510028	200.000	199.87
$	30	Dibromofluoromethane	113	4.095	4.095	(0.980)	856027	200.000	198.23
	31	1,1,1-Trichloroethane	97	4.080	4.080	(0.977)	1257327	200.000	210.37(A)
	32	1,1-Dichloropropene	75	4.279	4.279	(0.862)	1048877	200.000	210.29(A)
	33	1,2-Dichloroethane	62	4.552	4.552	(0.917)	1153034	200.000	200.31(A)
	34	Carbon Tetrachloride	117	4.260	4.260	(0.858)	1051824	200.000	197.48
$	35	1,2-Dichloroethane-d4	65	4.470	4.470	(1.070)	919752	200.000	200.47(A)
*	36	1,4-Difluorobenzene	114	4.965	4.965	(1.000)	702551	50.0000	
	37	Benzene	78	4.511	4.511	(0.909)	3321582	200.000	197.98
	38	Trichloroethene	130	5.205	5.205	(1.048)	973709	200.000	204.62(A)
	39	Bromodichloromethane	83	5.722	5.722	(1.153)	1264834	200.000	200.88(A)
	41	2-Chloroethylvinyl ether	63	6.044	6.044	(1.217)	729151	400.000	407.06(A)
	42	1,2-Dichloropropane	63	5.437	5.437	(1.095)	895211	200.000	200.59(A)
	44	Dibromomethane	93	5.550	5.550	(1.118)	600170	200.000	197.85
	45	4-Methyl-2-Pentanone	43	6.326	6.326	(0.825)	1447268	400.000	391.63
	46	cis-1,3-Dichloropropene	75	6.153	6.153	(1.239)	1583645	200.000	214.16(A)
*	47	Chlorobenzene-d5	117	7.671	7.671	(1.000)	691386	50.0000	
$	48	Toluene-d8	98	6.385	6.385	(0.832)	3061758	200.000	179.21
	50	Toluene	91	6.445	6.445	(0.840)	3757557	200.000	196.62
	51	trans-1,3-Dichloropropene	75	6.682	6.682	(1.346)	1365007	200.000	222.44(A)
	52	2-Hexanone	43	7.086	7.086	(0.924)	1026898	400.000	408.42(A)
	53	1,1,2-Trichloroethane	83	6.839	6.839	(0.892)	736981	200.000	192.23
	54	1,3-Dichloropropane	76	6.982	6.982	(0.910)	1482067	200.000	196.39
	55	Dibromochloromethane	129	7.176	7.176	(0.936)	1128140	200.000	203.88(A)
	56	Tetrachloroethene	164	6.929	6.929	(0.903)	798932	200.000	202.05(A)
	57	1,2-Dibromoethane	107	7.259	7.259	(0.946)	970608	200.000	202.48(A)
	58	1-Chlorohexane	55	7.698	7.698	(1.550)	746326	200.000	219.81(A)
	59	Chlorobenzene	112	7.694	7.694	(1.003)	2696715	200.000	198.95
	60	1,1,1,2-Tetrachloroethane	131	7.776	7.776	(1.014)	1028448	200.000	203.88(A)

61 Ethylbenzene	106	7.799	7.799 (1.017)	1312165	200.000	205.50(A)
62 m,p-Xylenes	106	7.904	7.904 (1.030)	3401207	400.000	413.22(A)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
63	o-Xylene	106	8.241	8.241	(1.074)	1701245	200.000	209.41(A)
64	Styrene	104	8.260	8.260	(1.077)	3030858	200.000	222.58(A)
66	Bromoform	173	8.410	8.410	(1.096)	809693	200.000	211.22(A)
67	Isopropylbenzene	105	8.563	8.563	(1.116)	4031708	200.000	217.22(A)
68	1,1,2,2-Tetrachloroethane	83	8.841	8.841	(0.915)	1186926	200.000	185.61
$ 69	4-Bromofluorobenzene	95	8.687	8.687	(1.132)	1277239	200.000	199.81
* 70	1,4-Dichlorobenzene-d4	152	9.666	9.666	(1.000)	401196	50.0000	
71	1,2,3-Trichloropropane	75	8.863	8.863	(0.917)	864931	200.000	193.75(M)
73	n-Propylbenzene	91	8.912	8.912	(0.922)	4694239	200.000	211.23(A)
74	Bromobenzene	156	8.807	8.807	(0.911)	1313631	200.000	199.57
75	1,3,5-Trimethylbenzene	105	9.070	9.070	(0.938)	3532485	200.000	215.17(A)
76	2-Chlorotoluene	91	8.976	8.976	(0.929)	2866849	200.000	196.59
77	4-Chlorotoluene	91	9.070	9.070	(0.938)	3546402	200.000	213.32(A)
78	tert-Butylbenzene	119	9.336	9.336	(0.966)	2865820	200.000	213.26(A)
79	1,2,4-Trimethylbenzene	105	9.381	9.381	(0.971)	3599947	200.000	208.40(A)
81	sec-Butylbenzene	105	9.523	9.523	(0.985)	3952917	200.000	221.08(A)
82	p-Isopropyltoluene	119	9.651	9.651	(0.998)	3537904	200.000	220.81(A)
83	1,3-Dichlorobenzene	146	9.606	9.606	(0.994)	2282597	200.000	208.93(A)
84	1,4-Dichlorobenzene	146	9.684	9.684	(1.002)	2442324	200.000	204.86(A)
86	Benzyl Chloride	91	9.808	9.808	(1.279)	2286488	200.000	202.63(A)
87	n-Butylbenzene	91	9.995	9.995	(1.034)	3216534	200.000	202.68(A)
88	1,2-Dichlorobenzene	146	9.992	9.992	(1.034)	2296902	200.000	204.14(A)
89	1,2-Dibromo-3-Chloropropane	155	10.655	10.655	(1.102)	205063	200.000	200.30(A)
90	1,2,4-Trichlorobenzene	180	11.337	11.337	(1.173)	1524896	200.000	214.75(A)
91	Hexachlorobutadiene	225	11.480	11.480	(1.188)	654615	200.000	200.27(A)
92	Naphthalene	128	11.540	11.540	(1.194)	3413593	200.000	211.29(A)
93	1,2,3-Trichlorobenzene	180	11.739	11.739	(1.214)	1363987	200.000	200.56(A)
M 94	1,2-Dichloroethylene (total)	96				1713378	400.000	
M 95	Xylenes (total)	106				5102452	600.000	
141	Cyclohexane	56	4.121	4.121	(0.987)	943314	200.000	203.60(A)
138	Freon TF	101	1.910	1.910	(0.457)	714577	200.000	215.91(A)
147	Methylcyclohexane	55	5.377	5.377	(1.083)	1829310	200.000	212.71(A)
146	Methyl Acetate	43	2.224	2.224	(0.533)	408781	200.000	201.49(A)
148	Tert-Butyl alcohol	59	2.431	2.431	(0.582)	1308623	4000.00	4191.87(A)
149	Isopropyl Alcohol	45	2.093	2.093	(0.501)	697543	4000.00	4278.45(A)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.



Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121611.D
Date : 16-DEC-2022 15:07
Client ID: WSTD200
Sample Info: WSTD200;WSTD200;1;10;
Purge Volume: 5.0
Column phase: DB624

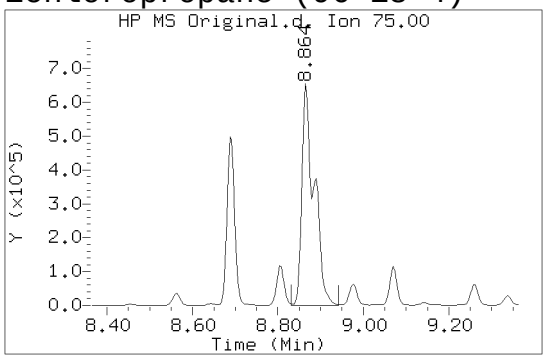
Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121611.D
Inj Date : 16-DEC-2022 15:07
InstruID : voa6.i
LabSampID : VSTD200

1,2,3-Trichloropropane (96-18-4)

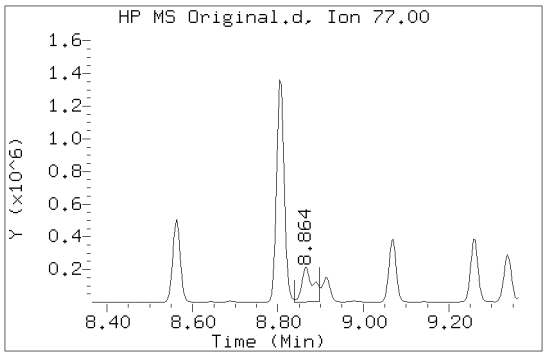
BEFORE

MASS
75
AREA
1323962
HEIGHT
654512
27-Dec-2022
16:04
linh
pham



BEFORE

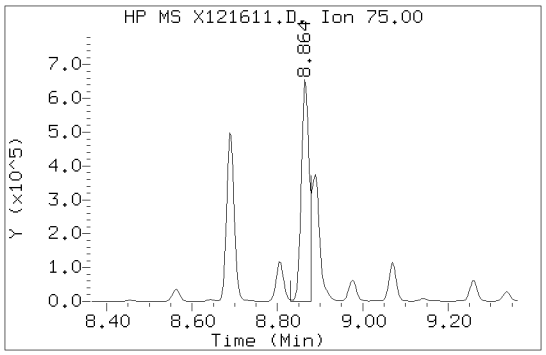
MASS
77
AREA
412197
HEIGHT
211060
27-Dec-2022
16:04
linh
pham



Reason Code:

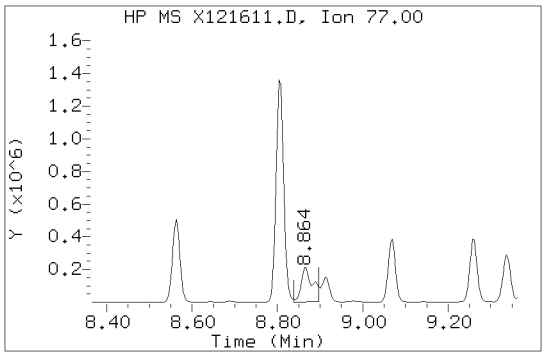
AFTER

MASS
75
AREA
864931
HEIGHT
654512
27-Dec-2022
16:06
linh
pham



AFTER

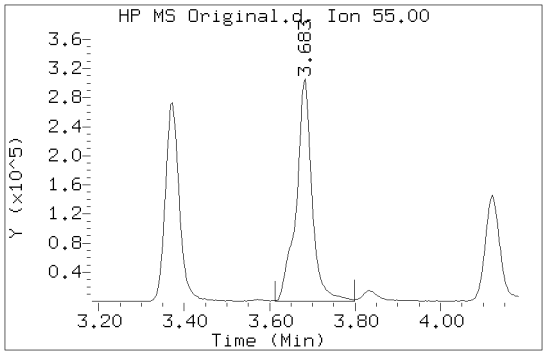
MASS
77
AREA
412197
HEIGHT
211060
27-Dec-2022
16:06
linh
pham



Methyl Acrylate (96-33-3)

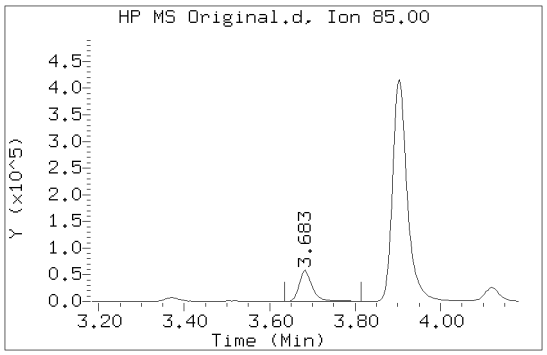
BEFORE

MASS
55
AREA
795765
HEIGHT
305336
27-Dec-2022
16:04
linh
pham



BEFORE

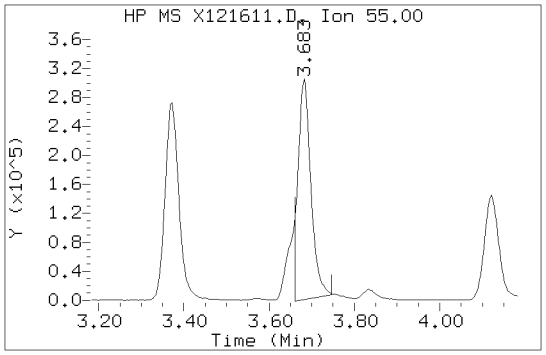
MASS
85
AREA
126210
HEIGHT
59160
27-Dec-2022
16:04
linh
pham



Reason Code:

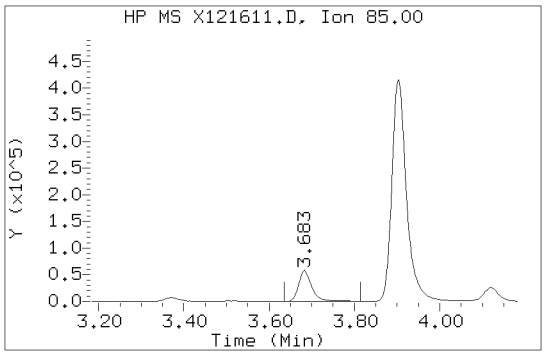
AFTER

MASS
55
AREA
646827
HEIGHT
304558
27-Dec-2022
16:06
linh
pham



AFTER

MASS
85
AREA
126210
HEIGHT
59160
27-Dec-2022
16:06
linh
pham



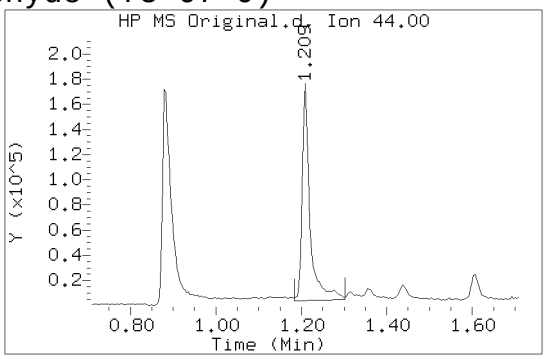
Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121611.D
Inj Date : 16-DEC-2022 15:07
InstruID : voa6.i
LabSampID : VSTD200

Acetaldehyde (75-07-0)

Reason Code:

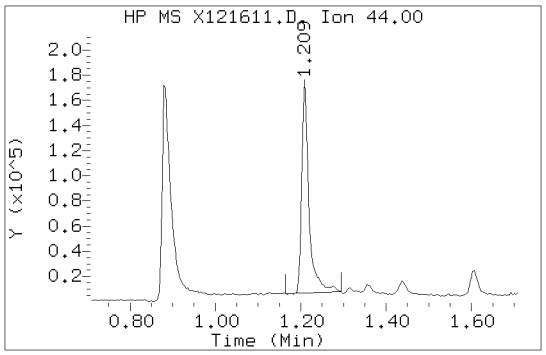
BEFORE

MASS
44
AREA
226389
HEIGHT
172187
27-Dec-2022
16:04
linh
pham



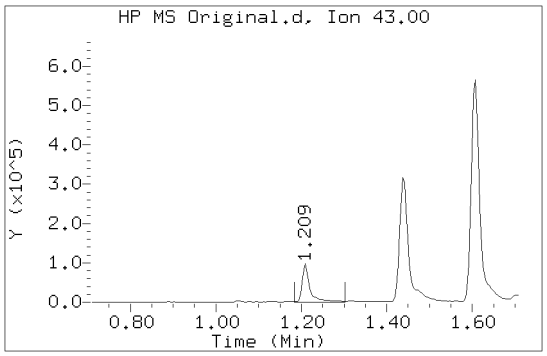
AFTER

MASS
44
AREA
205547
HEIGHT
169403
27-Dec-2022
16:06
linh
pham



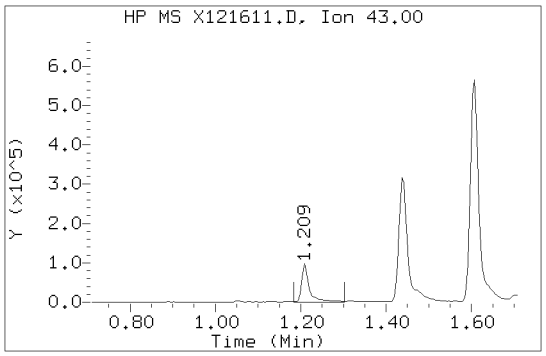
BEFORE

MASS
43
AREA
123674
HEIGHT
97657
27-Dec-2022
16:04
linh
pham



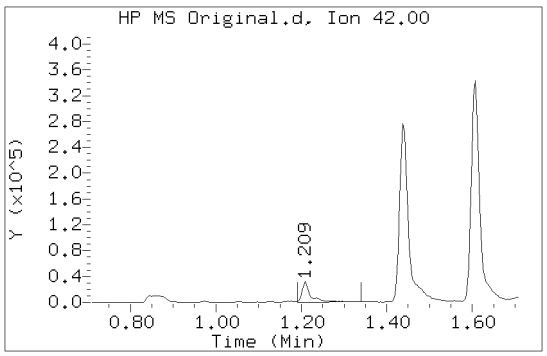
AFTER

MASS
43
AREA
123674
HEIGHT
97657
27-Dec-2022
16:06
linh
pham



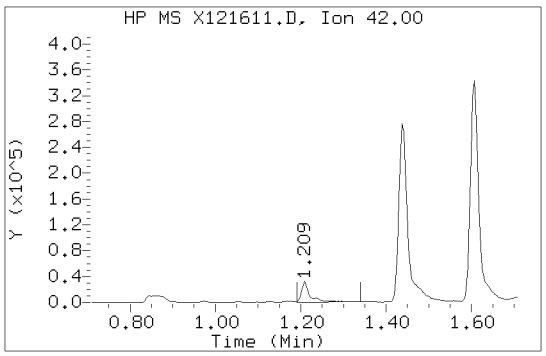
BEFORE

MASS
42
AREA
43931
HEIGHT
31915
27-Dec-2022
16:04
linh
pham



AFTER

MASS
42
AREA
43931
HEIGHT
31915
27-Dec-2022
16:06
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121613.D Page 1
Report Date: 13-Feb-2023 13:08

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121613.D
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 16-DEC-2022 15:49
Operator : PC Inst ID: voa6.i
Smp Info : CCV;CCV;2;;ICV
Misc Info : V6;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\8260W.m
Meth Date : 27-Dec-2022 16:38 Linh.Pham Quant Type: ISTD
Cal Date : 16-DEC-2022 15:07 Cal File: X121611.D
Als bottle: 14 QC Sample: METHSPIKE
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 08260V6.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.178	4.178	(1.000)	457291	50.0000	
135 1,4-Dioxane	88	5.598	5.598	(1.340)	42711	1021.77	1021.76
140 1,3-Butadiene	54	1.164	1.160	(0.279)	155959	49.6927	49.69
25 Methacrylonitrile	41	3.818	3.818	(0.914)	151341	46.7389	46.73
12 Isobutyl Alcohol	43	4.672	4.672	(1.118)	505171	982.151	982.15
13 Acetonitrile	39	2.194	2.195	(0.525)	197937	475.590	475.59
14 Allyl Chloride	41	2.194	2.195	(0.525)	375064	47.3168	47.31
4 Propionitrile	54	3.649	3.645	(0.873)	227186	486.896	486.89
136 n-Hexane	57	2.768	2.768	(0.663)	183599	55.7620	55.76
72 trans-1,4-Dichloro-2-butene	53	8.890	8.886	(1.159)	71513	49.7372	49.73
194 Acetaldehyde	44	1.209	1.209	(0.289)	52697	179.814	179.81(M)
23 Chloroprene	53	1.767	1.767	(0.423)	74243	47.7493	47.74(M)
145 alpha-Methylstyrene	118	9.257	9.257	(0.958)	428317	51.3094	51.30
200 Dimethyl Disulfide	94	6.198	6.194	(0.808)	437905	48.5791	48.57
139 Diethyl ether	59	1.752	1.752	(0.419)	142672	46.6930	46.69
130 Ethyl Acetate	43	3.653	3.653	(0.874)	171211	47.9808	47.98
40 Methyl Methacrylate	41	5.602	5.602	(1.341)	148777	47.7146	47.71
49 Ethyl Methacrylate	69	6.712	6.708	(1.352)	142471	44.0730	44.07
132 n-Butanol	56	5.257	5.253	(1.258)	56842	974.397	974.39
142 Tetrahydrofuran	42	3.840	3.844	(0.919)	61534	108.502	108.50

166	1,2,3-Trimethylbenzene	105	9.729	9.729 (1.007)	846843	46.6777	46.67
131	Methyl Acrylate	55	3.683	3.683 (0.882)	162555	52.3594	52.35

Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121613.D Page 2
Report Date: 13-Feb-2023 13:08

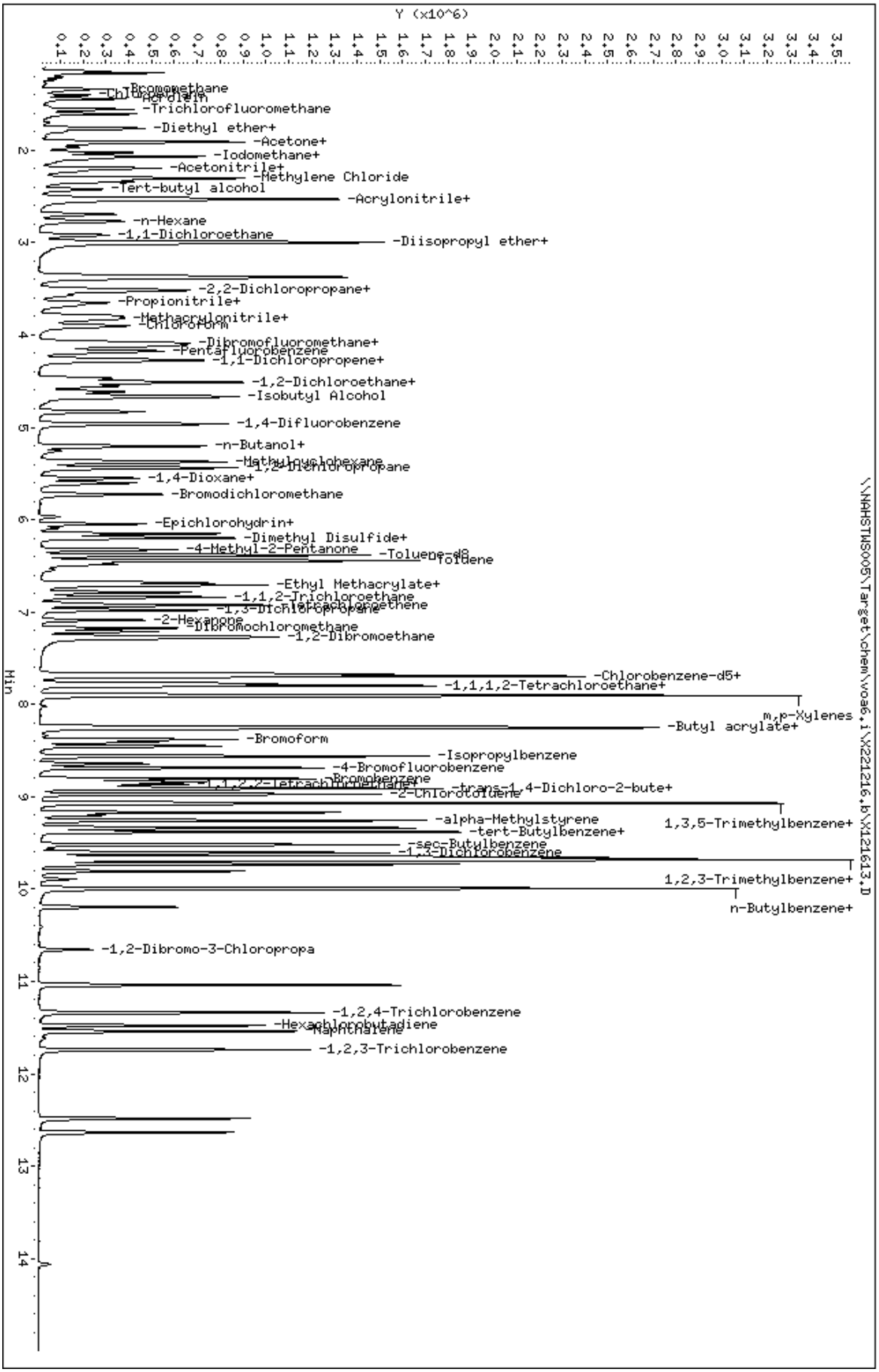
			QUANT SIG					CONCENTRATIONS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/l)	FINAL (ug/l)
	162	Butyl acrylate	55	8.249	8.249	(1.076)	417137	47.9449	47.94
	2	Dichlorodifluoromethane	85	0.972	0.969	(0.233)	166984	52.1924	52.19
	3	Chloromethane	50	1.077	1.077	(0.258)	207623	50.1741	50.17
	5	Vinyl Chloride	62	1.141	1.141	(0.273)	202038	50.5766	50.57
	6	Bromomethane	94	1.336	1.336	(0.320)	153541	50.7886	50.78
	7	Chloroethane	64	1.400	1.400	(0.335)	134354	48.3213	48.32
	8	Trichlorofluoromethane	101	1.557	1.557	(0.373)	285144	51.0083	51.00
	9	Acrolein	56	1.441	1.441	(0.345)	29687	95.0682	95.06
	10	Acetone	43	1.970	1.970	(0.472)	130747	101.899	101.89
	11	1,1-Dichloroethene	96	1.913	1.910	(0.458)	171246	49.3414	49.34
	15	Iodomethane	142	2.026	2.026	(0.485)	440111	96.4856	96.48
	16	Acrylonitrile	53	2.532	2.528	(0.606)	119393	101.430	101.42
	17	Methylene Chloride	84	2.299	2.299	(0.550)	226449	47.5675	47.56
	18	Methyl tert-butyl ether	73	2.532	2.532	(0.606)	546711	48.1256	48.12
	19	Carbon Disulfide	76	2.067	2.067	(0.495)	894433	98.5011	98.50
	20	trans-1,2-Dichloroethene	96	2.528	2.524	(0.605)	194181	49.9917	49.99
	21	Vinyl Acetate	43	2.997	2.993	(0.717)	1044658	104.756	104.75
	22	1,1-Dichloroethane	63	2.918	2.918	(0.699)	328530	48.1931	48.19
	24	2-Butanone	43	3.574	3.574	(0.856)	132931	97.7407	97.74(H)
	26	2,2-Dichloropropane	77	3.507	3.503	(0.839)	295126	50.9895	50.98
	27	cis-1,2-Dichloroethene	96	3.525	3.522	(0.844)	228100	48.2538	48.25
	28	Chloroform	83	3.904	3.900	(0.935)	370227	48.4556	48.45
	29	Bromochloromethane	128	3.795	3.791	(0.908)	122310	47.2570	47.25
$	30	Dibromofluoromethane	113	4.095	4.099	(0.980)	223563	50.9182	50.91
	31	1,1,1-Trichloroethane	97	4.080	4.080	(0.977)	304118	50.1673	50.16
	32	1,1-Dichloropropene	75	4.279	4.279	(0.862)	254008	52.1195	52.11
	33	1,2-Dichloroethane	62	4.552	4.552	(0.917)	278558	49.5262	49.52
	34	Carbon Tetrachloride	117	4.264	4.260	(0.859)	255322	49.0600	49.06
$	35	1,2-Dichloroethane-d4	65	4.470	4.470	(1.070)	233432	50.3661	50.36
*	36	1,4-Difluorobenzene	114	4.965	4.965	(1.000)	686467	50.0000	
	37	Benzene	78	4.511	4.507	(0.909)	824422	50.2921	50.29
	38	Trichloroethene	130	5.205	5.205	(1.048)	238429	51.2807	51.28
	39	Bromodichloromethane	83	5.726	5.726	(1.153)	302844	49.2265	49.22
	41	2-Chloroethylvinyl ether	63	6.048	6.044	(1.218)	182363	104.194	104.19
	42	1,2-Dichloropropane	63	5.433	5.433	(1.094)	216322	49.6089	49.60
	44	Dibromomethane	93	5.550	5.550	(1.118)	145797	49.1915	49.19
	45	4-Methyl-2-Pentanone	43	6.325	6.322	(0.825)	334751	94.0316	94.03
	46	cis-1,3-Dichloropropene	75	6.153	6.153	(1.239)	376514	52.1120	52.11
*	47	Chlorobenzene-d5	117	7.667	7.668	(1.000)	666040	50.0000	
$	48	Toluene-d8	98	6.385	6.386	(0.833)	814721	49.5021	49.50
	50	Toluene	91	6.445	6.446	(0.841)	905906	49.2085	49.20
	51	trans-1,3-Dichloropropene	75	6.682	6.678	(1.346)	314805	52.5028	52.50
	52	2-Hexanone	43	7.086	7.083	(0.924)	234303	96.7356	96.73
	53	1,1,2-Trichloroethane	83	6.839	6.839	(0.892)	176962	47.9147	47.91
	54	1,3-Dichloropropane	76	6.981	6.982	(0.911)	347689	47.8282	47.82
	55	Dibromochloromethane	129	7.176	7.173	(0.936)	263907	49.5095	49.50
	56	Tetrachloroethene	164	6.929	6.925	(0.904)	194246	50.9965	50.99
	57	1,2-Dibromoethane	107	7.259	7.259	(0.947)	232024	50.2468	50.24
	58	1-Chlorohexane	55	7.694	7.694	(1.550)	172462	51.9860	51.98
	59	Chlorobenzene	112	7.694	7.694	(1.003)	631235	48.3416	48.34
	60	1,1,1,2-Tetrachloroethane	131	7.772	7.772	(1.014)	236254	48.6176	48.61
	61	Ethylbenzene	106	7.799	7.799	(1.017)	315635	51.3153	51.31

62 m,p-Xylenes	106	7.904	7.904 (1.031)	794307	100.175	100.17
63 o-Xylene	106	8.241	8.241 (1.075)	389371	49.7531	49.75

			QUANT SIG					CONCENTRATIONS ON-COLUMN	CONCENTRATIONS FINAL
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/l)	(ug/l)
	64	Styrene	104	8.260	8.256	(1.077)	683415	52.0997	52.09
	66	Bromoform	173	8.410	8.410	(1.097)	182169	49.3304	49.33
	67	Isopropylbenzene	105	8.560	8.560	(1.116)	931467	52.0964	52.09
	68	1,1,2,2-Tetrachloroethane	83	8.837	8.837	(0.915)	280729	46.7506	46.75
$	69	4-Bromofluorobenzene	95	8.687	8.687	(1.133)	307493	49.9836	49.98
*	70	1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	376748	50.0000	
	71	1,2,3-Trichloropropane	75	8.863	8.863	(0.917)	201551	48.0786	48.07(M)
	73	n-Propylbenzene	91	8.912	8.912	(0.922)	1099273	52.6761	52.67
	74	Bromobenzene	156	8.803	8.803	(0.911)	306751	49.6271	49.62
	75	1,3,5-Trimethylbenzene	105	9.066	9.066	(0.938)	806374	52.3068	52.30
	76	2-Chlorotoluene	91	8.972	8.972	(0.929)	683941	49.9441	49.94
	77	4-Chlorotoluene	91	9.069	9.070	(0.939)	800114	51.2527	51.25
	78	tert-Butylbenzene	119	9.336	9.336	(0.966)	666730	52.8346	52.83
	79	1,2,4-Trimethylbenzene	105	9.381	9.381	(0.971)	832541	51.3249	51.32
	81	sec-Butylbenzene	105	9.519	9.519	(0.985)	909529	54.1700	54.16
	82	p-Isopropyltoluene	119	9.651	9.647	(0.999)	823827	54.7550	54.75
	83	1,3-Dichlorobenzene	146	9.606	9.606	(0.994)	525438	51.2160	51.21
	84	1,4-Dichlorobenzene	146	9.681	9.681	(1.002)	556610	49.7188	49.71
	87	n-Butylbenzene	91	9.995	9.992	(1.035)	735043	50.6672	50.66
	88	1,2-Dichlorobenzene	146	9.992	9.992	(1.034)	523296	49.5268	49.52
	89	1,2-Dibromo-3-Chloropropane	155	10.655	10.655	(1.103)	48516	50.5353	50.53
	90	1,2,4-Trichlorobenzene	180	11.337	11.337	(1.173)	364475	54.6601	54.66
	91	Hexachlorobutadiene	225	11.480	11.480	(1.188)	170927	57.7383	57.73
	92	Naphthalene	128	11.544	11.540	(1.195)	799121	52.6729	52.67
	93	1,2,3-Trichlorobenzene	180	11.739	11.739	(1.215)	337140	52.7917	52.79
M	94	1,2-Dichloroethylene (total)	96				422281	98.2454	98.24
M	95	Xylenes (total)	106				1183678	149.928	149.92
	141	Cyclohexane	56	4.121	4.121	(0.987)	238664	51.7326	51.73
	138	Freon TF	101	1.913	1.913	(0.458)	177599	52.9072	52.90
	147	Methylcyclohexane	55	5.377	5.377	(1.083)	427649	50.8929	50.89
	146	Methyl Acetate	43	2.228	2.228	(0.533)	99131	48.1755	48.17
	148	Tert-Butyl alcohol	59	2.423	2.427	(0.580)	311463	983.641	983.64
	149	Isopropyl Alcohol	45	2.090	2.090	(0.500)	170003	1028.04	1028.03

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.



Data File: \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121613.D
Date : 16-DEC-2022 15:49
Client ID: ICV
Sample Info: CCV;CCV;2;;ICV
Purge Volume: 5.0
Column phase: DB624

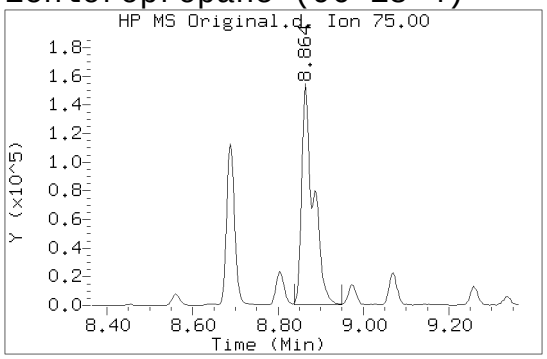
Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121613.D
Inj Date : 16-DEC-2022 15:49
InstruID : voa6.i
LabSampID : ICV

1,2,3-Trichloropropane (96-18-4)

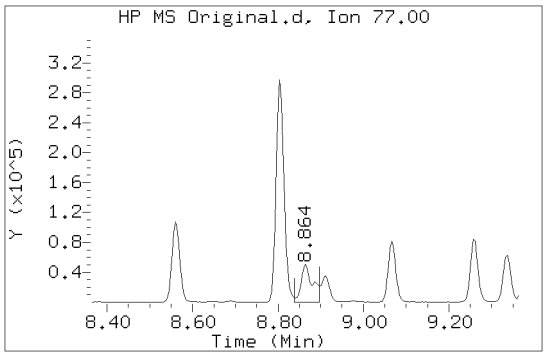
BEFORE

MASS
75
AREA
301229
HEIGHT
154590
27-Dec-2022
16:04
linh
pham



BEFORE

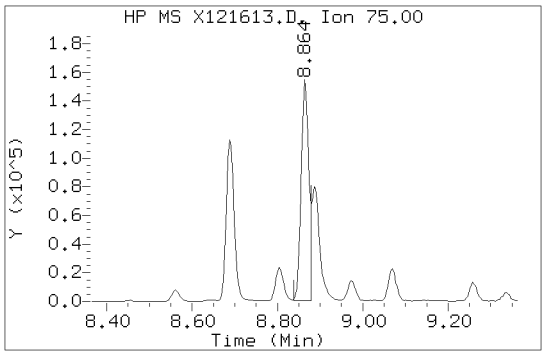
MASS
77
AREA
98445
HEIGHT
50627
27-Dec-2022
16:04
linh
pham



Reason Code:

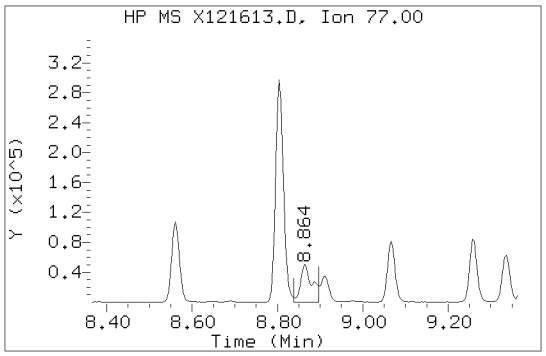
AFTER

MASS
75
AREA
201551
HEIGHT
154590
13-Feb-2023
13:08
linh
pham



AFTER

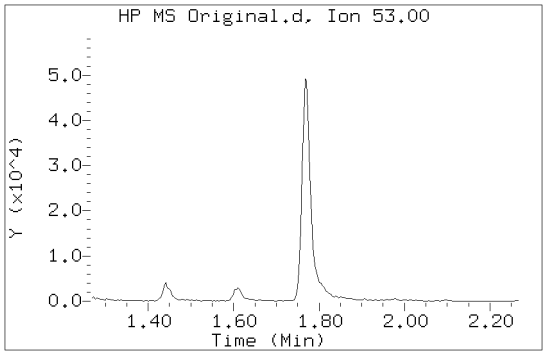
MASS
77
AREA
98445
HEIGHT
50627
13-Feb-2023
13:08
linh
pham



Chloroprene (126-99-8)

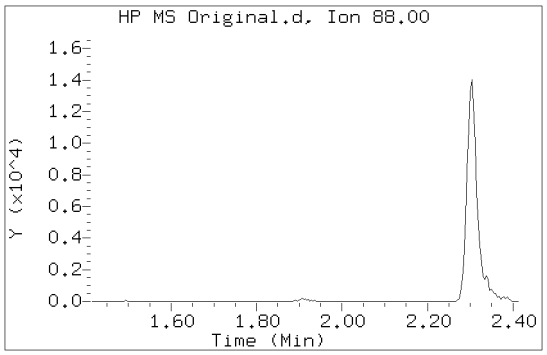
BEFORE

MASS
53
AREA
0
HEIGHT
0
27-Dec-2022
16:04
linh
pham



BEFORE

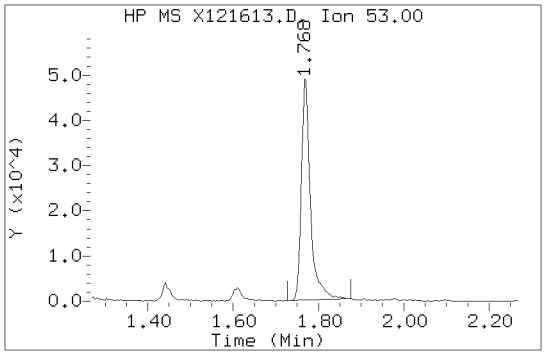
MASS
88
AREA
0
HEIGHT
0
27-Dec-2022
16:04
linh
pham



Reason Code:

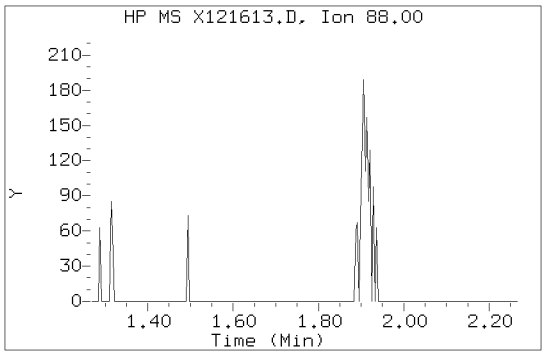
AFTER

MASS
53
AREA
74243
HEIGHT
48931
13-Feb-2023
13:08
linh
pham



AFTER

MASS
88
AREA
0
HEIGHT
0
13-Feb-2023
13:08
linh
pham

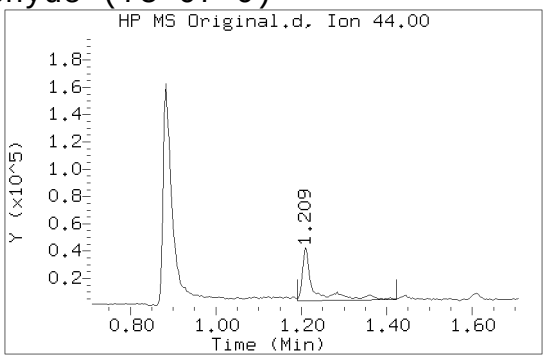


Data File : \\NAHSTWS005\Target\chem\voa6.i\X221216.b\X121613.D
Inj Date : 16-DEC-2022 15:49
InstruID : voa6.i
LabSampID : ICV

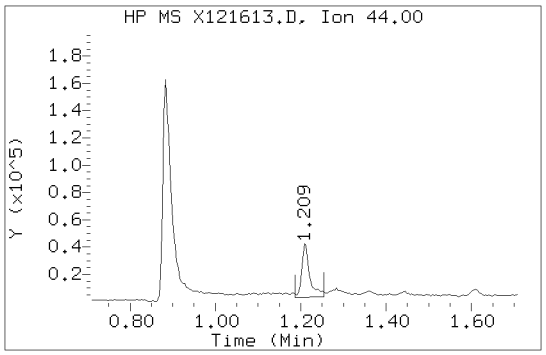
Acetaldehyde (75-07-0)

Reason Code:

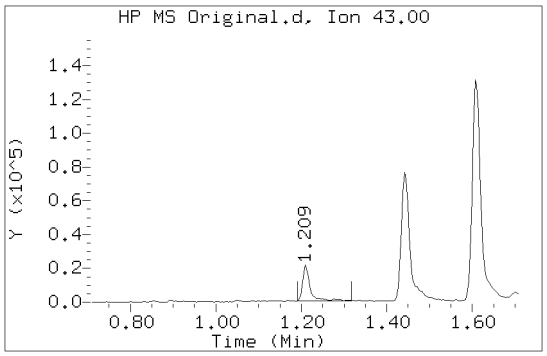
BEFORE
MASS
44
AREA
75387
HEIGHT
39303
27-Dec-2022
16:04
linh
pham



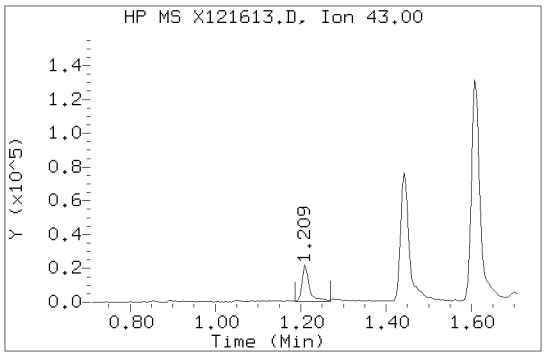
AFTER
MASS
44
AREA
52697
HEIGHT
39303
13-Feb-2023
13:08
linh
pham



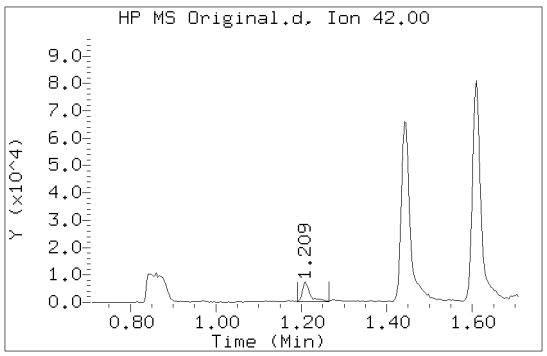
BEFORE
MASS
43
AREA
27778
HEIGHT
21502
27-Dec-2022
16:04
linh
pham



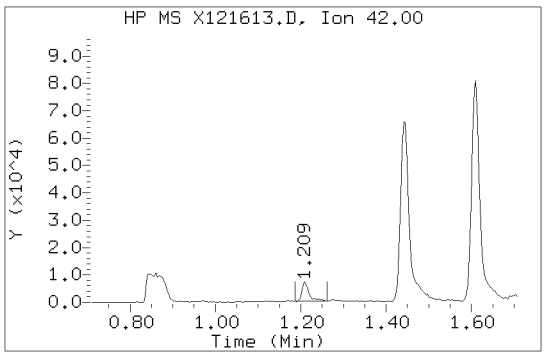
AFTER
MASS
43
AREA
26760
HEIGHT
21664
13-Feb-2023
13:08
linh
pham



BEFORE
MASS
42
AREA
8969
HEIGHT
7131
27-Dec-2022
16:04
linh
pham



AFTER
MASS
42
AREA
8550
HEIGHT
7027
13-Feb-2023
13:08
linh
pham



01182801

right solutions.
right partner.

Raw Data VOA6 429719

Volatiles by EPA 8260

Workorder

HS23030396

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Monthly Effluent Samples

03/15/2023

ALS Environmental–Houston Laboratory

10450 Stancliff Road, Suite 210, Houston, TX 77099

Phone (281) 530-5656 Fax (281) 530-5887

www.alsglobal.com

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230309.b\X030901.D Page 1
Report Date: 09-Mar-2023 11:06

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230309.b\X030901.D
Lab Smp Id: BFB Client Smp ID: BFB
Inj Date : 09-MAR-2023 10:40
Operator : PC Inst ID: voa6.i
Smp Info : BFB;BFB;3;;BFB
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X230309.b\bfb.m
Meth Date : 02-Mar-2023 21:12 voa6.i Quant Type: ISTD
Cal Date : Cal File:
Als bottle: 1 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14 Sample Matrix: WATER
Processing Host: NAHSTW7051

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vf	1.000	Volumetric correction factor
Vi	2.000	Injection Volume
Cpnd Variable		Local Compound Variable

					CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/l)		
RT	EXP RT	REL RT	MASS	RESPONSE			TARGET RANGE	RATIO
1 bfb							CAS #: 460-00-4	
8.687	8.889	(0.000)	95	62000			0.00- 100.00	100.00
8.687	8.889	(0.000)	50	10686			15.00- 40.00	17.24
8.687	8.889	(0.000)	75	28688			30.00- 60.00	46.27
8.687	8.889	(0.000)	96	4735			5.00- 9.00	7.64
8.687	8.889	(0.000)	173	453			0.00- 2.00	0.96
8.687	8.889	(0.000)	174	46976			50.00- 0.00	75.77
8.687	8.889	(0.000)	175	3569			5.00- 9.00	7.60
8.687	8.889	(0.000)	176	46792			95.00- 101.00	99.61
8.687	8.889	(0.000)	177	3153			5.00- 9.00	6.74

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	17.24
75	30.00 - 60.00% of mass 95	46.27
96	5.00 - 9.00% of mass 95	7.64
173	Less than 2.00% of mass 174	0.73 (0.96)
174	Greater than 50.00% of mass 95	75.77
175	5.00 - 9.00% of mass 174	5.76 (7.60)
176	95.00 - 101.00% of mass 174	75.47 (99.61)
177	5.00 - 9.00% of mass 176	5.09 (6.74)

Data File: X030901.D
Spectrum: Scan 2159 (8.68)
Location of Maximum: 95.00
Number of points: 104

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.90	594	63.90	197	91.90	1551	130.00	165
37.00	2196	64.90	211	93.00	2212	130.70	85
38.00	2265	66.00	117	94.00	5866	135.00	102
39.00	1788	67.10	159	95.00	62000	136.90	173
40.00	1366	68.00	5421	96.00	4735	139.00	91
41.00	1399	69.00	6497	97.00	247	140.80	458
42.00	2134	70.00	1263	97.30	277	141.90	75
43.00	949	70.90	277	98.00	1593	142.70	432
44.00	945	71.90	371	99.00	113	146.70	63
45.10	775	73.00	2704	103.10	91	148.00	160
47.10	795	74.00	9731	103.90	456	149.90	87
48.00	222	75.00	28688	104.90	418	154.70	352
49.00	2185	76.00	2353	105.80	280	156.80	106
50.00	10686	77.10	511	106.90	284	160.90	80
51.00	3396	77.90	325	108.90	262	172.90	453
52.00	271	78.90	1344	112.10	51	173.90	46976
52.80	86	79.90	515	112.90	61	174.90	3569
53.20	86	80.90	1403	114.80	280	175.90	46792
53.80	298	82.00	441	116.00	240	177.00	3153
55.00	3140	82.90	352	116.90	239	177.80	157
56.10	1394	84.00	92	117.90	250	186.00	127
57.00	1990	84.80	84	119.00	253	235.90	105
57.90	311	85.30	90	119.60	55	278.00	70
60.00	507	86.00	151	123.80	80		
61.00	2799	86.90	2838	126.70	140		
62.00	2335	87.90	2272	127.90	306		
63.00	2198	90.90	281	128.90	94		

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230309.b\X030901.D Page 1

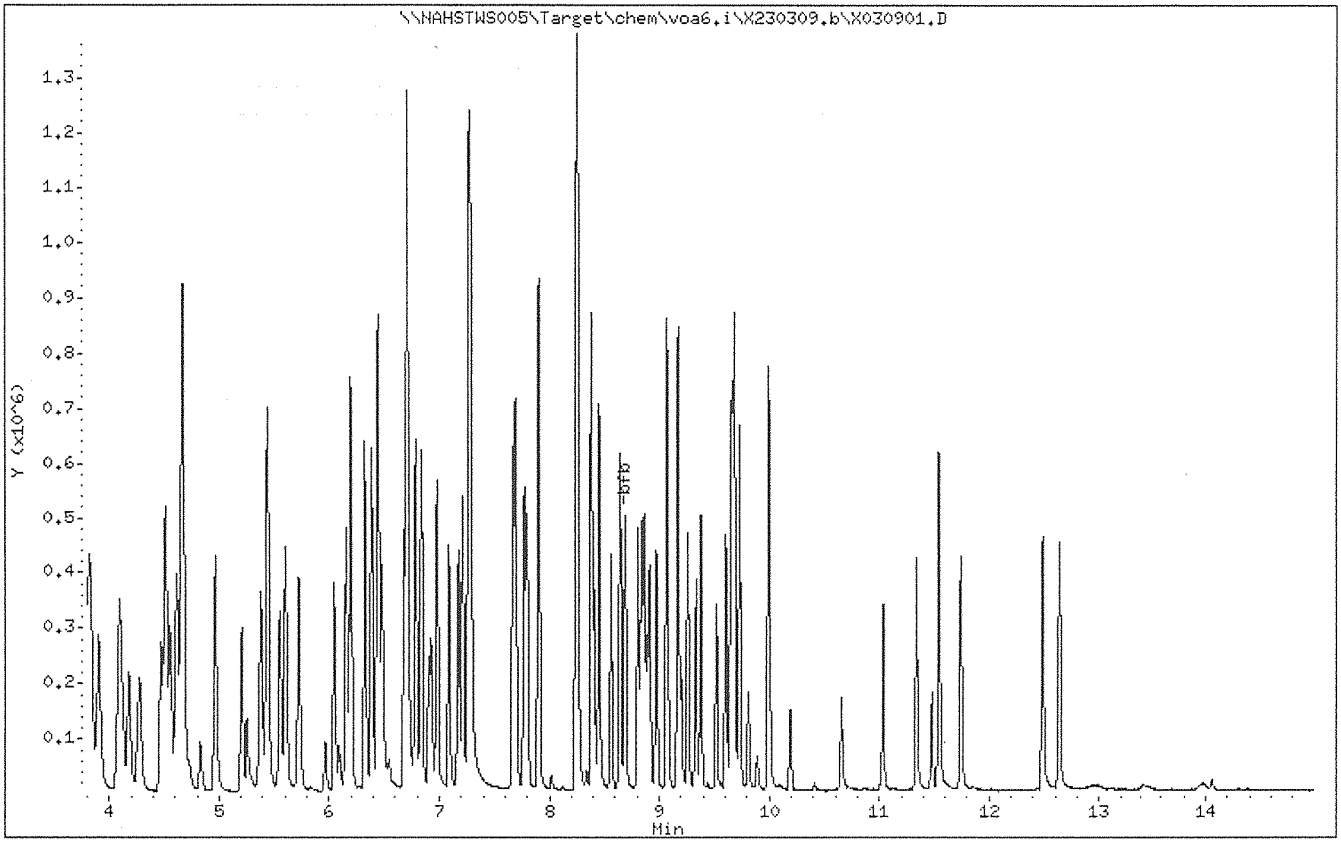
Date : 09-MAR-2023 10:40

Client ID: BFB Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0 Operator: PC

Column phase: DB624 Column diameter: 0.25



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230309.b\X030901.D Page 2

Date : 09-MAR-2023 10:40

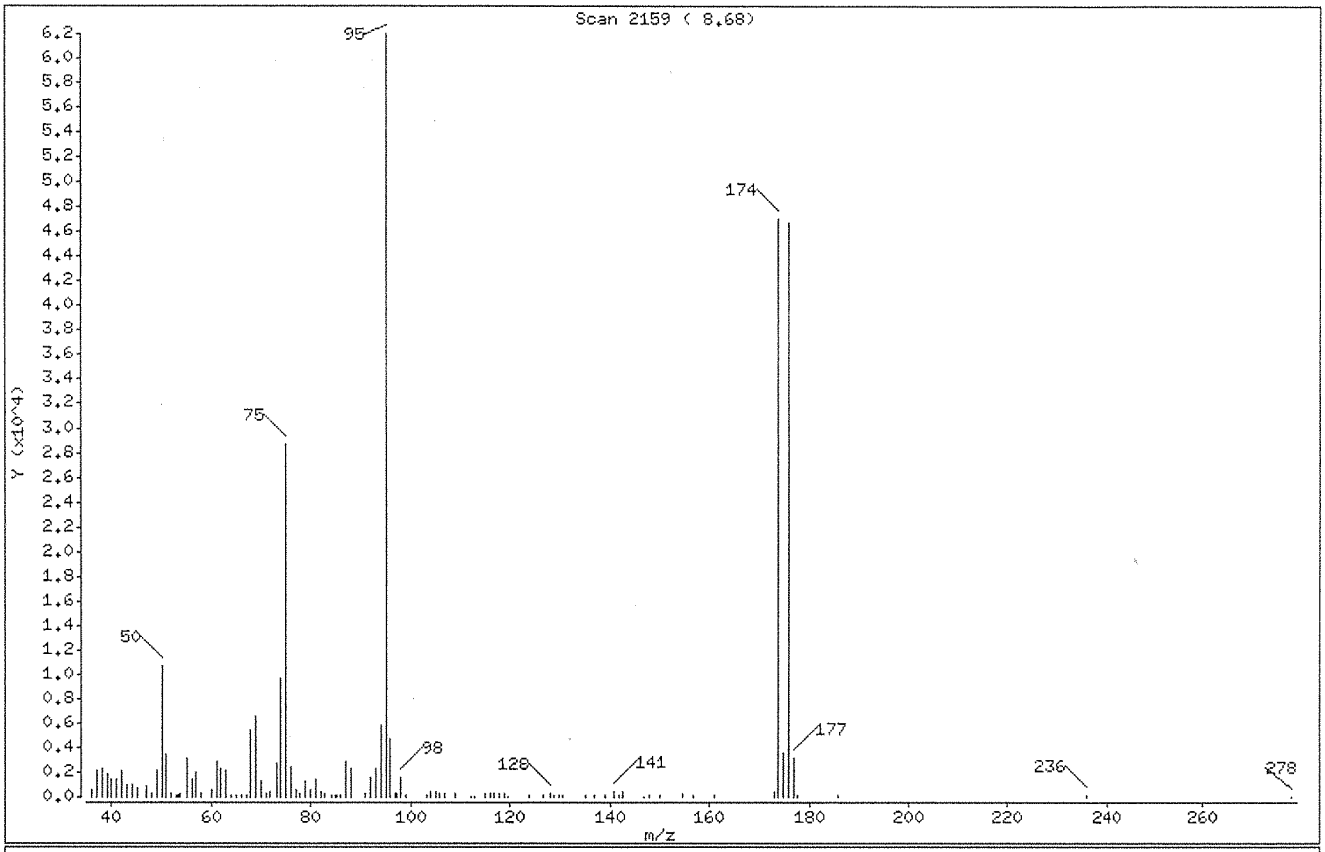
Client ID: BFB Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0 Operator: PC

Column phase: DB624 Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	17.24
75	30.00 - 60.00% of mass 95	46.27
96	5.00 - 9.00% of mass 95	7.64
173	Less than 2.00% of mass 174	0.73 (0.96)
174	Greater than 50.00% of mass 95	75.77
175	5.00 - 9.00% of mass 174	5.76 (7.60)
176	95.00 - 101.00% of mass 174	75.47 (99.61)
177	5.00 - 9.00% of mass 176	5.09 (6.74)

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230309.b\X030901.D

Date : 09-MAR-2023 10:40

Client ID: BFB Instrument: voa6.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0 Operator: PC

Column phase: DB624 Column diameter: 0.25

Data File: X030901.D
Spectrum: Scan 2159 (8.68)
Location of Maximum: 95.00
Number of points: 104

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.90	594	63.90	197	91.90	1551	130.00	165
37.00	2196	64.90	211	93.00	2212	130.70	85
38.00	2265	66.00	117	94.00	5866	135.00	102
39.00	1788	67.10	159	95.00	62000	136.90	173
40.00	1366	68.00	5421	96.00	4735	139.00	91
41.00	1399	69.00	6497	97.00	247	140.80	458
42.00	2134	70.00	1263	97.30	277	141.90	75
43.00	949	70.90	277	98.00	1593	142.70	432
44.00	945	71.90	371	99.00	113	146.70	63
45.10	775	73.00	2704	103.10	91	148.00	160
47.10	795	74.00	9731	103.90	456	149.90	87
48.00	222	75.00	28688	104.90	418	154.70	352
49.00	2185	76.00	2353	105.80	280	156.80	106
50.00	10686	77.10	511	106.90	284	160.90	80
51.00	3396	77.90	325	108.90	262	172.90	453
52.00	271	78.90	1344	112.10	51	173.90	46976
52.80	86	79.90	515	112.90	61	174.90	3569
53.20	86	80.90	1403	114.80	280	175.90	46792
53.80	298	82.00	441	116.00	240	177.00	3153
55.00	3140	82.90	352	116.90	239	177.80	157
56.10	1394	84.00	92	117.90	250	186.00	127
57.00	1990	84.80	84	119.00	253	235.90	105
57.90	311	85.30	90	119.60	55	278.00	70
60.00	507	86.00	151	123.80	80		
61.00	2799	86.90	2838	126.70	140		
62.00	2335	87.90	2272	127.90	306		
63.00	2198	90.90	281	128.90	94		

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230309.b\X030903.D Page 1
Report Date: 15-Mar-2023 14:51

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230309.b\X030903.D
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 09-MAR-2023 11:22
Operator : PC Inst ID: voa6.i
Smp Info : CCV;CCV;2;;
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X230309.b\8260W.m
Meth Date : 15-Mar-2023 14:51 voa6.i Quant Type: ISTD
Cal Date : 16-DEC-2022 14:04 Cal File: X121608.D
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.178	4.178	(1.000)	396693	50.0000	
135 1,4-Dioxane	88	5.595	5.595	(1.339)	40480	1000.00	1116.32
140 1,3-Butadiene	54	1.164	1.164	(0.279)	123704	50.0000	45.43
13 Acetonitrile	39	2.198	2.198	(0.526)	212435	500.000	588.39
194 Acetaldehyde	44	1.212	1.212	(0.290)	52430	200.000	209.65(M)
145 alpha-Methylstyrene	118	9.257	9.257	(0.958)	327916	50.0000	46.17
156 Diisopropyl ether	45	2.997	2.997	(0.717)	648141	50.0000	62.98
166 1,2,3-Trimethylbenzene	105	9.729	9.729	(1.007)	748480	50.0000	48.49
2 Dichlorodifluoromethane	85	0.973	0.973	(0.233)	125401	50.0000	45.23
3 Chloromethane	50	1.077	1.077	(0.258)	209129	50.0000	57.90
5 Vinyl Chloride	62	1.145	1.145	(0.274)	173667	50.0000	50.11
6 Bromomethane	94	1.340	1.340	(0.321)	110046	50.0000	42.26
7 Chloroethane	64	1.404	1.404	(0.336)	116159	50.0000	48.15
8 Trichlorofluoromethane	101	1.561	1.561	(0.374)	215958	50.0000	44.53
9 Acrolein	56	1.449	1.449	(0.347)	24382	100.000	90.15
10 Acetone	43	1.970	1.970	(0.472)	116644	100.000	104.79
11 1,1-Dichloroethene	96	1.913	1.913	(0.458)	128603	50.0000	42.71
15 Iodomethane	142	2.026	2.026	(0.485)	397534	100.000	100.16
16 Acrylonitrile	53	2.532	2.532	(0.606)	134378	100.000	131.59
17 Methylene Chloride	84	2.303	2.303	(0.551)	203356	50.0000	49.24

18 Methyl tert-butyl ether	73	2.532	2.532 (0.606)	591079	50.0000	59.97(M)
19 Carbon Disulfide	76	2.071	2.071 (0.496)	843827	100.000	107.12

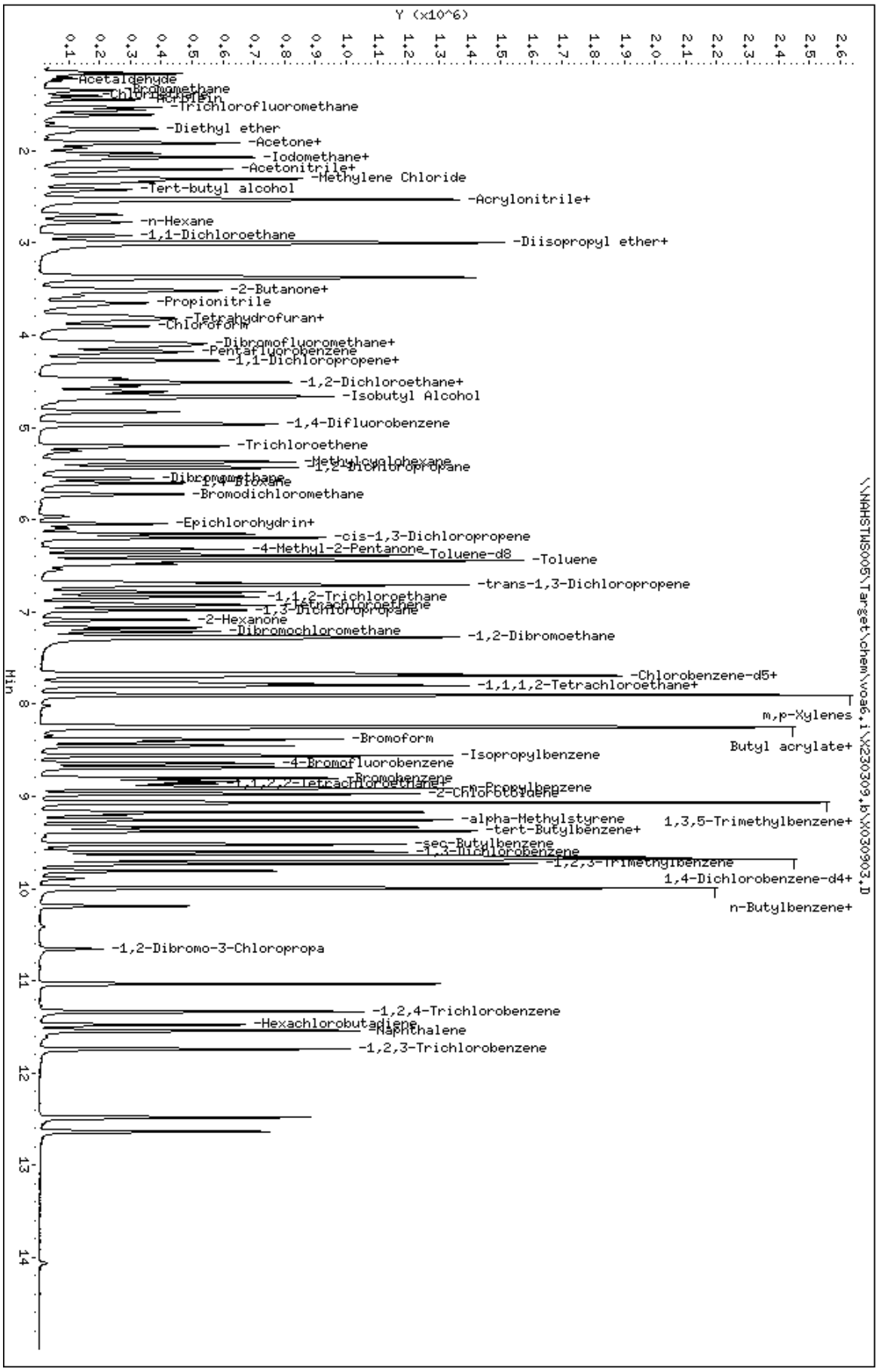
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	20 trans-1,2-Dichloroethene	96	2.528	2.528	(0.605)	167129	50.0000	49.59
	21 Vinyl Acetate	43	2.993	2.993	(0.716)	1109512	100.000	128.25
	22 1,1-Dichloroethane	63	2.922	2.922	(0.699)	314252	50.0000	53.14
	24 2-Butanone	43	3.574	3.574	(0.856)	139117	100.000	117.29
	26 2,2-Dichloropropane	77	3.507	3.507	(0.839)	265669	50.0000	52.91
	27 cis-1,2-Dichloroethene	96	3.525	3.525	(0.844)	201609	50.0000	49.16
	28 Chloroform	83	3.900	3.900	(0.934)	325611	50.0000	49.12
	29 Bromochloromethane	128	3.792	3.792	(0.908)	107342	50.0000	47.80
$	30 Dibromofluoromethane	113	4.095	4.095	(0.980)	183472	50.0000	48.16
	31 1,1,1-Trichloroethane	97	4.080	4.080	(0.977)	254800	50.0000	48.45
	32 1,1-Dichloropropene	75	4.279	4.279	(0.862)	223000	50.0000	50.12
	33 1,2-Dichloroethane	62	4.552	4.552	(0.917)	264874	50.0000	51.58
	34 Carbon Tetrachloride	117	4.264	4.264	(0.859)	205213	50.0000	43.19
$	35 1,2-Dichloroethane-d4	65	4.470	4.470	(1.070)	210880	50.0000	52.43
*	36 1,4-Difluorobenzene	114	4.965	4.965	(1.000)	626698	50.0000	
	37 Benzene	78	4.511	4.511	(0.909)	746931	50.0000	49.91
	38 Trichloroethene	130	5.205	5.205	(1.048)	198062	50.0000	46.66
	39 Bromodichloromethane	83	5.722	5.722	(1.153)	269206	50.0000	47.93
	41 2-Chloroethylvinyl ether	63	6.044	6.044	(1.217)	158284	100.000	99.06
	42 1,2-Dichloropropane	63	5.433	5.433	(1.094)	208792	50.0000	52.44
	44 Dibromomethane	93	5.550	5.550	(1.118)	128571	50.0000	47.51
	45 4-Methyl-2-Pentanone	43	6.322	6.322	(0.824)	368051	100.000	116.43
	46 cis-1,3-Dichloropropene	75	6.153	6.153	(1.239)	352788	50.0000	53.48
*	47 Chlorobenzene-d5	117	7.668	7.668	(1.000)	591391	50.0000	
$	48 Toluene-d8	98	6.386	6.386	(0.833)	698991	50.0000	47.83
	50 Toluene	91	6.446	6.446	(0.841)	780167	50.0000	47.72
	51 trans-1,3-Dichloropropene	75	6.682	6.682	(1.346)	300849	50.0000	54.96
	52 2-Hexanone	43	7.087	7.087	(0.924)	253907	100.000	118.06
	53 1,1,2-Trichloroethane	83	6.839	6.839	(0.892)	157475	50.0000	48.02
	54 1,3-Dichloropropane	76	6.978	6.978	(0.910)	333798	50.0000	51.71
	55 Dibromochloromethane	129	7.173	7.173	(0.935)	225980	50.0000	47.74
	56 Tetrachloroethene	164	6.925	6.925	(0.903)	144030	50.0000	42.58
	57 1,2-Dibromoethane	107	7.259	7.259	(0.947)	201397	50.0000	49.11
	58 1-Chlorohexane	55	7.694	7.694	(1.550)	138549	50.0000	45.74
	59 Chlorobenzene	112	7.694	7.694	(1.003)	532725	50.0000	45.94
	60 1,1,1,2-Tetrachloroethane	131	7.773	7.773	(1.014)	203082	50.0000	47.06
	61 Ethylbenzene	106	7.799	7.799	(1.017)	254853	50.0000	46.66
	62 m,p-Xylenes	106	7.900	7.900	(1.030)	647962	100.000	92.03
	63 o-Xylene	106	8.241	8.241	(1.075)	324441	50.0000	46.68
	64 Styrene	104	8.256	8.256	(1.077)	574722	50.0000	49.34
	66 Bromoform	173	8.410	8.410	(1.097)	153300	50.0000	46.75
	67 Isopropylbenzene	105	8.560	8.560	(1.116)	720500	50.0000	45.38
	68 1,1,2,2-Tetrachloroethane	83	8.837	8.837	(0.915)	257219	50.0000	50.34
$	69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	273999	50.0000	50.16
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	320525	50.0000	
	71 1,2,3-Trichloropropane	75	8.863	8.863	(0.917)	186995	50.0000	52.43
	73 n-Propylbenzene	91	8.912	8.912	(0.922)	852506	50.0000	48.01
	74 Bromobenzene	156	8.803	8.803	(0.911)	245845	50.0000	46.75
	75 1,3,5-Trimethylbenzene	105	9.066	9.066	(0.938)	647722	50.0000	49.38
	76 2-Chlorotoluene	91	8.972	8.972	(0.929)	577976	50.0000	49.60
	77 4-Chlorotoluene	91	9.070	9.070	(0.939)	668779	50.0000	50.35
	78 tert-Butylbenzene	119	9.336	9.336	(0.966)	501645	50.0000	46.72

79 1,2,4-Trimethylbenzene	105	9.377	9.377 (0.971)	669575	50.0000	48.51
81 sec-Butylbenzene	105	9.519	9.519 (0.985)	678797	50.0000	47.51

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	82 p-Isopropyltoluene	119	9.647	9.647	(0.998)	625147	50.0000	48.83
	83 1,3-Dichlorobenzene	146	9.606	9.606	(0.994)	414735	50.0000	47.51
	84 1,4-Dichlorobenzene	146	9.681	9.681	(1.002)	428272	50.0000	44.96
	87 n-Butylbenzene	91	9.996	9.996	(1.035)	526222	50.0000	42.91
	88 1,2-Dichlorobenzene	146	9.992	9.992	(1.034)	413906	50.0000	46.04
	89 1,2-Dibromo-3-Chloropropane	155	10.655	10.655	(1.103)	43729	50.0000	53.53
	90 1,2,4-Trichlorobenzene	180	11.338	11.338	(1.173)	300185	50.0000	52.91
	91 Hexachlorobutadiene	225	11.476	11.476	(1.188)	116072	50.0000	46.20
	92 Naphthalene	128	11.540	11.540	(1.194)	729707	50.0000	56.53
	93 1,2,3-Trichlorobenzene	180	11.739	11.739	(1.215)	287752	50.0000	52.96
M	94 1,2-Dichloroethylene (total)	96				368738	100.000	(a)
	141 Cyclohexane	56	4.121	4.121	(0.987)	204556	50.0000	51.12
	138 Freon TF	101	1.913	1.913	(0.458)	116576	50.0000	40.03(M)
	147 Methylcyclohexane	55	5.377	5.377	(1.083)	474992	50.0000	61.91
	146 Methyl Acetate	43	2.228	2.228	(0.533)	120546	50.0000	67.53
	148 Tert-Butyl alcohol	59	2.423	2.423	(0.580)	342560	1000.00	1247.10
	149 Isopropyl Alcohol	45	2.090	2.090	(0.500)	192498	1000.00	1341.89

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.



Data File: \\NAHSTWS005\Target\chem\voa6.i\%230309.b\%030903.D
Date : 09-MAR-2023 11:22
Client ID: CCV
Sample Info: CCV;CCV;2;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

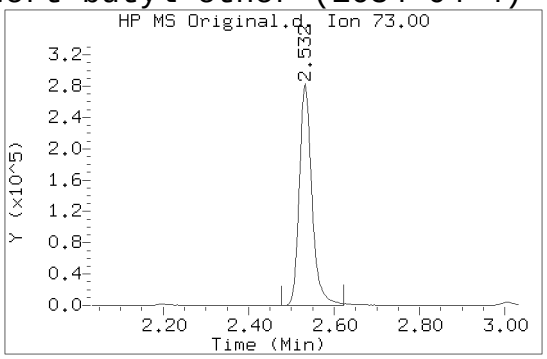
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230309.b\X030903.D
Inj Date : 09-MAR-2023 11:22
InstruID : voa6.i
LabSampID : CCV

Methyl tert-butyl ether (1634-04-4)

Reason Code:

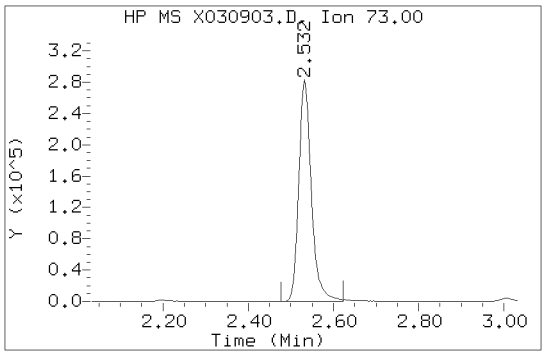
BEFORE

MASS
73
AREA
591079
HEIGHT
283200
15-Mar-2023
14:51
linh
pham



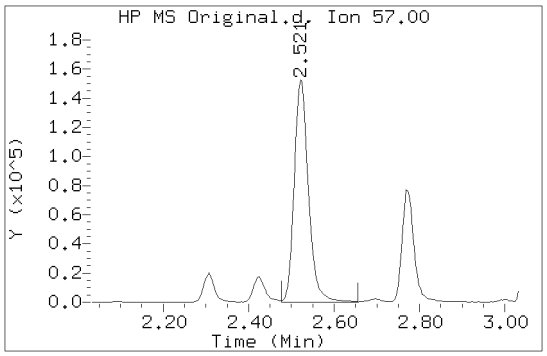
AFTER

MASS
73
AREA
591079
HEIGHT
283200
15-Mar-2023
14:51
linh
pham



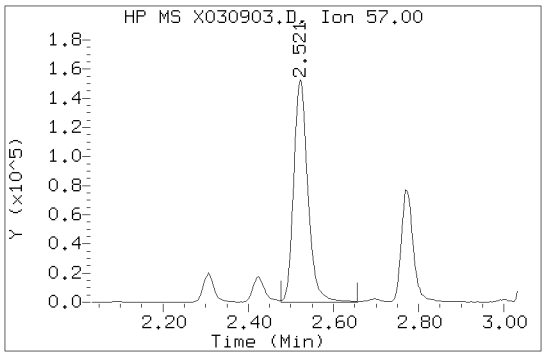
BEFORE

MASS
57
AREA
355640
HEIGHT
152394
15-Mar-2023
14:51
linh
pham



AFTER

MASS
57
AREA
355640
HEIGHT
152394
15-Mar-2023
14:51
linh
pham

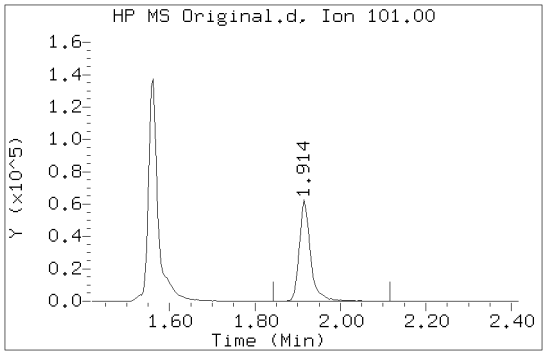


Freon TF (76-13-1)

Reason Code:

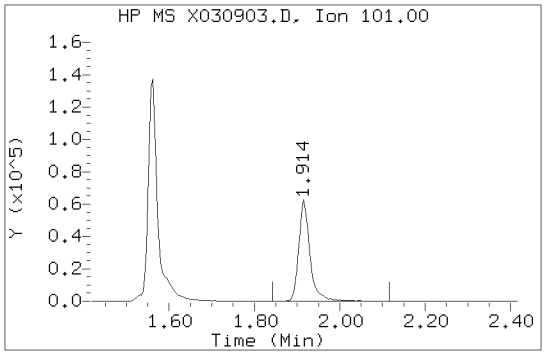
BEFORE

MASS
101
AREA
116576
HEIGHT
62664
15-Mar-2023
14:51
linh
pham



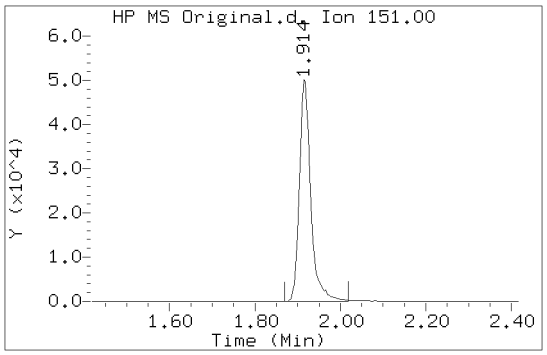
AFTER

MASS
101
AREA
116576
HEIGHT
62664
15-Mar-2023
14:51
linh
pham



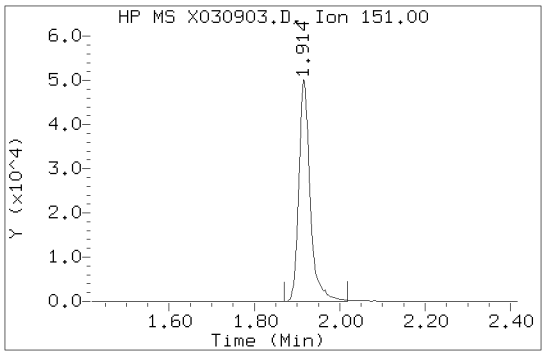
BEFORE

MASS
151
AREA
94670
HEIGHT
50152
15-Mar-2023
14:51
linh
pham



AFTER

MASS
151
AREA
94670
HEIGHT
50152
15-Mar-2023
14:51
linh
pham

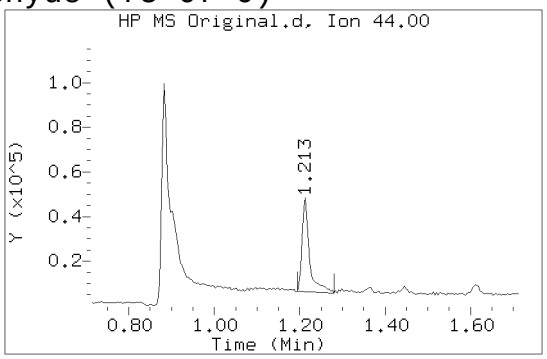


Data File : \\NAHSTWS005\Target\chem\voa6.i\X230309.b\X030903.D
Inj Date : 09-MAR-2023 11:22
InstruID : voa6.i
LabSampID : CCV

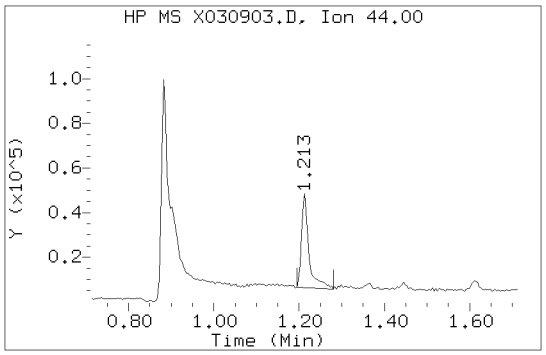
Acetaldehyde (75-07-0)

Reason Code:

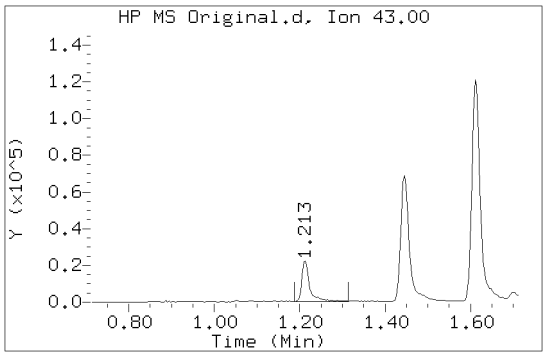
BEFORE
MASS
44
AREA
52430
HEIGHT
42258
15-Mar-2023
14:51
linh
pham



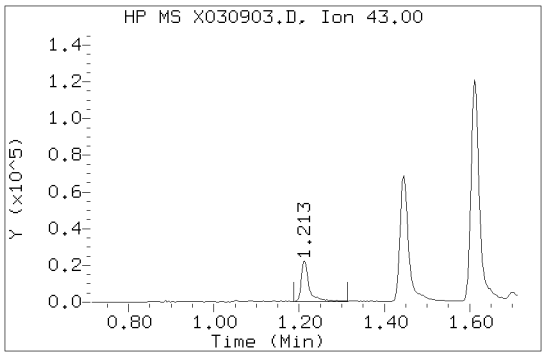
AFTER
MASS
44
AREA
52430
HEIGHT
42258
15-Mar-2023
14:51
linh
pham



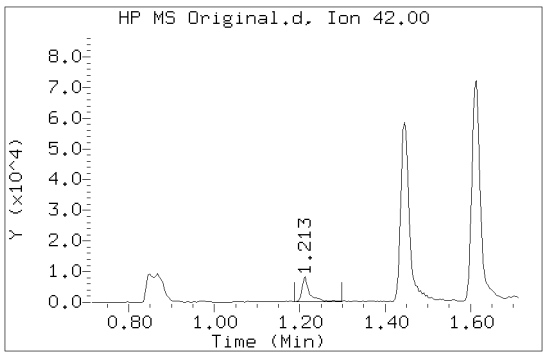
BEFORE
MASS
43
AREA
30073
HEIGHT
22253
15-Mar-2023
14:51
linh
pham



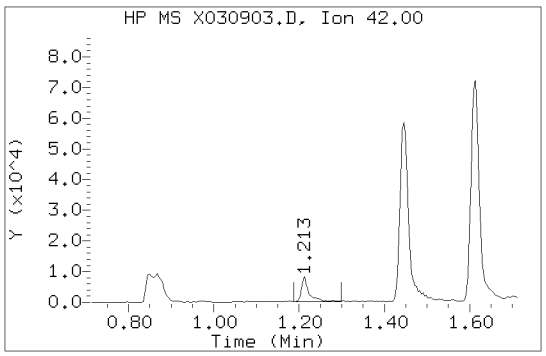
AFTER
MASS
43
AREA
30073
HEIGHT
22253
15-Mar-2023
14:51
linh
pham



BEFORE
MASS
42
AREA
10253
HEIGHT
8057
15-Mar-2023
14:51
linh
pham



AFTER
MASS
42
AREA
10253
HEIGHT
8057
15-Mar-2023
14:51
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230309.b\X030904.D Page 1
Report Date: 09-Mar-2023 19:56

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230309.b\X030904.D
Lab Smp Id: CCB Client Smp ID: CCB
Inj Date : 09-MAR-2023 11:43
Operator : PC Inst ID: voa6.i
Smp Info : CCB;CCB;;;
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\nahstws005\Target\chem\voa6.i\X230309.b\8260W.m
Meth Date : 09-Mar-2023 14:48 voa6.i Quant Type: ISTD
Cal Date : 16-DEC-2022 14:04 Cal File: X121608.D
Als bottle: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTWS005

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.177	4.181	(1.000)	554395	50.0000	
$ 30 Dibromofluoromethane	113	4.099	4.095	(0.981)	243114	45.6555	45.65
$ 35 1,2-Dichloroethane-d4	65	4.470	4.470	(1.070)	270923	48.2283	48.22
* 36 1,4-Difluorobenzene	114	4.965	4.965	(1.000)	794437	50.0000	
* 47 Chlorobenzene-d5	117	7.667	7.668	(1.000)	697728	50.0000	
$ 48 Toluene-d8	98	6.385	6.386	(0.833)	934955	54.2275	54.22
$ 69 4-Bromofluorobenzene	95	8.691	8.687	(1.133)	335993	52.1331	52.13
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	343540	50.0000	

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230309.b\X030905.D Page 1
Report Date: 15-Mar-2023 14:51

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230309.b\X030905.D
Lab Smp Id: VLCSW-230309 Client Smp ID: VLCSW-230309
Inj Date : 09-MAR-2023 12:04
Operator : PC Inst ID: voa6.i
Smp Info : VLCSW-230309;VLCSW-230309;3;;LCS
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X230309.b\8260W.m
Meth Date : 15-Mar-2023 14:51 voa6.i Quant Type: ISTD
Cal Date : 16-DEC-2022 14:04 Cal File: X121608.D
Als bottle: 5 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.178	4.178	(1.000)	389968	50.0000	
135 1,4-Dioxane	88	5.595	5.595	(1.339)	18534	519.929	519.92
140 1,3-Butadiene	54	1.164	1.164	(0.279)	42245	15.7841	15.78
13 Acetonitrile	39	2.198	2.198	(0.526)	86799	244.559	244.55
194 Acetaldehyde	44	1.212	1.212	(0.290)	77664	327.714	327.71
145 alpha-Methylstyrene	118	9.261	9.257	(0.958)	132636	18.6026	18.60
156 Diisopropyl ether	45	3.001	2.997	(0.718)	271238	26.8125	26.81(M)
166 1,2,3-Trimethylbenzene	105	9.729	9.729	(1.007)	315132	20.3366	20.33
2 Dichlorodifluoromethane	85	0.973	0.973	(0.233)	40429	15.0992	15.09
3 Chloromethane	50	1.077	1.077	(0.258)	82523	24.5661	24.56
5 Vinyl Chloride	62	1.141	1.145	(0.273)	59129	17.3572	17.35
6 Bromomethane	94	1.340	1.340	(0.321)	46127	19.0349	19.03
7 Chloroethane	64	1.404	1.404	(0.336)	42766	18.0364	18.03
8 Trichlorofluoromethane	101	1.561	1.561	(0.374)	73724	15.4650	15.46
9 Acrolein	56	1.445	1.449	(0.346)	8914	35.3021	35.30
10 Acetone	43	1.973	1.970	(0.472)	51532	47.0768	47.07
11 1,1-Dichloroethene	96	1.910	1.913	(0.457)	45992	15.5395	15.53
15 Iodomethane	142	2.026	2.026	(0.485)	129304	36.2575	36.25
16 Acrylonitrile	53	2.536	2.532	(0.607)	53851	53.6468	53.64
17 Methylene Chloride	84	2.303	2.303	(0.551)	87407	21.5303	21.53

18 Methyl tert-butyl ether	73	2.532	2.532 (0.606)	252855	26.1008	26.10
19 Carbon Disulfide	76	2.067	2.071 (0.495)	308553	39.8462	39.84

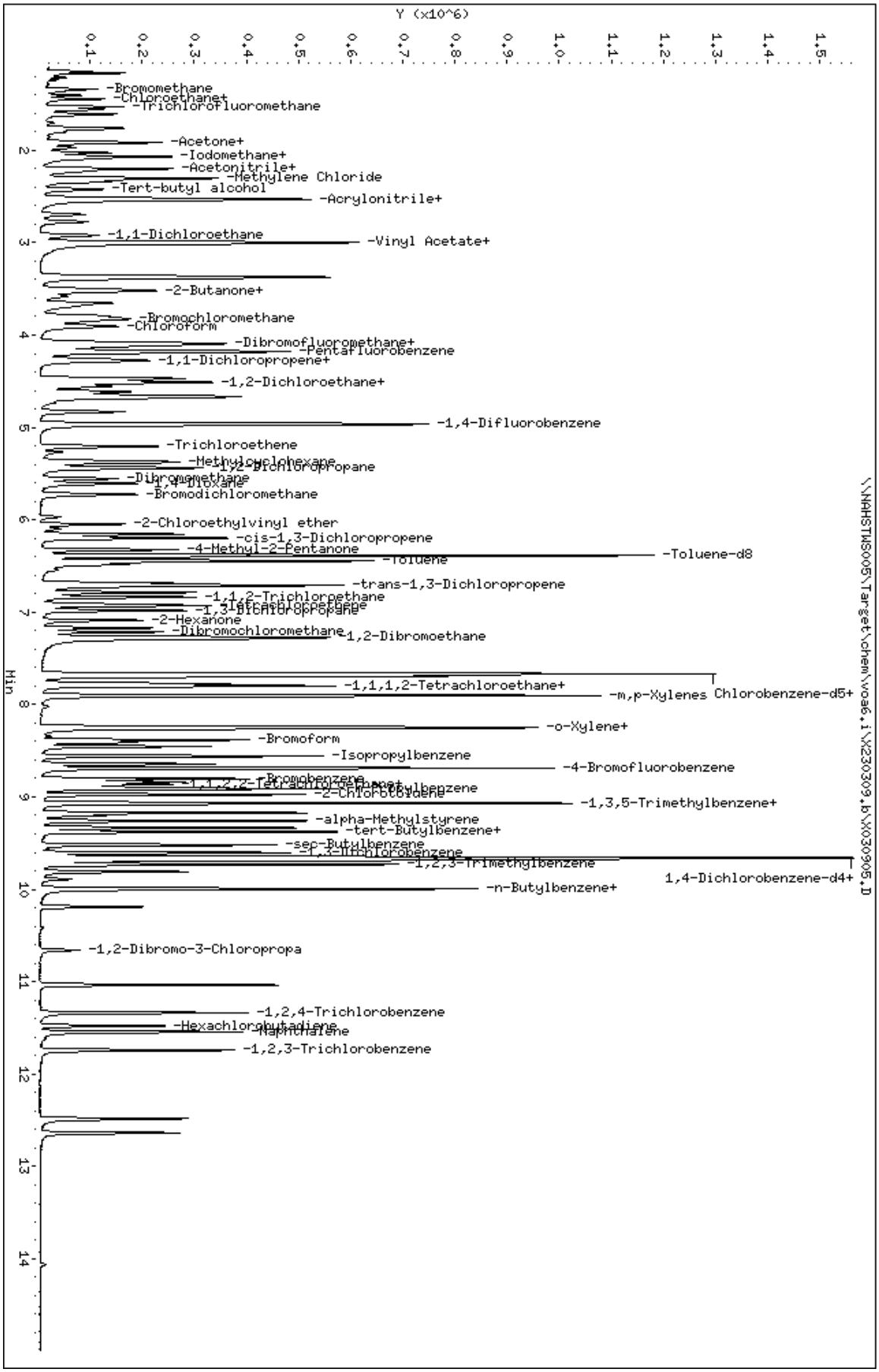
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
	20 trans-1,2-Dichloroethene	96	2.528	2.528	(0.605)	65586	19.8000	19.80
	21 Vinyl Acetate	43	2.997	2.993	(0.717)	470359	55.3093	55.30
	22 1,1-Dichloroethane	63	2.922	2.922	(0.699)	125393	21.5698	21.56
	24 2-Butanone	43	3.582	3.574	(0.857)	51940	46.4223	46.42
	26 2,2-Dichloropropane	77	3.507	3.507	(0.839)	103055	20.8788	20.87
	27 cis-1,2-Dichloroethene	96	3.525	3.525	(0.844)	79515	19.7251	19.72
	28 Chloroform	83	3.904	3.900	(0.935)	134900	20.7039	20.70
	29 Bromochloromethane	128	3.795	3.792	(0.908)	43039	19.4998	19.49
$	30 Dibromofluoromethane	113	4.095	4.095	(0.980)	183254	48.9365	48.93
	31 1,1,1-Trichloroethane	97	4.080	4.080	(0.977)	98084	18.9732	18.97
	32 1,1-Dichloropropene	75	4.279	4.279	(0.862)	85648	19.6079	19.60
	33 1,2-Dichloroethane	62	4.556	4.552	(0.918)	109042	21.6308	21.63
	34 Carbon Tetrachloride	117	4.264	4.264	(0.859)	76913	16.4892	16.48
$	35 1,2-Dichloroethane-d4	65	4.470	4.470	(1.070)	209699	53.0419	53.04
*	36 1,4-Difluorobenzene	114	4.965	4.965	(1.000)	615261	50.0000	
	37 Benzene	78	4.511	4.511	(0.909)	299302	20.3714	20.37
	38 Trichloroethene	130	5.208	5.205	(1.049)	78912	18.9364	18.93
	39 Bromodichloromethane	83	5.726	5.722	(1.153)	107821	19.5544	19.55
	41 2-Chloroethylvinyl ether	63	6.048	6.044	(1.218)	64687	41.2366	41.23
	42 1,2-Dichloropropane	63	5.433	5.433	(1.094)	85607	21.9043	21.90
	44 Dibromomethane	93	5.553	5.550	(1.119)	53021	19.9595	19.95
	45 4-Methyl-2-Pentanone	43	6.326	6.322	(0.825)	155881	50.3046	50.30
	46 cis-1,3-Dichloropropene	75	6.153	6.153	(1.239)	143502	22.1603	22.16
*	47 Chlorobenzene-d5	117	7.668	7.668	(1.000)	579746	50.0000	
$	48 Toluene-d8	98	6.386	6.386	(0.833)	685516	47.8514	47.85
	50 Toluene	91	6.446	6.446	(0.841)	320381	19.9934	19.99
	51 trans-1,3-Dichloropropene	75	6.682	6.682	(1.346)	121131	22.5401	22.54
	52 2-Hexanone	43	7.087	7.087	(0.924)	105394	49.9904	49.99
	53 1,1,2-Trichloroethane	83	6.839	6.839	(0.892)	66668	20.7381	20.73
	54 1,3-Dichloropropane	76	6.982	6.978	(0.911)	140306	22.1734	22.17
	55 Dibromochloromethane	129	7.173	7.173	(0.935)	91650	19.7530	19.75
	56 Tetrachloroethene	164	6.925	6.925	(0.903)	58511	17.6477	17.64
	57 1,2-Dibromoethane	107	7.259	7.259	(0.947)	84231	20.9561	20.95
	58 1-Chlorohexane	55	7.694	7.694	(1.550)	55947	18.8161	18.81
	59 Chlorobenzene	112	7.694	7.694	(1.003)	218780	19.2487	19.24
	60 1,1,1,2-Tetrachloroethane	131	7.773	7.773	(1.014)	82638	19.5370	19.53
	61 Ethylbenzene	106	7.799	7.799	(1.017)	105890	19.7778	19.77
	62 m,p-Xylenes	106	7.904	7.900	(1.031)	270836	39.2409	39.24
	63 o-Xylene	106	8.241	8.241	(1.075)	135879	19.9467	19.94
	64 Styrene	104	8.260	8.256	(1.077)	234691	20.5546	20.55
	66 Bromoform	173	8.410	8.410	(1.097)	62023	19.2955	19.29
	67 Isopropylbenzene	105	8.560	8.560	(1.116)	294458	18.9202	18.92
	68 1,1,2,2-Tetrachloroethane	83	8.837	8.837	(0.915)	109710	21.3907	21.39
$	69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	272574	50.9013	50.90
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	321789	50.0000	
	71 1,2,3-Trichloropropane	75	8.863	8.863	(0.917)	81055	22.6374	22.63(M)
	73 n-Propylbenzene	91	8.912	8.912	(0.922)	342235	19.2005	19.20
	74 Bromobenzene	156	8.803	8.803	(0.911)	101404	19.2074	19.20
	75 1,3,5-Trimethylbenzene	105	9.066	9.066	(0.938)	262062	19.9024	19.90
	76 2-Chlorotoluene	91	8.972	8.972	(0.929)	245450	20.9850	20.98
	77 4-Chlorotoluene	91	9.070	9.070	(0.939)	278126	20.8587	20.85
	78 tert-Butylbenzene	119	9.336	9.336	(0.966)	201212	18.6682	18.66

79 1,2,4-Trimethylbenzene	105	9.381	9.377 (0.971)	272959	19.7015	19.70
81 sec-Butylbenzene	105	9.519	9.519 (0.985)	260056	18.1338	18.13

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
	82 p-Isopropyltoluene	119	9.647	9.647	(0.998)	244034	18.9897	18.98
	83 1,3-Dichlorobenzene	146	9.602	9.606	(0.994)	170407	19.4470	19.44
	84 1,4-Dichlorobenzene	146	9.681	9.681	(1.002)	177605	18.5739	18.57
	87 n-Butylbenzene	91	9.995	9.996	(1.035)	205444	17.7746	17.77
	88 1,2-Dichlorobenzene	146	9.992	9.992	(1.034)	170166	18.8558	18.85
	89 1,2-Dibromo-3-Chloropropane	155	10.659	10.655	(1.103)	17406	21.2804	21.28
	90 1,2,4-Trichlorobenzene	180	11.337	11.338	(1.173)	117739	20.6730	20.67
	91 Hexachlorobutadiene	225	11.480	11.476	(1.188)	42137	16.7918	16.79
	92 Naphthalene	128	11.544	11.540	(1.195)	283352	21.8666	21.86
	93 1,2,3-Trichlorobenzene	180	11.742	11.739	(1.215)	110495	20.2571	20.25
M	94 1,2-Dichloroethylene (total)	96				145101	39.5251	39.52
M	95 Xylenes (total)	106				406715	59.1876	59.18
	141 Cyclohexane	56	4.118	4.121	(0.986)	72031	19.1236	19.12
	138 Freon TF	101	1.917	1.913	(0.459)	40347	14.0945	14.09(M)
	147 Methylcyclohexane	55	5.381	5.377	(1.084)	186458	24.7577	24.75
	146 Methyl Acetate	43	2.232	2.228	(0.534)	48364	27.5615	27.56
	148 Tert-Butyl alcohol	59	2.423	2.423	(0.580)	144695	535.855	535.85
	149 Isopropyl Alcohol	45	2.090	2.090	(0.500)	79134	561.151	561.15

QC Flag Legend

M - Compound response manually integrated.



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230309.b\X030905.D
Date : 09-MAR-2023 12:04
Client ID: VLCSW-230309
Sample Info: VLCSW-230309;VLCSW-230309;3;LCS
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

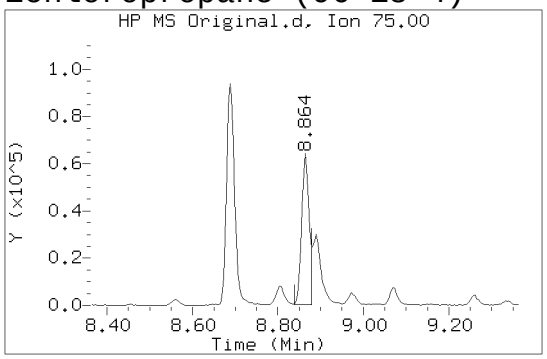
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230309.b\X030905.D
Inj Date : 09-MAR-2023 12:04
InstruID : voa6.i
LabSampID : VLCSW-230309

1,2,3-Trichloropropane (96-18-4)

Reason Code:

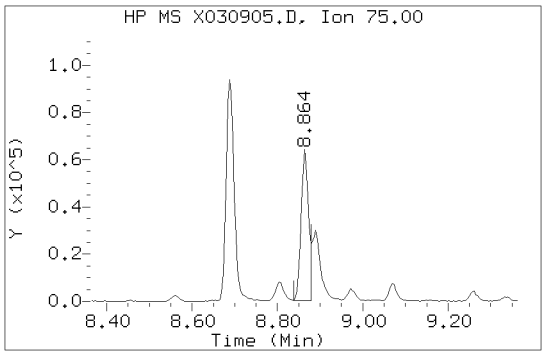
BEFORE

MASS
75
AREA
81055
HEIGHT
64179
15-Mar-2023
14:51
linh
pham



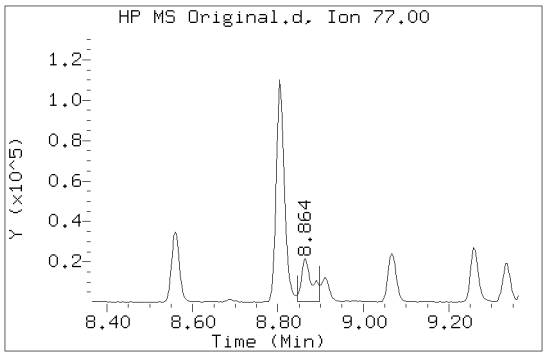
AFTER

MASS
75
AREA
81055
HEIGHT
64179
15-Mar-2023
14:51
linh
pham



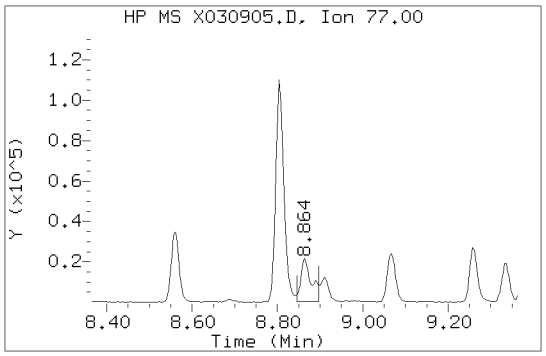
BEFORE

MASS
77
AREA
38542
HEIGHT
21403
15-Mar-2023
14:51
linh
pham



AFTER

MASS
77
AREA
38542
HEIGHT
21403
15-Mar-2023
14:51
linh
pham

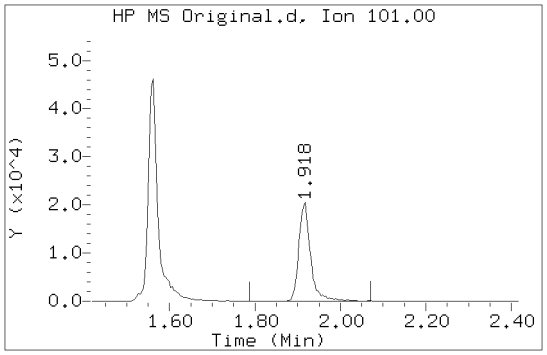


Freon TF (76-13-1)

Reason Code:

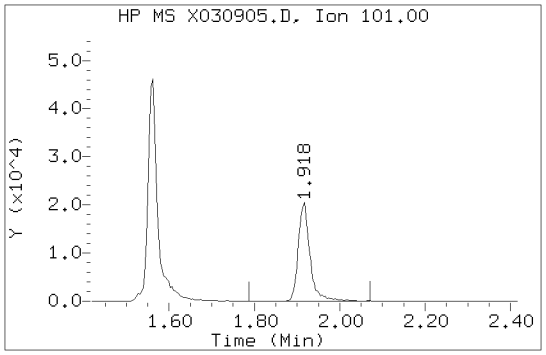
BEFORE

MASS
101
AREA
40347
HEIGHT
20533
15-Mar-2023
14:51
linh
pham



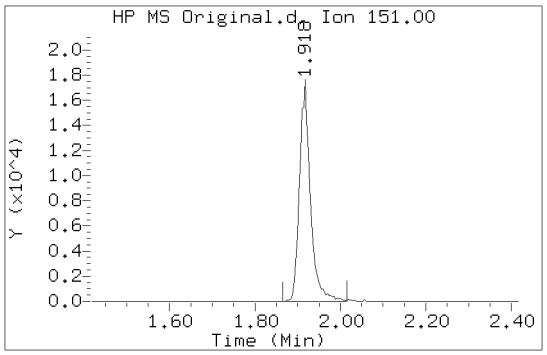
AFTER

MASS
101
AREA
40347
HEIGHT
20533
15-Mar-2023
14:51
linh
pham



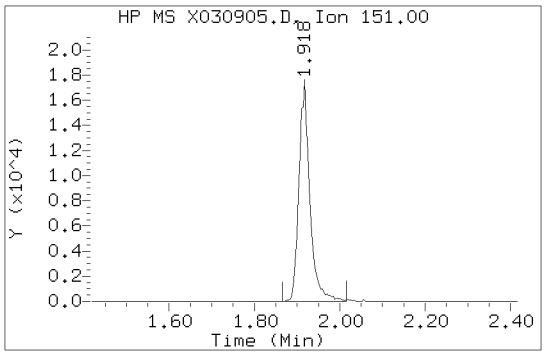
BEFORE

MASS
151
AREA
31788
HEIGHT
17632
15-Mar-2023
14:51
linh
pham



AFTER

MASS
151
AREA
31788
HEIGHT
17632
15-Mar-2023
14:51
linh
pham



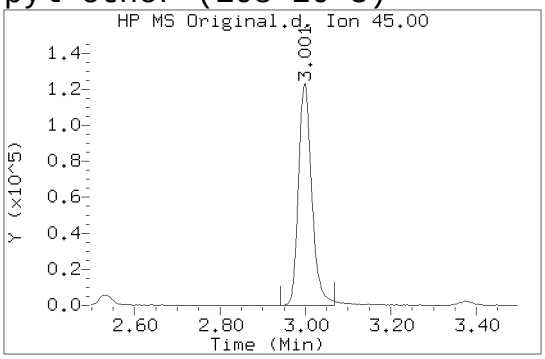
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230309.b\X030905.D
Inj Date : 09-MAR-2023 12:04
InstruID : voa6.i
LabSampID : VLCSW-230309

Diisopropyl ether (108-20-3)

Reason Code:

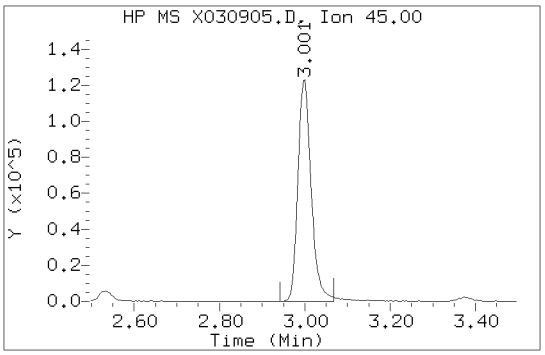
BEFORE

MASS
45
AREA
271238
HEIGHT
123038
15-Mar-2023
14:51
linh
pham



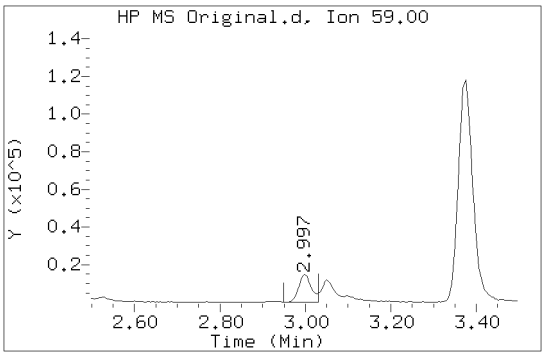
AFTER

MASS
45
AREA
271238
HEIGHT
123038
15-Mar-2023
14:51
linh
pham



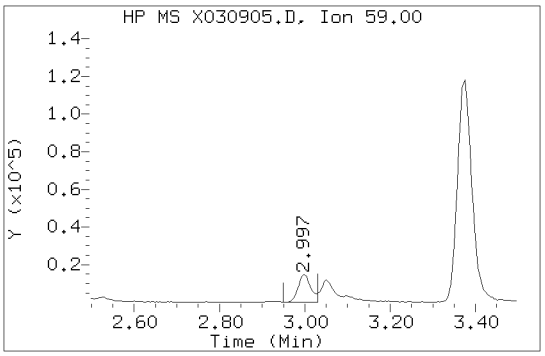
BEFORE

MASS
59
AREA
31071
HEIGHT
14460
15-Mar-2023
14:51
linh
pham



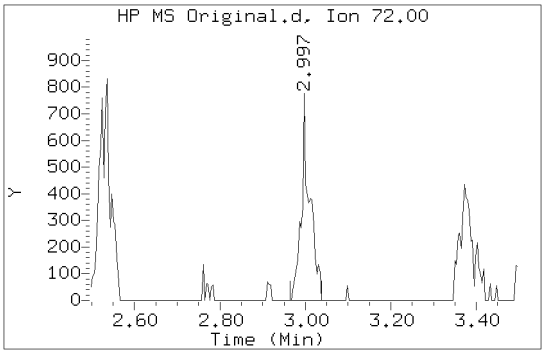
AFTER

MASS
59
AREA
31071
HEIGHT
14460
15-Mar-2023
14:51
linh
pham



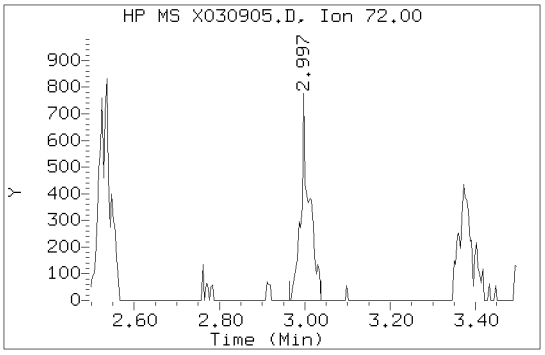
BEFORE

MASS
72
AREA
1090
HEIGHT
778
15-Mar-2023
14:51
linh
pham



AFTER

MASS
72
AREA
1090
HEIGHT
778
15-Mar-2023
14:51
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230309.b\X030907.D Page 1
Report Date: 15-Mar-2023 14:51

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230309.b\X030907.D
Lab Smp Id: VBLKW-230309 Client Smp ID: VBLKW-230309
Inj Date : 09-MAR-2023 12:46
Operator : PC Inst ID: voa6.i
Smp Info : VBLKW-230309;VBLKW-230309;3;;BLANK
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X230309.b\8260W.m
Meth Date : 15-Mar-2023 14:51 voa6.i Quant Type: ISTD
Cal Date : 16-DEC-2022 14:04 Cal File: X121608.D
Als bottle: 7 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.178	4.178	(1.000)	552444	50.0000	
$ 30 Dibromofluoromethane	113	4.095	4.095	(0.980)	241223	45.4596	45.45
$ 35 1,2-Dichloroethane-d4	65	4.470	4.470	(1.070)	275039	49.1288	49.12
* 36 1,4-Difluorobenzene	114	4.965	4.965	(1.000)	795153	50.0000	
* 47 Chlorobenzene-d5	117	7.668	7.668	(1.000)	692385	50.0000	
$ 48 Toluene-d8	98	6.385	6.386	(0.833)	932475	54.5010	54.50
$ 69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	339578	53.0947	53.09
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	351711	50.0000	

01182826

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230309.b\X030907.D

Date : 09-MAR-2023 12:46

Client ID: VBLKW-230309

Instrument: voa6.i

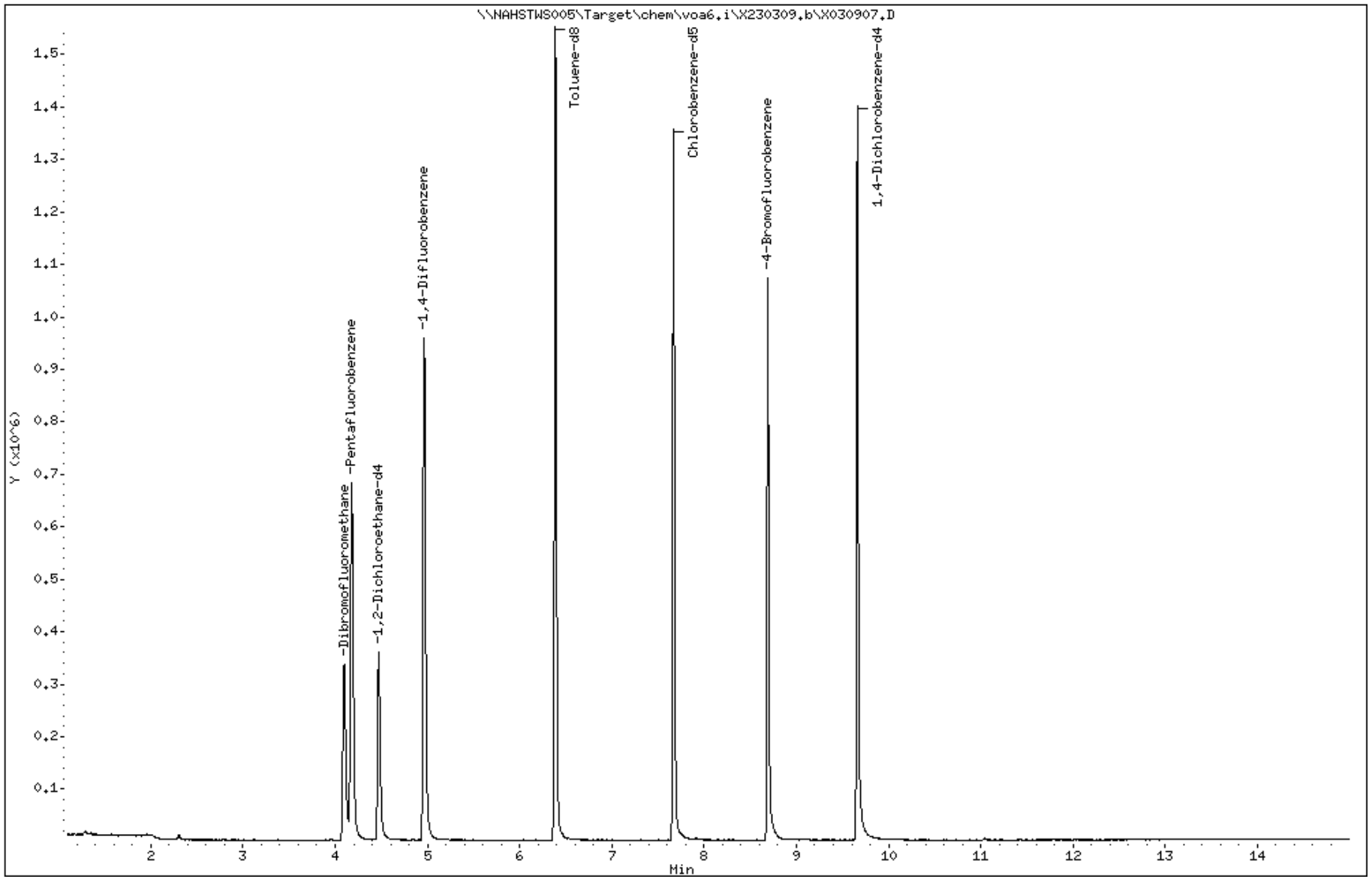
Sample Info: VBLKW-230309;VBLKW-230309;3;;BLANK

Purge Volume: 5.0

Operator: PC

Column phase: DB624

Column diameter: 0.18



Data File : \\NAHSTWS005\Target\chem\voa6.i\X230309.b\X030907.D
Inj Date : 09-MAR-2023 12:46
InstruID : voa6.i
LabSampID : VBLKW-230309

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230309.b\X030908.D Page 1
Report Date: 15-Mar-2023 14:51

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230309.b\X030908.D
Lab Smp Id: HS23030396-03 Client Smp ID: HS23030396-03
Inj Date : 09-MAR-2023 13:07
Operator : PC Inst ID: voa6.i
Smp Info : HS23030396-03;HS23030396-03;;;
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X230309.b\8260W.m
Meth Date : 15-Mar-2023 14:51 voa6.i Quant Type: ISTD
Cal Date : 16-DEC-2022 14:04 Cal File: X121608.D
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.177	4.178	(1.000)	556026	50.0000	
$ 30 Dibromofluoromethane	113	4.095	4.095	(0.980)	246442	46.1465	46.14
$ 35 1,2-Dichloroethane-d4	65	4.470	4.470	(1.070)	280019	49.6930	49.69
* 36 1,4-Difluorobenzene	114	4.965	4.965	(1.000)	804071	50.0000	
* 47 Chlorobenzene-d5	117	7.667	7.668	(1.000)	704315	50.0000	
$ 48 Toluene-d8	98	6.385	6.386	(0.833)	951401	54.6653	54.66
$ 69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	343486	52.7964	52.79
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	363266	50.0000	

01182829

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230309.b\X030908.D

Date : 09-MAR-2023 13:07

Client ID: HS23030396-03

Instrument: voa6.i

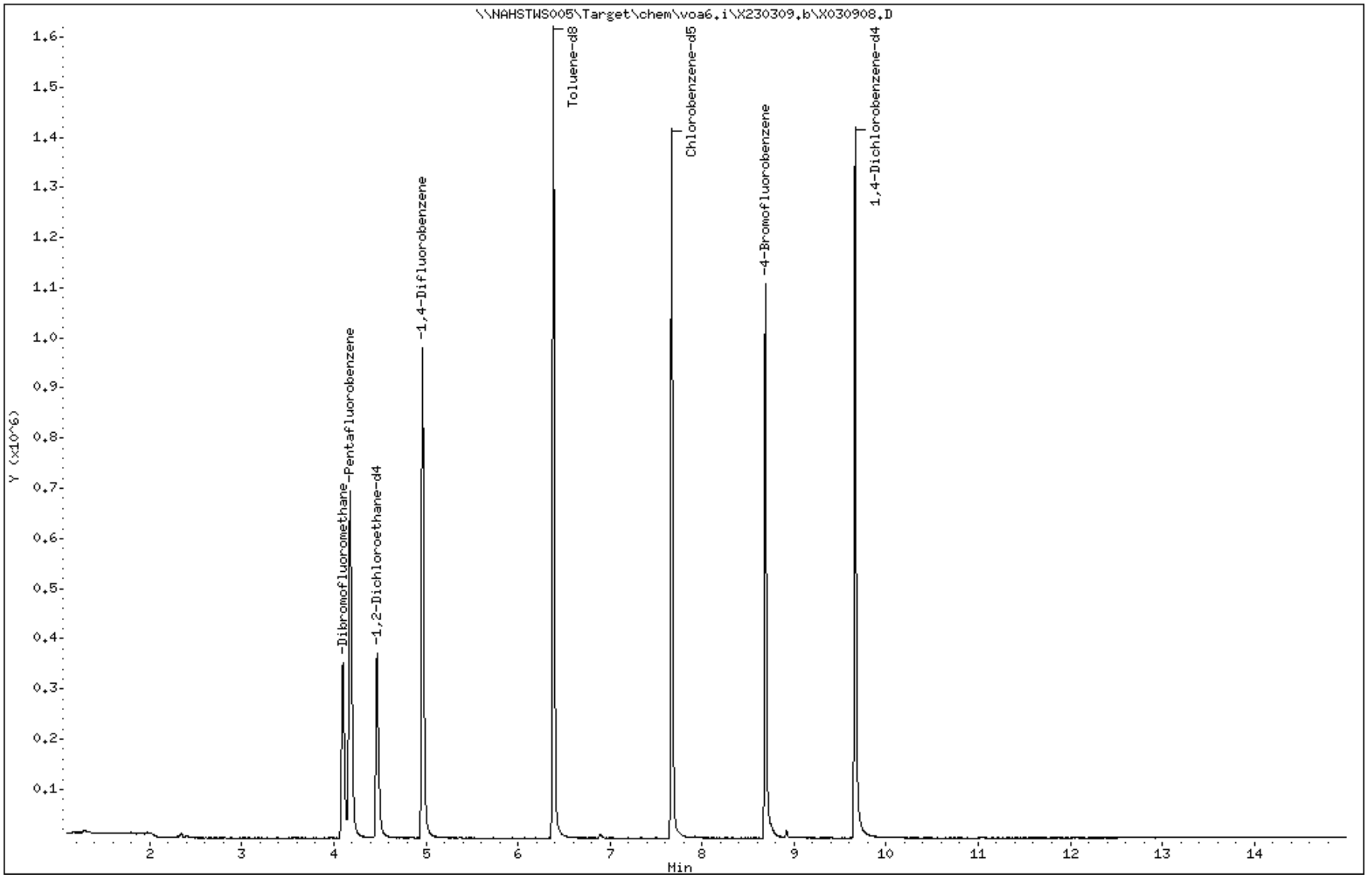
Sample Info: HS23030396-03;HS23030396-03;;;

Purge Volume: 5.0

Operator: PC

Column phase: DB624

Column diameter: 0.18



Data File : \\NAHSTWS005\Target\chem\voa6.i\X230309.b\X030908.D
Inj Date : 09-MAR-2023 13:07
InstruID : voa6.i
LabSampID : HS23030396-03

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230309.b\X030909.D Page 1
Report Date: 15-Mar-2023 14:51

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230309.b\X030909.D
Lab Smp Id: HS23030396-01 Client Smp ID: HS23030396-01
Inj Date : 09-MAR-2023 13:28
Operator : PC Inst ID: voa6.i
Smp Info : HS23030396-01;HS23030396-01;;;
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X230309.b\8260W.m
Meth Date : 15-Mar-2023 14:51 voa6.i Quant Type: ISTD
Cal Date : 16-DEC-2022 14:04 Cal File: X121608.D
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.178	4.178	(1.000)	551458	50.0000	
27 cis-1,2-Dichloroethene	96	3.537	3.525	(0.847)	9437	1.65547	1.65(a)
$ 30 Dibromofluoromethane	113	4.099	4.095	(0.981)	243670	46.0049	46.00
$ 35 1,2-Dichloroethane-d4	65	4.470	4.470	(1.070)	281255	50.3223	50.32
* 36 1,4-Difluorobenzene	114	4.965	4.965	(1.000)	802707	50.0000	
* 47 Chlorobenzene-d5	117	7.668	7.668	(1.000)	700767	50.0000	
$ 48 Toluene-d8	98	6.386	6.386	(0.833)	947682	54.7273	54.72
$ 69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	336421	51.9733	51.97
* 70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	355243	50.0000	
M 94 1,2-Dichloroethylene (total)	96				9437	1.65547	1.65(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

01182832

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230309.b\X030909.D

Date : 09-MAR-2023 13:28

Client ID: HS23030396-01

Instrument: voa6.i

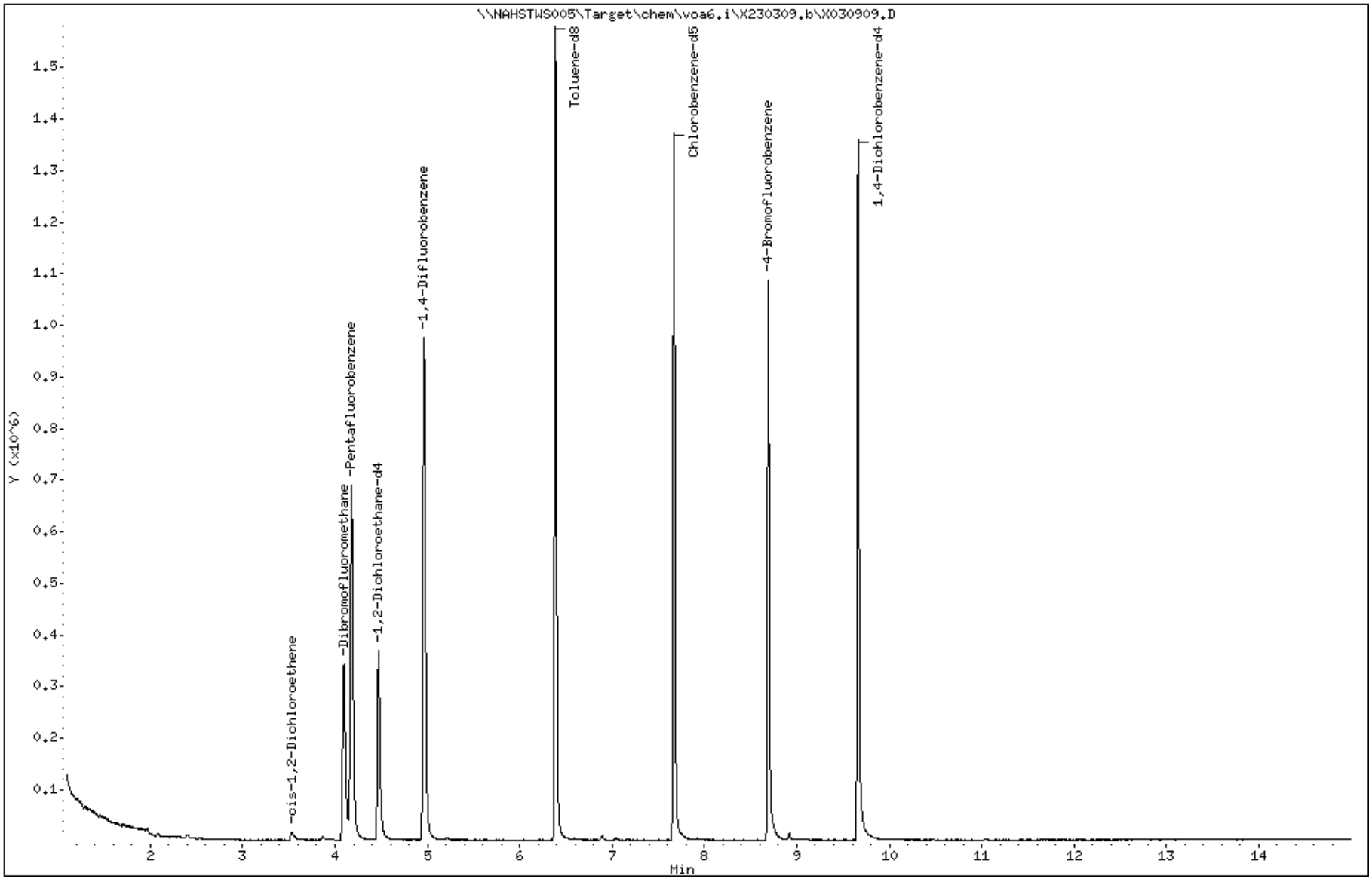
Sample Info: HS23030396-01;HS23030396-01;;;

Purge Volume: 5.0

Operator: PC

Column phase: DB624

Column diameter: 0.18



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230309.b\X030909.D

Date : 09-MAR-2023 13:28

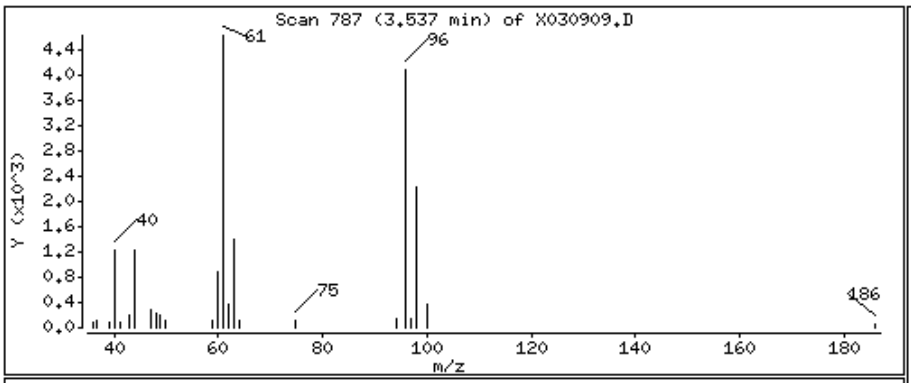
Client ID: HS23030396-01 Instrument: voa6.i

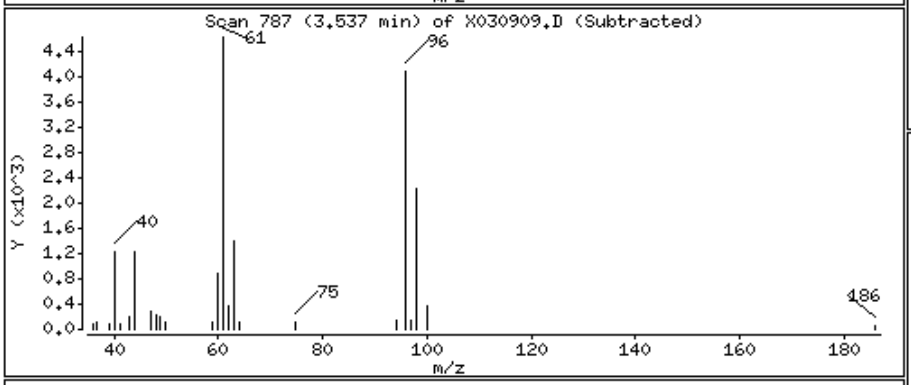
Sample Info: HS23030396-01;HS23030396-01;;;

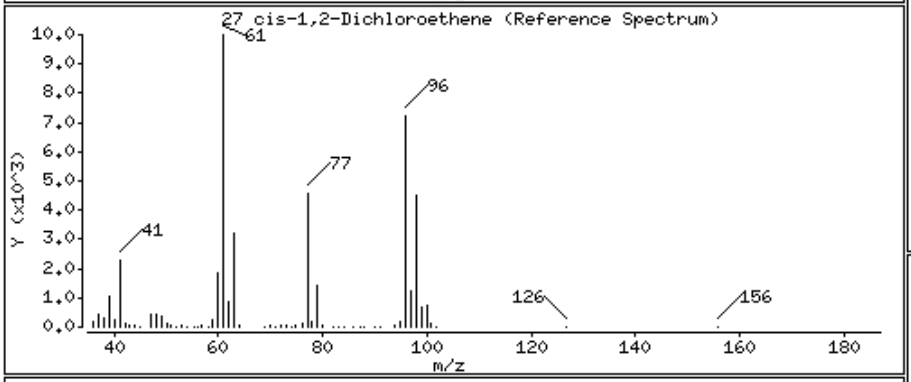
Purge Volume: 5.0 Operator: PC

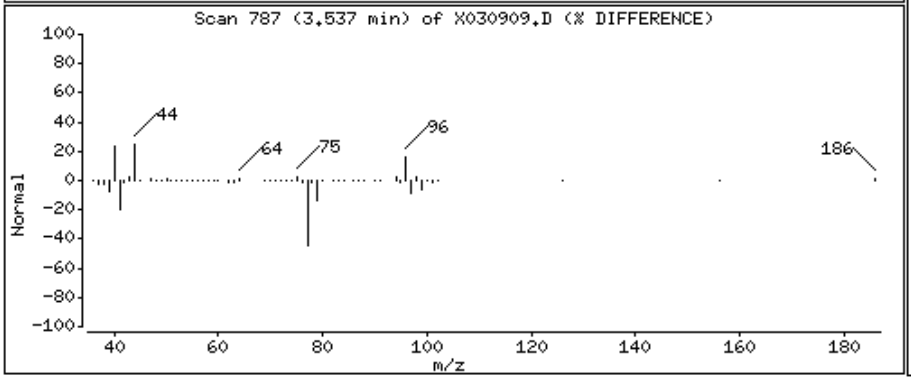
Column phase: DB624 Column diameter: 0.18

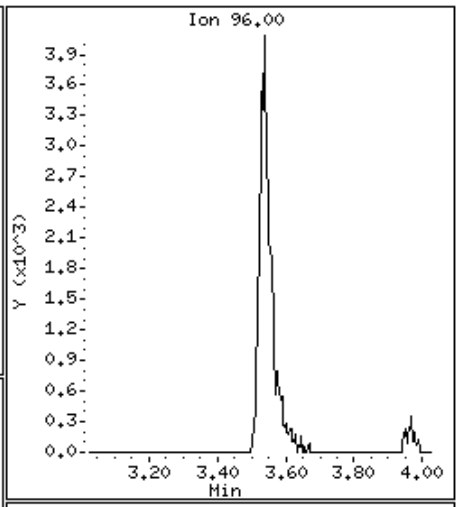
27 cis-1,2-Dichloroethene Concentration: 1.65 ug/l

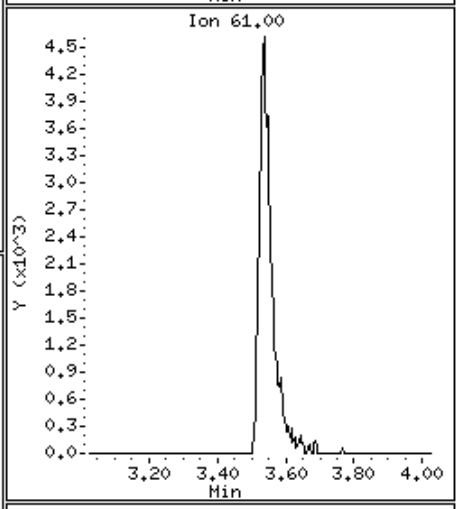


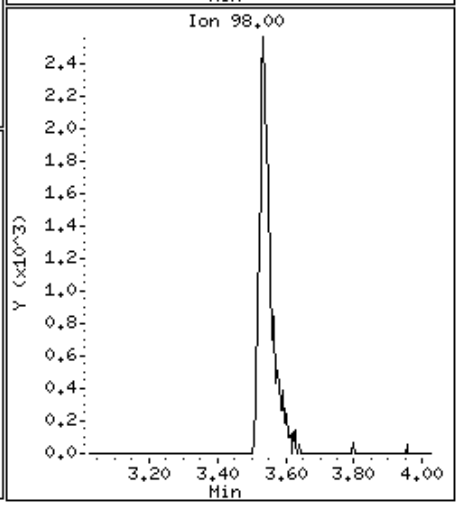












Data File : \\NAHSTWS005\Target\chem\voa6.i\X230309.b\X030909.D
Inj Date : 09-MAR-2023 13:28
InstruID : voa6.i
LabSampID : HS23030396-01

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa6.i\X230309.b\X030910.D Page 1
Report Date: 15-Mar-2023 14:51

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230309.b\X030910.D
Lab Smp Id: HS23030396-01MS Client Smp ID: HS23030396-01MS
Inj Date : 09-MAR-2023 13:49
Operator : PC Inst ID: voa6.i
Smp Info : HS23030396-01MS;HS23030396-01MS;3;;MS
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X230309.b\8260W.m
Meth Date : 15-Mar-2023 14:51 voa6.i Quant Type: ISTD
Cal Date : 16-DEC-2022 14:04 Cal File: X121608.D
Als bottle: 10 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.178	4.178	(1.000)	549572	50.0000	
135 1,4-Dioxane	88	5.598	5.595	(1.340)	18986	377.931	377.93(a)
140 1,3-Butadiene	54	1.167	1.164	(0.280)	66142	17.5359	17.53
13 Acetonitrile	39	2.198	2.198	(0.526)	94939	189.810	189.80
194 Acetaldehyde	44	1.212	1.212	(0.290)	89923	265.092	265.09
145 alpha-Methylstyrene	118	9.257	9.257	(0.958)	165817	20.8845	20.88
156 Diisopropyl ether	45	3.001	2.997	(0.718)	291179	20.4245	20.42
166 1,2,3-Trimethylbenzene	105	9.729	9.729	(1.007)	381326	22.0987	22.09
2 Dichlorodifluoromethane	85	0.972	0.973	(0.233)	54013	14.3346	14.33
3 Chloromethane	50	1.077	1.077	(0.258)	111881	23.7172	23.71
5 Vinyl Chloride	62	1.145	1.145	(0.274)	84881	17.6805	17.68
6 Bromomethane	94	1.340	1.340	(0.321)	42272	12.9950	12.99
7 Chloroethane	64	1.299	1.404	(0.311)	49518	14.8190	14.81
8 Trichlorofluoromethane	101	1.561	1.561	(0.374)	113885	16.9516	16.95
9 Acrolein	56	1.445	1.449	(0.346)	13637	38.0808	38.08
10 Acetone	43	1.970	1.970	(0.472)	43553	28.2190	28.21
11 1,1-Dichloroethene	96	1.913	1.913	(0.458)	67129	16.0942	16.09
15 Iodomethane	142	2.030	2.026	(0.486)	140531	28.7993	28.79
16 Acrylonitrile	53	2.536	2.532	(0.607)	54480	38.5116	38.51
17 Methylene Chloride	84	2.303	2.303	(0.551)	91638	16.0171	16.01

18 Methyl tert-butyl ether	73	2.532	2.532 (0.606)	262013	19.1915	19.19
19 Carbon Disulfide	76	2.071	2.071 (0.496)	447904	41.0437	41.04

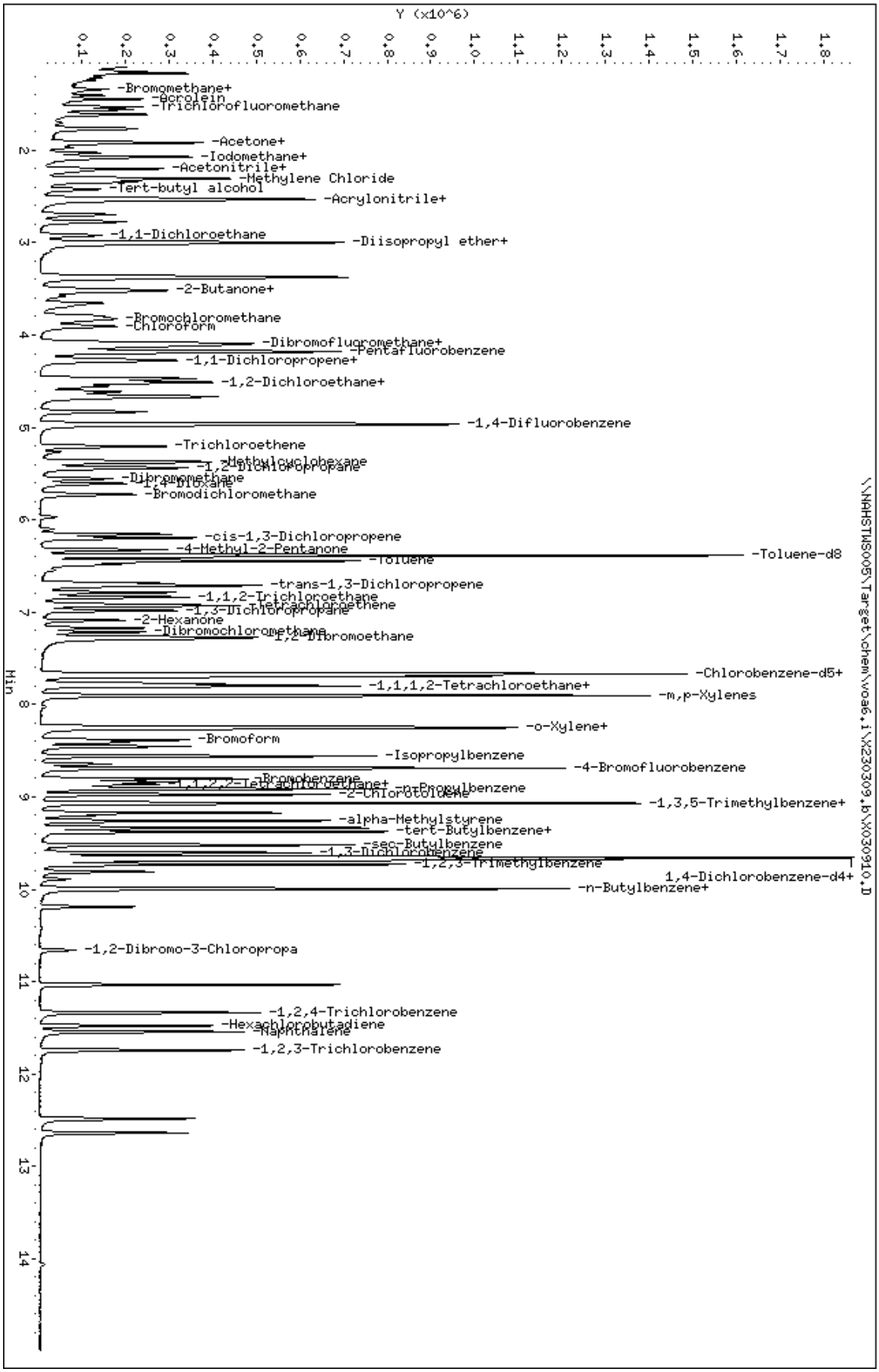
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
	20 trans-1,2-Dichloroethene	96	2.528	2.528	(0.605)	82482	17.6693	17.66
	21 Vinyl Acetate	43	2.997	2.993	(0.717)	485506	40.5105	40.51
	22 1,1-Dichloroethane	63	2.922	2.922	(0.699)	152287	18.5883	18.58
	24 2-Butanone	43	3.582	3.574	(0.857)	53952	35.0120	35.01
	26 2,2-Dichloropropane	77	3.507	3.507	(0.839)	135198	19.4362	19.43
	27 cis-1,2-Dichloroethene	96	3.525	3.525	(0.844)	103543	18.2261	18.22
	28 Chloroform	83	3.904	3.900	(0.935)	157964	17.2029	17.20
	29 Bromochloromethane	128	3.791	3.792	(0.908)	49169	15.8075	15.80
$	30 Dibromofluoromethane	113	4.095	4.095	(0.980)	234396	44.4000	44.40
	31 1,1,1-Trichloroethane	97	4.084	4.080	(0.978)	134798	18.5025	18.50
	32 1,1-Dichloropropene	75	4.279	4.279	(0.862)	120622	21.4740	21.47
	33 1,2-Dichloroethane	62	4.556	4.552	(0.918)	124316	19.1769	19.17
	34 Carbon Tetrachloride	117	4.264	4.264	(0.859)	114779	19.1353	19.13
$	35 1,2-Dichloroethane-d4	65	4.470	4.470	(1.070)	266328	47.8286	47.82
*	36 1,4-Difluorobenzene	114	4.965	4.965	(1.000)	791201	50.0000	
	37 Benzene	78	4.511	4.511	(0.909)	357816	18.9384	18.93
	38 Trichloroethene	130	5.208	5.205	(1.049)	99128	18.4980	18.49
	39 Bromodichloromethane	83	5.726	5.722	(1.153)	126079	17.7810	17.78
	42 1,2-Dichloropropane	63	5.433	5.433	(1.094)	96065	19.1142	19.11
	44 Dibromomethane	93	5.553	5.550	(1.119)	58753	17.1991	17.19
	45 4-Methyl-2-Pentanone	43	6.326	6.322	(0.825)	160186	43.7233	43.72
	46 cis-1,3-Dichloropropene	75	6.153	6.153	(1.239)	160979	19.3312	19.33
*	47 Chlorobenzene-d5	117	7.668	7.668	(1.000)	685431	50.0000	
$	48 Toluene-d8	98	6.386	6.386	(0.833)	929065	54.8526	54.85
	50 Toluene	91	6.446	6.446	(0.841)	387699	20.4639	20.46
	51 trans-1,3-Dichloropropene	75	6.682	6.682	(1.346)	132653	19.1951	19.19
	52 2-Hexanone	43	7.087	7.087	(0.924)	107908	43.2911	43.29
	53 1,1,2-Trichloroethane	83	6.839	6.839	(0.892)	73774	19.4101	19.41
	54 1,3-Dichloropropane	76	6.982	6.978	(0.911)	154876	20.7021	20.70
	55 Dibromochloromethane	129	7.176	7.173	(0.936)	103935	18.9468	18.94
	56 Tetrachloroethene	164	6.925	6.925	(0.903)	85687	21.8595	21.85
	57 1,2-Dibromoethane	107	7.259	7.259	(0.947)	92798	19.5277	19.52
	58 1-Chlorohexane	55	7.694	7.694	(1.550)	87095	22.7782	22.77
	59 Chlorobenzene	112	7.694	7.694	(1.003)	261474	19.4579	19.45
	60 1,1,1,2-Tetrachloroethane	131	7.773	7.773	(1.014)	98321	19.6606	19.66
	61 Ethylbenzene	106	7.799	7.799	(1.017)	134898	21.3110	21.31
	62 m,p-Xylenes	106	7.904	7.900	(1.031)	344730	42.2460	42.24
	63 o-Xylene	106	8.241	8.241	(1.075)	165945	20.6043	20.60
	64 Styrene	104	8.260	8.256	(1.077)	280145	20.7525	20.75
	66 Bromoform	173	8.410	8.410	(1.097)	68890	18.1273	18.12
	67 Isopropylbenzene	105	8.560	8.560	(1.116)	418814	22.7614	22.76
	68 1,1,2,2-Tetrachloroethane	83	8.837	8.837	(0.915)	121657	21.3010	21.30
$	69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	336354	53.1242	53.12
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	358334	50.0000	
	71 1,2,3-Trichloropropane	75	8.863	8.863	(0.917)	94674	23.7444	23.74(M)
	73 n-Propylbenzene	91	8.912	8.912	(0.922)	488272	24.5999	24.59
	74 Bromobenzene	156	8.803	8.803	(0.911)	119770	20.3725	20.37
	75 1,3,5-Trimethylbenzene	105	9.066	9.066	(0.938)	364899	24.8861	24.88
	76 2-Chlorotoluene	91	8.972	8.972	(0.929)	315058	24.1891	24.18
	77 4-Chlorotoluene	91	9.070	9.070	(0.939)	354497	23.8749	23.87
	78 tert-Butylbenzene	119	9.336	9.336	(0.966)	302007	25.1622	25.16
	79 1,2,4-Trimethylbenzene	105	9.377	9.377	(0.971)	368569	23.8893	23.88

81 sec-Butylbenzene	105	9.519	9.519 (0.985)	414726	25.9697	25.96
82 p-Isopropyltoluene	119	9.647	9.647 (0.998)	371577	25.9657	25.96

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
	83 1,3-Dichlorobenzene	146	9.606	9.606	(0.994)	217534	22.2933	22.29
	84 1,4-Dichlorobenzene	146	9.681	9.681	(1.002)	224820	21.1138	21.11
	87 n-Butylbenzene	91	9.992	9.996	(1.034)	319952	24.1509	24.15
	88 1,2-Dichlorobenzene	146	9.992	9.992	(1.034)	212222	21.1177	21.11
	89 1,2-Dibromo-3-Chloropropane	155	10.659	10.655	(1.103)	19603	21.5212	21.52
	90 1,2,4-Trichlorobenzene	180	11.337	11.338	(1.173)	152239	24.0045	24.00
	91 Hexachlorobutadiene	225	11.480	11.476	(1.188)	68198	24.3856	24.38
	92 Naphthalene	128	11.544	11.540	(1.195)	335900	23.2781	23.27
	93 1,2,3-Trichlorobenzene	180	11.742	11.739	(1.215)	140531	23.1361	23.13
M	94 1,2-Dichloroethylene (total)	96				186025	35.8954	35.89
M	95 Xylenes (total)	106				510675	62.8502	62.85
	141 Cyclohexane	56	4.121	4.121	(0.987)	136933	25.3565	25.35
	138 Freon TF	101	1.917	1.913	(0.459)	70476	17.4696	17.46
	147 Methylcyclohexane	55	5.381	5.377	(1.084)	229120	23.6573	23.65
	146 Methyl Acetate	43	2.232	2.228	(0.534)	49765	20.1237	20.12
	148 Tert-Butyl alcohol	59	2.423	2.423	(0.580)	158382	416.202	416.20
	149 Isopropyl Alcohol	45	2.093	2.090	(0.501)	88237	443.989	443.98

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230309.b\X030910.D
Date : 09-MAR-2023 13:49
Client ID: HS23030396-01MS
Sample Info: HS23030396-01MS;HS23030396-01MS;3;;MS
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

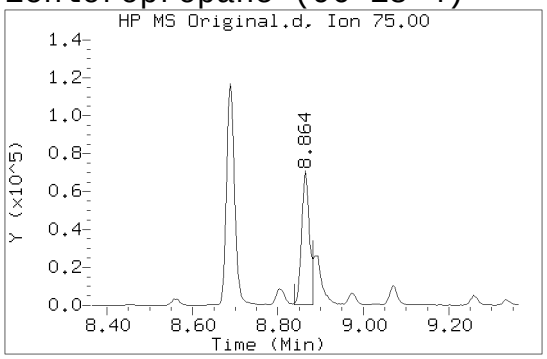
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230309.b\X030910.D
Inj Date : 09-MAR-2023 13:49
InstruID : voa6.i
LabSampID : HS23030396-01MS

1,2,3-Trichloropropane (96-18-4)

Reason Code:

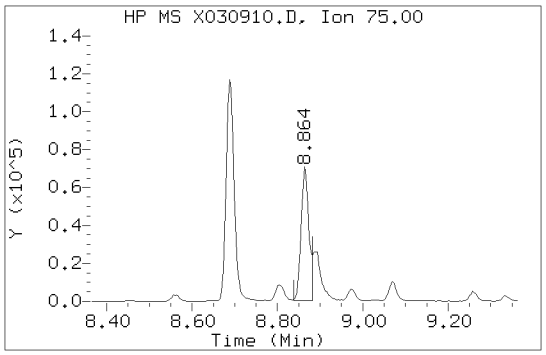
BEFORE

MASS
75
AREA
94674
HEIGHT
70563
15-Mar-2023
14:51
linh
pham



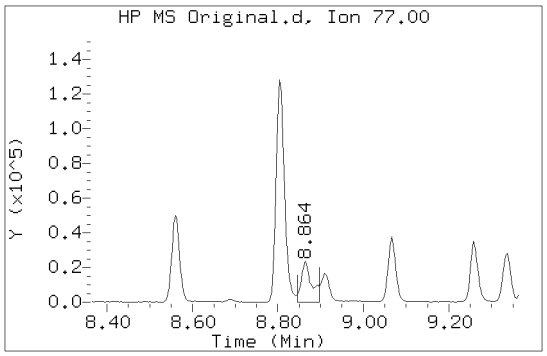
AFTER

MASS
75
AREA
94674
HEIGHT
70563
15-Mar-2023
14:51
linh
pham



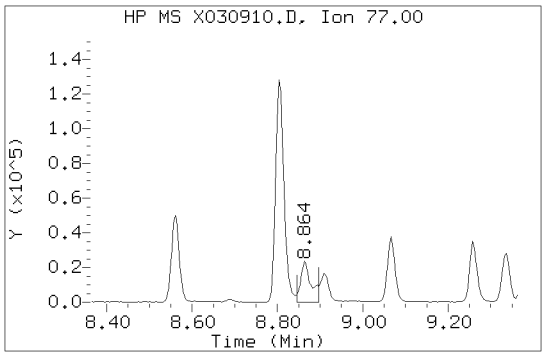
BEFORE

MASS
77
AREA
41461
HEIGHT
23716
15-Mar-2023
14:51
linh
pham



AFTER

MASS
77
AREA
41461
HEIGHT
23716
15-Mar-2023
14:51
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230309.b\X030911.D Page 1
Report Date: 15-Mar-2023 14:51

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230309.b\X030911.D
Lab Smp Id: HS23030396-01MSD Client Smp ID: HS23030396-01MSD
Inj Date : 09-MAR-2023 14:10
Operator : PC Inst ID: voa6.i
Smp Info : HS23030396-01MSD;HS23030396-01MSD;3;;MSD
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X230309.b\8260W.m
Meth Date : 15-Mar-2023 14:51 voa6.i Quant Type: ISTD
Cal Date : 16-DEC-2022 14:04 Cal File: X121608.D
Als bottle: 10 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.177	4.178	(1.000)	547882	50.0000	
135 1,4-Dioxane	88	5.598	5.595	(1.340)	19309	385.547	385.54(a)
140 1,3-Butadiene	54	1.167	1.164	(0.280)	65710	17.4751	17.47
13 Acetonitrile	39	2.198	2.198	(0.526)	91206	182.909	182.90
145 alpha-Methylstyrene	118	9.261	9.257	(0.958)	180709	21.1648	21.16
156 Diisopropyl ether	45	2.997	2.997	(0.717)	309481	21.7752	21.77
166 1,2,3-Trimethylbenzene	105	9.729	9.729	(1.007)	409641	22.0757	22.07
2 Dichlorodifluoromethane	85	0.972	0.973	(0.233)	52824	14.0697	14.06
3 Chloromethane	50	1.077	1.077	(0.258)	110666	23.5493	23.54
5 Vinyl Chloride	62	1.145	1.145	(0.274)	84901	17.7392	17.73
6 Bromomethane	94	1.340	1.340	(0.321)	46483	14.1519	14.15
7 Chloroethane	64	1.302	1.404	(0.312)	67591	20.2900	20.29
8 Trichlorofluoromethane	101	1.561	1.561	(0.374)	110757	16.5369	16.53
9 Acrolein	56	1.448	1.449	(0.347)	13766	38.5241	38.52
10 Acetone	43	1.973	1.970	(0.472)	40954	26.6149	26.61
11 1,1-Dichloroethene	96	1.913	1.913	(0.458)	66000	15.8723	15.87
15 Iodomethane	142	2.029	2.026	(0.486)	136416	28.1362	28.13
16 Acrylonitrile	53	2.539	2.532	(0.608)	60478	42.8834	42.88
17 Methylene Chloride	84	2.303	2.303	(0.551)	94463	16.5618	16.56
18 Methyl tert-butyl ether	73	2.532	2.532	(0.606)	273207	20.0731	20.07

19 Carbon Disulfide	76	2.071	2.071 (0.496)	440647	40.5032	40.50
20 trans-1,2-Dichloroethene	96	2.528	2.528 (0.605)	82971	17.8288	17.82

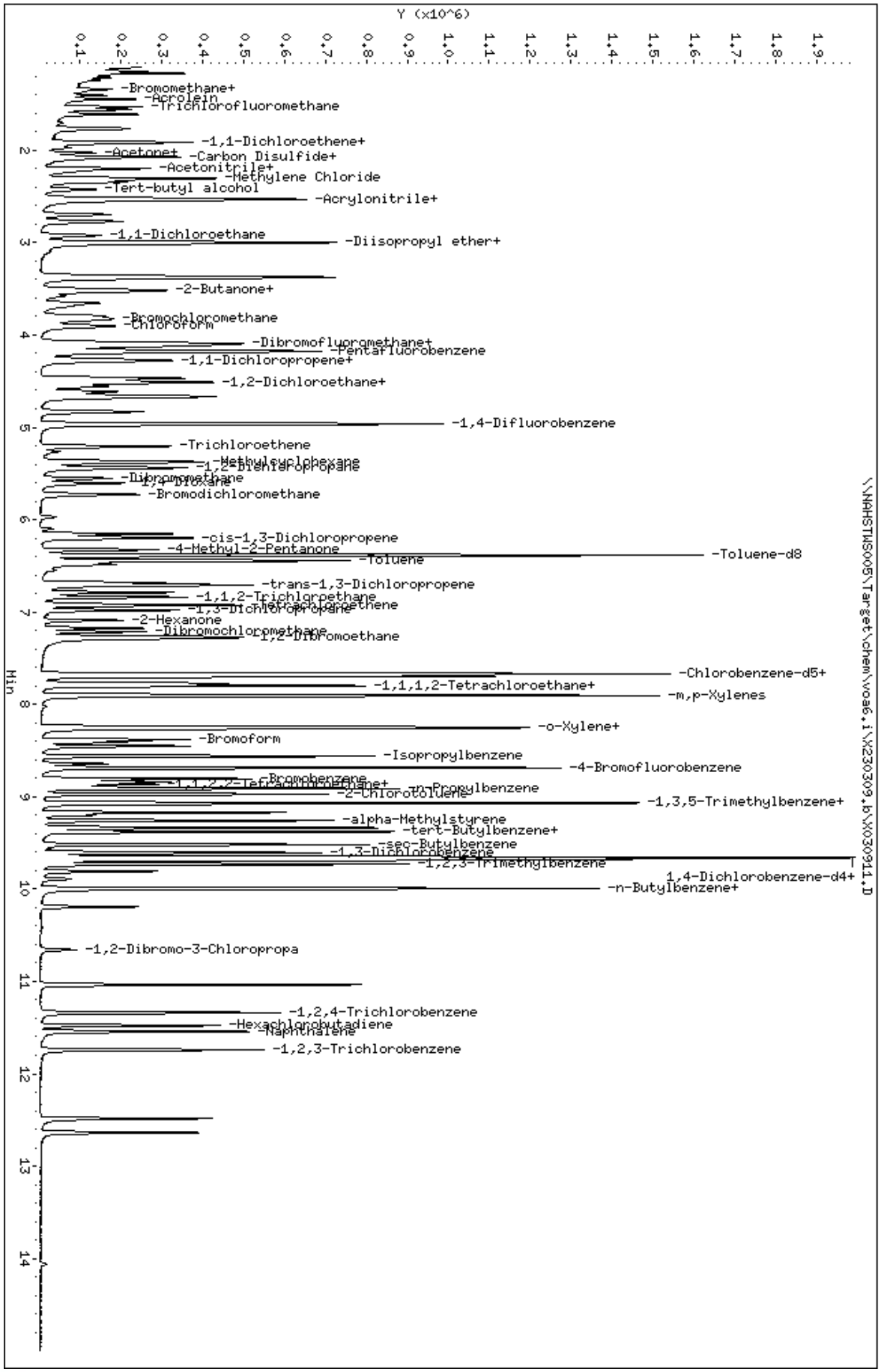
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
	21 Vinyl Acetate	43	2.997	2.993	(0.717)	506724	42.4113	42.41
	22 1,1-Dichloroethane	63	2.922	2.922	(0.699)	159898	19.5775	19.57
	24 2-Butanone	43	3.581	3.574	(0.857)	55749	36.1793	36.17
	26 2,2-Dichloropropane	77	3.506	3.507	(0.839)	139480	20.1136	20.11
	27 cis-1,2-Dichloroethene	96	3.529	3.525	(0.845)	111733	19.7284	19.72
	28 Chloroform	83	3.908	3.900	(0.935)	168986	18.4600	18.46
	29 Bromochloromethane	128	3.795	3.792	(0.908)	50632	16.3281	16.32
$	30 Dibromofluoromethane	113	4.095	4.095	(0.980)	234238	44.5074	44.50
	31 1,1,1-Trichloroethane	97	4.080	4.080	(0.977)	138879	19.1214	19.12
	32 1,1-Dichloropropene	75	4.279	4.279	(0.862)	123432	21.9074	21.90
	33 1,2-Dichloroethane	62	4.556	4.552	(0.918)	127989	19.6835	19.68
	34 Carbon Tetrachloride	117	4.264	4.264	(0.859)	118702	19.7291	19.72
$	35 1,2-Dichloroethane-d4	65	4.470	4.470	(1.070)	268574	48.3776	48.37
*	36 1,4-Difluorobenzene	114	4.965	4.965	(1.000)	793615	50.0000	
	37 Benzene	78	4.511	4.511	(0.909)	382695	20.1936	20.19
	38 Trichloroethene	130	5.205	5.205	(1.048)	105507	19.6284	19.62
	39 Bromodichloromethane	83	5.726	5.722	(1.153)	135728	19.0836	19.08
	42 1,2-Dichloropropane	63	5.433	5.433	(1.094)	103877	20.6057	20.60
	44 Dibromomethane	93	5.553	5.550	(1.119)	62057	18.1110	18.11
	45 4-Methyl-2-Pentanone	43	6.325	6.322	(0.825)	162493	43.3991	43.39
	46 cis-1,3-Dichloropropene	75	6.153	6.153	(1.239)	172285	20.6260	20.62
*	47 Chlorobenzene-d5	117	7.667	7.668	(1.000)	700497	50.0000	
$	48 Toluene-d8	98	6.385	6.386	(0.833)	943237	54.4916	54.49
	50 Toluene	91	6.445	6.446	(0.841)	409675	21.1588	21.15
	51 trans-1,3-Dichloropropene	75	6.682	6.682	(1.346)	139717	20.1558	20.15
	52 2-Hexanone	43	7.086	7.087	(0.924)	110171	43.2484	43.24
	53 1,1,2-Trichloroethane	83	6.839	6.839	(0.892)	78892	20.3103	20.31
	54 1,3-Dichloropropane	76	6.981	6.978	(0.911)	162327	21.2313	21.23
	55 Dibromochloromethane	129	7.176	7.173	(0.936)	111610	19.9083	19.90
	56 Tetrachloroethene	164	6.925	6.925	(0.903)	90164	22.5069	22.50
	57 1,2-Dibromoethane	107	7.259	7.259	(0.947)	96255	19.8195	19.81
	58 1-Chlorohexane	55	7.697	7.694	(1.550)	92782	24.1917	24.19
	59 Chlorobenzene	112	7.694	7.694	(1.003)	280319	20.4116	20.41
	60 1,1,1,2-Tetrachloroethane	131	7.772	7.773	(1.014)	105074	20.5591	20.55
	61 Ethylbenzene	106	7.799	7.799	(1.017)	143426	22.1709	22.17
	62 m,p-Xylenes	106	7.904	7.900	(1.031)	364299	43.6839	43.68
	63 o-Xylene	106	8.241	8.241	(1.075)	181540	22.0558	22.05
	64 Styrene	104	8.260	8.256	(1.077)	300567	21.7864	21.78
	66 Bromoform	173	8.410	8.410	(1.097)	72920	18.7751	18.77
	67 Isopropylbenzene	105	8.560	8.560	(1.116)	448300	23.8398	23.83
	68 1,1,2,2-Tetrachloroethane	83	8.837	8.837	(0.915)	125332	20.4064	20.40
$	69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	348103	53.7965	53.79
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	385343	50.0000	
	71 1,2,3-Trichloropropane	75	8.863	8.863	(0.917)	97675	22.7800	22.78(M)
	73 n-Propylbenzene	91	8.912	8.912	(0.922)	534650	25.0485	25.04
	74 Bromobenzene	156	8.803	8.803	(0.911)	130003	20.5632	20.56
	75 1,3,5-Trimethylbenzene	105	9.066	9.066	(0.938)	392851	24.9146	24.91
	76 2-Chlorotoluene	91	8.972	8.972	(0.929)	334630	23.8910	23.89
	77 4-Chlorotoluene	91	9.069	9.070	(0.939)	387431	24.2640	24.26
	78 tert-Butylbenzene	119	9.336	9.336	(0.966)	327711	25.3900	25.39
	79 1,2,4-Trimethylbenzene	105	9.377	9.377	(0.971)	404333	24.3705	24.37
	81 sec-Butylbenzene	105	9.519	9.519	(0.985)	458045	26.6719	26.67

82 p-Isopropyltoluene	119	9.650	9.647 (0.999)	411439	26.7360	26.73
83 1,3-Dichlorobenzene	146	9.605	9.606 (0.994)	237095	22.5949	22.59

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
	84 1,4-Dichlorobenzene	146	9.680	9.681	(1.002)	244602	21.3615	21.36
	87 n-Butylbenzene	91	9.992	9.996	(1.034)	357640	25.0335	25.03
	88 1,2-Dichlorobenzene	146	9.992	9.992	(1.034)	231706	21.4404	21.44
	89 1,2-Dibromo-3-Chloropropane	155	10.659	10.655	(1.103)	19880	20.3008	20.30
	90 1,2,4-Trichlorobenzene	180	11.337	11.338	(1.173)	172167	25.2439	25.24
	91 Hexachlorobutadiene	225	11.480	11.476	(1.188)	76295	25.3650	25.36
	92 Naphthalene	128	11.544	11.540	(1.195)	368426	23.7426	23.74
	93 1,2,3-Trichlorobenzene	180	11.742	11.739	(1.215)	157364	24.0915	24.09
M	94 1,2-Dichloroethylene (total)	96				194704	37.5573	37.55
M	95 Xylenes (total)	106				545839	65.7397	65.73
	141 Cyclohexane	56	4.117	4.121	(0.986)	137705	25.5671	25.56
	138 Freon TF	101	1.917	1.913	(0.459)	70017	17.4094	17.40
	147 Methylcyclohexane	55	5.381	5.377	(1.084)	232224	23.9049	23.90
	146 Methyl Acetate	43	2.232	2.228	(0.534)	46802	18.9840	18.98
	148 Tert-Butyl alcohol	59	2.423	2.423	(0.580)	154170	406.383	406.38
	149 Isopropyl Alcohol	45	2.089	2.090	(0.500)	81611	411.915	411.91

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230309.b\X030911.D
Date : 09-MAR-2023 14:10
Client ID: HS230303396-01MSD
Sample Info: HS230303396-01MSD;HS230303396-01MSD;3;;MSD
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

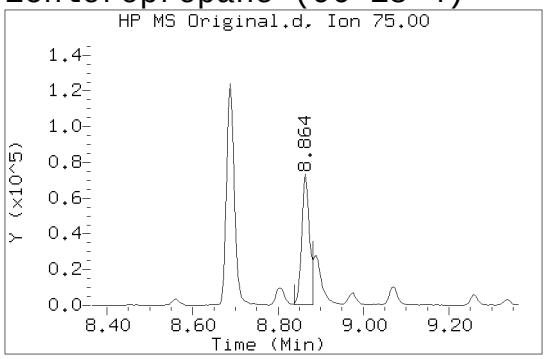
Data File : \\NAHSTWS005\Target\chem\voa6.i\X230309.b\X030911.D
Inj Date : 09-MAR-2023 14:10
InstruID : voa6.i
LabSampID : HS23030396-01MSD

1,2,3-Trichloropropane (96-18-4)

Reason Code:

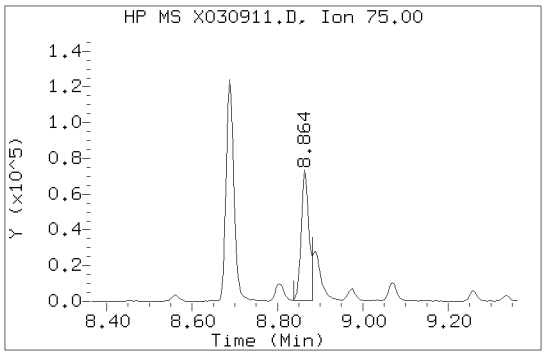
BEFORE

MASS
75
AREA
97675
HEIGHT
73414
15-Mar-2023
14:51
linh
pham



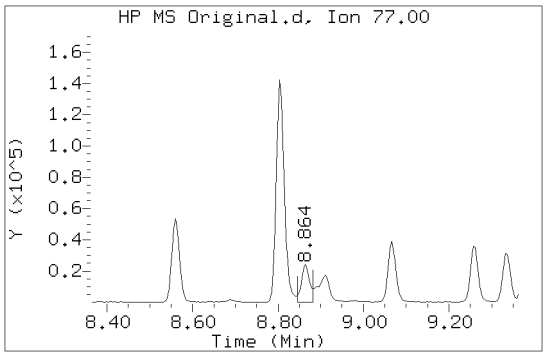
AFTER

MASS
75
AREA
97675
HEIGHT
73414
15-Mar-2023
14:51
linh
pham



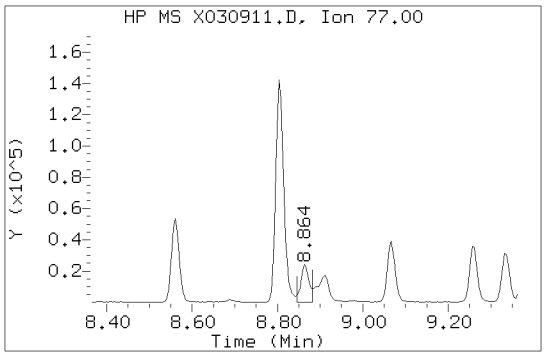
BEFORE

MASS
77
AREA
33804
HEIGHT
24277
15-Mar-2023
14:51
linh
pham



AFTER

MASS
77
AREA
33804
HEIGHT
24277
15-Mar-2023
14:51
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa6.i\X230309.b\X030912.D Page 1
Report Date: 15-Mar-2023 14:51

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa6.i\X230309.b\X030912.D
Lab Smp Id: CCV-END Client Smp ID: CCV-END
Inj Date : 09-MAR-2023 14:31
Operator : PC Inst ID: voa6.i
Smp Info : CCV-END;CCV-END;2;;
Misc Info : V6;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa6.i\X230309.b\8260W.m
Meth Date : 15-Mar-2023 14:51 voa6.i Quant Type: ISTD
Cal Date : 16-DEC-2022 14:04 Cal File: X121608.D
Als bottle: 11 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.181	4.181	(1.000)	382606	50.0000	
135 1,4-Dioxane	88	5.598	5.598	(1.339)	40184	1000.00	1148.96
140 1,3-Butadiene	54	1.164	1.164	(0.278)	105365	50.0000	40.12
13 Acetonitrile	39	2.198	2.198	(0.526)	192540	500.000	552.92
194 Acetaldehyde	44	1.212	1.212	(0.290)	98313	200.000	429.58
145 alpha-Methylstyrene	118	9.257	9.257	(0.958)	308264	50.0000	44.12
156 Diisopropyl ether	45	2.997	2.997	(0.717)	620934	50.0000	62.56
166 1,2,3-Trimethylbenzene	105	9.729	9.729	(1.007)	712344	50.0000	46.91
2 Dichlorodifluoromethane	85	0.973	0.973	(0.233)	102003	50.0000	38.21
3 Chloromethane	50	1.077	1.077	(0.258)	174928	50.0000	50.50
5 Vinyl Chloride	62	1.145	1.145	(0.274)	145477	50.0000	43.52
6 Bromomethane	94	1.340	1.340	(0.321)	96790	50.0000	38.70
7 Chloroethane	64	1.404	1.404	(0.336)	150504	50.0000	64.69
8 Trichlorofluoromethane	101	1.561	1.561	(0.373)	177604	50.0000	37.97
9 Acrolein	56	1.445	1.445	(0.346)	21002	100.000	80.81
10 Acetone	43	1.973	1.973	(0.472)	90505	100.000	84.29
11 1,1-Dichloroethene	96	1.913	1.913	(0.458)	109599	50.0000	37.74
15 Iodomethane	142	2.026	2.026	(0.485)	206148	100.000	56.39
16 Acrylonitrile	53	2.532	2.532	(0.606)	127529	100.000	129.48
17 Methylene Chloride	84	2.303	2.303	(0.551)	189591	50.0000	47.59

18 Methyl tert-butyl ether	73	2.532	2.532 (0.606)	554688	50.0000	58.35
19 Carbon Disulfide	76	2.071	2.071 (0.495)	735553	100.000	96.81

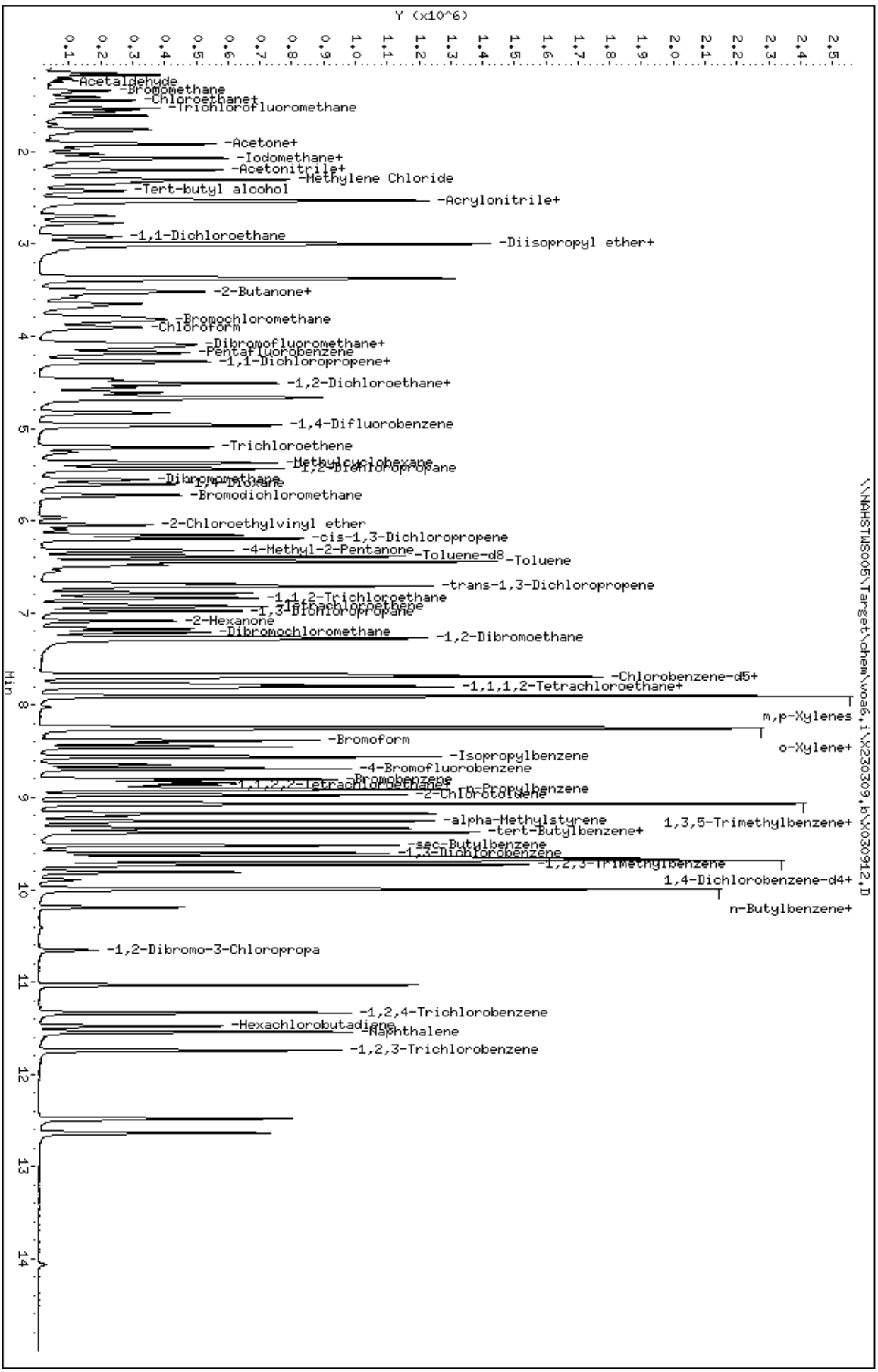
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	20 trans-1,2-Dichloroethene	96	2.528	2.528	(0.605)	147667	50.0000	45.43
	21 Vinyl Acetate	43	2.997	2.997	(0.717)	1044663	100.000	125.20
	22 1,1-Dichloroethane	63	2.922	2.922	(0.699)	285360	50.0000	50.03
	24 2-Butanone	43	3.574	3.574	(0.855)	123809	100.000	108.46
	26 2,2-Dichloropropane	77	3.510	3.510	(0.840)	233797	50.0000	48.27
	27 cis-1,2-Dichloroethene	96	3.525	3.525	(0.843)	183920	50.0000	46.50
	28 Chloroform	83	3.904	3.904	(0.934)	304705	50.0000	47.66
	29 Bromochloromethane	128	3.795	3.795	(0.908)	97895	50.0000	45.20
$	30 Dibromofluoromethane	113	4.095	4.095	(0.979)	173474	50.0000	47.21
	31 1,1,1-Trichloroethane	97	4.080	4.080	(0.976)	230161	50.0000	45.37
	32 1,1-Dichloropropene	75	4.279	4.279	(0.862)	203424	50.0000	46.89
	33 1,2-Dichloroethane	62	4.552	4.552	(0.917)	253429	50.0000	50.61
	34 Carbon Tetrachloride	117	4.264	4.264	(0.859)	184834	50.0000	39.89
$	35 1,2-Dichloroethane-d4	65	4.470	4.470	(1.069)	200990	50.0000	51.82
*	36 1,4-Difluorobenzene	114	4.965	4.965	(1.000)	611050	50.0000	
	37 Benzene	78	4.511	4.511	(0.909)	695661	50.0000	47.67
	38 Trichloroethene	130	5.205	5.205	(1.048)	180976	50.0000	43.72
	39 Bromodichloromethane	83	5.726	5.726	(1.153)	251176	50.0000	45.86
	41 2-Chloroethylvinyl ether	63	6.044	6.044	(1.217)	142292	100.000	91.33
	42 1,2-Dichloropropane	63	5.433	5.433	(1.094)	195225	50.0000	50.29
	44 Dibromomethane	93	5.553	5.553	(1.119)	120950	50.0000	45.84
	45 4-Methyl-2-Pentanone	43	6.322	6.322	(0.824)	347486	100.000	113.72
	46 cis-1,3-Dichloropropene	75	6.153	6.153	(1.239)	329379	50.0000	51.21
*	47 Chlorobenzene-d5	117	7.668	7.668	(1.000)	571674	50.0000	
$	48 Toluene-d8	98	6.386	6.386	(0.833)	669298	50.0000	47.37
	50 Toluene	91	6.446	6.446	(0.841)	727539	50.0000	46.04
	51 trans-1,3-Dichloropropene	75	6.682	6.682	(1.346)	276917	50.0000	51.88
	52 2-Hexanone	43	7.087	7.087	(0.924)	226833	100.000	109.11
	53 1,1,2-Trichloroethane	83	6.835	6.835	(0.891)	150780	50.0000	47.56
	54 1,3-Dichloropropane	76	6.982	6.982	(0.911)	316818	50.0000	50.77
	55 Dibromochloromethane	129	7.173	7.173	(0.935)	211978	50.0000	46.33
	56 Tetrachloroethene	164	6.925	6.925	(0.903)	134518	50.0000	41.14
	57 1,2-Dibromoethane	107	7.259	7.259	(0.947)	191676	50.0000	48.36
	58 1-Chlorohexane	55	7.694	7.694	(1.550)	127195	50.0000	43.07
	59 Chlorobenzene	112	7.694	7.694	(1.003)	500605	50.0000	44.66
	60 1,1,1,2-Tetrachloroethane	131	7.773	7.773	(1.014)	191705	50.0000	45.96
	61 Ethylbenzene	106	7.799	7.799	(1.017)	237868	50.0000	45.05
	62 m,p-Xylenes	106	7.904	7.904	(1.031)	612521	100.000	89.99
	63 o-Xylene	106	8.241	8.241	(1.075)	304389	50.0000	45.31
	64 Styrene	104	8.256	8.256	(1.077)	539641	50.0000	47.93
	66 Bromoform	173	8.410	8.410	(1.097)	143931	50.0000	45.40
	67 Isopropylbenzene	105	8.560	8.560	(1.116)	681644	50.0000	44.41
	68 1,1,2,2-Tetrachloroethane	83	8.837	8.837	(0.915)	243820	50.0000	48.51
$	69 4-Bromofluorobenzene	95	8.687	8.687	(1.133)	264094	50.0000	50.01
*	70 1,4-Dichlorobenzene-d4	152	9.662	9.662	(1.000)	315288	50.0000	
	71 1,2,3-Trichloropropane	75	8.863	8.863	(0.917)	204729	50.0000	58.35
	73 n-Propylbenzene	91	8.912	8.912	(0.922)	798981	50.0000	45.74
	74 Bromobenzene	156	8.803	8.803	(0.911)	227796	50.0000	44.03
	75 1,3,5-Trimethylbenzene	105	9.066	9.066	(0.938)	611802	50.0000	47.42
	76 2-Chlorotoluene	91	8.972	8.972	(0.929)	546853	50.0000	47.71
	77 4-Chlorotoluene	91	9.070	9.070	(0.939)	631960	50.0000	48.37
	78 tert-Butylbenzene	119	9.336	9.336	(0.966)	475039	50.0000	44.98

79 1,2,4-Trimethylbenzene	105	9.377	9.377 (0.971)	642680	50.0000	47.34
81 sec-Butylbenzene	105	9.519	9.519 (0.985)	641912	50.0000	45.68

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	
	82 p-Isopropyltoluene	119	9.647	9.647	(0.998)	586761	50.0000	46.60	
	83 1,3-Dichlorobenzene	146	9.606	9.606	(0.994)	393332	50.0000	45.81	
	84 1,4-Dichlorobenzene	146	9.681	9.681	(1.002)	409981	50.0000	43.75	
	87 n-Butylbenzene	91	9.992	9.992	(1.034)	495535	50.0000	41.16	
	88 1,2-Dichlorobenzene	146	9.992	9.992	(1.034)	397751	50.0000	44.98	
	89 1,2-Dibromo-3-Chloropropane	155	10.655	10.655	(1.103)	40881	50.0000	50.88	
	90 1,2,4-Trichlorobenzene	180	11.338	11.338	(1.173)	282059	50.0000	50.54	
	91 Hexachlorobutadiene	225	11.480	11.480	(1.188)	100107	50.0000	40.56	
	92 Naphthalene	128	11.540	11.540	(1.194)	674585	50.0000	53.13	
	93 1,2,3-Trichlorobenzene	180	11.739	11.739	(1.215)	265341	50.0000	49.64	
M	94 1,2-Dichloroethylene (total)	96				331587	100.000		(a)
	141 Cyclohexane	56	4.121	4.121	(0.986)	179777	50.0000	46.70	
	138 Freon TF	101	1.917	1.917	(0.459)	101389	50.0000	36.09	
	147 Methylcyclohexane	55	5.377	5.377	(1.083)	439203	50.0000	58.71	
	146 Methyl Acetate	43	2.232	2.232	(0.534)	113555	50.0000	65.95	
	148 Tert-Butyl alcohol	59	2.423	2.423	(0.580)	314169	1000.00	1185.86	
	149 Isopropyl Alcohol	45	2.090	2.090	(0.500)	178675	1000.00	1291.39	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).



Data File: \\NAHSTWS005\Target\chem\voa6.i\%230309.b\%030912.D
Date : 09-MAR-2023 14:31
Client ID: CCV-END
Sample Info: CCV-END;CCV-END;2;;
Purge Volume: 5.0
Column phase: DB624

Instrument: voa6.i
Operator: PC
Column diameter: 0.18

Data File : \\NAHSTWS005\Target\chem\voa6.i\X230309.b\X030912.D
Inj Date : 09-MAR-2023 14:31
InstruID : voa6.i
LabSampID : CCV-END

NO MANUAL INTEGRATIONS

HS23030396-MSSEMI-SW8270SIM

ALS WO# HS23030396

01182857

right solutions.
right partner.

Form 1

Organic Analysis Data Sheet

Semi-Volatiles by EPA 8270SIM

Workorder

HS23030396

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Monthly Effluent Samples

03/21/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder
HS23030396

Semi-Volatiles by EPA 8270SIM

HS23030396-01		Collected	Received	Matrix	Basis
LH18/24-SP650_030723		03/07/23 13:00	03/08/23 10:15	Water	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile	PrepBatch
1,4-Dioxane	ug/L	0.72	a	0.10	0.10	0.10	10	03/15/23 17:37	SV-	09	190734

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder
HS23030396

Semi-Volatiles by EPA 8270SIM

MBLK-190734	Collected	Received	Matrix	Basis
MBLK-190734	NA	NA	Aqueous	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile	PrepBatch
1,4-Dioxane	ug/L	0.030	U	0.010	0.030	0.030	1	03/15/23 16:43	SV-	06	190734

01182860

right solutions.
right partner.

Form 2

System Monitoring Compound Recovery

Semi-Volatiles by EPA 8270SIM

Workorder

HS23030396

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Monthly Effluent Samples

03/21/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Form 2 - System Monitoring Compound Recovery

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder
HS23030396

RunID
SV-6_430148_190734

Semi-Volatiles by EPA 8270SIM

MBLK-190734	Analyzed 03/15/23	Conc Units ug/L	Dilution 1		
Surrogate	**Result Conc**	**Spike Conc**	**%Recovery**	**%Recovery Limits**	**Q**
2-Fluorobiphenyl	0.07521	0.08	94.0	40-140	
4-Terphenyl-d14	0.06573	0.08	82.2	40-140	
Nitrobenzene-d5	0.07429	0.08	92.9	40-140	

LCS-190734	Analyzed 03/15/23	Conc Units ug/L	Dilution 1		
Surrogate	**Result Conc**	**Spike Conc**	**%Recovery**	**%Recovery Limits**	**Q**
2-Fluorobiphenyl	0.09189	0.08	115	40-140	
4-Terphenyl-d14	0.07096	0.08	88.7	40-140	
Nitrobenzene-d5	0.08264	0.08	103	40-140	

LCSD-190734	Analyzed 03/15/23	Conc Units ug/L	Dilution 1		
Surrogate	**Result Conc**	**Spike Conc**	**%Recovery**	**%Recovery Limits**	**Q**
2-Fluorobiphenyl	0.08285	0.08	104	40-140	
4-Terphenyl-d14	0.0739	0.08	92.4	40-140	
Nitrobenzene-d5	0.07218	0.08	90.2	40-140	

HS23030396-01	Analyzed 03/15/23	Conc Units ug/L	Dilution 10		
Surrogate	**Result Conc**	**Spike Conc**	**%Recovery**	**%Recovery Limits**	**Q**
2-Fluorobiphenyl	0.072	0.08	89.8	40-140	
4-Terphenyl-d14	0.18	0.08	221	40-140	*
Nitrobenzene-d5	0.083	0.08	104	40-140	

Q - Surrogate %Recovery Flag * - %Recovery / RPD Outside Limits

01182862

right solutions.
right partner.

Form 3B

Laboratory Control Sample Recovery

Semi-Volatiles by EPA 8270SIM

Workorder

HS23030396

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Monthly Effluent Samples

03/21/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Form 3B - Laboratory Control Sample Recovery

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder
HS23030396

Semi-Volatiles by EPA 8270SIM

SV-6_430148_190734		QC ID	LCS-190734			LCSD-190734					
QC Matrix	Aqueous	Run Date	03/15/23			03/15/23					
Prep Method	SW3510	Units Run Time	17:01			17:19					
Prep Batch	190734 03/13/23	ug/L Prep Amt	1000 mL			1000 mL					
Analyte		%R Limits	Spike Added	LCS Result	%R	Q	LCSD Result	%R	Q	RPD Limit	RPD	Q
1,4-Dioxane		40-140	0.08	0.0607	76		0.0593	74.0		20	2.34	
2-Fluorobiphenyl		40-140	0.08	0.09189	115		0.08285	104.0		20	10.3	
4-Terphenyl-d14		40-140	0.08	0.07096	89		0.0739	92.0		20	4.06	
Nitrobenzene-d5		40-140	0.08	0.08264	103		0.07218	90.0		20	13.5	

- %Recovery / RPD Flag * - %Recovery / RPD Outside Limits

01182864

right solutions.
right partner.

Form 4

Method Blank Summary

Semi-Volatiles by EPA 8270SIM

Workorder

HS23030396

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Monthly Effluent Samples

03/21/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Form 4 - Method Blank Summary

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder
HS23030396

Semi-Volatiles by EPA 8270SIM

Client Sample ID	Type	Lab Sample ID	File ID	Date Analyzed	Run ID
METHOD BLANK	MBLK	MBLK-190734	06.D	03/15/23 16:43	SV-6_430148_190734
LCS-190734	LCS	LCS-190734	07.D	03/15/23 17:01	SV-6_430148_190734
LCSD-190734	LCSD	LCSD-190734	08.D	03/15/23 17:19	SV-6_430148_190734
LH18/24-SP650_030723	SAMP	HS23030396-01	09.D	03/15/23 17:37	SV-6_430148_190734

01182866

right solutions.
right partner.

Form 5

Instrument Performance Check

Semi-Volatiles by EPA 8270SIM

Workorder

HS23030396

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Monthly Effluent Samples

03/21/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Form 5 - Instrument Performance Check

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder
HS23030396

RunID
SV-6_427063

Tune File 01.D 01/26/23 10:28

m / e	Ion Abundance Criterion	%RA
51	30.0 - 80.0% of mass 198	66.8 (66.77)
68	Less than 2.0% of mass 69	0.7 (1.46) 1
69	Mass 69 RA	46 (45.99)
70	Less than 2.0% of mass 69	0.2 (0.5) 1
127	25.0 - 75.0% of mass 198	51.7 (51.66)
197	Less than 1.0% of mass 198	0.6 (0.64)
198	Base peak, 100% RA	100 (100)
199	5.0 - 9.0% of mass 198	6.8 (6.75)
275	10.0 - 30.0% of mass 198	22.3 (22.35)
365	Greater than 0.75% of mass	2.9 (2.89)
441	Present, but less than mass	9.8 (71.9)
442	40.0 - 110.0% of mass 198	66.1 (66.06)
443	15.0 - 24.0% of mass 442	13.6 (20.62) 2

Value is % of mass 1) 69 2) 442 RA - Relative Abundance

This check applies to the following analyses

	Type	Date Analyzed	Lab File ID	Sample ID
1	ICAL1	01/26/23 17:04	18	1 4-DX-0.01
2	ICAL2	01/26/23 17:22	19	1 4-DX-0.03
3	ICAL3	01/26/23 17:40	20	1 4-DX-0.05
4	ICAL4	01/26/23 17:58	21	1 4-DX-0.08
5	ICAL5	01/26/23 18:16	22	1 4-DX-0.1
6	ICAL6	01/26/23 18:34	23	1 4-DX-0.15
7	ICAL7	01/26/23 18:51	24	1 4-DX-0.2
8	ICAL8	01/26/23 19:09	25	1 4-DX-0.5
9	ICV	01/26/23 19:27	26	1 4-DX-ICV

Form 5 - Instrument Performance Check

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder
HS23030396

RunID
SV-6_430148

Tune File 01.D 03/15/23 13:05

m / e	Ion Abundance Criterion	%RA
51	30.0 - 80.0% of mass 198	29.4 (29.37)
68	Less than 2.0% of mass 69	0 (0) 1
69	Mass 69 RA	30.5 (30.49)
70	Less than 2.0% of mass 69	0.2 (0.63) 1
127	25.0 - 75.0% of mass 198	40.3 (40.32)
197	Less than 1.0% of mass 198	0 (0)
198	Base peak, 100% RA	100 (69.74)
199	5.0 - 9.0% of mass 198	6.5 (6.54)
275	10.0 - 30.0% of mass 198	31 (30.99)
365	Greater than 0.75% of mass	4.4 (4.4)
441	Present, but less than mass	21.7 (76.66)
442	40.0 - 110.0% of mass 198	143.4 (143.38)
443	15.0 - 24.0% of mass 442	28.3 (19.77) 2

Value is % of mass 1) 69 2) 442 RA - Relative Abundance

This check applies to the following analyses

	Type	Date Analyzed	Lab File ID	Sample ID
1	CCV	03/15/23 15:13	03	14DX-0.08
2	MBLK	03/15/23 16:43	06	MBLK-190734
3	LCS	03/15/23 17:01	07	LCS-190734
4	LCSD	03/15/23 17:19	08	LCSD-190734
5	SAMP	03/15/23 17:37	09	LH18/24-SP650_030723
6	CCV	03/15/23 17:55	10	14DX-CCV END

01182869

right solutions.
right partner.

Form 6

Initial Calibration Data

Semi-Volatiles by EPA 8270SIM

Workorder

HS23030396

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Monthly Effluent Samples

03/21/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Initial Calibration Data

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder HS23030396

RunID SV-6_427063

ICAL Start Date 10-MAR-2022 1025
ICAL End Date 26-JAN-2023 1909

Calibration Files

Level 1	..SV6.i\230126.b\18.D	**Level 5**	..SV6.i\230126.b\22.D
Level 2	..SV6.i\230126.b\19.D	**Level 6**	..SV6.i\230126.b\23.D
Level 3	..SV6.i\230126.b\20.D	**Level 7**	..SV6.i\230126.b\24.D
Level 4	..SV6.i\230126.b\21.D	**Level 8**	..SV6.i\230126.b\25.D

Compound	Level 1 0.010 Level 7 0.200	Level 2 0.030 Level 8 0.500	Level 3 0.050	Level 4 0.080	Level 5 0.100	Level 6 0.150	Curve	b	m1	m2	%RSD or R^2	Q
1,4-Dioxane	0.46310 0.34382	0.38441 0.32997	0.40793	0.33224	0.32371	0.33309	AVRG		0.36478		13.63385	
	0.34382	0.32997					AVRG		0.36478		13.63385	
----------	----------	----------	----------	----------	----------	----------	-----	----------	----------	----------	----------	
Nitrobenzene-d5	0.25894 0.30550	0.28069 0.29426	0.30421	0.28403	0.28044	0.30017	AVRG		0.28853		5.44076	
2-Fluorobiphenyl	1.34238 1.34111	1.24919 1.36027	1.26097	1.30443	1.30577	1.33599	AVRG		1.31252		3.06364	
158 4-Terphenyl-d14	1097 24628	2568 48596	5479	7348	8150	13832	QUAD	0.15559	0.48409	-0.00721	0.99726	

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits

01182871

right solutions.
right partner.

Form 6I

Initial Calibration Verification (ICV)

Semi-Volatiles by EPA 8270SIM

Workorder

HS23030396

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Monthly Effluent Samples

03/21/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Initial Calibration Verification (ICV)

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder HS23030396

RunID SV-6_427063

Instrument ID SV6.i ICAL Date 26-JAN-2023
Lab File ID 26.D ICAL Time 1758
?VAL? ?VAL? Conc Units ug/L
Analysis Type SV Level LOW

Compound	CONC Added	CONC Recovered	% Recovered	Limits	Q
1,4-Dioxane	0.08000	0.03481	43.51	40-140	
Nitrobenzene-d5	0.08000	0.07196	89.95	40-140	
2-Fluorobiphenyl	0.08000	0.07917	98.96	40-140	
158 4-Terphenyl-d14	0.08000	0.08903	111.29	40-140	

01182873

right solutions.
right partner.

Form 7

Continuing Calibration Verification (CCV)

Semi-Volatiles by EPA 8270SIM

Workorder

HS23030396

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Monthly Effluent Samples

03/21/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder HS23030396

RunID SV-6_430148

Instrument ID SV6.i Injection Date 15-MAR-2023 1513
Lab File ID 03.D ICAL Date(s) 10-MAR-2022 26-JAN-2023
Analysis Type WATER ICAL Times 1025 1909
Lab Sample ID 14DX-0.08 Quant Type ISTD

Compound	$\overline{RRF}$ / $\overline{RRF}$ / Amount	RF0.080	CCV RRF0.080	Min RRF	%D / %D / %DRIFT	Max %D / %D / %DRIFT	Curve CURVE TYPE	Q
Nitrobenzene-d5	0.28853	0.28571	0.28571	0.010	-0.97522	20.0	Averaged	
2-Fluorobiphenyl	1.31252	1.22183	1.22183	0.010	-6.90973	20.0	Averaged	
158 4-Terphenyl-d14	0.08000	0.07611	1.59376	0.010	-4.86413	20.0	Quadratic	
1,4-Dioxane	0.36478	0.33751	0.33751	0.010	-7.47747	20.0	Averaged	

Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder HS23030396

RunID SV-6_430148

Instrument ID SV6.i
Lab File ID 10.D
Analysis Type WATER
Lab Sample ID 14DX-CCV END
Injection Date 15-MAR-2023 1755
ICAL Date(s) 10-MAR-2022 26-JAN-2023
ICAL Times 1025 1909
Quant Type ISTD

Compound	$\overline{RRF}$ / $\overline{RRF}$ / Amount	RF0.080	CCV RRF0.080	Min RRF	%D / %D / %DRIFT	Max %D / %D / %DRIFT	Curve CURVE TYPE	Q
Nitrobenzene-d5	0.28853	0.29296	0.29296	0.010	1.53503	20.0	Averaged	
2-Fluorobiphenyl	1.31252	1.22902	1.22902	0.010	-6.36155	20.0	Averaged	
158 4-Terphenyl-d14	0.08000	0.07751	1.63138	0.010	-3.11297	20.0	Quadratic	
1,4-Dioxane	0.36478	0.36940	0.36940	0.010	1.26498	20.0	Averaged	

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS23030396

Lab File ID (Standard): 03 Date Analyzed: 03/15/23

Instrument ID: SV6 Time Analyzed: 1513

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
	12 HOUR STD	4074	2.61	16450	3.67	11890	5.31
	UPPER LIMIT	8148	3.11	32900	4.17	23780	5.81
	LOWER LIMIT	2037	2.11	8225	3.17	5945	4.81
	CLIENT SAMPLE NO.						
01	MBLK-190734	2580	2.61	9979	3.67	6353	5.31
02	LCS-190734	2267	2.61	9369	3.67	5857*	5.31
03	LCSD-190734	2108	2.60	8244	3.67	6407	5.31
04	HS23030396-01	2068	2.60	8243	3.67	6069	5.32
05							
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: HS23030396

Lab File ID (Standard): 03 Date Analyzed: 03/15/23

Instrument ID: SV6 Time Analyzed: 1513

		IS4(PHN) AREA	#	RT	#	IS5(CRY) AREA	#	RT	#	IS6(PRY) AREA	#	RT	#
	12 HOUR STD	22113		6.73		11258		9.30		9691		10.99	
	UPPER LIMIT	44226		7.23		22516		9.80		19382		11.49	
	LOWER LIMIT	11057		6.23		5629		8.80		4846		10.49	
	CLIENT SAMPLE NO.												
01	MBLK-190734	11902		6.73		6337		9.30		5260		10.98	
02	LCS-190734	15051		6.73		6552		9.30		5340		10.98	
03	LCSD-190734	11550		6.73		5929		9.30		4959		10.98	
04	HS23030396-01	11956		6.73		7726		9.30		5037		10.98	
05													
06													
07													
08													
09													
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

01182878

right solutions.
right partner.

Form 12

Preparation Log

Semi-VolatilesEPA 3510

Workorder

HS23030396

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Monthly Effluent Samples

03/21/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Form 12 - Preparation Log

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder
HS23030396

RunID
190734

Semi-VolatilesEPA 3510

Prep Batch 190734 **Prep Method** **Prep Date** 03/13/23

	Matrix	Type	Lab Sample ID	Initial Amt (mL)	Final Amt (mL)	Client Sample ID
1	Aqueous	MBLK	MBLK-190734	1000	1	MBLK-190734
2	Aqueous	LCS	LCS-190734	1000	1	LCS-190734
3	Aqueous	LCSD	LCSD-190734	1000	1	LCSD-190734
4	Water	SAMP	HS23030396-01	1000	1	LH18/24-SP650_030723

01182880

right solutions.
right partner.

Analysis Run Log

Semi-Volatiles by EPA 8270SIM

Workorder

HS23030396

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Monthly Effluent Samples

03/21/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Form 13 - Analysis Run Log

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder
HS23030396

RunID
SV-6_427063

Run ID SV-6_427063 **Start Date** 01/26/23 **EndDate** 01/26/23

Inj. Time	Client Sample ID	Type	Lab Sample ID	File ID	Analysis Date	DF
10:28	DFTPP	TUNE	DFTPP	01.D	01/26/23	1
17:04	1 4-DX-0.01	ICAL1	1 4-DX-0.01	18.D	01/26/23	1
17:22	1 4-DX-0.03	ICAL2	1 4-DX-0.03	19.D	01/26/23	1
17:40	1 4-DX-0.05	ICAL3	1 4-DX-0.05	20.D	01/26/23	1
17:58	1 4-DX-0.08	ICAL4	1 4-DX-0.08	21.D	01/26/23	1
18:16	1 4-DX-0.1	ICAL5	1 4-DX-0.1	22.D	01/26/23	1
18:34	1 4-DX-0.15	ICAL6	1 4-DX-0.15	23.D	01/26/23	1
18:51	1 4-DX-0.2	ICAL7	1 4-DX-0.2	24.D	01/26/23	1
19:09	1 4-DX-0.5	ICAL8	1 4-DX-0.5	25.D	01/26/23	1
19:27	1 4-DX-ICV	ICV	1 4-DX-ICV	26.D	01/26/23	1

Form 13 - Analysis Run Log

Client Bhate Environmental Associates, Inc.

Project Longhorn GW Treatment Plant Monthly Effluent Samples

Workorder
HS23030396

RunID
SV-6_430148

Run ID SV-6_430148 **Start Date** 03/15/23 **EndDate** 03/15/23

Inj. Time	Client Sample ID	Type	Lab Sample ID	File ID	Analysis Date	DF
13:05	DFTPP	TUNE	DFTPP	01.D	03/15/23	1
15:13	14DX-0.08	CCV	14DX-0.08	03.D	03/15/23	1
16:43	MBLK-190734	MBLK	MBLK-190734	06.D	03/15/23	1
17:01	LCS-190734	LCS	LCS-190734	07.D	03/15/23	1
17:19	LCSD-190734	LCSD	LCSD-190734	08.D	03/15/23	1
17:37	LH18/24-SP650_030723	SAMP	HS23030396-01	09.D	03/15/23	10
17:55	14DX-CCV END	CCV	14DX-CCV END	10.D	03/15/23	1

01182883

right solutions.
right partner.

Raw Data SV-6 427063

Semi-Volatiles by EPA 8270SIM

Workorder

HS23030396

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Monthly Effluent Samples

03/21/2023

ALS Environmental–Houston Laboratory

10450 Stancliff Road, Suite 210, Houston, TX 77099

Phone (281) 530-5656 Fax (281) 530-5887

www.alsglobal.com

Data File: \\nahstws005\Target\chem\SV6.i\230126.b\01.D Page 1
Report Date: 26-Jan-2023 10:45

ALS Laboratory Group

Data file : \\nahstws005\Target\chem\SV6.i\230126.b\01.D
Lab Smp Id: DFTPP Client Smp ID: DFTPP
Inj Date : 26-JAN-2023 10:28
Operator : smith Inst ID: SV6.i
Smp Info : DFTPP;DFTPP;3;;DFTPP
Misc Info :
Comment :
Method : \\nahstws005\Target\chem\SV6.i\230126.b\DFTPP.m
Meth Date : 27-Sep-2022 15:32 Linh.Pham Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 1 QC Sample: DFTPP
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14 Sample Matrix: None
Processing Host: NAHSTW7053

RT	EXP RT	DLT RT	MASS	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
1 dftpp						CAS #: 5074-71-5		
5.512	6.357	-0.845	198	193536			0.00- 100.00	100.00
5.512	6.357	-0.845	51	129216			10.00- 80.00	66.77
5.512	6.357	-0.845	68	1295			0.00- 2.00	1.46
5.512	6.357	-0.845	69	89000			0.00- 0.00	45.99
5.512	6.357	-0.845	70	442			0.00- 2.00	0.50
5.512	6.357	-0.845	127	99984			10.00- 80.00	51.66
5.512	6.357	-0.845	197	1243			0.00- 2.00	0.64
5.512	6.357	-0.845	199	13064			5.00- 9.00	6.75
5.512	6.357	-0.845	275	43248			10.00- 60.00	22.35
5.512	6.357	-0.845	365	5595			1.00- 100.00	2.89
5.512	6.357	-0.845	441	18955			0.01- 99.99	71.90
5.512	6.357	-0.845	442	127856			50.00- 150.00	66.06
5.512	6.357	-0.845	443	26364			15.00- 24.00	20.62

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	66.77
68	Less than 2.00% of mass 69	0.67 (1.46)
69	Mass 69 relative abundance	45.99
70	Less than 2.00% of mass 69	0.23 (0.50)
127	10.00 - 80.00% of mass 198	51.66
197	Less than 2.00% of mass 198	0.64
199	5.00 - 9.00% of mass 198	6.75
275	10.00 - 60.00% of mass 198	22.35
365	1.00 - 100.00% of mass 198	2.89
441	Present, but less than mass 443	9.79
442	50.00 - 150.00% of mass 198	66.06
443	15.00 - 24.00% of mass 442	13.62 (20.62)

Data File: 01.D
Spectrum: Average Spectrum: 5.507 to 5.513 min. (SUB)
Location of Maximum: 198.00
Number of points: 290

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	217	119.00	229	192.00	2286	275.00	43248
37.00	514	120.00	376	193.00	2572	276.00	5775
38.00	1355	121.00	179	194.00	592	277.00	3723
39.00	8934	122.00	1920	195.00	298	278.00	656
40.00	412	123.00	2801	196.00	5470	279.00	78
41.00	185	124.00	1231	197.00	1243	282.00	81
44.00	120	125.00	1201	198.00	193536	283.00	451
45.00	317	126.00	425	199.00	13064	284.00	151
47.00	16	127.00	99984	200.00	968	285.00	595
48.00	34	128.00	7552	201.00	759	289.00	103
49.00	524	129.00	37992	203.00	1495	290.00	117
50.00	32504	130.00	3182	204.00	7454	292.00	119
51.00	129216	131.00	656	205.00	11707	293.00	847
52.00	6384	132.00	349	206.00	49064	294.00	141
53.00	300	133.00	185	207.00	6667	295.00	152
55.00	505	134.00	959	208.00	1729	296.00	12631
56.00	3218	135.00	3285	209.00	569	297.00	1881
57.00	8074	136.00	1288	210.00	823	298.00	84
58.00	366	137.00	1637	211.00	2069	301.00	93
59.00	160	138.00	313	212.00	111	302.00	145
60.00	93	139.00	94	215.00	452	303.00	1444
61.00	1093	140.00	374	216.00	1121	304.00	374
62.00	1414	141.00	4740	217.00	13752	308.00	182
63.00	4094	142.00	1585	218.00	1740	310.00	122
64.00	617	143.00	1133	219.00	136	313.00	96
65.00	1764	144.00	318	221.00	8835	314.00	596
68.00	1295	145.00	268	222.00	1698	315.00	1450
69.00	89000	146.00	897	223.00	3084	316.00	747
70.00	442	147.00	2321	224.00	28120	317.00	100
73.00	734	148.00	6303	225.00	7126	321.00	402
74.00	9210	149.00	1351	226.00	705	322.00	114
75.00	14469	150.00	311	227.00	11425	323.00	3809
76.00	5296	151.00	788	228.00	1723	324.00	667
77.00	109104	152.00	130	229.00	2473	327.00	745
78.00	7193	153.00	1484	230.00	306	328.00	397
79.00	5737	154.00	1179	231.00	1030	332.00	213
80.00	4513	155.00	2909	232.00	122	333.00	360
81.00	6984	156.00	4204	233.00	200	334.00	2281
82.00	1737	157.00	875	234.00	792	335.00	664
83.00	1608	158.00	888	235.00	804	341.00	420
84.00	100	159.00	574	236.00	604	342.00	94
85.00	1106	160.00	1418	237.00	980	346.00	876
86.00	1911	161.00	2169	239.00	463	347.00	90
87.00	861	162.00	610	240.00	349	352.00	1204
88.00	416	163.00	130	241.00	678	353.00	726

89.00	111	164.00	264	242.00	1520	354.00	1096
91.00	1346	165.00	1722	243.00	1675	355.00	167
92.00	1546	166.00	1430	244.00	21280	365.00	5595
93.00	10758	167.00	11430	245.00	2833	366.00	846
94.00	730	168.00	5437	246.00	4112	371.00	204
95.00	254	169.00	910	247.00	793	372.00	1924
96.00	578	170.00	314	248.00	155	373.00	483
97.00	185	171.00	347	249.00	677	383.00	611
98.00	8469	172.00	876	250.00	96	384.00	89
99.00	6391	173.00	1222	251.00	119	390.00	303
100.00	554	174.00	2109	252.00	140	391.00	101
101.00	3920	175.00	4009	253.00	539	392.00	78
102.00	95	176.00	942	254.00	897	402.00	723
103.00	1112	177.00	1540	255.00	101648	403.00	979
104.00	2172	178.00	586	256.00	15149	404.00	375
105.00	2141	179.00	6883	257.00	1243	421.00	1045
106.00	701	180.00	5020	258.00	6329	422.00	904
107.00	29928	181.00	2480	259.00	1058	423.00	6439
108.00	4427	182.00	418	260.00	95	424.00	1320
109.00	761	183.00	203	261.00	118	425.00	81
110.00	50136	184.00	508	264.00	117	439.00	85
111.00	8075	185.00	3541	265.00	2500	441.00	18952
112.00	1093	186.00	26968	266.00	460	442.00	127856
113.00	321	187.00	7777	270.00	85	443.00	26360
115.00	85	188.00	712	271.00	285	444.00	2474
116.00	1538	189.00	1516	272.00	355	445.00	113
117.00	28128	190.00	294	273.00	3179		
118.00	1966	191.00	810	274.00	7971		

Data File: \\NAHSTWS005\Target\chem\SV6.i\230126.b\01.D

Date : 26-JAN-2023 10:28

Client ID: DFTPP

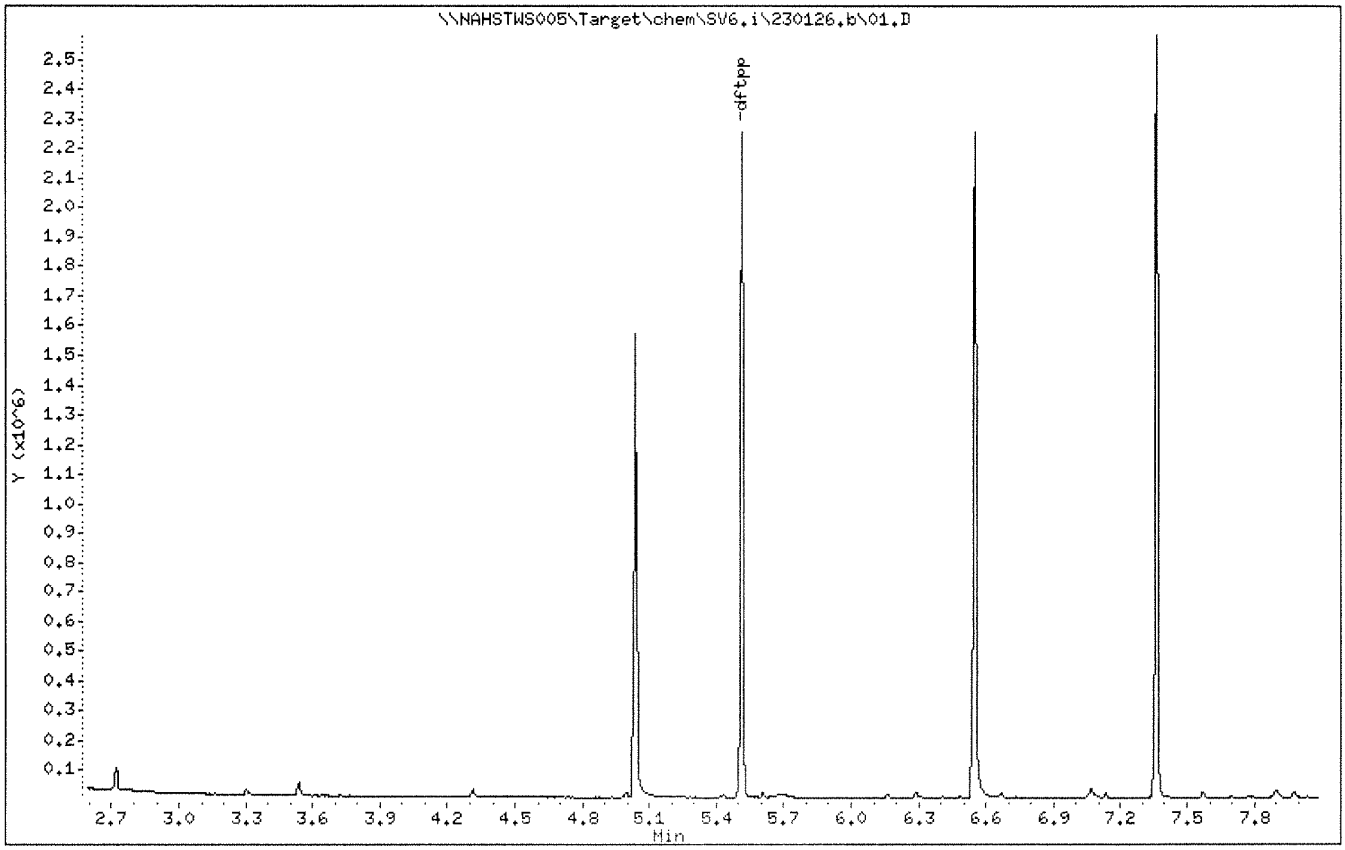
Instrument: SV6.i

Sample Info: DFTPP;DFTPP;3;;DFTPP

Operator: smith

Column phase: DB-5MS

Column diameter: 0.25



Data File: \\NAHSTWS005\Target\chem\SV6.i\230126.b\01.D

Date : 26-JAN-2023 10:28

Client ID: DFTPP

Instrument: SV6.i

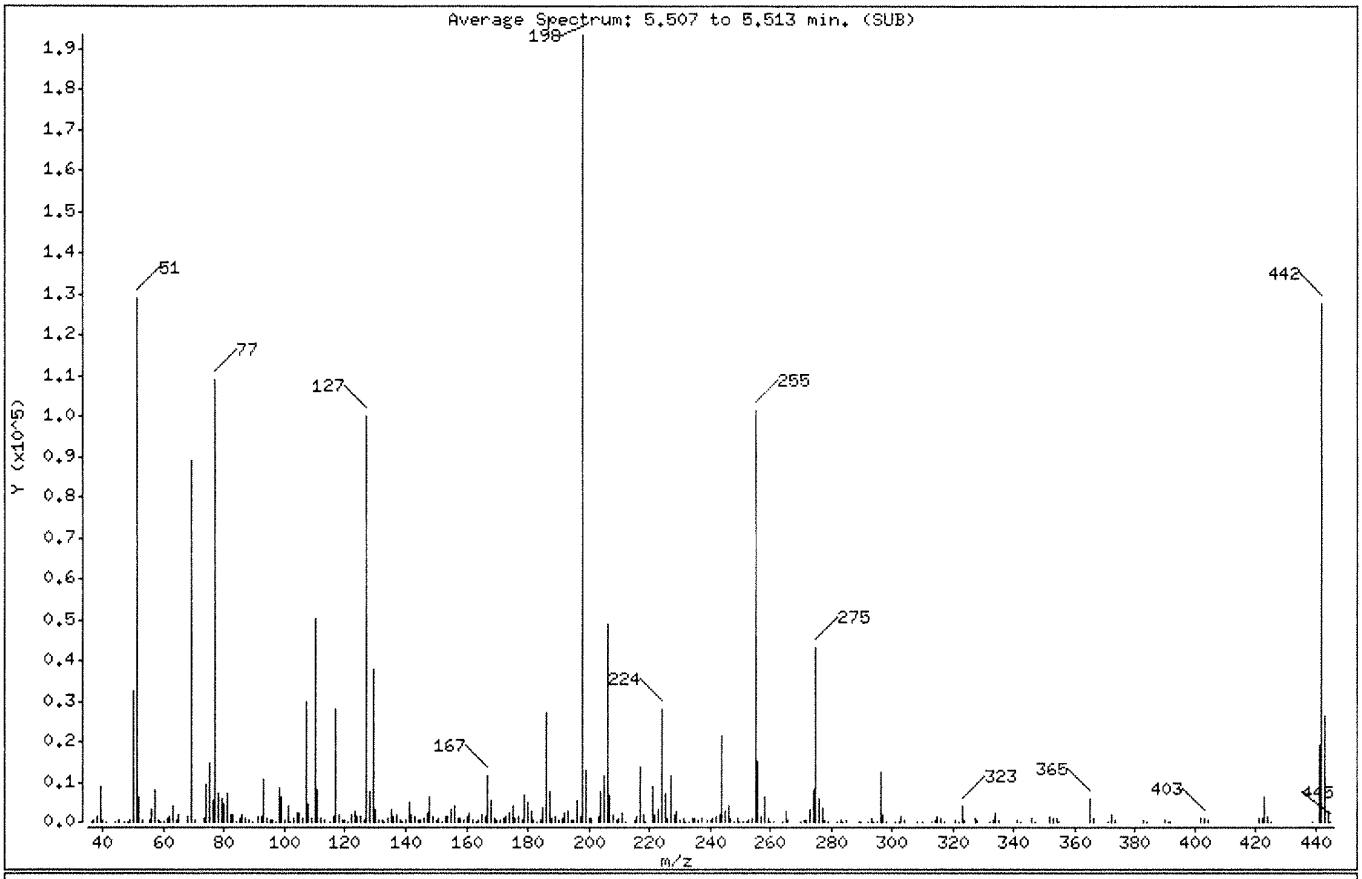
Sample Info: DFTPP;DFTPP;3;;DFTPP

Operator: smith

Column phase: DB-5MS

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	66.77
68	Less than 2.00% of mass 69	0.67 (1.46)
69	Mass 69 relative abundance	45.99
70	Less than 2.00% of mass 69	0.23 (0.50)
127	10.00 - 80.00% of mass 198	51.66
197	Less than 2.00% of mass 198	0.64
199	5.00 - 9.00% of mass 198	6.75
275	10.00 - 60.00% of mass 198	22.35
365	1.00 - 100.00% of mass 198	2.89
441	Present, but less than mass 443	9.79
442	50.00 - 150.00% of mass 198	66.06
443	15.00 - 24.00% of mass 442	13.62 (20.62)

Data File: \\NAHSTWS005\Target\chem\SV6.i\230126.b\01.D

Date : 26-JAN-2023 10:28

Client ID: DFTPP Instrument: SV6.i

Sample Info: DFTPP;DFTPP;3;;DFTPP

Operator: smith

Column phase: DB-5MS Column diameter: 0.25

Data File: 01.D
Spectrum: Average Spectrum: 5.507 to 5.513 min. (SUB)
Location of Maximum: 198.00
Number of points: 290

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	217	119.00	229	192.00	2286	275.00	43248
37.00	514	120.00	376	193.00	2572	276.00	5775
38.00	1355	121.00	179	194.00	592	277.00	3723
39.00	8934	122.00	1920	195.00	298	278.00	656
40.00	412	123.00	2801	196.00	5470	279.00	78
41.00	185	124.00	1231	197.00	1243	282.00	81
44.00	120	125.00	1201	198.00	193536	283.00	451
45.00	317	126.00	425	199.00	13064	284.00	151
47.00	16	127.00	99984	200.00	968	285.00	595
48.00	34	128.00	7552	201.00	759	289.00	103
49.00	524	129.00	37992	203.00	1495	290.00	117
50.00	32504	130.00	3182	204.00	7454	292.00	119
51.00	129216	131.00	656	205.00	11707	293.00	847
52.00	6384	132.00	349	206.00	49064	294.00	141
53.00	300	133.00	185	207.00	6667	295.00	152
55.00	505	134.00	959	208.00	1729	296.00	12631
56.00	3218	135.00	3285	209.00	569	297.00	1881
57.00	8074	136.00	1288	210.00	823	298.00	84
58.00	366	137.00	1637	211.00	2069	301.00	93
59.00	160	138.00	313	212.00	111	302.00	145
60.00	93	139.00	94	215.00	452	303.00	1444
61.00	1093	140.00	374	216.00	1121	304.00	374
62.00	1414	141.00	4740	217.00	13752	308.00	182
63.00	4094	142.00	1585	218.00	1740	310.00	122
64.00	617	143.00	1133	219.00	136	313.00	96
65.00	1764	144.00	318	221.00	8835	314.00	596
68.00	1295	145.00	268	222.00	1698	315.00	1450
69.00	89000	146.00	897	223.00	3084	316.00	747
70.00	442	147.00	2321	224.00	28120	317.00	100
73.00	734	148.00	6303	225.00	7126	321.00	402
74.00	9210	149.00	1351	226.00	705	322.00	114
75.00	14469	150.00	311	227.00	11425	323.00	3809
76.00	5296	151.00	788	228.00	1723	324.00	667
77.00	109104	152.00	130	229.00	2473	327.00	745
78.00	7193	153.00	1484	230.00	306	328.00	397

Data File: \\NAHSTWS005\Target\chem\SV6.i\230126.b\01.D

Date : 26-JAN-2023 10:28

Client ID: DFTPP Instrument: SV6.i

Sample Info: DFTPP;DFTPP;3;;DFTPP

Operator: smith

Column phase: DB-5MS Column diameter: 0.25

Data File: 01.D
Spectrum: Average Spectrum: 5.507 to 5.513 min. (SUB)
Location of Maximum: 198.00
Number of points: 290

m/z	Y	m/z	Y	m/z	Y	m/z	Y
79.00	5737	154.00	1179	231.00	1030	332.00	213
80.00	4513	155.00	2909	232.00	122	333.00	360
81.00	6984	156.00	4204	233.00	200	334.00	2281
82.00	1737	157.00	875	234.00	792	335.00	664
83.00	1608	158.00	888	235.00	804	341.00	420
84.00	100	159.00	574	236.00	604	342.00	94
85.00	1106	160.00	1418	237.00	980	346.00	876
86.00	1911	161.00	2169	239.00	463	347.00	90
87.00	861	162.00	610	240.00	349	352.00	1204
88.00	416	163.00	130	241.00	678	353.00	726
89.00	111	164.00	264	242.00	1520	354.00	1096
91.00	1346	165.00	1722	243.00	1675	355.00	167
92.00	1546	166.00	1430	244.00	21280	365.00	5595
93.00	10758	167.00	11430	245.00	2833	366.00	846
94.00	730	168.00	5437	246.00	4112	371.00	204
95.00	254	169.00	910	247.00	793	372.00	1924
96.00	578	170.00	314	248.00	155	373.00	483
97.00	185	171.00	347	249.00	677	383.00	611
98.00	8469	172.00	876	250.00	96	384.00	89
99.00	6391	173.00	1222	251.00	119	390.00	303
100.00	554	174.00	2109	252.00	140	391.00	101
101.00	3920	175.00	4009	253.00	539	392.00	78
102.00	95	176.00	942	254.00	897	402.00	723
103.00	1112	177.00	1540	255.00	101648	403.00	979
104.00	2172	178.00	586	256.00	15149	404.00	375
105.00	2141	179.00	6883	257.00	1243	421.00	1045
106.00	701	180.00	5020	258.00	6329	422.00	904
107.00	29928	181.00	2480	259.00	1058	423.00	6439
108.00	4427	182.00	418	260.00	95	424.00	1320
109.00	761	183.00	203	261.00	118	425.00	81
110.00	50136	184.00	508	264.00	117	439.00	85
111.00	8075	185.00	3541	265.00	2500	441.00	18952
112.00	1093	186.00	26968	266.00	460	442.00	127856
113.00	321	187.00	7777	270.00	85	443.00	26360
115.00	85	188.00	712	271.00	285	444.00	2474

Data File: \\NAHSTWS005\Target\chem\SV6.i\230126.b\01.D

Date : 26-JAN-2023 10:28

Client ID: DFTPP Instrument: SV6.i

Sample Info: DFTPP;DFTPP;3;;DFTPP

Operator: smith

Column phase: DB-5MS Column diameter: 0.25

Data File: 01.D
Spectrum: Average Spectrum: 5.507 to 5.513 min. (SUB)
Location of Maximum: 198.00
Number of points: 290

m/z	Y	m/z	Y	m/z	Y	m/z	Y
116.00	1538	189.00	1516	272.00	355	445.00	113
117.00	28128	190.00	294	273.00	3179		
118.00	1966	191.00	810	274.00	7971		

Data File : \\nahstws005\Target\chem\SV6.i\230126.b\01.D
Inj Date : 26-JAN-2023 10:28
InstruID : SV6.i
LabSampID : DFTPP

NO MANUAL INTEGRATIONS

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230126.b\18.D
Lab Smp Id: 1 4-DX-0.01 Client Smp ID: 1 4-DX-0.01
Inj Date : 26-JAN-2023 17:04
Operator : LG Inst ID: SV6.i
Smp Info : 1 4-DX-0.01;1 4-DX-0.01
Misc Info : ;;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\SV6.i\230126.b\DXSIM.m
Meth Date : 27-Jan-2023 11:55 SV6.i Quant Type: ISTD
Cal Date : 26-JAN-2023 19:09 Cal File: 25.D
Als bottle: 17 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7095

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)
* 20 1,4-Dichlorobenzene-d4	152	3.625	3.625	(1.000)	5528	0.10000	(aM)
* 45 Naphthalene-d8	136	4.743	4.743	(1.000)	19696	0.10000	(M)
$ 33 Nitrobenzene-d5	82	4.097	4.097	(0.864)	510	0.01000	0.008974(QM)
* 86 Acenaphthene-d10	164	6.424	6.424	(1.000)	10608	0.10000	(M)
$ 69 2-Fluorobiphenyl	172	5.775	5.775	(0.899)	1424	0.01000	0.01023(QM)
* 126 Phenanthrene-d10	188	7.879	7.879	(1.000)	20838	0.10000	
* 182 Chrysene-d12	240	10.746	10.746	(1.000)	9014	0.10000	(M)
$ 158 4-Terphenyl-d14	244	9.482	9.482	(0.882)	1097	0.01000	0.02144(M)
* 198 Perylene-d12	264	12.851	12.851	(1.000)	8255	0.10000	
1 1,4-Dioxane	58	1.865	1.865	(0.515)	256	0.01000	0.01270(QM)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

01182895

Data File: \\NAHSTWS005\Target\chem\SV6.i\230126.b\18.D

Date : 26-JAN-2023 17:04

Client ID: 1 4-DX-0.01

Instrument: SV6.i

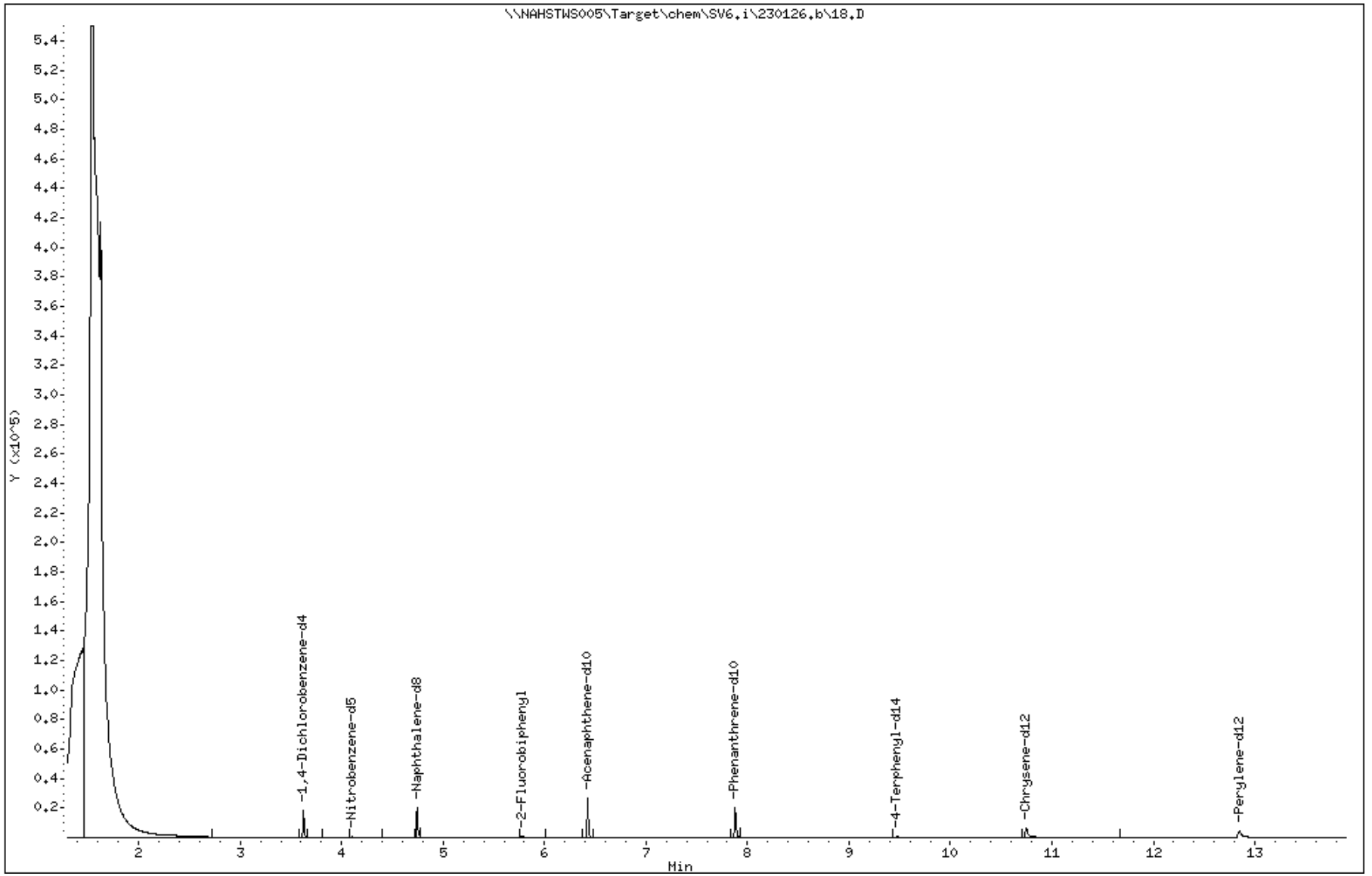
Sample Info: 1 4-DX-0.01;1 4-DX-0.01

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28

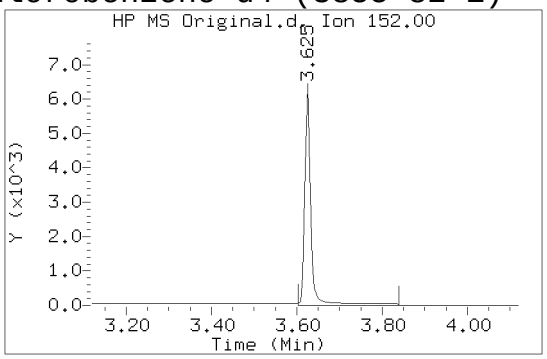


Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\18.D
Inj Date : 26-JAN-2023 17:04
InstruID : SV6.i
LabSampID : 1 4-DX-0.01

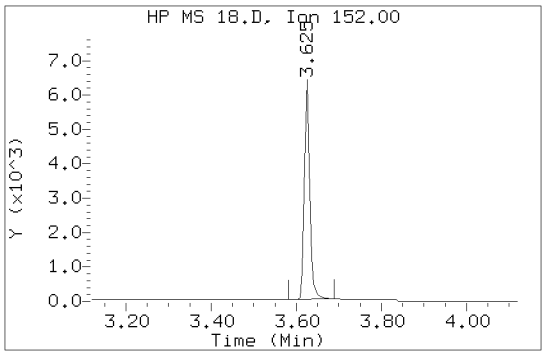
1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

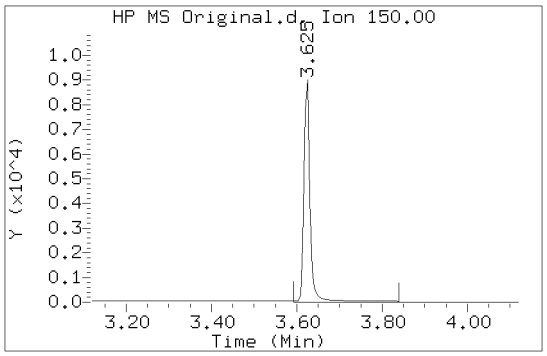
BEFORE
MASS
152
AREA
6387
HEIGHT
6448
26-Jan-2023
17:20
ALSHS
Server



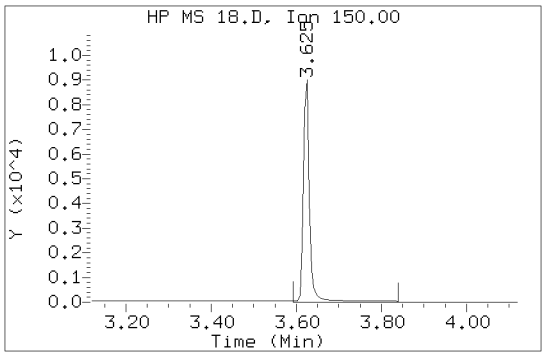
AFTER
MASS
152
AREA
5528
HEIGHT
6387
27-Jan-2023
11:55



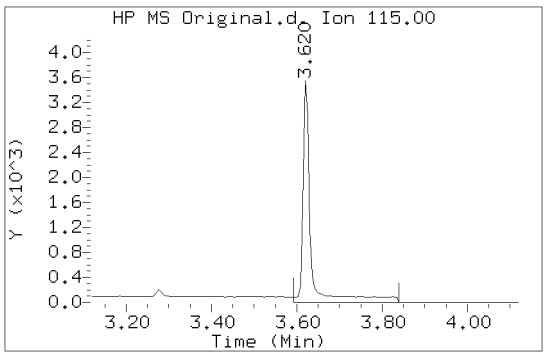
BEFORE
MASS
150
AREA
9160
HEIGHT
9004
26-Jan-2023
17:20
ALSHS
Server



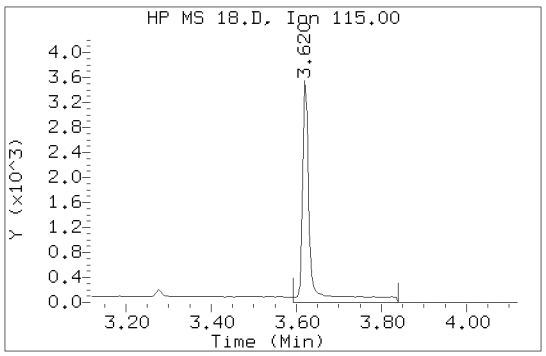
AFTER
MASS
150
AREA
9160
HEIGHT
9004
27-Jan-2023
11:55



BEFORE
MASS
115
AREA
4488
HEIGHT
3548
26-Jan-2023
17:20
ALSHS
Server



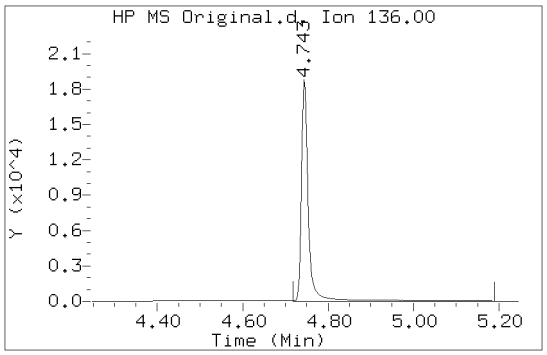
AFTER
MASS
115
AREA
4488
HEIGHT
3548
27-Jan-2023
11:55



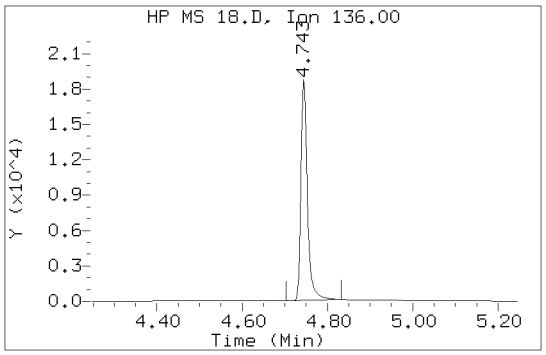
Naphthalene-d8 (1146-65-2)

Reason Code:

BEFORE
MASS
136
AREA
22286
HEIGHT
18792
26-Jan-2023
17:20
ALSHS
Server



AFTER
MASS
136
AREA
19696
HEIGHT
18700
27-Jan-2023
11:55



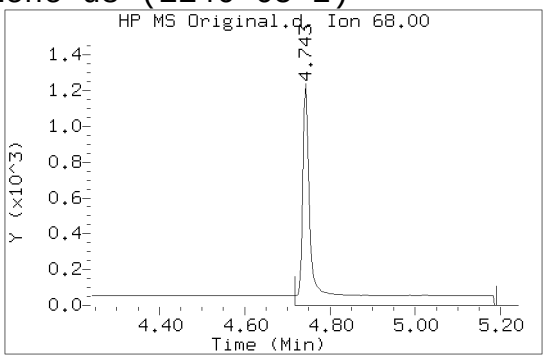
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\18.D
Inj Date : 26-JAN-2023 17:04
InstruID : SV6.i
LabSampID : 1 4-DX-0.01

Naphthalene-d8 (1146-65-2)

Reason Code:

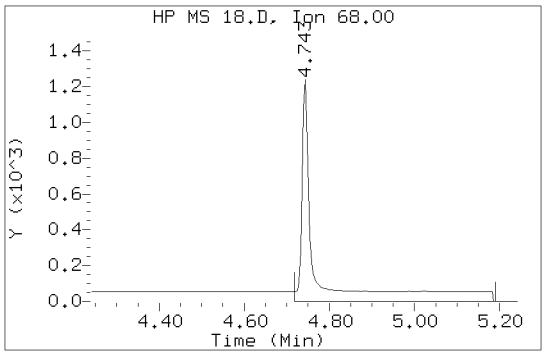
BEFORE

MASS
68
AREA
2767
HEIGHT
1239
26-Jan-2023
17:20
ALSHS
Server



AFTER

MASS
68
AREA
2767
HEIGHT
1239
27-Jan-2023
11:55

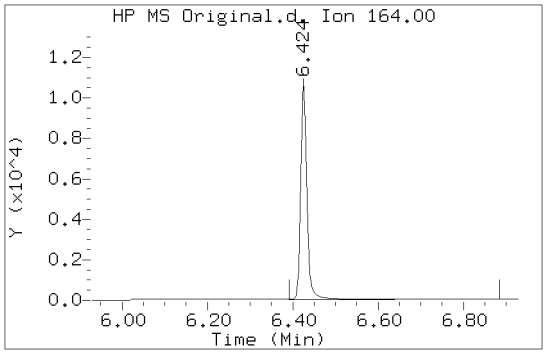


Acenaphthene-d10 (15067-26-2)

Reason Code:

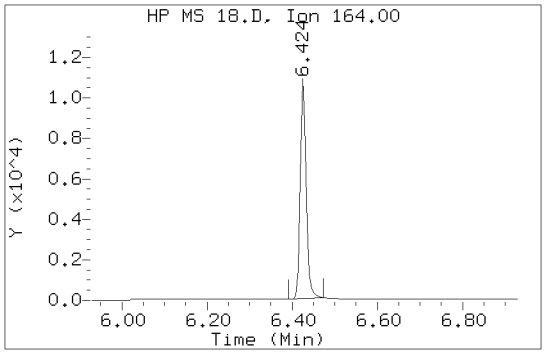
BEFORE

MASS
164
AREA
11469
HEIGHT
10928
26-Jan-2023
17:20
ALSHS
Server



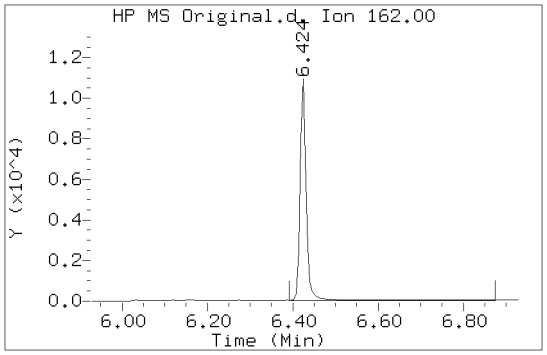
AFTER

MASS
164
AREA
10608
HEIGHT
10870
27-Jan-2023
11:55



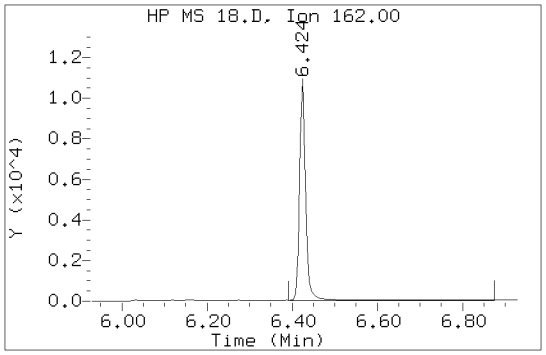
BEFORE

MASS
162
AREA
11331
HEIGHT
10930
26-Jan-2023
17:20
ALSHS
Server



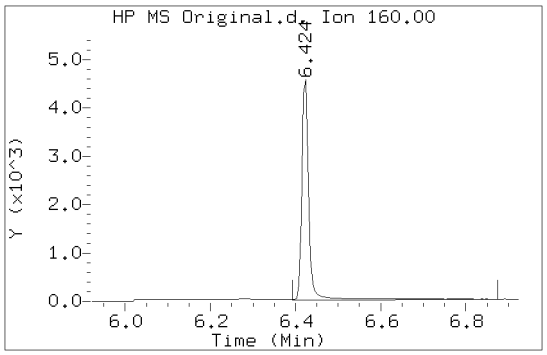
AFTER

MASS
162
AREA
11331
HEIGHT
10930
27-Jan-2023
11:55



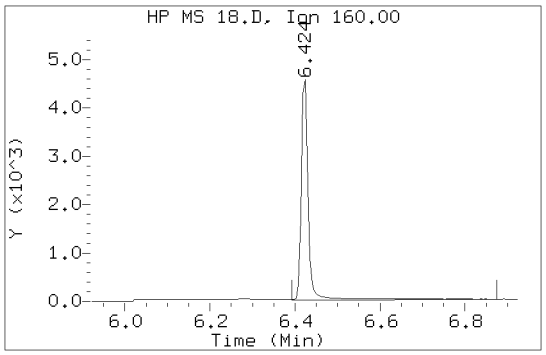
BEFORE

MASS
160
AREA
5258
HEIGHT
4564
26-Jan-2023
17:20
ALSHS
Server



AFTER

MASS
160
AREA
5258
HEIGHT
4564
27-Jan-2023
11:55

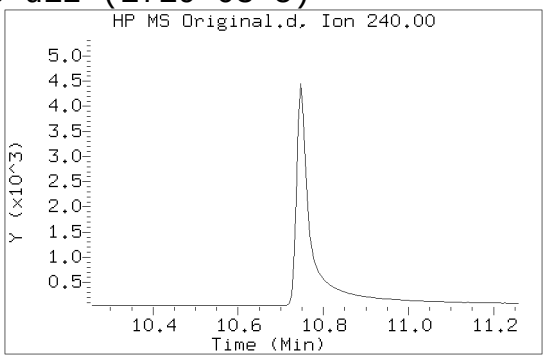


Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\18.D
Inj Date : 26-JAN-2023 17:04
InstruID : SV6.i
LabSampID : 1 4-DX-0.01

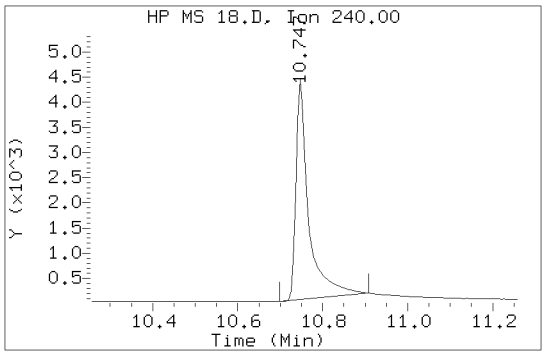
Chrysene-d12 (1719-03-5)

Reason Code:

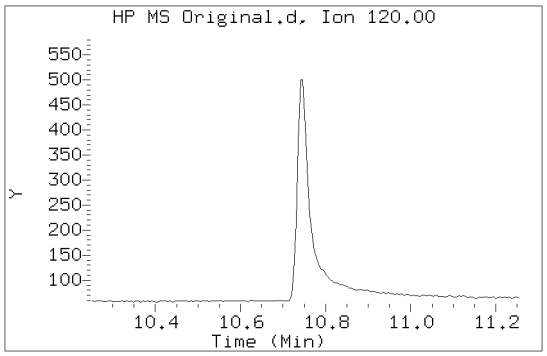
BEFORE
MASS
240
AREA
0
HEIGHT
0
26-Jan-2023
17:20
ALSHS
Server



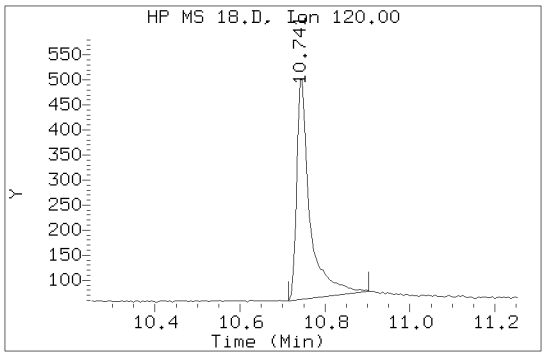
AFTER
MASS
240
AREA
9014
HEIGHT
4367
27-Jan-2023
11:55



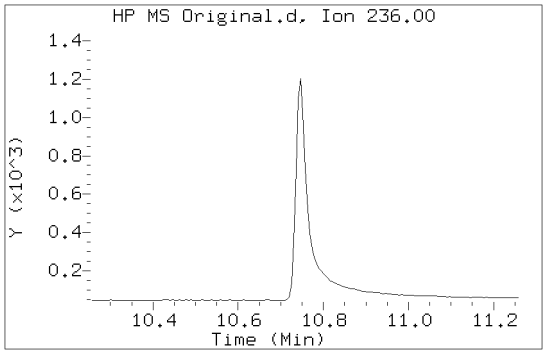
BEFORE
MASS
120
AREA
0
HEIGHT
0
26-Jan-2023
17:20
ALSHS
Server



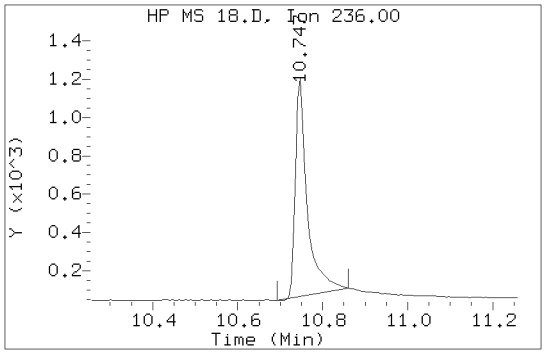
AFTER
MASS
120
AREA
950
HEIGHT
438
27-Jan-2023
11:55



BEFORE
MASS
236
AREA
0
HEIGHT
0
26-Jan-2023
17:20
ALSHS
Server



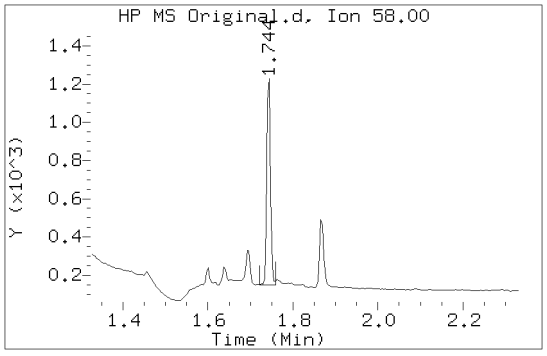
AFTER
MASS
236
AREA
2221
HEIGHT
1136
27-Jan-2023
11:55



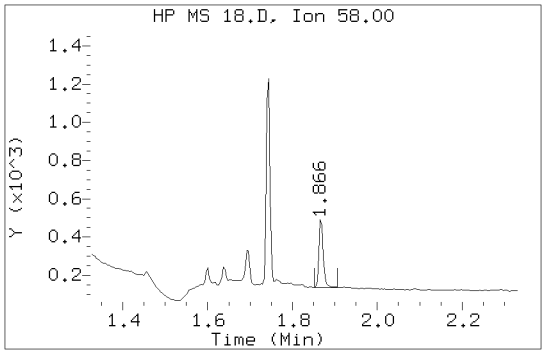
1,4-Dioxane ()

Reason Code:

BEFORE
MASS
58
AREA
659
HEIGHT
1077
26-Jan-2023
17:20
ALSHS
Server



AFTER
MASS
58
AREA
256
HEIGHT
354
27-Jan-2023
11:55

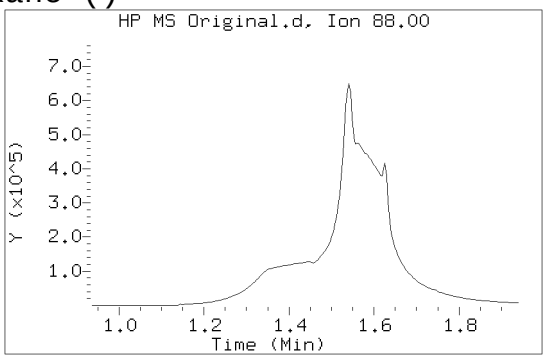


Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\18.D
Inj Date : 26-JAN-2023 17:04
InstruID : SV6.i
LabSampID : 1 4-DX-0.01

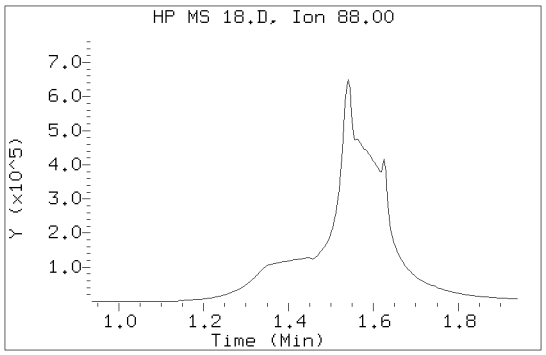
1,4-Dioxane ()

Reason Code:

BEFORE
MASS
88
AREA
0
HEIGHT
0
26-Jan-2023
17:20
ALSHS
Server



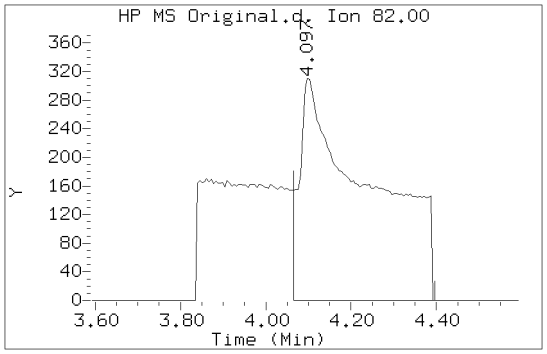
AFTER
MASS
88
AREA
0
HEIGHT
0
27-Jan-2023
11:55



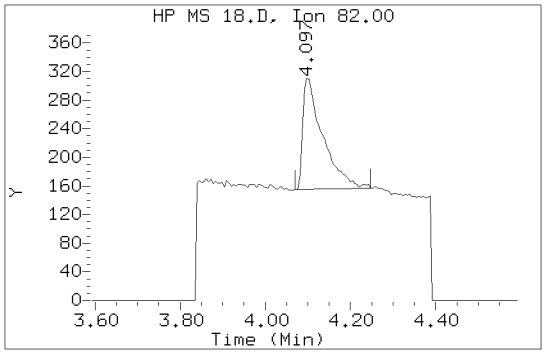
Nitrobenzene-d5 (4165-60-0)

Reason Code:

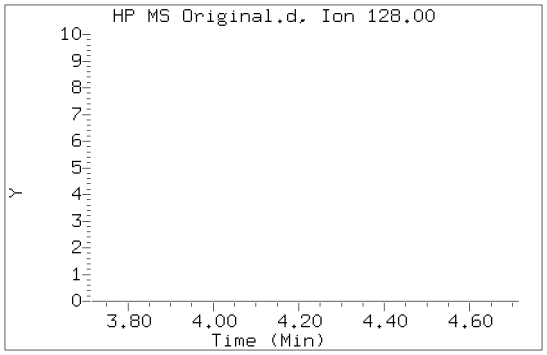
BEFORE
MASS
82
AREA
3499
HEIGHT
310
26-Jan-2023
17:20
ALSHS
Server



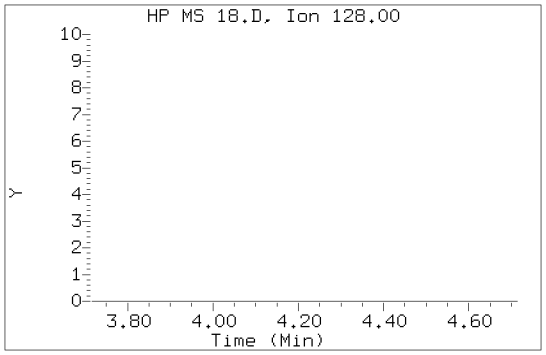
AFTER
MASS
82
AREA
510
HEIGHT
154
27-Jan-2023
11:55



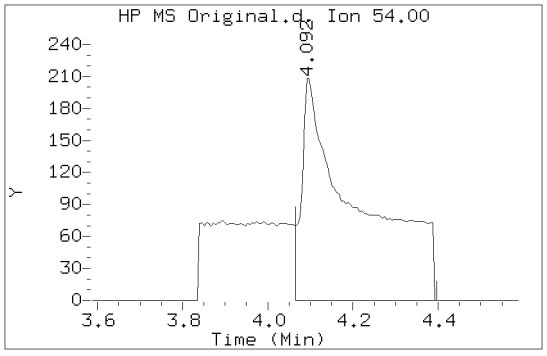
BEFORE
MASS
128
AREA
0
HEIGHT
0
26-Jan-2023
17:20
ALSHS
Server



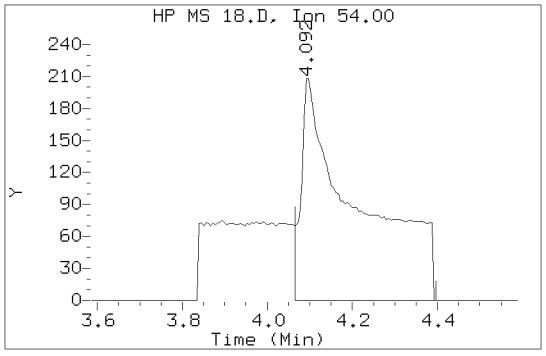
AFTER
MASS
128
AREA
0
HEIGHT
0
27-Jan-2023
11:55



BEFORE
MASS
54
AREA
1900
HEIGHT
208
26-Jan-2023
17:20
ALSHS
Server



AFTER
MASS
54
AREA
1900
HEIGHT
208
27-Jan-2023
11:55

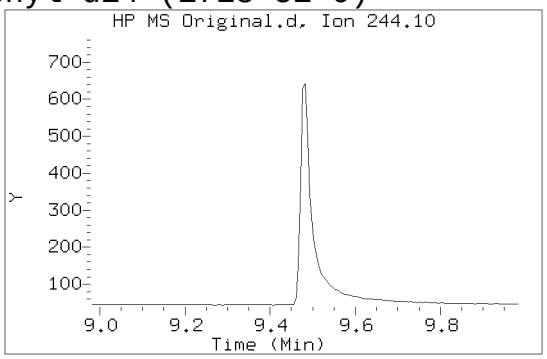


Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\18.D
Inj Date : 26-JAN-2023 17:04
InstruID : SV6.i
LabSampID : 1 4-DX-0.01

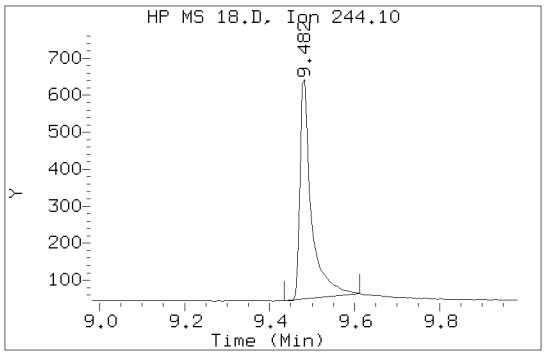
4-Terphenyl-d14 (1718-51-0)

Reason Code:

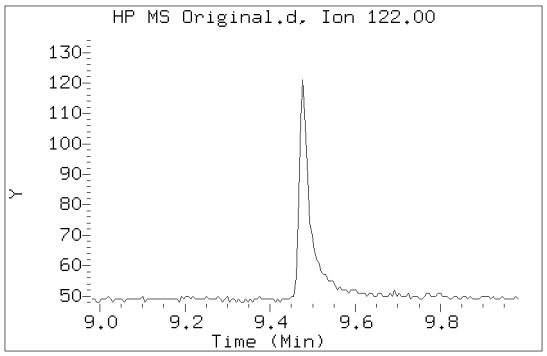
BEFORE
MASS
244.1
AREA
0
HEIGHT
0
26-Jan-2023
17:20
ALSHS
Server



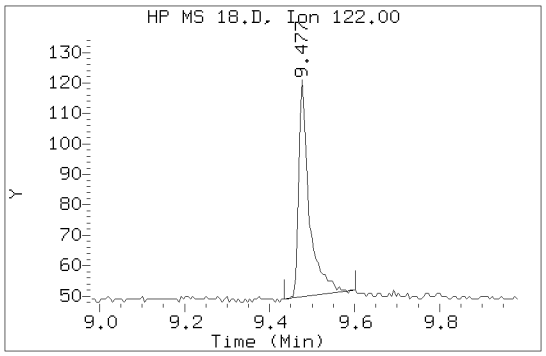
AFTER
MASS
244.1
AREA
1097
HEIGHT
592
27-Jan-2023
11:55



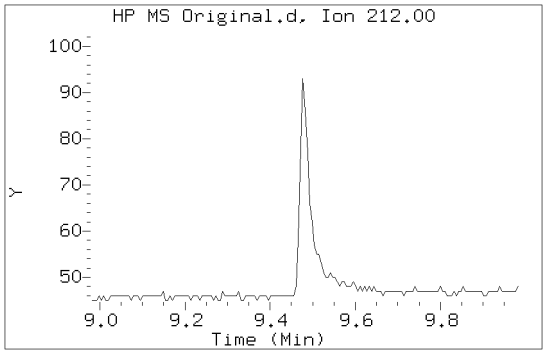
BEFORE
MASS
122
AREA
0
HEIGHT
0
26-Jan-2023
17:20
ALSHS
Server



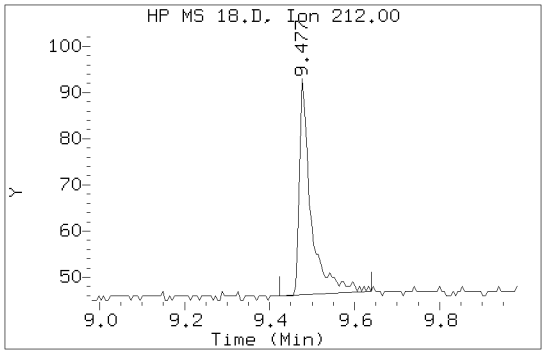
AFTER
MASS
122
AREA
121
HEIGHT
71
27-Jan-2023
11:55



BEFORE
MASS
212
AREA
0
HEIGHT
0
26-Jan-2023
17:20
ALSHS
Server



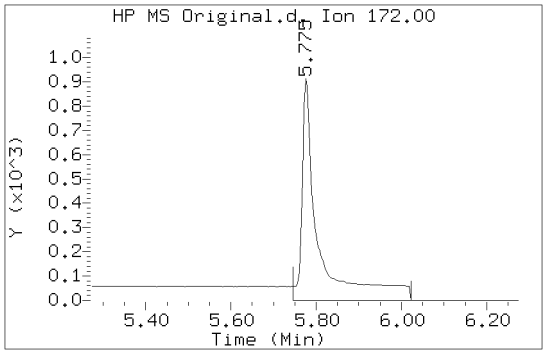
AFTER
MASS
212
AREA
88
HEIGHT
46
27-Jan-2023
11:55



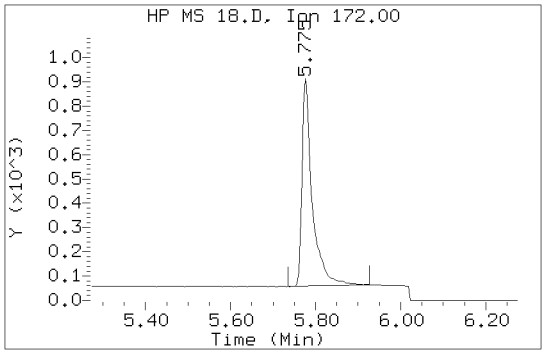
2-Fluorobiphenyl (321-60-8)

Reason Code:

BEFORE
MASS
172
AREA
2433
HEIGHT
913
26-Jan-2023
17:20
ALSHS
Server



AFTER
MASS
172
AREA
1424
HEIGHT
854
27-Jan-2023
11:55



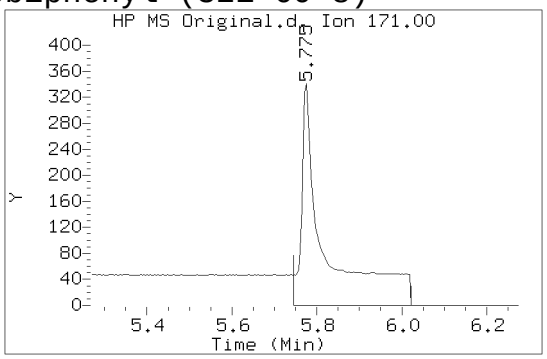
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\18.D
Inj Date : 26-JAN-2023 17:04
InstruID : SV6.i
LabSampID : 1 4-DX-0.01

2-Fluorobiphenyl (321-60-8)

Reason Code:

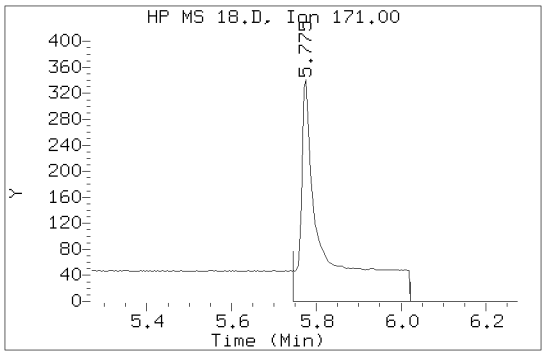
BEFORE

MASS
171
AREA
1276
HEIGHT
341
26-Jan-2023
17:20
ALSHS
Server



AFTER

MASS
171
AREA
1276
HEIGHT
341
27-Jan-2023
11:55



Data File: \\NAHSTWS005\Target\chem\SV6.i\230126.b\19.D Page 1
Report Date: 27-Jan-2023 11:55

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230126.b\19.D
Lab Smp Id: 1 4-DX-0.03 Client Smp ID: 1 4-DX-0.03
Inj Date : 26-JAN-2023 17:22
Operator : LG Inst ID: SV6.i
Smp Info : 1 4-DX-0.03;1 4-DX-0.03
Misc Info : ;;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\SV6.i\230126.b\DXSIM.m
Meth Date : 27-Jan-2023 11:55 SV6.i Quant Type: ISTD
Cal Date : 26-JAN-2023 17:04 Cal File: 18.D
Als bottle: 18 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7095

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)
* 20 1,4-Dichlorobenzene-d4	152	3.625	3.625	(1.000)	4353	0.10000	(aM)
* 45 Naphthalene-d8	136	4.746	4.746	(1.000)	15379	0.10000	(M)
$ 33 Nitrobenzene-d5	82	4.097	4.097	(0.863)	1295	0.03000	0.02918(QM)
* 86 Acenaphthene-d10	164	6.424	6.424	(1.000)	8264	0.10000	(M)
$ 69 2-Fluorobiphenyl	172	5.775	5.775	(0.899)	3097	0.03000	0.02855(M)
* 126 Phenanthrene-d10	188	7.879	7.879	(1.000)	15308	0.10000	(M)
* 182 Chrysene-d12	240	10.752	10.752	(1.000)	5688	0.10000	(M)
$ 158 4-Terphenyl-d14	244	9.482	9.482	(0.882)	2568	0.03000	0.03727(M)
* 198 Perylene-d12	264	12.851	12.851	(1.000)	5361	0.10000	
1 1,4-Dioxane	58	1.847	1.847	(0.510)	502	0.03000	0.03161(M)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

01182903

Data File: \\NAHSTWS005\Target\chem\SV6.i\230126.b\19.D

Date : 26-JAN-2023 17:22

Client ID: 1 4-DX-0.03

Instrument: SV6.i

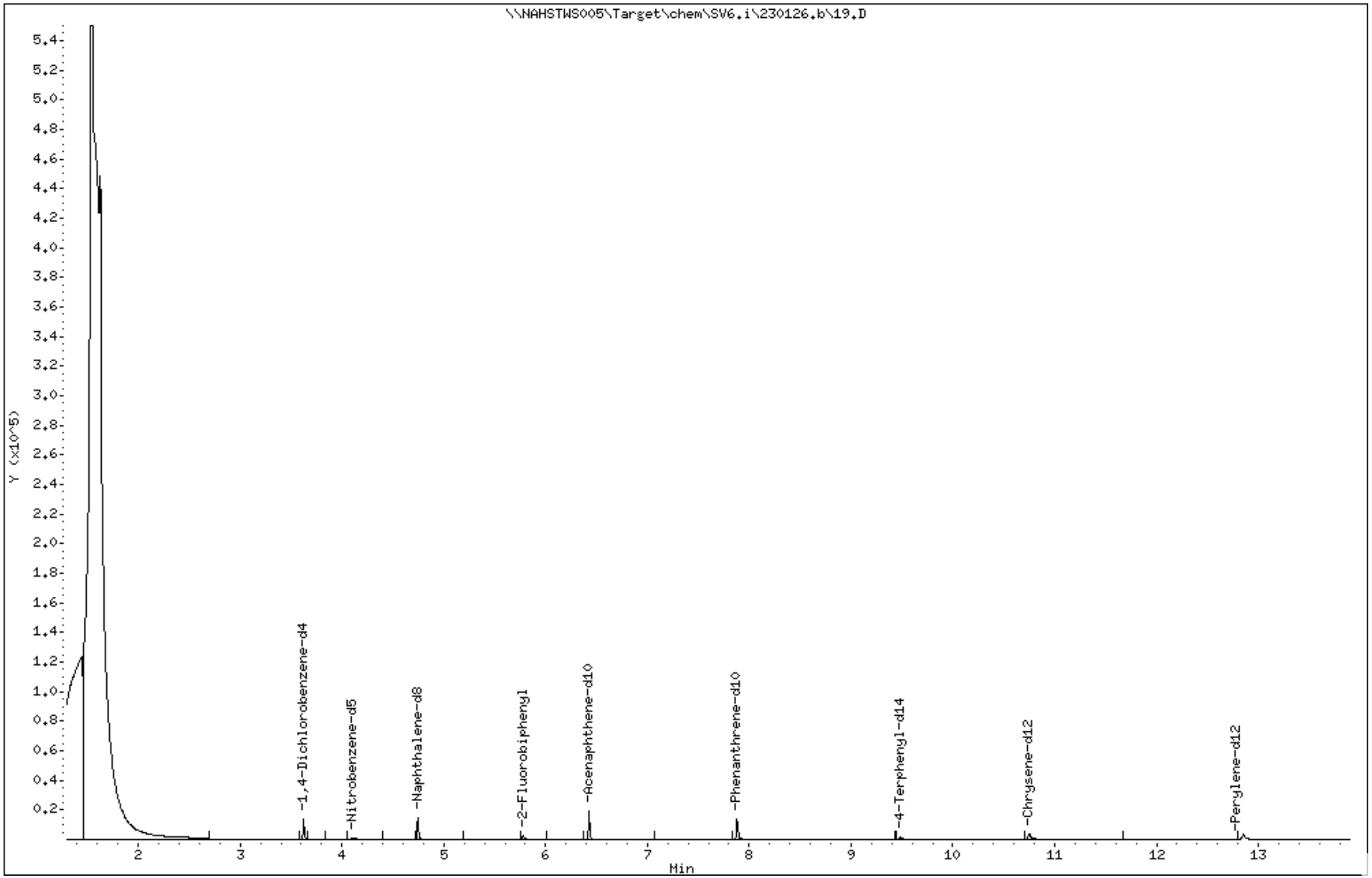
Sample Info: 1 4-DX-0.03;1 4-DX-0.03

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28

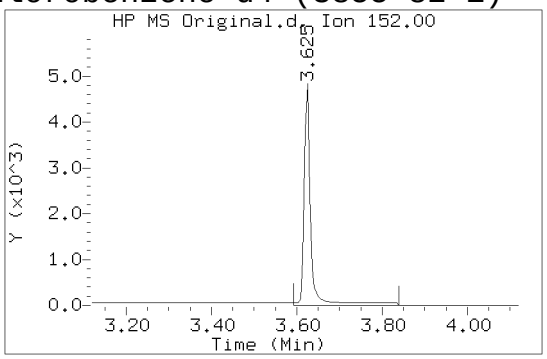


Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\19.D
Inj Date : 26-JAN-2023 17:22
InstruID : SV6.i
LabSampID : 1 4-DX-0.03

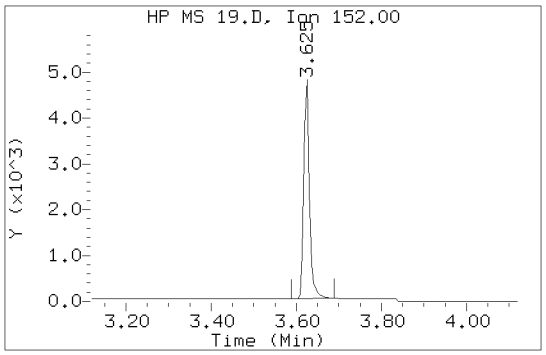
1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

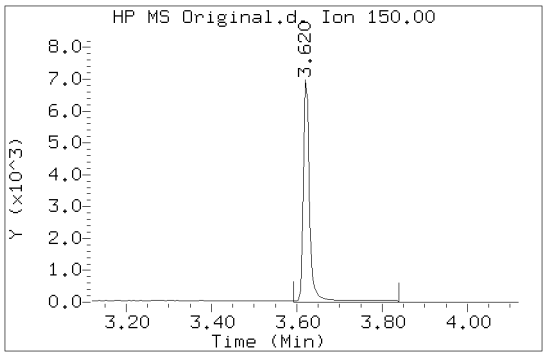
BEFORE
MASS
152
AREA
5196
HEIGHT
4837
26-Jan-2023
17:37
ALSHS
Server



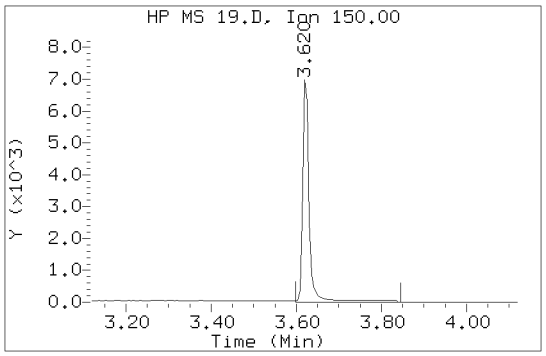
AFTER
MASS
152
AREA
4353
HEIGHT
4780
27-Jan-2023
11:55



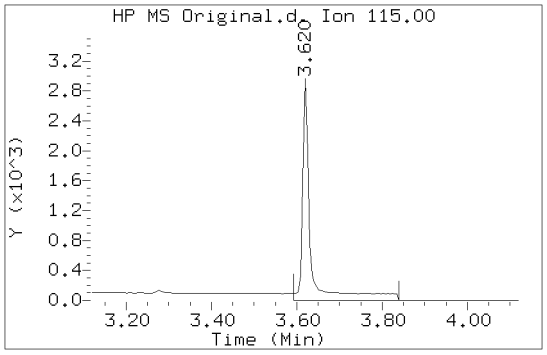
BEFORE
MASS
150
AREA
7408
HEIGHT
6977
26-Jan-2023
17:37
ALSHS
Server



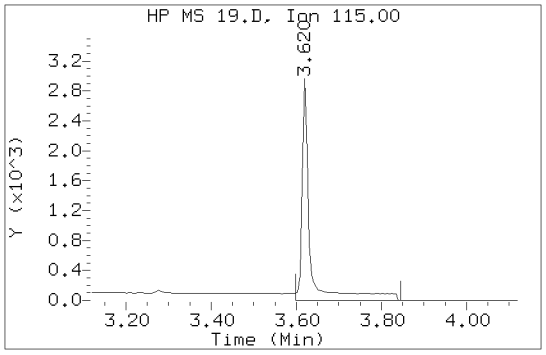
AFTER
MASS
150
AREA
7392
HEIGHT
6977
27-Jan-2023
11:55



BEFORE
MASS
115
AREA
3884
HEIGHT
2965
26-Jan-2023
17:37
ALSHS
Server



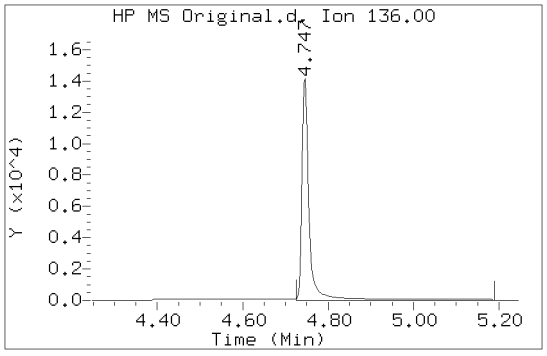
AFTER
MASS
115
AREA
3855
HEIGHT
2965
27-Jan-2023
11:55



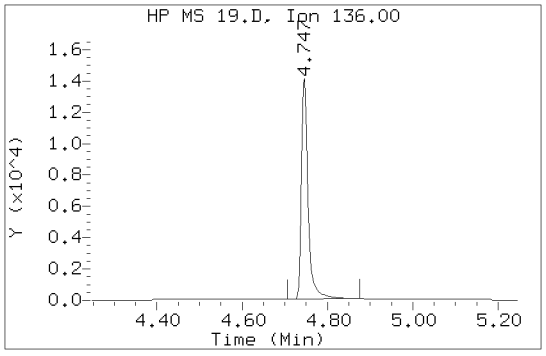
Naphthalene-d8 (1146-65-2)

Reason Code:

BEFORE
MASS
136
AREA
17657
HEIGHT
14146
26-Jan-2023
17:37
ALSHS
Server



AFTER
MASS
136
AREA
15379
HEIGHT
14070
27-Jan-2023
11:55



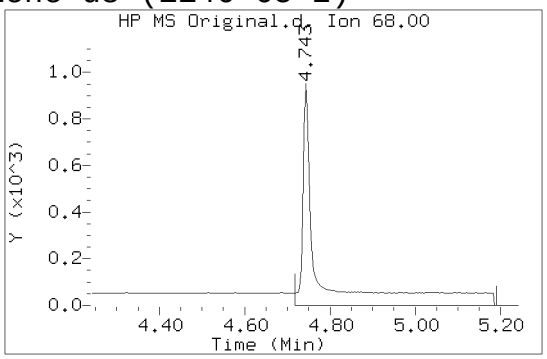
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\19.D
Inj Date : 26-JAN-2023 17:22
InstruID : SV6.i
LabSampID : 1 4-DX-0.03

Naphthalene-d8 (1146-65-2)

Reason Code:

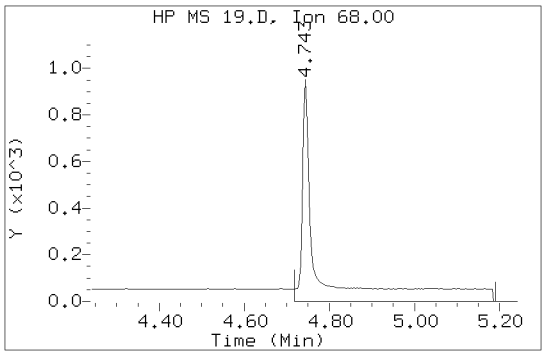
BEFORE

MASS
68
AREA
2456
HEIGHT
951
26-Jan-2023
17:37
ALSHS
Server



AFTER

MASS
68
AREA
2456
HEIGHT
951
27-Jan-2023
11:55

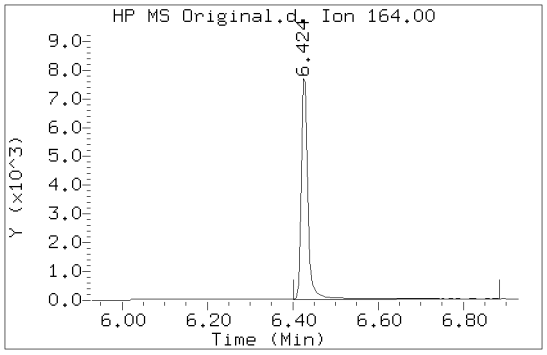


Acenaphthene-d10 (15067-26-2)

Reason Code:

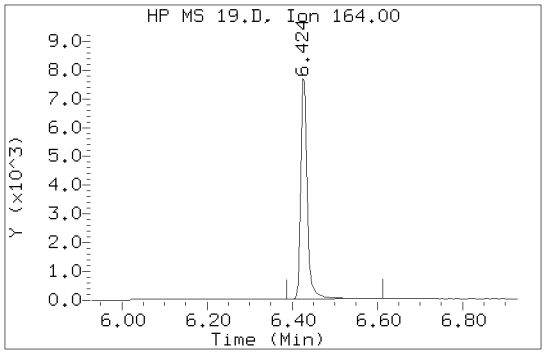
BEFORE

MASS
164
AREA
8776
HEIGHT
7674
26-Jan-2023
17:37
ALSHS
Server



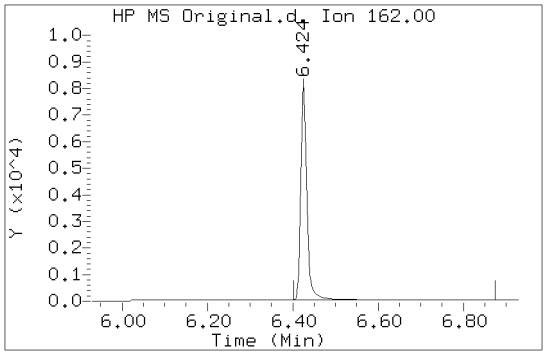
AFTER

MASS
164
AREA
8264
HEIGHT
7645
27-Jan-2023
11:55



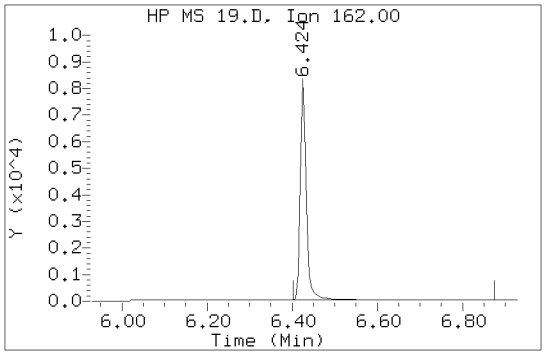
BEFORE

MASS
162
AREA
8262
HEIGHT
8311
26-Jan-2023
17:37
ALSHS
Server



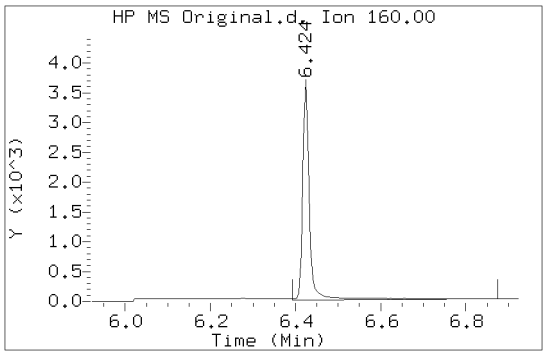
AFTER

MASS
162
AREA
8262
HEIGHT
8311
27-Jan-2023
11:55



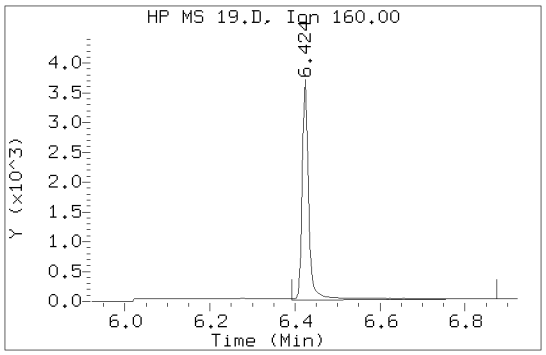
BEFORE

MASS
160
AREA
4094
HEIGHT
3698
26-Jan-2023
17:37
ALSHS
Server



AFTER

MASS
160
AREA
4094
HEIGHT
3698
27-Jan-2023
11:55



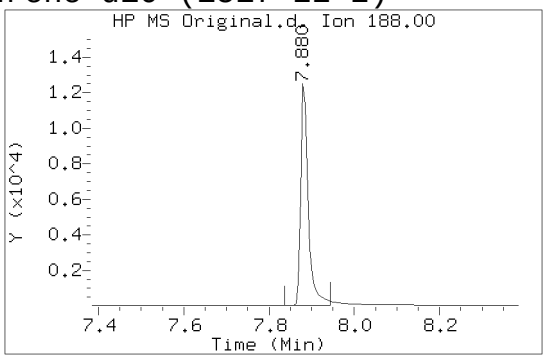
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\19.D
Inj Date : 26-JAN-2023 17:22
InstruID : SV6.i
LabSampID : 1 4-DX-0.03

Phenanthrene-d10 (1517-22-2)

Reason Code:

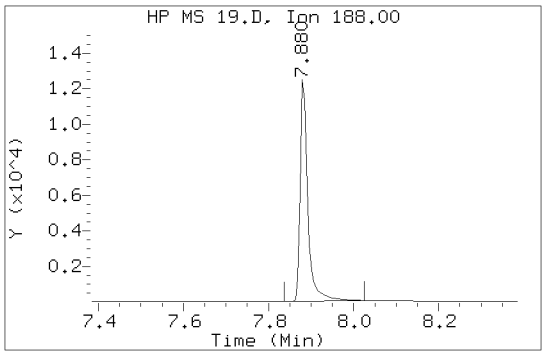
BEFORE

MASS
188
AREA
15125
HEIGHT
12466
26-Jan-2023
17:37
ALSHS
Server



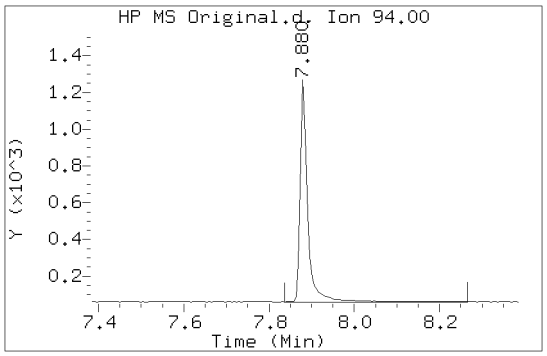
AFTER

MASS
188
AREA
15308
HEIGHT
12454
27-Jan-2023
11:55



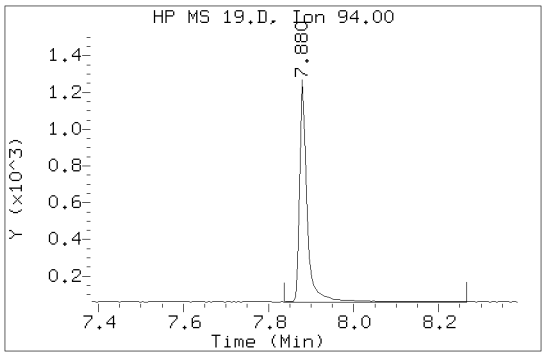
BEFORE

MASS
94
AREA
1509
HEIGHT
1209
26-Jan-2023
17:37
ALSHS
Server



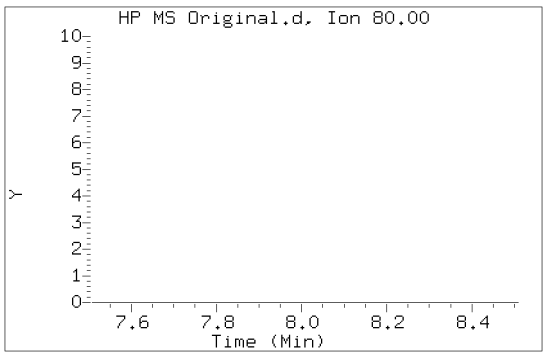
AFTER

MASS
94
AREA
1509
HEIGHT
1209
27-Jan-2023
11:55



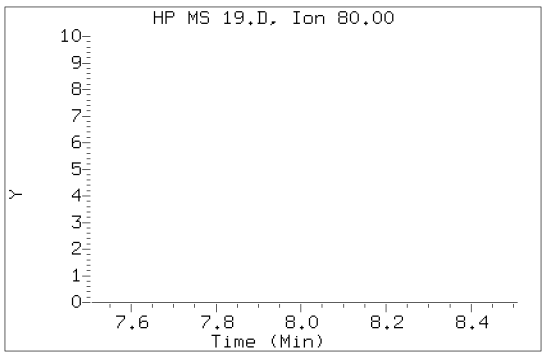
BEFORE

MASS
80
AREA
0
HEIGHT
0
26-Jan-2023
17:37
ALSHS
Server



AFTER

MASS
80
AREA
0
HEIGHT
0
27-Jan-2023
11:55

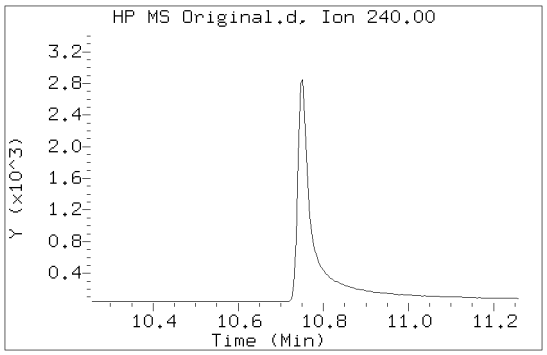


Chrysene-d12 (1719-03-5)

Reason Code:

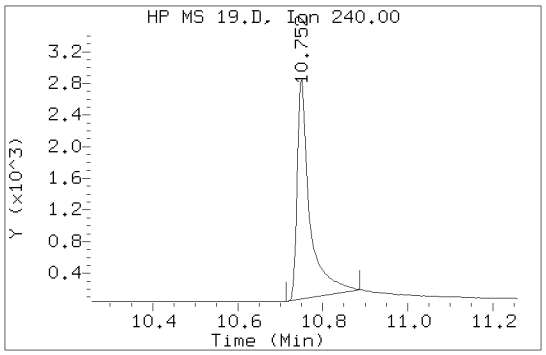
BEFORE

MASS
240
AREA
0
HEIGHT
0
26-Jan-2023
17:37
ALSHS
Server



AFTER

MASS
240
AREA
5688
HEIGHT
2769
27-Jan-2023
11:55



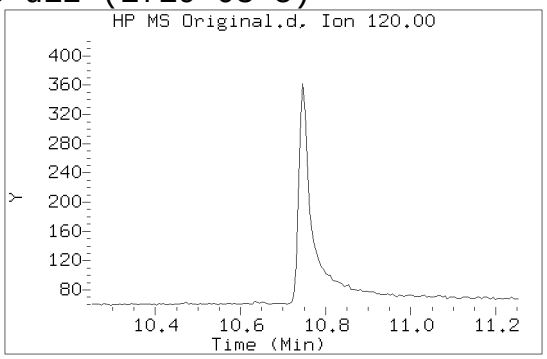
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\19.D
Inj Date : 26-JAN-2023 17:22
InstruID : SV6.i
LabSampID : 1 4-DX-0.03

Chrysene-d12 (1719-03-5)

Reason Code:

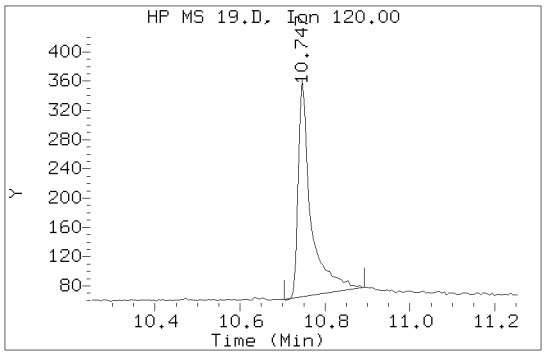
BEFORE

MASS
120
AREA
0
HEIGHT
0
26-Jan-2023
17:37
ALSHS
Server



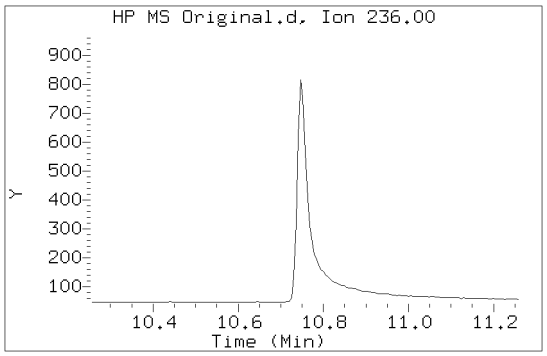
AFTER

MASS
120
AREA
608
HEIGHT
296
27-Jan-2023
11:55



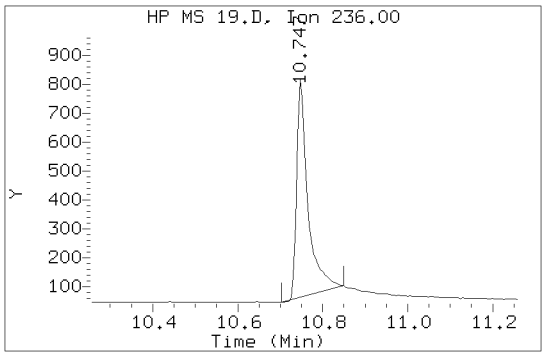
BEFORE

MASS
236
AREA
0
HEIGHT
0
26-Jan-2023
17:37
ALSHS
Server



AFTER

MASS
236
AREA
1382
HEIGHT
752
27-Jan-2023
11:55

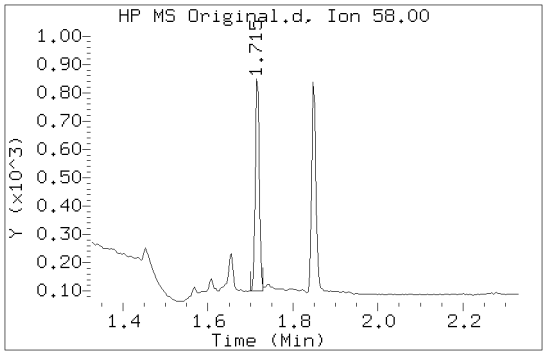


1,4-Dioxane ()

Reason Code:

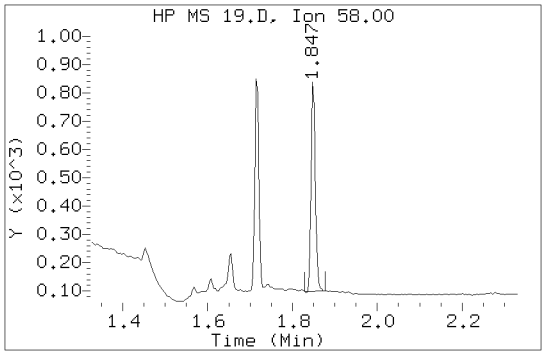
BEFORE

MASS
58
AREA
485
HEIGHT
748
26-Jan-2023
17:37
ALSHS
Server



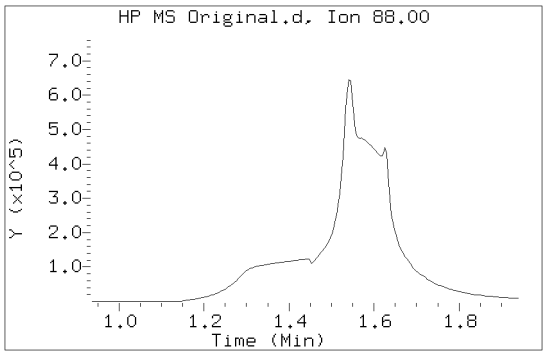
AFTER

MASS
58
AREA
502
HEIGHT
737
27-Jan-2023
11:55



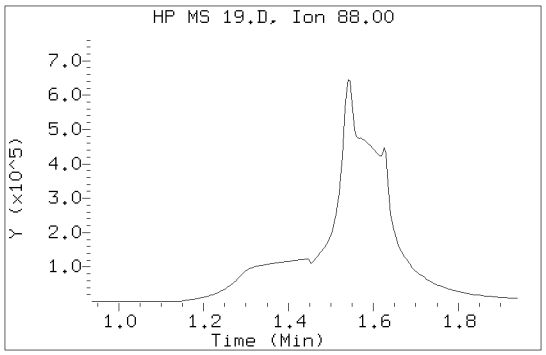
BEFORE

MASS
88
AREA
0
HEIGHT
0
26-Jan-2023
17:37
ALSHS
Server



AFTER

MASS
88
AREA
0
HEIGHT
0
27-Jan-2023
11:55



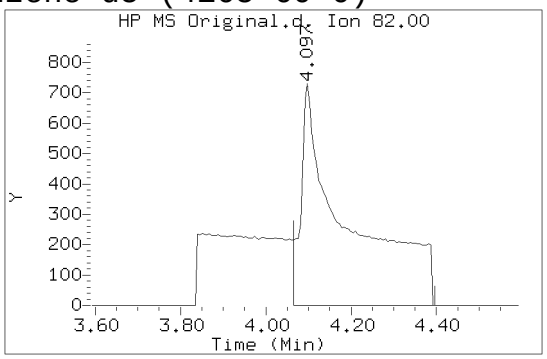
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\19.D
Inj Date : 26-JAN-2023 17:22
InstruID : SV6.i
LabSampID : 1 4-DX-0.03

Nitrobenzene-d5 (4165-60-0)

Reason Code:

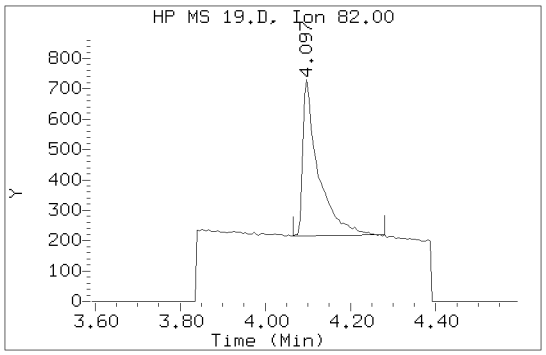
BEFORE

MASS
82
AREA
5467
HEIGHT
730
26-Jan-2023
17:37
ALSHS
Server



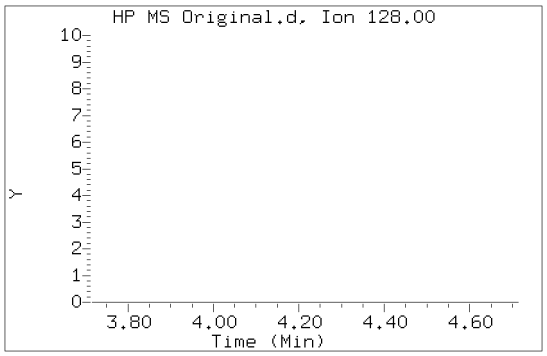
AFTER

MASS
82
AREA
1295
HEIGHT
513
27-Jan-2023
11:55



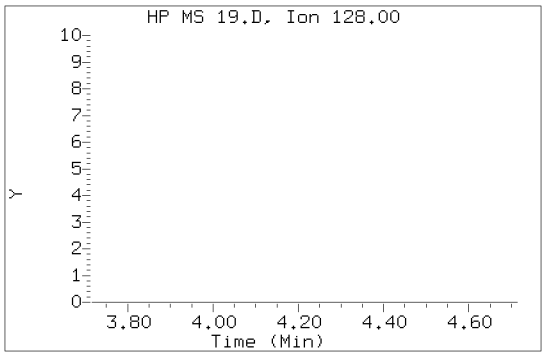
BEFORE

MASS
128
AREA
0
HEIGHT
0
26-Jan-2023
17:37
ALSHS
Server



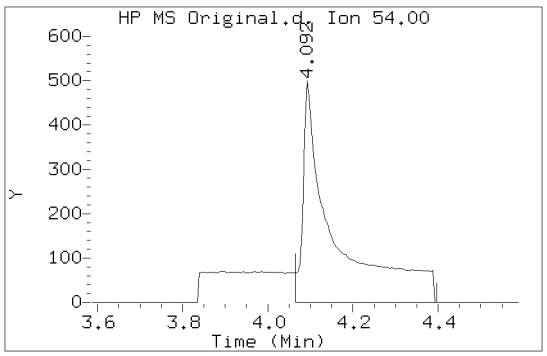
AFTER

MASS
128
AREA
0
HEIGHT
0
27-Jan-2023
11:55



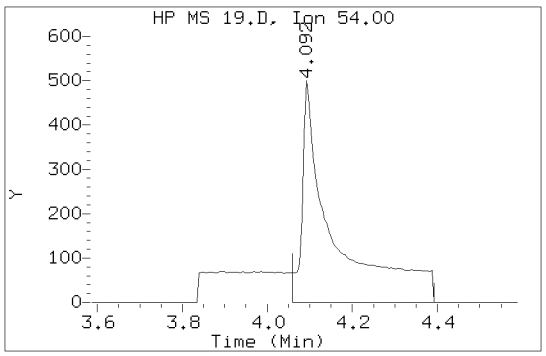
BEFORE

MASS
54
AREA
2509
HEIGHT
500
26-Jan-2023
17:37
ALSHS
Server



AFTER

MASS
54
AREA
2544
HEIGHT
500
27-Jan-2023
11:55

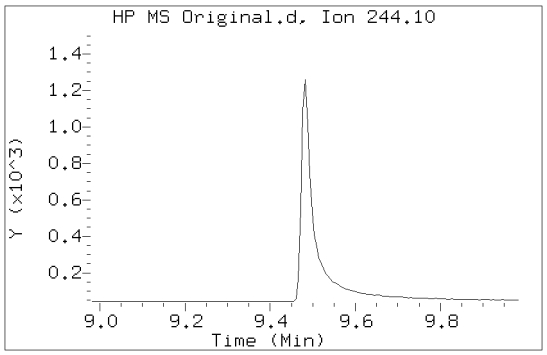


4-Terphenyl-d14 (1718-51-0)

Reason Code:

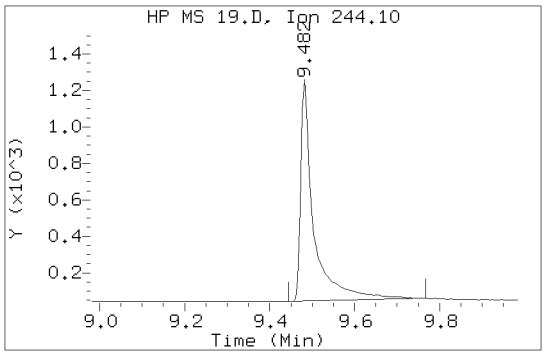
BEFORE

MASS
244.1
AREA
0
HEIGHT
0
26-Jan-2023
17:37
ALSHS
Server



AFTER

MASS
244.1
AREA
2568
HEIGHT
1213
27-Jan-2023
11:55

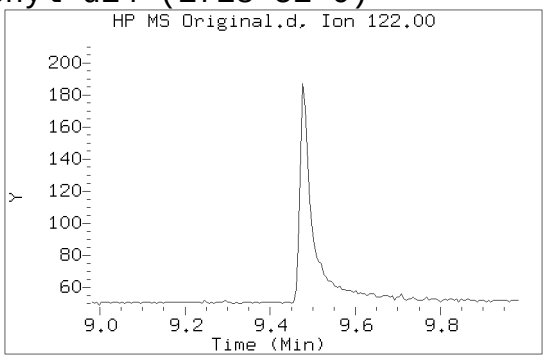


Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\19.D
Inj Date : 26-JAN-2023 17:22
InstruID : SV6.i
LabSampID : 1 4-DX-0.03

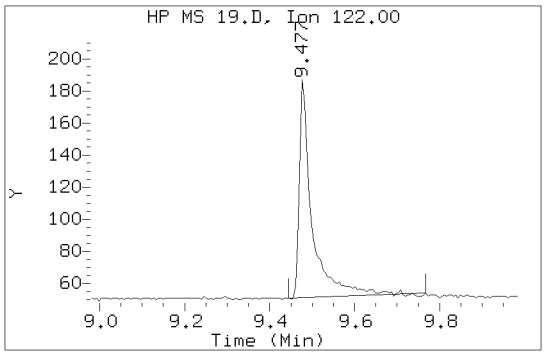
4-Terphenyl-d14 (1718-51-0)

Reason Code:

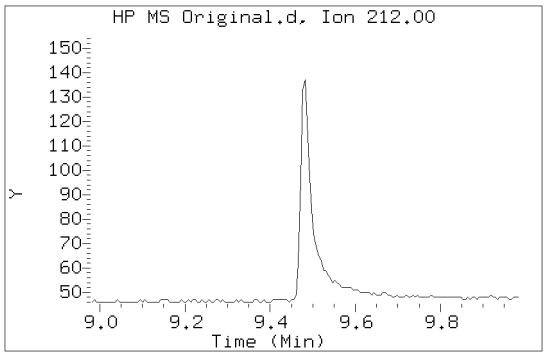
BEFORE
MASS
122
AREA
0
HEIGHT
0
26-Jan-2023
17:37
ALSHS
Server



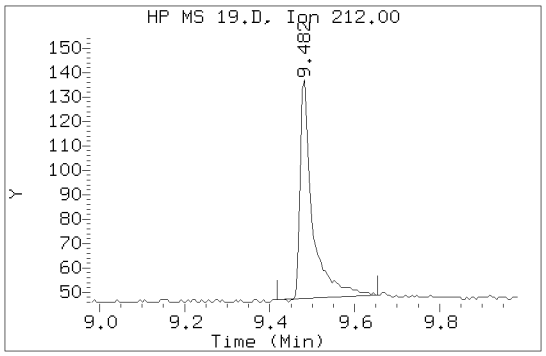
AFTER
MASS
122
AREA
277
HEIGHT
135
27-Jan-2023
11:55



BEFORE
MASS
212
AREA
0
HEIGHT
0
26-Jan-2023
17:37
ALSHS
Server



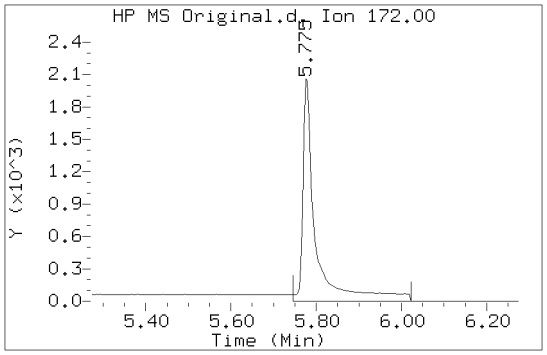
AFTER
MASS
212
AREA
180
HEIGHT
89
27-Jan-2023
11:55



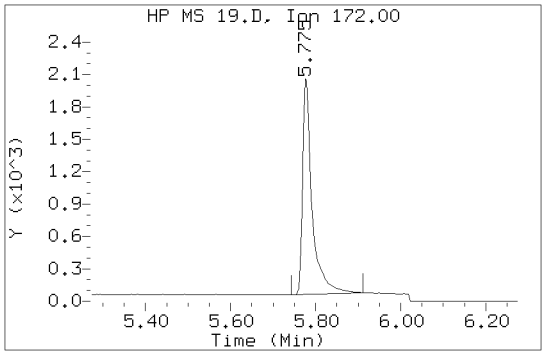
2-Fluorobiphenyl (321-60-8)

Reason Code:

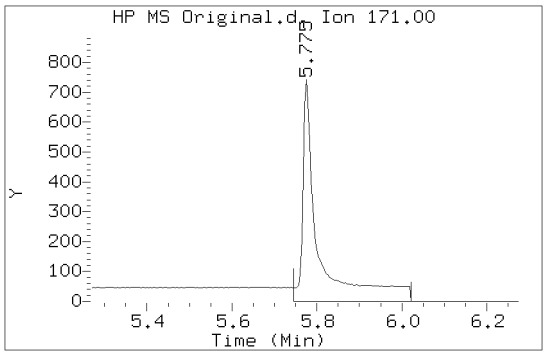
BEFORE
MASS
172
AREA
4259
HEIGHT
2059
26-Jan-2023
17:37
ALSHS
Server



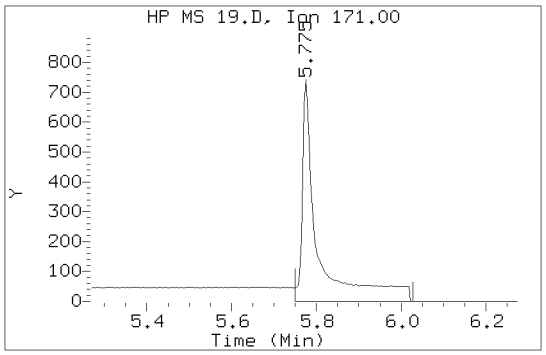
AFTER
MASS
172
AREA
3097
HEIGHT
1996
27-Jan-2023
11:55



BEFORE
MASS
171
AREA
1881
HEIGHT
742
26-Jan-2023
17:37
ALSHS
Server



AFTER
MASS
171
AREA
1882
HEIGHT
742
27-Jan-2023
11:55



ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230126.b\20.D
Lab Smp Id: 1 4-DX-0.05 Client Smp ID: 1 4-DX-0.05
Inj Date : 26-JAN-2023 17:40
Operator : LG Inst ID: SV6.i
Smp Info : 1 4-DX-0.05;1 4-DX-0.05
Misc Info : ;;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\SV6.i\230126.b\DXSIM.m
Meth Date : 27-Jan-2023 11:55 SV6.i Quant Type: ISTD
Cal Date : 26-JAN-2023 17:22 Cal File: 19.D
Als bottle: 19 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7095

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)
* 20 1,4-Dichlorobenzene-d4	152	3.625	3.625	(1.000)	6207	0.10000	(aM)
* 45 Naphthalene-d8	136	4.743	4.743	(1.000)	21643	0.10000	(M)
$ 33 Nitrobenzene-d5	82	4.097	4.097	(0.864)	3292	0.05000	0.05272(QM)
* 86 Acenaphthene-d10	164	6.424	6.424	(1.000)	12005	0.10000	(M)
$ 69 2-Fluorobiphenyl	172	5.775	5.775	(0.899)	7569	0.05000	0.04804(M)
* 126 Phenanthrene-d10	188	7.879	7.879	(1.000)	22930	0.10000	(M)
* 182 Chrysene-d12	240	10.746	10.746	(1.000)	10096	0.10000	(M)
$ 158 4-Terphenyl-d14	244	9.476	9.476	(0.882)	5479	0.05000	0.04162(M)
* 198 Perylene-d12	264	12.851	12.851	(1.000)	8682	0.10000	
1 1,4-Dioxane	58	1.873	1.873	(0.517)	1266	0.05000	0.05591(M)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

01182911

Data File: \\NAHSTWS005\Target\chem\SV6.i\230126.b\20.D

Date : 26-JAN-2023 17:40

Client ID: 1 4-DX-0.05

Instrument: SV6.i

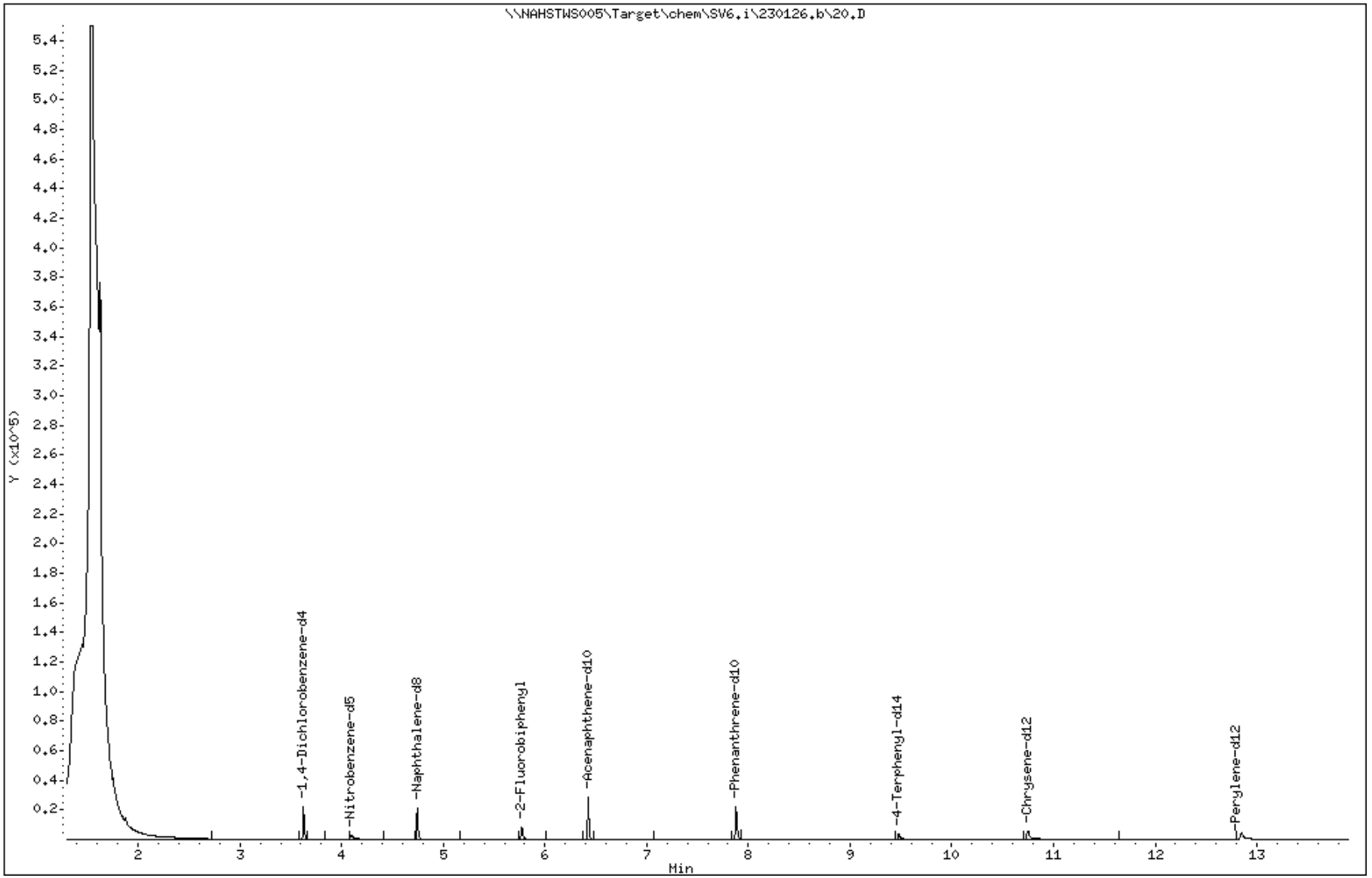
Sample Info: 1 4-DX-0.05;1 4-DX-0.05

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28

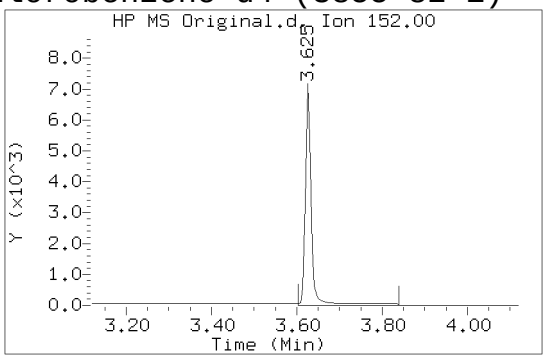


Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\20.D
Inj Date : 26-JAN-2023 17:40
InstruID : SV6.i
LabSampID : 1 4-DX-0.05

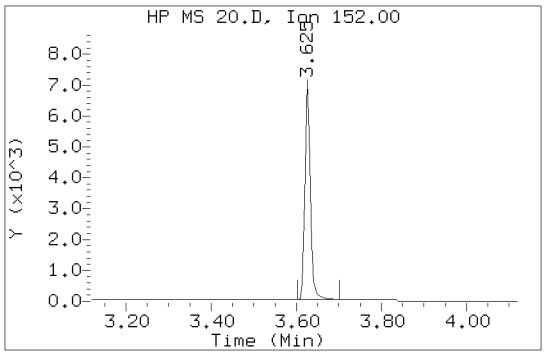
1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

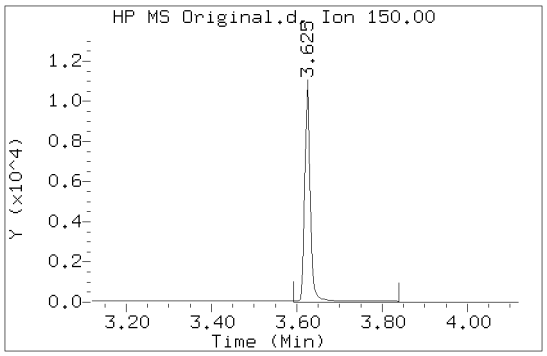
BEFORE
MASS
152
AREA
7036
HEIGHT
7174
26-Jan-2023
17:55
ALSHS
Server



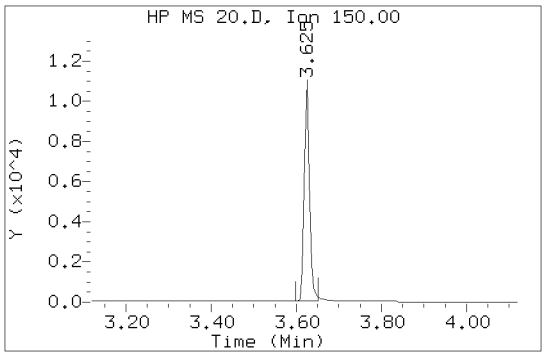
AFTER
MASS
152
AREA
6207
HEIGHT
7117
27-Jan-2023
11:55



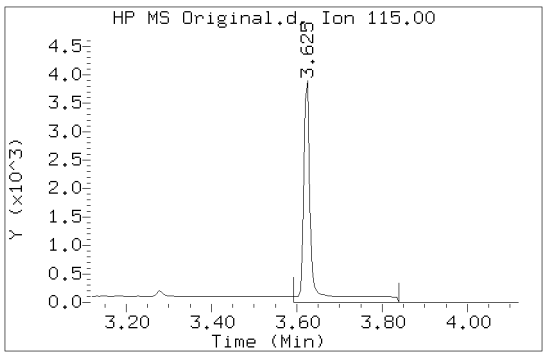
BEFORE
MASS
150
AREA
10220
HEIGHT
11063
26-Jan-2023
17:55
ALSHS
Server



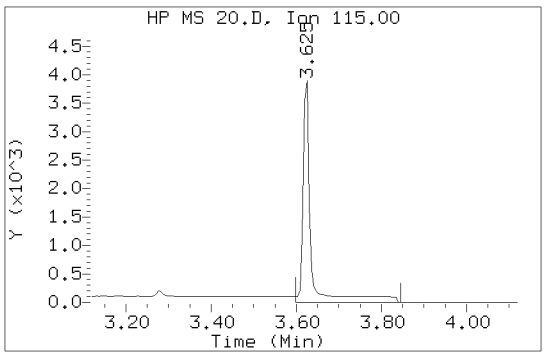
AFTER
MASS
150
AREA
9269
HEIGHT
11013
27-Jan-2023
11:55



BEFORE
MASS
115
AREA
5002
HEIGHT
3896
26-Jan-2023
17:55
ALSHS
Server



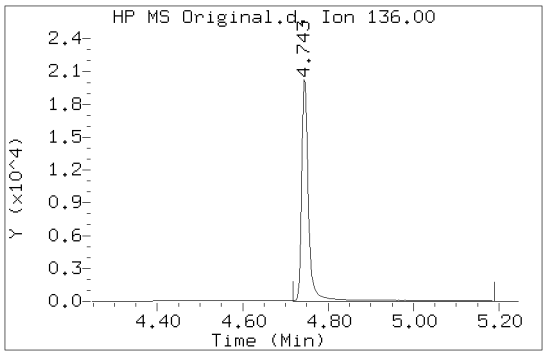
AFTER
MASS
115
AREA
4971
HEIGHT
3896
27-Jan-2023
11:55



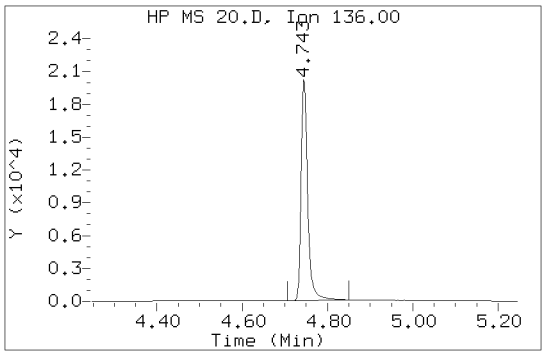
Naphthalene-d8 (1146-65-2)

Reason Code:

BEFORE
MASS
136
AREA
24227
HEIGHT
20256
26-Jan-2023
17:55
ALSHS
Server



AFTER
MASS
136
AREA
21643
HEIGHT
20170
27-Jan-2023
11:55



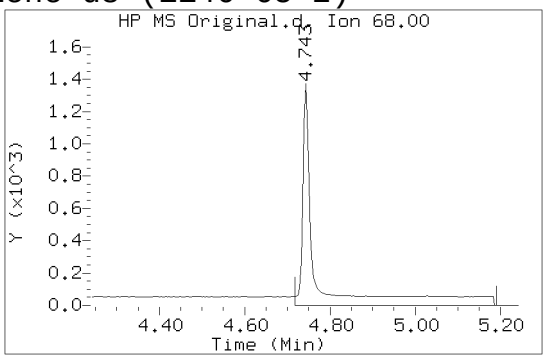
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\20.D
Inj Date : 26-JAN-2023 17:40
InstruID : SV6.i
LabSampID : 1 4-DX-0.05

Naphthalene-d8 (1146-65-2)

Reason Code:

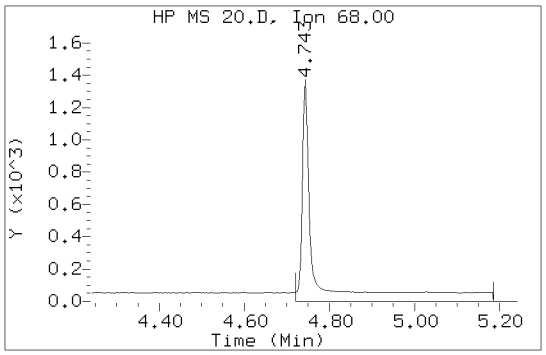
BEFORE

MASS
68
AREA
2898
HEIGHT
1372
26-Jan-2023
17:55
ALSHS
Server



AFTER

MASS
68
AREA
2886
HEIGHT
1372
27-Jan-2023
11:55

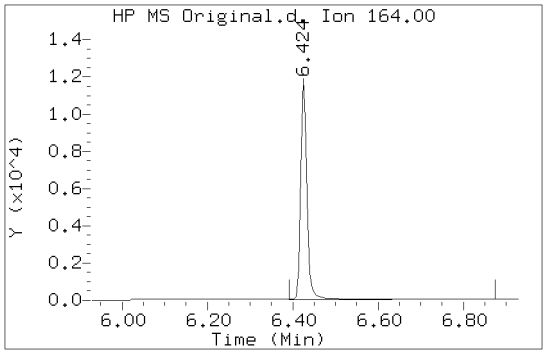


Acenaphthene-d10 (15067-26-2)

Reason Code:

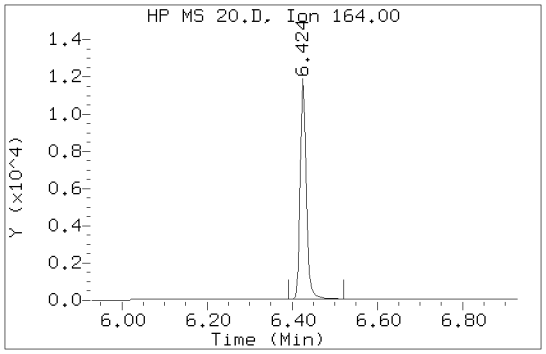
BEFORE

MASS
164
AREA
12674
HEIGHT
11880
26-Jan-2023
17:55
ALSHS
Server



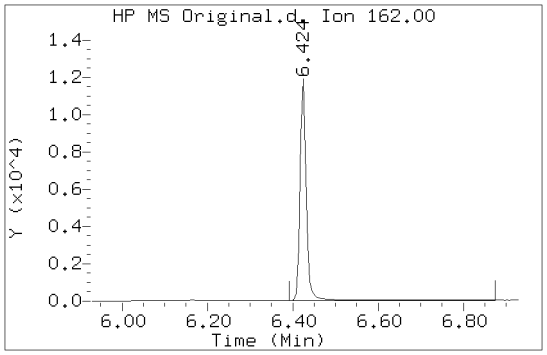
AFTER

MASS
164
AREA
12005
HEIGHT
11845
27-Jan-2023
11:55



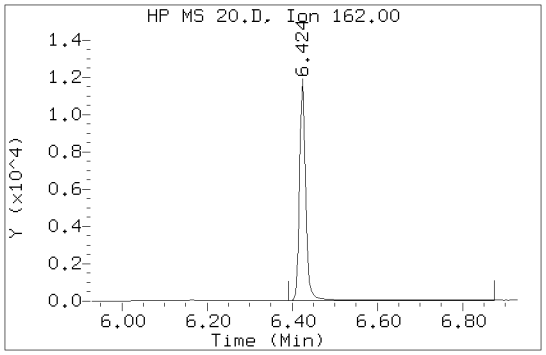
BEFORE

MASS
162
AREA
12561
HEIGHT
11898
26-Jan-2023
17:55
ALSHS
Server



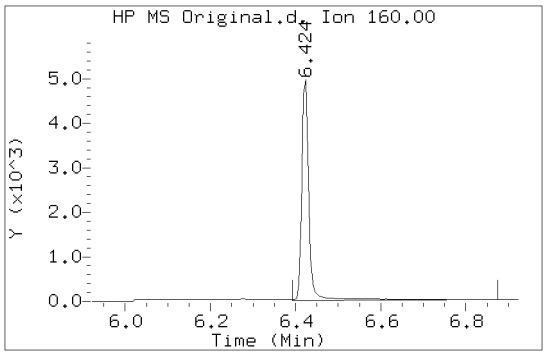
AFTER

MASS
162
AREA
12561
HEIGHT
11898
27-Jan-2023
11:55



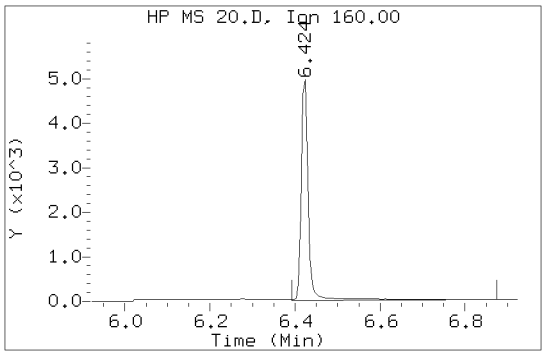
BEFORE

MASS
160
AREA
5755
HEIGHT
4956
26-Jan-2023
17:55
ALSHS
Server



AFTER

MASS
160
AREA
5755
HEIGHT
4956
27-Jan-2023
11:55



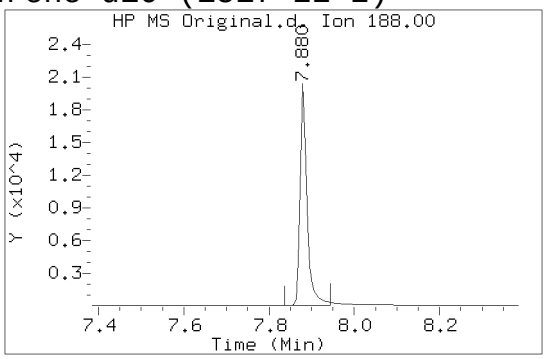
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\20.D
Inj Date : 26-JAN-2023 17:40
InstruID : SV6.i
LabSampID : 1 4-DX-0.05

Phenanthrene-d10 (1517-22-2)

Reason Code:

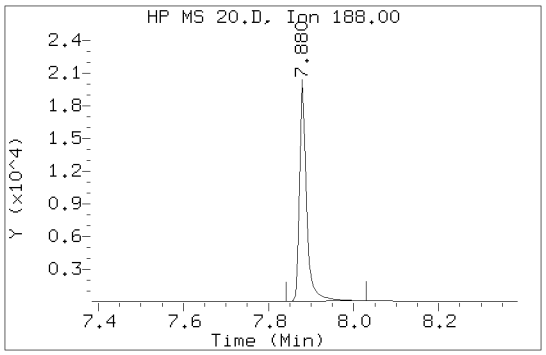
BEFORE

MASS
188
AREA
22670
HEIGHT
20338
26-Jan-2023
17:55
ALSHS
Server



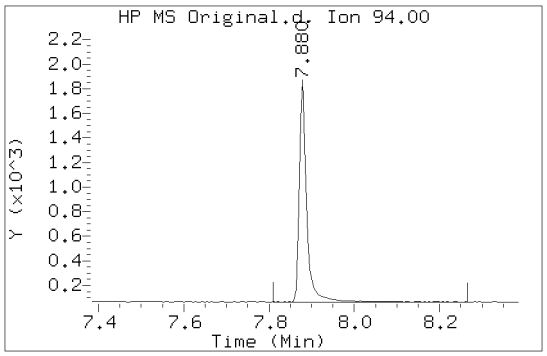
AFTER

MASS
188
AREA
22930
HEIGHT
20327
27-Jan-2023
11:55



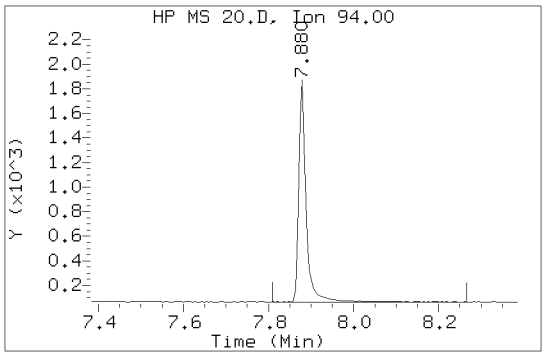
BEFORE

MASS
94
AREA
2147
HEIGHT
1806
26-Jan-2023
17:55
ALSHS
Server



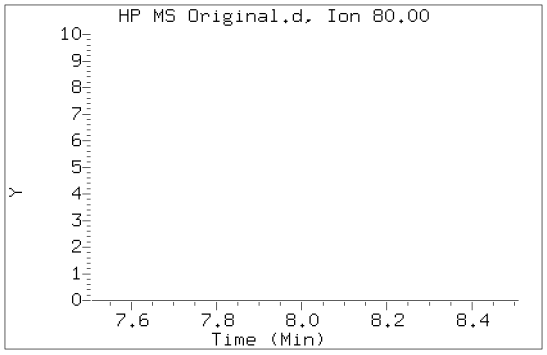
AFTER

MASS
94
AREA
2147
HEIGHT
1806
27-Jan-2023
11:55



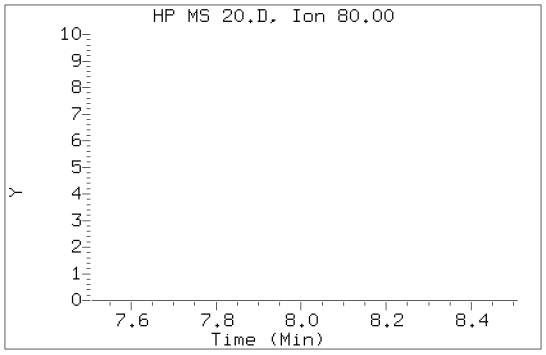
BEFORE

MASS
80
AREA
0
HEIGHT
0
26-Jan-2023
17:55
ALSHS
Server



AFTER

MASS
80
AREA
0
HEIGHT
0
27-Jan-2023
11:55

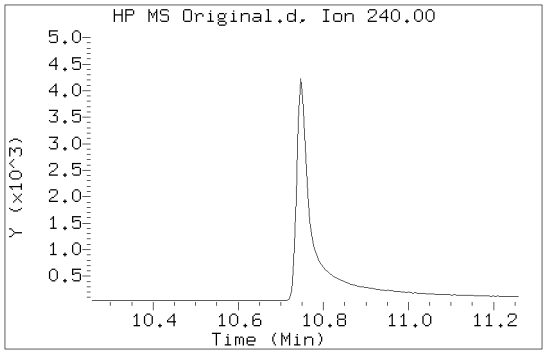


Chrysene-d12 (1719-03-5)

Reason Code:

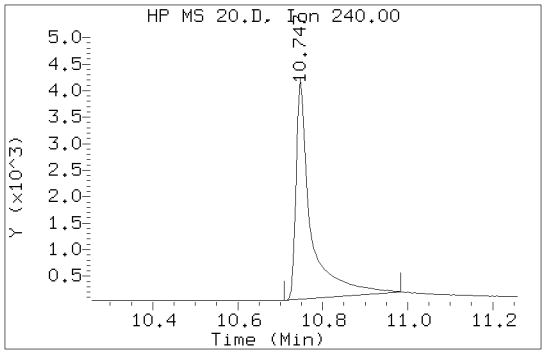
BEFORE

MASS
240
AREA
0
HEIGHT
0
26-Jan-2023
17:55
ALSHS
Server



AFTER

MASS
240
AREA
10096
HEIGHT
4158
27-Jan-2023
11:55

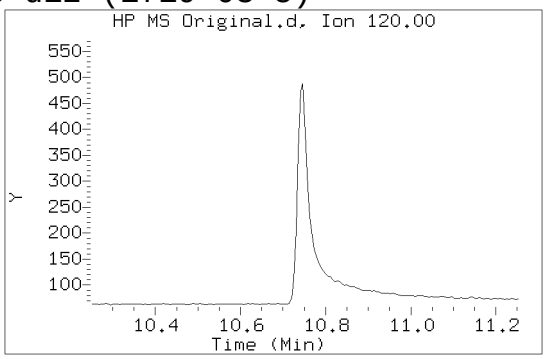


Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\20.D
Inj Date : 26-JAN-2023 17:40
InstruID : SV6.i
LabSampID : 1 4-DX-0.05

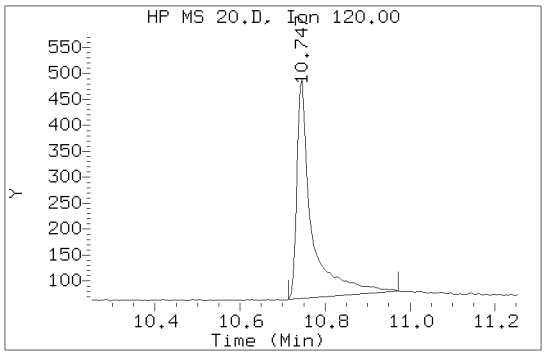
Chrysene-d12 (1719-03-5)

Reason Code:

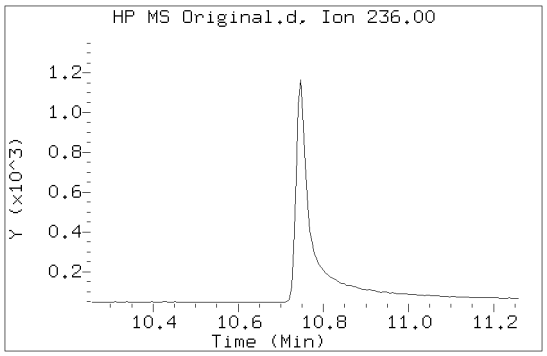
BEFORE
MASS
120
AREA
0
HEIGHT
0
26-Jan-2023
17:55
ALSHS
Server



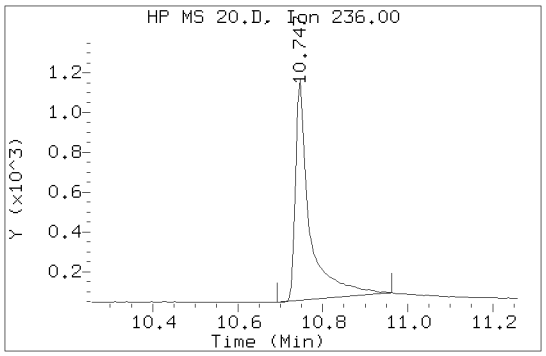
AFTER
MASS
120
AREA
1018
HEIGHT
420
27-Jan-2023
11:55



BEFORE
MASS
236
AREA
0
HEIGHT
0
26-Jan-2023
17:55
ALSHS
Server



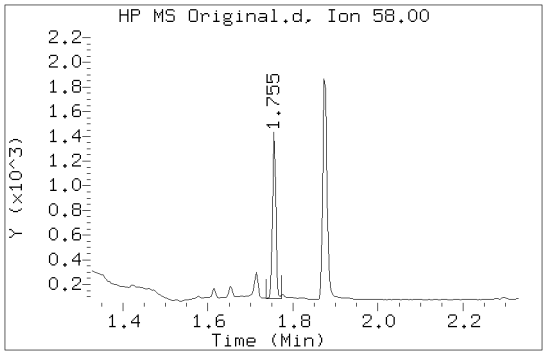
AFTER
MASS
236
AREA
2566
HEIGHT
1106
27-Jan-2023
11:55



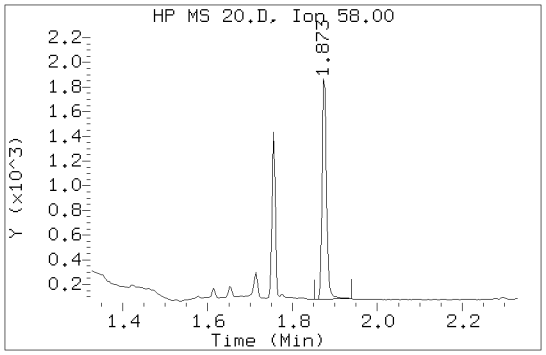
1,4-Dioxane ()

Reason Code:

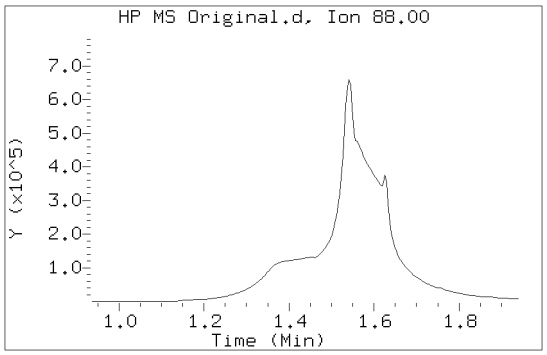
BEFORE
MASS
58
AREA
732
HEIGHT
1346
26-Jan-2023
17:55
ALSHS
Server



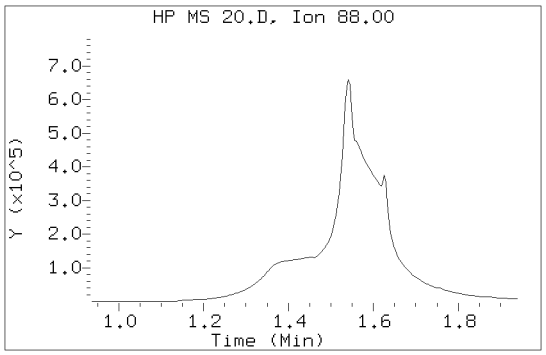
AFTER
MASS
58
AREA
1266
HEIGHT
1783
27-Jan-2023
11:55



BEFORE
MASS
88
AREA
0
HEIGHT
0
26-Jan-2023
17:55
ALSHS
Server



AFTER
MASS
88
AREA
0
HEIGHT
0
27-Jan-2023
11:55



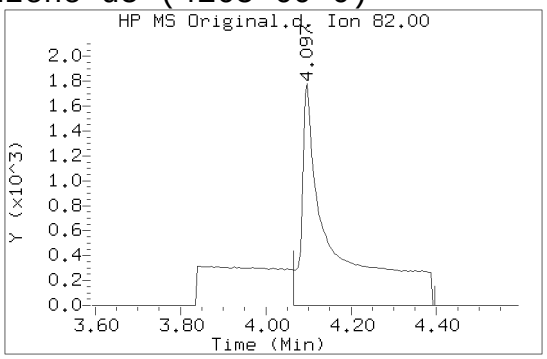
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\20.D
Inj Date : 26-JAN-2023 17:40
InstruID : SV6.i
LabSampID : 1 4-DX-0.05

Nitrobenzene-d5 (4165-60-0)

Reason Code:

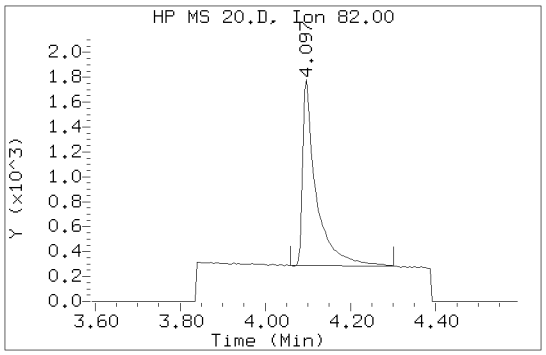
BEFORE

MASS
82
AREA
8797
HEIGHT
1780
26-Jan-2023
17:55
ALSHS
Server



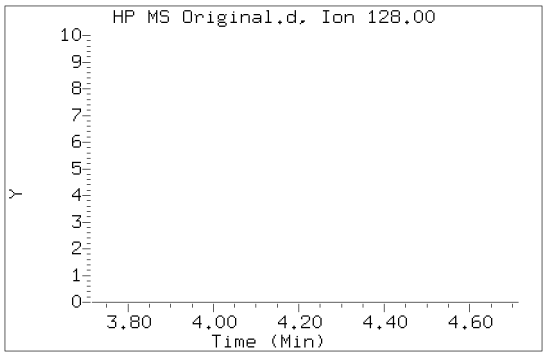
AFTER

MASS
82
AREA
3292
HEIGHT
1493
27-Jan-2023
11:55



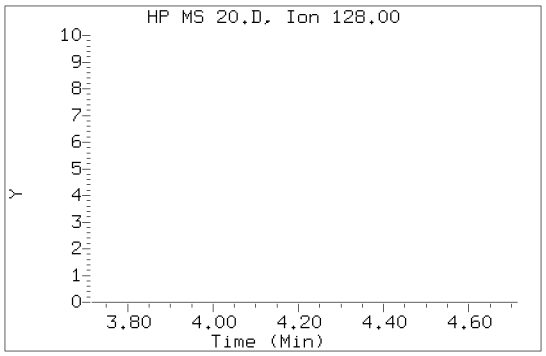
BEFORE

MASS
128
AREA
0
HEIGHT
0
26-Jan-2023
17:55
ALSHS
Server



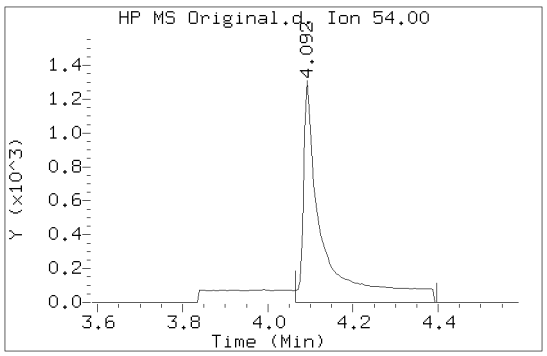
AFTER

MASS
128
AREA
0
HEIGHT
0
27-Jan-2023
11:55



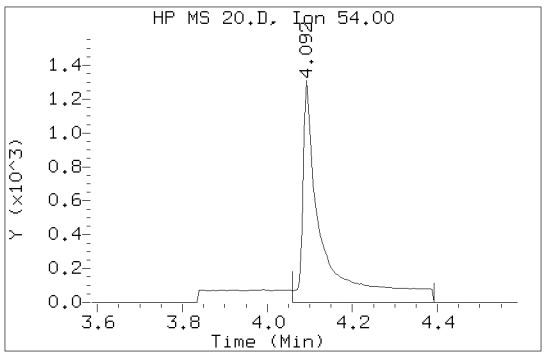
BEFORE

MASS
54
AREA
4158
HEIGHT
1309
26-Jan-2023
17:55
ALSHS
Server



AFTER

MASS
54
AREA
4202
HEIGHT
1309
27-Jan-2023
11:55

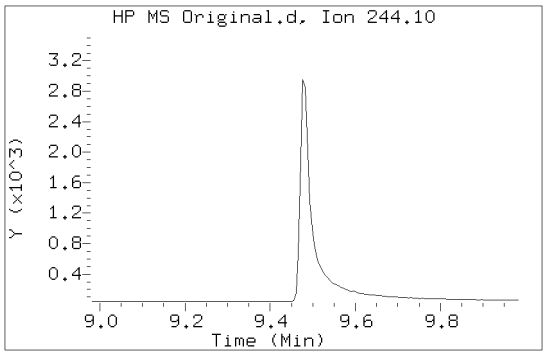


4-Terphenyl-d14 (1718-51-0)

Reason Code:

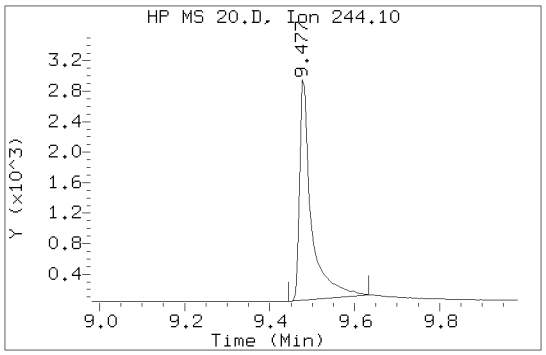
BEFORE

MASS
244.1
AREA
0
HEIGHT
0
26-Jan-2023
17:55
ALSHS
Server



AFTER

MASS
244.1
AREA
5479
HEIGHT
2890
27-Jan-2023
11:55

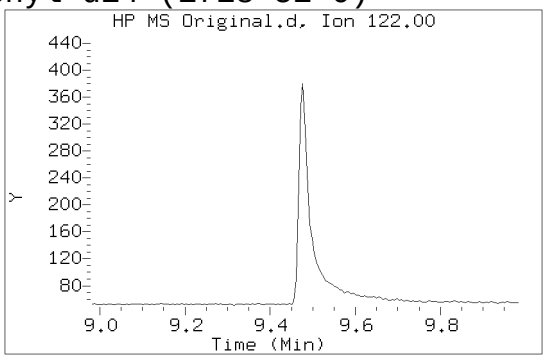


Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\20.D
Inj Date : 26-JAN-2023 17:40
InstruID : SV6.i
LabSampID : 1 4-DX-0.05

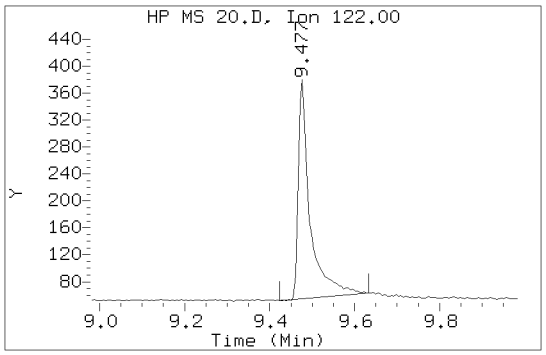
4-Terphenyl-d14 (1718-51-0)

Reason Code:

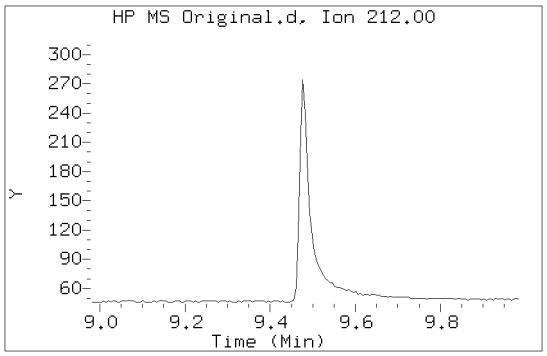
BEFORE
MASS
122
AREA
0
HEIGHT
0
26-Jan-2023
17:55
ALSHS
Server



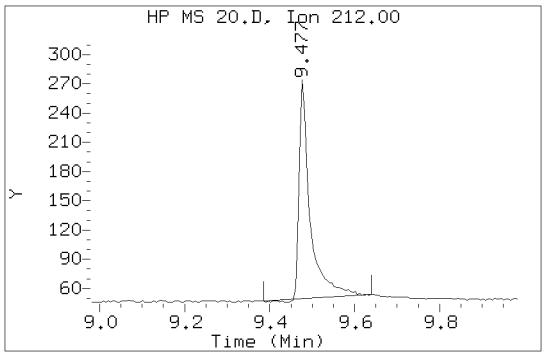
AFTER
MASS
122
AREA
621
HEIGHT
325
27-Jan-2023
11:55



BEFORE
MASS
212
AREA
0
HEIGHT
0
26-Jan-2023
17:55
ALSHS
Server



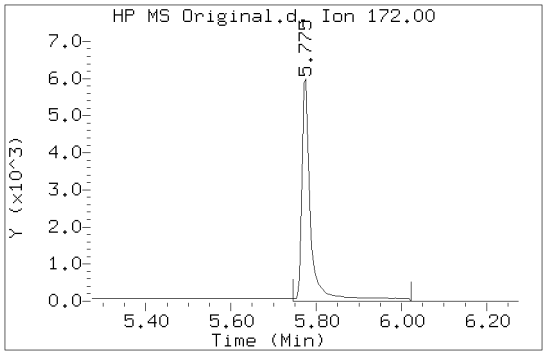
AFTER
MASS
212
AREA
394
HEIGHT
224
27-Jan-2023
11:55



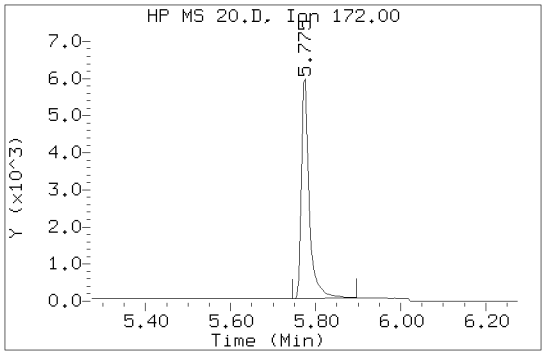
2-Fluorobiphenyl (321-60-8)

Reason Code:

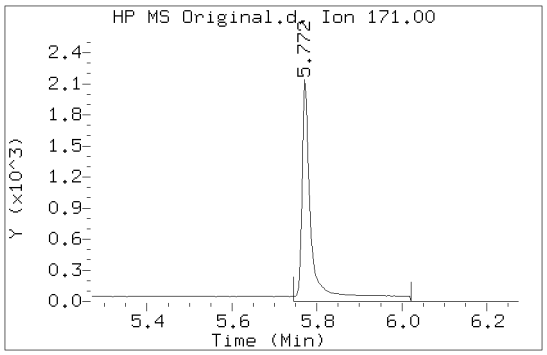
BEFORE
MASS
172
AREA
8878
HEIGHT
5991
26-Jan-2023
17:55
ALSHS
Server



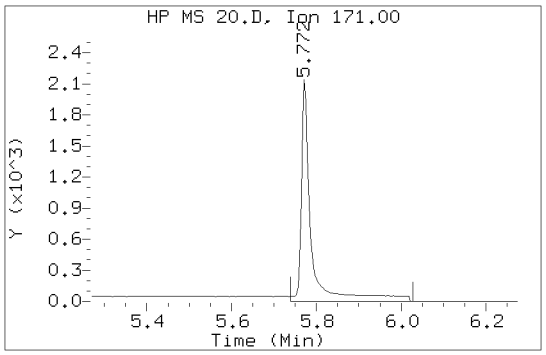
AFTER
MASS
172
AREA
7569
HEIGHT
5923
27-Jan-2023
11:55



BEFORE
MASS
171
AREA
3461
HEIGHT
2140
26-Jan-2023
17:55
ALSHS
Server



AFTER
MASS
171
AREA
3502
HEIGHT
2140
27-Jan-2023
11:55



Data File: \\NAHSTWS005\Target\chem\SV6.i\230126.b\21.D Page 1
Report Date: 27-Jan-2023 11:55

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230126.b\21.D
Lab Smp Id: 1 4-DX-0.08 Client Smp ID: 1 4-DX-0.08
Inj Date : 26-JAN-2023 17:58
Operator : LG Inst ID: SV6.i
Smp Info : 1 4-DX-0.08;1 4-DX-0.08
Misc Info : ;;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\SV6.i\230126.b\DXSIM.m
Meth Date : 27-Jan-2023 11:55 SV6.i Quant Type: ISTD
Cal Date : 26-JAN-2023 17:40 Cal File: 20.D
Als bottle: 20 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7095

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)
* 20 1,4-Dichlorobenzene-d4	152	3.619	3.619	(1.000)	4575	0.10000	(aM)
* 45 Naphthalene-d8	136	4.747	4.747	(1.000)	15544	0.10000	(M)
$ 33 Nitrobenzene-d5	82	4.092	4.092	(0.862)	3532	0.08000	0.07875(M)
* 86 Acenaphthene-d10	164	6.429	6.429	(1.000)	8772	0.10000	(M)
$ 69 2-Fluorobiphenyl	172	5.775	5.775	(0.898)	9154	0.08000	0.07951(M)
* 126 Phenanthrene-d10	188	7.885	7.885	(1.000)	17186	0.10000	(M)
* 182 Chrysene-d12	240	10.752	10.752	(1.000)	6062	0.10000	(M)
$ 158 4-Terphenyl-d14	244	9.482	9.482	(0.882)	7348	0.08000	0.07318(M)
* 198 Perylene-d12	264	12.852	12.852	(1.000)	5003	0.10000	
1 1,4-Dioxane	58	1.843	1.843	(0.509)	1216	0.08000	0.07286(QM)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

01182919

Data File: \\NAHSTWS005\Target\chem\SV6.i\230126.b\21.D

Date : 26-JAN-2023 17:58

Client ID: 1 4-DX-0.08

Instrument: SV6.i

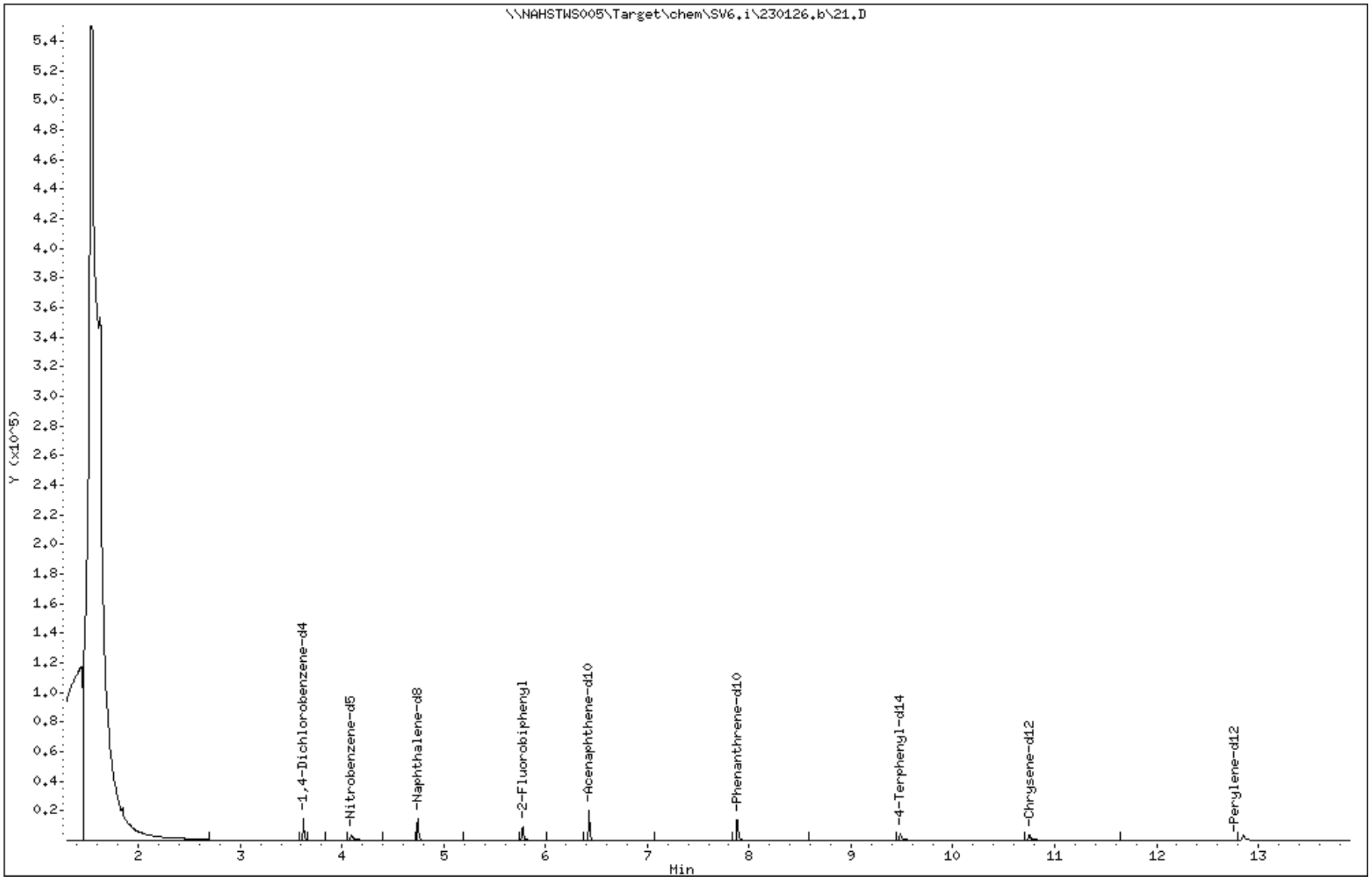
Sample Info: 1 4-DX-0.08;1 4-DX-0.08

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28



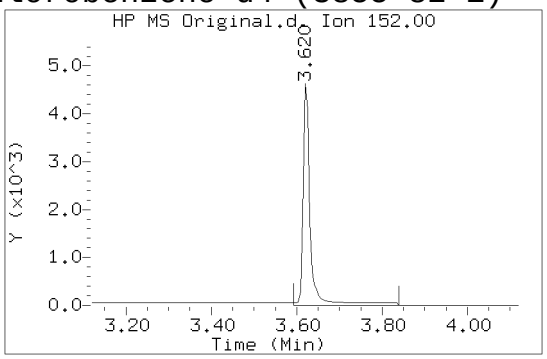
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\21.D
Inj Date : 26-JAN-2023 17:58
InstruID : SV6.i
LabSampID : 1 4-DX-0.08

1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

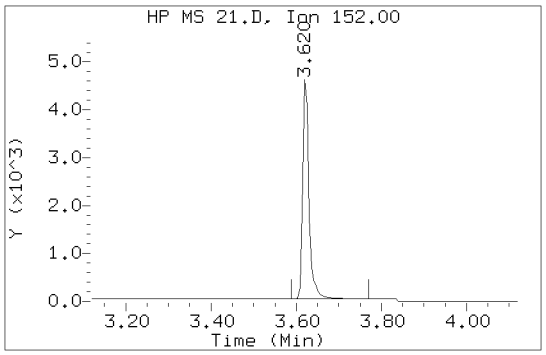
BEFORE

MASS
152
AREA
5358
HEIGHT
4629
26-Jan-2023
18:12
ALSHS
Server



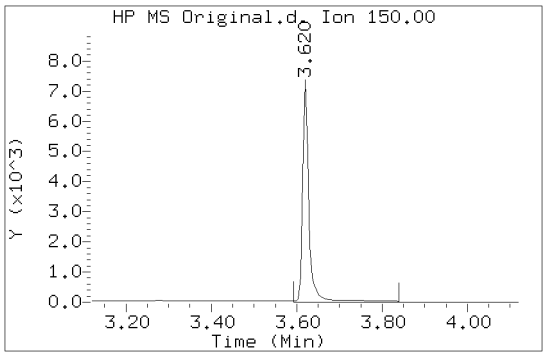
AFTER

MASS
152
AREA
4575
HEIGHT
4577
27-Jan-2023
11:55



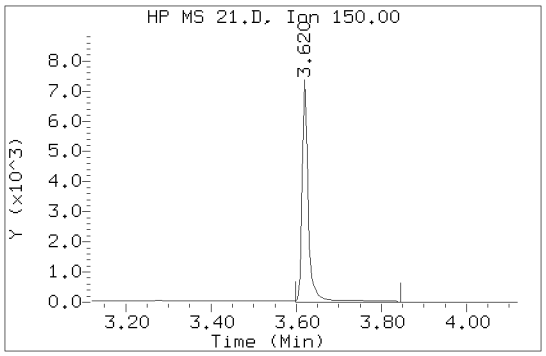
BEFORE

MASS
150
AREA
7614
HEIGHT
7372
26-Jan-2023
18:12
ALSHS
Server



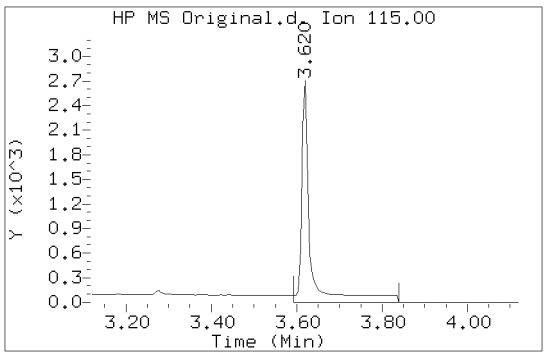
AFTER

MASS
150
AREA
7598
HEIGHT
7372
27-Jan-2023
11:55



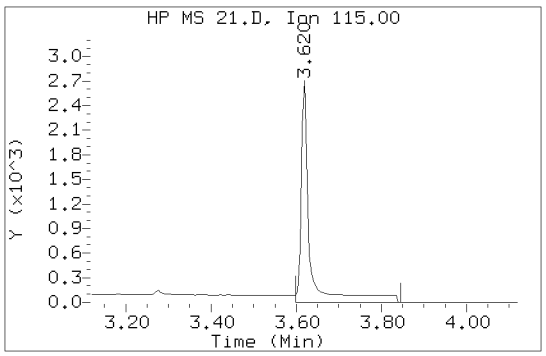
BEFORE

MASS
115
AREA
3820
HEIGHT
2704
26-Jan-2023
18:12
ALSHS
Server



AFTER

MASS
115
AREA
3792
HEIGHT
2704
27-Jan-2023
11:55

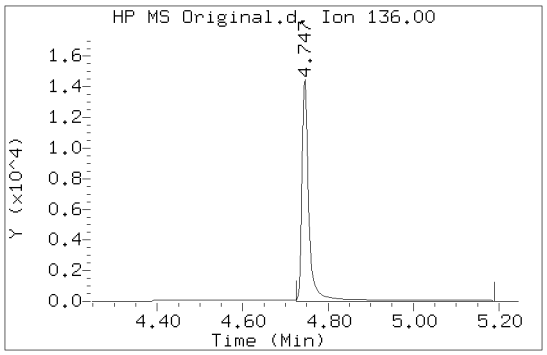


Naphthalene-d8 (1146-65-2)

Reason Code:

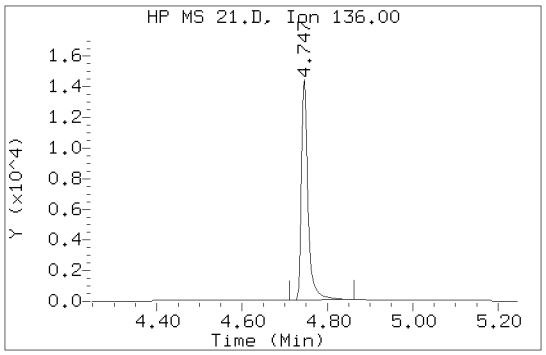
BEFORE

MASS
136
AREA
17931
HEIGHT
14466
26-Jan-2023
18:12
ALSHS
Server



AFTER

MASS
136
AREA
15544
HEIGHT
14387
27-Jan-2023
11:55



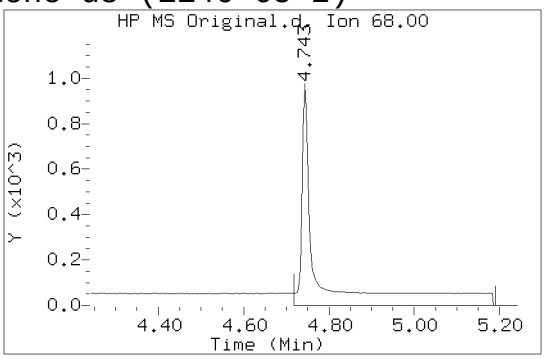
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\21.D
Inj Date : 26-JAN-2023 17:58
InstruID : SV6.i
LabSampID : 1 4-DX-0.08

Naphthalene-d8 (1146-65-2)

Reason Code:

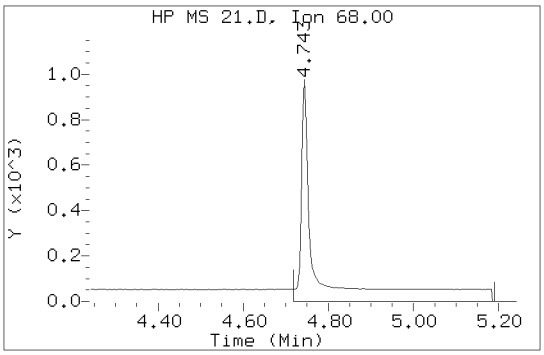
BEFORE

MASS
68
AREA
2481
HEIGHT
976
26-Jan-2023
18:12
ALSHS
Server



AFTER

MASS
68
AREA
2481
HEIGHT
976
27-Jan-2023
11:55

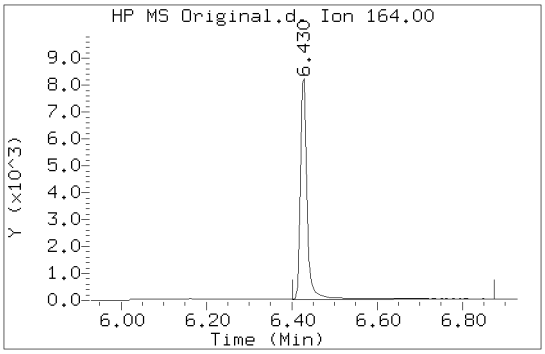


Acenaphthene-d10 (15067-26-2)

Reason Code:

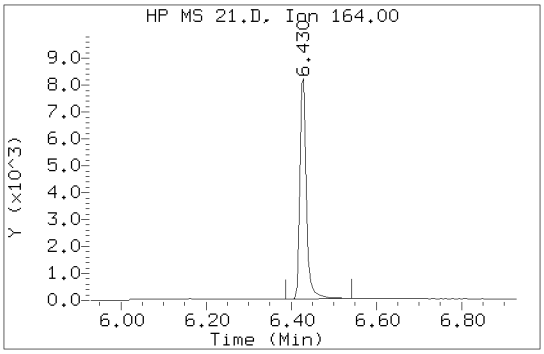
BEFORE

MASS
164
AREA
9409
HEIGHT
8212
26-Jan-2023
18:12
ALSHS
Server



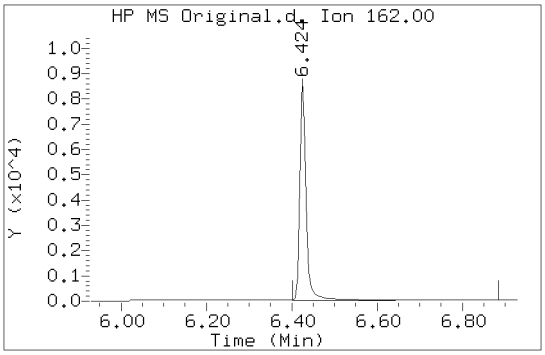
AFTER

MASS
164
AREA
8772
HEIGHT
8177
27-Jan-2023
11:55



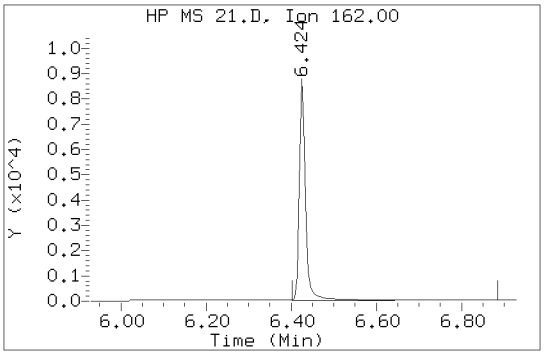
BEFORE

MASS
162
AREA
9264
HEIGHT
8767
26-Jan-2023
18:12
ALSHS
Server



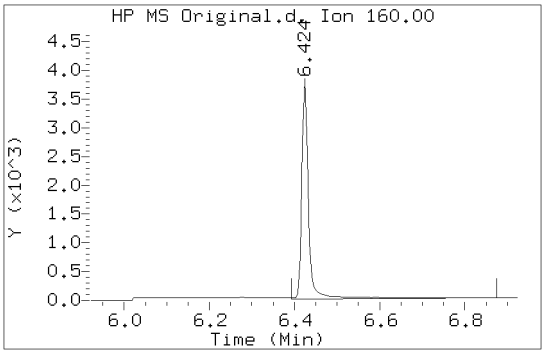
AFTER

MASS
162
AREA
9264
HEIGHT
8767
27-Jan-2023
11:55



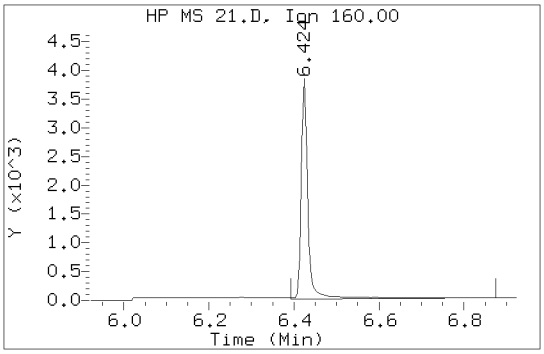
BEFORE

MASS
160
AREA
4244
HEIGHT
3833
26-Jan-2023
18:12
ALSHS
Server



AFTER

MASS
160
AREA
4244
HEIGHT
3833
27-Jan-2023
11:55



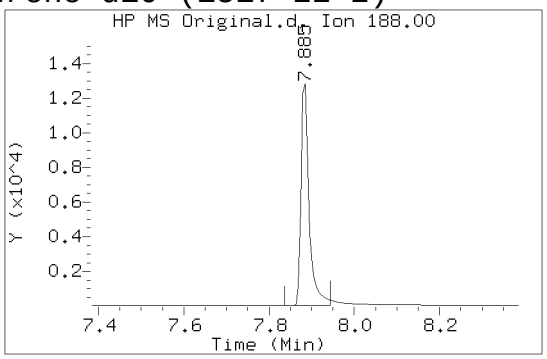
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\21.D
Inj Date : 26-JAN-2023 17:58
InstruID : SV6.i
LabSampID : 1 4-DX-0.08

Phenanthrene-d10 (1517-22-2)

Reason Code:

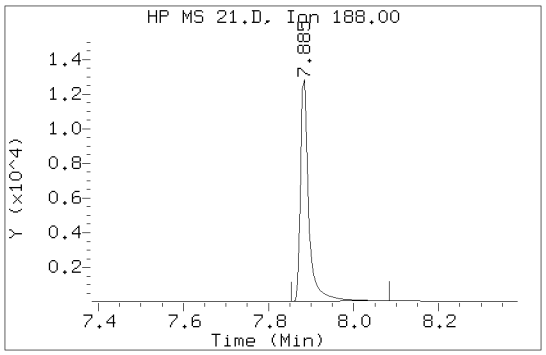
BEFORE

MASS
188
AREA
16671
HEIGHT
12786
26-Jan-2023
18:12
ALSHS
Server



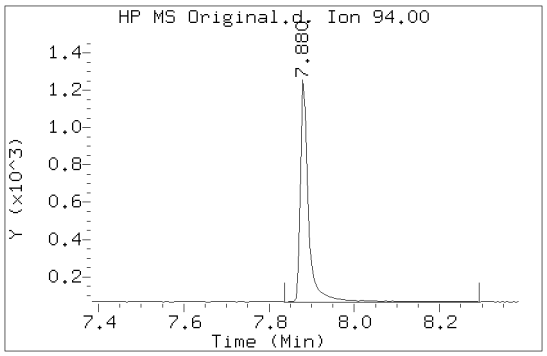
AFTER

MASS
188
AREA
17186
HEIGHT
12781
27-Jan-2023
11:55



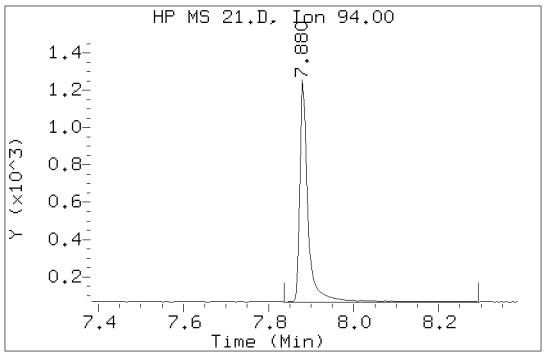
BEFORE

MASS
94
AREA
1592
HEIGHT
1191
26-Jan-2023
18:12
ALSHS
Server



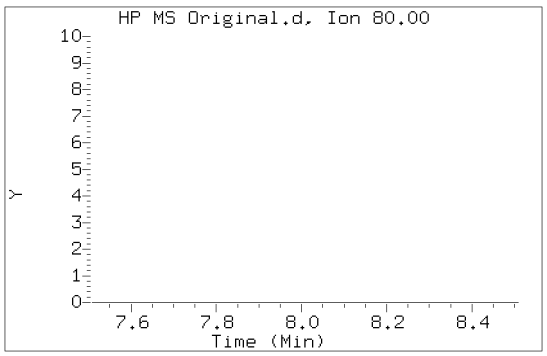
AFTER

MASS
94
AREA
1592
HEIGHT
1191
27-Jan-2023
11:55



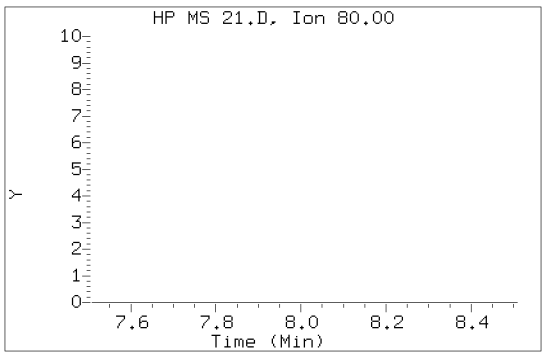
BEFORE

MASS
80
AREA
0
HEIGHT
0
26-Jan-2023
18:12
ALSHS
Server



AFTER

MASS
80
AREA
0
HEIGHT
0
27-Jan-2023
11:55

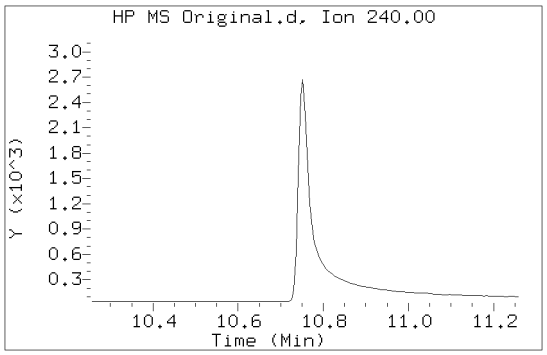


Chrysene-d12 (1719-03-5)

Reason Code:

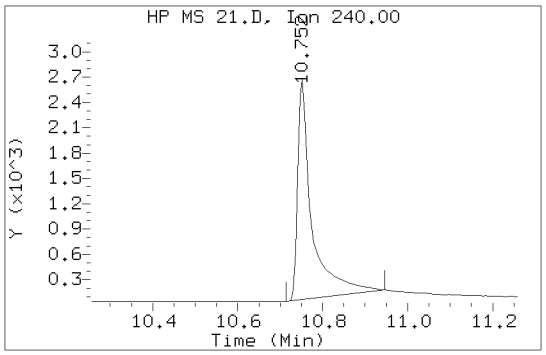
BEFORE

MASS
240
AREA
0
HEIGHT
0
26-Jan-2023
18:12
ALSHS
Server



AFTER

MASS
240
AREA
6062
HEIGHT
2601
27-Jan-2023
11:55

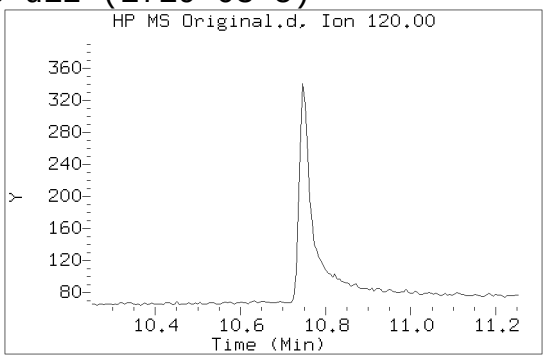


Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\21.D
Inj Date : 26-JAN-2023 17:58
InstruID : SV6.i
LabSampID : 1 4-DX-0.08

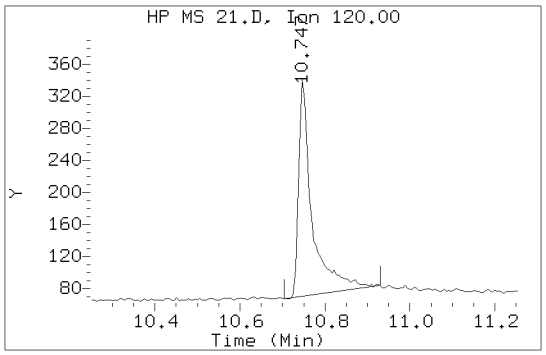
Chrysene-d12 (1719-03-5)

Reason Code:

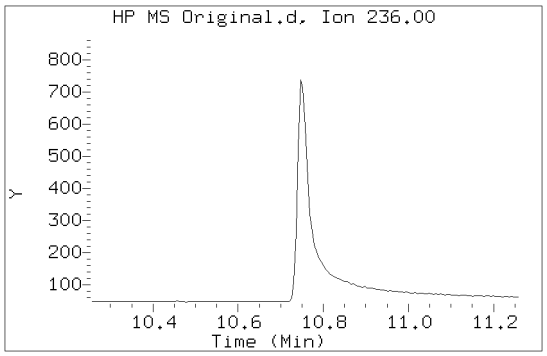
BEFORE
MASS
120
AREA
0
HEIGHT
0
26-Jan-2023
18:12
ALSHS
Server



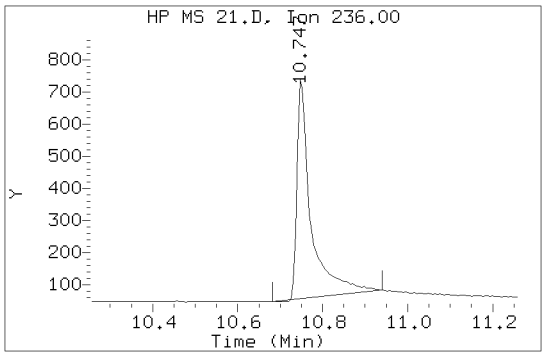
AFTER
MASS
120
AREA
595
HEIGHT
270
27-Jan-2023
11:55



BEFORE
MASS
236
AREA
0
HEIGHT
0
26-Jan-2023
18:12
ALSHS
Server



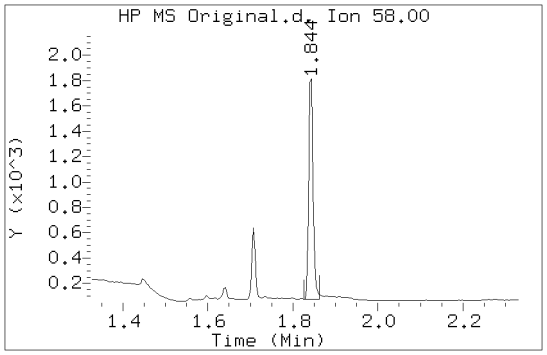
AFTER
MASS
236
AREA
1567
HEIGHT
680
27-Jan-2023
11:55



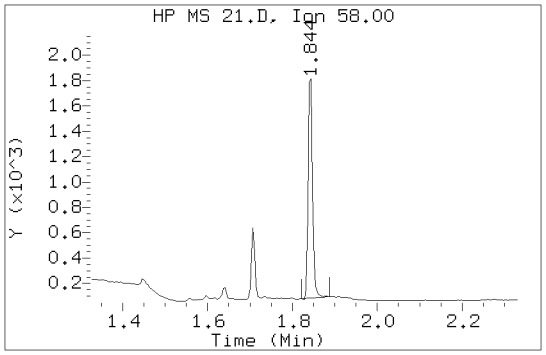
1,4-Dioxane ()

Reason Code:

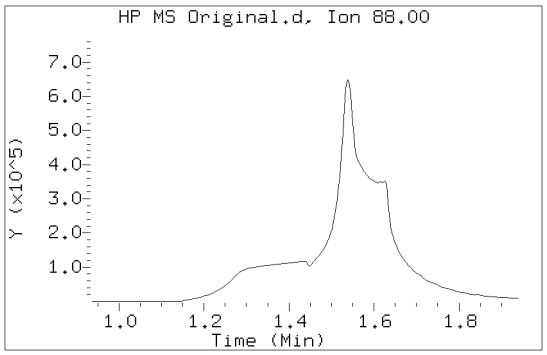
BEFORE
MASS
58
AREA
1228
HEIGHT
1738
26-Jan-2023
18:12
ALSHS
Server



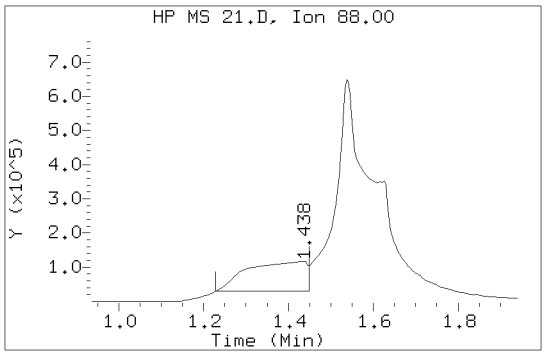
AFTER
MASS
58
AREA
1216
HEIGHT
1728
27-Jan-2023
11:55



BEFORE
MASS
88
AREA
0
HEIGHT
0
26-Jan-2023
18:12
ALSHS
Server



AFTER
MASS
88
AREA
856918
HEIGHT
87976
27-Jan-2023
11:55



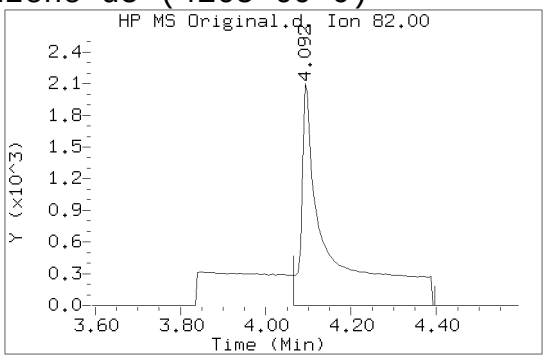
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\21.D
Inj Date : 26-JAN-2023 17:58
InstruID : SV6.i
LabSampID : 1 4-DX-0.08

Nitrobenzene-d5 (4165-60-0)

Reason Code:

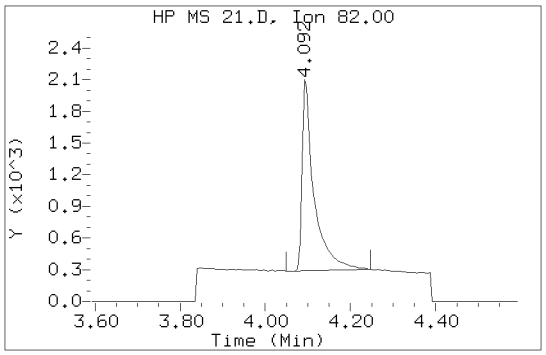
BEFORE

MASS
82
AREA
9169
HEIGHT
2100
26-Jan-2023
18:12
ALSHS
Server



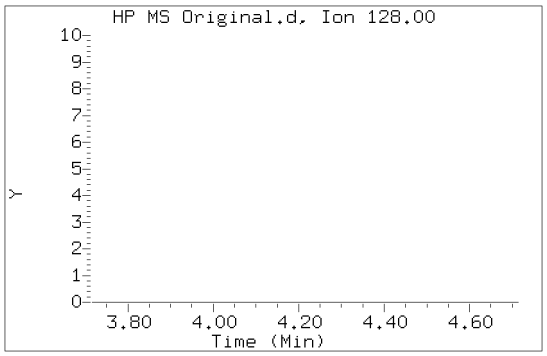
AFTER

MASS
82
AREA
3532
HEIGHT
1809
27-Jan-2023
11:55



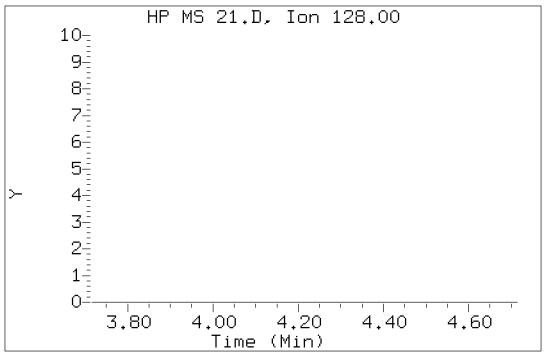
BEFORE

MASS
128
AREA
0
HEIGHT
0
26-Jan-2023
18:12
ALSHS
Server



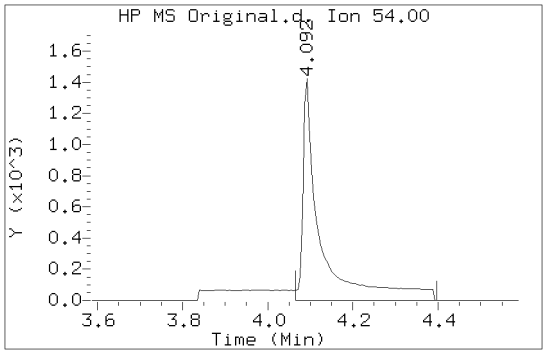
AFTER

MASS
128
AREA
0
HEIGHT
0
27-Jan-2023
11:55



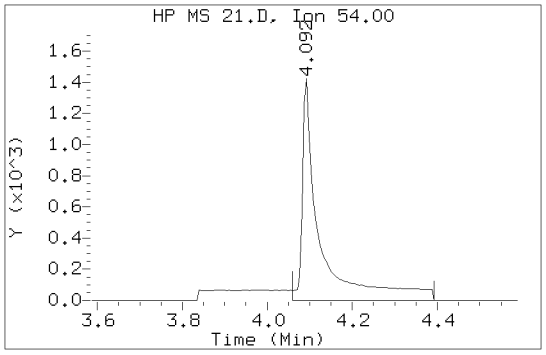
BEFORE

MASS
54
AREA
4059
HEIGHT
1423
26-Jan-2023
18:12
ALSHS
Server



AFTER

MASS
54
AREA
4100
HEIGHT
1423
27-Jan-2023
11:55

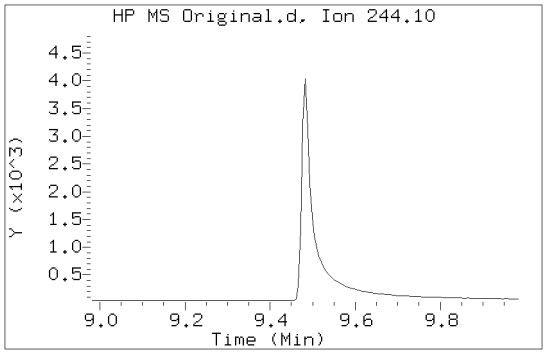


4-Terphenyl-d14 (1718-51-0)

Reason Code:

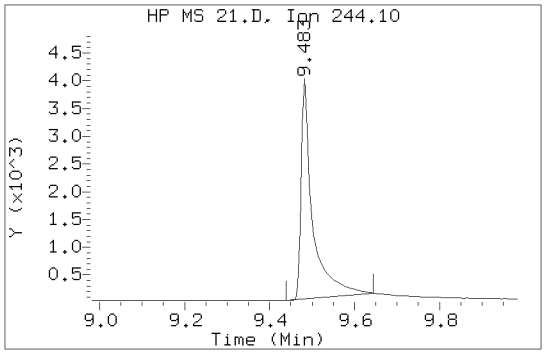
BEFORE

MASS
244.1
AREA
0
HEIGHT
0
26-Jan-2023
18:12
ALSHS
Server



AFTER

MASS
244.1
AREA
7348
HEIGHT
3964
27-Jan-2023
11:55



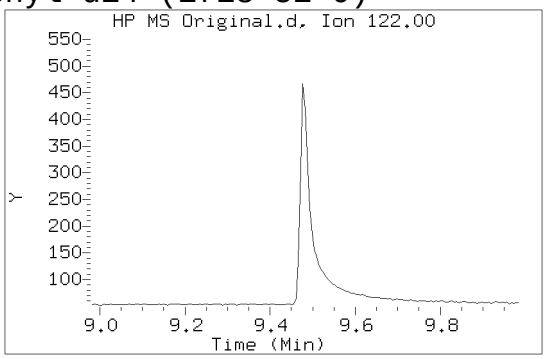
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\21.D
Inj Date : 26-JAN-2023 17:58
InstruID : SV6.i
LabSampID : 1 4-DX-0.08

4-Terphenyl-d14 (1718-51-0)

Reason Code:

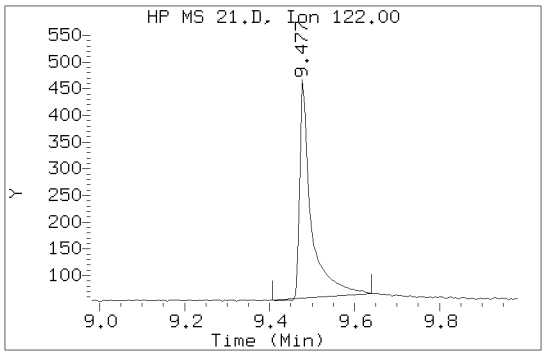
BEFORE

MASS
122
AREA
0
HEIGHT
0
26-Jan-2023
18:12
ALSHS
Server



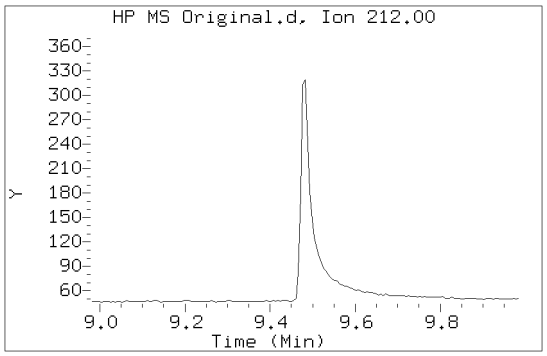
AFTER

MASS
122
AREA
760
HEIGHT
409
27-Jan-2023
11:55



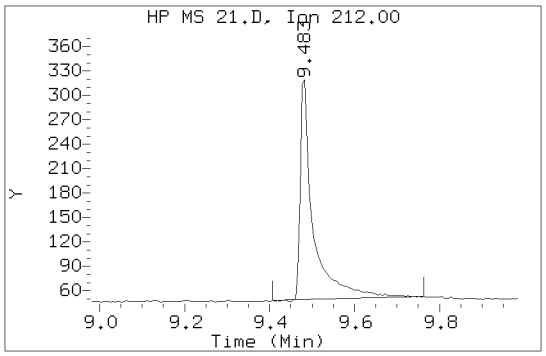
BEFORE

MASS
212
AREA
0
HEIGHT
0
26-Jan-2023
18:12
ALSHS
Server



AFTER

MASS
212
AREA
569
HEIGHT
269
27-Jan-2023
11:55

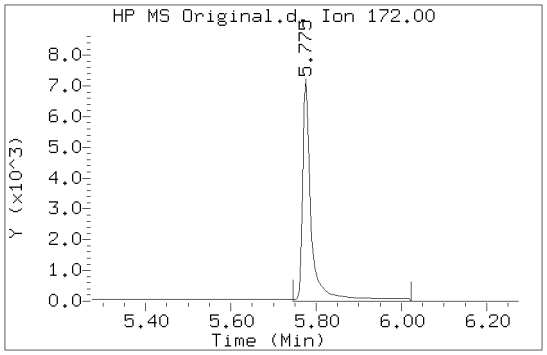


2-Fluorobiphenyl (321-60-8)

Reason Code:

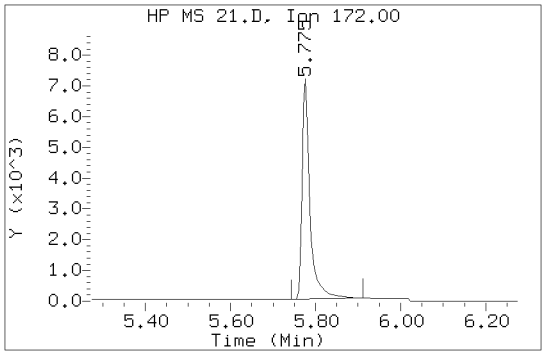
BEFORE

MASS
172
AREA
10503
HEIGHT
7226
26-Jan-2023
18:12
ALSHS
Server



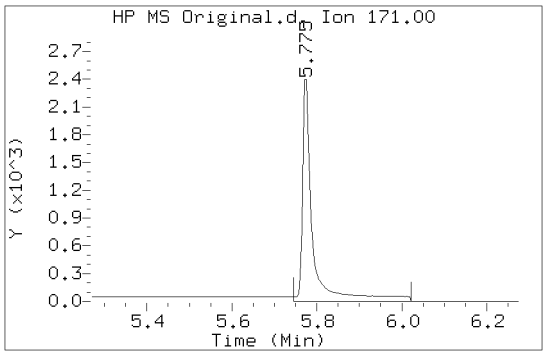
AFTER

MASS
172
AREA
9154
HEIGHT
7158
27-Jan-2023
11:55



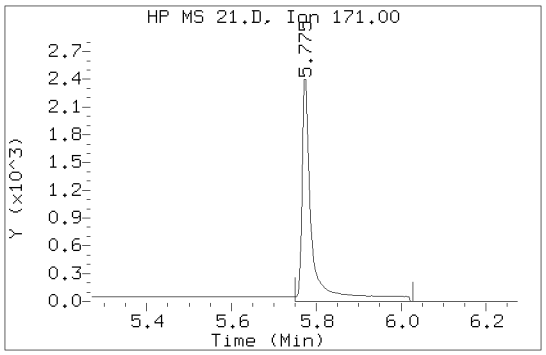
BEFORE

MASS
171
AREA
4003
HEIGHT
2395
26-Jan-2023
18:12
ALSHS
Server



AFTER

MASS
171
AREA
4016
HEIGHT
2395
27-Jan-2023
11:55



Data File: \\NAHSTWS005\Target\chem\SV6.i\230126.b\22.D Page 1
Report Date: 27-Jan-2023 11:55

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230126.b\22.D
Lab Smp Id: 1 4-DX-0.1 Client Smp ID: 1 4-DX-0.1
Inj Date : 26-JAN-2023 18:16
Operator : LG Inst ID: SV6.i
Smp Info : 1 4-DX-0.1;1 4-DX-0.1
Misc Info : ;;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\SV6.i\230126.b\DXSIM.m
Meth Date : 27-Jan-2023 11:55 SV6.i Quant Type: ISTD
Cal Date : 26-JAN-2023 17:58 Cal File: 21.D
Als bottle: 21 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7095

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)
* 20 1,4-Dichlorobenzene-d4	152	3.619	3.619	(1.000)	4328	0.10000	(aM)
* 45 Naphthalene-d8	136	4.746	4.746	(1.000)	14841	0.10000	(M)
$ 33 Nitrobenzene-d5	82	4.092	4.092	(0.862)	4162	0.10000	0.09720(M)
* 86 Acenaphthene-d10	164	6.429	6.429	(1.000)	8212	0.10000	(M)
$ 69 2-Fluorobiphenyl	172	5.775	5.775	(0.898)	10723	0.10000	0.09949(M)
* 126 Phenanthrene-d10	188	7.884	7.884	(1.000)	15031	0.10000	(M)
* 182 Chrysene-d12	240	10.752	10.752	(1.000)	5170	0.10000	(M)
$ 158 4-Terphenyl-d14	244	9.482	9.482	(0.882)	8150	0.10000	0.09008(M)
* 198 Perylene-d12	264	12.857	12.857	(1.000)	4432	0.10000	
1 1,4-Dioxane	58	1.836	1.836	(0.507)	1401	0.10000	0.08874(QM)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

01182927

Data File: \\NAHSTWS005\Target\chem\SV6.i\230126.b\22.D

Date : 26-JAN-2023 18:16

Client ID: 1 4-DX-0.1

Instrument: SV6.i

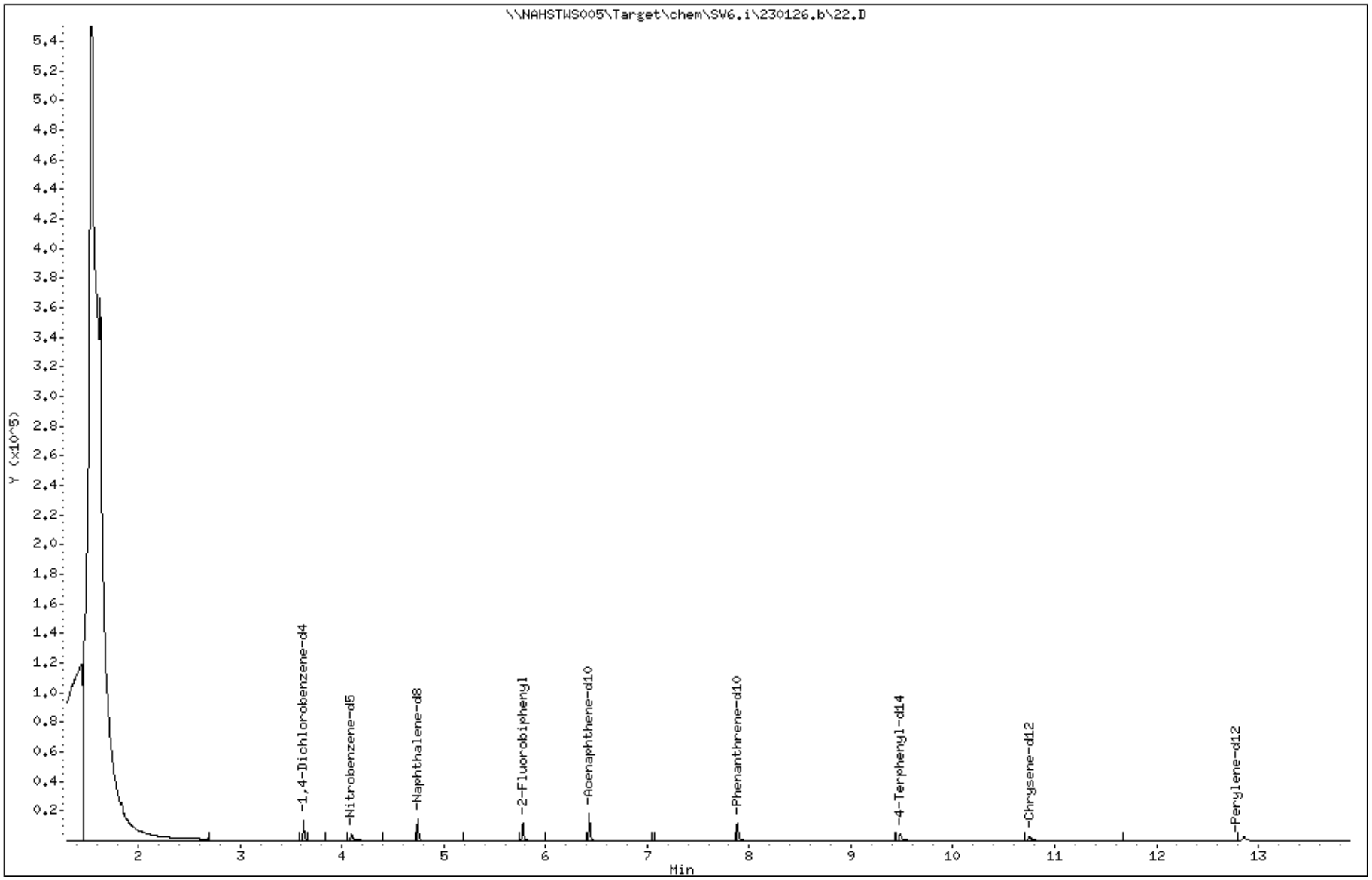
Sample Info: 1 4-DX-0.1;1 4-DX-0.1

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28



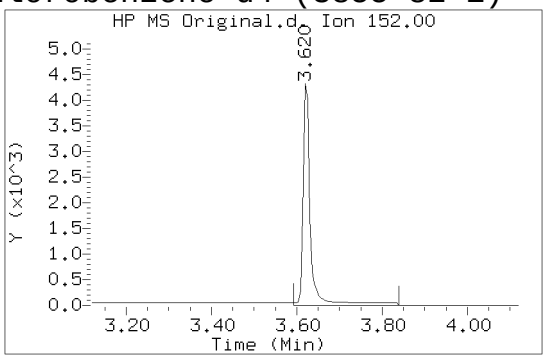
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\22.D
Inj Date : 26-JAN-2023 18:16
InstruID : SV6.i
LabSampID : 1 4-DX-0.1

1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

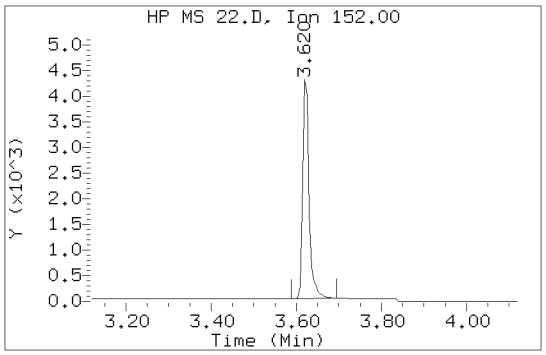
BEFORE

MASS
152
AREA
5152
HEIGHT
4327
26-Jan-2023
18:32
ALSHS
Server



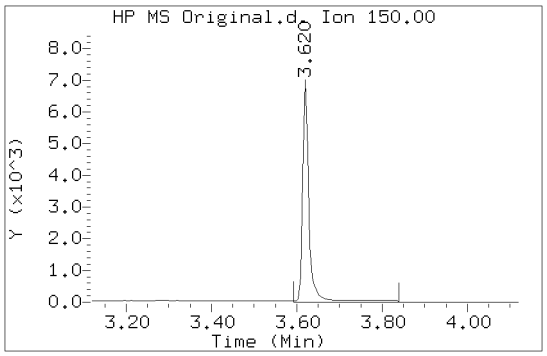
AFTER

MASS
152
AREA
4328
HEIGHT
4273
27-Jan-2023
11:55



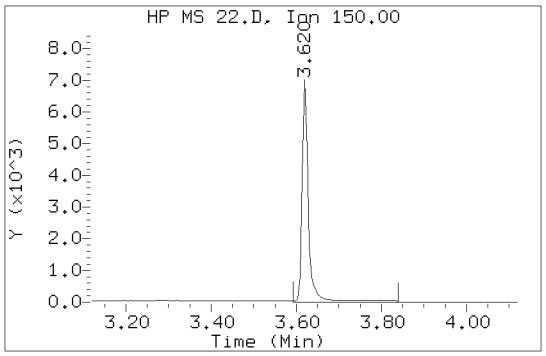
BEFORE

MASS
150
AREA
7314
HEIGHT
7012
26-Jan-2023
18:32
ALSHS
Server



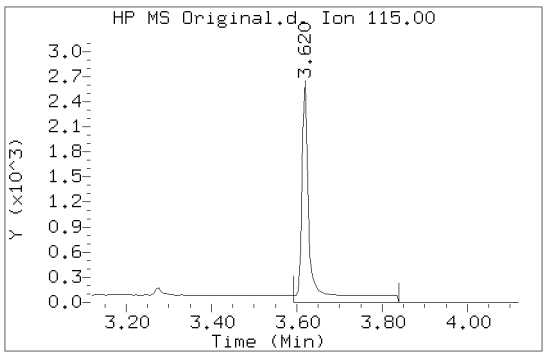
AFTER

MASS
150
AREA
7314
HEIGHT
7012
27-Jan-2023
11:55



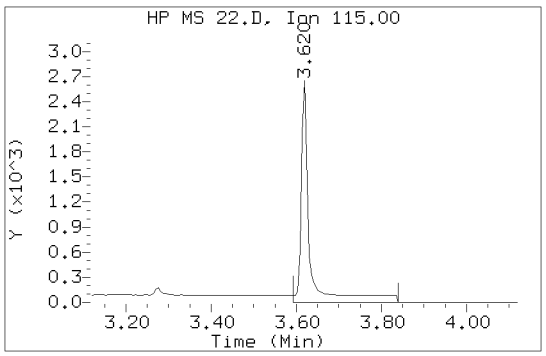
BEFORE

MASS
115
AREA
3675
HEIGHT
2651
26-Jan-2023
18:32
ALSHS
Server



AFTER

MASS
115
AREA
3675
HEIGHT
2651
27-Jan-2023
11:55

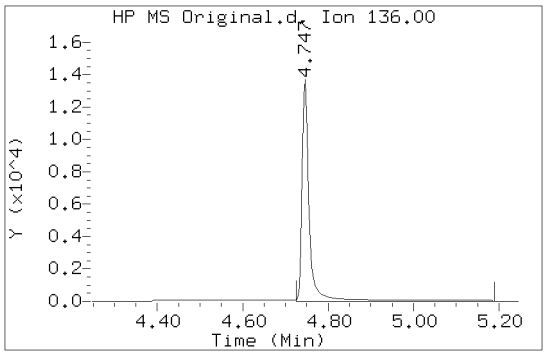


Naphthalene-d8 (1146-65-2)

Reason Code:

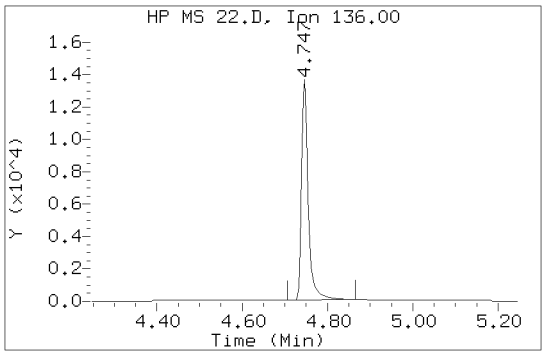
BEFORE

MASS
136
AREA
17167
HEIGHT
13688
26-Jan-2023
18:32
ALSHS
Server



AFTER

MASS
136
AREA
14841
HEIGHT
13609
27-Jan-2023
11:55



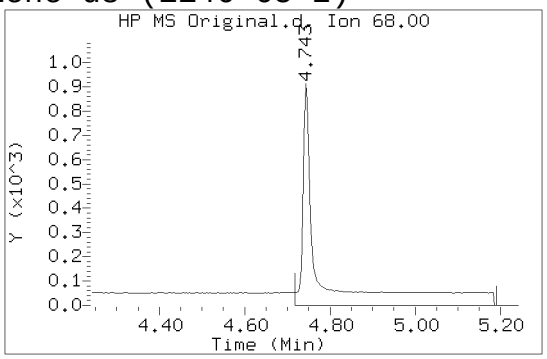
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\22.D
Inj Date : 26-JAN-2023 18:16
InstruID : SV6.i
LabSampID : 1 4-DX-0.1

Naphthalene-d8 (1146-65-2)

Reason Code:

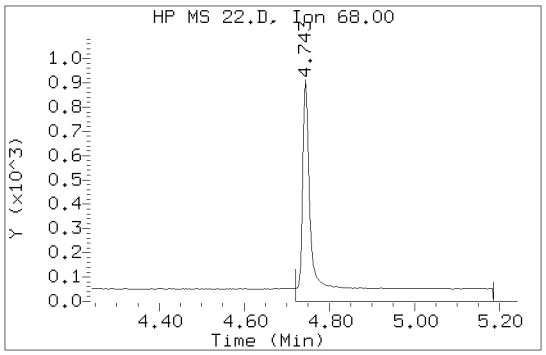
BEFORE

MASS
68
AREA
2417
HEIGHT
913
26-Jan-2023
18:32
ALSHS
Server



AFTER

MASS
68
AREA
2405
HEIGHT
913
27-Jan-2023
11:55

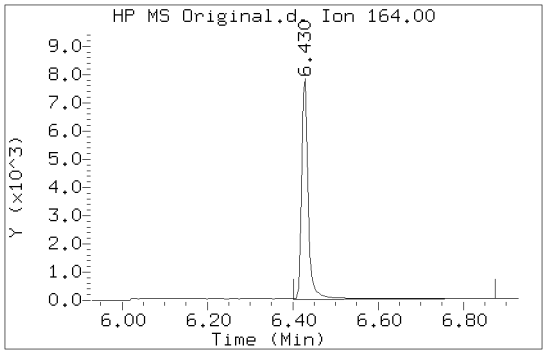


Acenaphthene-d10 (15067-26-2)

Reason Code:

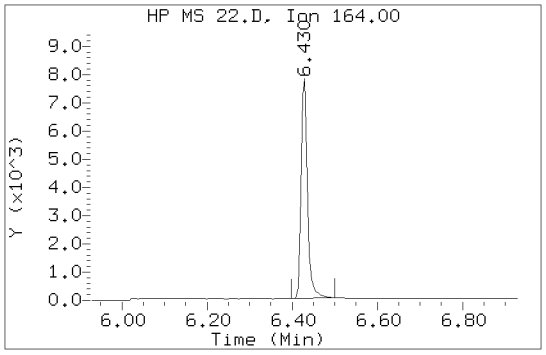
BEFORE

MASS
164
AREA
8927
HEIGHT
7829
26-Jan-2023
18:32
ALSHS
Server



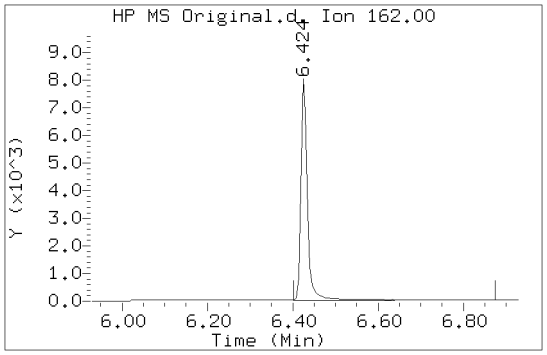
AFTER

MASS
164
AREA
8212
HEIGHT
7787
27-Jan-2023
11:55



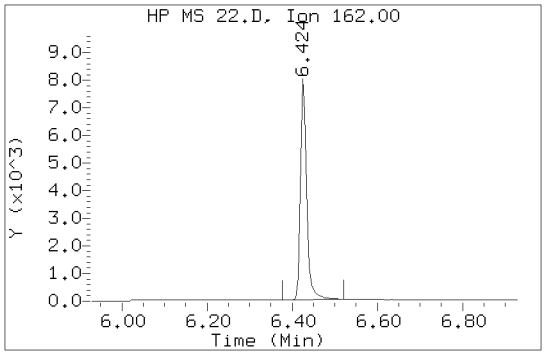
BEFORE

MASS
162
AREA
8833
HEIGHT
8026
26-Jan-2023
18:32
ALSHS
Server



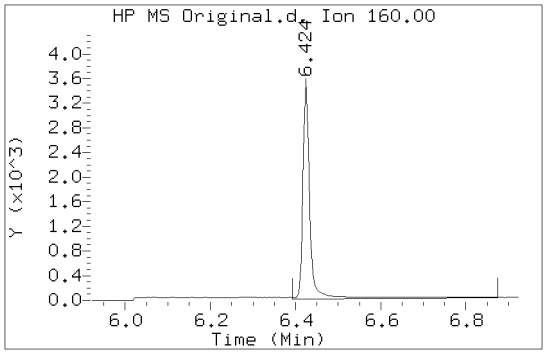
AFTER

MASS
162
AREA
8207
HEIGHT
7991
27-Jan-2023
11:55



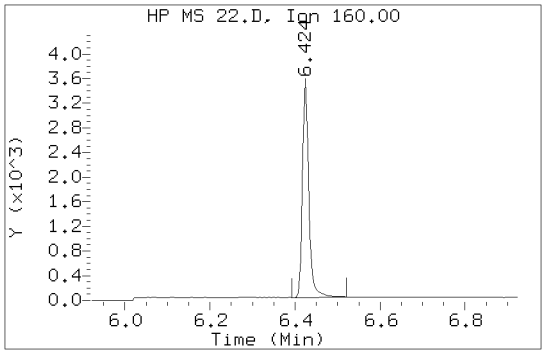
BEFORE

MASS
160
AREA
4049
HEIGHT
3576
26-Jan-2023
18:32
ALSHS
Server



AFTER

MASS
160
AREA
3560
HEIGHT
3549
27-Jan-2023
11:55



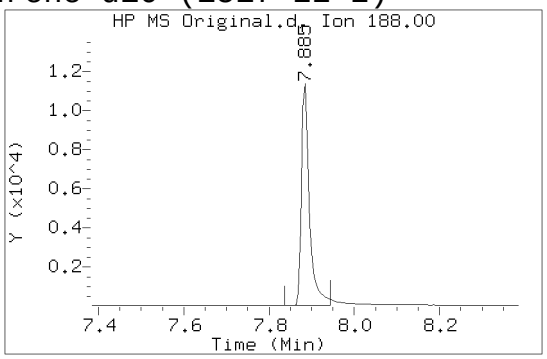
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\22.D
Inj Date : 26-JAN-2023 18:16
InstruID : SV6.i
LabSampID : 1 4-DX-0.1

Phenanthrene-d10 (1517-22-2)

Reason Code:

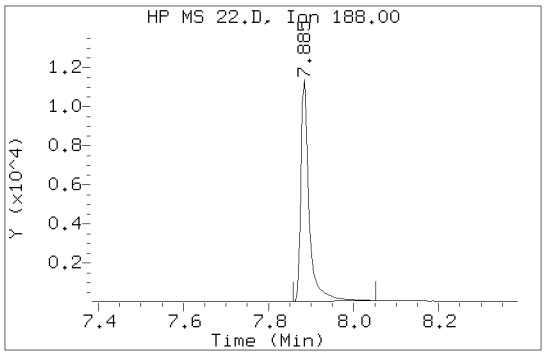
BEFORE

MASS
188
AREA
14633
HEIGHT
11338
26-Jan-2023
18:32
ALSHS
Server



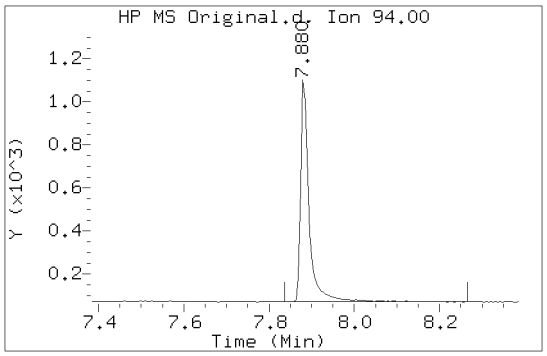
AFTER

MASS
188
AREA
15031
HEIGHT
11331
27-Jan-2023
11:55



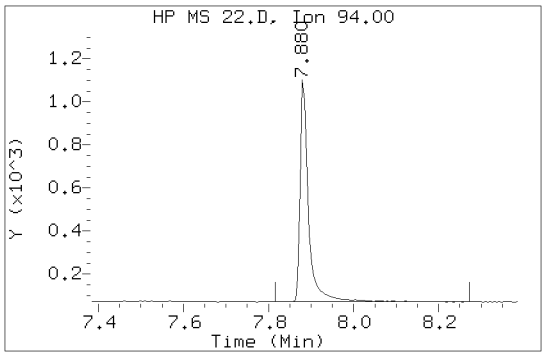
BEFORE

MASS
94
AREA
1412
HEIGHT
1030
26-Jan-2023
18:32
ALSHS
Server



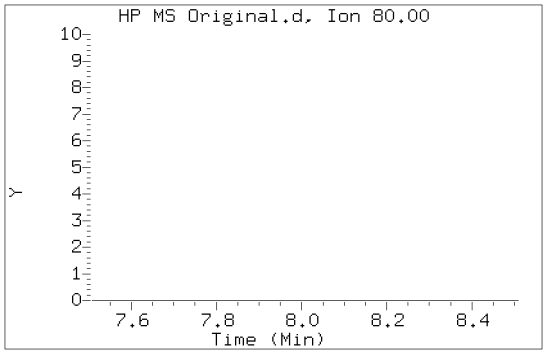
AFTER

MASS
94
AREA
1413
HEIGHT
1030
27-Jan-2023
11:55



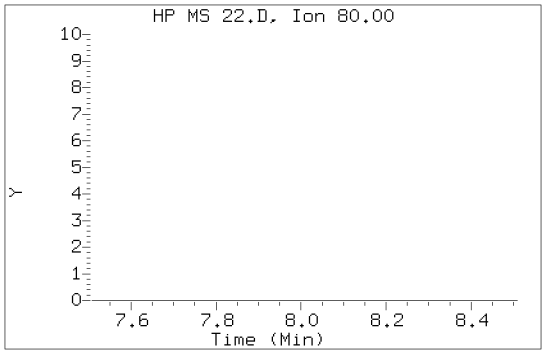
BEFORE

MASS
80
AREA
0
HEIGHT
0
26-Jan-2023
18:32
ALSHS
Server



AFTER

MASS
80
AREA
0
HEIGHT
0
27-Jan-2023
11:55

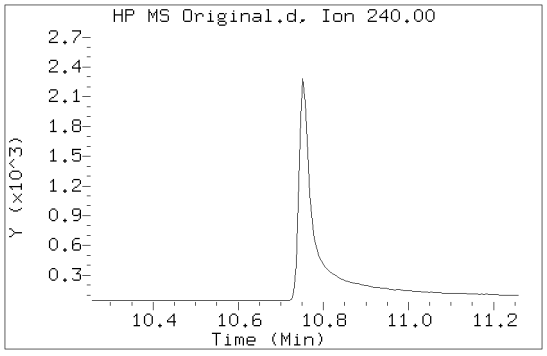


Chrysene-d12 (1719-03-5)

Reason Code:

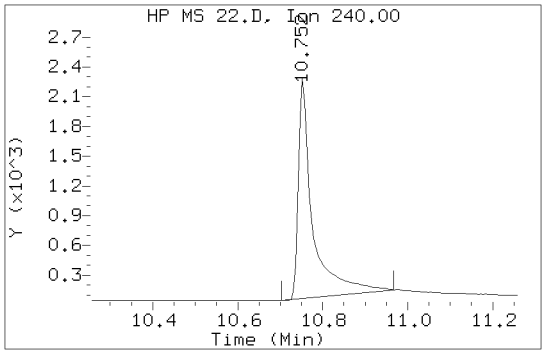
BEFORE

MASS
240
AREA
0
HEIGHT
0
26-Jan-2023
18:32
ALSHS
Server



AFTER

MASS
240
AREA
5170
HEIGHT
2215
27-Jan-2023
11:55

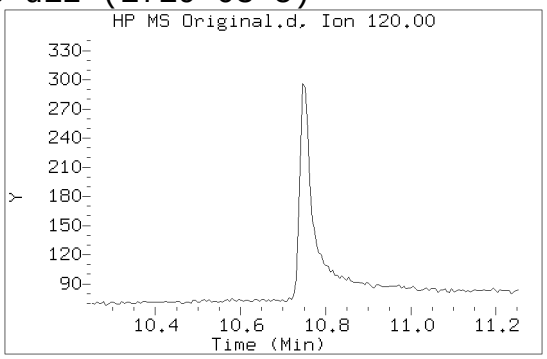


Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\22.D
Inj Date : 26-JAN-2023 18:16
InstruID : SV6.i
LabSampID : 1 4-DX-0.1

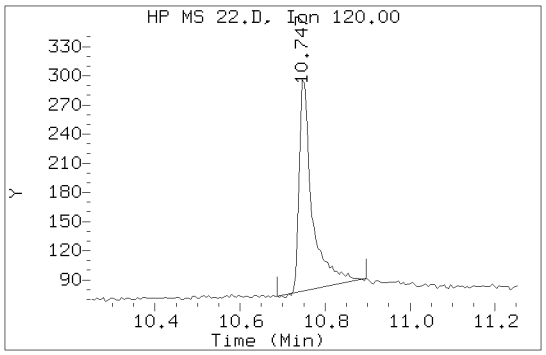
Chrysene-d12 (1719-03-5)

Reason Code:

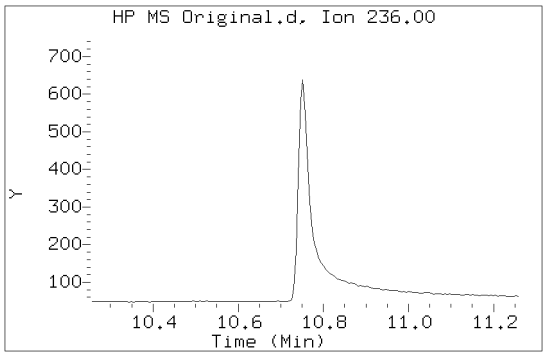
BEFORE
MASS
120
AREA
0
HEIGHT
0
26-Jan-2023
18:32
ALSHS
Server



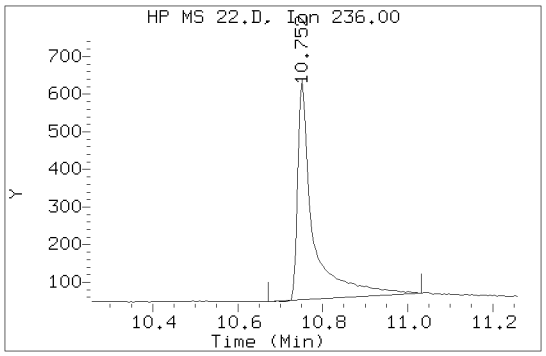
AFTER
MASS
120
AREA
457
HEIGHT
217
27-Jan-2023
11:55



BEFORE
MASS
236
AREA
0
HEIGHT
0
26-Jan-2023
18:32
ALSHS
Server



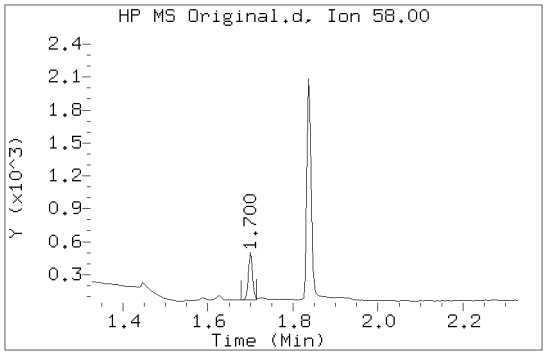
AFTER
MASS
236
AREA
1462
HEIGHT
584
27-Jan-2023
11:55



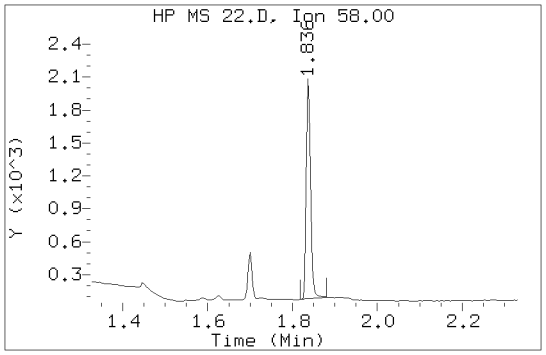
1,4-Dioxane ()

Reason Code:

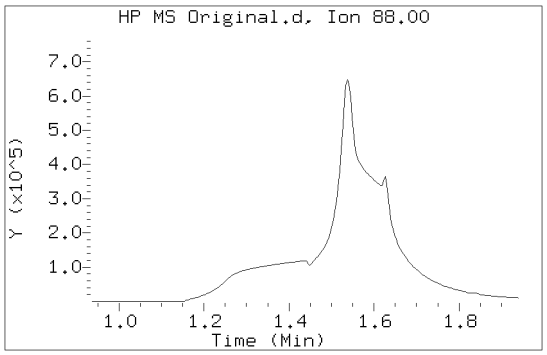
BEFORE
MASS
58
AREA
298
HEIGHT
432
26-Jan-2023
18:32
ALSHS
Server



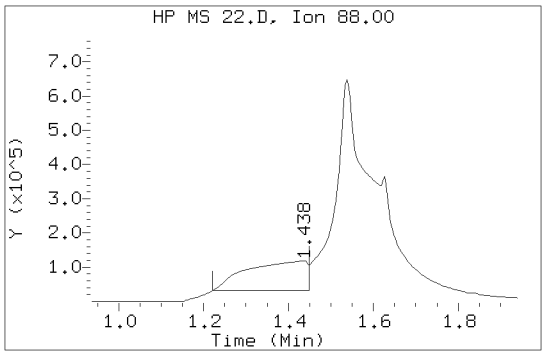
AFTER
MASS
58
AREA
1401
HEIGHT
2002
27-Jan-2023
11:55



BEFORE
MASS
88
AREA
0
HEIGHT
0
26-Jan-2023
18:32
ALSHS
Server



AFTER
MASS
88
AREA
862672
HEIGHT
87864
27-Jan-2023
11:55



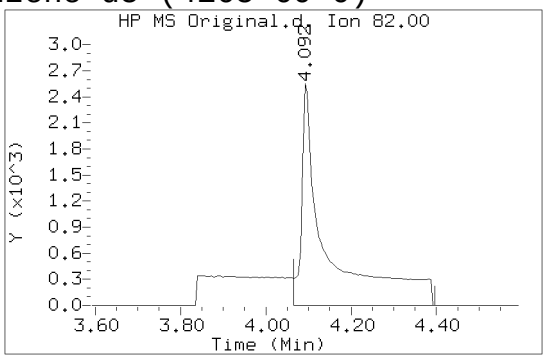
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\22.D
Inj Date : 26-JAN-2023 18:16
InstruID : SV6.i
LabSampID : 1 4-DX-0.1

Nitrobenzene-d5 (4165-60-0)

Reason Code:

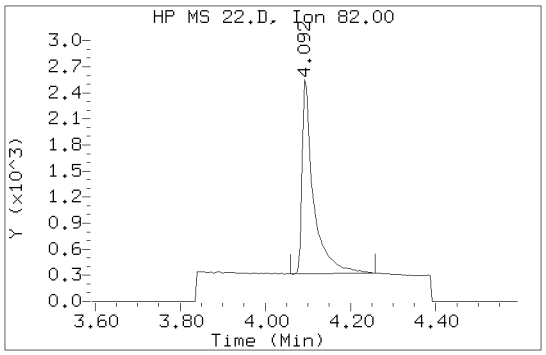
BEFORE

MASS
82
AREA
10301
HEIGHT
2551
26-Jan-2023
18:32
ALSHS
Server



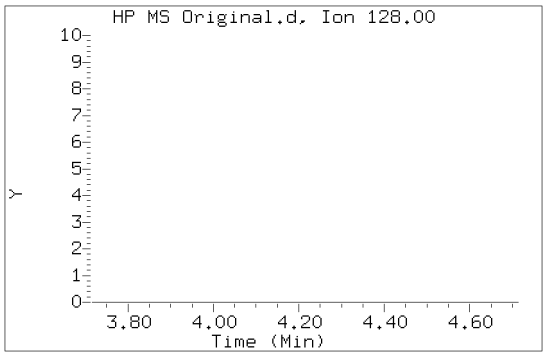
AFTER

MASS
82
AREA
4162
HEIGHT
2234
27-Jan-2023
11:55



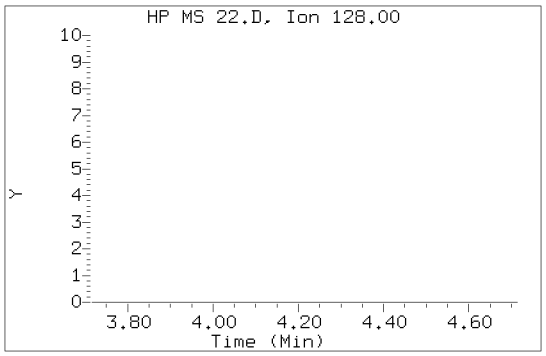
BEFORE

MASS
128
AREA
0
HEIGHT
0
26-Jan-2023
18:32
ALSHS
Server



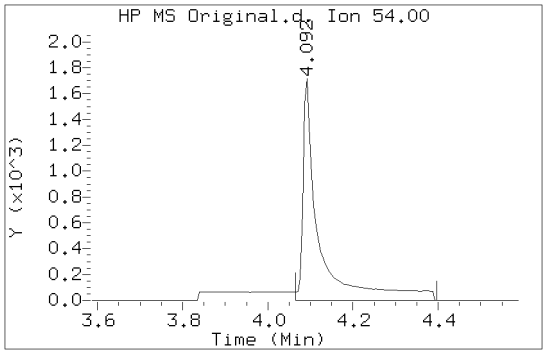
AFTER

MASS
128
AREA
0
HEIGHT
0
27-Jan-2023
11:55



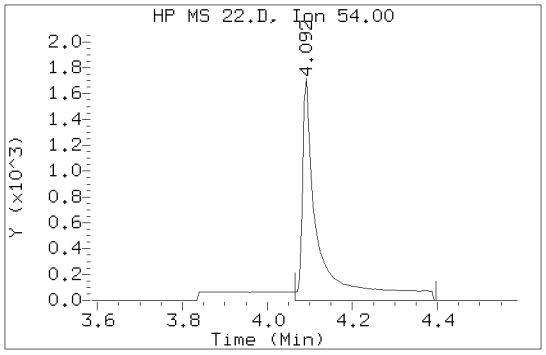
BEFORE

MASS
54
AREA
4483
HEIGHT
1715
26-Jan-2023
18:32
ALSHS
Server



AFTER

MASS
54
AREA
4483
HEIGHT
1715
27-Jan-2023
11:55

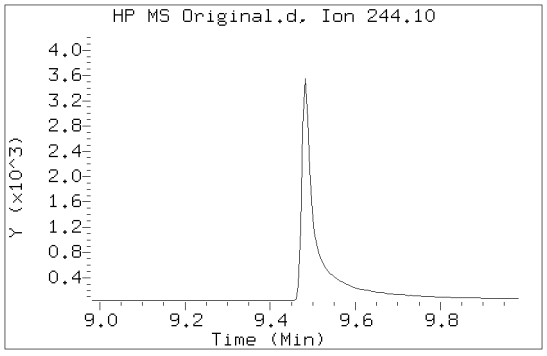


4-Terphenyl-d14 (1718-51-0)

Reason Code:

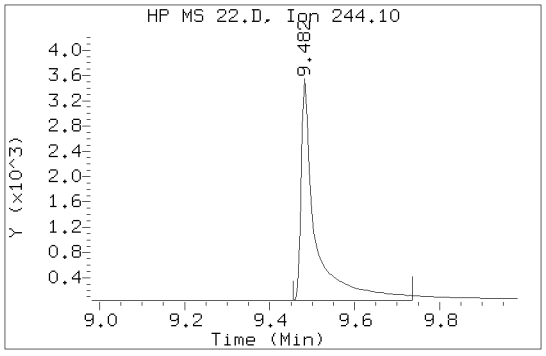
BEFORE

MASS
244.1
AREA
0
HEIGHT
0
26-Jan-2023
18:32
ALSHS
Server



AFTER

MASS
244.1
AREA
8150
HEIGHT
3504
27-Jan-2023
11:55

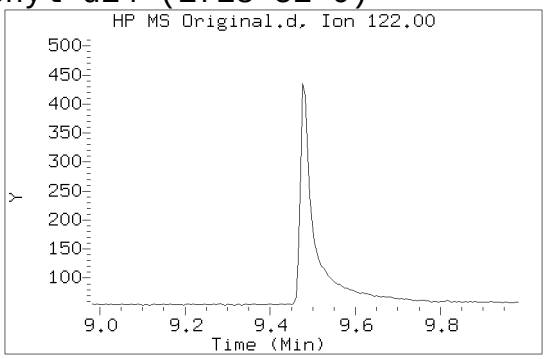


Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\22.D
Inj Date : 26-JAN-2023 18:16
InstruID : SV6.i
LabSampID : 1 4-DX-0.1

4-Terphenyl-d14 (1718-51-0)

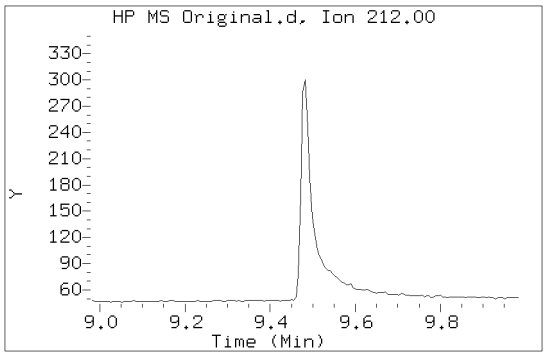
BEFORE

MASS
122
AREA
0
HEIGHT
0
26-Jan-2023
18:32
ALSHS
Server



BEFORE

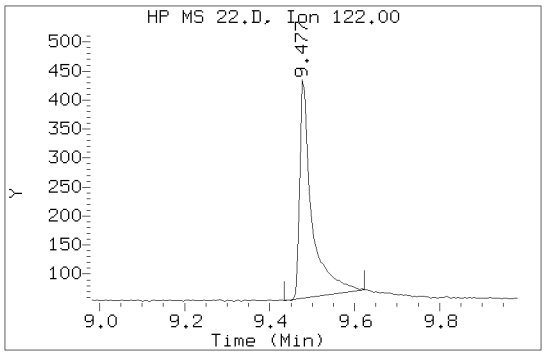
MASS
212
AREA
0
HEIGHT
0
26-Jan-2023
18:32
ALSHS
Server



Reason Code:

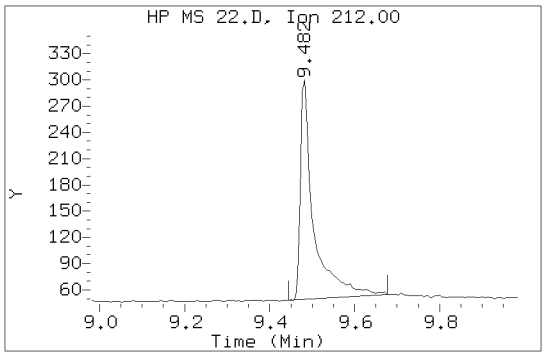
AFTER

MASS
122
AREA
740
HEIGHT
376
27-Jan-2023
11:55



AFTER

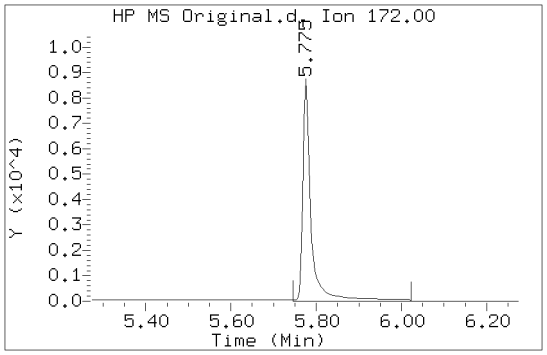
MASS
212
AREA
543
HEIGHT
250
27-Jan-2023
11:55



2-Fluorobiphenyl (321-60-8)

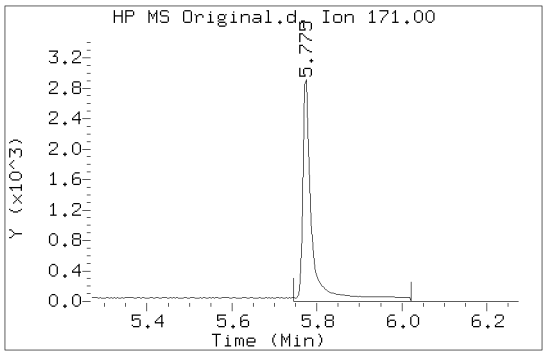
BEFORE

MASS
172
AREA
12027
HEIGHT
8749
26-Jan-2023
18:32
ALSHS
Server



BEFORE

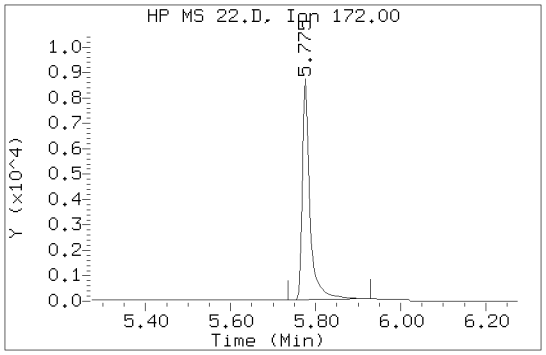
MASS
171
AREA
4538
HEIGHT
2913
26-Jan-2023
18:32
ALSHS
Server



Reason Code:

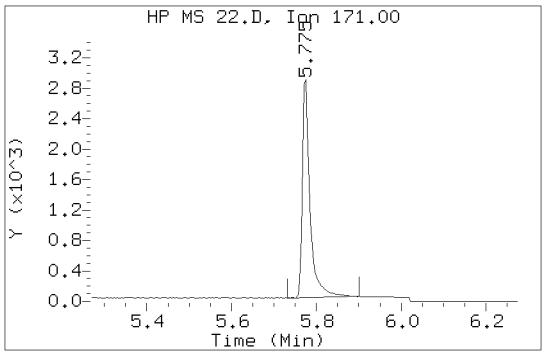
AFTER

MASS
172
AREA
10723
HEIGHT
8683
27-Jan-2023
11:55



AFTER

MASS
171
AREA
3612
HEIGHT
2862
27-Jan-2023
11:55



ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230126.b\23.D
Lab Smp Id: 1 4-DX-0.15 Client Smp ID: 1 4-DX-0.15
Inj Date : 26-JAN-2023 18:34
Operator : LG Inst ID: SV6.i
Smp Info : 1 4-DX-0.15;1 4-DX-0.15
Misc Info : ;;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\SV6.i\230126.b\DXSIM.m
Meth Date : 27-Jan-2023 11:55 SV6.i Quant Type: ISTD
Cal Date : 26-JAN-2023 18:16 Cal File: 22.D
Als bottle: 22 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7095

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)
* 20 1,4-Dichlorobenzene-d4	152	3.619	3.619	(1.000)	4099	0.10000	(aQM)
* 45 Naphthalene-d8	136	4.746	4.746	(1.000)	14161	0.10000	(M)
$ 33 Nitrobenzene-d5	82	4.092	4.092	(0.862)	6376	0.15000	0.1560(AM)
* 86 Acenaphthene-d10	164	6.429	6.429	(1.000)	7780	0.10000	(M)
$ 69 2-Fluorobiphenyl	172	5.775	5.775	(0.898)	15591	0.15000	0.1527(AM)
* 126 Phenanthrene-d10	188	7.884	7.884	(1.000)	15586	0.10000	
* 182 Chrysene-d12	240	10.752	10.752	(1.000)	4829	0.10000	(M)
$ 158 4-Terphenyl-d14	244	9.482	9.482	(0.882)	13832	0.15000	0.1483(M)
* 198 Perylene-d12	264	12.857	12.857	(1.000)	4032	0.10000	
1 1,4-Dioxane	58	1.836	1.836	(0.507)	2048	0.15000	0.1370(QM)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
exceeded maximum amount.
Q - Qualifier signal failed the ratio test.

M - Compound response manually integrated.

01182936

Data File: \\NAHSTWS005\Target\chem\SV6.i\230126.b\23.D

Date : 26-JAN-2023 18:34

Client ID: 1 4-DX-0.15

Instrument: SV6.i

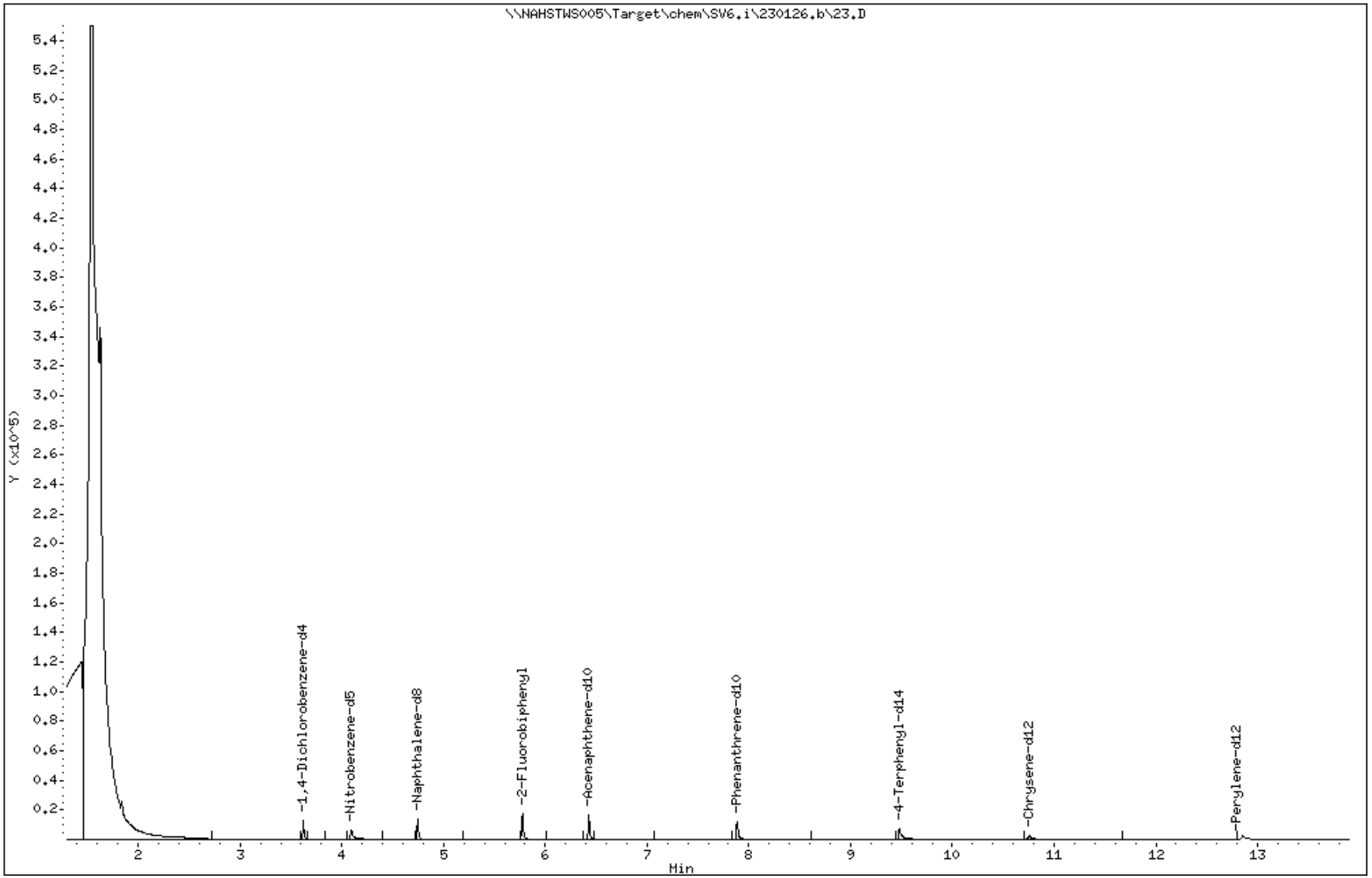
Sample Info: 1 4-DX-0.15;1 4-DX-0.15

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28



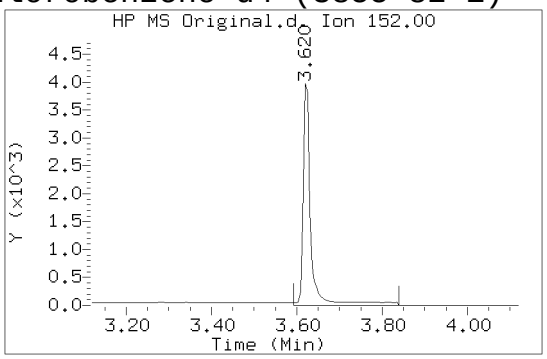
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\23.D
Inj Date : 26-JAN-2023 18:34
InstruID : SV6.i
LabSampID : 1 4-DX-0.15

1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

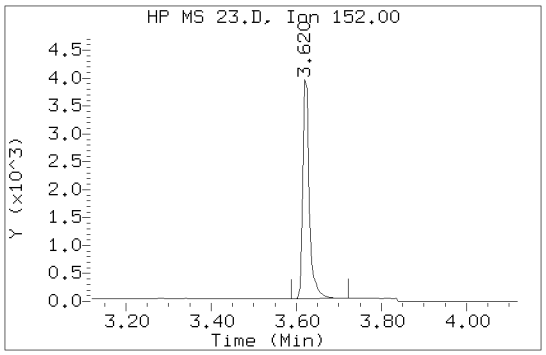
BEFORE

MASS
152
AREA
4880
HEIGHT
3972
26-Jan-2023
18:48
ALSHS
Server



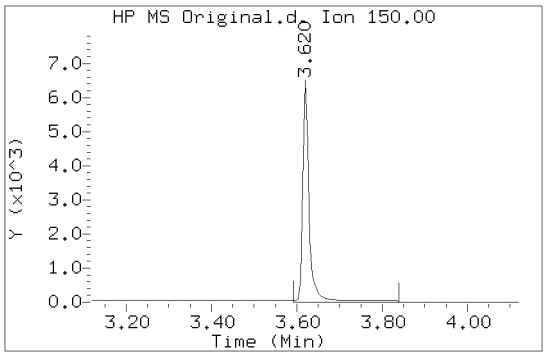
AFTER

MASS
152
AREA
4099
HEIGHT
3920
27-Jan-2023
11:55



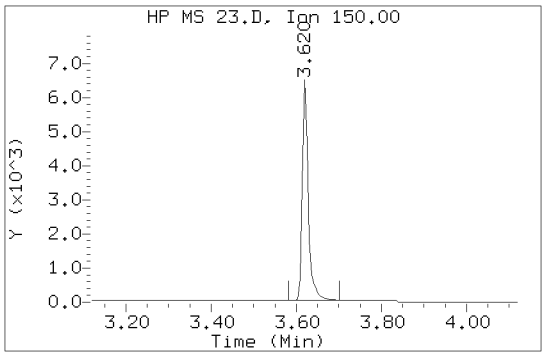
BEFORE

MASS
150
AREA
6931
HEIGHT
6517
26-Jan-2023
18:48
ALSHS
Server



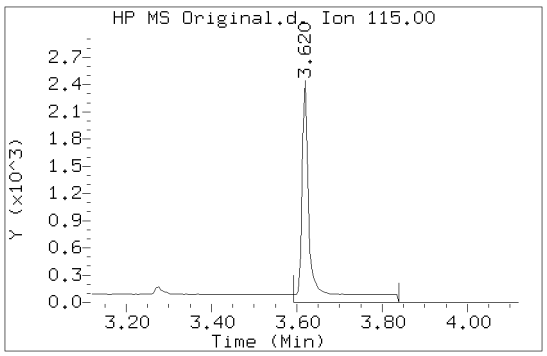
AFTER

MASS
150
AREA
6120
HEIGHT
6464
27-Jan-2023
11:55



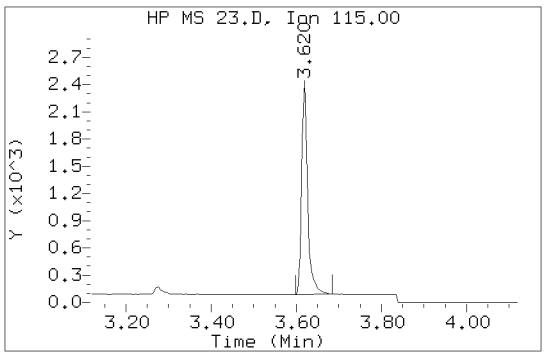
BEFORE

MASS
115
AREA
3520
HEIGHT
2443
26-Jan-2023
18:48
ALSHS
Server



AFTER

MASS
115
AREA
2245
HEIGHT
2356
27-Jan-2023
11:55

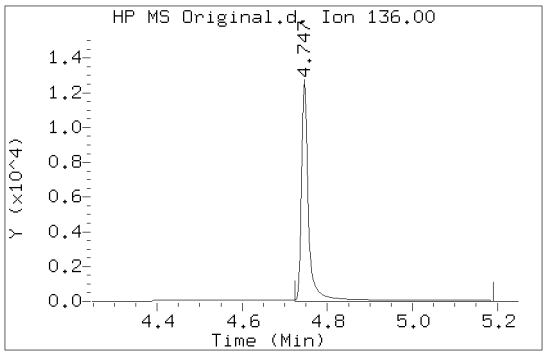


Naphthalene-d8 (1146-65-2)

Reason Code:

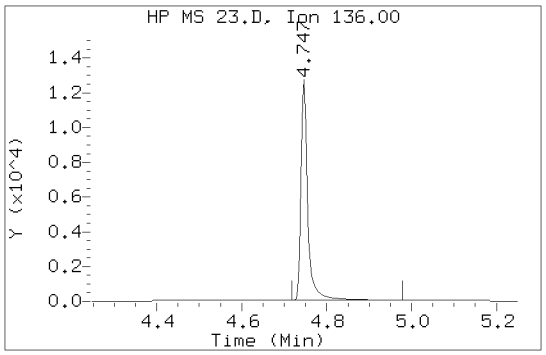
BEFORE

MASS
136
AREA
16171
HEIGHT
12754
26-Jan-2023
18:48
ALSHS
Server



AFTER

MASS
136
AREA
14161
HEIGHT
12688
27-Jan-2023
11:55



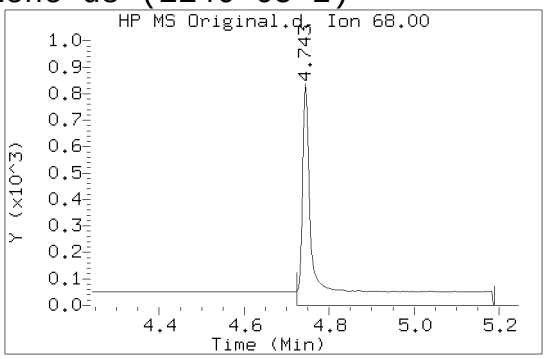
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\23.D
Inj Date : 26-JAN-2023 18:34
InstruID : SV6.i
LabSampID : 1 4-DX-0.15

Naphthalene-d8 (1146-65-2)

Reason Code:

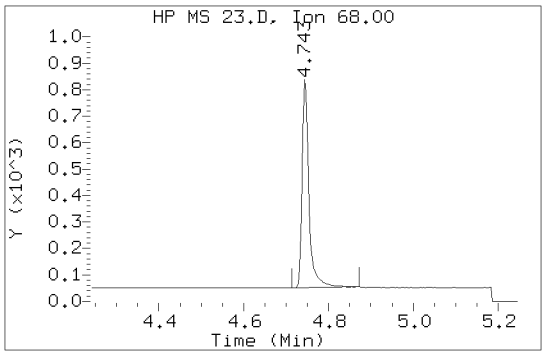
BEFORE

MASS
68
AREA
2330
HEIGHT
838
26-Jan-2023
18:48
ALSHS
Server



AFTER

MASS
68
AREA
874
HEIGHT
786
27-Jan-2023
11:55

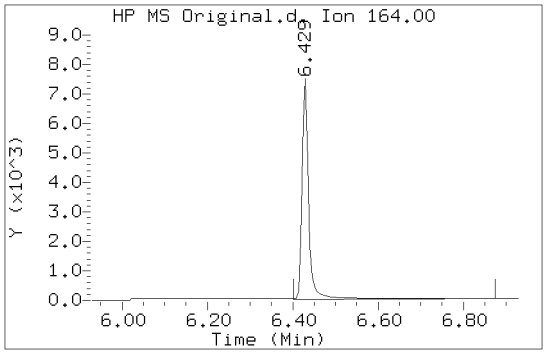


Acenaphthene-d10 (15067-26-2)

Reason Code:

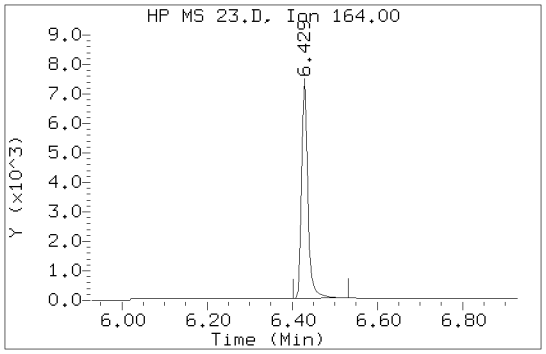
BEFORE

MASS
164
AREA
8455
HEIGHT
7488
26-Jan-2023
18:48
ALSHS
Server



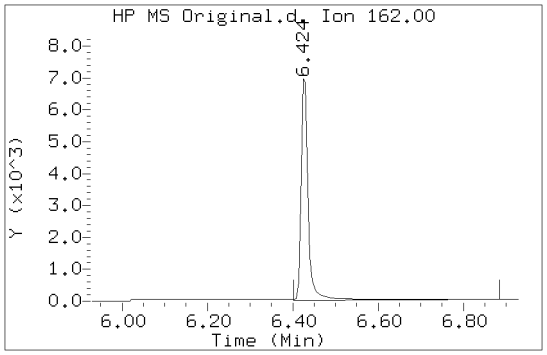
AFTER

MASS
164
AREA
7780
HEIGHT
7452
27-Jan-2023
11:55



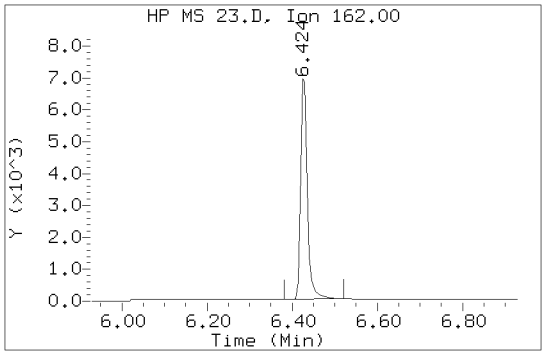
BEFORE

MASS
162
AREA
8373
HEIGHT
6943
26-Jan-2023
18:48
ALSHS
Server



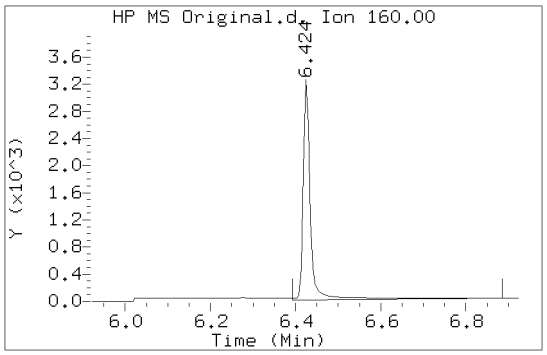
AFTER

MASS
162
AREA
7710
HEIGHT
6908
27-Jan-2023
11:55



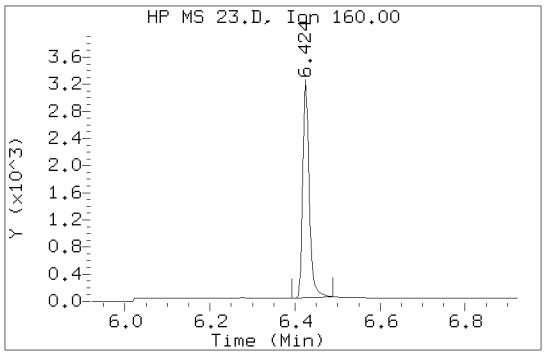
BEFORE

MASS
160
AREA
3831
HEIGHT
3245
26-Jan-2023
18:48
ALSHS
Server



AFTER

MASS
160
AREA
3286
HEIGHT
3212
27-Jan-2023
11:55



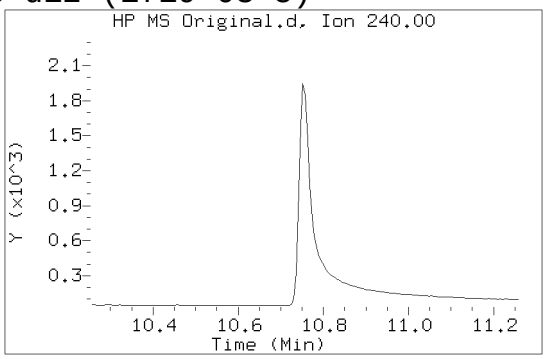
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\23.D
Inj Date : 26-JAN-2023 18:34
InstruID : SV6.i
LabSampID : 1 4-DX-0.15

Chrysene-d12 (1719-03-5)

Reason Code:

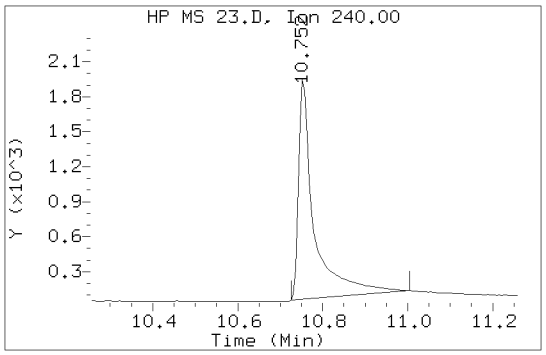
BEFORE

MASS
240
AREA
0
HEIGHT
0
26-Jan-2023
18:48
ALSHS
Server



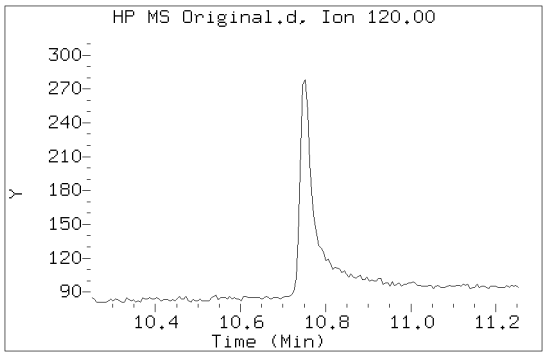
AFTER

MASS
240
AREA
4829
HEIGHT
1883
27-Jan-2023
11:55



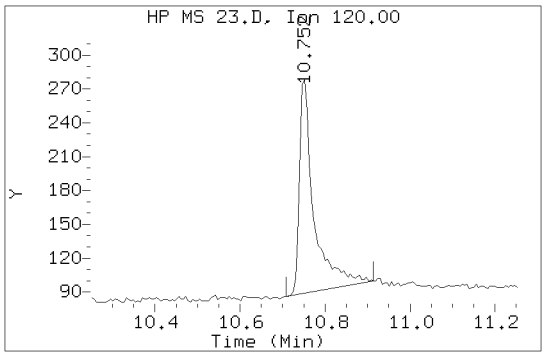
BEFORE

MASS
120
AREA
0
HEIGHT
0
26-Jan-2023
18:48
ALSHS
Server



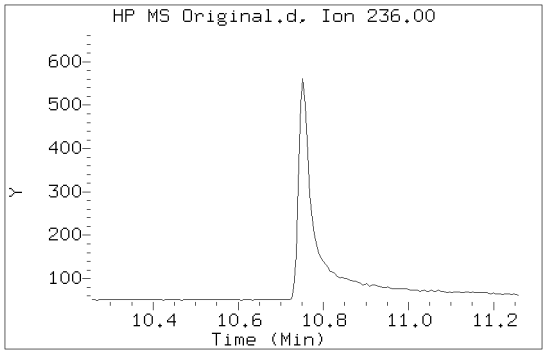
AFTER

MASS
120
AREA
446
HEIGHT
189
27-Jan-2023
11:55



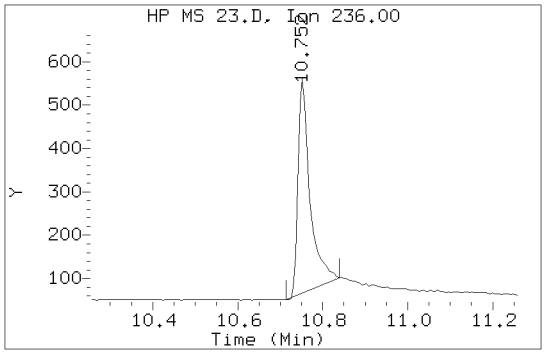
BEFORE

MASS
236
AREA
0
HEIGHT
0
26-Jan-2023
18:48
ALSHS
Server



AFTER

MASS
236
AREA
965
HEIGHT
494
27-Jan-2023
11:55

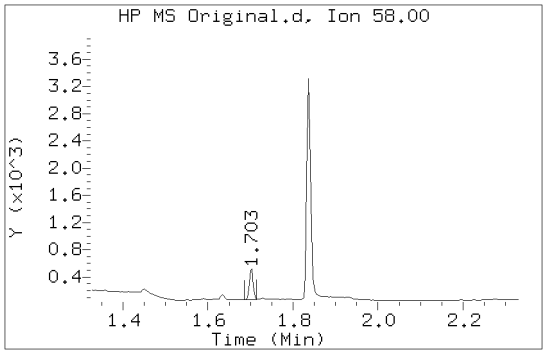


1,4-Dioxane ()

Reason Code:

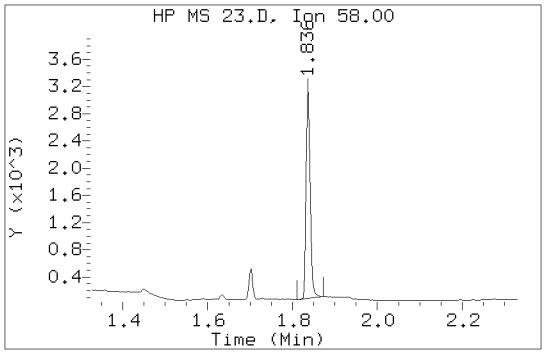
BEFORE

MASS
58
AREA
291
HEIGHT
448
26-Jan-2023
18:48
ALSHS
Server



AFTER

MASS
58
AREA
2048
HEIGHT
3226
27-Jan-2023
11:55



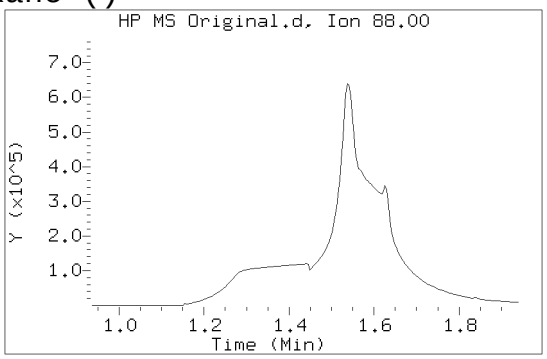
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\23.D
Inj Date : 26-JAN-2023 18:34
InstruID : SV6.i
LabSampID : 1 4-DX-0.15

1,4-Dioxane ()

Reason Code:

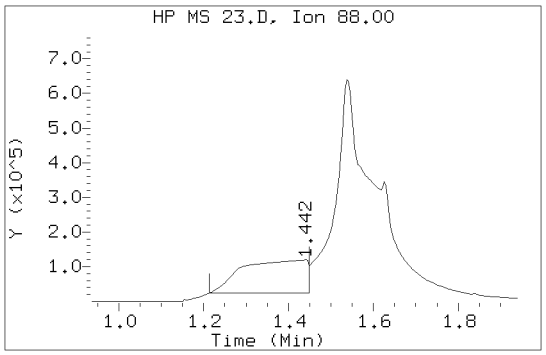
BEFORE

MASS
88
AREA
0
HEIGHT
0
26-Jan-2023
18:48
ALSHS
Server



AFTER

MASS
88
AREA
1010072
HEIGHT
96120
27-Jan-2023
11:55

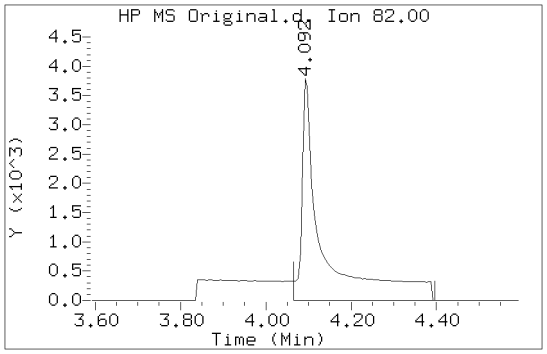


Nitrobenzene-d5 (4165-60-0)

Reason Code:

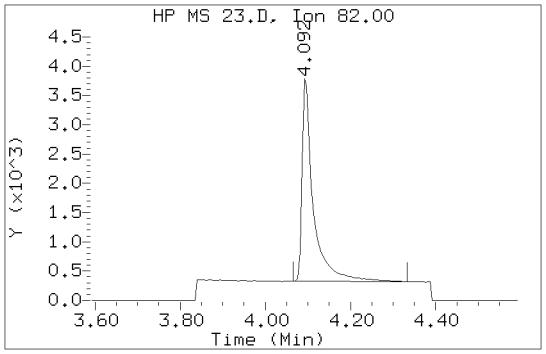
BEFORE

MASS
82
AREA
12644
HEIGHT
3788
26-Jan-2023
18:48
ALSHS
Server



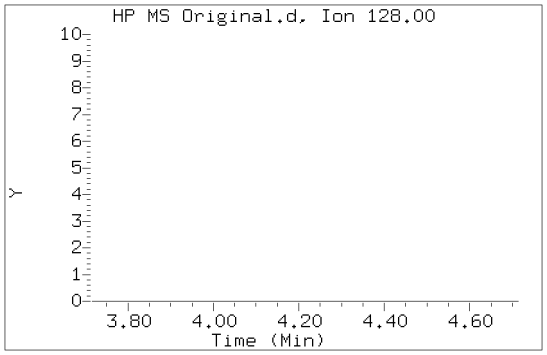
AFTER

MASS
82
AREA
6376
HEIGHT
3464
27-Jan-2023
11:55



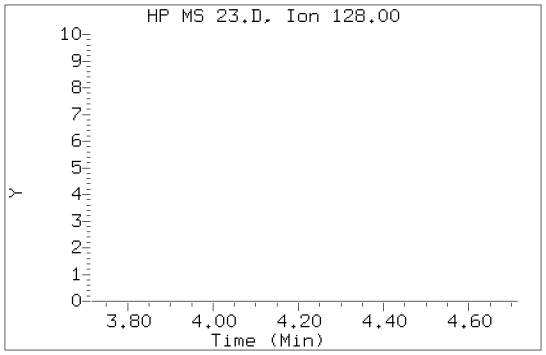
BEFORE

MASS
128
AREA
0
HEIGHT
0
26-Jan-2023
18:48
ALSHS
Server



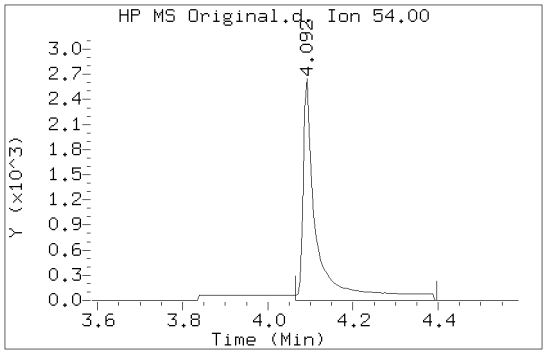
AFTER

MASS
128
AREA
0
HEIGHT
0
27-Jan-2023
11:55



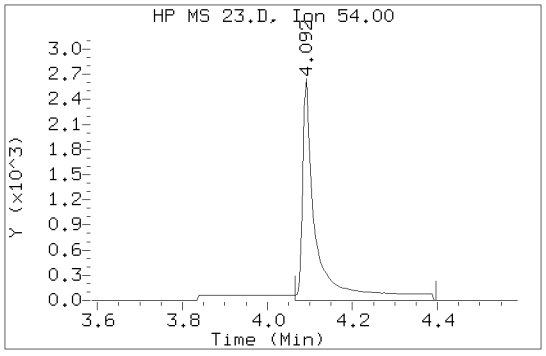
BEFORE

MASS
54
AREA
5958
HEIGHT
2647
26-Jan-2023
18:48
ALSHS
Server



AFTER

MASS
54
AREA
5958
HEIGHT
2647
27-Jan-2023
11:55

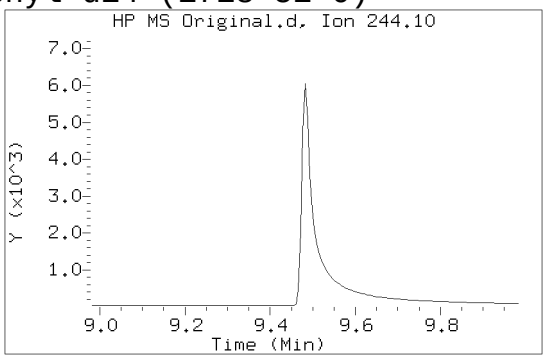


Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\23.D
Inj Date : 26-JAN-2023 18:34
InstruID : SV6.i
LabSampID : 1 4-DX-0.15

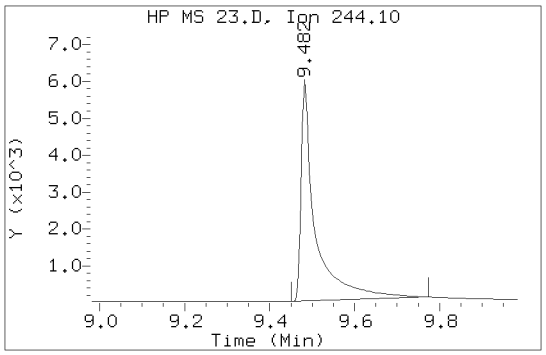
4-Terphenyl-d14 (1718-51-0)

Reason Code:

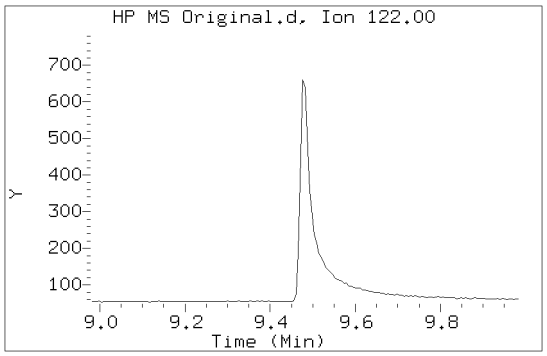
BEFORE
MASS
244.1
AREA
0
HEIGHT
0
26-Jan-2023
18:48
ALSHS
Server



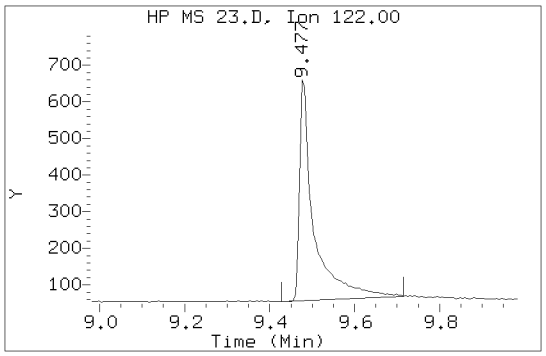
AFTER
MASS
244.1
AREA
13832
HEIGHT
5991
27-Jan-2023
11:55



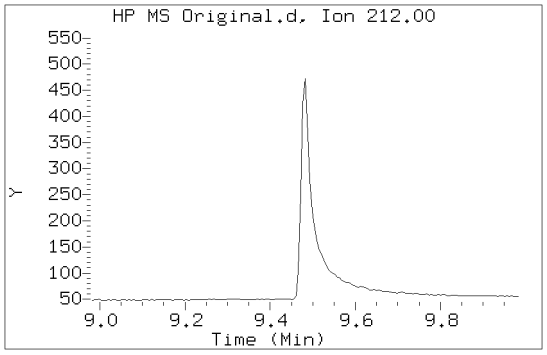
BEFORE
MASS
122
AREA
0
HEIGHT
0
26-Jan-2023
18:48
ALSHS
Server



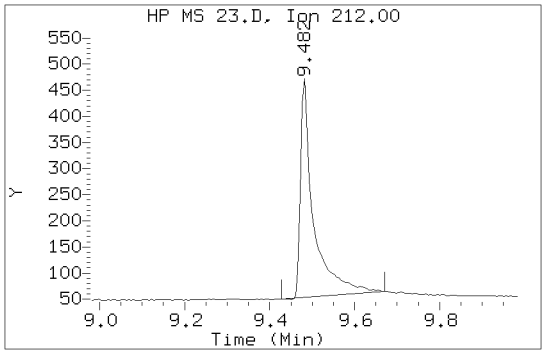
AFTER
MASS
122
AREA
1402
HEIGHT
602
27-Jan-2023
11:55



BEFORE
MASS
212
AREA
0
HEIGHT
0
26-Jan-2023
18:48
ALSHS
Server



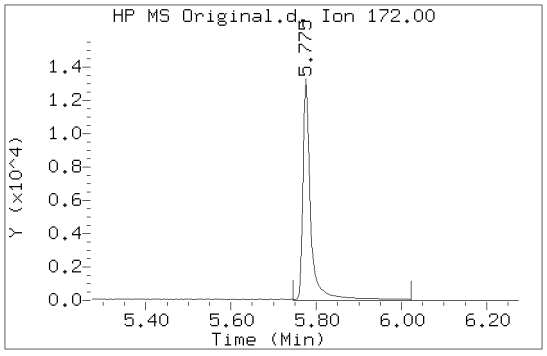
AFTER
MASS
212
AREA
891
HEIGHT
418
27-Jan-2023
11:55



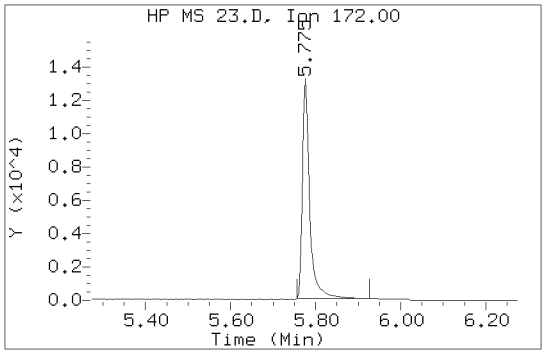
2-Fluorobiphenyl (321-60-8)

Reason Code:

BEFORE
MASS
172
AREA
17229
HEIGHT
13310
26-Jan-2023
18:48
ALSHS
Server



AFTER
MASS
172
AREA
15591
HEIGHT
13200
27-Jan-2023
11:55



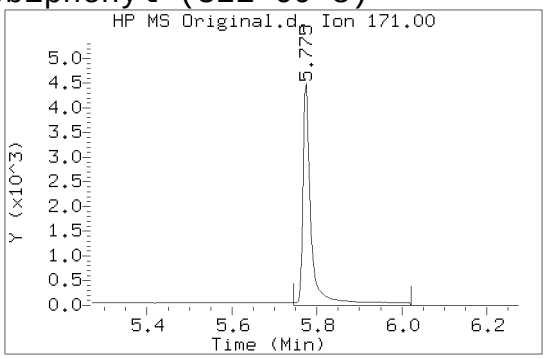
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\23.D
Inj Date : 26-JAN-2023 18:34
InstruID : SV6.i
LabSampID : 1 4-DX-0.15

2-Fluorobiphenyl (321-60-8)

Reason Code:

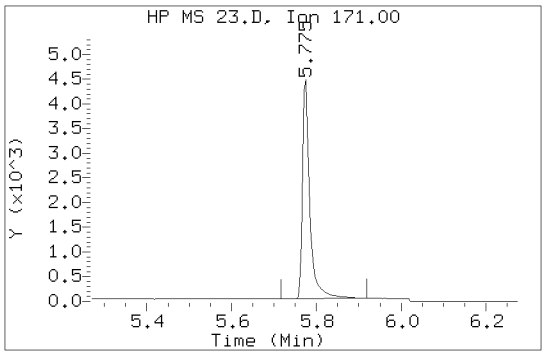
BEFORE

MASS
171
AREA
6311
HEIGHT
4491
26-Jan-2023
18:48
ALSHS
Server



AFTER

MASS
171
AREA
5369
HEIGHT
4439
27-Jan-2023
11:55



ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230126.b\24.D
Lab Smp Id: 1 4-DX-0.2 Client Smp ID: 1 4-DX-0.2
Inj Date : 26-JAN-2023 18:51
Operator : LG Inst ID: SV6.i
Smp Info : 1 4-DX-0.2;1 4-DX-0.2
Misc Info : ;;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\SV6.i\230126.b\DXSIM.m
Meth Date : 27-Jan-2023 11:55 SV6.i Quant Type: ISTD
Cal Date : 26-JAN-2023 18:34 Cal File: 23.D
Als bottle: 23 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7095

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)
* 20 1,4-Dichlorobenzene-d4	152	3.625	3.625	(1.000)	5356	0.10000	(aM)
* 45 Naphthalene-d8	136	4.747	4.747	(1.000)	18077	0.10000	(M)
$ 33 Nitrobenzene-d5	82	4.092	4.092	(0.862)	11045	0.20000	0.2118(AM)
* 86 Acenaphthene-d10	164	6.429	6.429	(1.000)	10240	0.10000	(M)
$ 69 2-Fluorobiphenyl	172	5.775	5.775	(0.898)	27466	0.20000	0.2044(AM)
* 126 Phenanthrene-d10	188	7.885	7.885	(1.000)	19448	0.10000	(M)
* 182 Chrysene-d12	240	10.752	10.752	(1.000)	5776	0.10000	(M)
$ 158 4-Terphenyl-d14	244	9.482	9.482	(0.882)	24628	0.20000	0.2089(AM)
* 198 Perylene-d12	264	12.857	12.857	(1.000)	5116	0.10000	
1 1,4-Dioxane	58	1.854	1.854	(0.512)	3683	0.20000	0.1885(QM)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
exceeded maximum amount.
Q - Qualifier signal failed the ratio test.

M - Compound response manually integrated.

01182945

Data File: \\NAHSTWS005\Target\chem\SV6.i\230126.b\24.D

Date : 26-JAN-2023 18:51

Client ID: 1 4-DX-0.2

Instrument: SV6.i

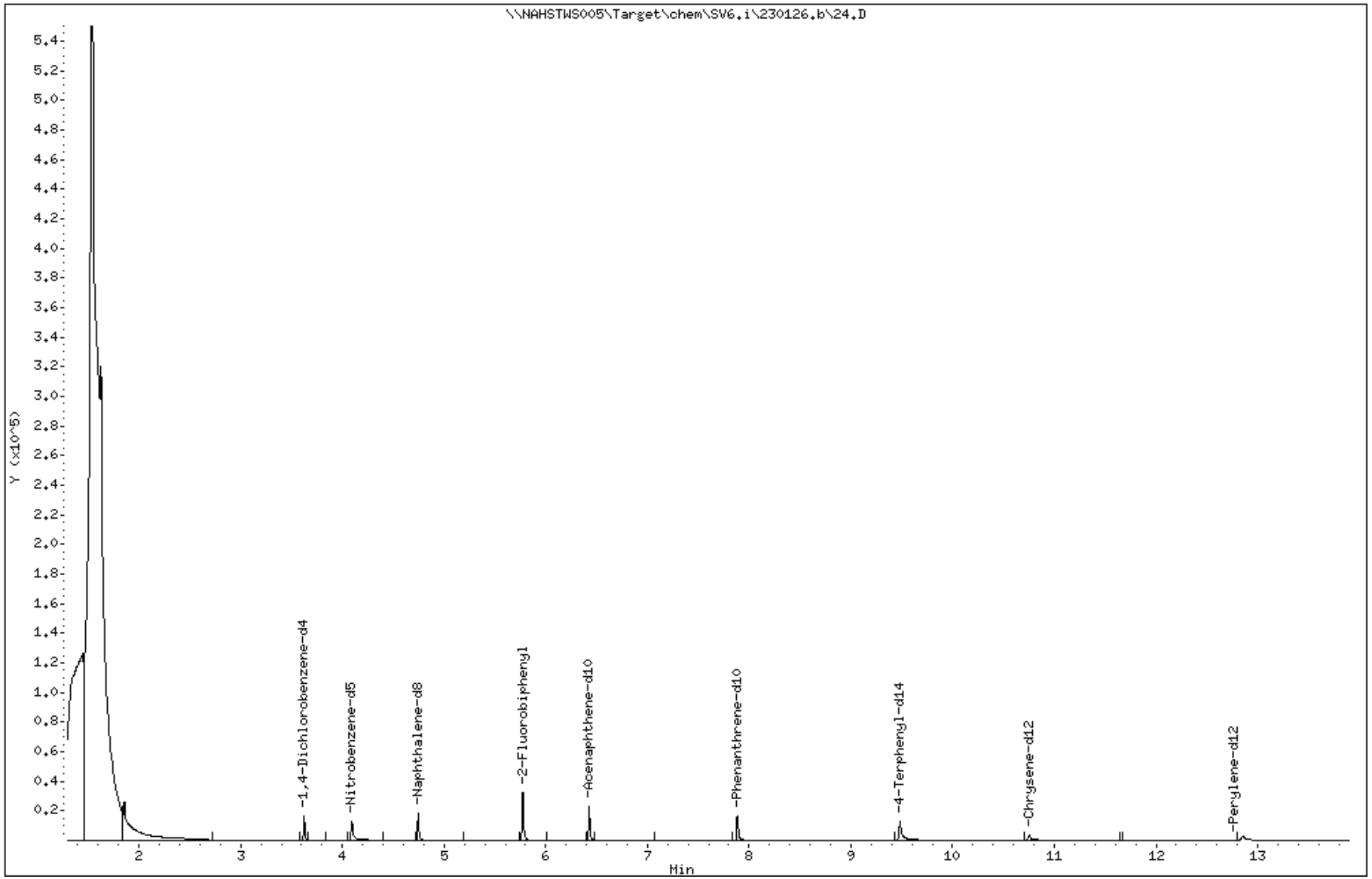
Sample Info: 1 4-DX-0.2;1 4-DX-0.2

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28



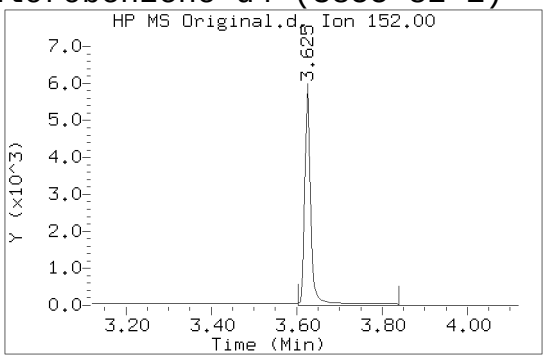
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\24.D
Inj Date : 26-JAN-2023 18:51
InstruID : SV6.i
LabSampID : 1 4-DX-0.2

1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

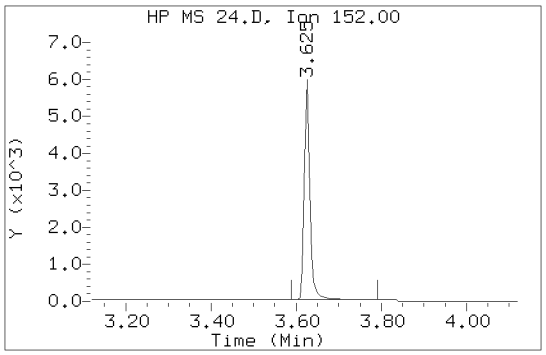
BEFORE

MASS
152
AREA
6088
HEIGHT
5993
26-Jan-2023
19:06
ALSHS
Server



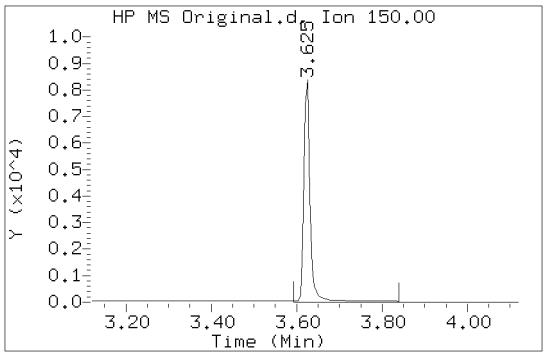
AFTER

MASS
152
AREA
5356
HEIGHT
5942
27-Jan-2023
11:55



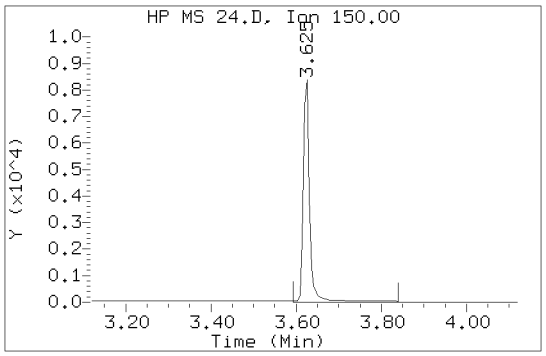
BEFORE

MASS
150
AREA
8795
HEIGHT
8381
26-Jan-2023
19:06
ALSHS
Server



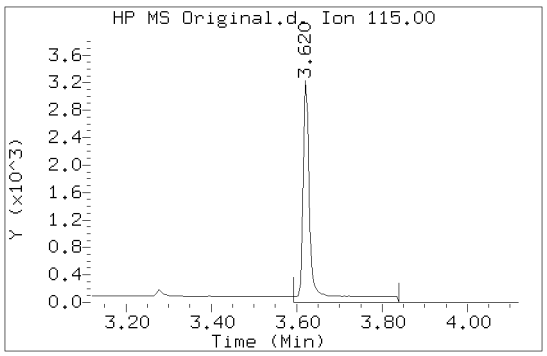
AFTER

MASS
150
AREA
8795
HEIGHT
8381
27-Jan-2023
11:55



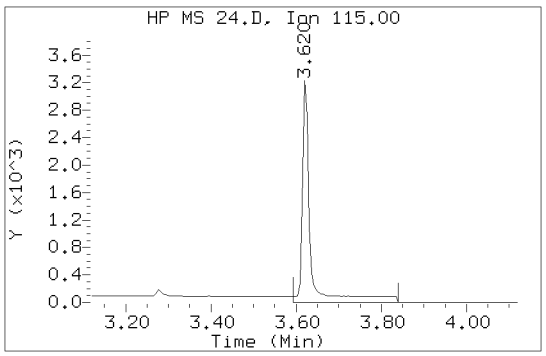
BEFORE

MASS
115
AREA
4214
HEIGHT
3230
26-Jan-2023
19:06
ALSHS
Server



AFTER

MASS
115
AREA
4214
HEIGHT
3230
27-Jan-2023
11:55

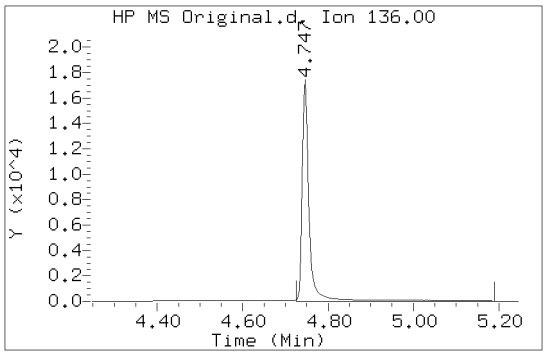


Naphthalene-d8 (1146-65-2)

Reason Code:

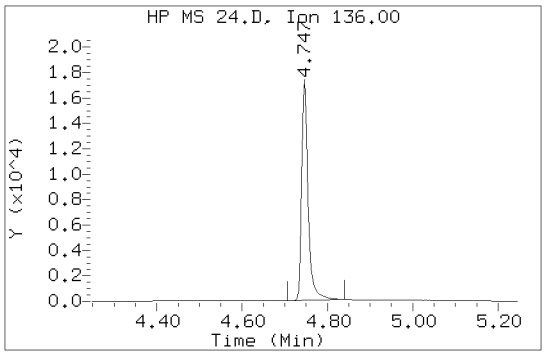
BEFORE

MASS
136
AREA
20575
HEIGHT
17440
26-Jan-2023
19:06
ALSHS
Server



AFTER

MASS
136
AREA
18077
HEIGHT
17352
27-Jan-2023
11:55



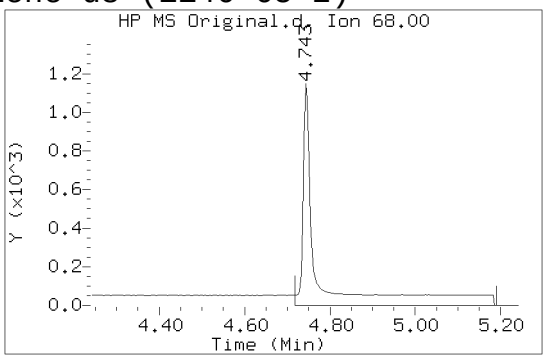
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\24.D
Inj Date : 26-JAN-2023 18:51
InstruID : SV6.i
LabSampID : 1 4-DX-0.2

Naphthalene-d8 (1146-65-2)

Reason Code:

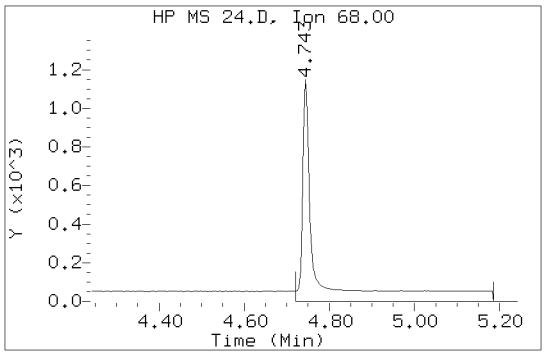
BEFORE

MASS
68
AREA
2661
HEIGHT
1148
26-Jan-2023
19:06
ALSHS
Server



AFTER

MASS
68
AREA
2649
HEIGHT
1148
27-Jan-2023
11:55

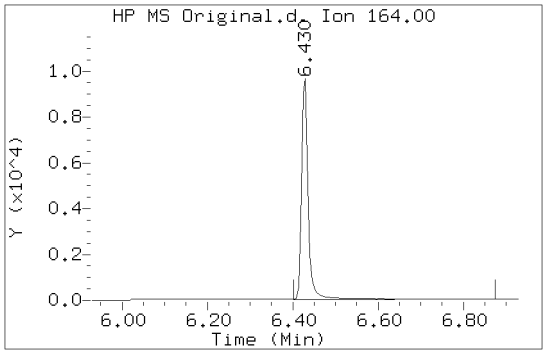


Acenaphthene-d10 (15067-26-2)

Reason Code:

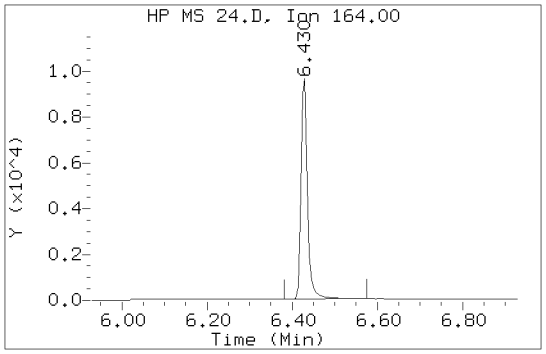
BEFORE

MASS
164
AREA
10835
HEIGHT
9644
26-Jan-2023
19:06
ALSHS
Server



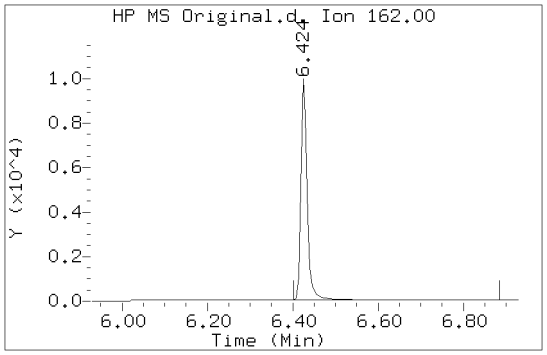
AFTER

MASS
164
AREA
10240
HEIGHT
9610
27-Jan-2023
11:55



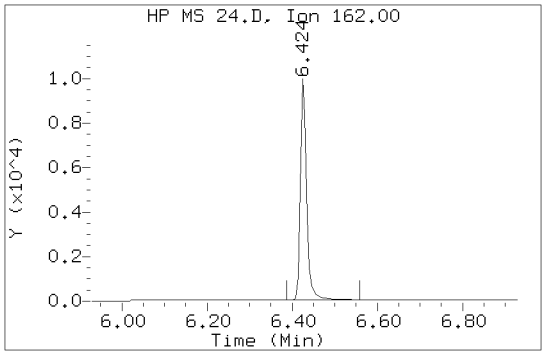
BEFORE

MASS
162
AREA
10270
HEIGHT
9933
26-Jan-2023
19:06
ALSHS
Server



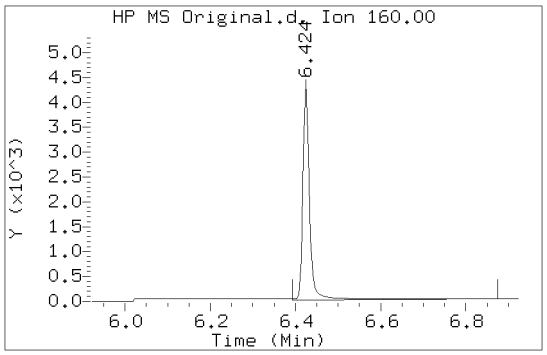
AFTER

MASS
162
AREA
10161
HEIGHT
9932
27-Jan-2023
11:55



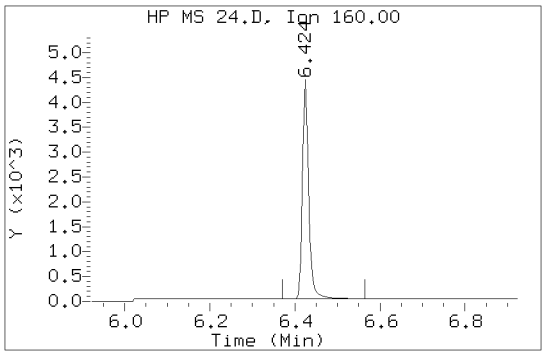
BEFORE

MASS
160
AREA
4853
HEIGHT
4435
26-Jan-2023
19:06
ALSHS
Server



AFTER

MASS
160
AREA
4390
HEIGHT
4408
27-Jan-2023
11:55



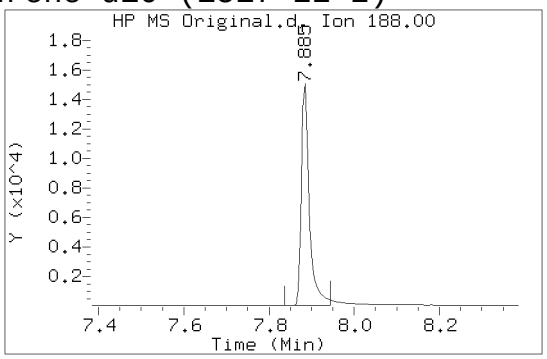
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\24.D
Inj Date : 26-JAN-2023 18:51
InstruID : SV6.i
LabSampID : 1 4-DX-0.2

Phenanthrene-d10 (1517-22-2)

Reason Code:

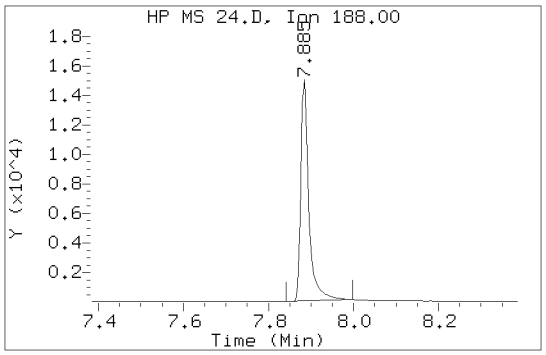
BEFORE

MASS
188
AREA
19386
HEIGHT
15029
26-Jan-2023
19:06
ALSHS
Server



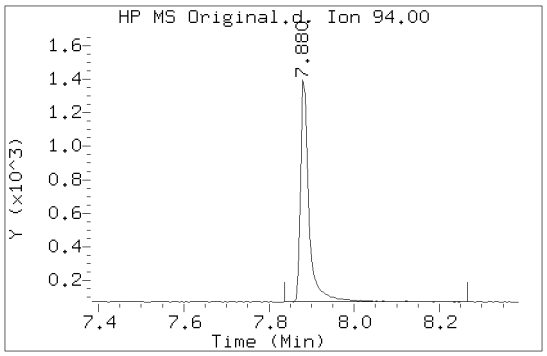
AFTER

MASS
188
AREA
19448
HEIGHT
14998
27-Jan-2023
11:55



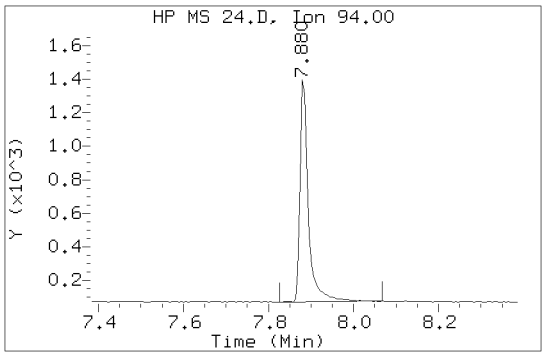
BEFORE

MASS
94
AREA
1839
HEIGHT
1327
26-Jan-2023
19:06
ALSHS
Server



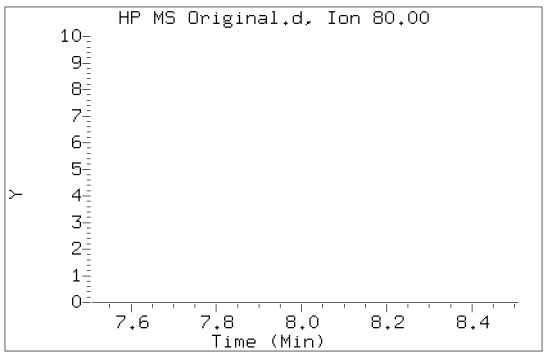
AFTER

MASS
94
AREA
1800
HEIGHT
1326
27-Jan-2023
11:55



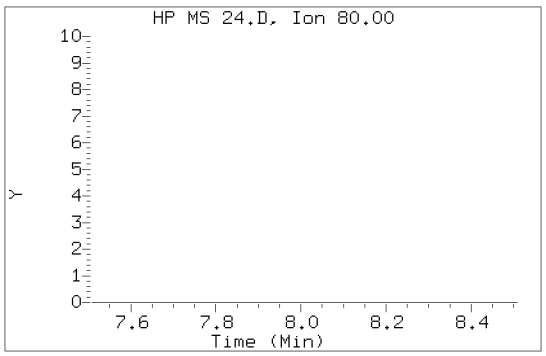
BEFORE

MASS
80
AREA
0
HEIGHT
0
26-Jan-2023
19:06
ALSHS
Server



AFTER

MASS
80
AREA
0
HEIGHT
0
27-Jan-2023
11:55

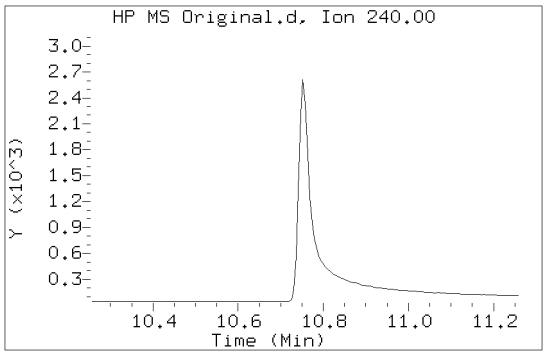


Chrysene-d12 (1719-03-5)

Reason Code:

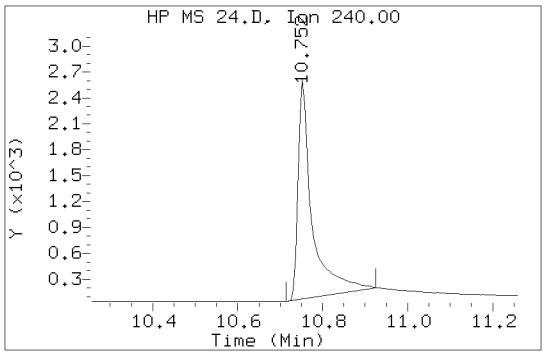
BEFORE

MASS
240
AREA
0
HEIGHT
0
26-Jan-2023
19:06
ALSHS
Server



AFTER

MASS
240
AREA
5776
HEIGHT
2533
27-Jan-2023
11:55

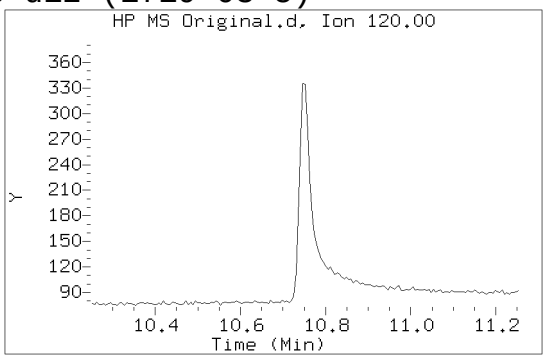


Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\24.D
Inj Date : 26-JAN-2023 18:51
InstruID : SV6.i
LabSampID : 1 4-DX-0.2

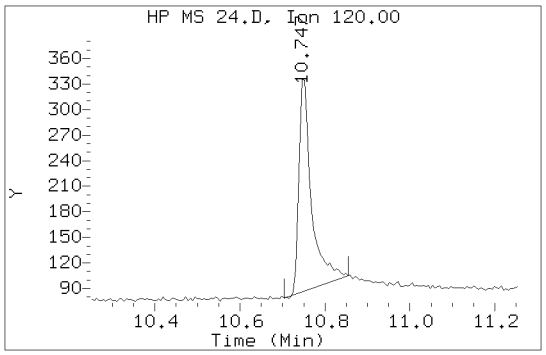
Chrysene-d12 (1719-03-5)

Reason Code:

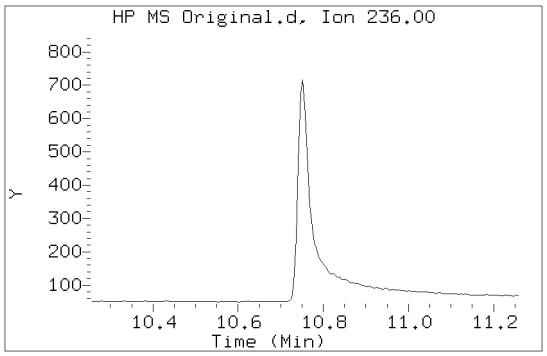
BEFORE
MASS
120
AREA
0
HEIGHT
0
26-Jan-2023
19:06
ALSHS
Server



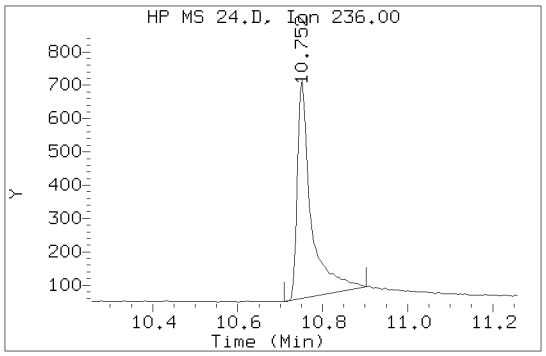
AFTER
MASS
120
AREA
511
HEIGHT
248
27-Jan-2023
11:55



BEFORE
MASS
236
AREA
0
HEIGHT
0
26-Jan-2023
19:06
ALSHS
Server



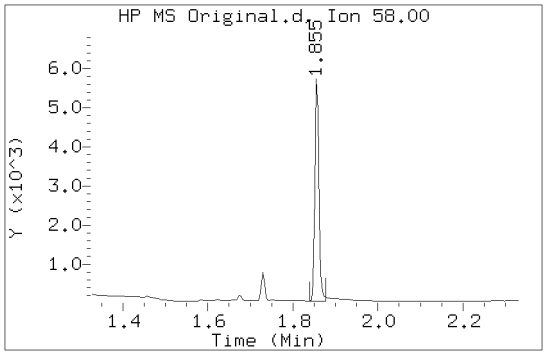
AFTER
MASS
236
AREA
1471
HEIGHT
655
27-Jan-2023
11:55



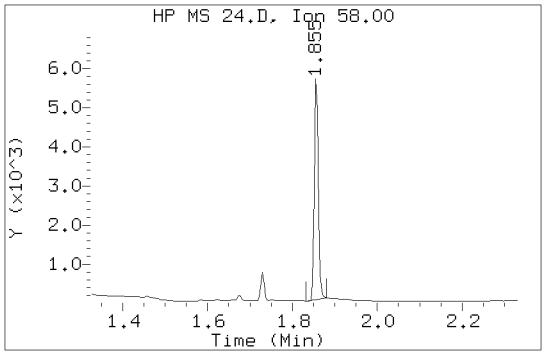
1,4-Dioxane ()

Reason Code:

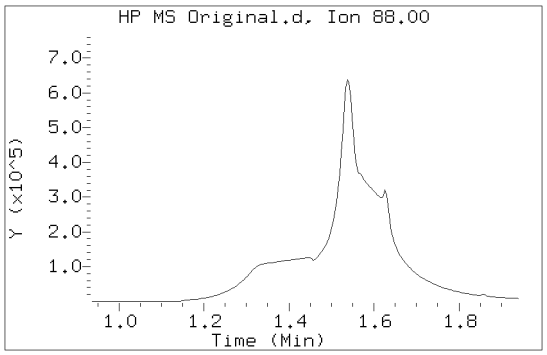
BEFORE
MASS
58
AREA
3790
HEIGHT
5675
26-Jan-2023
19:06
ALSHS
Server



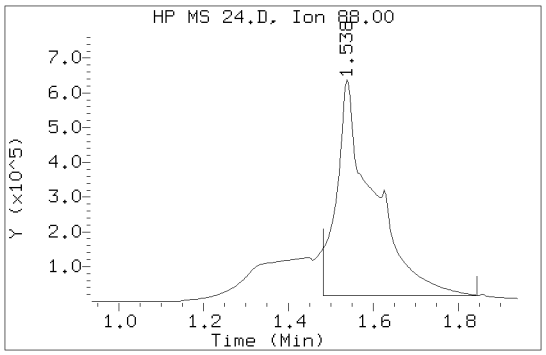
AFTER
MASS
58
AREA
3683
HEIGHT
5638
27-Jan-2023
11:55



BEFORE
MASS
88
AREA
0
HEIGHT
0
26-Jan-2023
19:06
ALSHS
Server



AFTER
MASS
88
AREA
3747570
HEIGHT
620736
27-Jan-2023
11:55



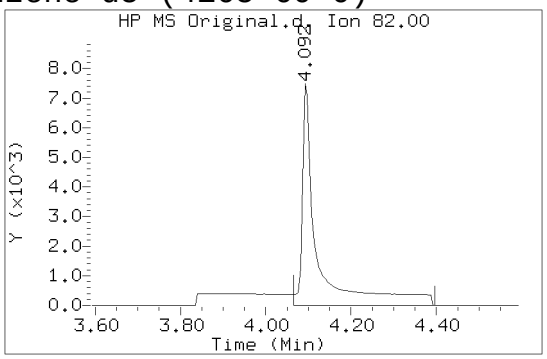
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\24.D
Inj Date : 26-JAN-2023 18:51
InstruID : SV6.i
LabSampID : 1 4-DX-0.2

Nitrobenzene-d5 (4165-60-0)

Reason Code:

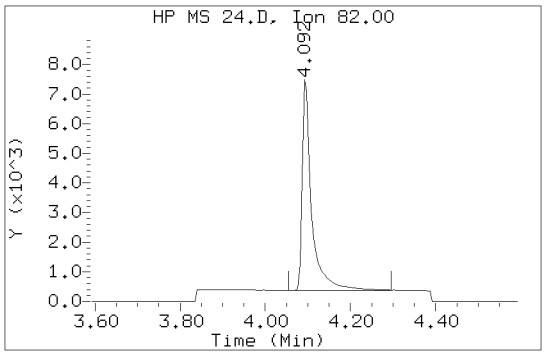
BEFORE

MASS
82
AREA
18228
HEIGHT
7484
26-Jan-2023
19:06
ALSHS
Server



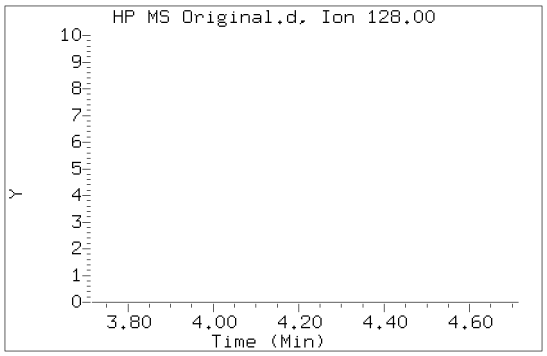
AFTER

MASS
82
AREA
11045
HEIGHT
7114
27-Jan-2023
11:55



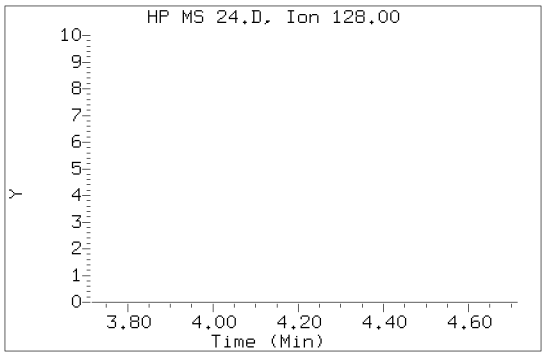
BEFORE

MASS
128
AREA
0
HEIGHT
0
26-Jan-2023
19:06
ALSHS
Server



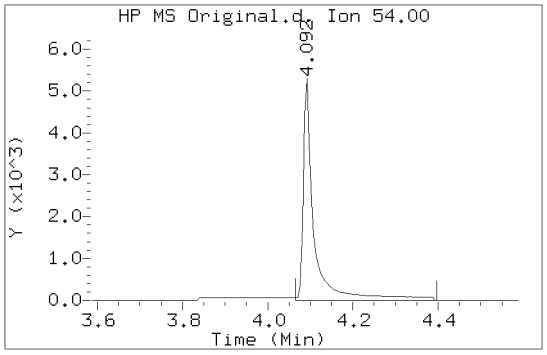
AFTER

MASS
128
AREA
0
HEIGHT
0
27-Jan-2023
11:55



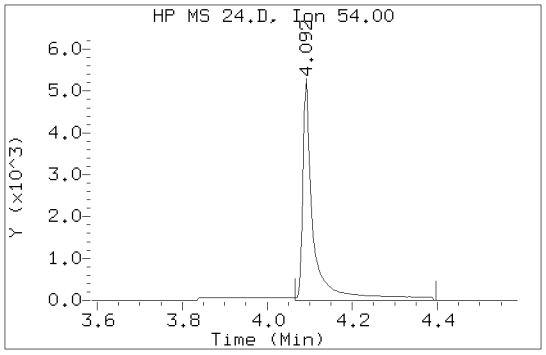
BEFORE

MASS
54
AREA
9366
HEIGHT
5295
26-Jan-2023
19:06
ALSHS
Server



AFTER

MASS
54
AREA
9366
HEIGHT
5295
27-Jan-2023
11:55

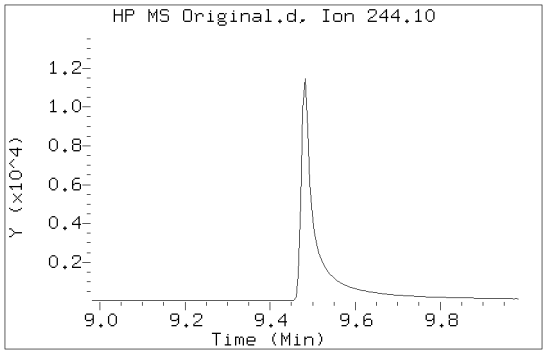


4-Terphenyl-d14 (1718-51-0)

Reason Code:

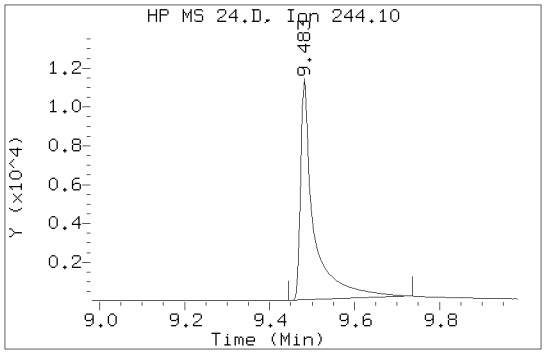
BEFORE

MASS
244.1
AREA
0
HEIGHT
0
26-Jan-2023
19:06
ALSHS
Server



AFTER

MASS
244.1
AREA
24628
HEIGHT
11383
27-Jan-2023
11:55



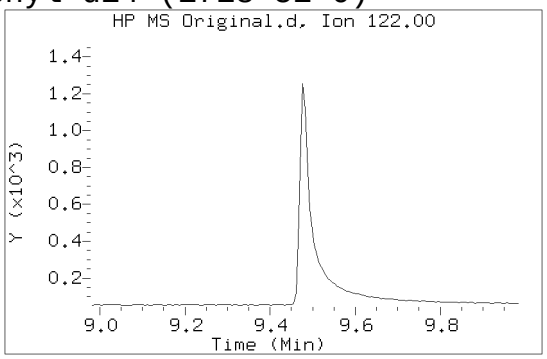
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\24.D
Inj Date : 26-JAN-2023 18:51
InstruID : SV6.i
LabSampID : 1 4-DX-0.2

4-Terphenyl-d14 (1718-51-0)

Reason Code:

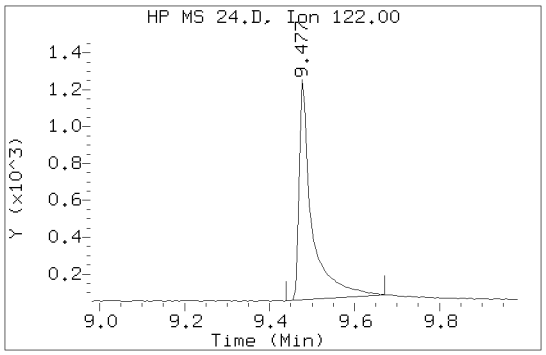
BEFORE

MASS
122
AREA
0
HEIGHT
0
26-Jan-2023
19:06
ALSHS
Server



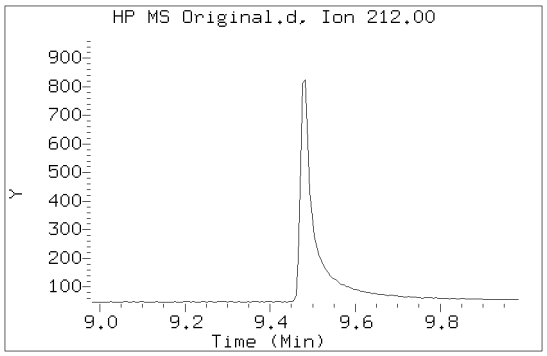
AFTER

MASS
122
AREA
2466
HEIGHT
1193
27-Jan-2023
11:55



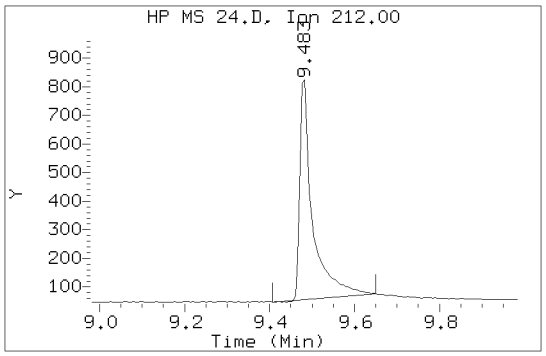
BEFORE

MASS
212
AREA
0
HEIGHT
0
26-Jan-2023
19:06
ALSHS
Server



AFTER

MASS
212
AREA
1594
HEIGHT
767
27-Jan-2023
11:55

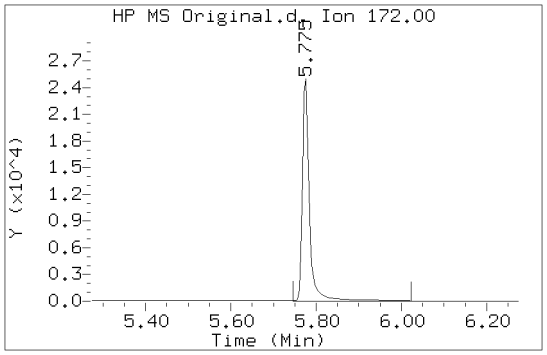


2-Fluorobiphenyl (321-60-8)

Reason Code:

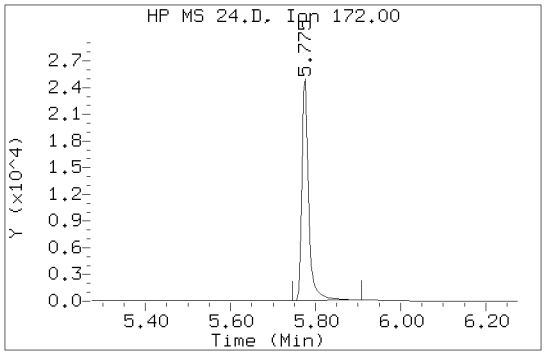
BEFORE

MASS
172
AREA
29099
HEIGHT
24976
26-Jan-2023
19:06
ALSHS
Server



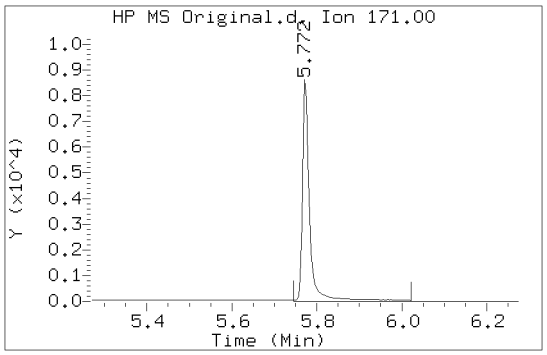
AFTER

MASS
172
AREA
27466
HEIGHT
24904
27-Jan-2023
11:55



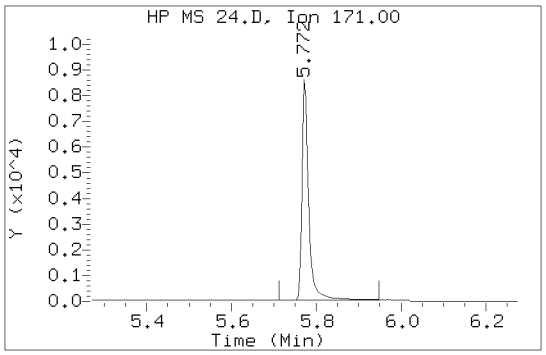
BEFORE

MASS
171
AREA
10346
HEIGHT
8624
26-Jan-2023
19:06
ALSHS
Server



AFTER

MASS
171
AREA
9413
HEIGHT
8573
27-Jan-2023
11:55



ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230126.b\25.D
Lab Smp Id: 1 4-DX-0.5 Client Smp ID: 1 4-DX-0.5
Inj Date : 26-JAN-2023 19:09
Operator : LG Inst ID: SV6.i
Smp Info : 1 4-DX-0.5;1 4-DX-0.5
Misc Info : ;;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\SV6.i\230126.b\DXSIM.m
Meth Date : 27-Jan-2023 11:56 SV6.i Quant Type: ISTD
Cal Date : 26-JAN-2023 18:51 Cal File: 24.D
Als bottle: 24 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7095

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)
* 20 1,4-Dichlorobenzene-d4	152	3.619	3.619	(1.000)	3987	0.10000	(aM)
* 45 Naphthalene-d8	136	4.746	4.746	(1.000)	13771	0.10000	(M)
$ 33 Nitrobenzene-d5	82	4.092	4.092	(0.862)	20261	0.50000	0.5099(AM)
* 86 Acenaphthene-d10	164	6.429	6.429	(1.000)	7556	0.10000	(M)
$ 69 2-Fluorobiphenyl	172	5.775	5.775	(0.898)	51391	0.50000	0.5182(AM)
* 126 Phenanthrene-d10	188	7.884	7.884	(1.000)	15367	0.10000	
* 182 Chrysene-d12	240	10.757	10.757	(1.000)	3979	0.10000	(M)
$ 158 4-Terphenyl-d14	244	9.482	9.482	(0.881)	48596	0.50000	0.4992(AM)
* 198 Perylene-d12	264	12.862	12.862	(1.000)	3426	0.10000	
1 1,4-Dioxane	58	1.828	1.828	(0.505)	6578	0.50000	0.4523(QM)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
exceeded maximum amount.
Q - Qualifier signal failed the ratio test.

M - Compound response manually integrated.

01182954

Data File: \\NAHSTWS005\Target\chem\SV6.i\230126.b\25.D

Date : 26-JAN-2023 19:09

Client ID: 1 4-DX-0.5

Instrument: SV6.i

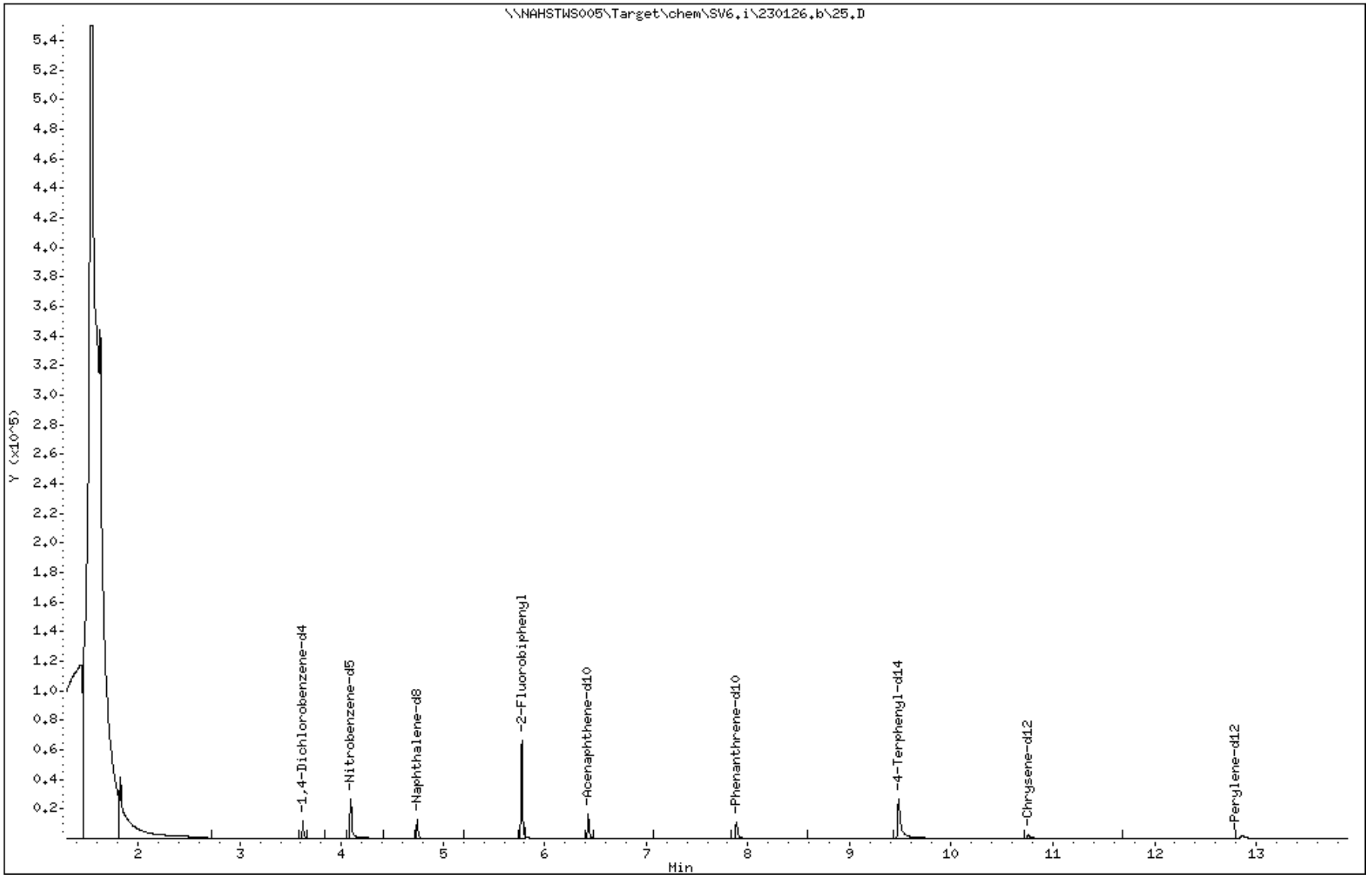
Sample Info: 1 4-DX-0.5;1 4-DX-0.5

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28

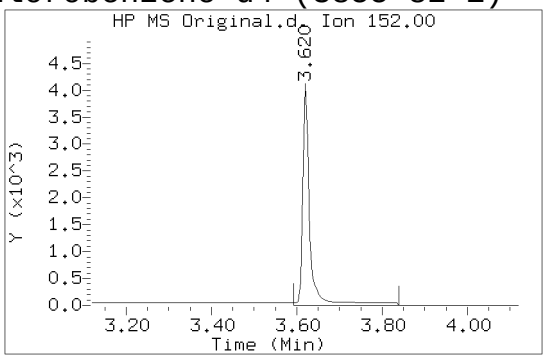


Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\25.D
Inj Date : 26-JAN-2023 19:09
InstruID : SV6.i
LabSampID : 1 4-DX-0.5

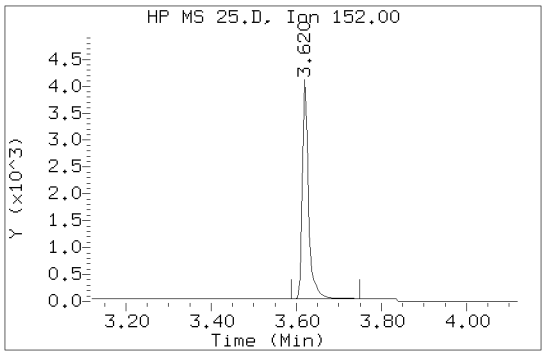
1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

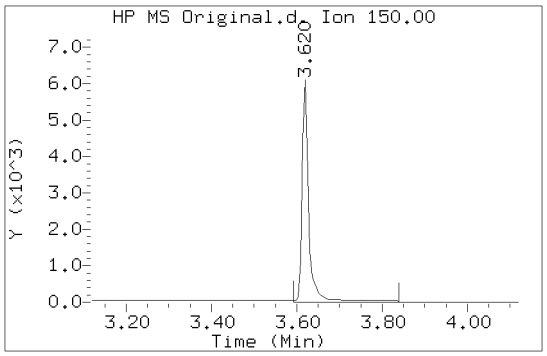
BEFORE
MASS
152
AREA
4746
HEIGHT
4125
26-Jan-2023
19:25
ALSHS
Server



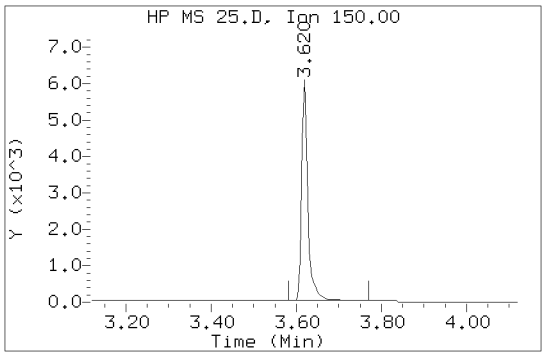
AFTER
MASS
152
AREA
3987
HEIGHT
4075
27-Jan-2023
11:55



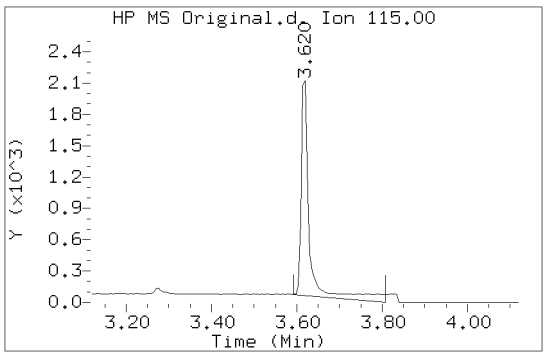
BEFORE
MASS
150
AREA
6719
HEIGHT
6101
26-Jan-2023
19:25
ALSHS
Server



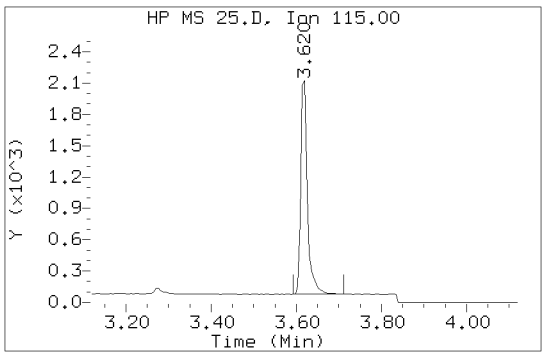
AFTER
MASS
150
AREA
5981
HEIGHT
6052
27-Jan-2023
11:55



BEFORE
MASS
115
AREA
2721
HEIGHT
2057
26-Jan-2023
19:25
ALSHS
Server



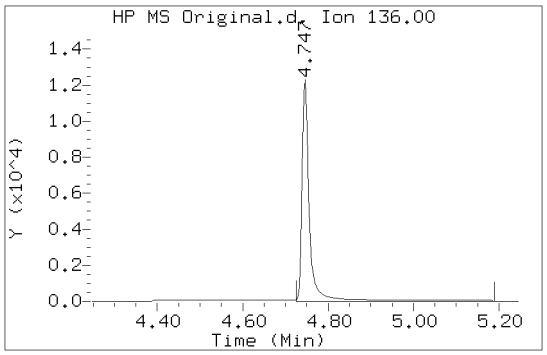
AFTER
MASS
115
AREA
2196
HEIGHT
2045
27-Jan-2023
11:55



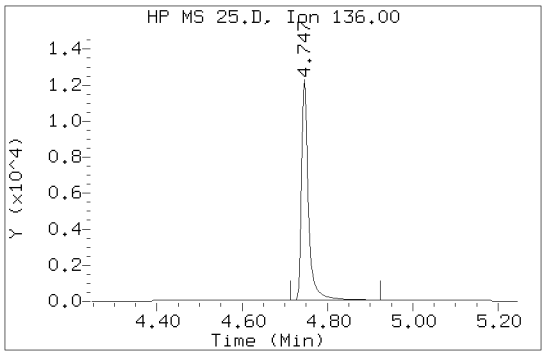
Naphthalene-d8 (1146-65-2)

Reason Code:

BEFORE
MASS
136
AREA
15738
HEIGHT
12301
26-Jan-2023
19:25
ALSHS
Server



AFTER
MASS
136
AREA
13771
HEIGHT
12236
27-Jan-2023
11:55



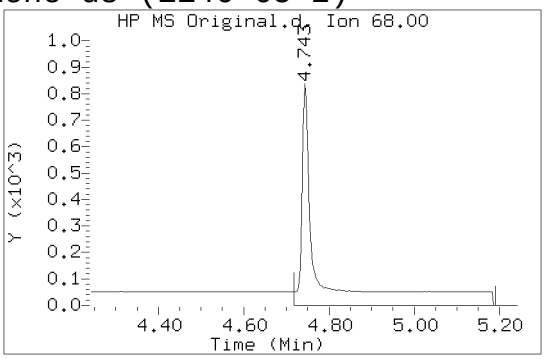
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\25.D
Inj Date : 26-JAN-2023 19:09
InstruID : SV6.i
LabSampID : 1 4-DX-0.5

Naphthalene-d8 (1146-65-2)

Reason Code:

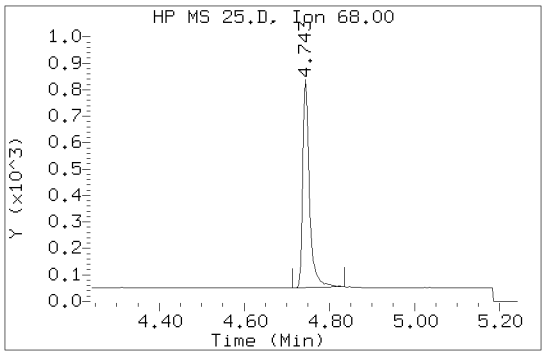
BEFORE

MASS
68
AREA
2324
HEIGHT
838
26-Jan-2023
19:25
ALSHS
Server



AFTER

MASS
68
AREA
859
HEIGHT
785
27-Jan-2023
11:55

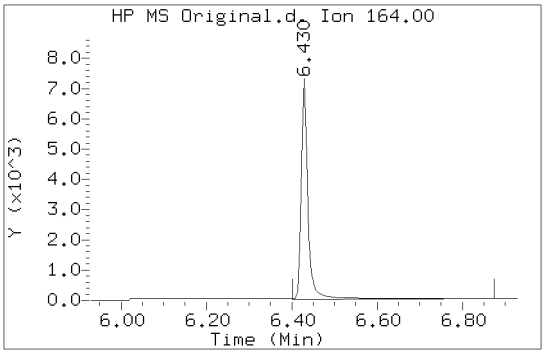


Acenaphthene-d10 (15067-26-2)

Reason Code:

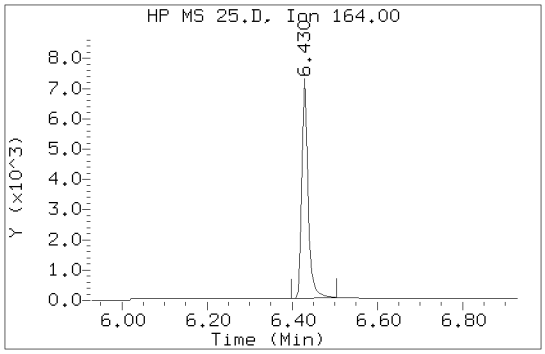
BEFORE

MASS
164
AREA
8287
HEIGHT
7297
26-Jan-2023
19:25
ALSHS
Server



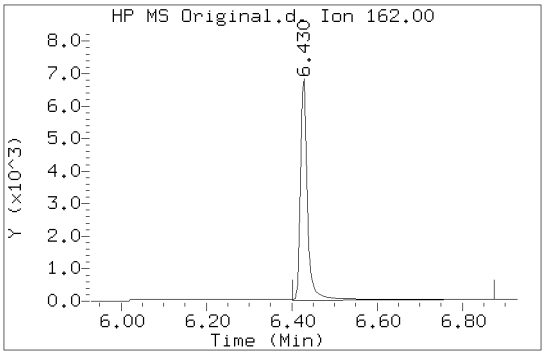
AFTER

MASS
164
AREA
7556
HEIGHT
7256
27-Jan-2023
11:55



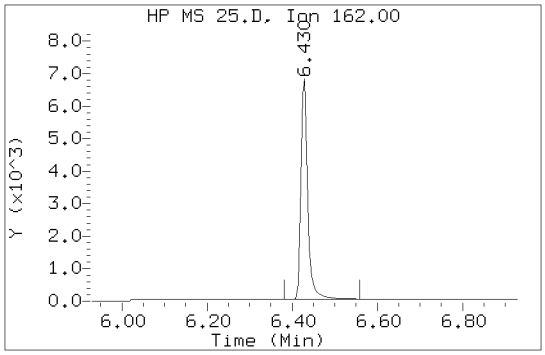
BEFORE

MASS
162
AREA
8184
HEIGHT
6810
26-Jan-2023
19:25
ALSHS
Server



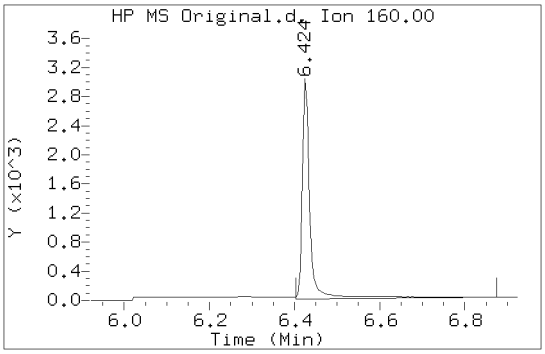
AFTER

MASS
162
AREA
7631
HEIGHT
6780
27-Jan-2023
11:55



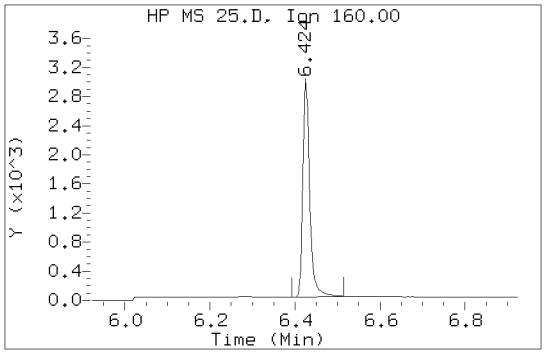
BEFORE

MASS
160
AREA
3710
HEIGHT
3023
26-Jan-2023
19:25
ALSHS
Server



AFTER

MASS
160
AREA
3264
HEIGHT
2996
27-Jan-2023
11:55

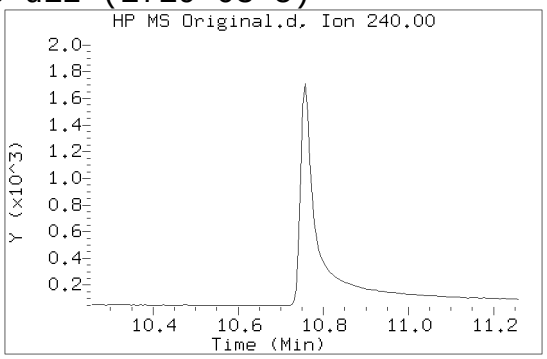


Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\25.D
Inj Date : 26-JAN-2023 19:09
InstruID : SV6.i
LabSampID : 1 4-DX-0.5

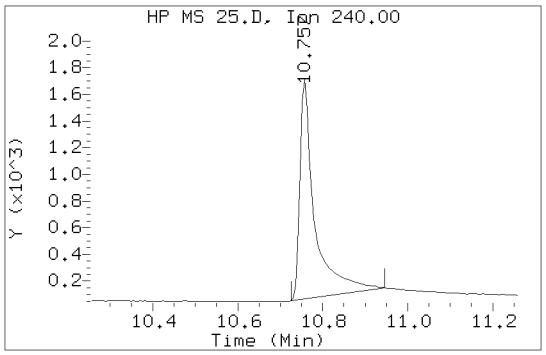
Chrysene-d12 (1719-03-5)

Reason Code:

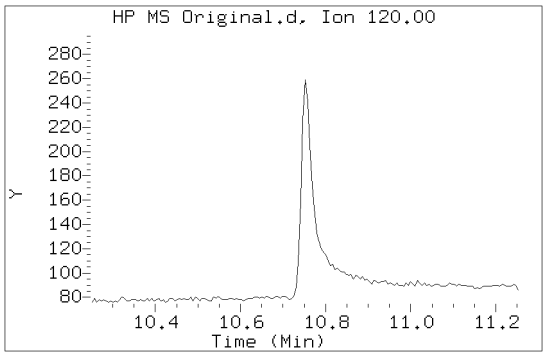
BEFORE
MASS
240
AREA
0
HEIGHT
0
26-Jan-2023
19:25
ALSHS
Server



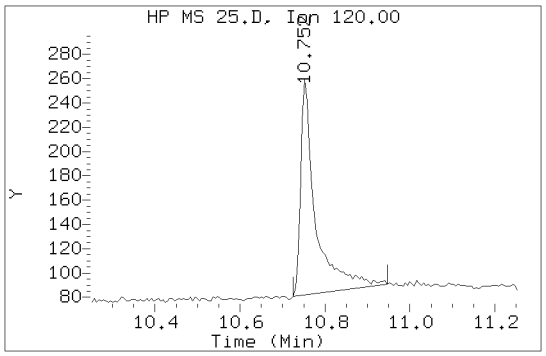
AFTER
MASS
240
AREA
3979
HEIGHT
1644
27-Jan-2023
11:55



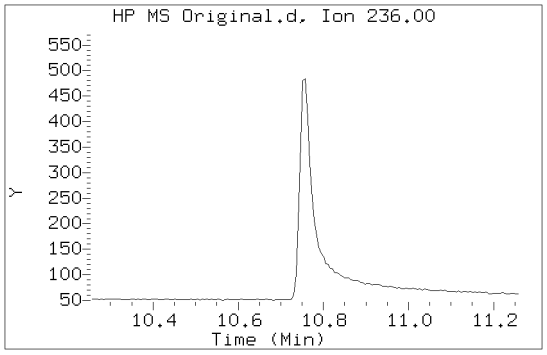
BEFORE
MASS
120
AREA
0
HEIGHT
0
26-Jan-2023
19:25
ALSHS
Server



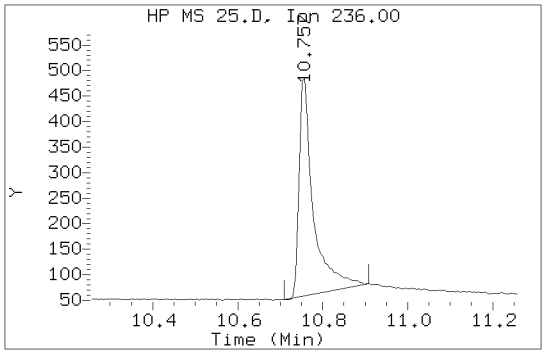
AFTER
MASS
120
AREA
428
HEIGHT
176
27-Jan-2023
11:55



BEFORE
MASS
236
AREA
0
HEIGHT
0
26-Jan-2023
19:25
ALSHS
Server



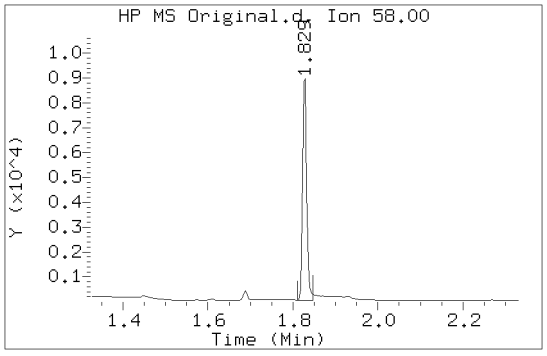
AFTER
MASS
236
AREA
988
HEIGHT
425
27-Jan-2023
11:55



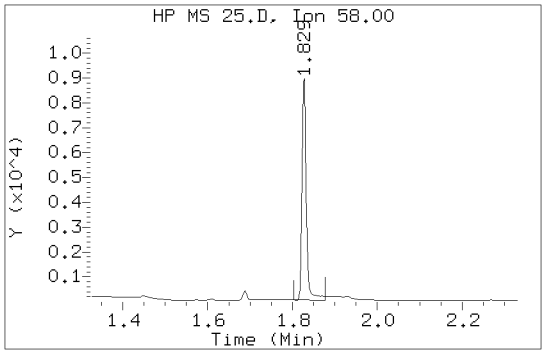
1,4-Dioxane ()

Reason Code:

BEFORE
MASS
58
AREA
6279
HEIGHT
8907
26-Jan-2023
19:25
ALSHS
Server



AFTER
MASS
58
AREA
6578
HEIGHT
8904
27-Jan-2023
11:55



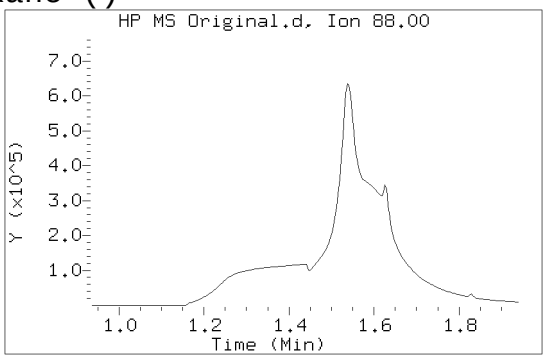
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\25.D
Inj Date : 26-JAN-2023 19:09
InstruID : SV6.i
LabSampID : 1 4-DX-0.5

1,4-Dioxane ()

Reason Code:

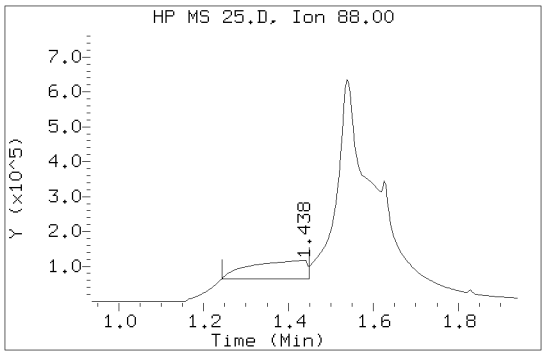
BEFORE

MASS
88
AREA
0
HEIGHT
0
26-Jan-2023
19:25
ALSHS
Server



AFTER

MASS
88
AREA
479995
HEIGHT
52208
27-Jan-2023
11:55

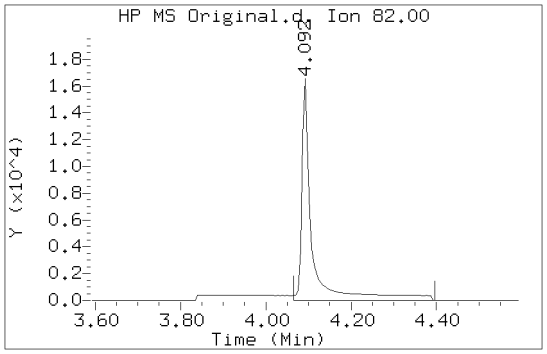


Nitrobenzene-d5 (4165-60-0)

Reason Code:

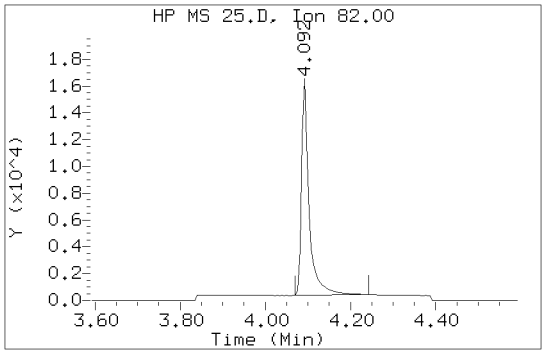
BEFORE

MASS
82
AREA
27706
HEIGHT
16544
26-Jan-2023
19:25
ALSHS
Server



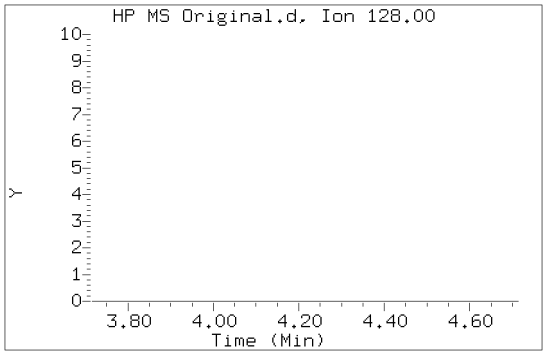
AFTER

MASS
82
AREA
20261
HEIGHT
16172
27-Jan-2023
11:55



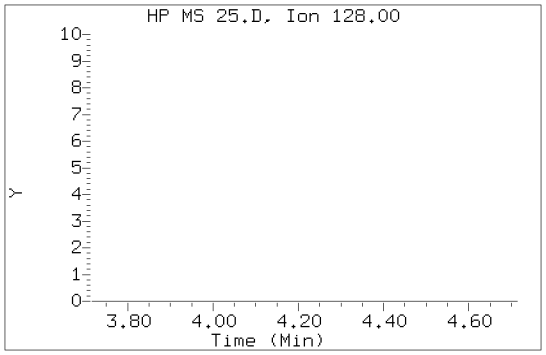
BEFORE

MASS
128
AREA
0
HEIGHT
0
26-Jan-2023
19:25
ALSHS
Server



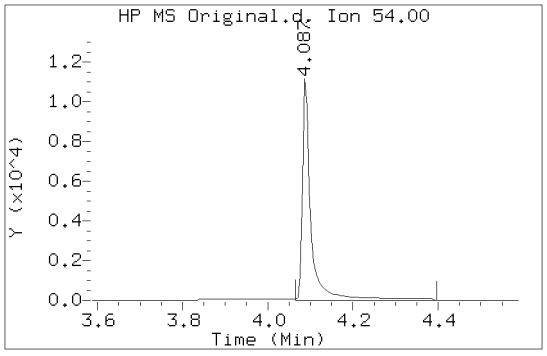
AFTER

MASS
128
AREA
0
HEIGHT
0
27-Jan-2023
11:55



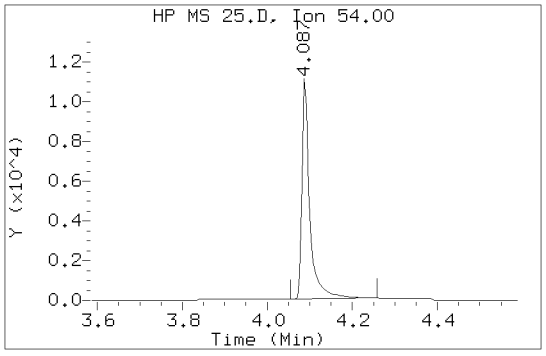
BEFORE

MASS
54
AREA
16018
HEIGHT
11163
26-Jan-2023
19:25
ALSHS
Server



AFTER

MASS
54
AREA
14306
HEIGHT
11091
27-Jan-2023
11:55



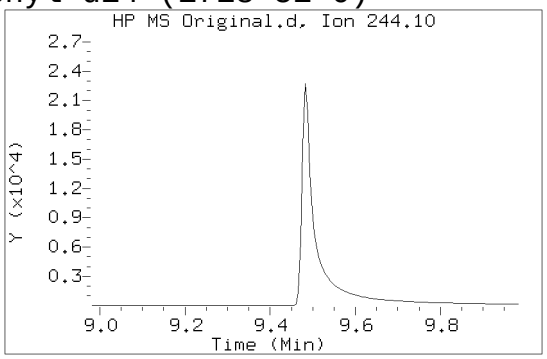
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\25.D
Inj Date : 26-JAN-2023 19:09
InstruID : SV6.i
LabSampID : 1 4-DX-0.5

4-Terphenyl-d14 (1718-51-0)

Reason Code:

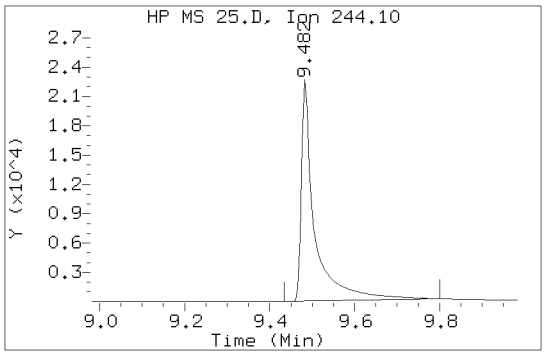
BEFORE

MASS
244.1
AREA
0
HEIGHT
0
26-Jan-2023
19:25
ALSHS
Server



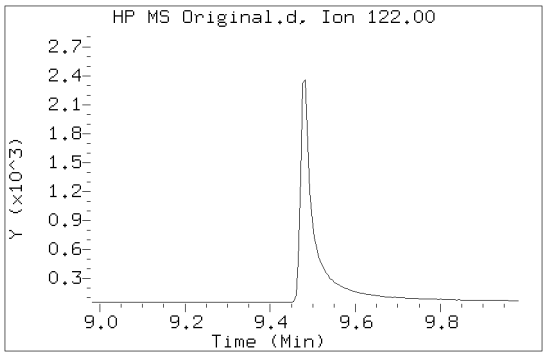
AFTER

MASS
244.1
AREA
48596
HEIGHT
22641
27-Jan-2023
11:55



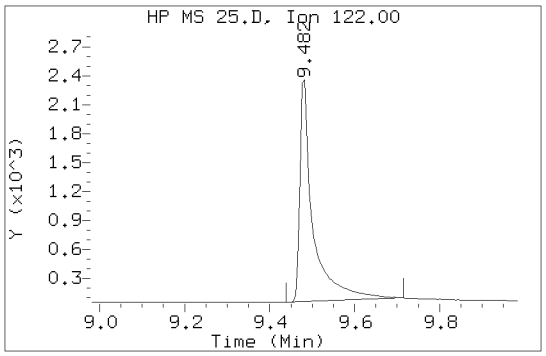
BEFORE

MASS
122
AREA
0
HEIGHT
0
26-Jan-2023
19:25
ALSHS
Server



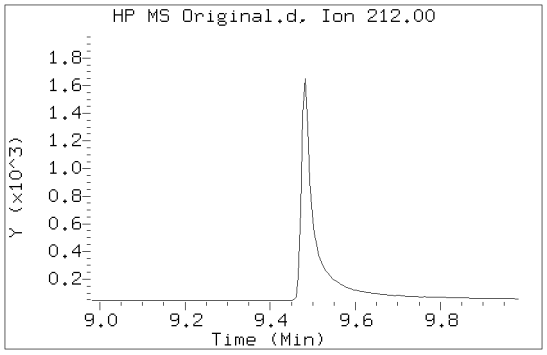
AFTER

MASS
122
AREA
4888
HEIGHT
2294
27-Jan-2023
11:55



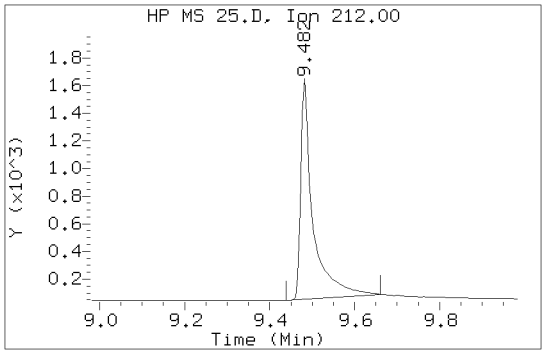
BEFORE

MASS
212
AREA
0
HEIGHT
0
26-Jan-2023
19:25
ALSHS
Server



AFTER

MASS
212
AREA
3128
HEIGHT
1592
27-Jan-2023
11:55

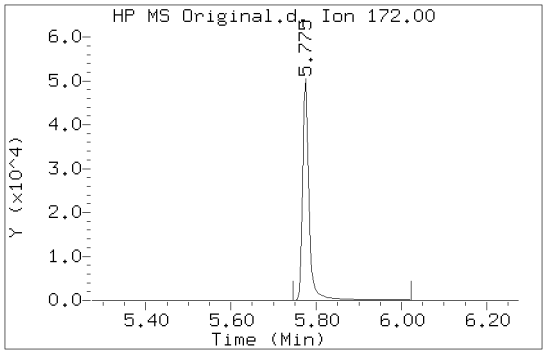


2-Fluorobiphenyl (321-60-8)

Reason Code:

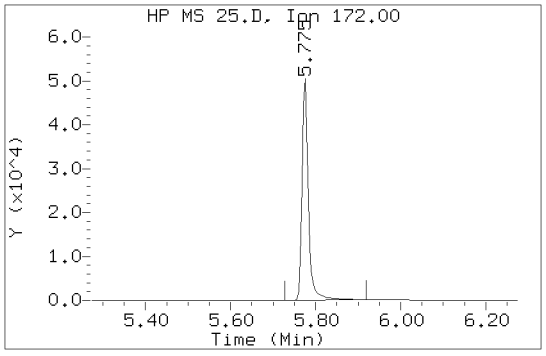
BEFORE

MASS
172
AREA
53226
HEIGHT
50504
26-Jan-2023
19:25
ALSHS
Server



AFTER

MASS
172
AREA
51391
HEIGHT
50425
27-Jan-2023
11:55



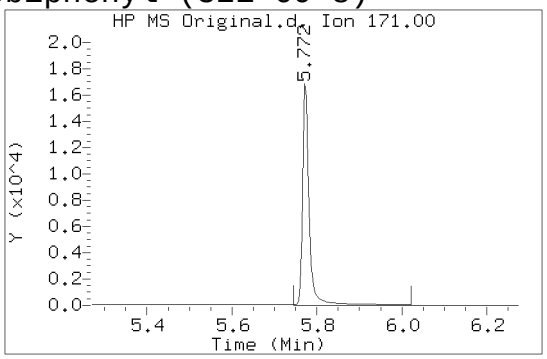
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\25.D
Inj Date : 26-JAN-2023 19:09
InstruID : SV6.i
LabSampID : 1 4-DX-0.5

2-Fluorobiphenyl (321-60-8)

Reason Code:

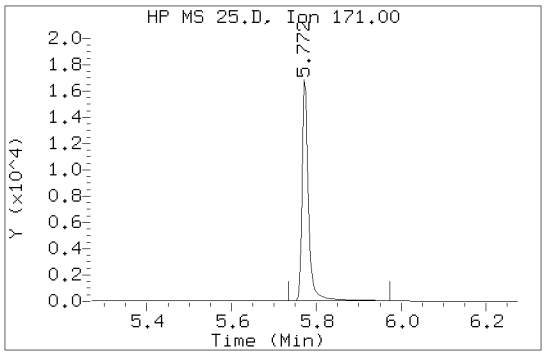
BEFORE

MASS
171
AREA
18570
HEIGHT
16864
26-Jan-2023
19:25
ALSHS
Server



AFTER

MASS
171
AREA
17611
HEIGHT
16814
27-Jan-2023
11:55



ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230126.b\26.D
Lab Smp Id: 1 4-DX-ICV Client Smp ID: 1 4-DX-ICV
Inj Date : 26-JAN-2023 19:27
Operator : LG Inst ID: SV6.i
Smp Info : 1 4-DX-ICV;1 4-DX-ICV;3;;METHSPIKE
Misc Info : not used
Comment :
Method : \\NAHSTWS005\Target\chem\SV6.i\230126.b\DXSIM.m
Meth Date : 01-Feb-2023 16:17 Linh.Pham Quant Type: ISTD
Cal Date : 26-JAN-2023 19:09 Cal File: 25.D
Als bottle: 25 QC Sample: METHSPIKE
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)
* 20 1,4-Dichlorobenzene-d4	152	3.619	3.620	(1.000)	2394	0.10000	(aM)
* 45 Naphthalene-d8	136	4.747	4.747	(1.000)	7860	0.10000	(M)
$ 33 Nitrobenzene-d5	82	4.092	4.091	(0.862)	1632	0.07196	0.07196(M)
* 86 Acenaphthene-d10	164	6.429	6.430	(1.000)	4607	0.10000	(QM)
$ 69 2-Fluorobiphenyl	172	5.779	5.775	(0.899)	4787	0.07917	0.07917(M)
* 126 Phenanthrene-d10	188	7.890	7.885	(1.000)	7915	0.10000	(M)
* 182 Chrysene-d12	240	10.762	10.757	(1.000)	1871	0.10000	(M)
$ 158 4-Terphenyl-d14	244	9.487	9.482	(0.882)	2907	0.08903	0.08903(M)
* 198 Perylene-d12	264	12.862	12.863	(1.000)	1224	0.10000	
1 1,4-Dioxane	58	1.799	1.829	(0.497)	304	0.03481	0.03481(M)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

01182962

Data File: \\NAHSTWS005\Target\chem\SV6.i\230126.b\26.D

Date : 26-JAN-2023 19:27

Client ID: 1 4-DX-ICV

Instrument: SV6.i

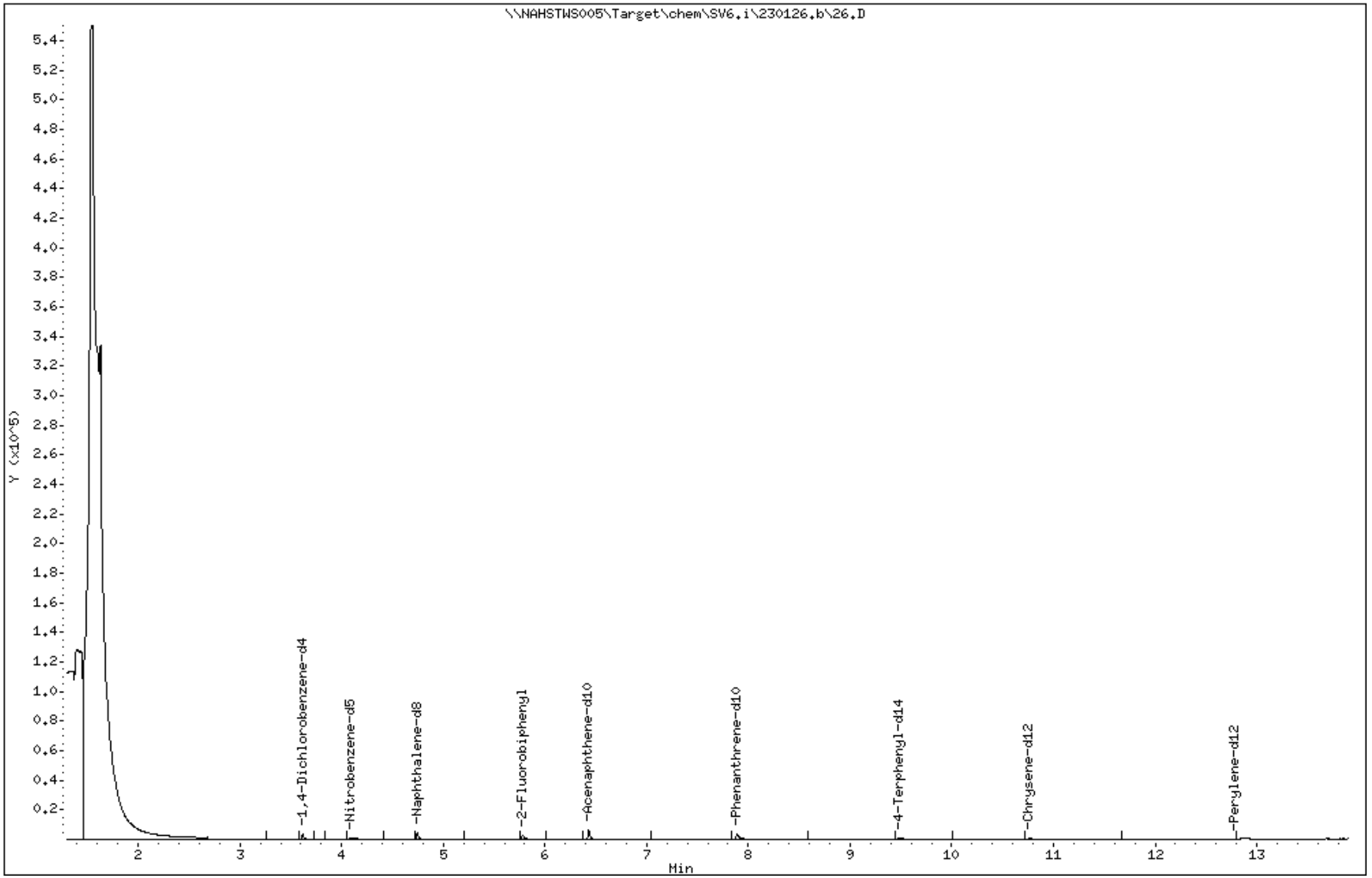
Sample Info: 1 4-DX-ICV;1 4-DX-ICV;3;;METHSPIKE

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28

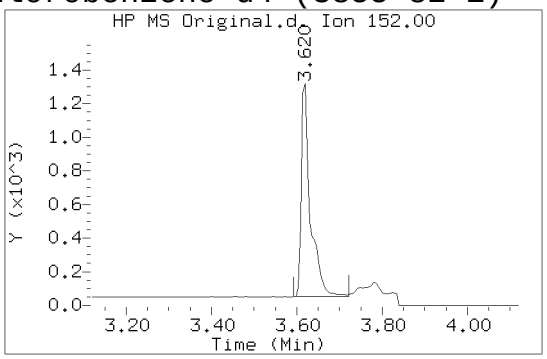


Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\26.D
Inj Date : 26-JAN-2023 19:27
InstruID : SV6.i
LabSampID : 1 4-DX-ICV

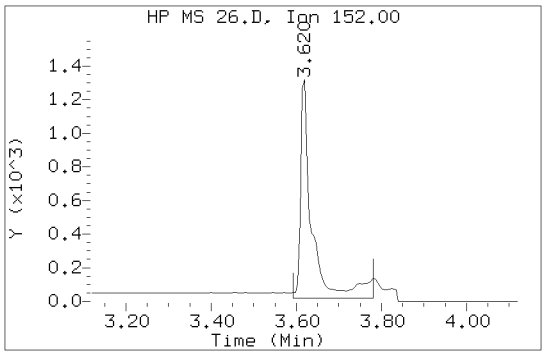
1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

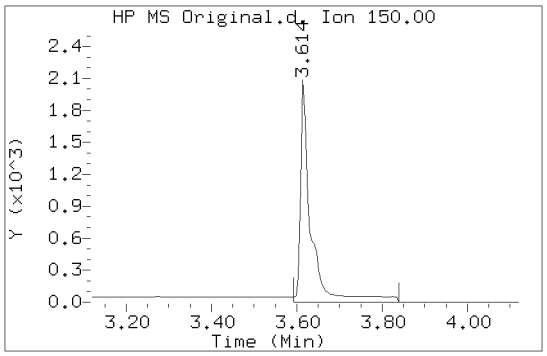
BEFORE
MASS
152
AREA
1846
HEIGHT
1267
26-Jan-2023
19:42
ALSHS
Server



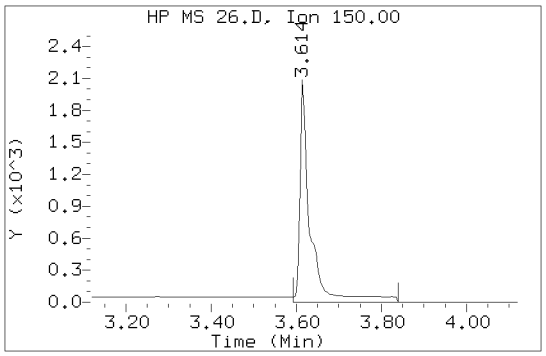
AFTER
MASS
152
AREA
2394
HEIGHT
1299
01-Feb-2023
16:40
ALSHS
Ser



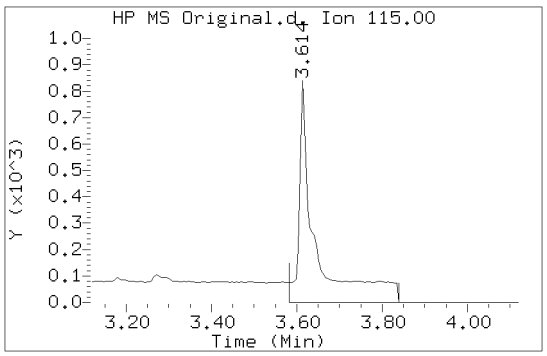
BEFORE
MASS
150
AREA
3511
HEIGHT
2086
26-Jan-2023
19:42
ALSHS
Server



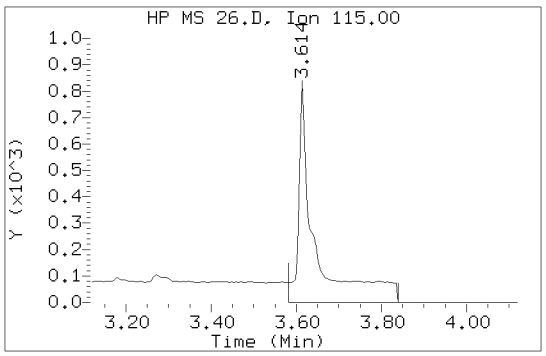
AFTER
MASS
150
AREA
3511
HEIGHT
2086
01-Feb-2023
16:40
ALSHS
Ser



BEFORE
MASS
115
AREA
2199
HEIGHT
840
26-Jan-2023
19:42
ALSHS
Server



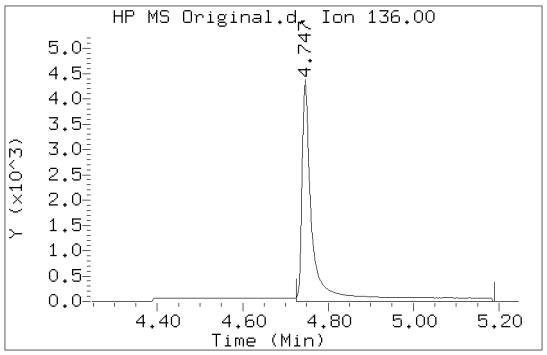
AFTER
MASS
115
AREA
2199
HEIGHT
840
01-Feb-2023
16:40
ALSHS
Ser



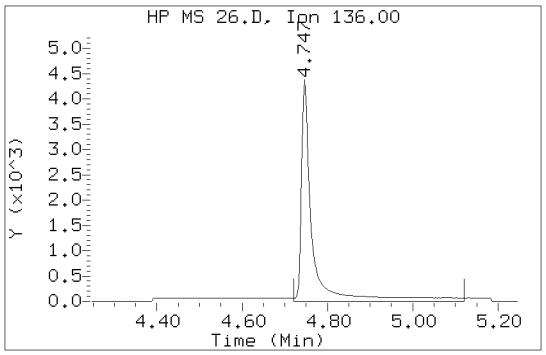
Naphthalene-d8 (1146-65-2)

Reason Code:

BEFORE
MASS
136
AREA
8101
HEIGHT
4379
26-Jan-2023
19:42
ALSHS
Server



AFTER
MASS
136
AREA
7860
HEIGHT
4379
01-Feb-2023
16:40
ALSHS
Ser



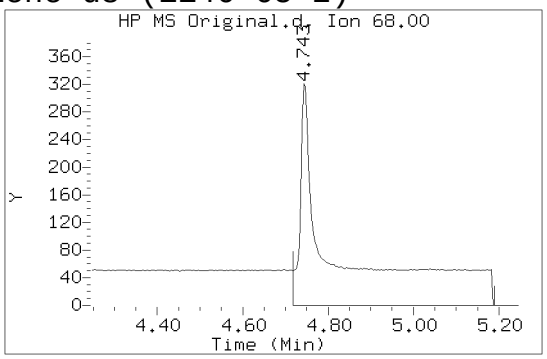
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\26.D
Inj Date : 26-JAN-2023 19:27
InstruID : SV6.i
LabSampID : 1 4-DX-ICV

Naphthalene-d8 (1146-65-2)

Reason Code:

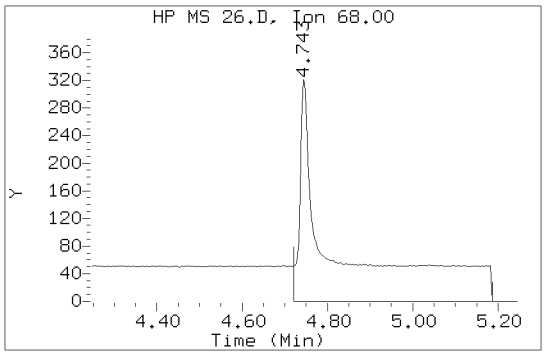
BEFORE

MASS
68
AREA
1835
HEIGHT
321
26-Jan-2023
19:42
ALSHS
Server



AFTER

MASS
68
AREA
1824
HEIGHT
321
01-Feb-2023
16:40
ALSHS
Ser

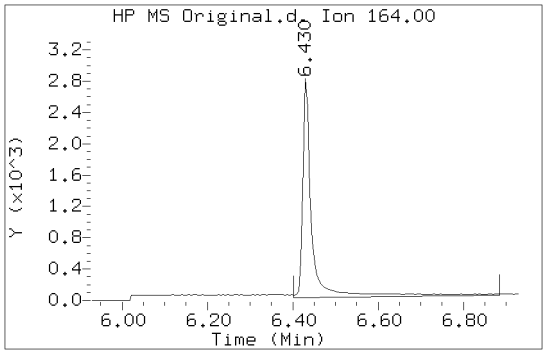


Acenaphthene-d10 (15067-26-2)

Reason Code:

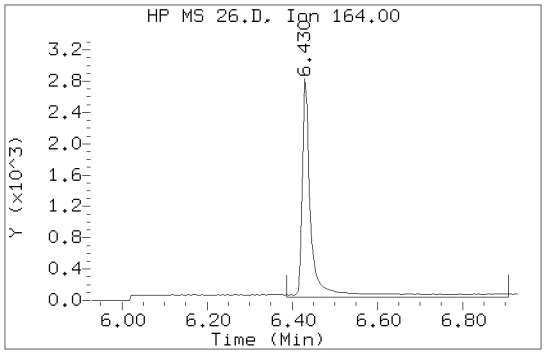
BEFORE

MASS
164
AREA
4223
HEIGHT
2796
26-Jan-2023
19:42
ALSHS
Server



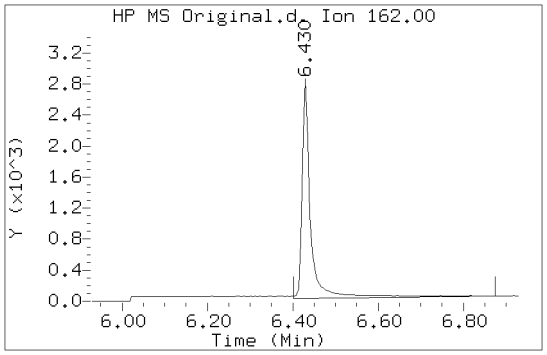
AFTER

MASS
164
AREA
4607
HEIGHT
2791
01-Feb-2023
16:40
ALSHS
Ser



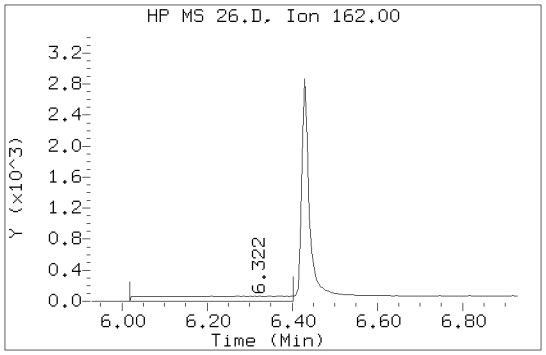
BEFORE

MASS
162
AREA
4065
HEIGHT
2834
26-Jan-2023
19:42
ALSHS
Server



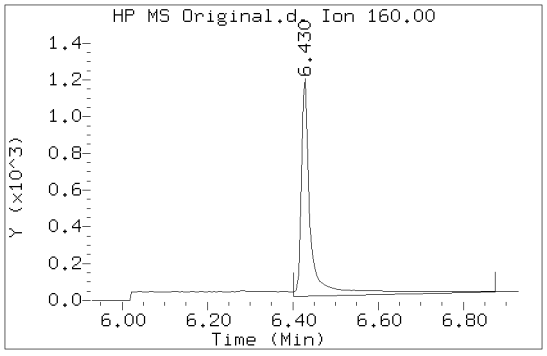
AFTER

MASS
162
AREA
1418
HEIGHT
65
01-Feb-2023
16:40
ALSHS
Ser



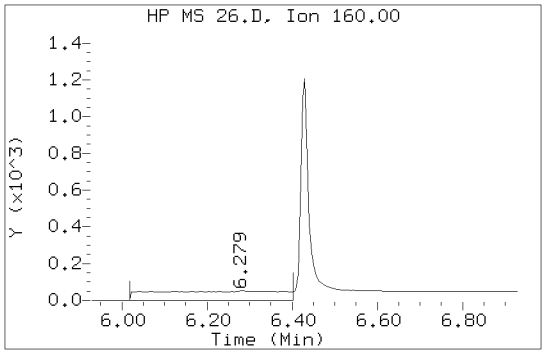
BEFORE

MASS
160
AREA
1922
HEIGHT
1183
26-Jan-2023
19:42
ALSHS
Server



AFTER

MASS
160
AREA
1101
HEIGHT
52
01-Feb-2023
16:40
ALSHS
Ser

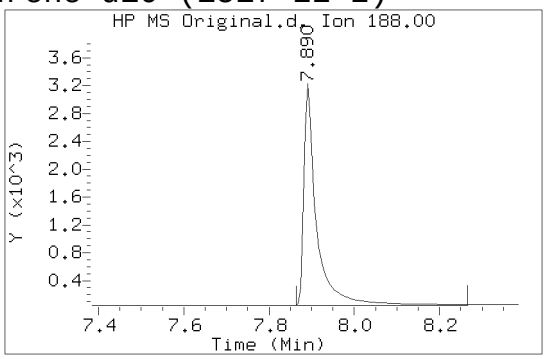


Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\26.D
Inj Date : 26-JAN-2023 19:27
InstruID : SV6.i
LabSampID : 1 4-DX-ICV

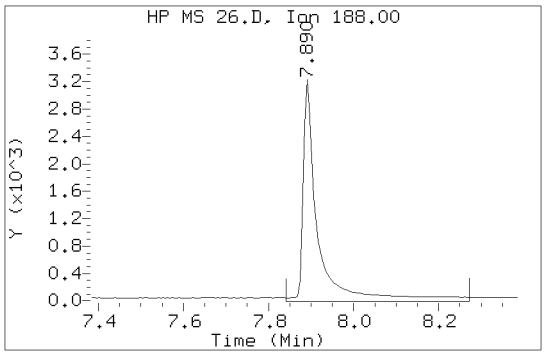
Phenanthrene-d10 (1517-22-2)

Reason Code:

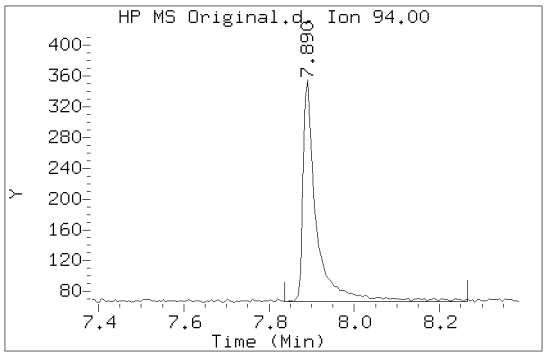
BEFORE
MASS
188
AREA
6555
HEIGHT
3181
26-Jan-2023
19:42
ALSHS
Server



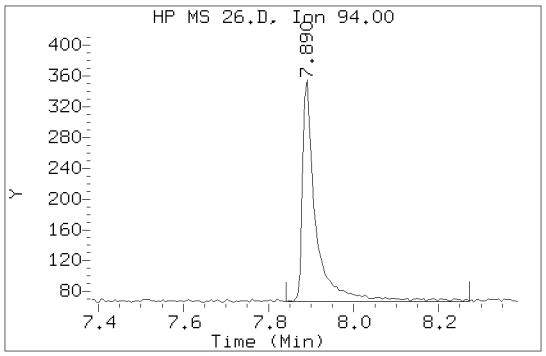
AFTER
MASS
188
AREA
7915
HEIGHT
3233
01-Feb-2023
16:40
ALSHS
Ser



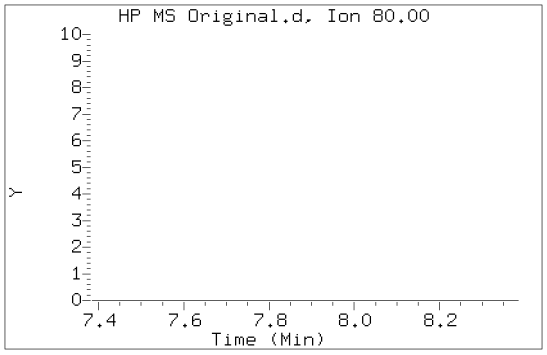
BEFORE
MASS
94
AREA
632
HEIGHT
288
26-Jan-2023
19:42
ALSHS
Server



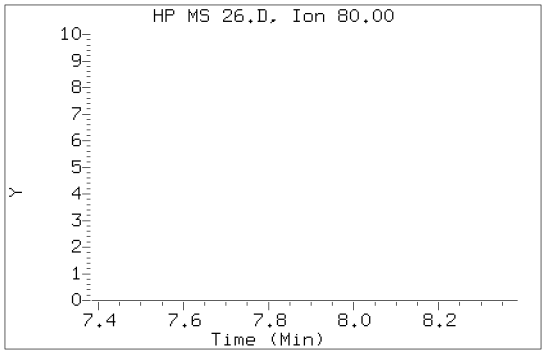
AFTER
MASS
94
AREA
632
HEIGHT
288
01-Feb-2023
16:40
ALSHS
Ser



BEFORE
MASS
80
AREA
0
HEIGHT
0
26-Jan-2023
19:42
ALSHS
Server



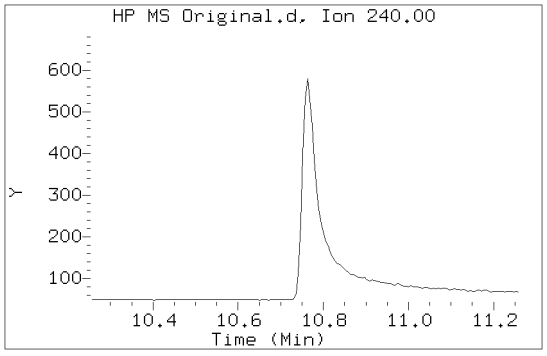
AFTER
MASS
80
AREA
0
HEIGHT
0
01-Feb-2023
16:40
ALSHS
Ser



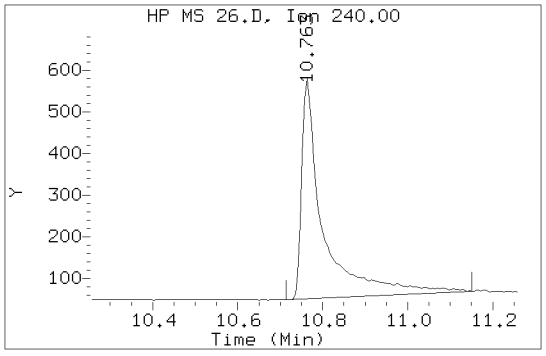
Chrysene-d12 (1719-03-5)

Reason Code:

BEFORE
MASS
240
AREA
0
HEIGHT
0
26-Jan-2023
19:42
ALSHS
Server



AFTER
MASS
240
AREA
1871
HEIGHT
529
01-Feb-2023
16:40
ALSHS
Ser



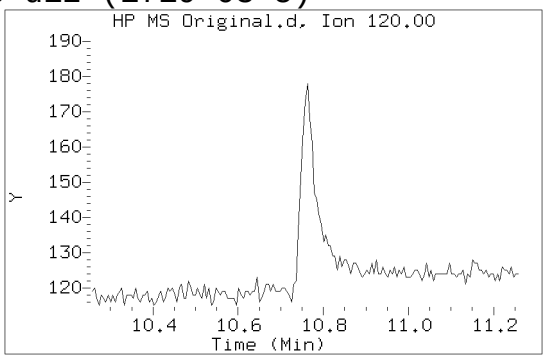
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\26.D
Inj Date : 26-JAN-2023 19:27
InstruID : SV6.i
LabSampID : 1 4-DX-ICV

Chrysene-d12 (1719-03-5)

Reason Code:

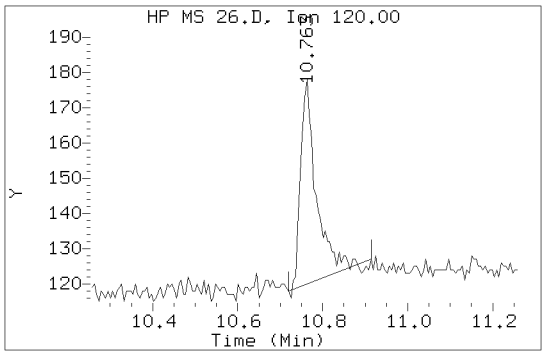
BEFORE

MASS
120
AREA
0
HEIGHT
0
26-Jan-2023
19:42
ALSHS
Server



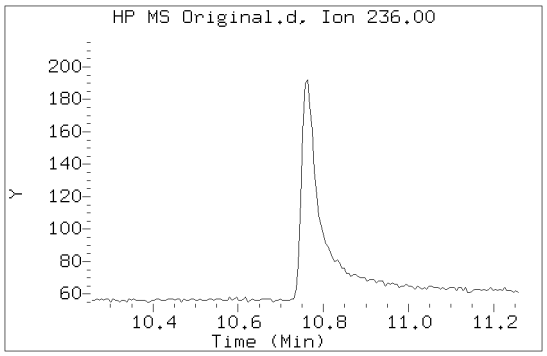
AFTER

MASS
120
AREA
144
HEIGHT
57
01-Feb-2023
16:40
ALSHS
Ser



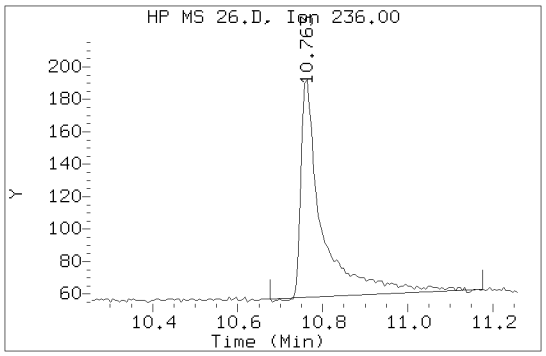
BEFORE

MASS
236
AREA
0
HEIGHT
0
26-Jan-2023
19:42
ALSHS
Server



AFTER

MASS
236
AREA
459
HEIGHT
133
01-Feb-2023
16:40
ALSHS
Ser

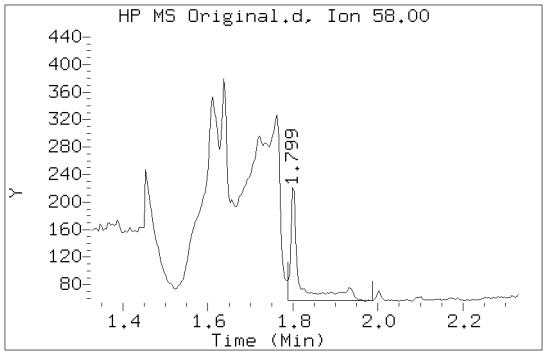


1,4-Dioxane ()

Reason Code:

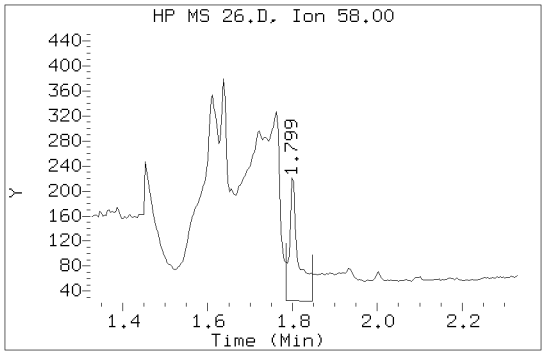
BEFORE

MASS
58
AREA
236
HEIGHT
164
26-Jan-2023
19:42
ALSHS
Server



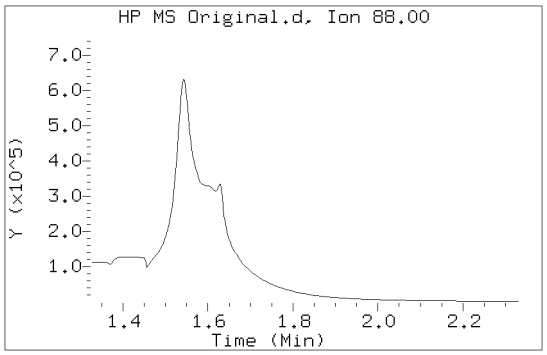
AFTER

MASS
58
AREA
304
HEIGHT
196
01-Feb-2023
16:40
ALSHS
Ser



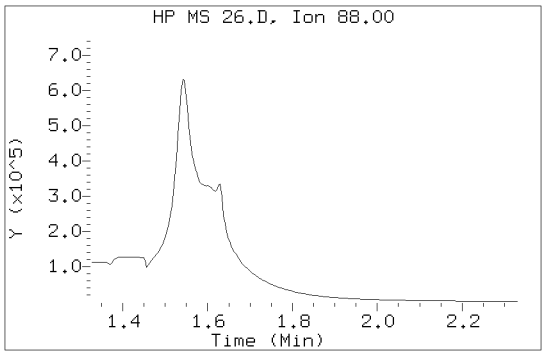
BEFORE

MASS
88
AREA
0
HEIGHT
0
26-Jan-2023
19:42
ALSHS
Server



AFTER

MASS
88
AREA
0
HEIGHT
0
01-Feb-2023
16:40
ALSHS
Ser



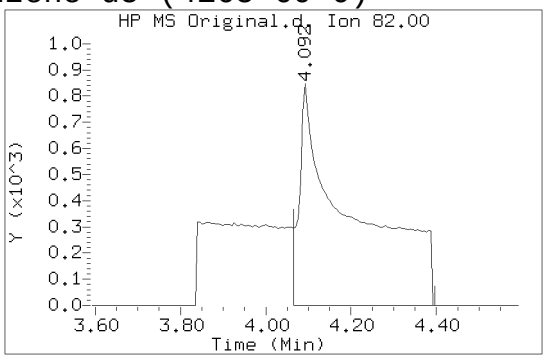
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\26.D
Inj Date : 26-JAN-2023 19:27
InstruID : SV6.i
LabSampID : 1 4-DX-ICV

Nitrobenzene-d5 (4165-60-0)

Reason Code:

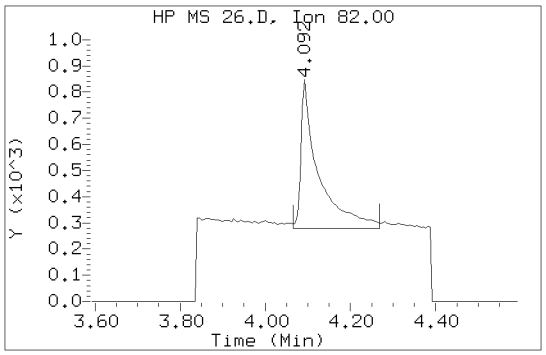
BEFORE

MASS
82
AREA
7163
HEIGHT
847
26-Jan-2023
19:42
ALSHS
Server



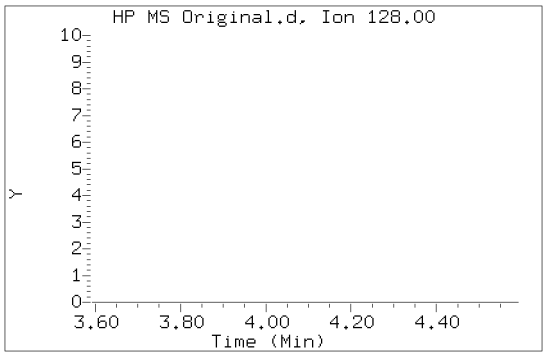
AFTER

MASS
82
AREA
1632
HEIGHT
568
01-Feb-2023
16:40
ALSHS
Ser



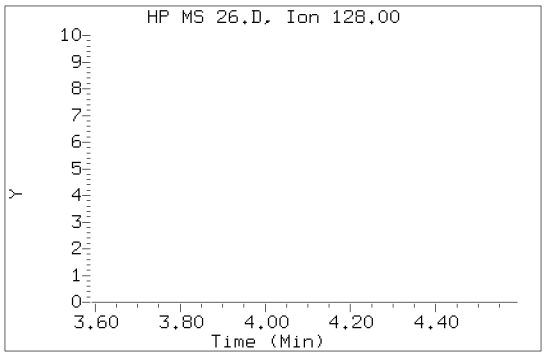
BEFORE

MASS
128
AREA
0
HEIGHT
0
26-Jan-2023
19:42
ALSHS
Server



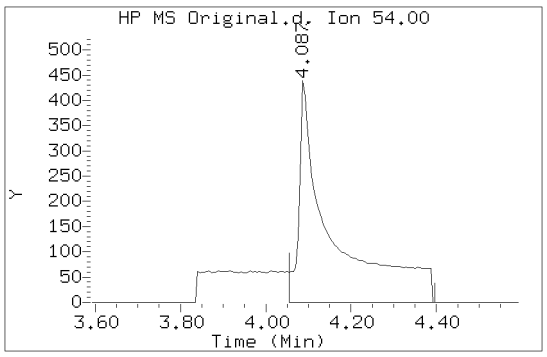
AFTER

MASS
128
AREA
0
HEIGHT
0
01-Feb-2023
16:40
ALSHS
Ser



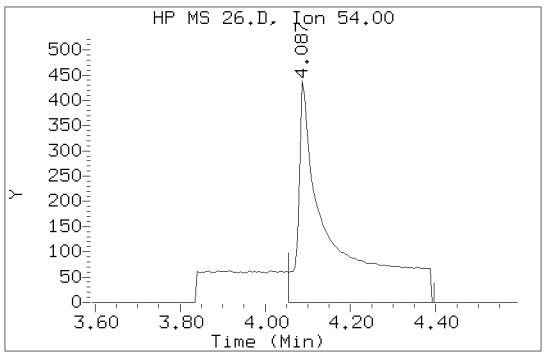
BEFORE

MASS
54
AREA
2316
HEIGHT
439
26-Jan-2023
19:42
ALSHS
Server



AFTER

MASS
54
AREA
2316
HEIGHT
439
01-Feb-2023
16:40
ALSHS
Ser

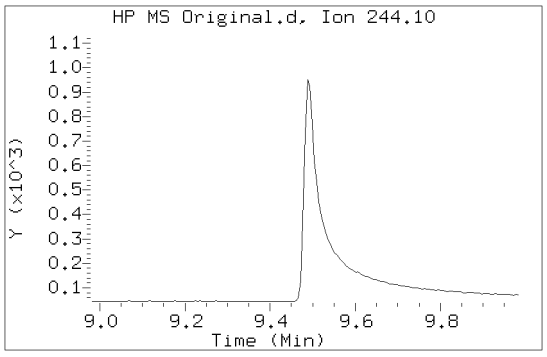


4-Terphenyl-d14 (1718-51-0)

Reason Code:

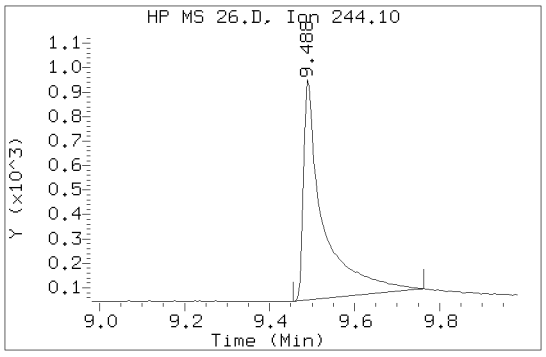
BEFORE

MASS
244.1
AREA
0
HEIGHT
0
26-Jan-2023
19:42
ALSHS
Server



AFTER

MASS
244.1
AREA
2907
HEIGHT
899
01-Feb-2023
16:40
ALSHS
Ser



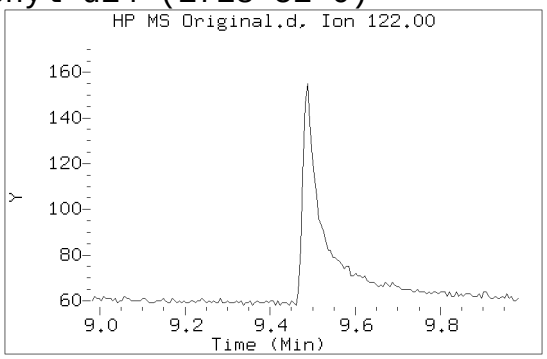
Data File : \\NAHSTWS005\Target\chem\SV6.i\230126.b\26.D
Inj Date : 26-JAN-2023 19:27
InstruID : SV6.i
LabSampID : 1 4-DX-ICV

4-Terphenyl-d14 (1718-51-0)

Reason Code:

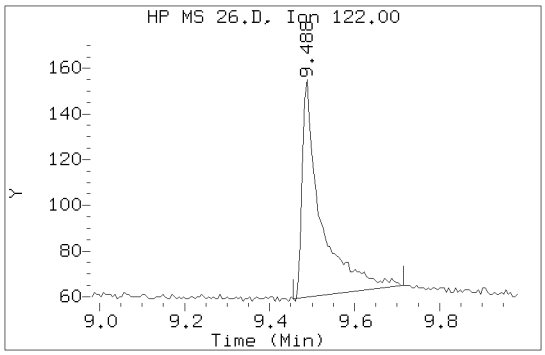
BEFORE

MASS
122
AREA
0
HEIGHT
0
26-Jan-2023
19:42
ALSHS
Server



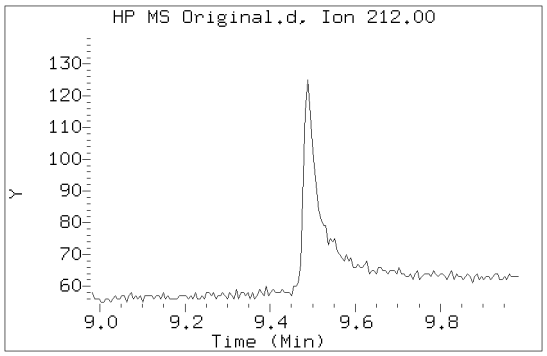
AFTER

MASS
122
AREA
290
HEIGHT
95
01-Feb-2023
16:40
ALSHS
Ser



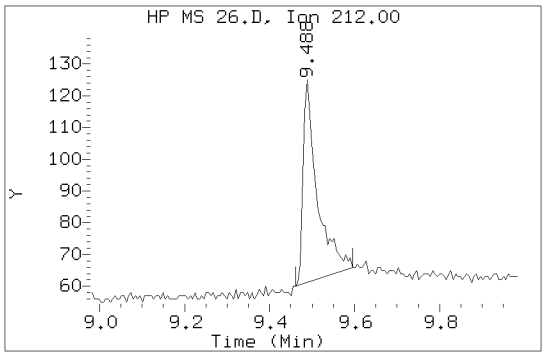
BEFORE

MASS
212
AREA
0
HEIGHT
0
26-Jan-2023
19:42
ALSHS
Server



AFTER

MASS
212
AREA
148
HEIGHT
63
01-Feb-2023
16:40
ALSHS
Ser

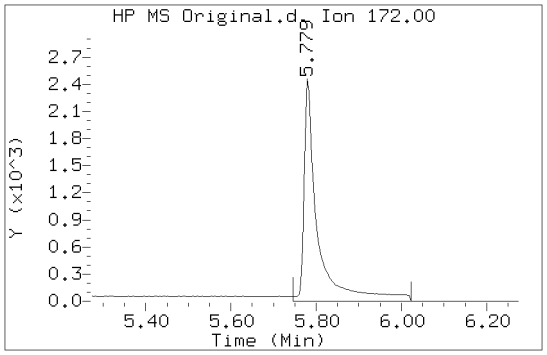


2-Fluorobiphenyl (321-60-8)

Reason Code:

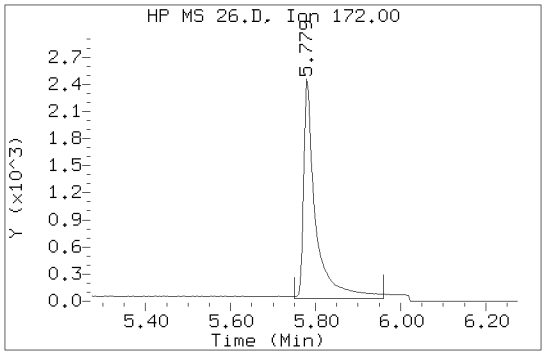
BEFORE

MASS
172
AREA
5421
HEIGHT
2461
26-Jan-2023
19:42
ALSHS
Server



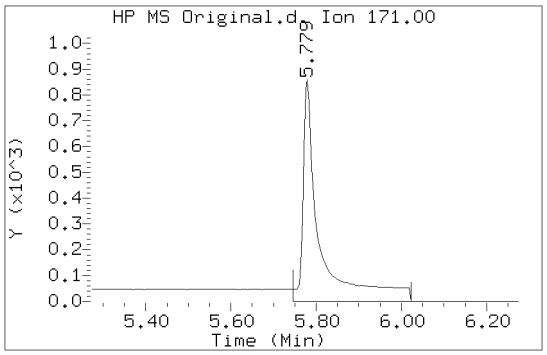
AFTER

MASS
172
AREA
4787
HEIGHT
2431
01-Feb-2023
16:40
ALSHS
Ser



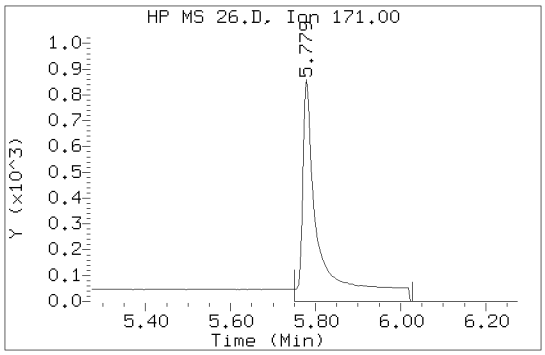
BEFORE

MASS
171
AREA
2318
HEIGHT
859
26-Jan-2023
19:42
ALSHS
Server



AFTER

MASS
171
AREA
2322
HEIGHT
859
01-Feb-2023
16:40
ALSHS
Ser



01182969

right solutions.
right partner.

Raw Data SV-6 430148

Semi-Volatiles by EPA 8270SIM

Workorder

HS23030396

Client

Bhate Environmental Associates, Inc.

Project

Longhorn GW Treatment Plant Monthly Effluent Samples

03/21/2023

ALS Environmental–Houston Laboratory

10450 Stancliff Road, Suite 210, Houston, TX 77099

Phone (281) 530-5656 Fax (281) 530-5887

www.alsglobal.com

Data File: \\NAHSTWS005\Target\chem\SV6.i\230315.b\01.D Page 1
Report Date: 15-Mar-2023 14:43

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\SV6.i\230315.b\01.D
Lab Smp Id: DFTPP Client Smp ID: DFTPP
Inj Date : 15-MAR-2023 13:05
Operator : smith Inst ID: SV6.i
Smp Info : DFTPP;DFTPP;3;;DFTPP
Misc Info :
Comment :
Method : \\NAHSTWS005\Target\chem\SV6.i\230315.b\DFTPP.m
Meth Date : 14-Mar-2023 15:59 Linh.Pham Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 1 QC Sample: DFTPP
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14 Sample Matrix: None
Processing Host: NAHSTW7095

					CONCENTRATIONS ON-COL	FINAL		
RT	EXP RT	DLT RT	MASS	RESPONSE	(ug/L)	(ug/L)	TARGET RANGE	RATIO
1 dftpp						CAS #: 5074-71-5		
4.469	6.357	-1.888	198	436046			0.00- 100.00	69.74
4.469	6.357	-1.888	51	128059			10.00- 80.00	29.37
4.469	6.357	-1.888	68	0	0.0	0.0	0.00- 2.00	0.00
4.469	6.357	-1.888	69	132949			0.00- 0.00	30.49
4.469	6.357	-1.888	70	841			0.00- 2.00	0.63
4.469	6.357	-1.888	127	175826			10.00- 80.00	40.32
4.469	6.357	-1.888	197	0	0.0	0.0	0.00- 2.00	0.00
4.469	6.357	-1.888	199	28520			5.00- 9.00	6.54
4.469	6.357	-1.888	275	135126			10.00- 60.00	30.99
4.469	6.357	-1.888	365	19200			1.00- 100.00	4.40
4.469	6.357	-1.888	441	94736			0.01- 99.99	76.66
4.469	6.357	-1.888	442	625216			50.00- 150.00	143.38
4.469	6.357	-1.888	443	123576			15.00- 24.00	19.77

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	29.37
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	30.49
70	Less than 2.00% of mass 69	0.19 (0.63)
127	10.00 - 80.00% of mass 198	40.32
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.54
275	10.00 - 60.00% of mass 198	30.99
365	1.00 - 100.00% of mass 198	4.40
441	Present, but less than mass 443	21.73
442	50.00 - 150.00% of mass 198	143.38
443	15.00 - 24.00% of mass 442	28.34 (19.77)

Data File: 01.D
Spectrum: HP ChemStation MS 01.D, Scan 352: 4.470 min. (SUB)
Location of Maximum: 442.10
Number of points: 304

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.10	345	128.10	13311	208.00	3798	297.00	5410
36.00	14	129.00	69144	209.00	1233	298.00	359
37.10	335	130.00	5754	210.20	1947	301.00	420
38.10	1576	131.00	1164	211.00	4575	302.10	703
39.10	8485	132.00	678	213.10	310	303.10	4809
40.10	466	133.10	247	215.00	1222	304.00	1219
41.10	217	134.00	2057	216.00	2791	308.10	526
45.00	185	135.00	5326	217.00	31416	309.00	375
47.00	10	136.00	2156	218.00	3791	310.10	568
48.00	61	137.10	2597	219.00	423	311.00	153
49.10	182	138.10	541	221.00	22264	313.10	493
50.10	32328	139.00	255	221.80	4507	314.10	1721
51.10	128056	140.00	696	223.00	7275	315.00	4238
52.10	6231	141.00	9479	224.10	68904	316.00	2581
53.10	227	142.00	3194	225.10	17816	317.00	416
55.00	624	143.00	2172	226.10	1879	321.10	1251
56.00	3858	144.00	621	227.00	28080	322.10	595
57.00	9160	145.00	472	228.00	4228	323.10	13109
58.00	501	146.00	1563	229.00	6006	324.10	2668
59.00	165	147.00	4591	230.00	843	326.00	258
61.10	1413	148.00	10200	231.00	2613	327.00	2070
62.00	1742	149.00	1804	232.00	502	328.10	1214
63.10	5426	150.10	469	233.00	474	329.00	191
64.10	715	151.60	2073	234.00	1650	332.00	928
65.10	2774	153.00	3166	235.00	1972	333.10	1445
69.00	132928	154.00	2547	236.00	1286	334.10	8312
70.10	841	155.00	5352	237.00	2145	335.10	2230
73.00	1137	156.10	7823	237.90	275	336.00	362
74.10	13576	157.00	1797	239.00	1150	339.00	227
75.10	21336	158.00	1826	240.10	945	340.00	211
76.10	6745	159.00	1187	241.00	1719	341.10	1685
77.10	148992	160.10	2582	242.00	3797	342.00	475
78.10	9636	161.10	4416	243.10	4087	346.00	2620
79.00	9341	162.00	1345	244.10	53840	347.00	442
80.00	7136	163.00	341	245.10	7095	351.10	364
81.00	10544	164.00	530	246.00	10732	352.10	4305
82.00	2571	165.00	3402	247.00	2012	353.10	2869
83.00	2421	166.10	2970	248.00	482	354.10	4312
85.00	1762	167.10	18856	249.00	2015	355.00	681
86.00	2529	168.00	7587	250.00	311	359.10	299
87.10	1276	169.10	1530	251.00	522	365.00	19200
88.00	376	170.10	659	252.00	528	366.00	2647
89.10	284	171.00	874	253.00	1156	370.10	395
91.00	2606	172.00	1893	255.10	282240	371.00	1039
92.00	2506	173.00	2311	256.00	40240	372.10	7828

93.00	16384	174.00	4203	257.00	3163	373.10	2044
94.00	1002	175.10	7781	258.00	15882	374.00	193
95.00	310	176.00	2325	259.00	2496	377.00	206
96.10	601	177.00	3803	260.00	407	383.00	2325
97.00	356	178.10	1511	261.00	431	384.00	610
98.00	13048	179.00	14685	263.00	160	385.00	187
99.00	9475	180.00	10502	264.10	479	390.00	1097
100.00	882	181.00	5306	265.10	6440	391.10	835
101.00	6211	182.00	781	266.00	1025	392.10	696
102.00	359	183.10	563	270.10	304	401.00	481
103.00	1770	184.00	1445	271.00	606	402.00	3038
104.00	3872	185.10	7479	272.10	850	403.10	4810
105.00	3377	186.10	59552	273.00	9558	404.00	1584
106.10	1347	187.10	17016	274.10	22504	405.00	287
107.00	49032	188.10	1558	275.10	135104	410.10	193
108.10	7742	189.00	3391	276.10	17896	415.00	195
109.10	1610	190.00	594	277.00	11130	421.10	4215
110.00	88456	191.00	1868	278.00	1817	422.10	4011
111.00	13650	192.00	5021	279.00	429	423.10	32216
112.00	1623	193.10	5235	282.10	260	424.10	6100
113.00	603	194.00	1278	283.00	1145	425.10	564
116.10	2856	195.00	758	284.00	863	437.90	155
117.00	37144	196.00	13643	285.10	1890	439.10	550
118.00	2735	198.00	436032	286.00	330	441.10	94736
119.00	361	199.00	28520	288.00	181	442.10	625216
120.00	568	200.10	2278	289.10	353	443.10	123576
121.00	254	201.50	2114	290.00	303	444.10	11905
122.00	3088	203.00	2916	291.00	329	445.00	692
123.00	4844	204.10	16904	292.10	438		
124.00	2191	205.10	27632	293.00	2526		
125.00	2272	206.10	118464	294.10	539		
127.10	175808	207.10	15168	296.00	37200		

Data File: \\NAHSTWS005\Target\chem\SV6.i\230315.b\01.D

Date : 15-MAR-2023 13:05

Client ID: DFTPP

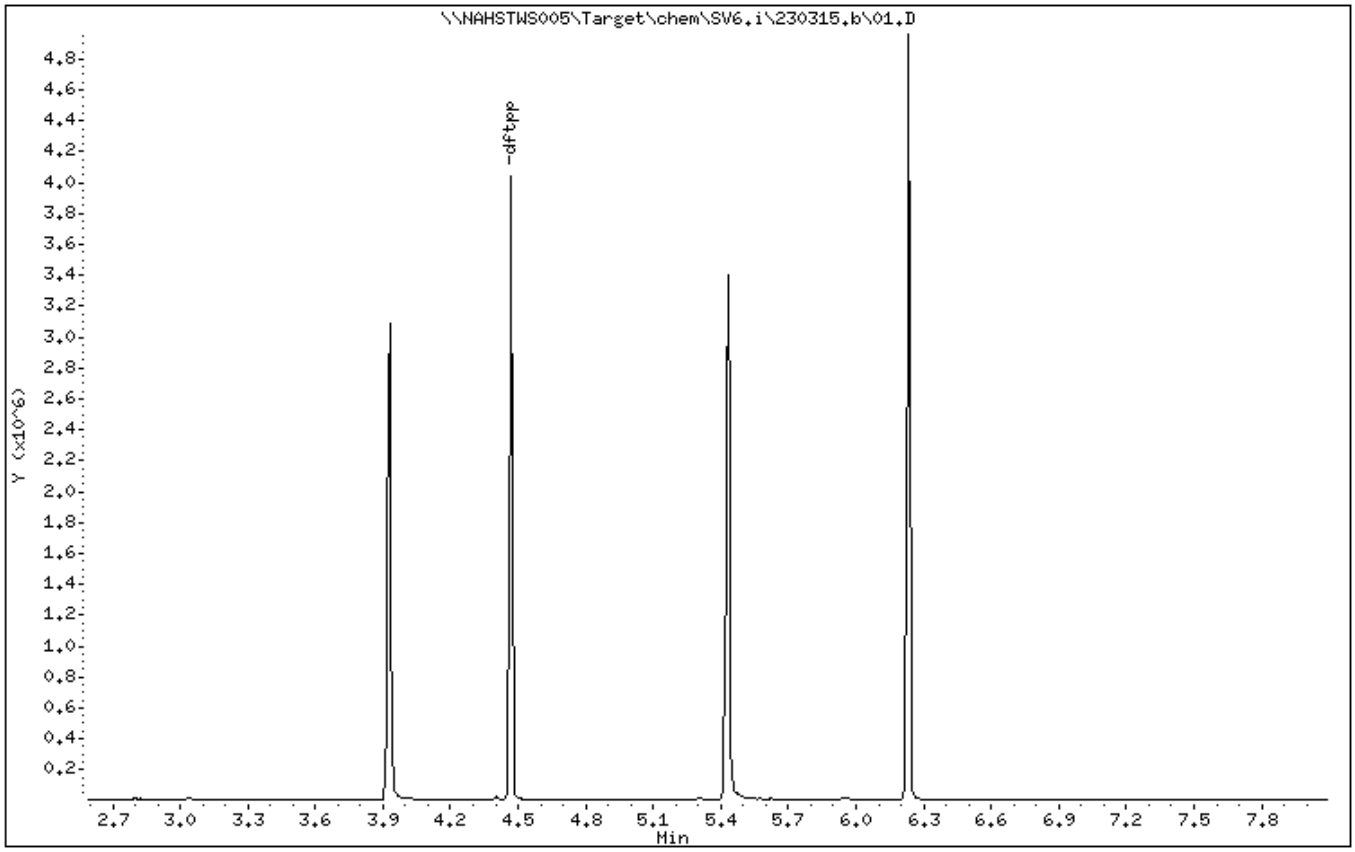
Instrument: SV6.i

Sample Info: DFTPP;DFTPP;3;;DFTPP

Operator: smith

Column phase: DB-5MS

Column diameter: 0.25



Data File: \\NAHSTWS005\Target\chem\SV6.i\230315.b\01.D

Date : 15-MAR-2023 13:05

Client ID: DFTPP

Instrument: SV6.i

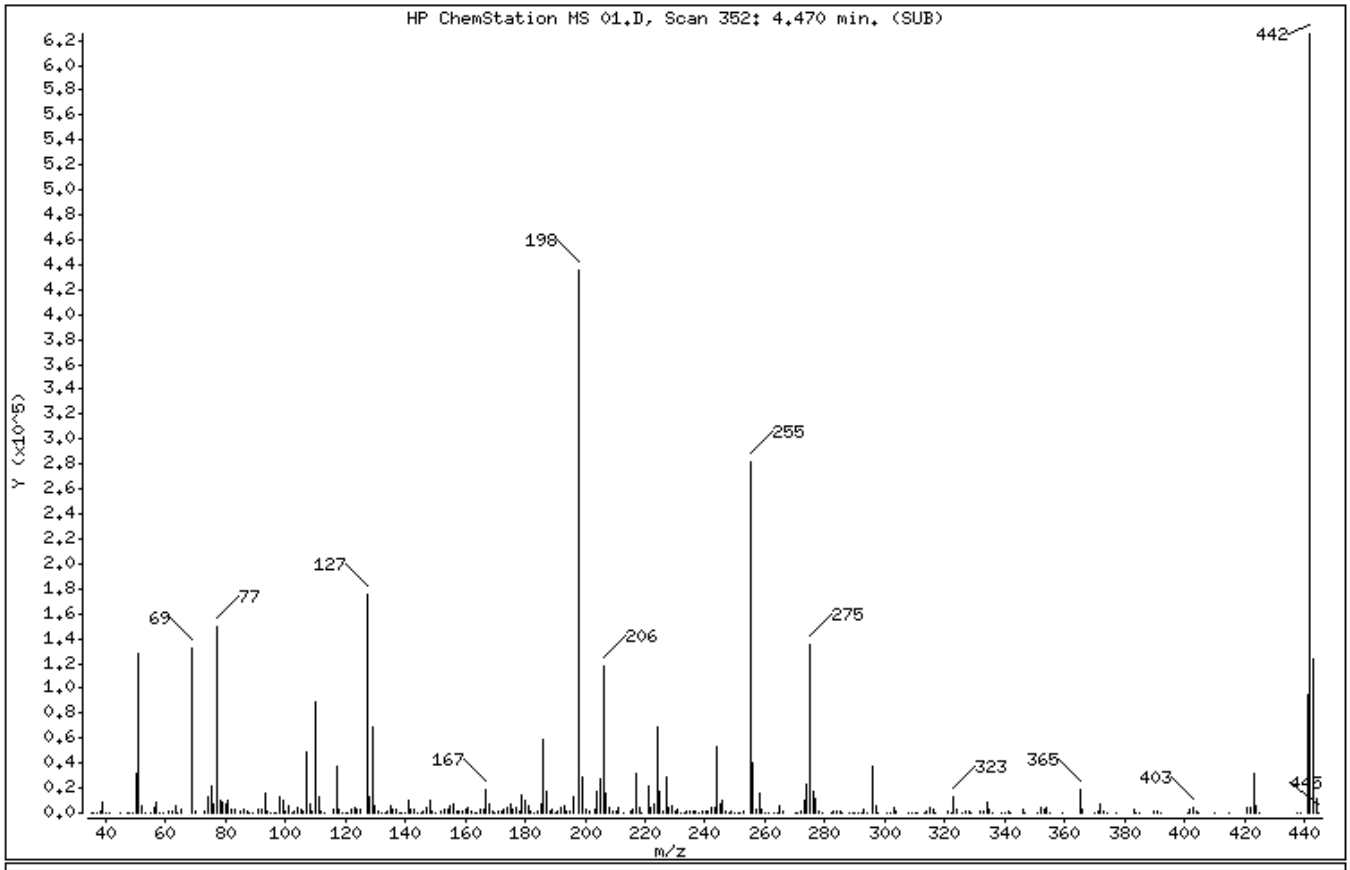
Sample Info: DFTPP;DFTPP;3;;DFTPP

Operator: smith

Column phase: DB-5MS

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	29.37
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	30.49
70	Less than 2.00% of mass 69	0.19 (0.63)
127	10.00 - 80.00% of mass 198	40.32
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.54
275	10.00 - 60.00% of mass 198	30.99
365	1.00 - 100.00% of mass 198	4.40
441	Present, but less than mass 443	21.73
442	50.00 - 150.00% of mass 198	143.38
443	15.00 - 24.00% of mass 442	28.34 (19.77)

Data File: \\NAHSTWS005\Target\chem\SV6.i\230315.b\01.D Page 3

Date : 15-MAR-2023 13:05

Client ID: DFTPP Instrument: SV6.i

Sample Info: DFTPP;DFTPP;3;;DFTPP

Operator: smith

Column phase: DB-5MS Column diameter: 0.25

Data File: 01.D
Spectrum: HP ChemStation MS 01.D, Scan 352: 4.470 min. (SUB)
Location of Maximum: 442.10
Number of points: 304

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.10	345	128.10	13311	208.00	3798	297.00	5410
36.00	14	129.00	69144	209.00	1233	298.00	359
37.10	335	130.00	5754	210.20	1947	301.00	420
38.10	1576	131.00	1164	211.00	4575	302.10	703
39.10	8485	132.00	678	213.10	310	303.10	4809
40.10	466	133.10	247	215.00	1222	304.00	1219
41.10	217	134.00	2057	216.00	2791	308.10	526
45.00	185	135.00	5326	217.00	31416	309.00	375
47.00	10	136.00	2156	218.00	3791	310.10	568
48.00	61	137.10	2597	219.00	423	311.00	153
49.10	182	138.10	541	221.00	22264	313.10	493
50.10	32328	139.00	255	221.80	4507	314.10	1721
51.10	128056	140.00	696	223.00	7275	315.00	4238
52.10	6231	141.00	9479	224.10	68904	316.00	2581
53.10	227	142.00	3194	225.10	17816	317.00	416
55.00	624	143.00	2172	226.10	1879	321.10	1251
56.00	3858	144.00	621	227.00	28080	322.10	595
57.00	9160	145.00	472	228.00	4228	323.10	13109
58.00	501	146.00	1563	229.00	6006	324.10	2668
59.00	165	147.00	4591	230.00	843	326.00	258
61.10	1413	148.00	10200	231.00	2613	327.00	2070
62.00	1742	149.00	1804	232.00	502	328.10	1214
63.10	5426	150.10	469	233.00	474	329.00	191
64.10	715	151.60	2073	234.00	1650	332.00	928
65.10	2774	153.00	3166	235.00	1972	333.10	1445
69.00	132928	154.00	2547	236.00	1286	334.10	8312
70.10	841	155.00	5352	237.00	2145	335.10	2230
73.00	1137	156.10	7823	237.90	275	336.00	362
74.10	13576	157.00	1797	239.00	1150	339.00	227
75.10	21336	158.00	1826	240.10	945	340.00	211
76.10	6745	159.00	1187	241.00	1719	341.10	1685
77.10	148992	160.10	2582	242.00	3797	342.00	475
78.10	9636	161.10	4416	243.10	4087	346.00	2620
79.00	9341	162.00	1345	244.10	53840	347.00	442
80.00	7136	163.00	341	245.10	7095	351.10	364

Data File: \\NAHSTWS005\Target\chem\SV6.i\230315.b\01.D

Date : 15-MAR-2023 13:05

Client ID: DFTPP Instrument: SV6.i

Sample Info: DFTPP;DFTPP;3;;DFTPP

Operator: smith

Column phase: DB-5MS Column diameter: 0.25

Data File: 01.D
Spectrum: HP ChemStation MS 01.D, Scan 352: 4.470 min. (SUB)
Location of Maximum: 442.10
Number of points: 304

m/z	Y	m/z	Y	m/z	Y	m/z	Y
81.00	10544	164.00	530	246.00	10732	352.10	4305
82.00	2571	165.00	3402	247.00	2012	353.10	2869
83.00	2421	166.10	2970	248.00	482	354.10	4312
85.00	1762	167.10	18856	249.00	2015	355.00	681
86.00	2529	168.00	7587	250.00	311	359.10	299
87.10	1276	169.10	1530	251.00	522	365.00	19200
88.00	376	170.10	659	252.00	528	366.00	2647
89.10	284	171.00	874	253.00	1156	370.10	395
91.00	2606	172.00	1893	255.10	282240	371.00	1039
92.00	2506	173.00	2311	256.00	40240	372.10	7828
93.00	16384	174.00	4203	257.00	3163	373.10	2044
94.00	1002	175.10	7781	258.00	15882	374.00	193
95.00	310	176.00	2325	259.00	2496	377.00	206
96.10	601	177.00	3803	260.00	407	383.00	2325
97.00	356	178.10	1511	261.00	431	384.00	610
98.00	13048	179.00	14685	263.00	160	385.00	187
99.00	9475	180.00	10502	264.10	479	390.00	1097
100.00	882	181.00	5306	265.10	6440	391.10	835
101.00	6211	182.00	781	266.00	1025	392.10	696
102.00	359	183.10	563	270.10	304	401.00	481
103.00	1770	184.00	1445	271.00	606	402.00	3038
104.00	3872	185.10	7479	272.10	850	403.10	4810
105.00	3377	186.10	59552	273.00	9558	404.00	1584
106.10	1347	187.10	17016	274.10	22504	405.00	287
107.00	49032	188.10	1558	275.10	135104	410.10	193
108.10	7742	189.00	3391	276.10	17896	415.00	195
109.10	1610	190.00	594	277.00	11130	421.10	4215
110.00	88456	191.00	1868	278.00	1817	422.10	4011
111.00	13650	192.00	5021	279.00	429	423.10	32216
112.00	1623	193.10	5235	282.10	260	424.10	6100
113.00	603	194.00	1278	283.00	1145	425.10	564
116.10	2856	195.00	758	284.00	863	437.90	155
117.00	37144	196.00	13643	285.10	1890	439.10	550
118.00	2735	198.00	436032	286.00	330	441.10	94736
119.00	361	199.00	28520	288.00	181	442.10	625216

Data File: \\NAHSTWS005\Target\chem\SV6.i\230315.b\01.D

Date : 15-MAR-2023 13:05

Client ID: DFTPP

Instrument: SV6.i

Sample Info: DFTPP;DFTPP;3;;DFTPP

Operator: smith

Column phase: DB-5MS

Column diameter: 0.25

Data File: 01.D
Spectrum: HP ChemStation MS 01.D, Scan 352: 4.470 min. (SUB)
Location of Maximum: 442.10
Number of points: 304

m/z	Y	m/z	Y	m/z	Y	m/z	Y
120.00	568	200.10	2278	289.10	353	443.10	123576
121.00	254	201.50	2114	290.00	303	444.10	11905
122.00	3088	203.00	2916	291.00	329	445.00	692
123.00	4844	204.10	16904	292.10	438		
124.00	2191	205.10	27632	293.00	2526		
125.00	2272	206.10	118464	294.10	539		
127.10	175808	207.10	15168	296.00	37200		

Data File: \\NAHSTWS005\Target\chem\SV6.i\230315.b\03.D Page 1
Report Date: 15-Mar-2023 16:02

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230315.b\03.D
Lab Smp Id: 14DX-0.08 Client Smp ID: 14DX-0.08
Inj Date : 15-MAR-2023 15:13
Operator : LG Inst ID: SV6.i
Smp Info : 14DX-0.08
Misc Info : ;;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\SV6.i\230315.b\DXSIM.m
Meth Date : 15-Mar-2023 16:00 marco.guti Quant Type: ISTD
Cal Date : 26-JAN-2023 19:09 Cal File: 25.D
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7095

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)
* 20 1,4-Dichlorobenzene-d4	152	2.609	2.609	(1.000)	4074	0.10000	(aQM)
* 45 Naphthalene-d8	136	3.673	3.673	(1.000)	16450	0.10000	(M)
$ 33 Nitrobenzene-d5	82	3.054	3.054	(0.832)	3760	0.08000	0.07922(QM)
* 86 Acenaphthene-d10	164	5.310	5.310	(1.000)	11890	0.10000	(M)
$ 69 2-Fluorobiphenyl	172	4.698	4.698	(0.885)	11622	0.08000	0.07447(M)
* 126 Phenanthrene-d10	188	6.733	6.733	(1.000)	22113	0.10000	(M)
* 182 Chrysene-d12	240	9.299	9.299	(1.000)	11258	0.10000	(M)
$ 158 4-Terphenyl-d14	244	8.314	8.314	(0.894)	14354	0.08000	0.07611(M)
* 198 Perylene-d12	264	10.985	10.985	(1.000)	9691	0.10000	(M)
1 1,4-Dioxane	58	1.069	1.069	(0.410)	1100	0.08000	0.07402(Q)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

01182980

Data File: \\NAHSTWS005\Target\chem\SV6.i\230315.b\03.D

Date : 15-MAR-2023 15:13

Client ID: 14DX-0.08

Instrument: SV6.i

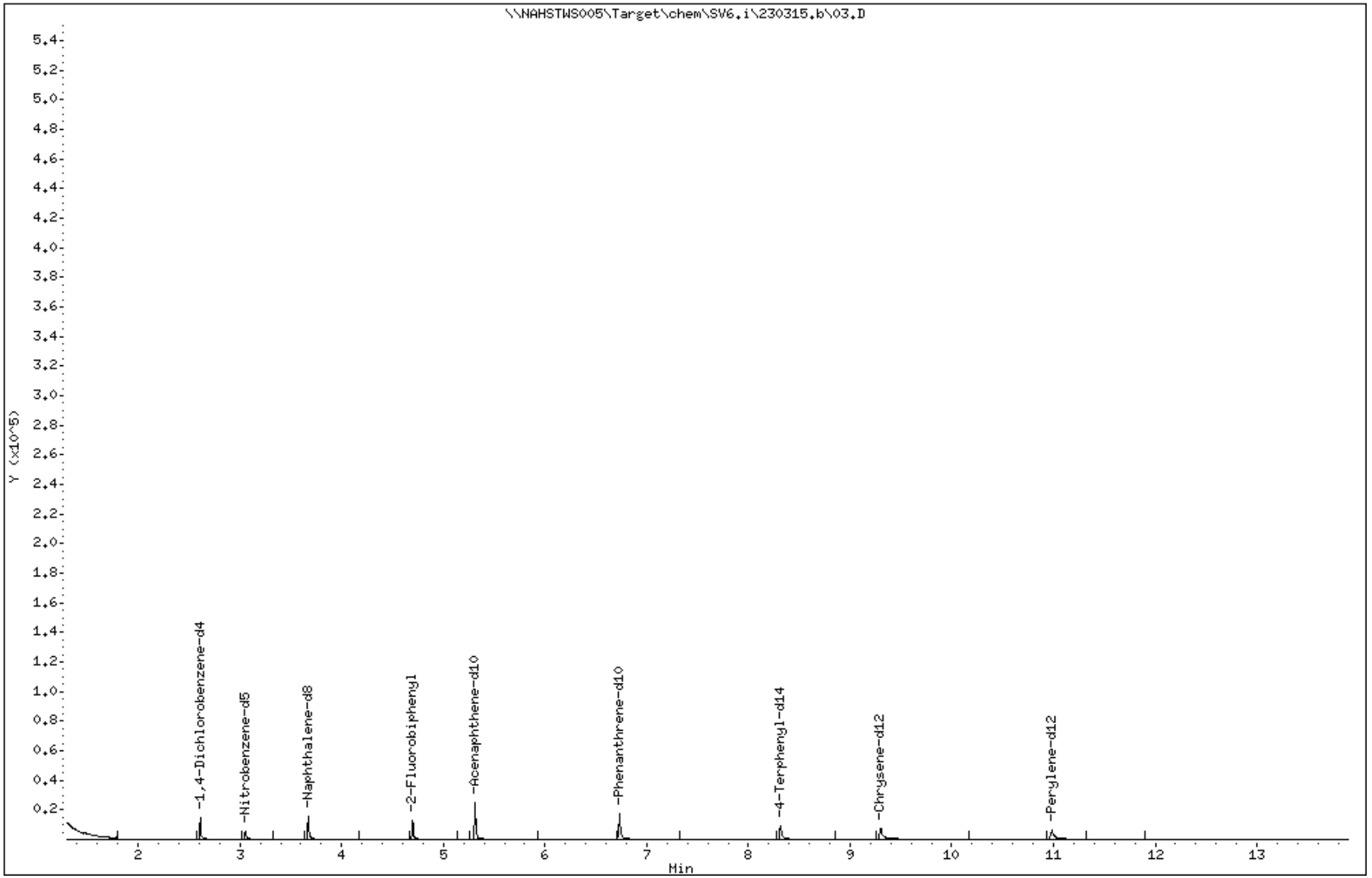
Sample Info: 14DX-0.08

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28

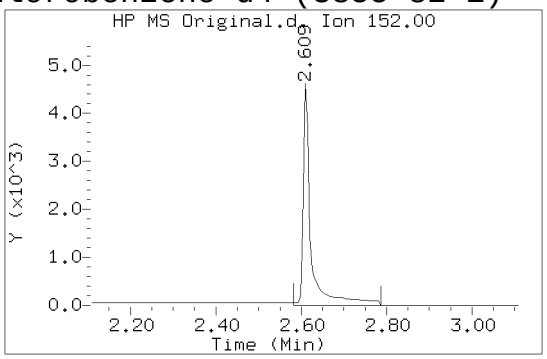


Data File : \\NAHSTWS005\Target\chem\SV6.i\230315.b\03.D
Inj Date : 15-MAR-2023 15:13
InstruID : SV6.i
LabSampID : 14DX-0.08

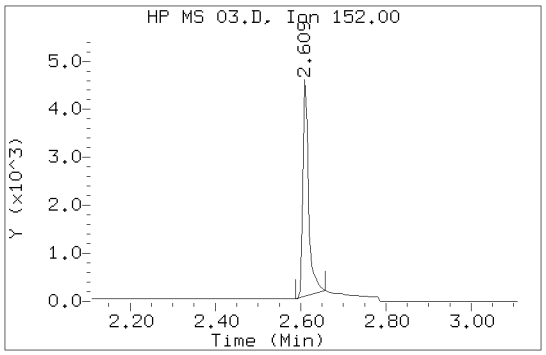
1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

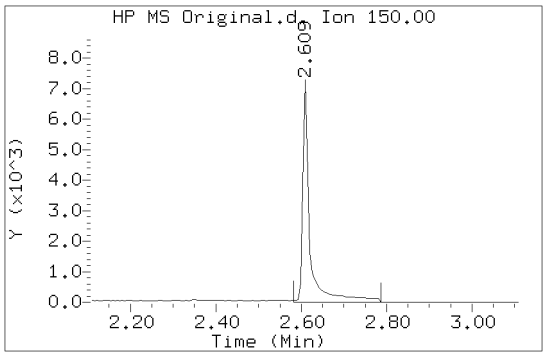
BEFORE
MASS
152
AREA
5696
HEIGHT
4618
15-Mar-2023
15:28
ALSHS
Server



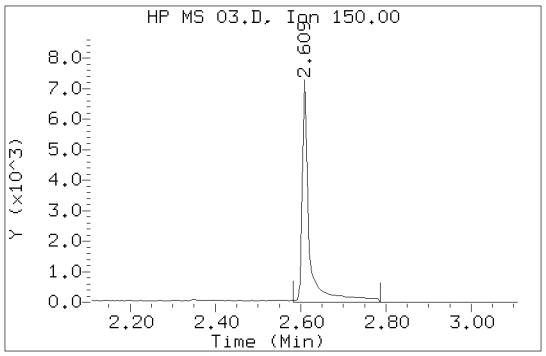
AFTER
MASS
152
AREA
4074
HEIGHT
4512
15-Mar-2023
16:02



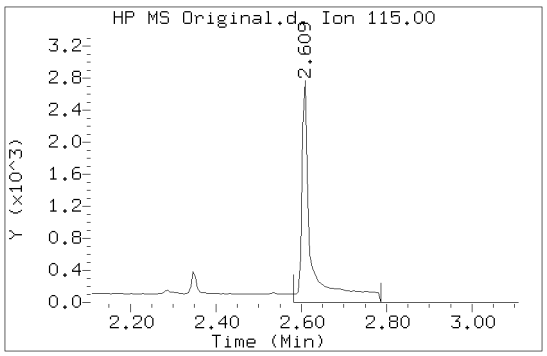
BEFORE
MASS
150
AREA
8258
HEIGHT
7288
15-Mar-2023
15:28
ALSHS
Server



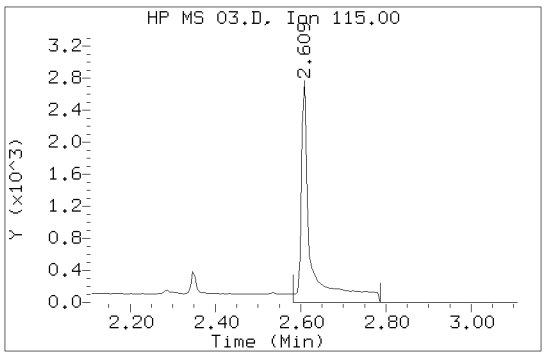
AFTER
MASS
150
AREA
8258
HEIGHT
7288
15-Mar-2023
16:02



BEFORE
MASS
115
AREA
4218
HEIGHT
2767
15-Mar-2023
15:28
ALSHS
Server



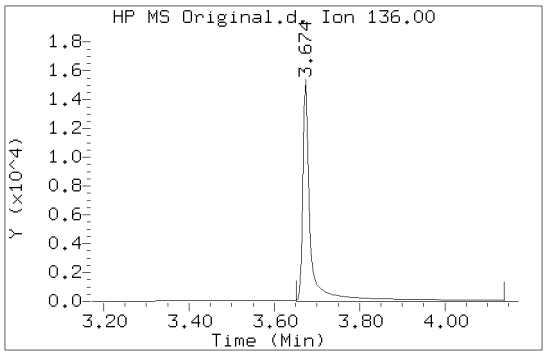
AFTER
MASS
115
AREA
4218
HEIGHT
2767
15-Mar-2023
16:02



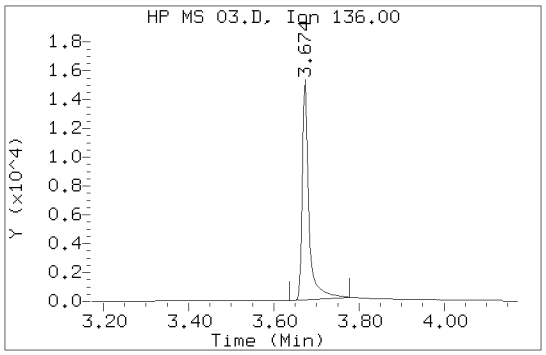
Naphthalene-d8 (1146-65-2)

Reason Code:

BEFORE
MASS
136
AREA
20859
HEIGHT
15385
15-Mar-2023
15:28
ALSHS
Server



AFTER
MASS
136
AREA
16450
HEIGHT
15262
15-Mar-2023
16:02



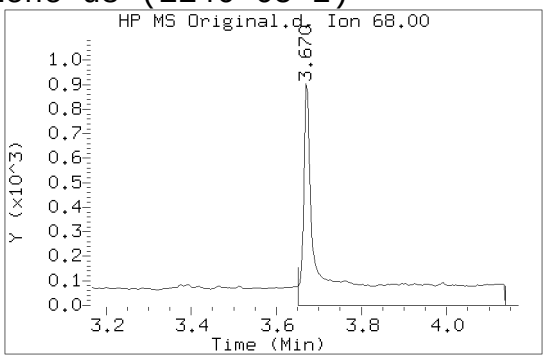
Data File : \\NAHSTWS005\Target\chem\SV6.i\230315.b\03.D
Inj Date : 15-MAR-2023 15:13
InstruID : SV6.i
LabSampID : 14DX-0.08

Naphthalene-d8 (1146-65-2)

Reason Code:

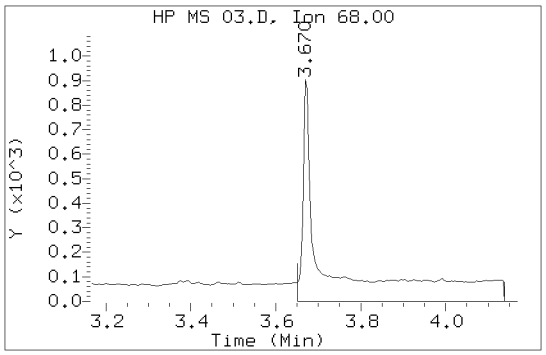
BEFORE

MASS
68
AREA
3348
HEIGHT
904
15-Mar-2023
15:28
ALSHS
Server



AFTER

MASS
68
AREA
3348
HEIGHT
904
15-Mar-2023
16:02

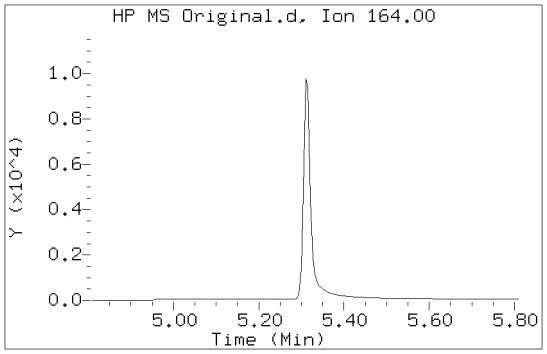


Acenaphthene-d10 (15067-26-2)

Reason Code:

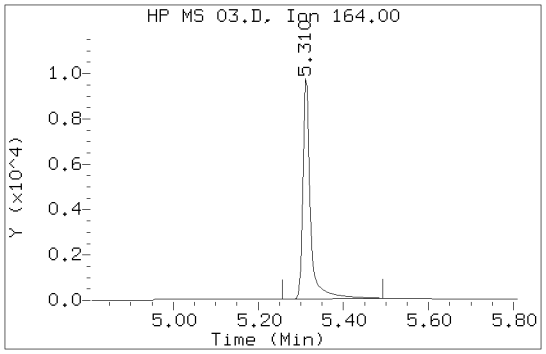
BEFORE

MASS
164
AREA
13043
HEIGHT
9748
15-Mar-2023
15:28
ALSHS
Server



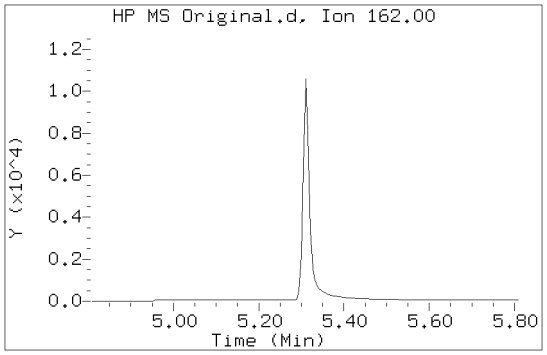
AFTER

MASS
164
AREA
11890
HEIGHT
9703
15-Mar-2023
16:02



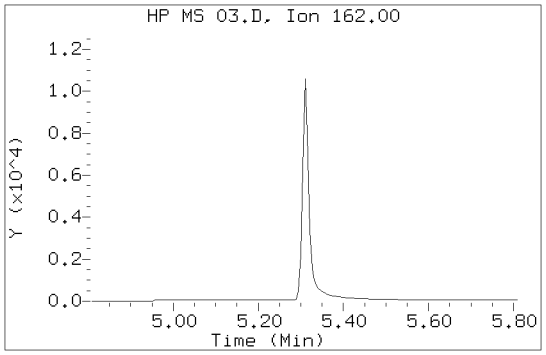
BEFORE

MASS
162
AREA
12979
HEIGHT
10566
15-Mar-2023
15:28
ALSHS
Server



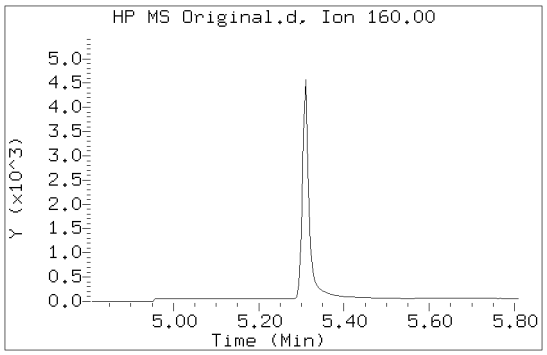
AFTER

MASS
162
AREA
12979
HEIGHT
10566
15-Mar-2023
16:02



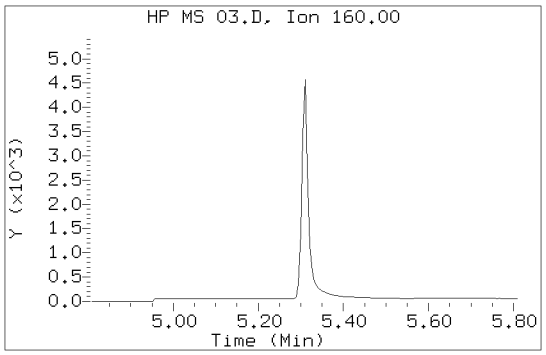
BEFORE

MASS
160
AREA
6039
HEIGHT
4550
15-Mar-2023
15:28
ALSHS
Server



AFTER

MASS
160
AREA
6039
HEIGHT
4550
15-Mar-2023
16:02



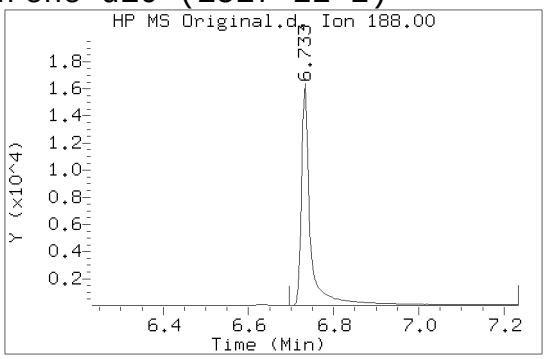
Data File : \\NAHSTWS005\Target\chem\SV6.i\230315.b\03.D
Inj Date : 15-MAR-2023 15:13
InstruID : SV6.i
LabSampID : 14DX-0.08

Phenanthrene-d10 (1517-22-2)

Reason Code:

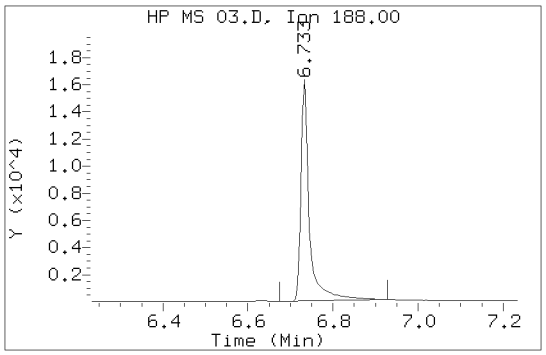
BEFORE

MASS
188
AREA
23941
HEIGHT
16315
15-Mar-2023
15:28
ALSHS
Server



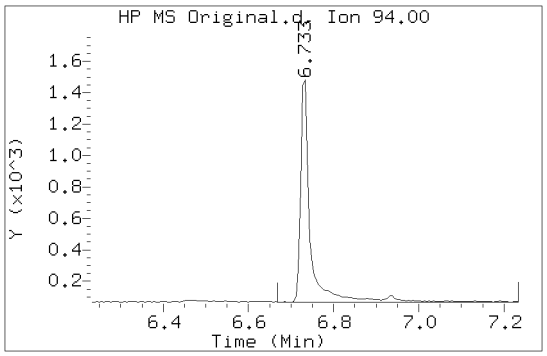
AFTER

MASS
188
AREA
22113
HEIGHT
16284
15-Mar-2023
16:02



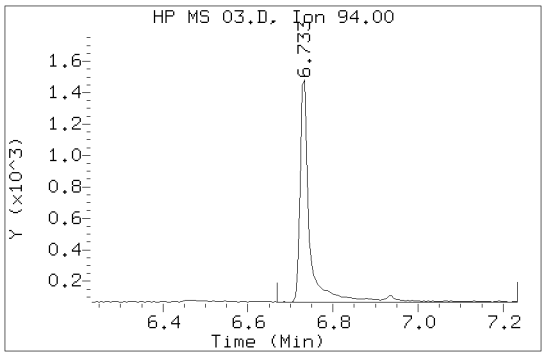
BEFORE

MASS
94
AREA
2264
HEIGHT
1413
15-Mar-2023
15:28
ALSHS
Server



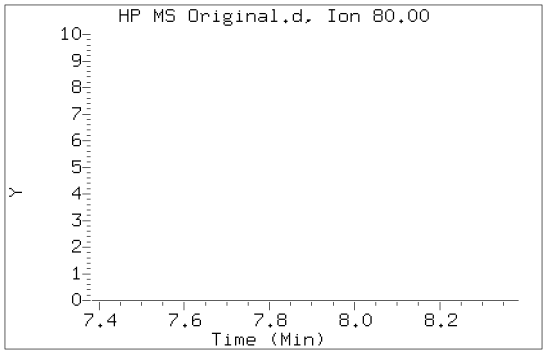
AFTER

MASS
94
AREA
2264
HEIGHT
1413
15-Mar-2023
16:02



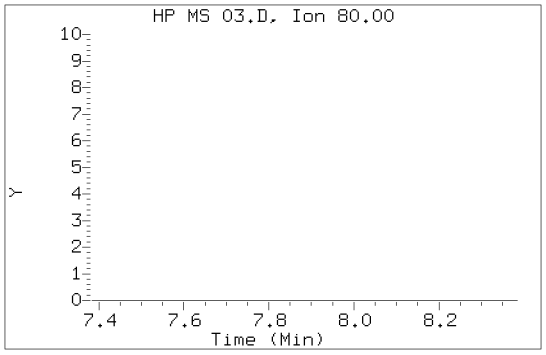
BEFORE

MASS
80
AREA
0
HEIGHT
0
15-Mar-2023
15:28
ALSHS
Server



AFTER

MASS
80
AREA
0
HEIGHT
0
15-Mar-2023
16:02

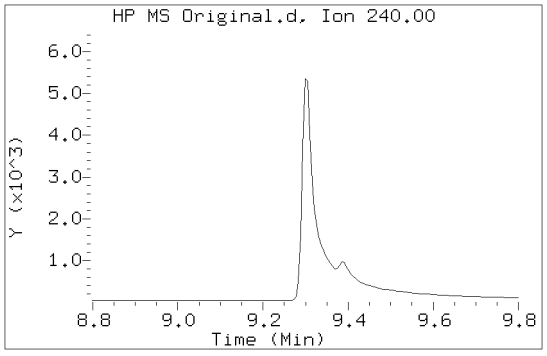


Chrysene-d12 (1719-03-5)

Reason Code:

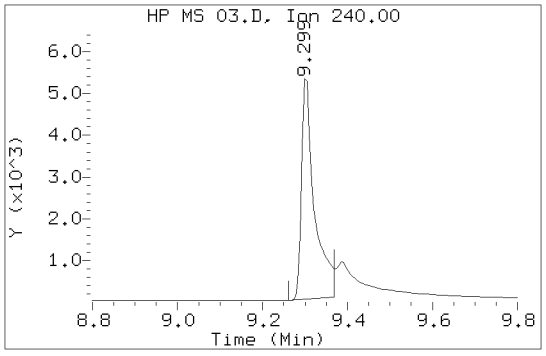
BEFORE

MASS
240
AREA
0
HEIGHT
0
15-Mar-2023
15:28
ALSHS
Server



AFTER

MASS
240
AREA
11258
HEIGHT
5282
15-Mar-2023
16:02

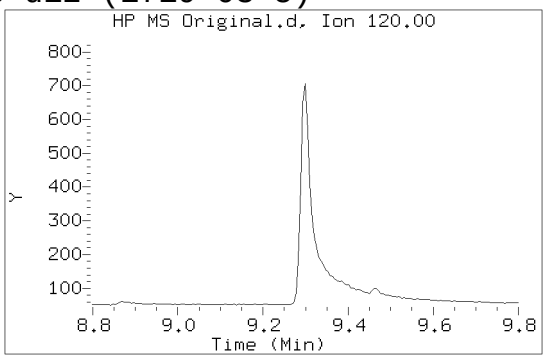


Data File : \\NAHSTWS005\Target\chem\SV6.i\230315.b\03.D
Inj Date : 15-MAR-2023 15:13
InstruID : SV6.i
LabSampID : 14DX-0.08

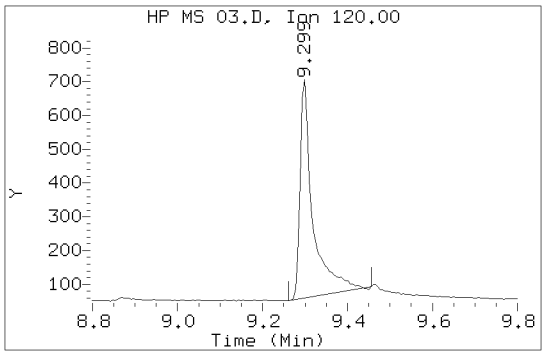
Chrysene-d12 (1719-03-5)

Reason Code:

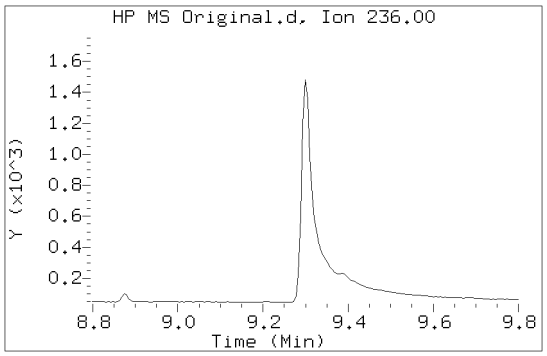
BEFORE
MASS
120
AREA
0
HEIGHT
0
15-Mar-2023
15:28
ALSHS
Server



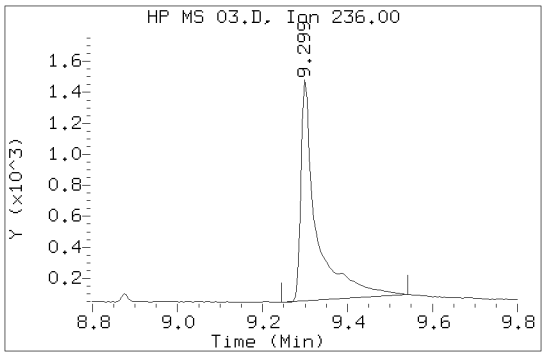
AFTER
MASS
120
AREA
1337
HEIGHT
646
15-Mar-2023
16:02



BEFORE
MASS
236
AREA
0
HEIGHT
0
15-Mar-2023
15:28
ALSHS
Server



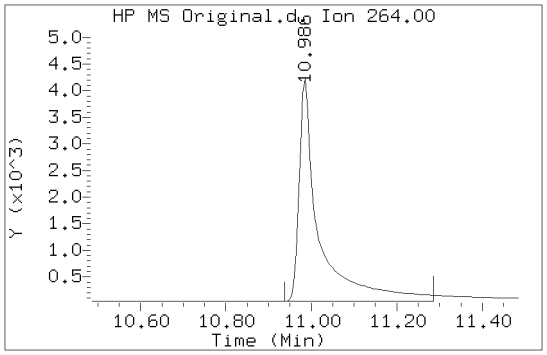
AFTER
MASS
236
AREA
3634
HEIGHT
1423
15-Mar-2023
16:02



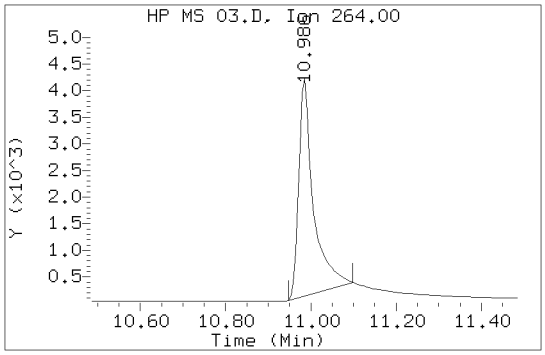
Perylene-d12 (1520-96-3)

Reason Code:

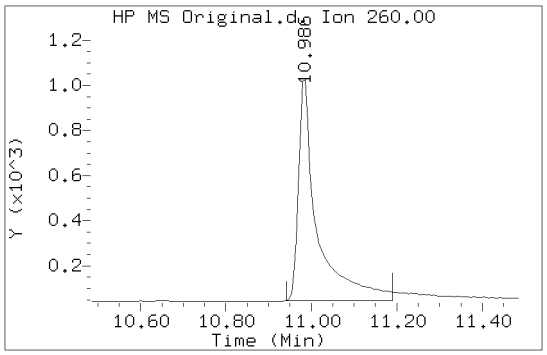
BEFORE
MASS
264
AREA
13511
HEIGHT
4174
15-Mar-2023
15:28
ALSHS
Server



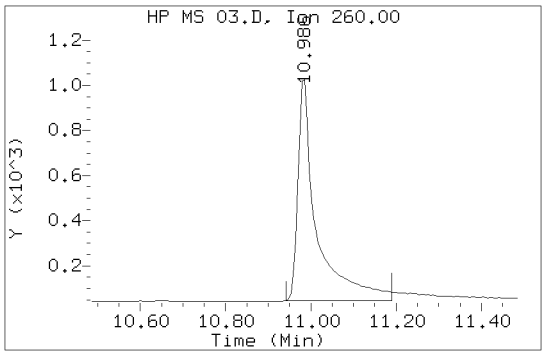
AFTER
MASS
264
AREA
9691
HEIGHT
4074
15-Mar-2023
16:02



BEFORE
MASS
260
AREA
2991
HEIGHT
979
15-Mar-2023
15:28
ALSHS
Server



AFTER
MASS
260
AREA
2991
HEIGHT
979
15-Mar-2023
16:02



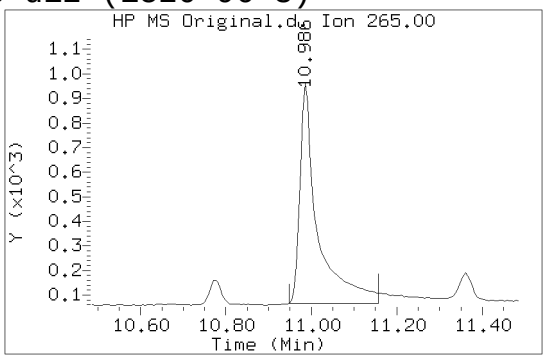
Data File : \\NAHSTWS005\Target\chem\SV6.i\230315.b\03.D
Inj Date : 15-MAR-2023 15:13
InstruID : SV6.i
LabSampID : 14DX-0.08

Perylene-d12 (1520-96-3)

Reason Code:

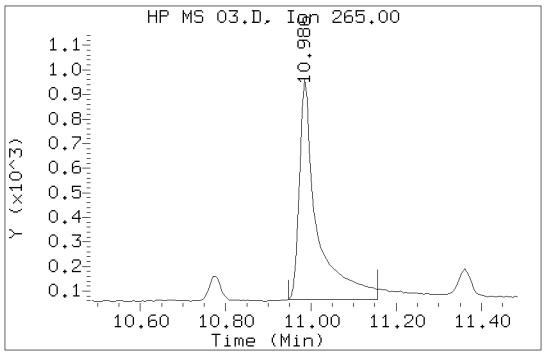
BEFORE

MASS
265
AREA
2566
HEIGHT
894
15-Mar-2023
15:28
ALSHS
Server



AFTER

MASS
265
AREA
2566
HEIGHT
894
15-Mar-2023
16:02

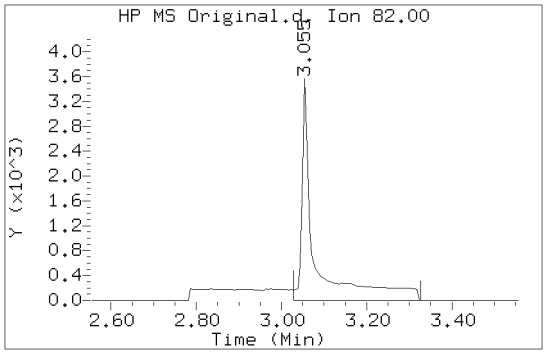


Nitrobenzene-d5 (4165-60-0)

Reason Code:

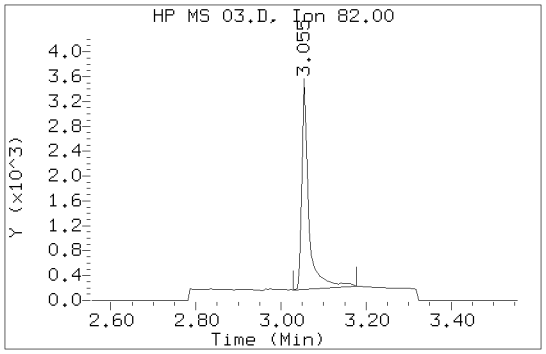
BEFORE

MASS
82
AREA
7243
HEIGHT
3567
15-Mar-2023
15:28
ALSHS
Server



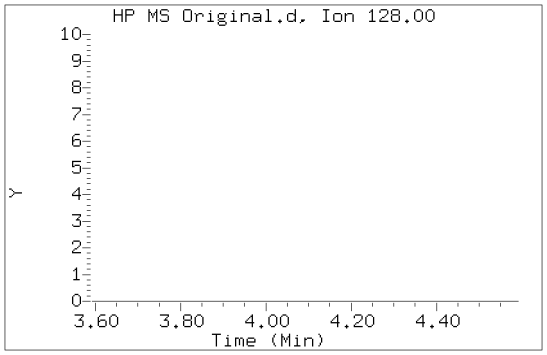
AFTER

MASS
82
AREA
3760
HEIGHT
3389
15-Mar-2023
16:02



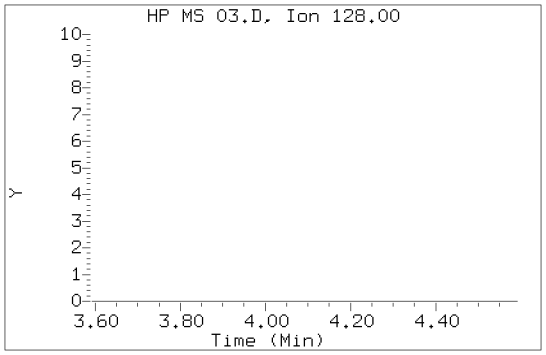
BEFORE

MASS
128
AREA
0
HEIGHT
0
15-Mar-2023
15:28
ALSHS
Server



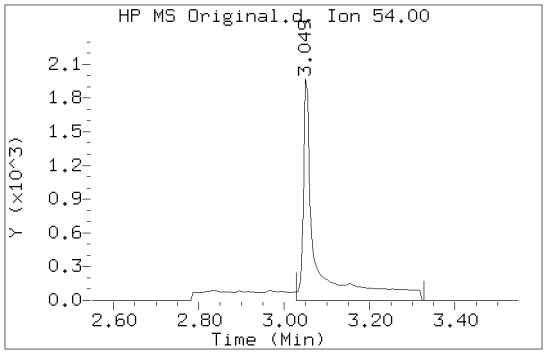
AFTER

MASS
128
AREA
0
HEIGHT
0
15-Mar-2023
16:02



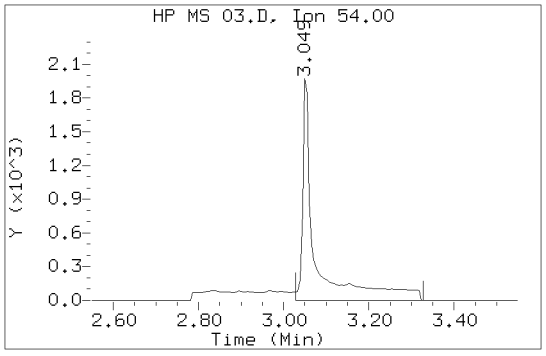
BEFORE

MASS
54
AREA
4012
HEIGHT
1972
15-Mar-2023
15:28
ALSHS
Server



AFTER

MASS
54
AREA
4012
HEIGHT
1972
15-Mar-2023
16:02



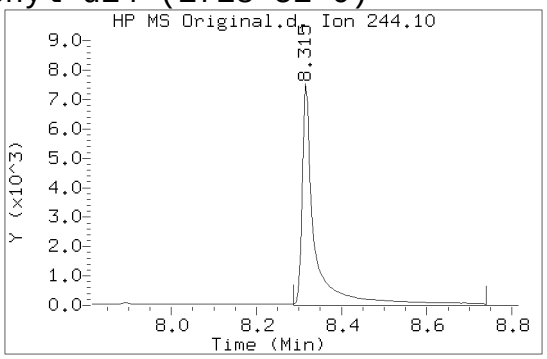
Data File : \\NAHSTWS005\Target\chem\SV6.i\230315.b\03.D
Inj Date : 15-MAR-2023 15:13
InstruID : SV6.i
LabSampID : 14DX-0.08

4-Terphenyl-d14 (1718-51-0)

Reason Code:

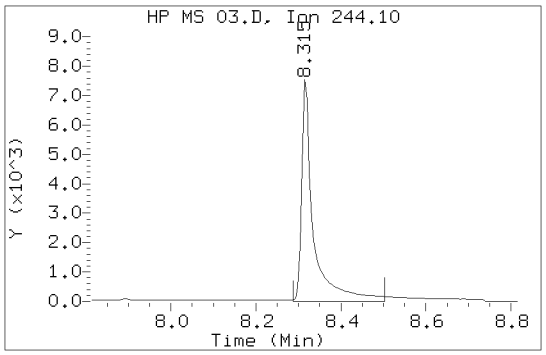
BEFORE

MASS
244.1
AREA
15711
HEIGHT
7542
15-Mar-2023
15:28
ALSHS
Server



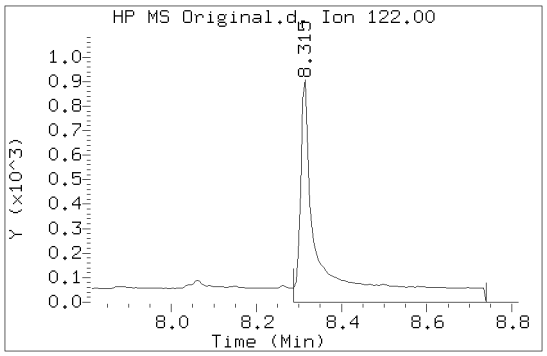
AFTER

MASS
244.1
AREA
14354
HEIGHT
7542
15-Mar-2023
16:02



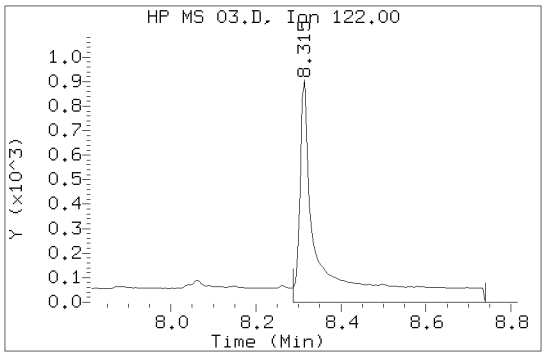
BEFORE

MASS
122
AREA
3101
HEIGHT
907
15-Mar-2023
15:28
ALSHS
Server



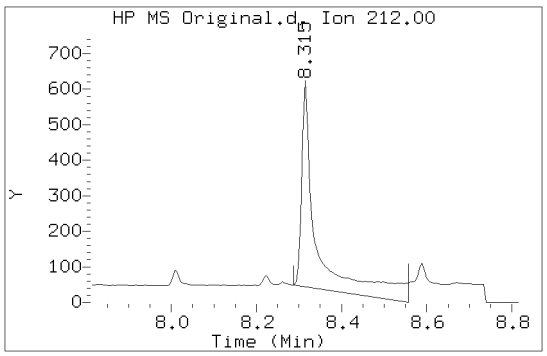
AFTER

MASS
122
AREA
3101
HEIGHT
907
15-Mar-2023
16:02



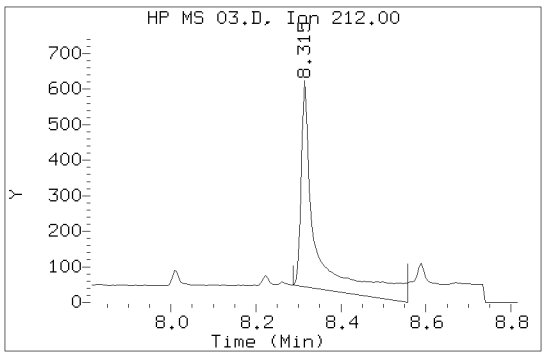
BEFORE

MASS
212
AREA
1407
HEIGHT
580
15-Mar-2023
15:28
ALSHS
Server



AFTER

MASS
212
AREA
1407
HEIGHT
580
15-Mar-2023
16:02

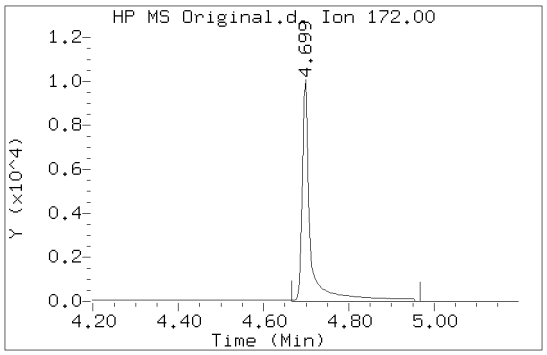


2-Fluorobiphenyl (321-60-8)

Reason Code:

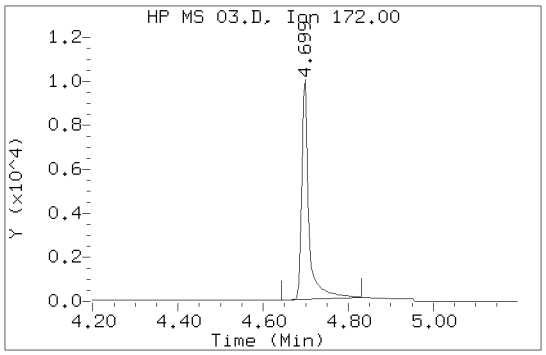
BEFORE

MASS
172
AREA
14134
HEIGHT
10078
15-Mar-2023
15:28
ALSHS
Server



AFTER

MASS
172
AREA
11622
HEIGHT
9977
15-Mar-2023
16:02



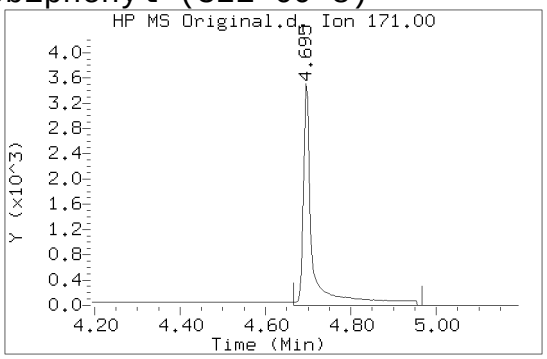
Data File : \\NAHSTWS005\Target\chem\SV6.i\230315.b\03.D
Inj Date : 15-MAR-2023 15:13
InstruID : SV6.i
LabSampID : 14DX-0.08

2-Fluorobiphenyl (321-60-8)

Reason Code:

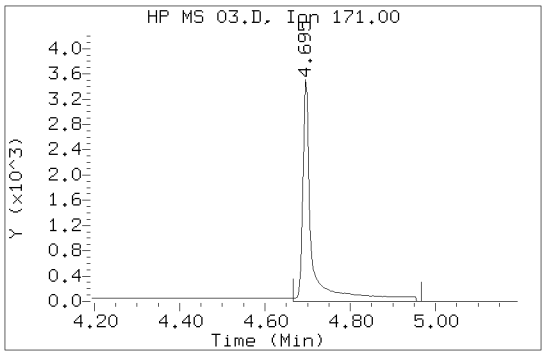
BEFORE

MASS
171
AREA
5398
HEIGHT
3509
15-Mar-2023
15:28
ALSHS
Server



AFTER

MASS
171
AREA
5398
HEIGHT
3509
15-Mar-2023
16:02



Data File: \\NAHSTWS005\Target\chem\SV6.i\230315.b\06.D Page 1
Report Date: 16-Mar-2023 08:55

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230315.b\06.D
Lab Smp Id: MBLK-190734
Inj Date : 15-MAR-2023 16:43
Operator : LG Inst ID: SV6.i
Smp Info : MBLK-190734
Misc Info :
Comment :
Method : \\nahstws005\Target\chem\SV6.i\230315.b\DXSIM.m
Meth Date : 15-Mar-2023 16:00 marco.guti Quant Type: ISTD
Cal Date : 26-JAN-2023 19:09 Cal File: 25.D
Als bottle: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTWS005

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)
* 20 1,4-Dichlorobenzene-d4	152	2.609	2.609	(1.000)	2580	0.10000	(aM)
* 45 Naphthalene-d8	136	3.670	3.673	(1.000)	9979	0.10000	(M)
$ 33 Nitrobenzene-d5	82	3.049	3.054	(0.831)	2139	0.07429	0.07429(M)
* 86 Acenaphthene-d10	164	5.312	5.310	(1.000)	6353	0.10000	(M)
$ 69 2-Fluorobiphenyl	172	4.698	4.698	(0.885)	6271	0.07521	0.07521(M)
* 126 Phenanthrene-d10	188	6.729	6.733	(1.000)	11902	0.10000	(M)
* 182 Chrysene-d12	240	9.295	9.299	(1.000)	6337	0.10000	(M)
$ 158 4-Terphenyl-d14	244	8.311	8.314	(0.894)	6672	0.06573	0.06573(M)
* 198 Perylene-d12	264	10.982	10.985	(1.000)	5260	0.10000	(M)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

01182989

Data File: \\NAHSTWS005\Target\chem\SV6.i\230315.b\06.D

Date : 15-MAR-2023 16:43

Client ID:

Instrument: SV6.i

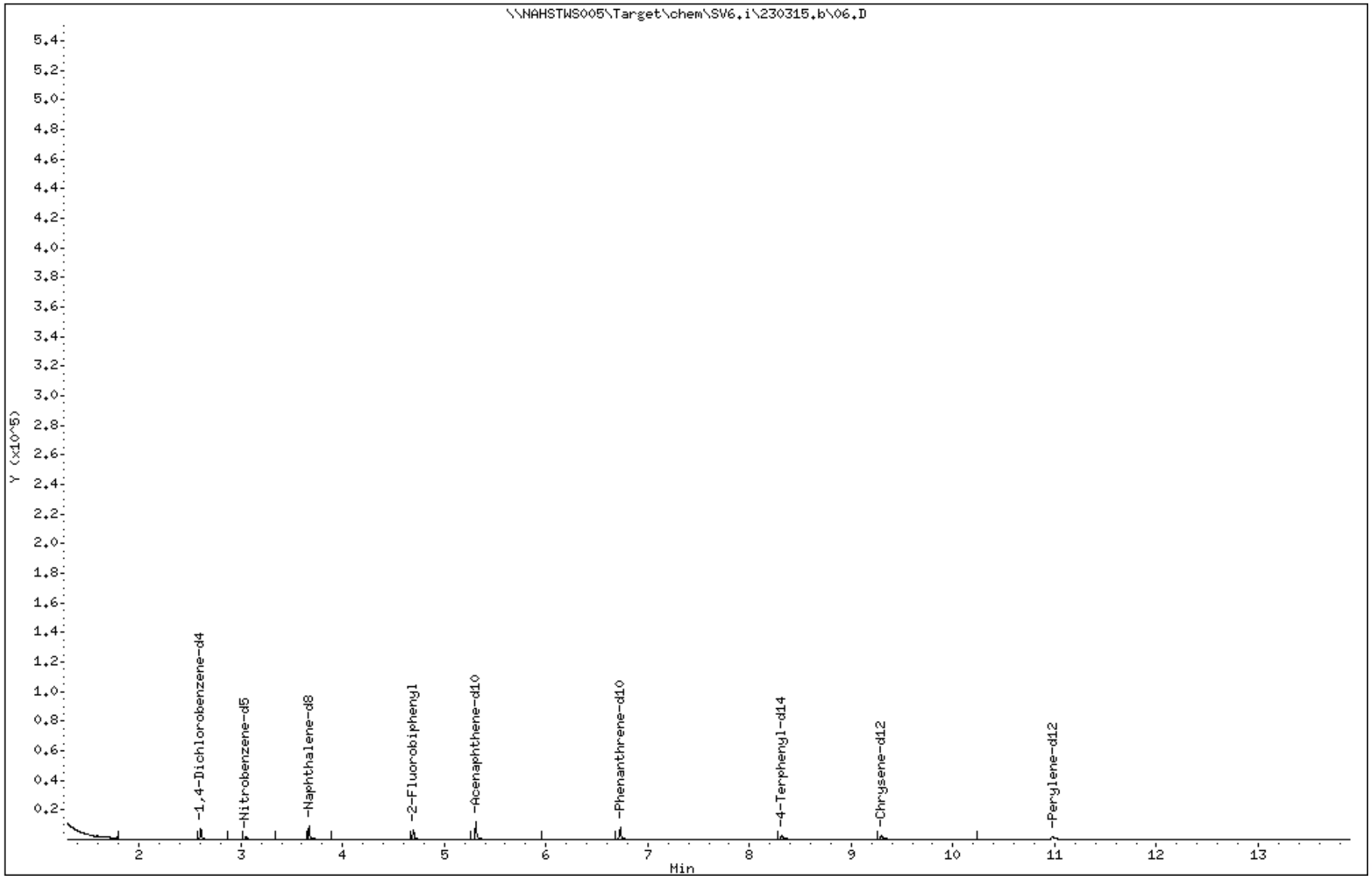
Sample Info: MBLK-190734

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28



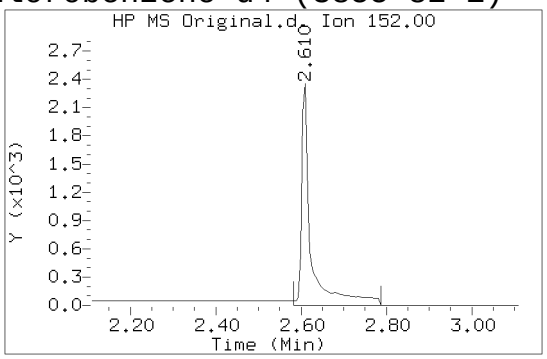
Data File : \\NAHSTWS005\Target\chem\SV6.i\230315.b\06.D
Inj Date : 15-MAR-2023 16:43
InstruID : SV6.i
LabSampID : MBLK-190734

1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

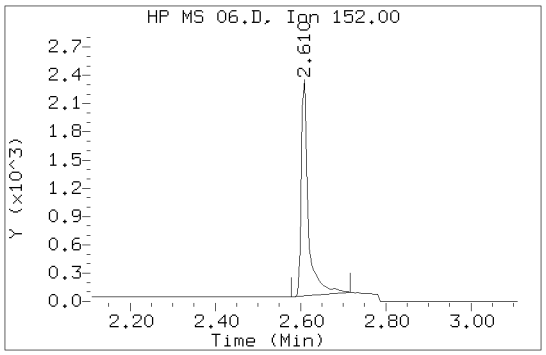
BEFORE

MASS
152
AREA
3520
HEIGHT
2353
15-Mar-2023
16:58
ALSHS
Server



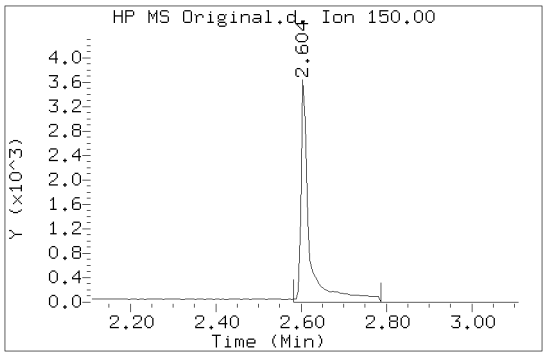
AFTER

MASS
152
AREA
2580
HEIGHT
2294
16-Mar-2023
08:55



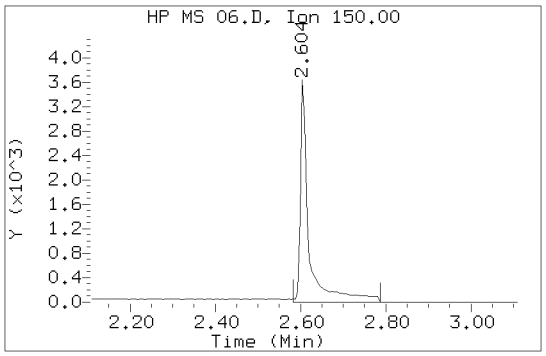
BEFORE

MASS
150
AREA
5007
HEIGHT
3640
15-Mar-2023
16:58
ALSHS
Server



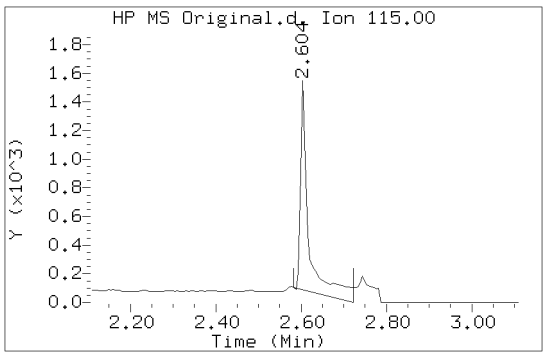
AFTER

MASS
150
AREA
5007
HEIGHT
3640
16-Mar-2023
08:55



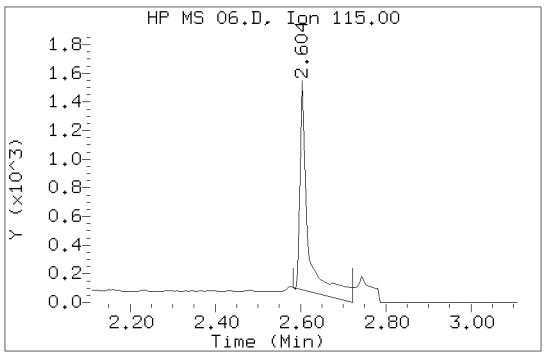
BEFORE

MASS
115
AREA
1924
HEIGHT
1463
15-Mar-2023
16:58
ALSHS
Server



AFTER

MASS
115
AREA
1924
HEIGHT
1463
16-Mar-2023
08:55

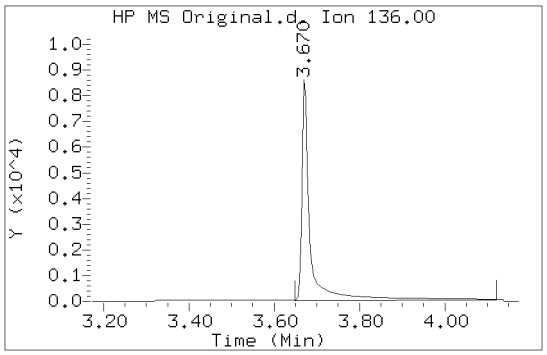


Naphthalene-d8 (1146-65-2)

Reason Code:

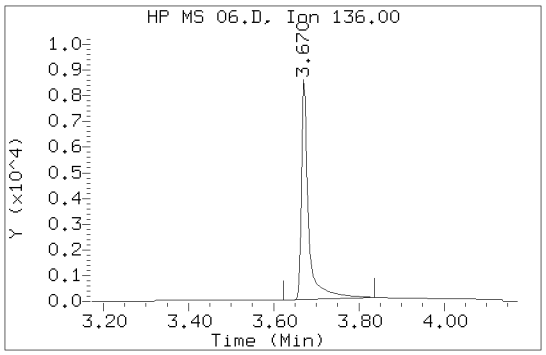
BEFORE

MASS
136
AREA
11906
HEIGHT
8591
15-Mar-2023
16:58
ALSHS
Server



AFTER

MASS
136
AREA
9979
HEIGHT
8547
16-Mar-2023
08:55

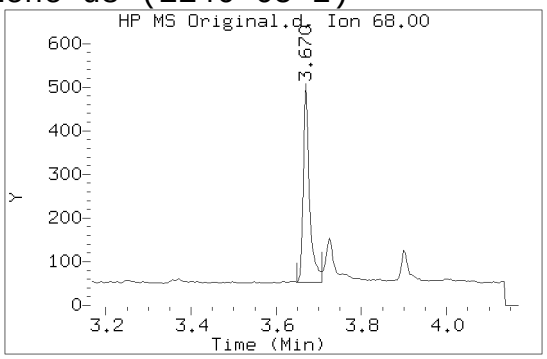


Data File : \\NAHSTWS005\Target\chem\SV6.i\230315.b\06.D
Inj Date : 15-MAR-2023 16:43
InstruID : SV6.i
LabSampID : MBLK-190734

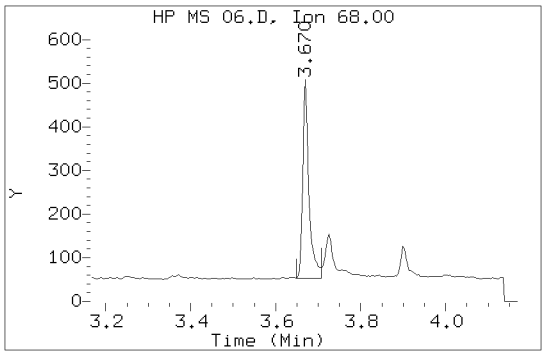
Naphthalene-d8 (1146-65-2)

Reason Code:

BEFORE
MASS
68
AREA
468
HEIGHT
455
15-Mar-2023
16:58
ALSHS
Server



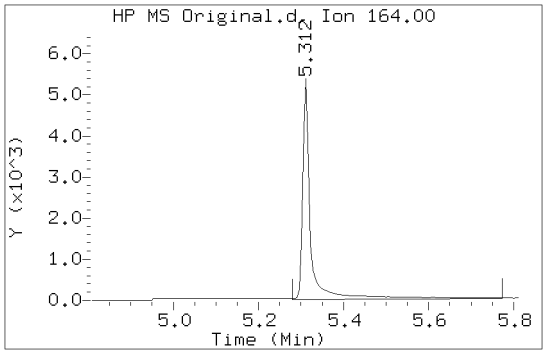
AFTER
MASS
68
AREA
468
HEIGHT
455
16-Mar-2023
08:55



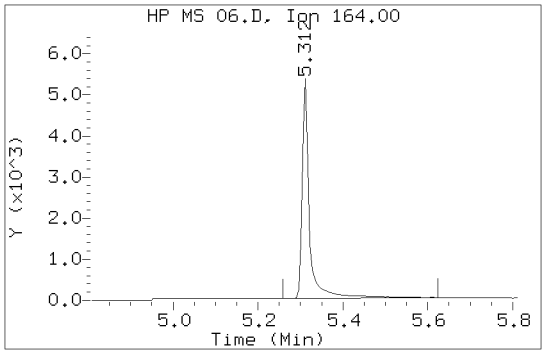
Acenaphthene-d10 (15067-26-2)

Reason Code:

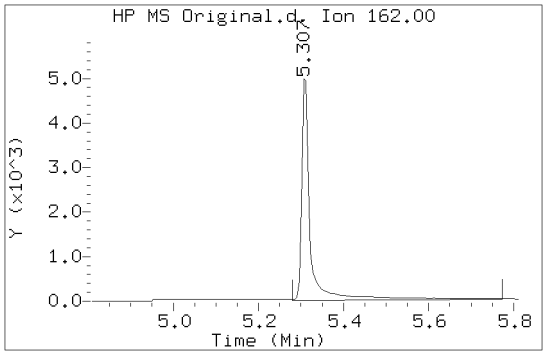
BEFORE
MASS
164
AREA
7095
HEIGHT
5371
15-Mar-2023
16:58
ALSHS
Server



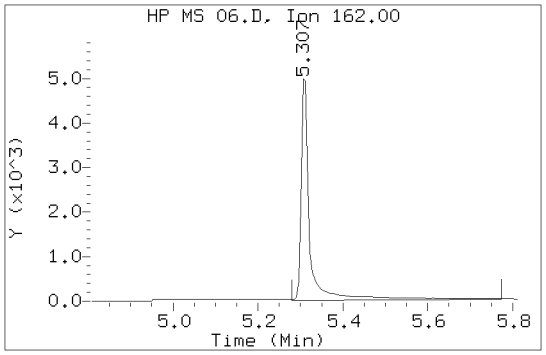
AFTER
MASS
164
AREA
6353
HEIGHT
5343
16-Mar-2023
08:55



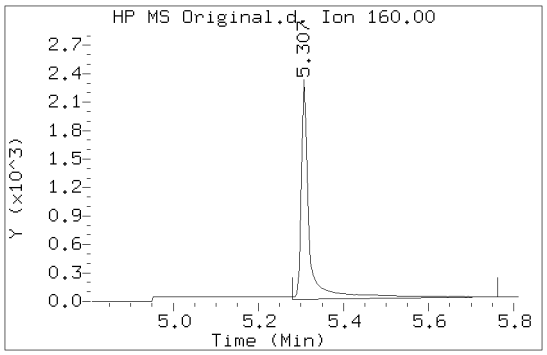
BEFORE
MASS
162
AREA
7103
HEIGHT
4970
15-Mar-2023
16:58
ALSHS
Server



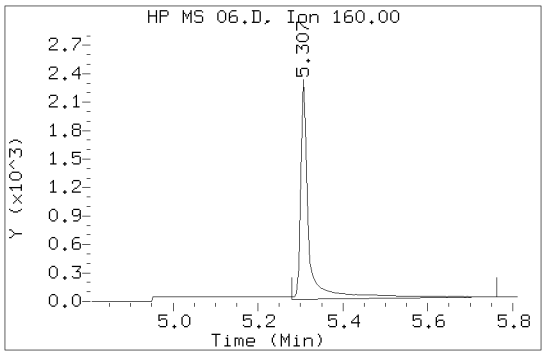
AFTER
MASS
162
AREA
7103
HEIGHT
4970
16-Mar-2023
08:55



BEFORE
MASS
160
AREA
3274
HEIGHT
2316
15-Mar-2023
16:58
ALSHS
Server



AFTER
MASS
160
AREA
3274
HEIGHT
2316
16-Mar-2023
08:55



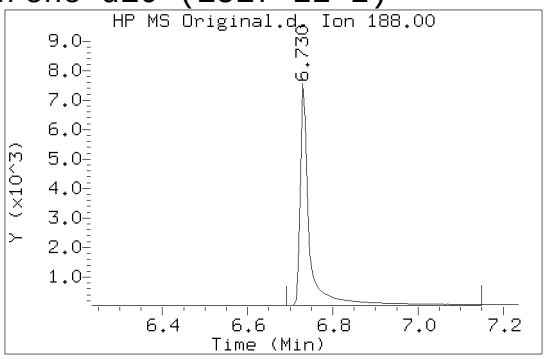
Data File : \\NAHSTWS005\Target\chem\SV6.i\230315.b\06.D
Inj Date : 15-MAR-2023 16:43
InstruID : SV6.i
LabSampID : MBLK-190734

Phenanthrene-d10 (1517-22-2)

Reason Code:

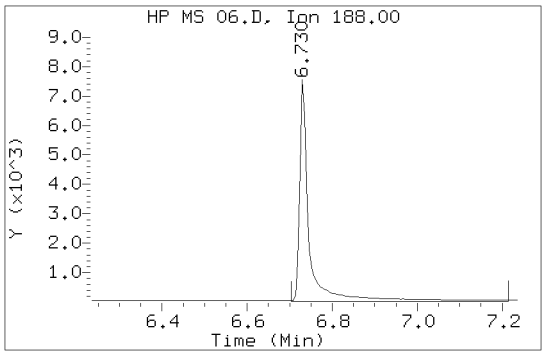
BEFORE

MASS
188
AREA
11205
HEIGHT
7511
15-Mar-2023
16:58
ALSHS
Server



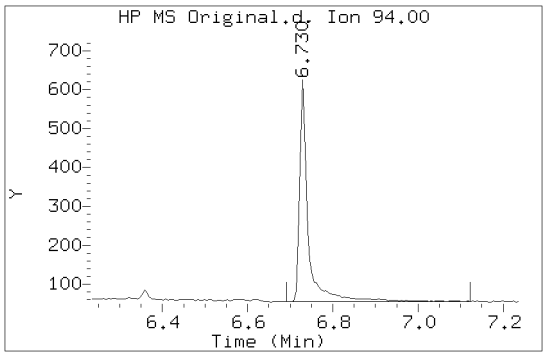
AFTER

MASS
188
AREA
11902
HEIGHT
7531
16-Mar-2023
08:55



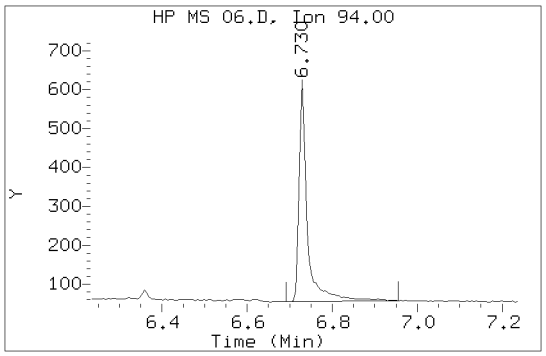
BEFORE

MASS
94
AREA
805
HEIGHT
570
15-Mar-2023
16:58
ALSHS
Server



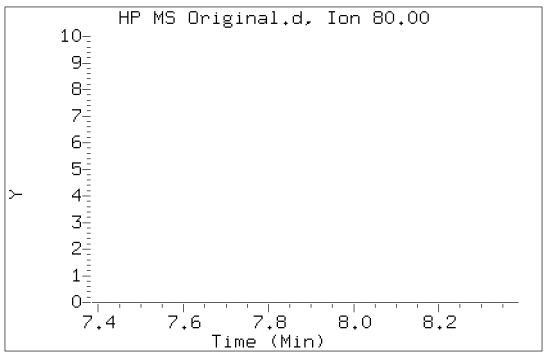
AFTER

MASS
94
AREA
761
HEIGHT
569
16-Mar-2023
08:55



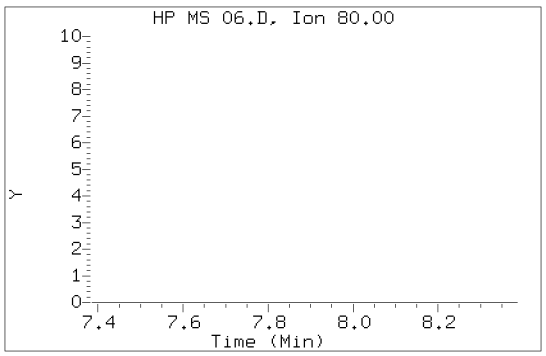
BEFORE

MASS
80
AREA
0
HEIGHT
0
15-Mar-2023
16:58
ALSHS
Server



AFTER

MASS
80
AREA
0
HEIGHT
0
16-Mar-2023
08:55

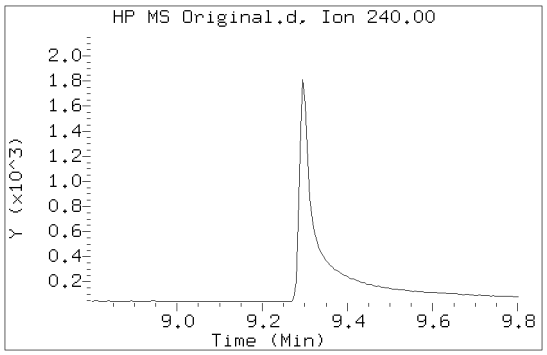


Chrysene-d12 (1719-03-5)

Reason Code:

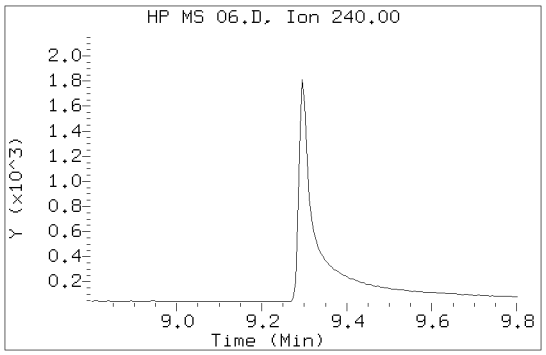
BEFORE

MASS
240
AREA
0
HEIGHT
0
15-Mar-2023
16:58
ALSHS
Server



AFTER

MASS
240
AREA
6337
HEIGHT
1771
16-Mar-2023
08:55

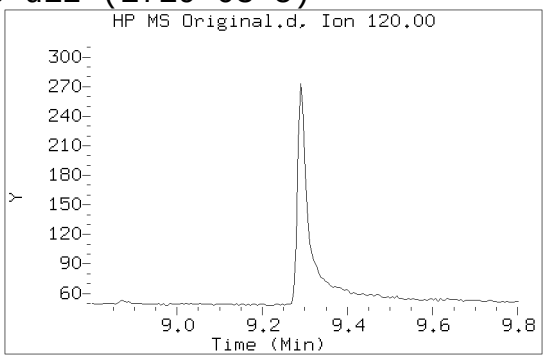


Data File : \\NAHSTWS005\Target\chem\SV6.i\230315.b\06.D
Inj Date : 15-MAR-2023 16:43
InstruID : SV6.i
LabSampID : MBLK-190734

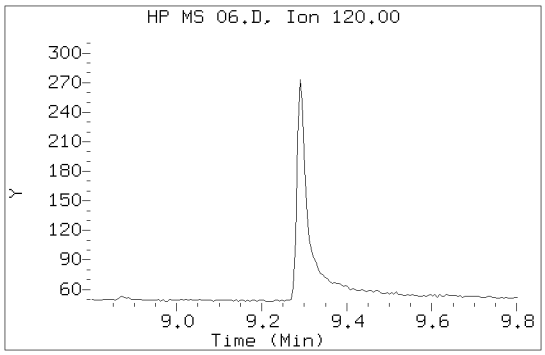
Chrysene-d12 (1719-03-5)

Reason Code:

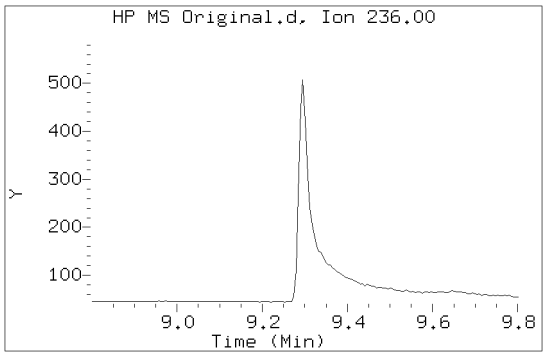
BEFORE
MASS
120
AREA
0
HEIGHT
0
15-Mar-2023
16:58
ALSHS
Server



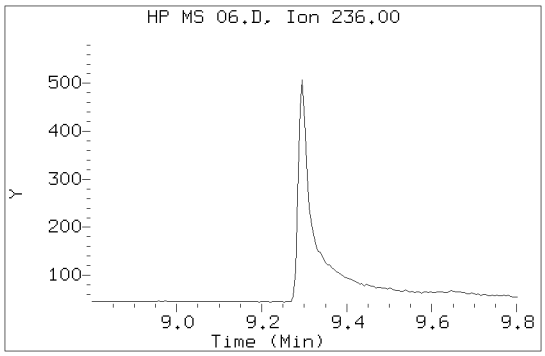
AFTER
MASS
120
AREA
0
HEIGHT
0
16-Mar-2023
08:55



BEFORE
MASS
236
AREA
0
HEIGHT
0
15-Mar-2023
16:58
ALSHS
Server



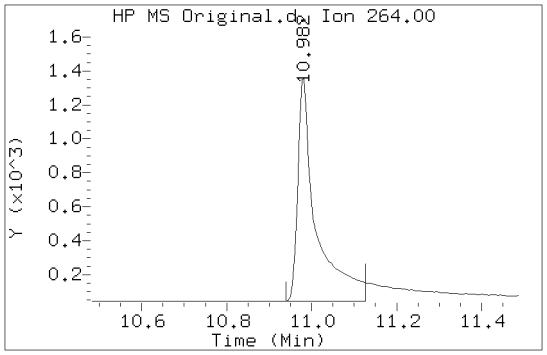
AFTER
MASS
236
AREA
0
HEIGHT
0
16-Mar-2023
08:55



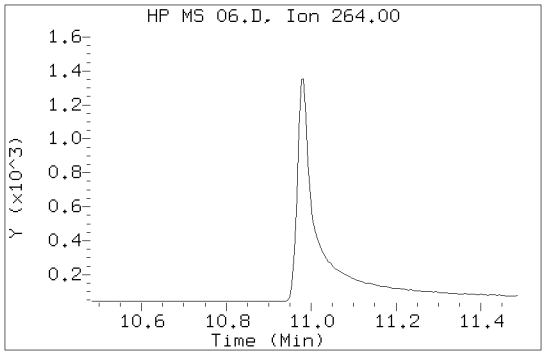
Perylene-d12 (1520-96-3)

Reason Code:

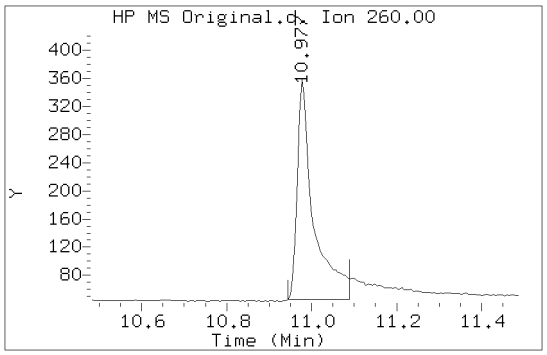
BEFORE
MASS
264
AREA
3947
HEIGHT
1308
15-Mar-2023
16:58
ALSHS
Server



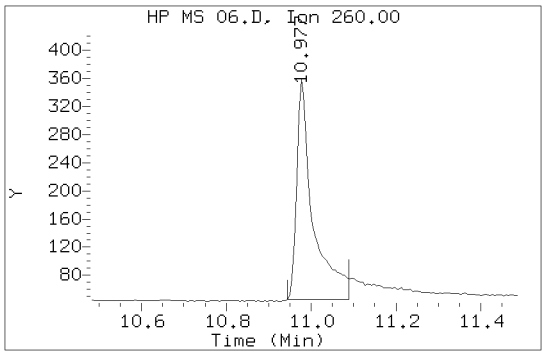
AFTER
MASS
264
AREA
5260
HEIGHT
1311
16-Mar-2023
08:55



BEFORE
MASS
260
AREA
835
HEIGHT
312
15-Mar-2023
16:58
ALSHS
Server



AFTER
MASS
260
AREA
835
HEIGHT
312
16-Mar-2023
08:55



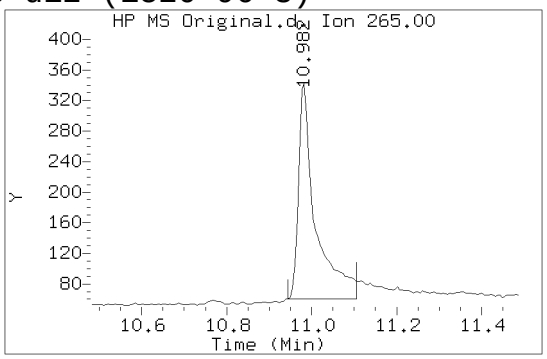
Data File : \\NAHSTWS005\Target\chem\SV6.i\230315.b\06.D
Inj Date : 15-MAR-2023 16:43
InstruID : SV6.i
LabSampID : MBLK-190734

Perylene-d12 (1520-96-3)

Reason Code:

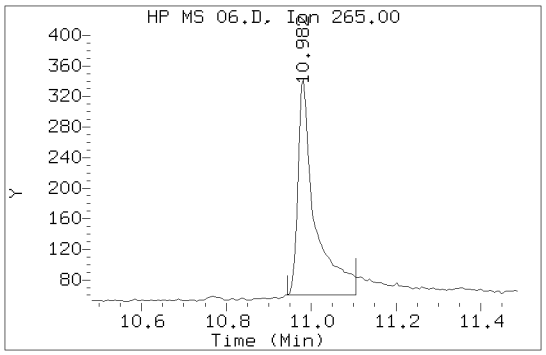
BEFORE

MASS
265
AREA
788
HEIGHT
282
15-Mar-2023
16:58
ALSHS
Server



AFTER

MASS
265
AREA
788
HEIGHT
282
16-Mar-2023
08:55

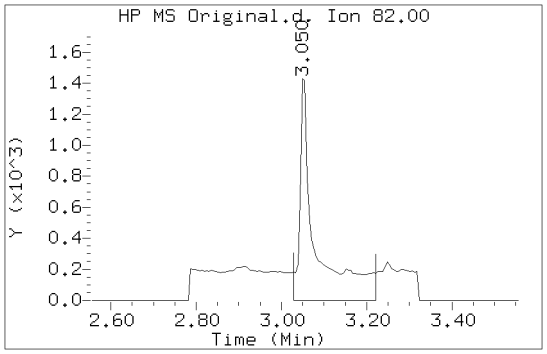


Nitrobenzene-d5 (4165-60-0)

Reason Code:

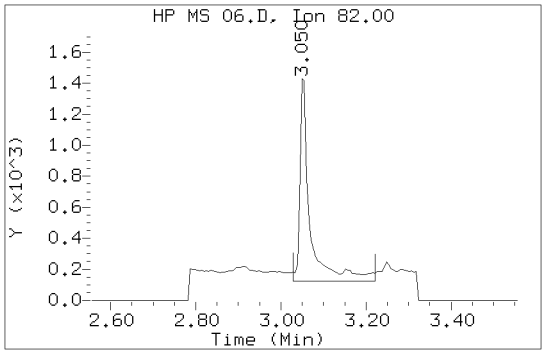
BEFORE

MASS
82
AREA
3640
HEIGHT
1429
15-Mar-2023
16:58
ALSHS
Server



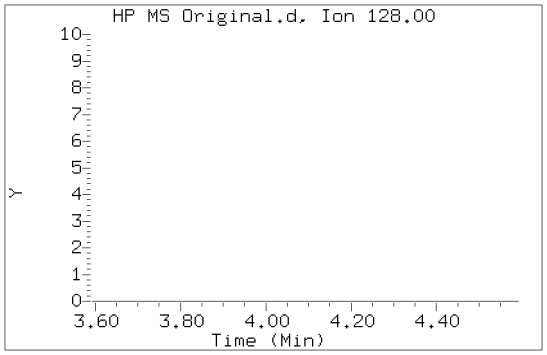
AFTER

MASS
82
AREA
2139
HEIGHT
1303
16-Mar-2023
08:55



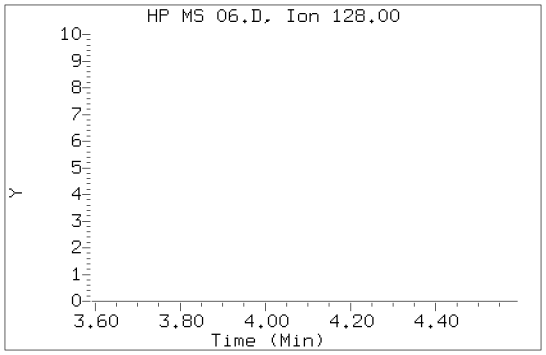
BEFORE

MASS
128
AREA
0
HEIGHT
0
15-Mar-2023
16:58
ALSHS
Server



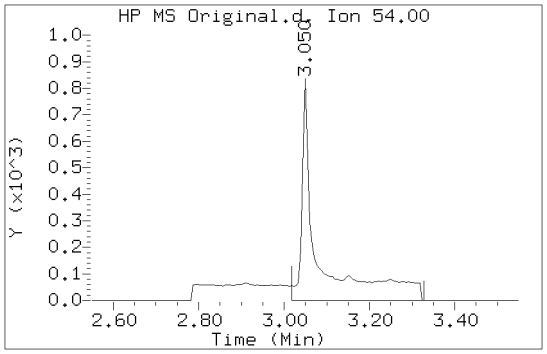
AFTER

MASS
128
AREA
0
HEIGHT
0
16-Mar-2023
08:55



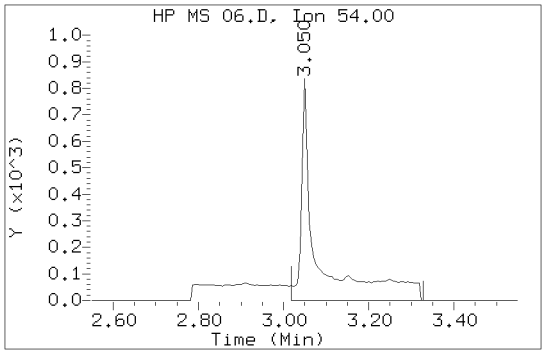
BEFORE

MASS
54
AREA
2128
HEIGHT
836
15-Mar-2023
16:58
ALSHS
Server



AFTER

MASS
54
AREA
2128
HEIGHT
836
16-Mar-2023
08:55

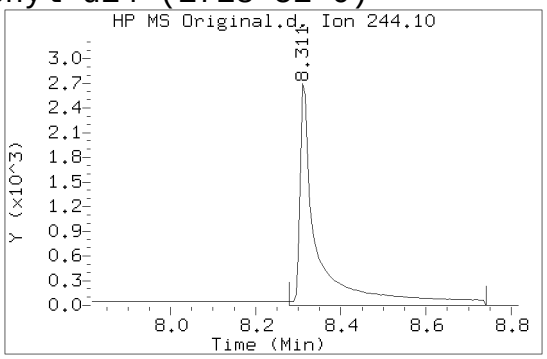


Data File : \\NAHSTWS005\Target\chem\SV6.i\230315.b\06.D
Inj Date : 15-MAR-2023 16:43
InstruID : SV6.i
LabSampID : MBLK-190734

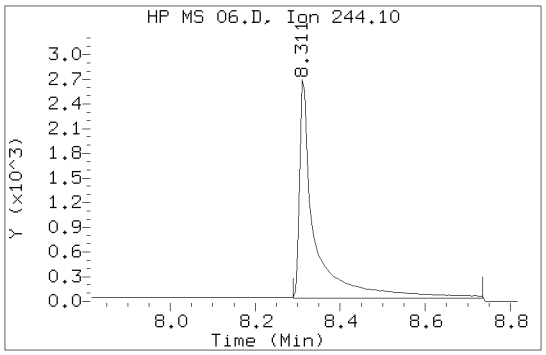
4-Terphenyl-d14 (1718-51-0)

Reason Code:

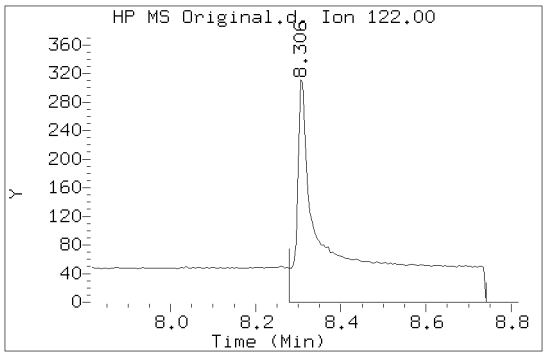
BEFORE
MASS
244.1
AREA
7785
HEIGHT
2695
15-Mar-2023
16:58
ALSHS
Server



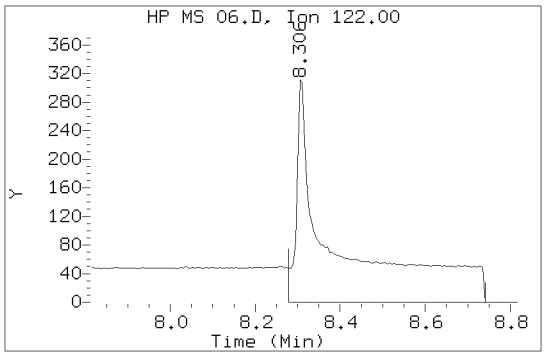
AFTER
MASS
244.1
AREA
6672
HEIGHT
2655
16-Mar-2023
08:55



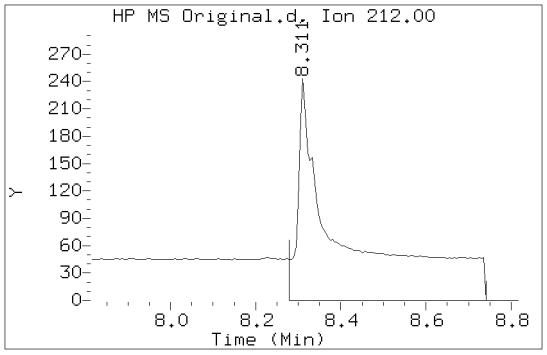
BEFORE
MASS
122
AREA
1919
HEIGHT
311
15-Mar-2023
16:58
ALSHS
Server



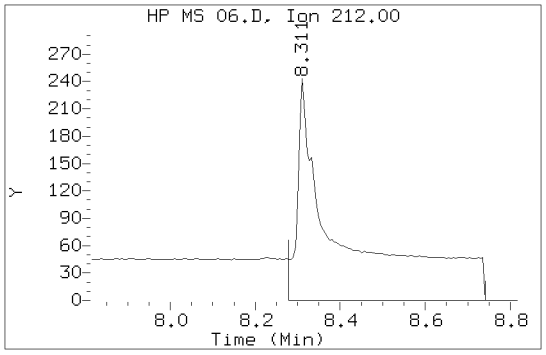
AFTER
MASS
122
AREA
1919
HEIGHT
311
16-Mar-2023
08:55



BEFORE
MASS
212
AREA
1778
HEIGHT
243
15-Mar-2023
16:58
ALSHS
Server



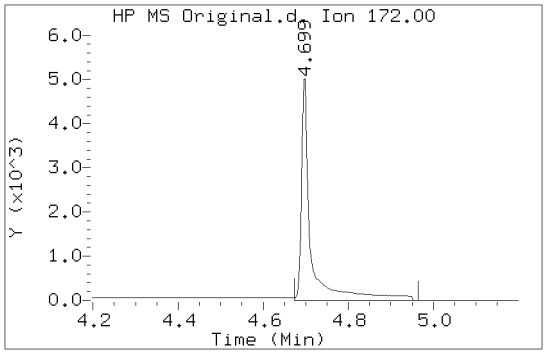
AFTER
MASS
212
AREA
1778
HEIGHT
243
16-Mar-2023
08:55



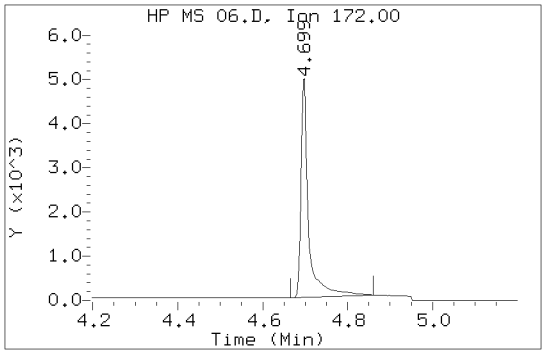
2-Fluorobiphenyl (321-60-8)

Reason Code:

BEFORE
MASS
172
AREA
7944
HEIGHT
5019
15-Mar-2023
16:58
ALSHS
Server



AFTER
MASS
172
AREA
6271
HEIGHT
4953
16-Mar-2023
08:55



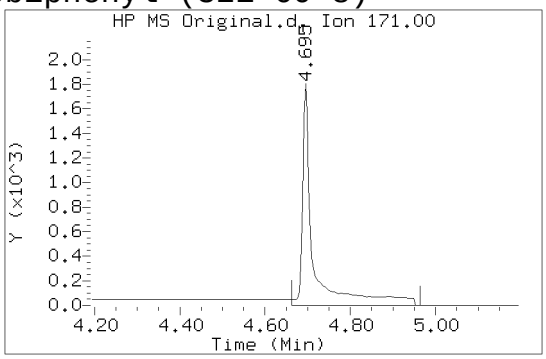
Data File : \\NAHSTWS005\Target\chem\SV6.i\230315.b\06.D
Inj Date : 15-MAR-2023 16:43
InstruID : SV6.i
LabSampID : MBLK-190734

2-Fluorobiphenyl (321-60-8)

Reason Code:

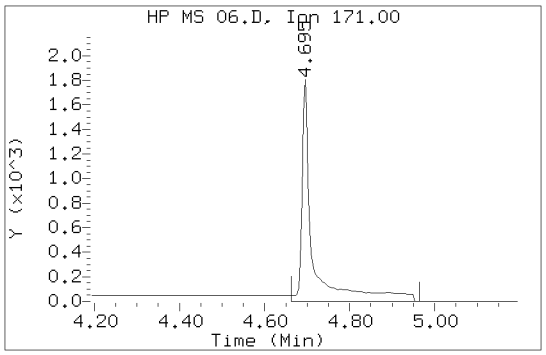
BEFORE

MASS
171
AREA
3253
HEIGHT
1805
15-Mar-2023
16:58
ALSHS
Server



AFTER

MASS
171
AREA
3253
HEIGHT
1805
16-Mar-2023
08:55



Data File: \\NAHSTWS005\Target\chem\SV6.i\230315.b\07.D Page 1
Report Date: 16-Mar-2023 08:56

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230315.b\07.D
Lab Smp Id: LCS-190734
Inj Date : 15-MAR-2023 17:01
Operator : LG Inst ID: SV6.i
Smp Info : LCS-190734
Misc Info :
Comment :
Method : \\nahstws005\Target\chem\SV6.i\230315.b\DXSIM.m
Meth Date : 15-Mar-2023 16:00 marco.guti Quant Type: ISTD
Cal Date : 26-JAN-2023 19:09 Cal File: 25.D
Als bottle: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTWS005

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)
* 20 1,4-Dichlorobenzene-d4	152	2.609	2.609	(1.000)	2267	0.10000	(aM)
* 45 Naphthalene-d8	136	3.670	3.673	(1.000)	9369	0.10000	(M)
$ 33 Nitrobenzene-d5	82	3.055	3.054	(0.832)	2234	0.08264	0.08264(M)
* 86 Acenaphthene-d10	164	5.312	5.310	(1.000)	5857	0.10000	(M)
$ 69 2-Fluorobiphenyl	172	4.695	4.698	(0.884)	7064	0.09189	0.09189(M)
* 126 Phenanthrene-d10	188	6.729	6.733	(1.000)	15051	0.10000	(M)
* 182 Chrysene-d12	240	9.295	9.299	(1.000)	6552	0.10000	(M)
$ 158 4-Terphenyl-d14	244	8.311	8.314	(0.894)	7631	0.07096	0.07096(M)
* 198 Perylene-d12	264	10.976	10.985	(1.000)	5340	0.10000	
1 1,4-Dioxane	58	1.062	1.069	(0.407)	502	0.06070	0.06070(M)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

01182998

Data File: \\NAHSTWS005\Target\chem\SV6.i\230315.b\07.D

Date : 15-MAR-2023 17:01

Client ID:

Instrument: SV6.i

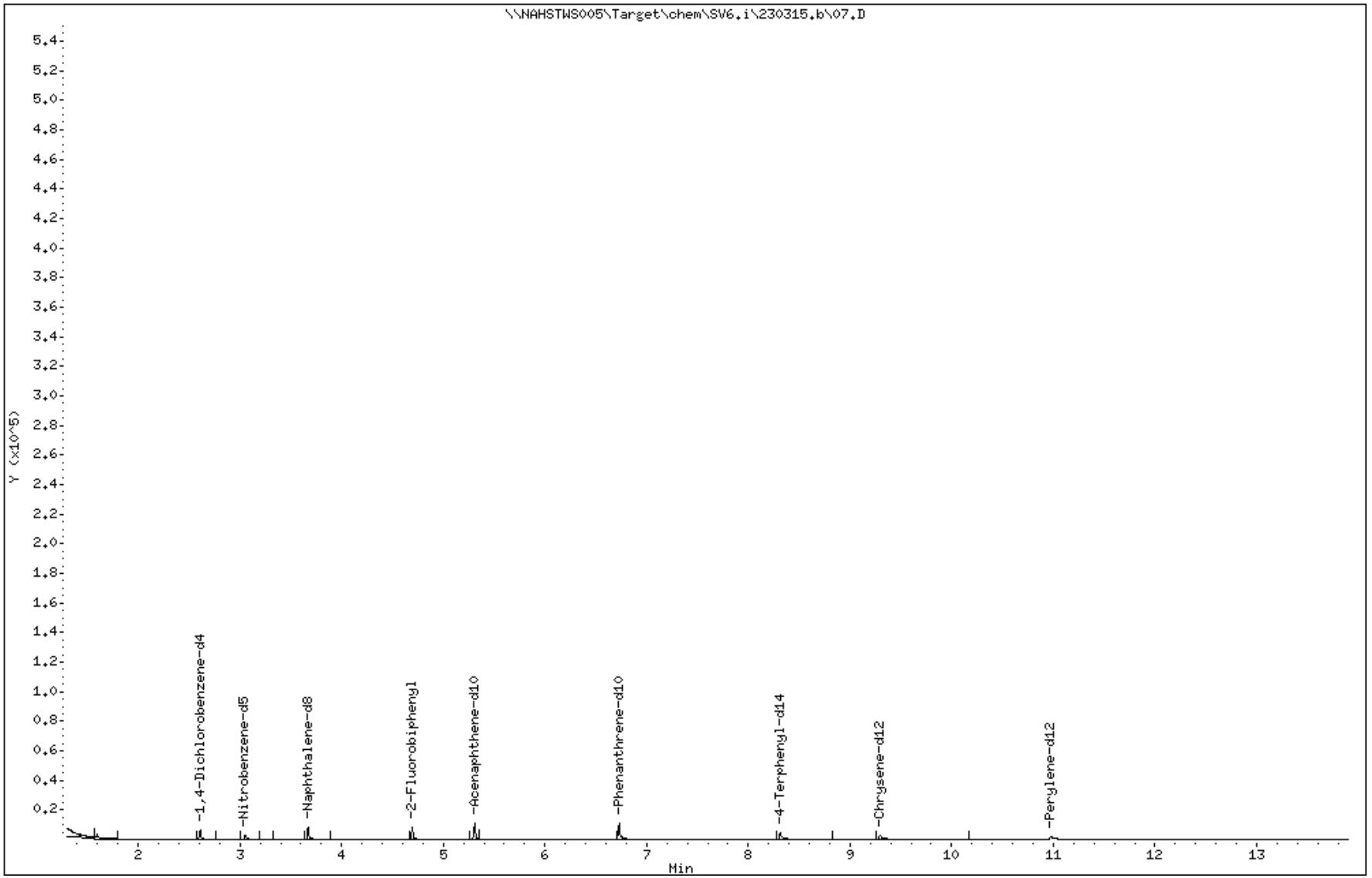
Sample Info: LCS-190734

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28



Data File: \\NAHSTWS005\Target\chem\SV6.i\230315.b\07.D

Date : 15-MAR-2023 17:01

Client ID:

Instrument: SV6.i

Sample Info: LCS-190734

Purge Volume: 1000.0

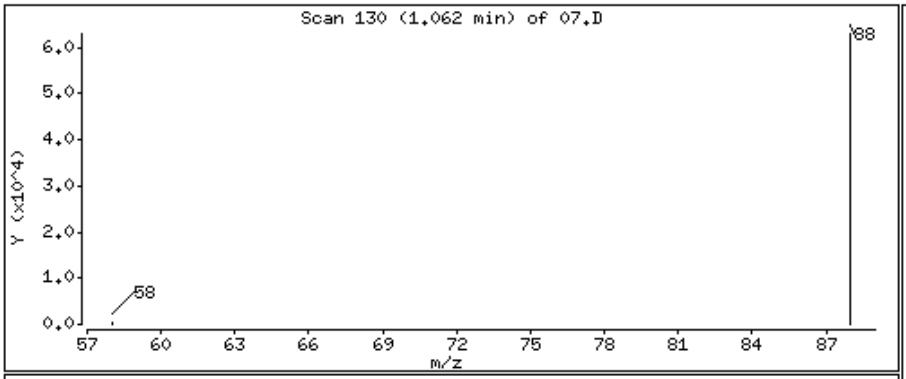
Operator: LG

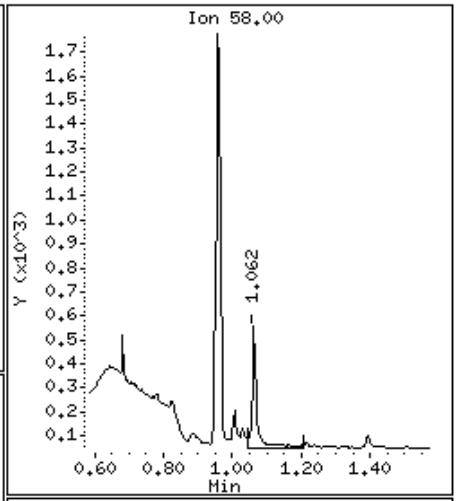
Column phase: RTX-5SIL MS

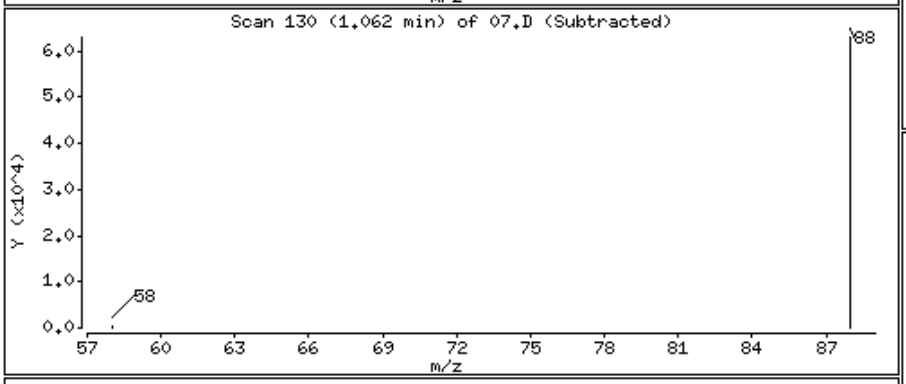
Column diameter: 0.28

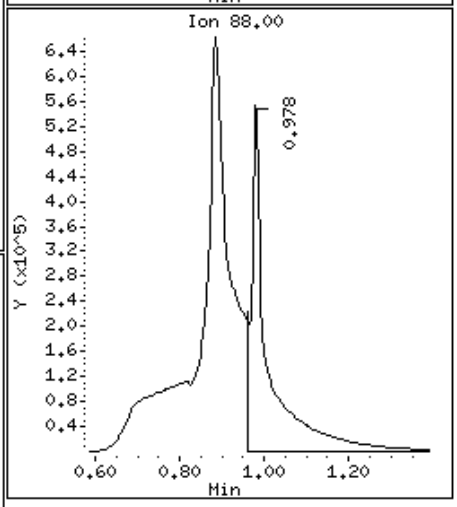
1 1,4-Dioxane

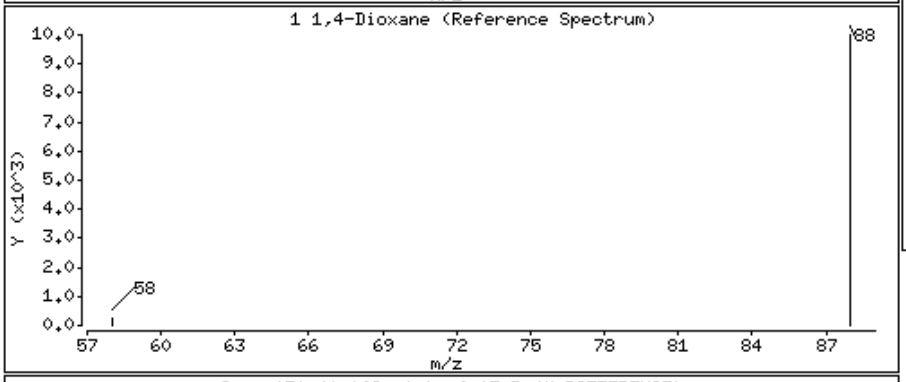
Concentration: 0.06070 ug/L

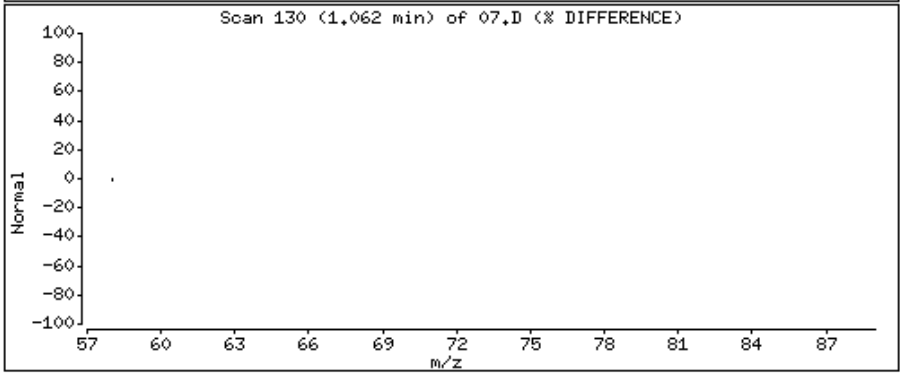












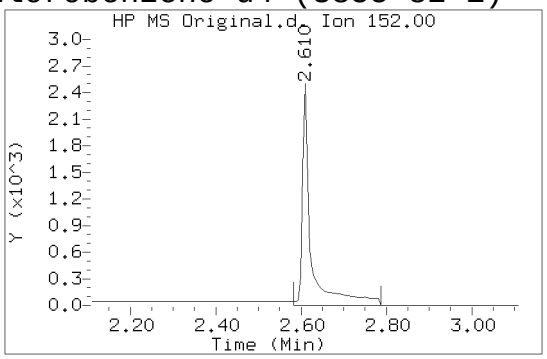
Data File : \\NAHSTWS005\Target\chem\SV6.i\230315.b\07.D
Inj Date : 15-MAR-2023 17:01
InstruID : SV6.i
LabSampID : LCS-190734

1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

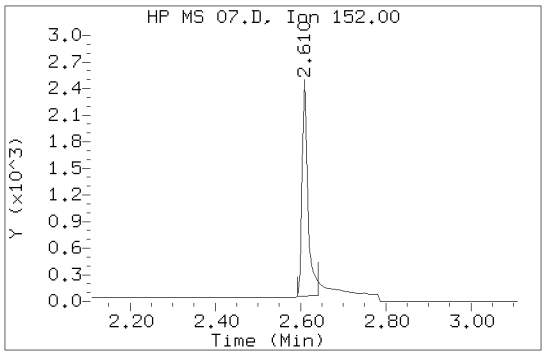
BEFORE

MASS
152
AREA
3434
HEIGHT
2501
15-Mar-2023
17:16
ALSHS
Server



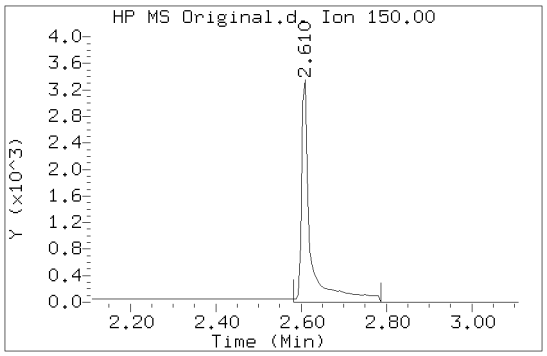
AFTER

MASS
152
AREA
2267
HEIGHT
2439
16-Mar-2023
08:56



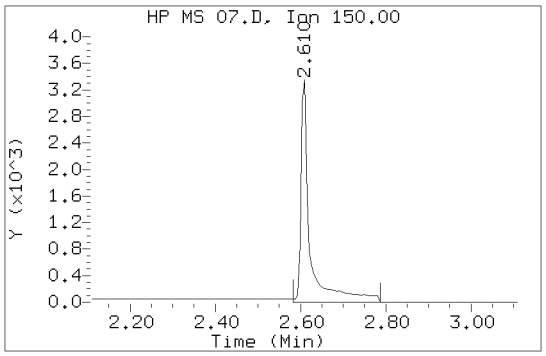
BEFORE

MASS
150
AREA
4862
HEIGHT
3351
15-Mar-2023
17:16
ALSHS
Server



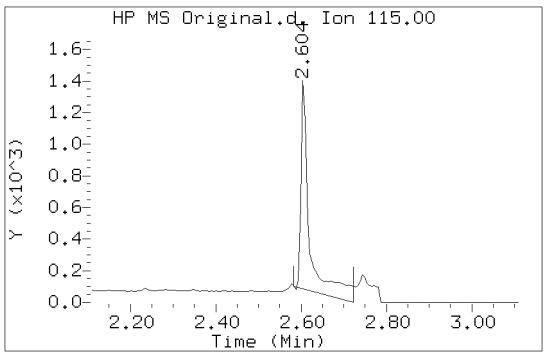
AFTER

MASS
150
AREA
4862
HEIGHT
3351
16-Mar-2023
08:56



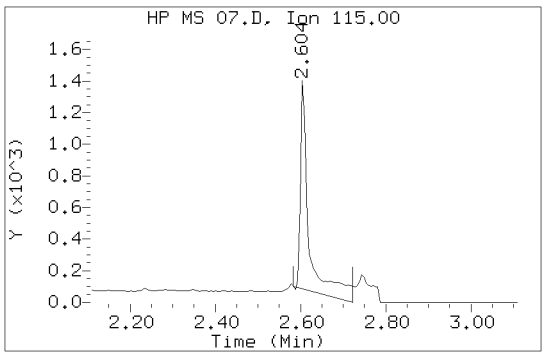
BEFORE

MASS
115
AREA
1794
HEIGHT
1314
15-Mar-2023
17:16
ALSHS
Server



AFTER

MASS
115
AREA
1794
HEIGHT
1314
16-Mar-2023
08:56

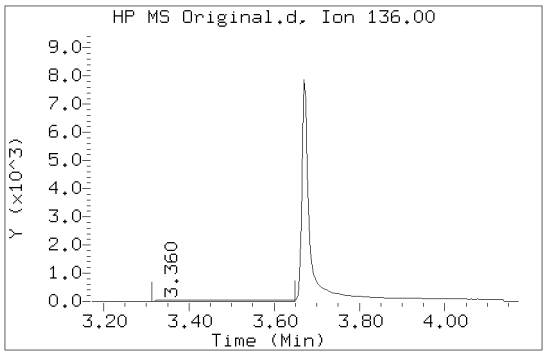


Naphthalene-d8 (1146-65-2)

Reason Code:

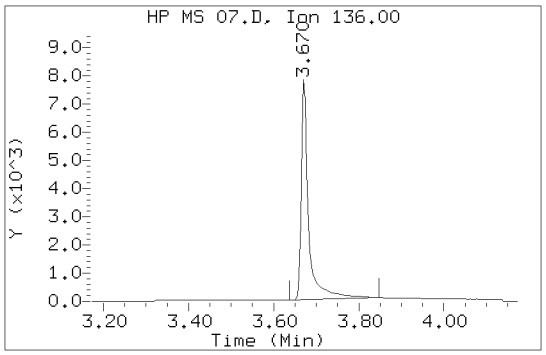
BEFORE

MASS
136
AREA
1034
HEIGHT
54
15-Mar-2023
17:16
ALSHS
Server



AFTER

MASS
136
AREA
9369
HEIGHT
7802
16-Mar-2023
08:56

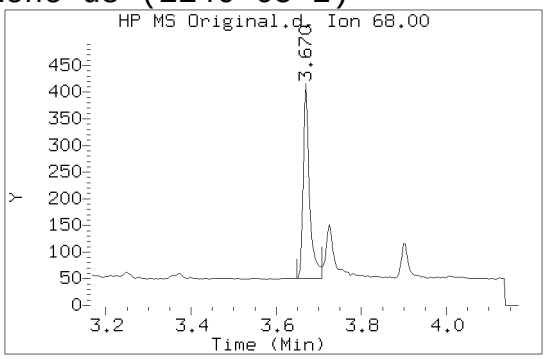


Data File : \\NAHSTWS005\Target\chem\SV6.i\230315.b\07.D
Inj Date : 15-MAR-2023 17:01
InstruID : SV6.i
LabSampID : LCS-190734

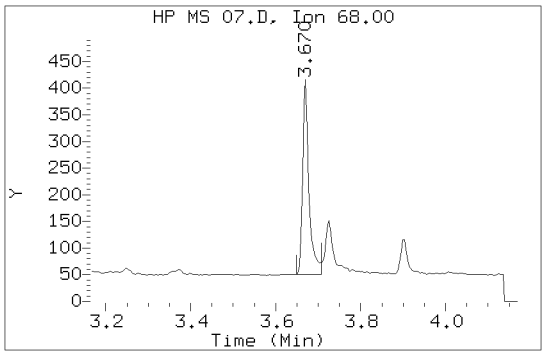
Naphthalene-d8 (1146-65-2)

Reason Code:

BEFORE
MASS
68
AREA
385
HEIGHT
366
15-Mar-2023
17:16
ALSHS
Server



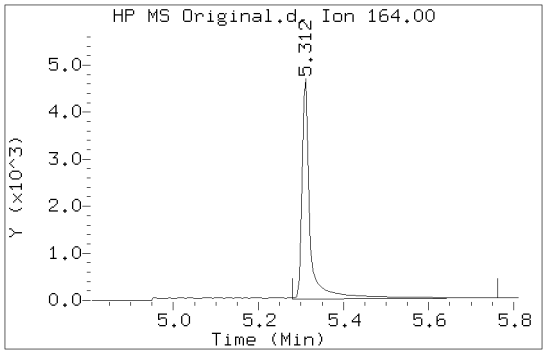
AFTER
MASS
68
AREA
385
HEIGHT
366
16-Mar-2023
08:56



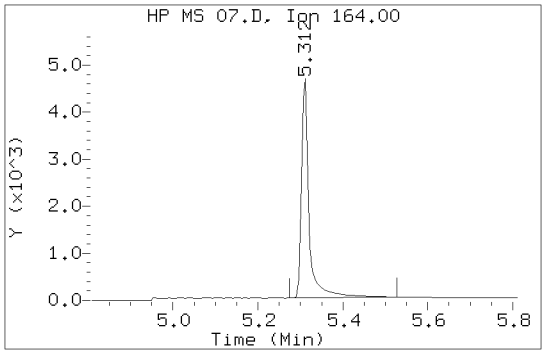
Acenaphthene-d10 (15067-26-2)

Reason Code:

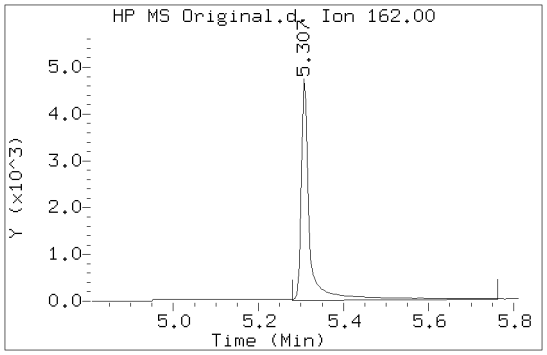
BEFORE
MASS
164
AREA
6577
HEIGHT
4687
15-Mar-2023
17:16
ALSHS
Server



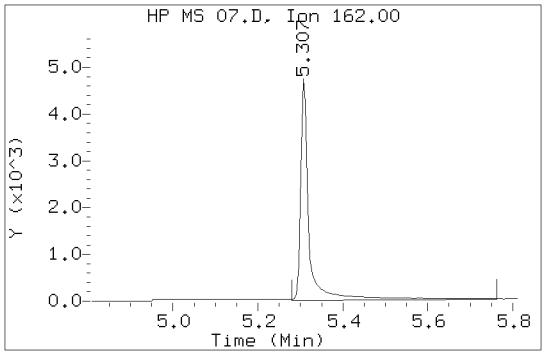
AFTER
MASS
164
AREA
5857
HEIGHT
4658
16-Mar-2023
08:56



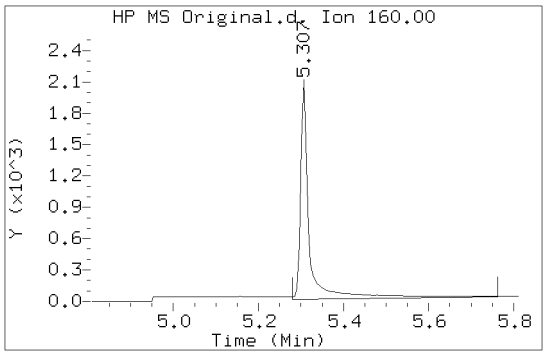
BEFORE
MASS
162
AREA
6623
HEIGHT
4729
15-Mar-2023
17:16
ALSHS
Server



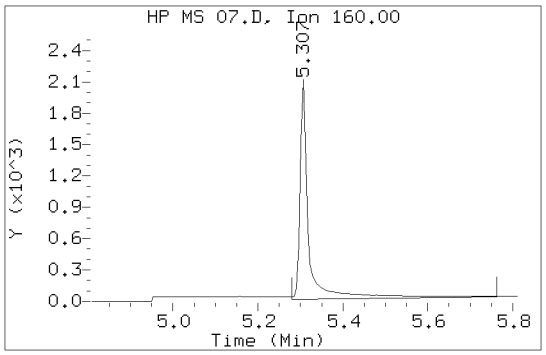
AFTER
MASS
162
AREA
6623
HEIGHT
4729
16-Mar-2023
08:56



BEFORE
MASS
160
AREA
3061
HEIGHT
2101
15-Mar-2023
17:16
ALSHS
Server



AFTER
MASS
160
AREA
3061
HEIGHT
2101
16-Mar-2023
08:56

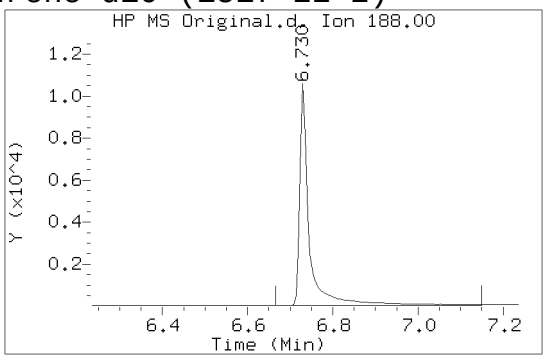


Data File : \\NAHSTWS005\Target\chem\SV6.i\230315.b\07.D
Inj Date : 15-MAR-2023 17:01
InstruID : SV6.i
LabSampID : LCS-190734

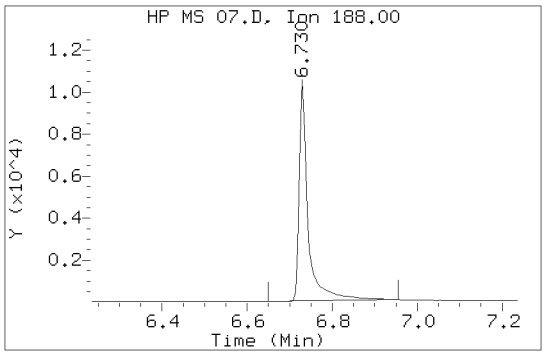
Phenanthrene-d10 (1517-22-2)

Reason Code:

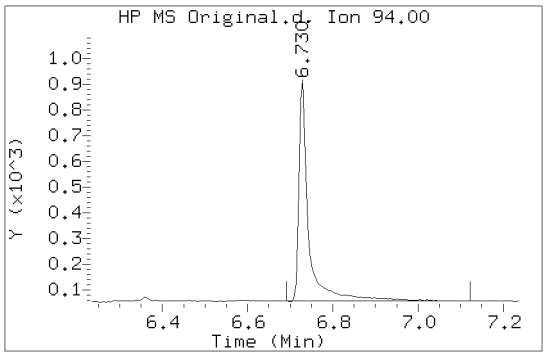
BEFORE
MASS
188
AREA
16350
HEIGHT
10549
15-Mar-2023
17:16
ALSHS
Server



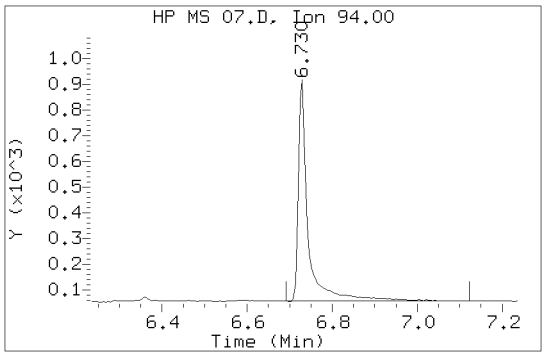
AFTER
MASS
188
AREA
15051
HEIGHT
10527
16-Mar-2023
08:56



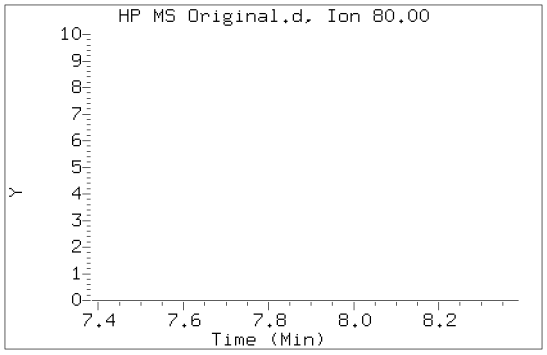
BEFORE
MASS
94
AREA
1350
HEIGHT
859
15-Mar-2023
17:16
ALSHS
Server



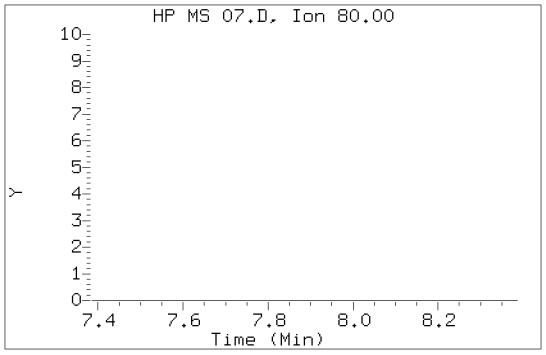
AFTER
MASS
94
AREA
1350
HEIGHT
859
16-Mar-2023
08:56



BEFORE
MASS
80
AREA
0
HEIGHT
0
15-Mar-2023
17:16
ALSHS
Server



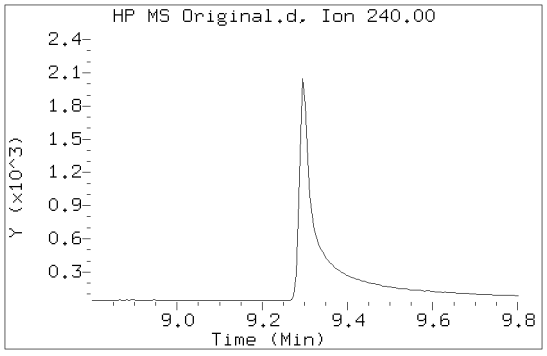
AFTER
MASS
80
AREA
0
HEIGHT
0
16-Mar-2023
08:56



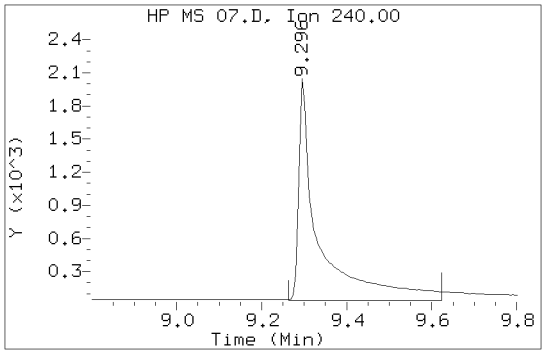
Chrysene-d12 (1719-03-5)

Reason Code:

BEFORE
MASS
240
AREA
0
HEIGHT
0
15-Mar-2023
17:16
ALSHS
Server



AFTER
MASS
240
AREA
6552
HEIGHT
2007
16-Mar-2023
08:56

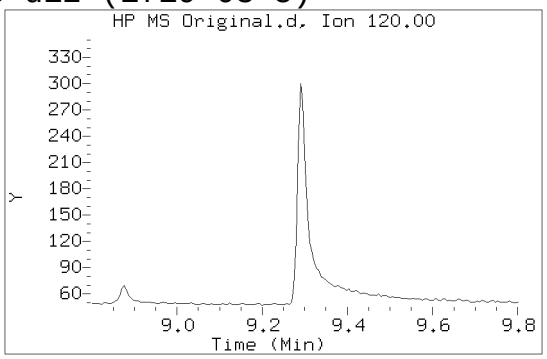


Data File : \\NAHSTWS005\Target\chem\SV6.i\230315.b\07.D
Inj Date : 15-MAR-2023 17:01
InstruID : SV6.i
LabSampID : LCS-190734

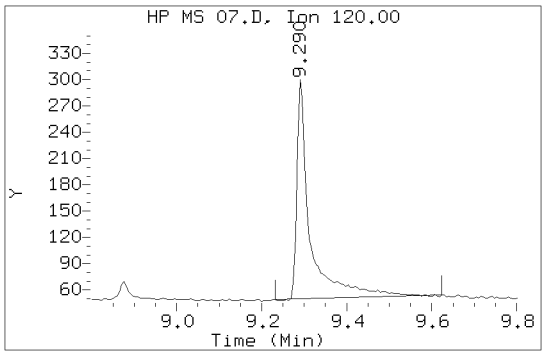
Chrysene-d12 (1719-03-5)

Reason Code:

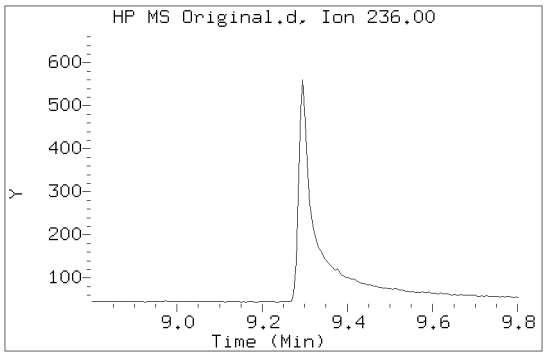
BEFORE
MASS
120
AREA
0
HEIGHT
0
15-Mar-2023
17:16
ALSHS
Server



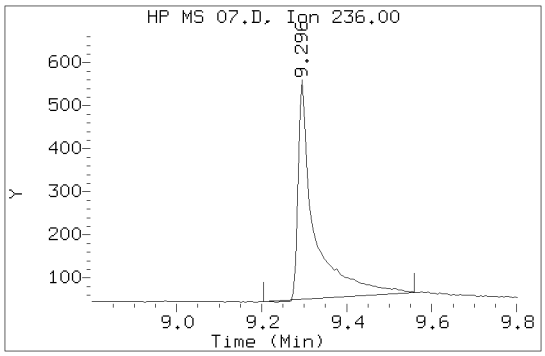
AFTER
MASS
120
AREA
536
HEIGHT
250
16-Mar-2023
08:56



BEFORE
MASS
236
AREA
0
HEIGHT
0
15-Mar-2023
17:16
ALSHS
Server



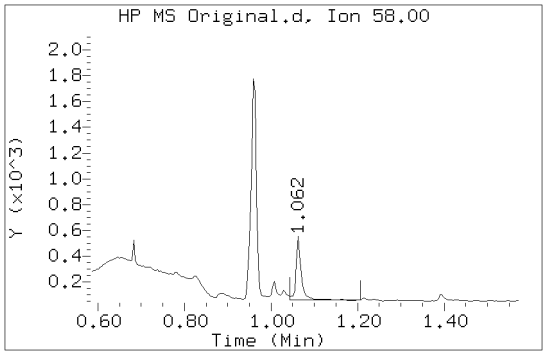
AFTER
MASS
236
AREA
1343
HEIGHT
509
16-Mar-2023
08:56



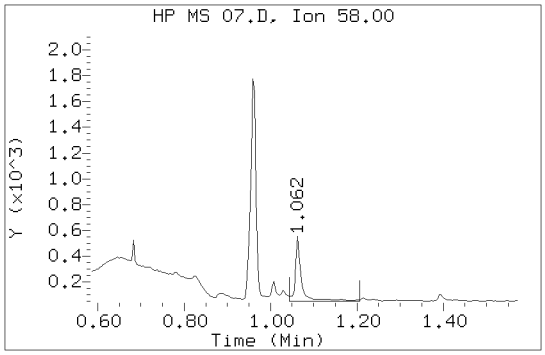
1,4-Dioxane ()

Reason Code:

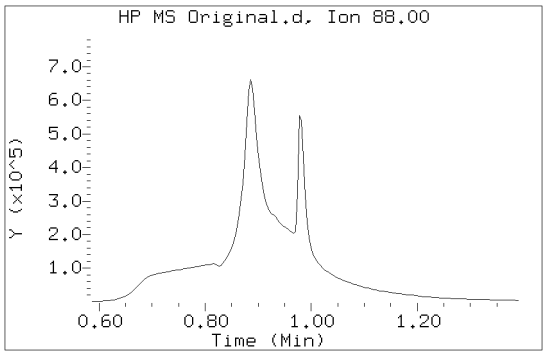
BEFORE
MASS
58
AREA
413
HEIGHT
496
15-Mar-2023
17:16
ALSHS
Server



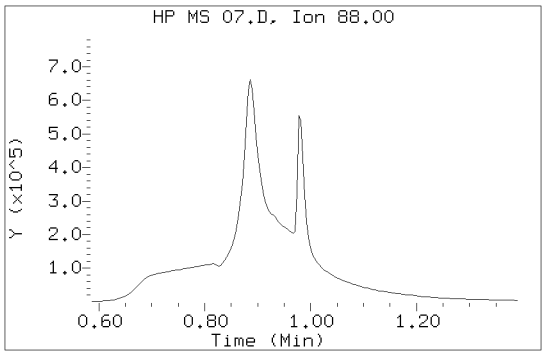
AFTER
MASS
58
AREA
502
HEIGHT
505
16-Mar-2023
08:56



BEFORE
MASS
88
AREA
1438687
HEIGHT
552370
15-Mar-2023
17:16
ALSHS
Server



AFTER
MASS
88
AREA
1438687
HEIGHT
552370
16-Mar-2023
08:56

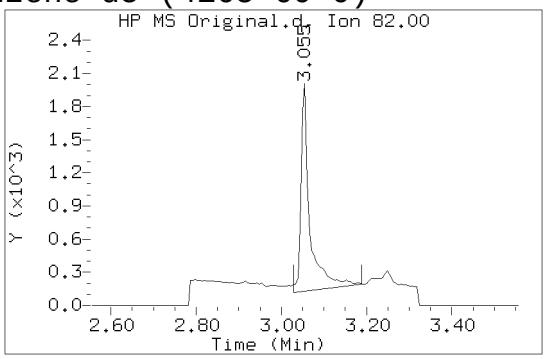


Data File : \\NAHSTWS005\Target\chem\SV6.i\230315.b\07.D
Inj Date : 15-MAR-2023 17:01
InstruID : SV6.i
LabSampID : LCS-190734

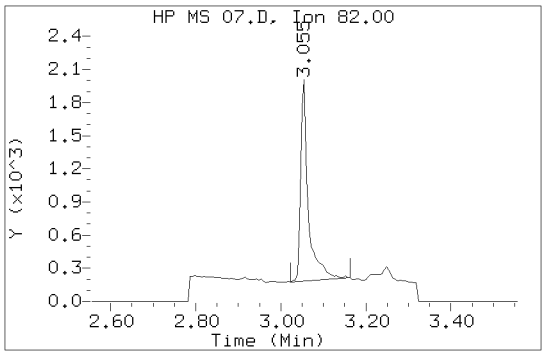
Nitrobenzene-d5 (4165-60-0)

Reason Code:

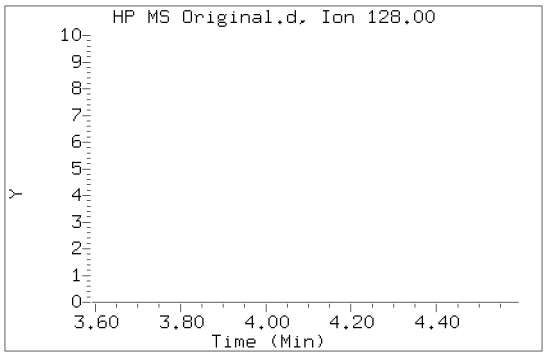
BEFORE
MASS
82
AREA
2678
HEIGHT
1877
15-Mar-2023
17:16
ALSHS
Server



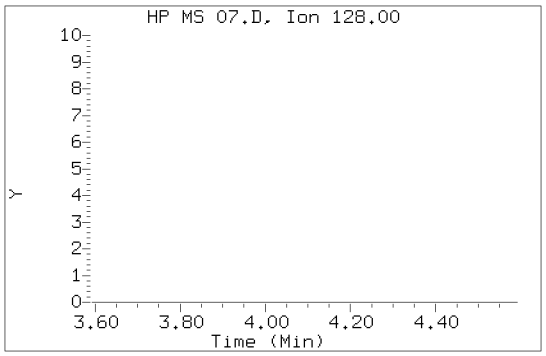
AFTER
MASS
82
AREA
2234
HEIGHT
1820
16-Mar-2023
08:56



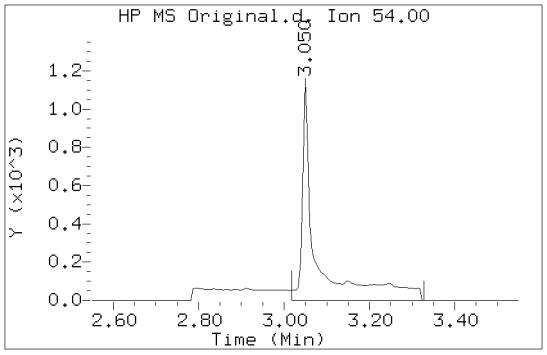
BEFORE
MASS
128
AREA
0
HEIGHT
0
15-Mar-2023
17:16
ALSHS
Server



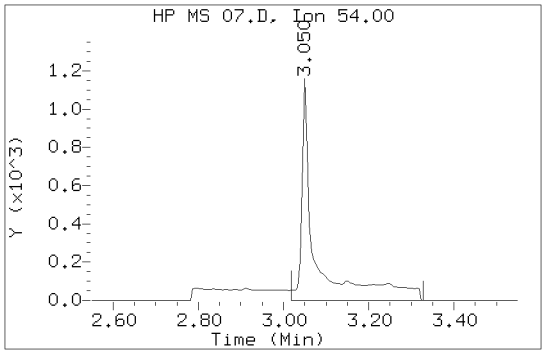
AFTER
MASS
128
AREA
0
HEIGHT
0
16-Mar-2023
08:56



BEFORE
MASS
54
AREA
2567
HEIGHT
1159
15-Mar-2023
17:16
ALSHS
Server



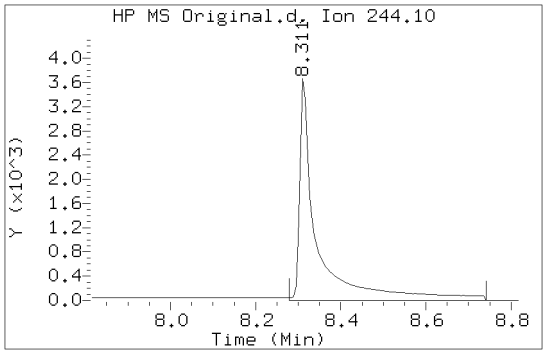
AFTER
MASS
54
AREA
2567
HEIGHT
1159
16-Mar-2023
08:56



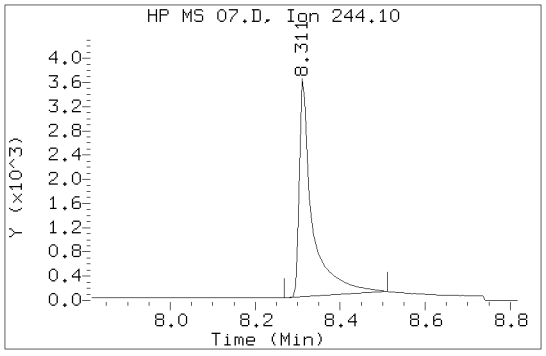
4-Terphenyl-d14 (1718-51-0)

Reason Code:

BEFORE
MASS
244.1
AREA
10342
HEIGHT
3662
15-Mar-2023
17:16
ALSHS
Server



AFTER
MASS
244.1
AREA
7631
HEIGHT
3600
16-Mar-2023
08:56



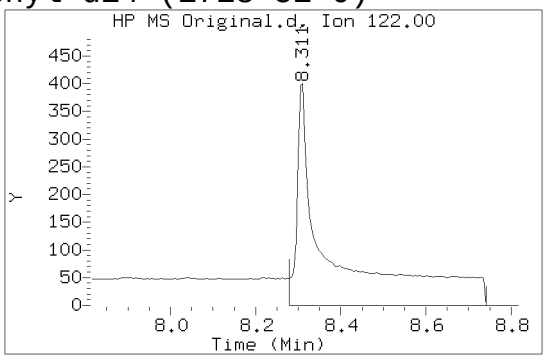
Data File : \\NAHSTWS005\Target\chem\SV6.i\230315.b\07.D
Inj Date : 15-MAR-2023 17:01
InstruID : SV6.i
LabSampID : LCS-190734

4-Terphenyl-d14 (1718-51-0)

Reason Code:

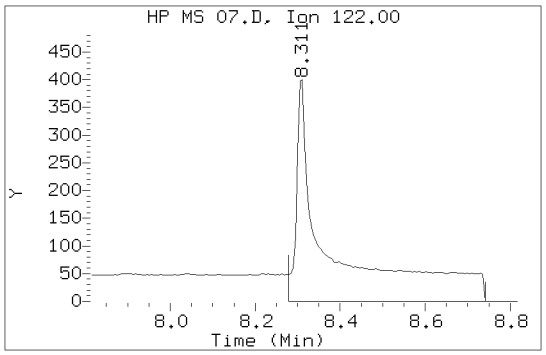
BEFORE

MASS
122
AREA
2136
HEIGHT
400
15-Mar-2023
17:16
ALSHS
Server



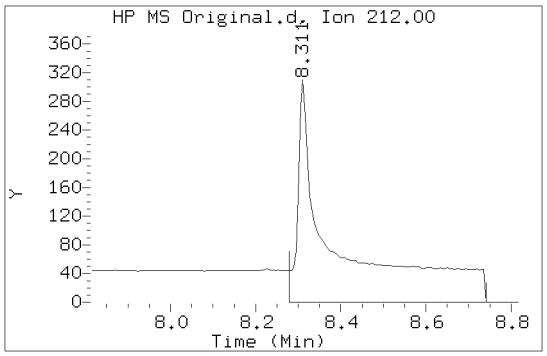
AFTER

MASS
122
AREA
2136
HEIGHT
400
16-Mar-2023
08:56



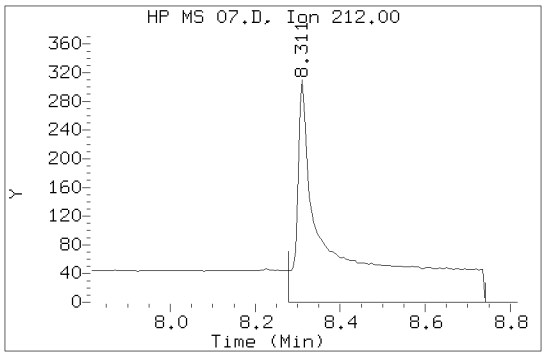
BEFORE

MASS
212
AREA
1872
HEIGHT
310
15-Mar-2023
17:16
ALSHS
Server



AFTER

MASS
212
AREA
1872
HEIGHT
310
16-Mar-2023
08:56

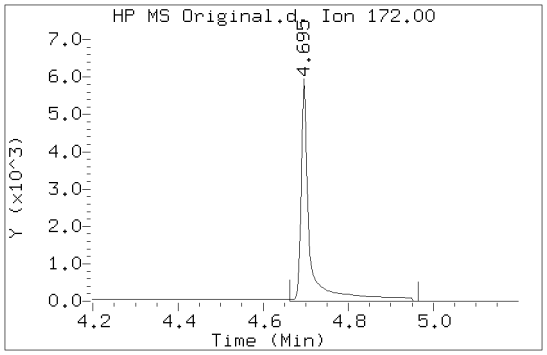


2-Fluorobiphenyl (321-60-8)

Reason Code:

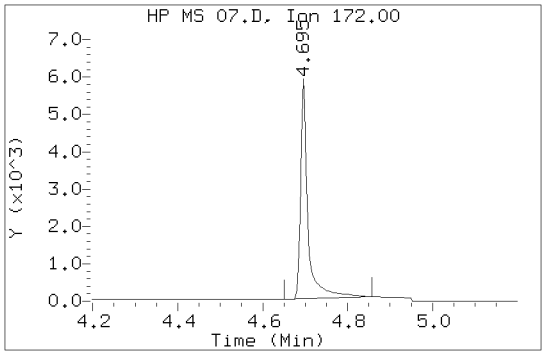
BEFORE

MASS
172
AREA
8797
HEIGHT
5950
15-Mar-2023
17:16
ALSHS
Server



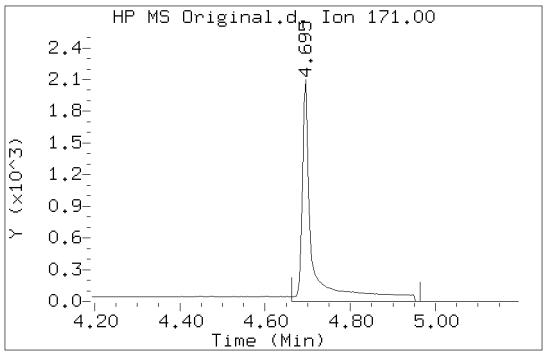
AFTER

MASS
172
AREA
7064
HEIGHT
5881
16-Mar-2023
08:56



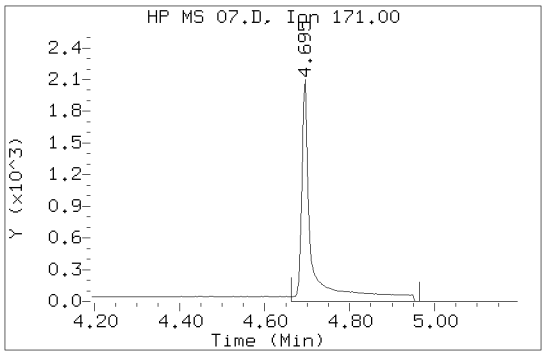
BEFORE

MASS
171
AREA
3549
HEIGHT
2099
15-Mar-2023
17:16
ALSHS
Server



AFTER

MASS
171
AREA
3549
HEIGHT
2099
16-Mar-2023
08:56



Data File: \\NAHSTWS005\Target\chem\SV6.i\230315.b\08.D Page 1
Report Date: 16-Mar-2023 09:01

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230315.b\08.D
Lab Smp Id: LCSD-190734
Inj Date : 15-MAR-2023 17:19
Operator : LG Inst ID: SV6.i
Smp Info : LCSD-190734
Misc Info :
Comment :
Method : \\nahstws005\Target\chem\SV6.i\230315.b\DXSIM.m
Meth Date : 15-Mar-2023 16:00 marco.guti Quant Type: ISTD
Cal Date : 26-JAN-2023 19:09 Cal File: 25.D
Als bottle: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTWS005

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)
* 20 1,4-Dichlorobenzene-d4	152	2.604	2.609	(1.000)	2108	0.10000	(aM)
* 45 Naphthalene-d8	136	3.670	3.673	(1.000)	8244	0.10000	(M)
$ 33 Nitrobenzene-d5	82	3.054	3.054	(0.832)	1717	0.07218	0.07218(M)
* 86 Acenaphthene-d10	164	5.310	5.310	(1.000)	6407	0.10000	(M)
$ 69 2-Fluorobiphenyl	172	4.698	4.698	(0.885)	6967	0.08285	0.08285
* 126 Phenanthrene-d10	188	6.733	6.733	(1.000)	11550	0.10000	
* 182 Chrysene-d12	240	9.299	9.299	(1.000)	5929	0.10000	(M)
$ 158 4-Terphenyl-d14	244	8.314	8.314	(1.000)	7279	0.07390	0.07390
* 198 Perylene-d12	264	10.980	10.985	(1.000)	4959	0.10000	(M)
1 1,4-Dioxane	58	1.036	1.069	(0.398)	456	0.05930	0.05930(M)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

01183007

Data File: \\NAHSTWS005\Target\chem\SV6.i\230315.b\08.D

Date : 15-MAR-2023 17:19

Client ID:

Instrument: SV6.i

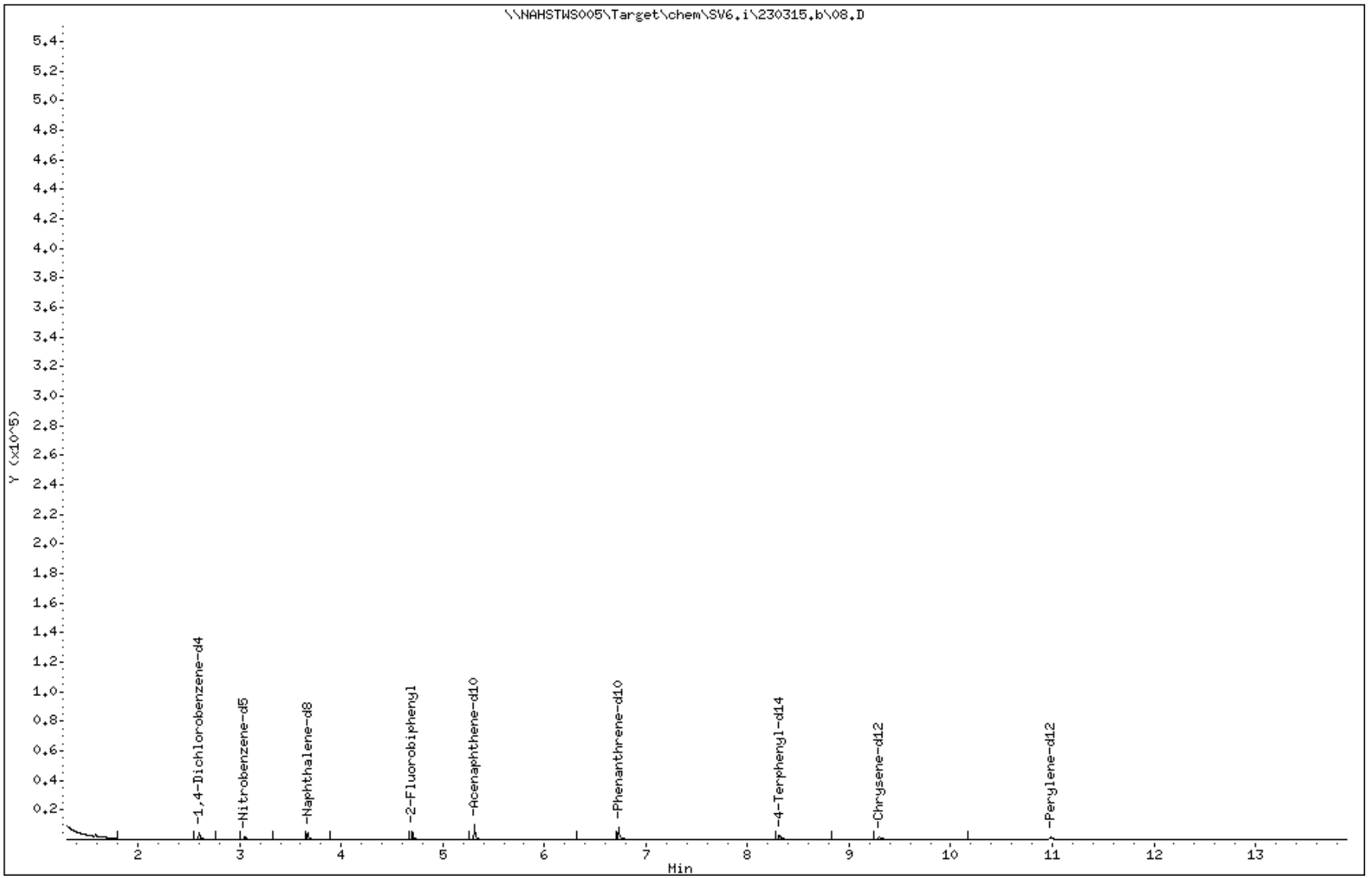
Sample Info: LCSD-190734

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28



Data File: \\NAHSTWS005\Target\chem\SV6.i\230315.b\08.D

Date : 15-MAR-2023 17:19

Client ID:

Instrument: SV6.i

Sample Info: LCSD-190734

Purge Volume: 1000.0

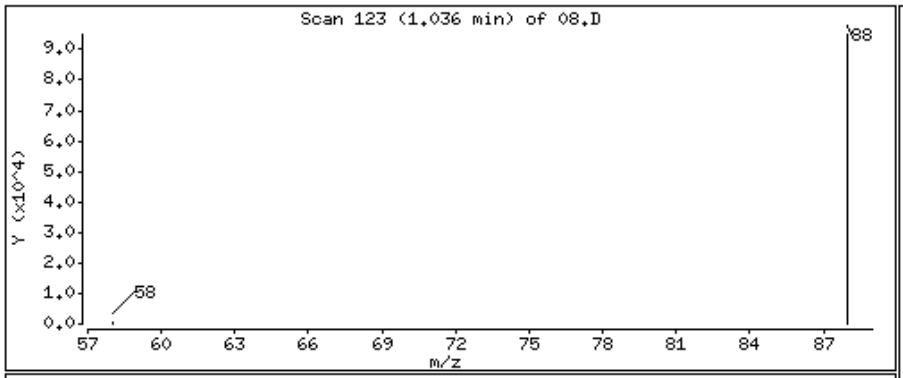
Operator: LG

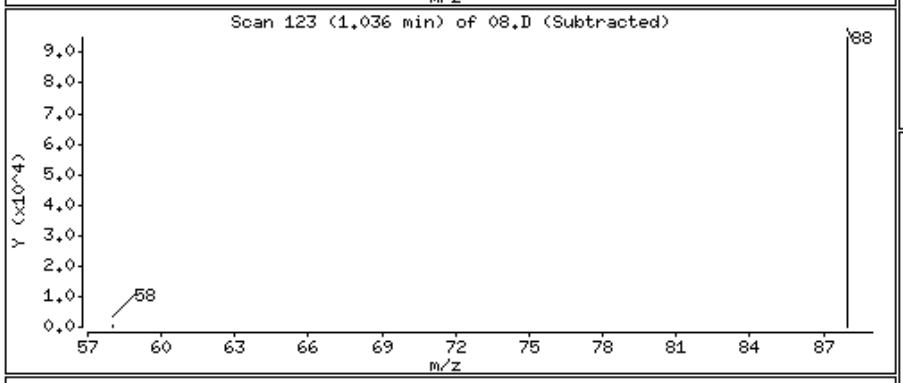
Column phase: RTX-5SIL MS

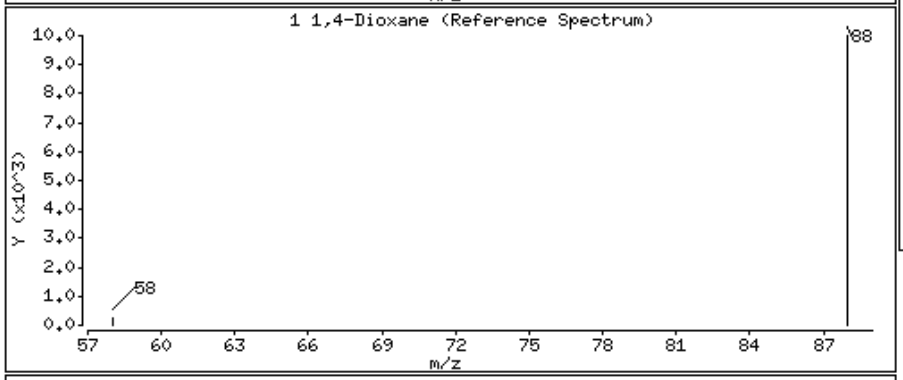
Column diameter: 0.28

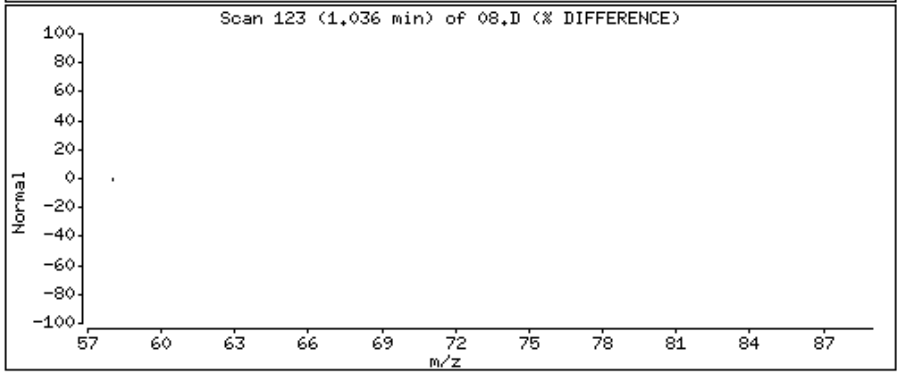
1 1,4-Dioxane

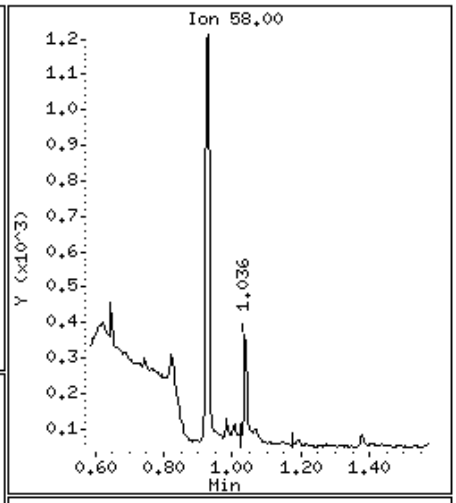
Concentration: 0.05930 ug/L

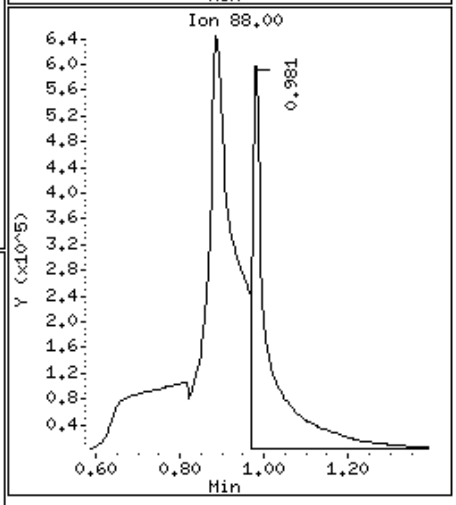










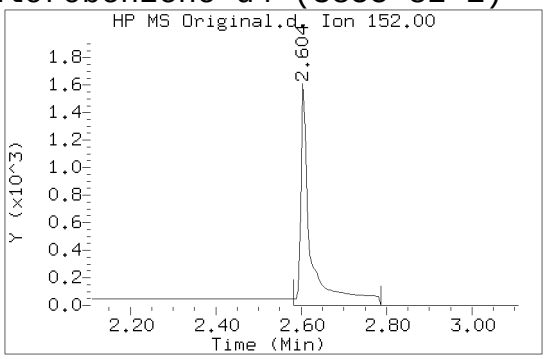


Data File : \\NAHSTWS005\Target\chem\SV6.i\230315.b\08.D
Inj Date : 15-MAR-2023 17:19
InstruID : SV6.i
LabSampID : LCSD-190734

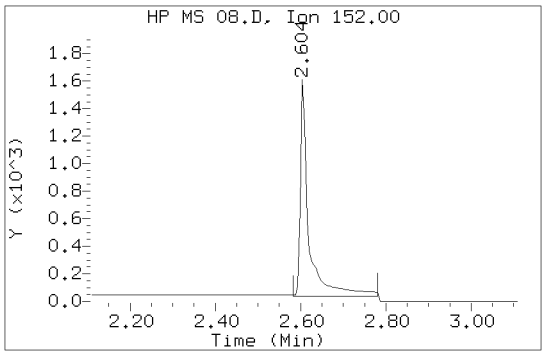
1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

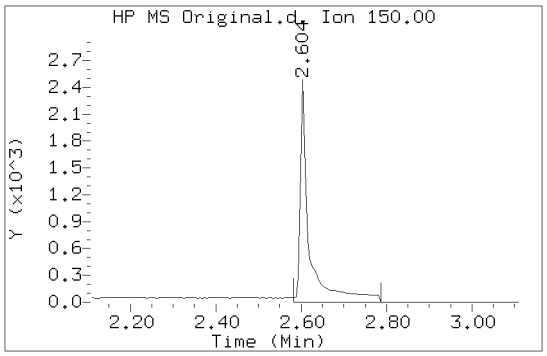
BEFORE
MASS
152
AREA
2585
HEIGHT
1610
15-Mar-2023
17:33
ALSHS
Server



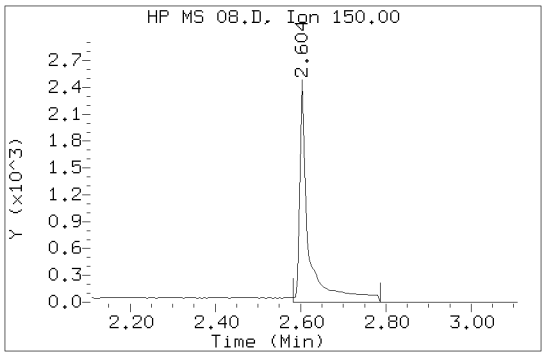
AFTER
MASS
152
AREA
2108
HEIGHT
1571
16-Mar-2023
09:01



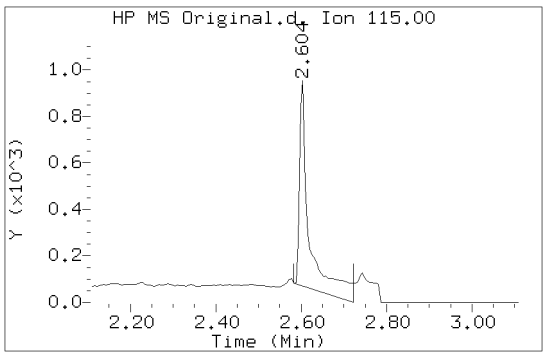
BEFORE
MASS
150
AREA
3602
HEIGHT
2485
15-Mar-2023
17:33
ALSHS
Server



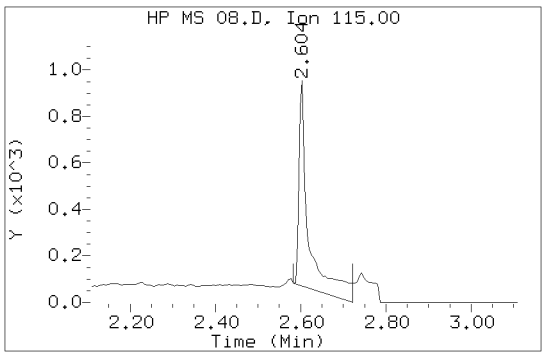
AFTER
MASS
150
AREA
3602
HEIGHT
2485
16-Mar-2023
09:01



BEFORE
MASS
115
AREA
1384
HEIGHT
883
15-Mar-2023
17:33
ALSHS
Server



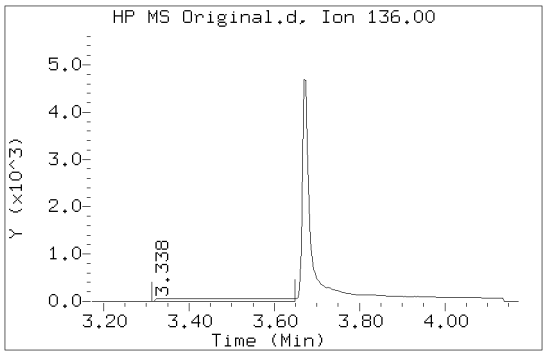
AFTER
MASS
115
AREA
1384
HEIGHT
883
16-Mar-2023
09:01



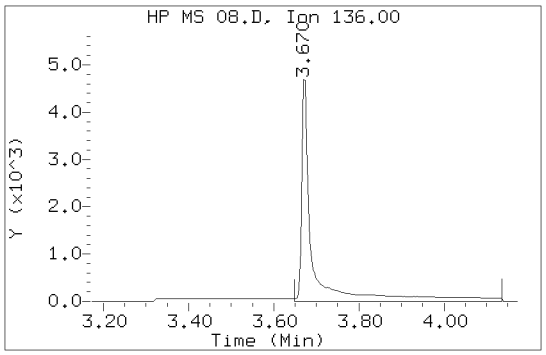
Naphthalene-d8 (1146-65-2)

Reason Code:

BEFORE
MASS
136
AREA
1002
HEIGHT
52
15-Mar-2023
17:33
ALSHS
Server



AFTER
MASS
136
AREA
8244
HEIGHT
4680
16-Mar-2023
09:01



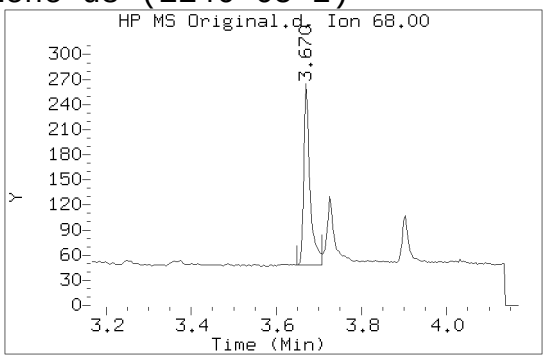
Data File : \\NAHSTWS005\Target\chem\SV6.i\230315.b\08.D
Inj Date : 15-MAR-2023 17:19
InstruID : SV6.i
LabSampID : LCSD-190734

Naphthalene-d8 (1146-65-2)

Reason Code:

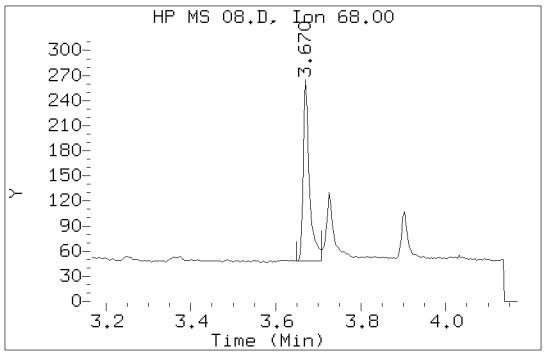
BEFORE

MASS
68
AREA
224
HEIGHT
217
15-Mar-2023
17:33
ALSHS
Server



AFTER

MASS
68
AREA
224
HEIGHT
217
16-Mar-2023
09:01

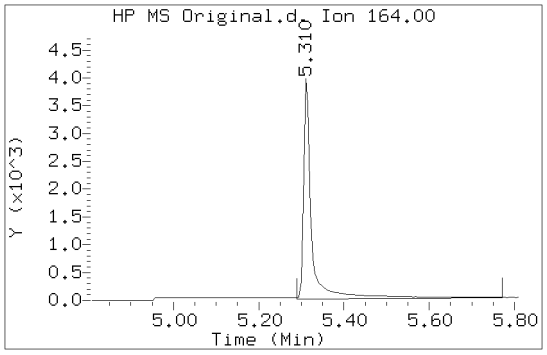


Acenaphthene-d10 (15067-26-2)

Reason Code:

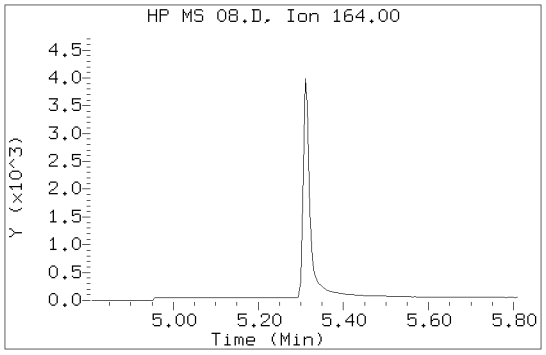
BEFORE

MASS
164
AREA
5329
HEIGHT
3962
15-Mar-2023
17:33
ALSHS
Server



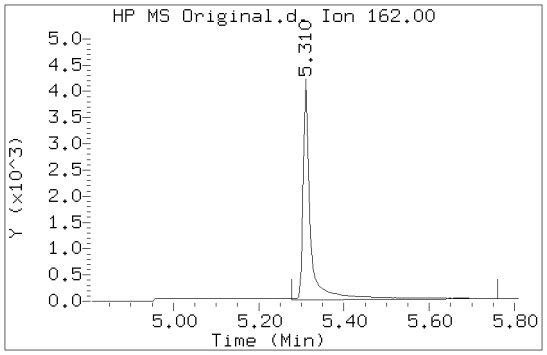
AFTER

MASS
164
AREA
6407
HEIGHT
3983
16-Mar-2023
09:01



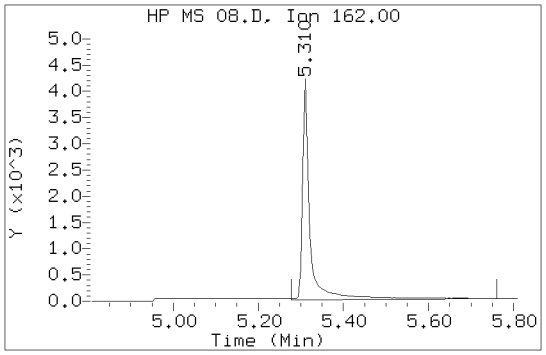
BEFORE

MASS
162
AREA
5382
HEIGHT
4215
15-Mar-2023
17:33
ALSHS
Server



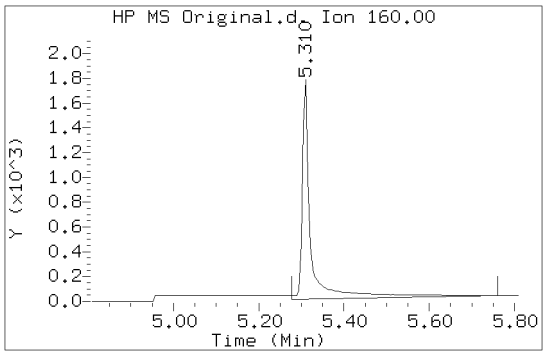
AFTER

MASS
162
AREA
5382
HEIGHT
4215
16-Mar-2023
09:01



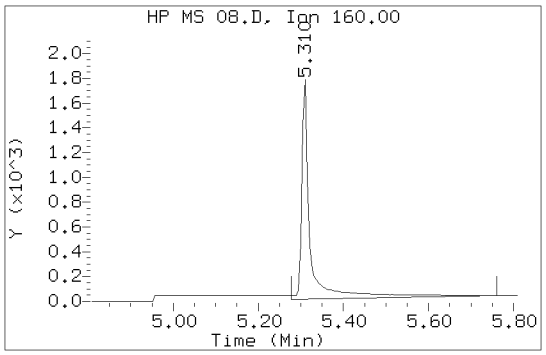
BEFORE

MASS
160
AREA
2528
HEIGHT
1769
15-Mar-2023
17:33
ALSHS
Server



AFTER

MASS
160
AREA
2528
HEIGHT
1769
16-Mar-2023
09:01



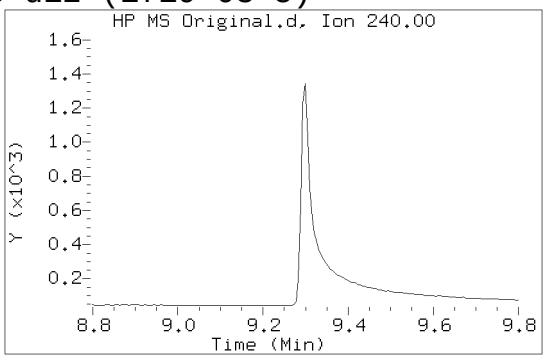
Data File : \\NAHSTWS005\Target\chem\SV6.i\230315.b\08.D
Inj Date : 15-MAR-2023 17:19
InstruID : SV6.i
LabSampID : LCSD-190734

Chrysene-d12 (1719-03-5)

Reason Code:

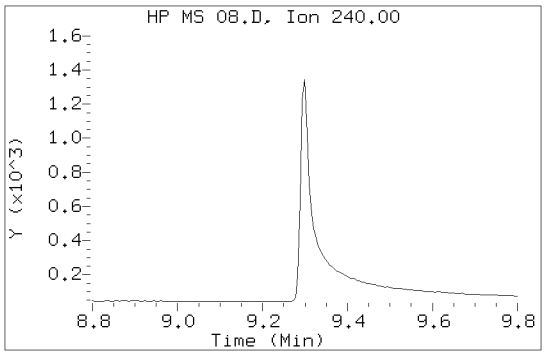
BEFORE

MASS
240
AREA
0
HEIGHT
0
15-Mar-2023
17:33
ALSHS
Server



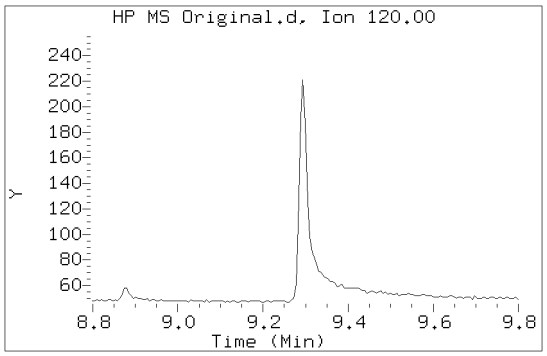
AFTER

MASS
240
AREA
5929
HEIGHT
1321
16-Mar-2023
09:01



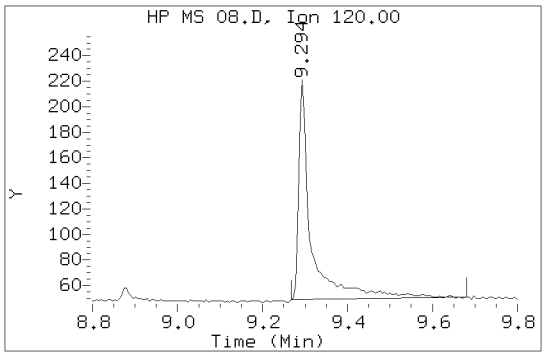
BEFORE

MASS
120
AREA
0
HEIGHT
0
15-Mar-2023
17:33
ALSHS
Server



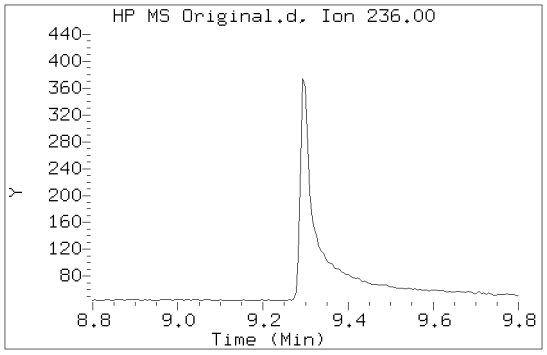
AFTER

MASS
120
AREA
349
HEIGHT
171
16-Mar-2023
09:01



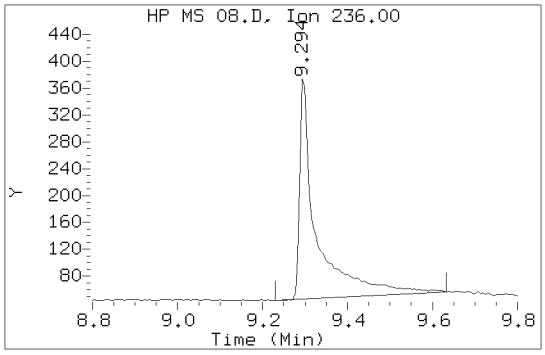
BEFORE

MASS
236
AREA
0
HEIGHT
0
15-Mar-2023
17:33
ALSHS
Server



AFTER

MASS
236
AREA
908
HEIGHT
328
16-Mar-2023
09:01

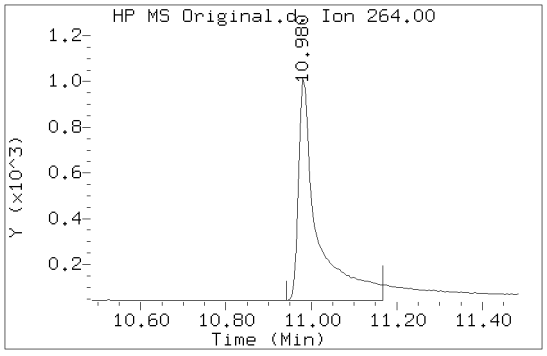


Perylene-d12 (1520-96-3)

Reason Code:

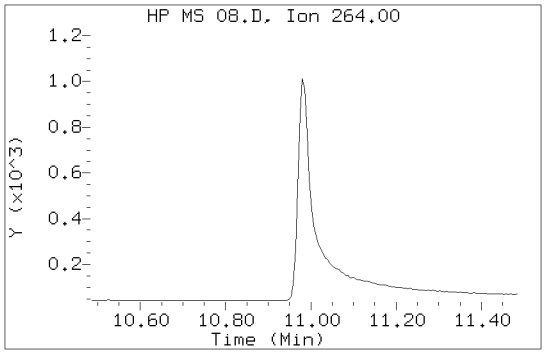
BEFORE

MASS
264
AREA
2966
HEIGHT
968
15-Mar-2023
17:33
ALSHS
Server



AFTER

MASS
264
AREA
4959
HEIGHT
994
16-Mar-2023
09:01

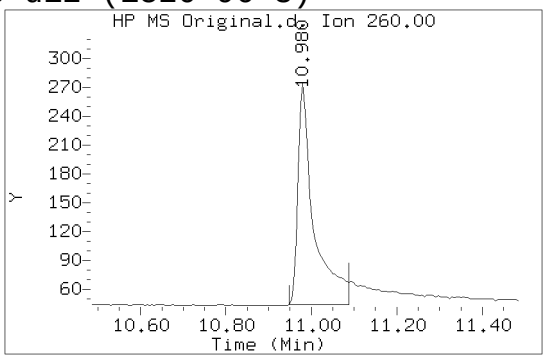


Data File : \\NAHSTWS005\Target\chem\SV6.i\230315.b\08.D
Inj Date : 15-MAR-2023 17:19
InstruID : SV6.i
LabSampID : LCSD-190734

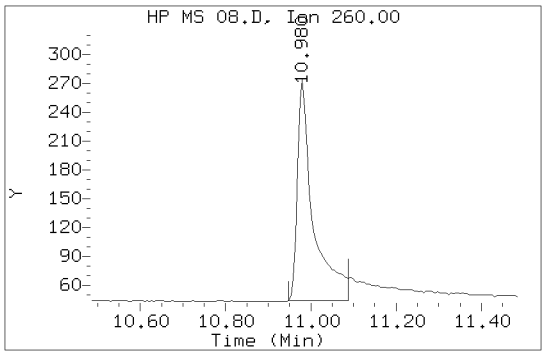
Perylene-d12 (1520-96-3)

Reason Code:

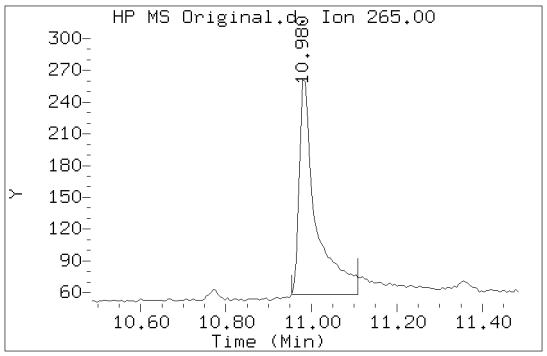
BEFORE
MASS
260
AREA
594
HEIGHT
230
15-Mar-2023
17:33
ALSHS
Server



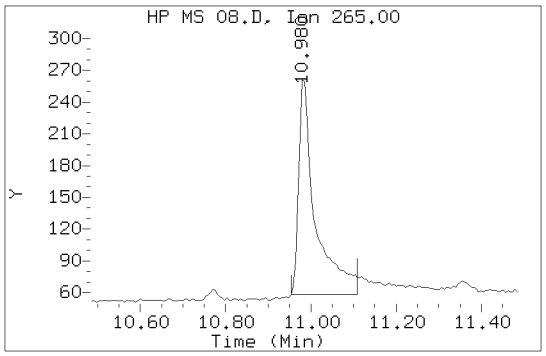
AFTER
MASS
260
AREA
594
HEIGHT
230
16-Mar-2023
09:01



BEFORE
MASS
265
AREA
553
HEIGHT
203
15-Mar-2023
17:33
ALSHS
Server



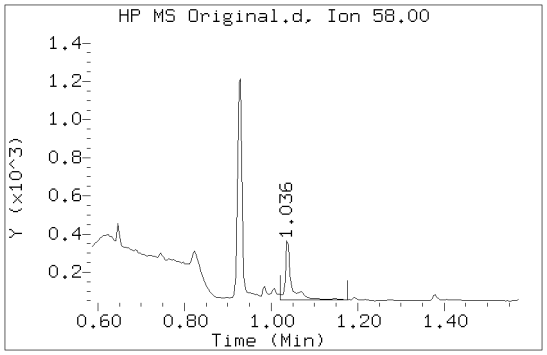
AFTER
MASS
265
AREA
553
HEIGHT
203
16-Mar-2023
09:01



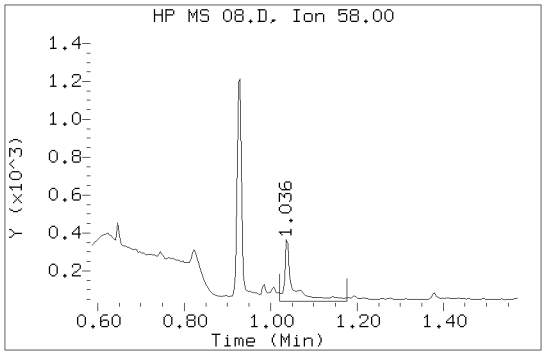
1,4-Dioxane ()

Reason Code:

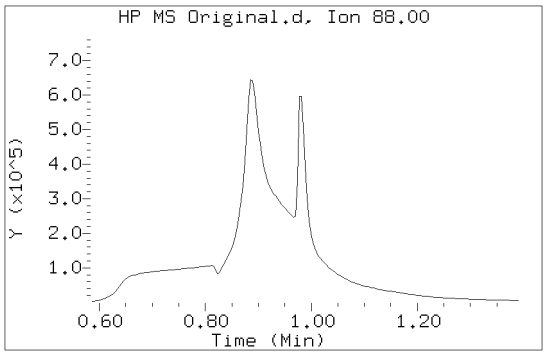
BEFORE
MASS
58
AREA
308
HEIGHT
309
15-Mar-2023
17:33
ALSHS
Server



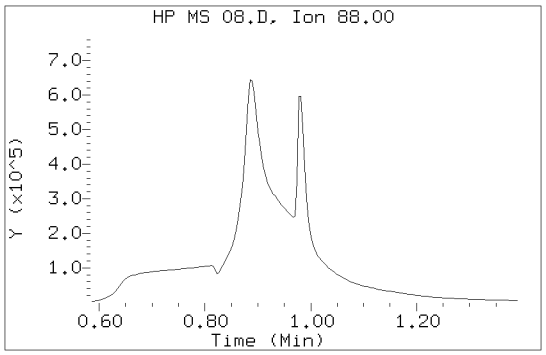
AFTER
MASS
58
AREA
456
HEIGHT
325
16-Mar-2023
09:01



BEFORE
MASS
88
AREA
1550389
HEIGHT
594447
15-Mar-2023
17:33
ALSHS
Server



AFTER
MASS
88
AREA
1550389
HEIGHT
594447
16-Mar-2023
09:01



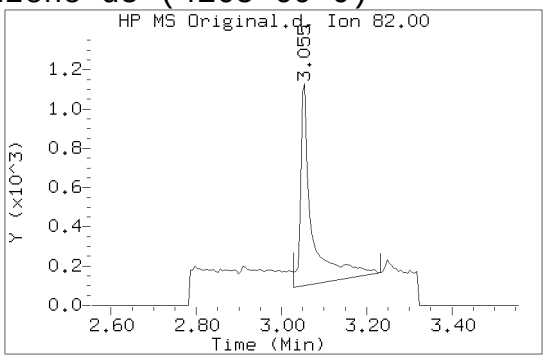
Data File : \\NAHSTWS005\Target\chem\SV6.i\230315.b\08.D
Inj Date : 15-MAR-2023 17:19
InstruID : SV6.i
LabSampID : LCSD-190734

Nitrobenzene-d5 (4165-60-0)

Reason Code:

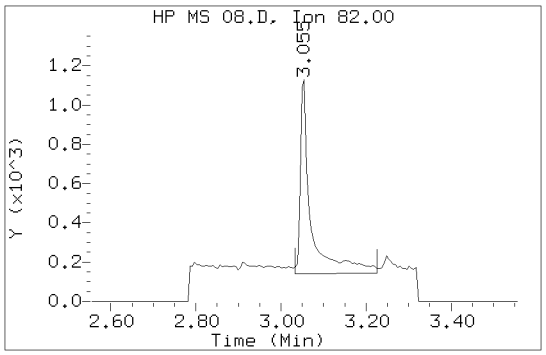
BEFORE

MASS
82
AREA
1892
HEIGHT
1028
15-Mar-2023
17:33
ALSHS
Server



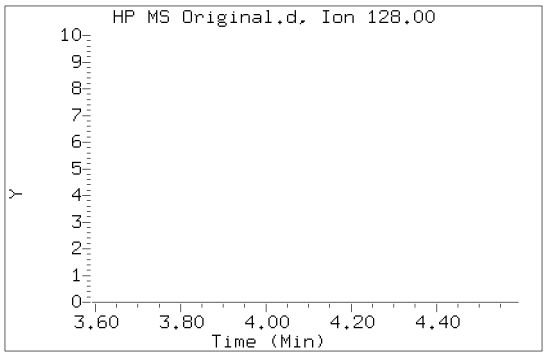
AFTER

MASS
82
AREA
1717
HEIGHT
989
16-Mar-2023
09:01



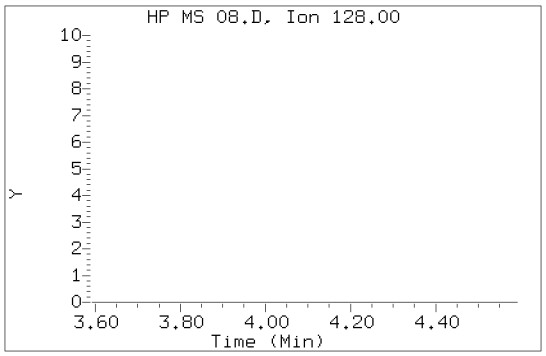
BEFORE

MASS
128
AREA
0
HEIGHT
0
15-Mar-2023
17:33
ALSHS
Server



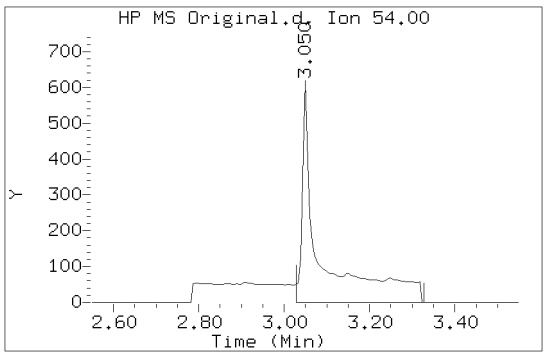
AFTER

MASS
128
AREA
0
HEIGHT
0
16-Mar-2023
09:01



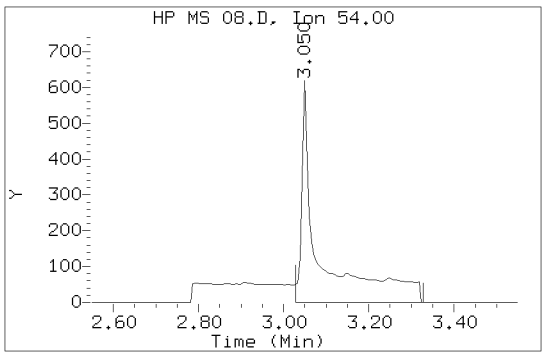
BEFORE

MASS
54
AREA
1735
HEIGHT
619
15-Mar-2023
17:33
ALSHS
Server



AFTER

MASS
54
AREA
1735
HEIGHT
619
16-Mar-2023
09:01



Data File: \\NAHSTWS005\Target\chem\SV6.i\230315.b\09.D Page 1
Report Date: 16-Mar-2023 09:06

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230315.b\09.D
Lab Smp Id: HS23030396-01
Inj Date : 15-MAR-2023 17:37
Operator : LG Inst ID: SV6.i
Smp Info : HS23030396-01X10
Misc Info :
Comment :
Method : \\NAHSTWS005\Target\chem\SV6.i\230315.b\DXSIM.m
Meth Date : 15-Mar-2023 16:00 marco.guti Quant Type: ISTD
Cal Date : 26-JAN-2023 19:09 Cal File: 25.D
Als bottle: 8
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7095

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	10.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)
* 20 1,4-Dichlorobenzene-d4	152	2.604	2.609	(1.000)	2068	0.10000	(a)
* 45 Naphthalene-d8	136	3.673	3.673	(1.000)	8243	0.10000	(M)
$ 33 Nitrobenzene-d5	82	3.054	3.054	(0.832)	197	0.00828	0.08283(M)
* 86 Acenaphthene-d10	164	5.315	5.310	(1.000)	6069	0.10000	(QM)
$ 69 2-Fluorobiphenyl	172	4.698	4.698	(0.884)	572	0.00718	0.07181(M)
* 126 Phenanthrene-d10	188	6.733	6.733	(1.000)	11956	0.10000	(M)
* 182 Chrysene-d12	240	9.299	9.299	(1.000)	7726	0.10000	(M)
$ 158 4-Terphenyl-d14	244	8.314	8.314	(0.894)	337	0.01767	0.1767(RM)
* 198 Perylene-d12	264	10.980	10.985	(1.000)	5037	0.10000	(M)
1 1,4-Dioxane	58	1.028	1.069	(0.395)	540	0.07158	0.7158(Q)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

01183015

Data File: \\NAHSTWS005\Target\chem\SV6.i\230315.b\09.D

Date : 15-MAR-2023 17:37

Client ID:

Instrument: SV6.i

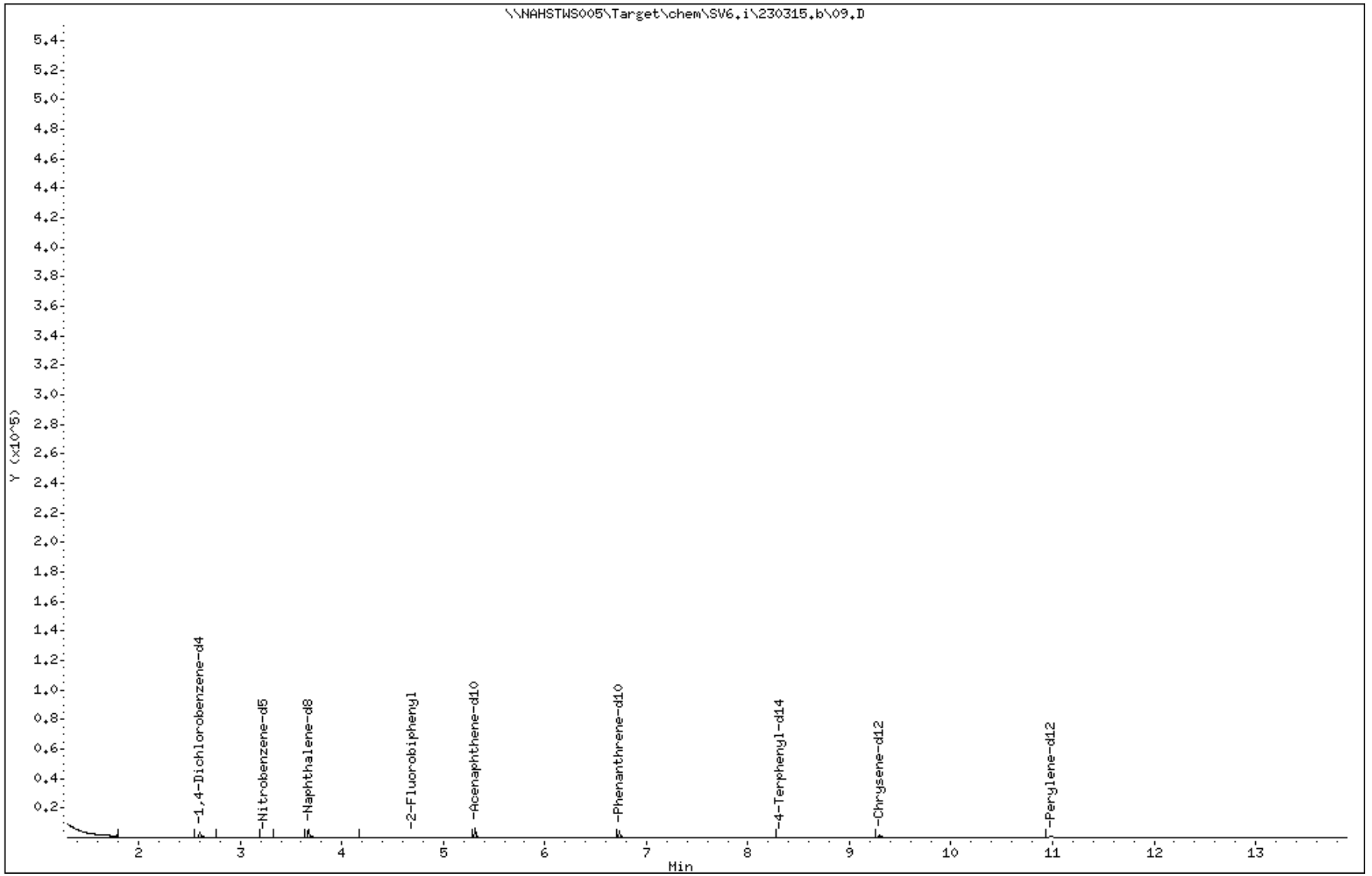
Sample Info: HS23030396-01X10

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28



Data File: \\NAHSTWS005\Target\chem\SV6.i\230315.b\09.D

Date : 15-MAR-2023 17:37

Client ID:

Instrument: SV6.i

Sample Info: HS23030396-01X10

Purge Volume: 1000.0

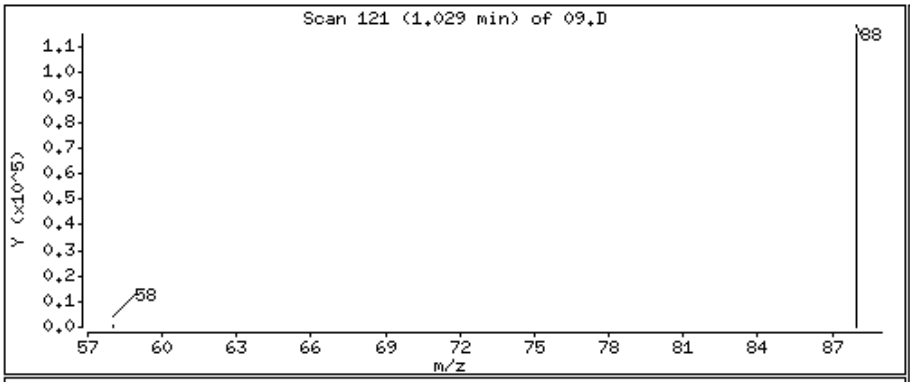
Operator: LG

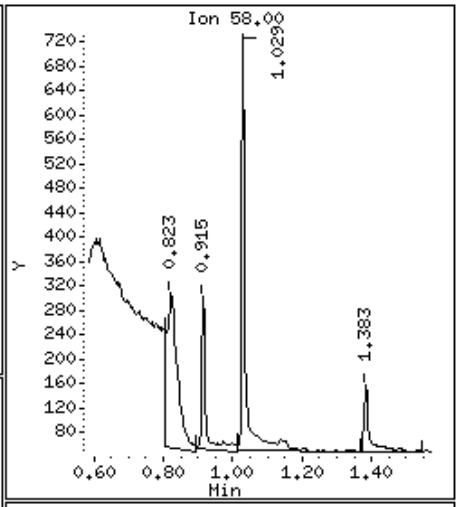
Column phase: RTX-5SIL MS

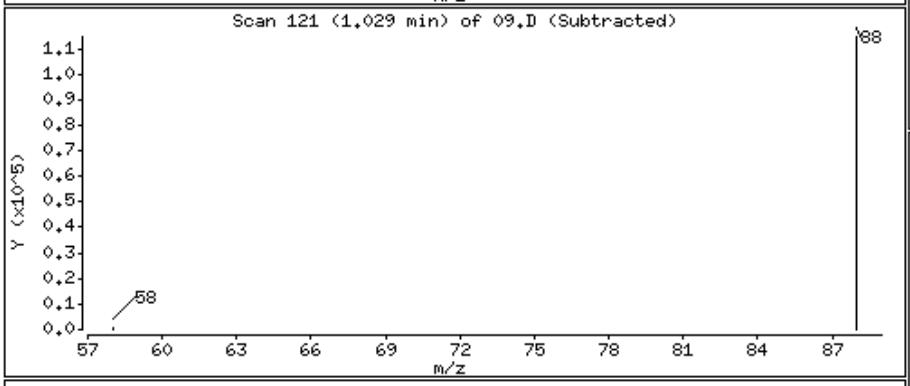
Column diameter: 0.28

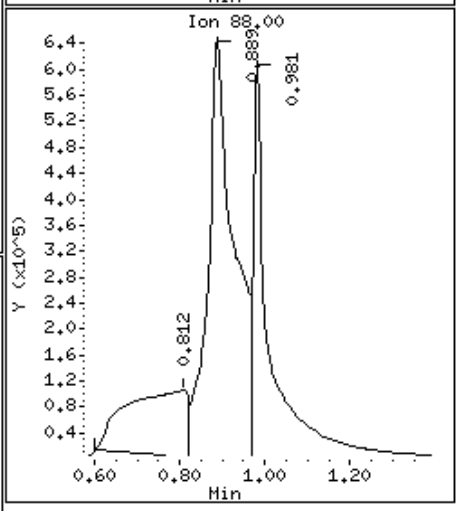
1 1,4-Dioxane

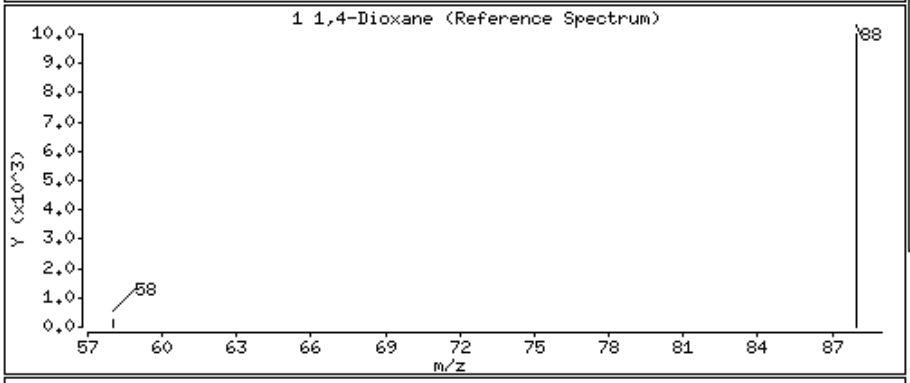
Concentration: 0.7158 ug/L

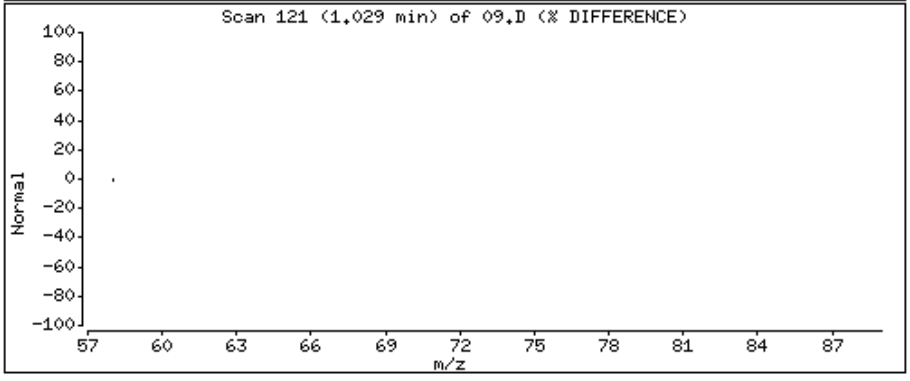












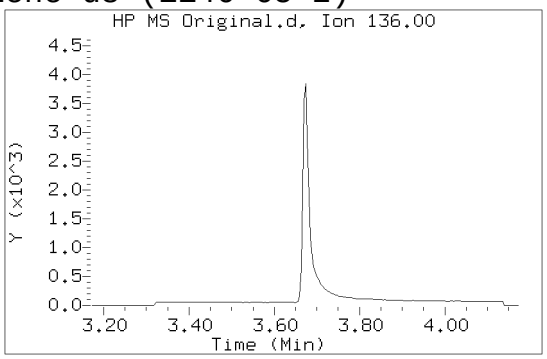
Data File : \\NAHSTWS005\Target\chem\SV6.i\230315.b\09.D
Inj Date : 15-MAR-2023 17:37
InstruID : SV6.i
LabSampID : HS23030396-01

Naphthalene-d8 (1146-65-2)

Reason Code:

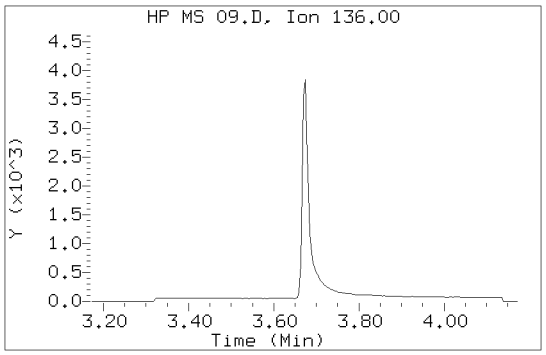
BEFORE

MASS
136
AREA
8243
HEIGHT
3840
16-Mar-2023
09:04
marco
gutierrez



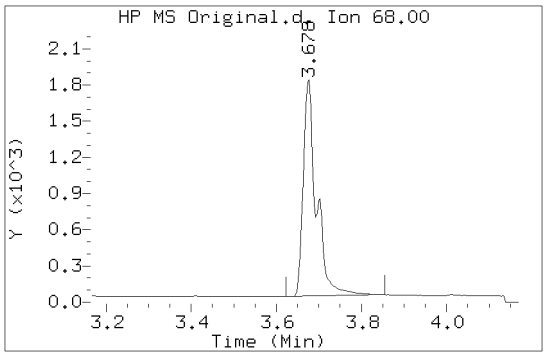
AFTER

MASS
136
AREA
8243
HEIGHT
3840
16-Mar-2023
09:06
marco
gutierrez



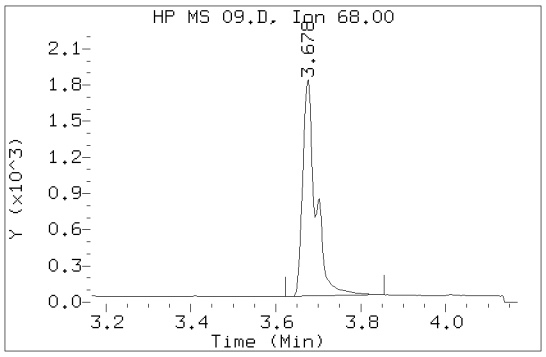
BEFORE

MASS
68
AREA
3875
HEIGHT
1791
16-Mar-2023
09:04
marco
gutierrez



AFTER

MASS
68
AREA
3875
HEIGHT
1791
16-Mar-2023
09:06
marco
gutierrez

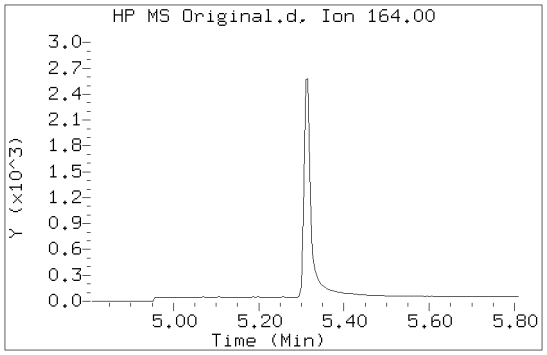


Acenaphthene-d10 (15067-26-2)

Reason Code:

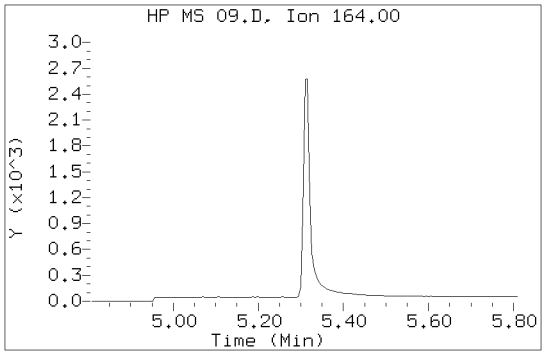
BEFORE

MASS
164
AREA
6069
HEIGHT
2577
16-Mar-2023
09:04
marco
gutierrez



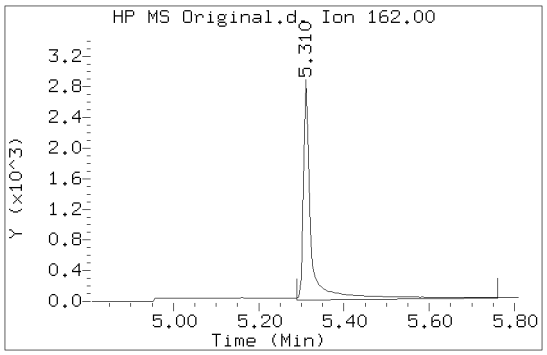
AFTER

MASS
164
AREA
6069
HEIGHT
2577
16-Mar-2023
09:06
marco
gutierrez



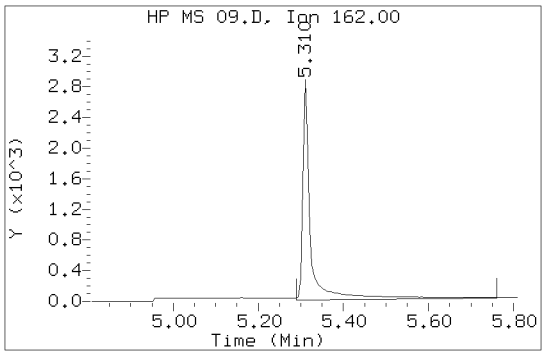
BEFORE

MASS
162
AREA
3724
HEIGHT
2872
16-Mar-2023
09:04
marco
gutierrez



AFTER

MASS
162
AREA
3724
HEIGHT
2872
16-Mar-2023
09:06
marco
gutierrez



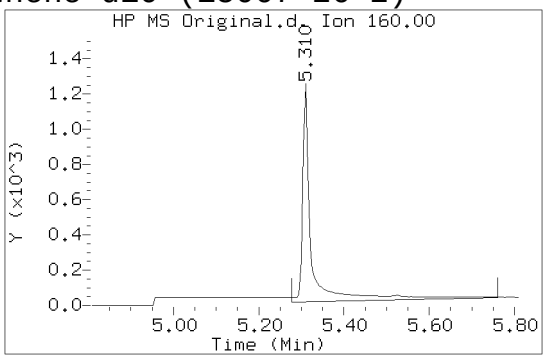
Data File : \\NAHSTWS005\Target\chem\SV6.i\230315.b\09.D
Inj Date : 15-MAR-2023 17:37
InstruID : SV6.i
LabSampID : HS23030396-01

Acenaphthene-d10 (15067-26-2)

Reason Code:

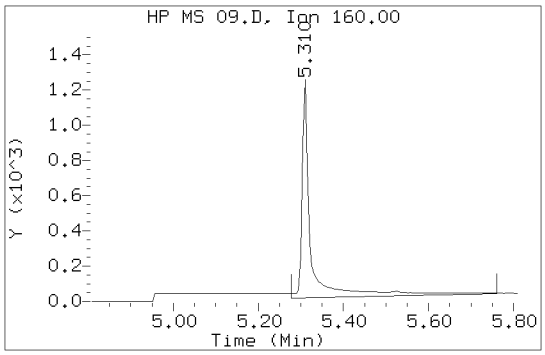
BEFORE

MASS
160
AREA
1825
HEIGHT
1239
16-Mar-2023
09:04
marco
gutierrez



AFTER

MASS
160
AREA
1825
HEIGHT
1239
16-Mar-2023
09:06
marco
gutierrez

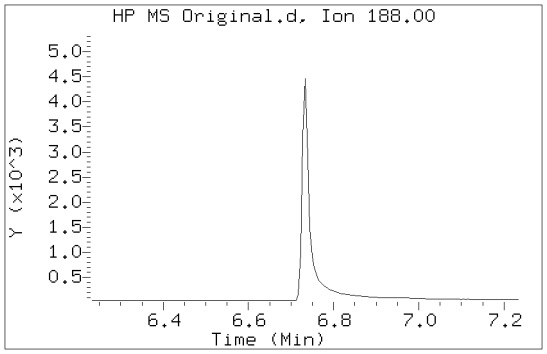


Phenanthrene-d10 (1517-22-2)

Reason Code:

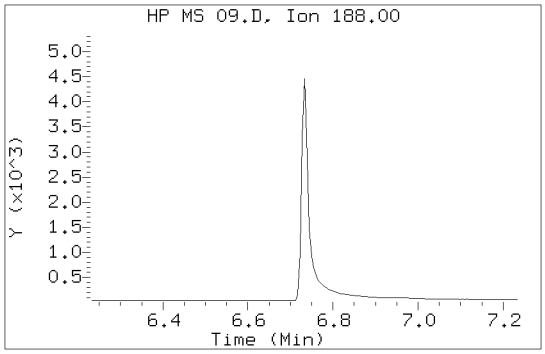
BEFORE

MASS
188
AREA
11956
HEIGHT
4474
16-Mar-2023
09:04
marco
gutierrez



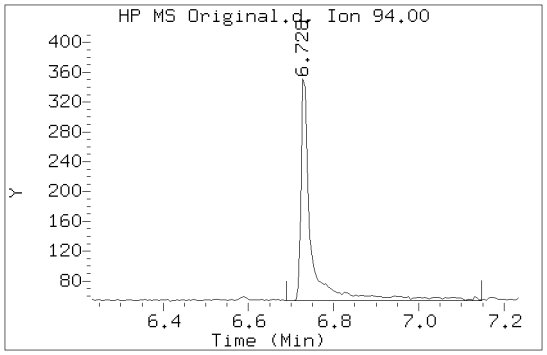
AFTER

MASS
188
AREA
11956
HEIGHT
4474
16-Mar-2023
09:06
marco
gutierrez



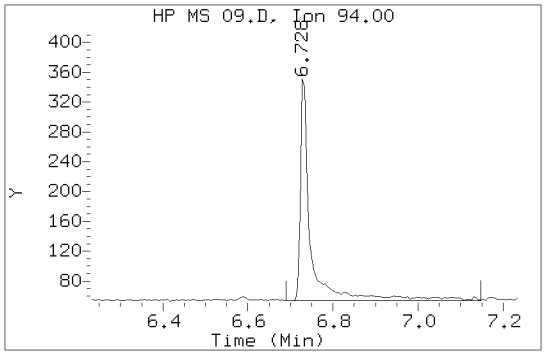
BEFORE

MASS
94
AREA
495
HEIGHT
297
16-Mar-2023
09:04
marco
gutierrez



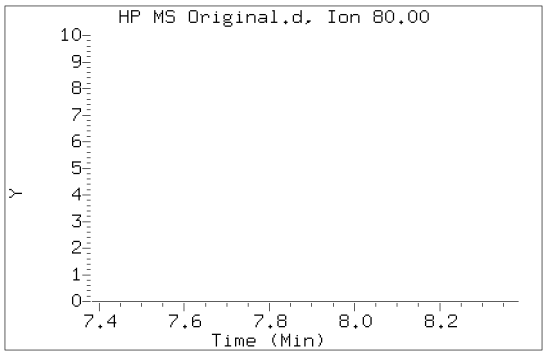
AFTER

MASS
94
AREA
495
HEIGHT
297
16-Mar-2023
09:06
marco
gutierrez



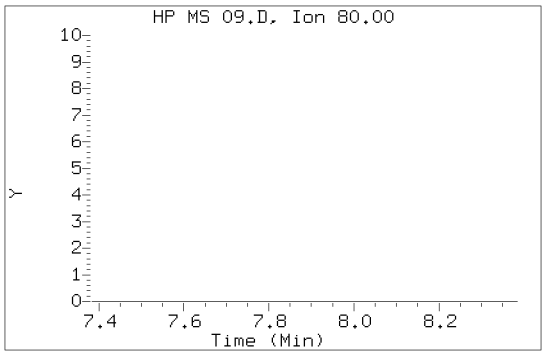
BEFORE

MASS
80
AREA
0
HEIGHT
0
16-Mar-2023
09:04
marco
gutierrez



AFTER

MASS
80
AREA
0
HEIGHT
0
16-Mar-2023
09:06
marco
gutierrez



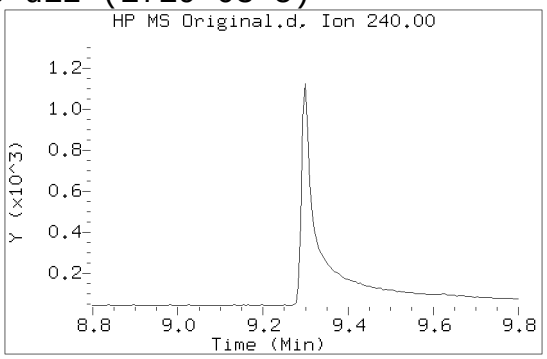
Data File : \\NAHSTWS005\Target\chem\SV6.i\230315.b\09.D
Inj Date : 15-MAR-2023 17:37
InstruID : SV6.i
LabSampID : HS23030396-01

Chrysene-d12 (1719-03-5)

Reason Code:

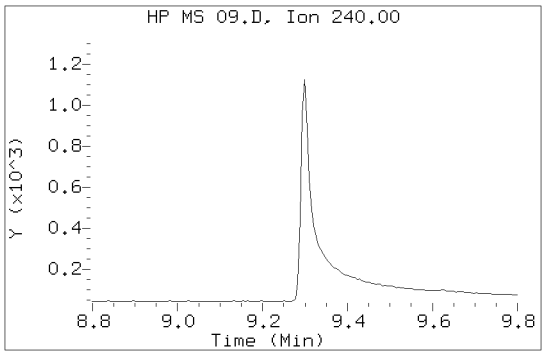
BEFORE

MASS
240
AREA
7726
HEIGHT
1125
16-Mar-2023
09:04
marco
gutierrez



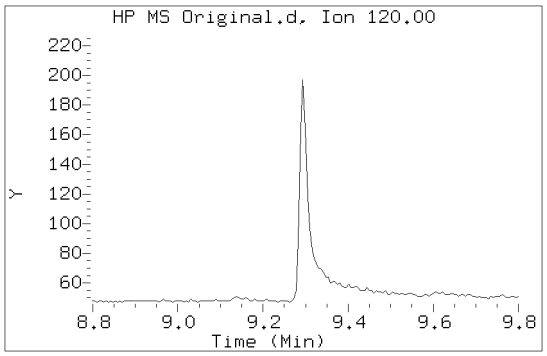
AFTER

MASS
240
AREA
7726
HEIGHT
1125
16-Mar-2023
09:06
marco
gutierrez



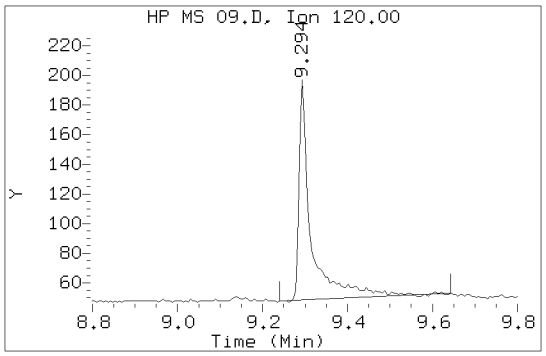
BEFORE

MASS
120
AREA
0
HEIGHT
0
16-Mar-2023
09:04
marco
gutierrez



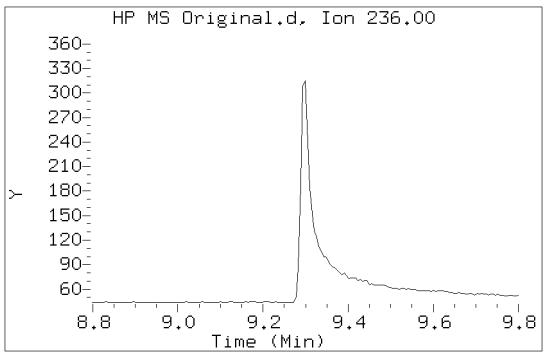
AFTER

MASS
120
AREA
284
HEIGHT
148
16-Mar-2023
09:06
marco
gutierrez



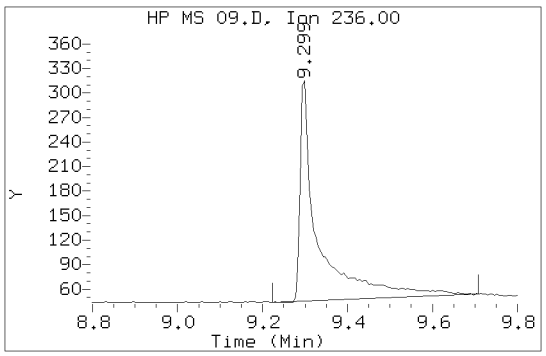
BEFORE

MASS
236
AREA
0
HEIGHT
0
16-Mar-2023
09:04
marco
gutierrez



AFTER

MASS
236
AREA
798
HEIGHT
269
16-Mar-2023
09:06
marco
gutierrez

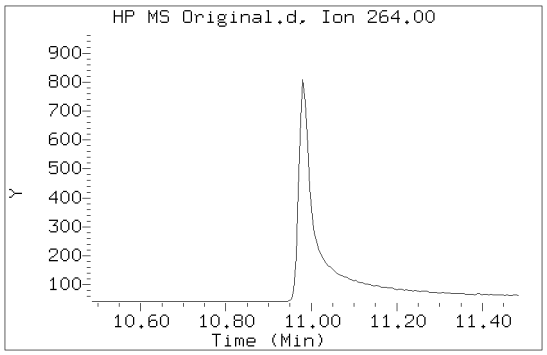


Perylene-d12 (1520-96-3)

Reason Code:

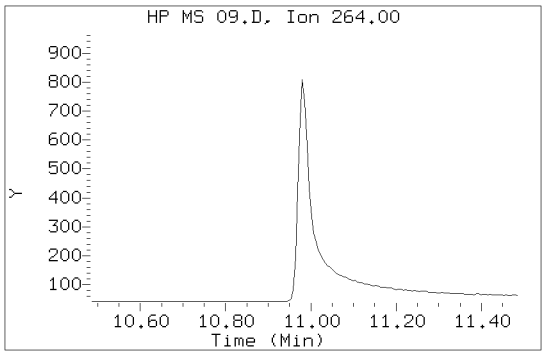
BEFORE

MASS
264
AREA
5037
HEIGHT
801
16-Mar-2023
09:04
marco
gutierrez



AFTER

MASS
264
AREA
5037
HEIGHT
801
16-Mar-2023
09:06
marco
gutierrez



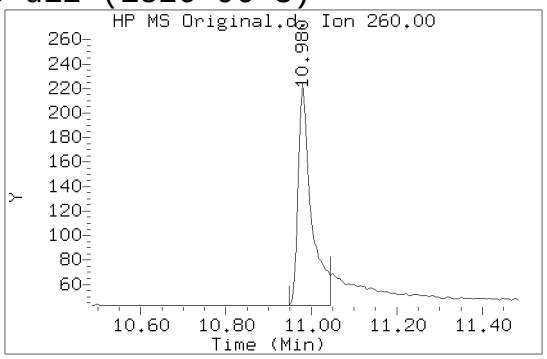
Data File : \\NAHSTWS005\Target\chem\SV6.i\230315.b\09.D
Inj Date : 15-MAR-2023 17:37
InstruID : SV6.i
LabSampID : HS23030396-01

Perylene-d12 (1520-96-3)

Reason Code:

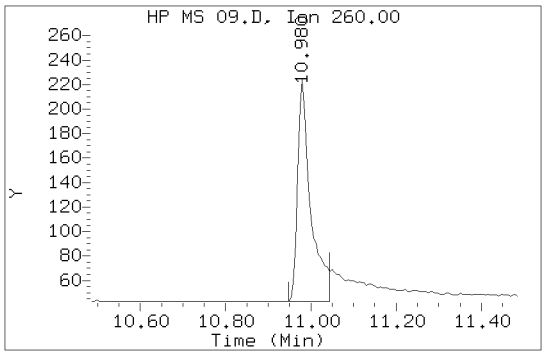
BEFORE

MASS
260
AREA
388
HEIGHT
181
16-Mar-2023
09:04
marco
gutierrez



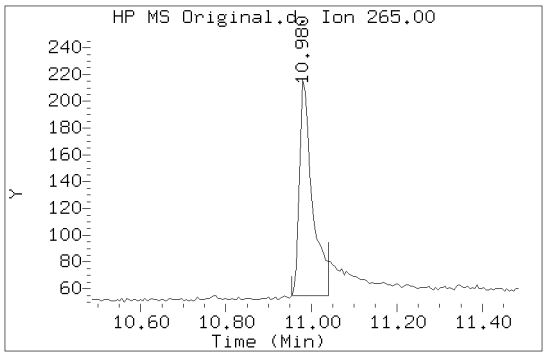
AFTER

MASS
260
AREA
388
HEIGHT
181
16-Mar-2023
09:06
marco
gutierrez



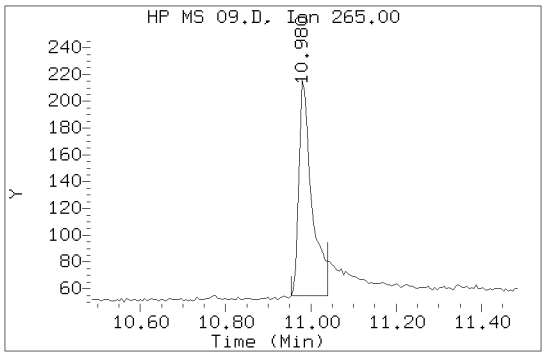
BEFORE

MASS
265
AREA
338
HEIGHT
161
16-Mar-2023
09:04
marco
gutierrez



AFTER

MASS
265
AREA
338
HEIGHT
161
16-Mar-2023
09:06
marco
gutierrez

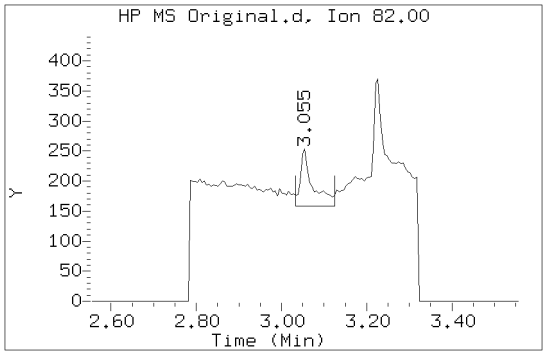


Nitrobenzene-d5 (4165-60-0)

Reason Code:

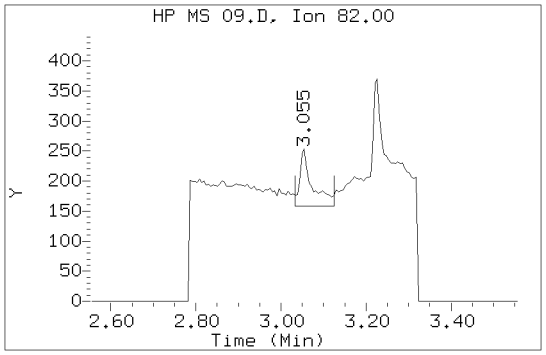
BEFORE

MASS
82
AREA
197
HEIGHT
96
16-Mar-2023
09:04
marco
gutierrez



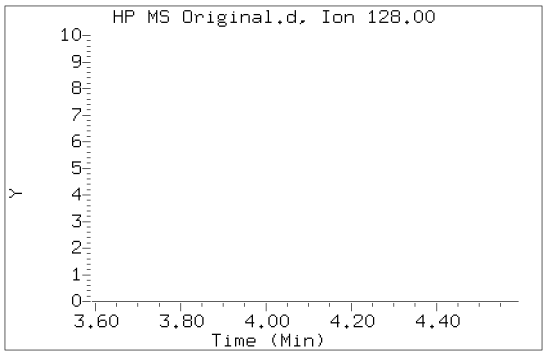
AFTER

MASS
82
AREA
197
HEIGHT
96
16-Mar-2023
09:06
marco
gutierrez



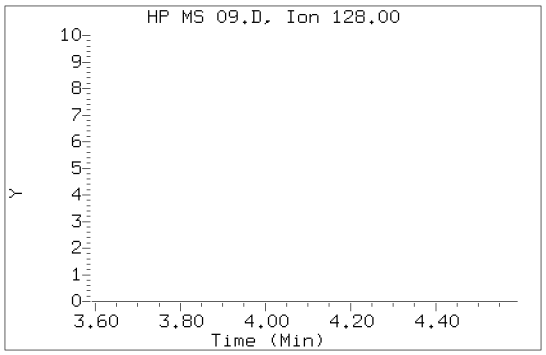
BEFORE

MASS
128
AREA
0
HEIGHT
0
16-Mar-2023
09:04
marco
gutierrez



AFTER

MASS
128
AREA
0
HEIGHT
0
16-Mar-2023
09:06
marco
gutierrez



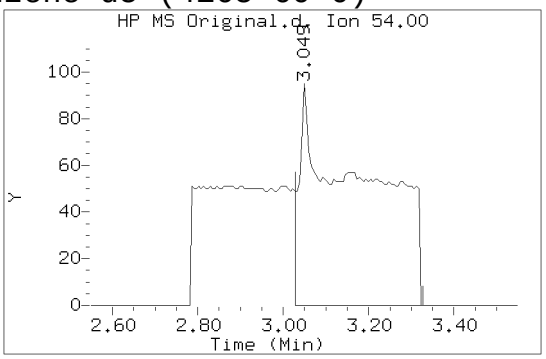
Data File : \\NAHSTWS005\Target\chem\SV6.i\230315.b\09.D
Inj Date : 15-MAR-2023 17:37
InstruID : SV6.i
LabSampID : HS23030396-01

Nitrobenzene-d5 (4165-60-0)

Reason Code:

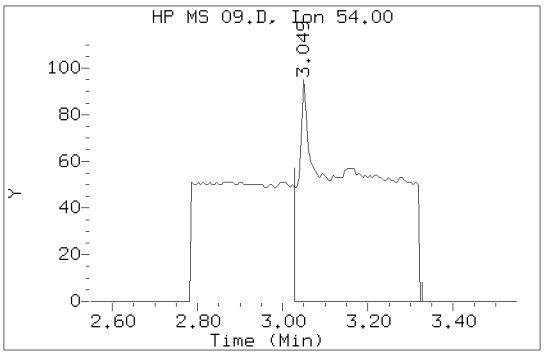
BEFORE

MASS
54
AREA
971
HEIGHT
95
16-Mar-2023
09:04
marco
gutierrez



AFTER

MASS
54
AREA
971
HEIGHT
95
16-Mar-2023
09:06
marco
gutierrez

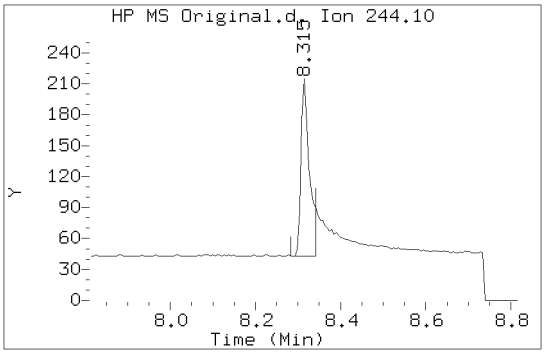


4-Terphenyl-d14 (1718-51-0)

Reason Code:

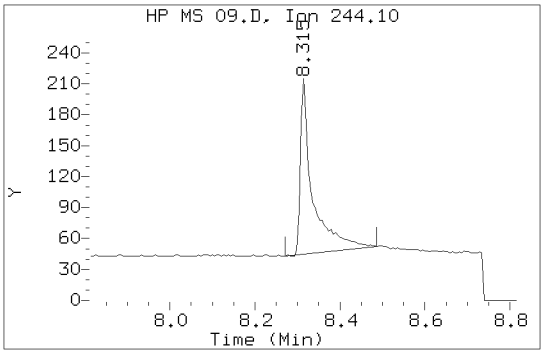
BEFORE

MASS
244.1
AREA
235
HEIGHT
172
16-Mar-2023
09:04
marco
gutierrez



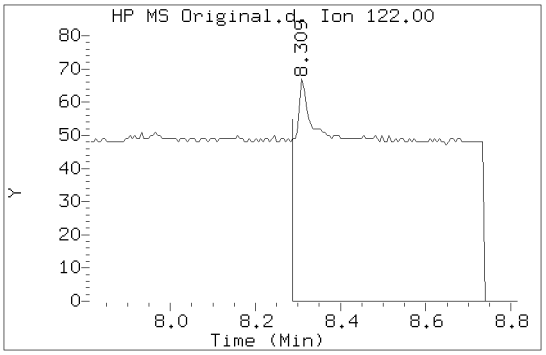
AFTER

MASS
244.1
AREA
337
HEIGHT
170
16-Mar-2023
09:06
marco
gutierrez



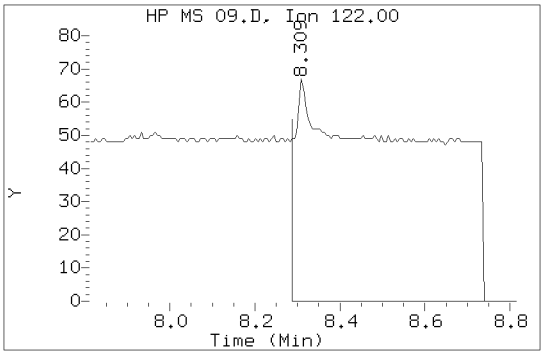
BEFORE

MASS
122
AREA
1347
HEIGHT
67
16-Mar-2023
09:04
marco
gutierrez



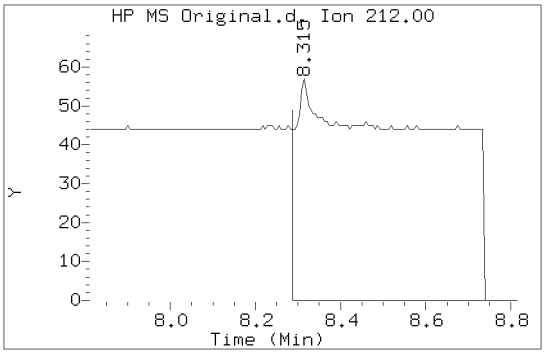
AFTER

MASS
122
AREA
1347
HEIGHT
67
16-Mar-2023
09:06
marco
gutierrez



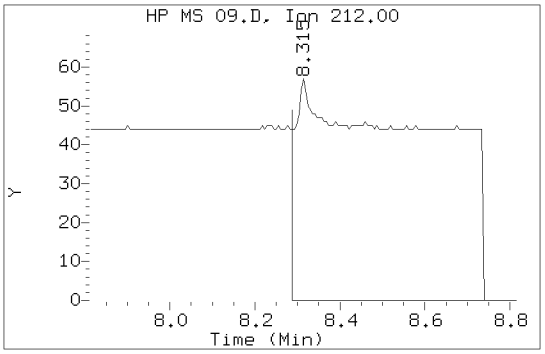
BEFORE

MASS
212
AREA
1223
HEIGHT
57
16-Mar-2023
09:04
marco
gutierrez



AFTER

MASS
212
AREA
1223
HEIGHT
57
16-Mar-2023
09:06
marco
gutierrez



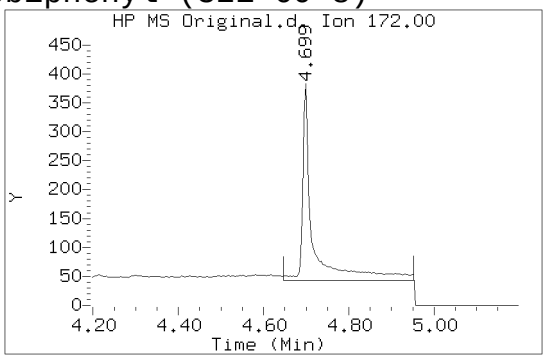
Data File : \\NAHSTWS005\Target\chem\SV6.i\230315.b\09.D
Inj Date : 15-MAR-2023 17:37
InstruID : SV6.i
LabSampID : HS23030396-01

2-Fluorobiphenyl (321-60-8)

Reason Code:

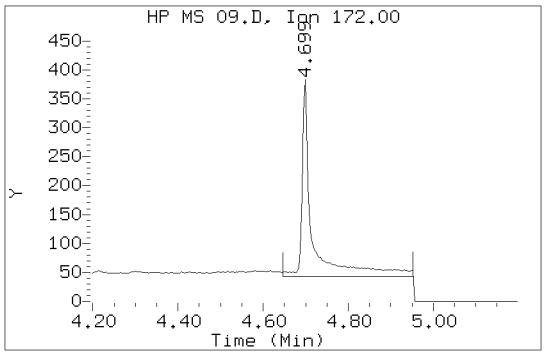
BEFORE

MASS
172
AREA
572
HEIGHT
340
16-Mar-2023
09:04
marco
gutierrez



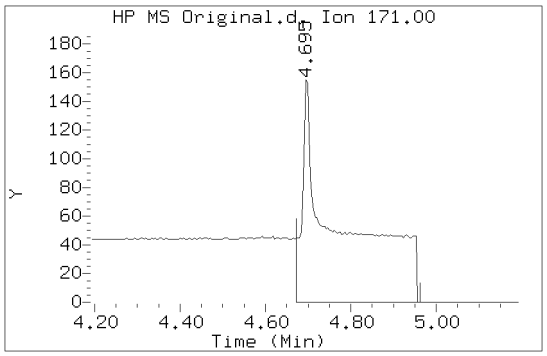
AFTER

MASS
172
AREA
572
HEIGHT
340
16-Mar-2023
09:06
marco
gutierrez



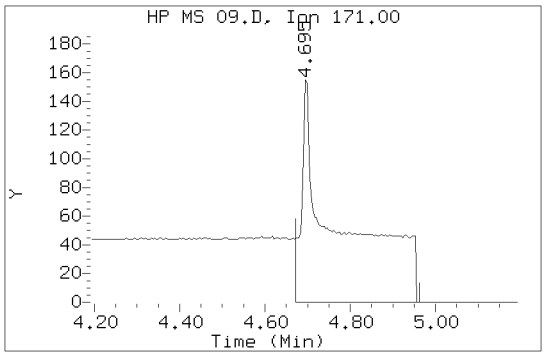
BEFORE

MASS
171
AREA
920
HEIGHT
155
16-Mar-2023
09:04
marco
gutierrez



AFTER

MASS
171
AREA
920
HEIGHT
155
16-Mar-2023
09:06
marco
gutierrez



Data File: \\NAHSTWS005\Target\chem\SV6.i\230315.b\10.D Page 1
Report Date: 21-Mar-2023 16:55

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230315.b\10.D
Lab Smp Id: 14DX-CCV END Client Smp ID: 14DX-CCV END
Inj Date : 15-MAR-2023 17:55
Operator : LG Inst ID: SV6.i
Smp Info : 14DX-0.08
Misc Info : ;;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\SV6.i\230315.b\DXSIM.m
Meth Date : 21-Mar-2023 16:55 SV6.i Quant Type: ISTD
Cal Date : 26-JAN-2023 19:09 Cal File: 25.D
Als bottle: 9 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)
* 20 1,4-Dichlorobenzene-d4	152	2.609	2.609	(1.000)	2521	0.10000	(aQM)
* 45 Naphthalene-d8	136	3.674	3.674	(1.000)	10010	0.10000	(M)
$ 33 Nitrobenzene-d5	82	3.055	3.055	(0.832)	2346	0.08000	0.08123(M)
* 86 Acenaphthene-d10	164	5.312	5.312	(1.000)	6673	0.10000	(M)
$ 69 2-Fluorobiphenyl	172	4.695	4.695	(0.884)	6561	0.08000	0.07491(M)
* 126 Phenanthrene-d10	188	6.729	6.729	(1.000)	14097	0.10000	
* 182 Chrysene-d12	240	9.295	9.295	(1.000)	6588	0.10000	(M)
$ 158 4-Terphenyl-d14	244	8.311	8.311	(0.894)	8598	0.08000	0.07751(M)
* 198 Perylene-d12	264	10.976	10.976	(1.000)	5765	0.10000	
1 1,4-Dioxane	58	1.073	1.073	(0.411)	745	0.08000	0.08101(Q)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

01183024

Data File: \\NAHSTWS005\Target\chem\SV6.i\230315.b\10.D

Date : 15-MAR-2023 17:55

Client ID: 14DX-CCV END

Instrument: SV6.i

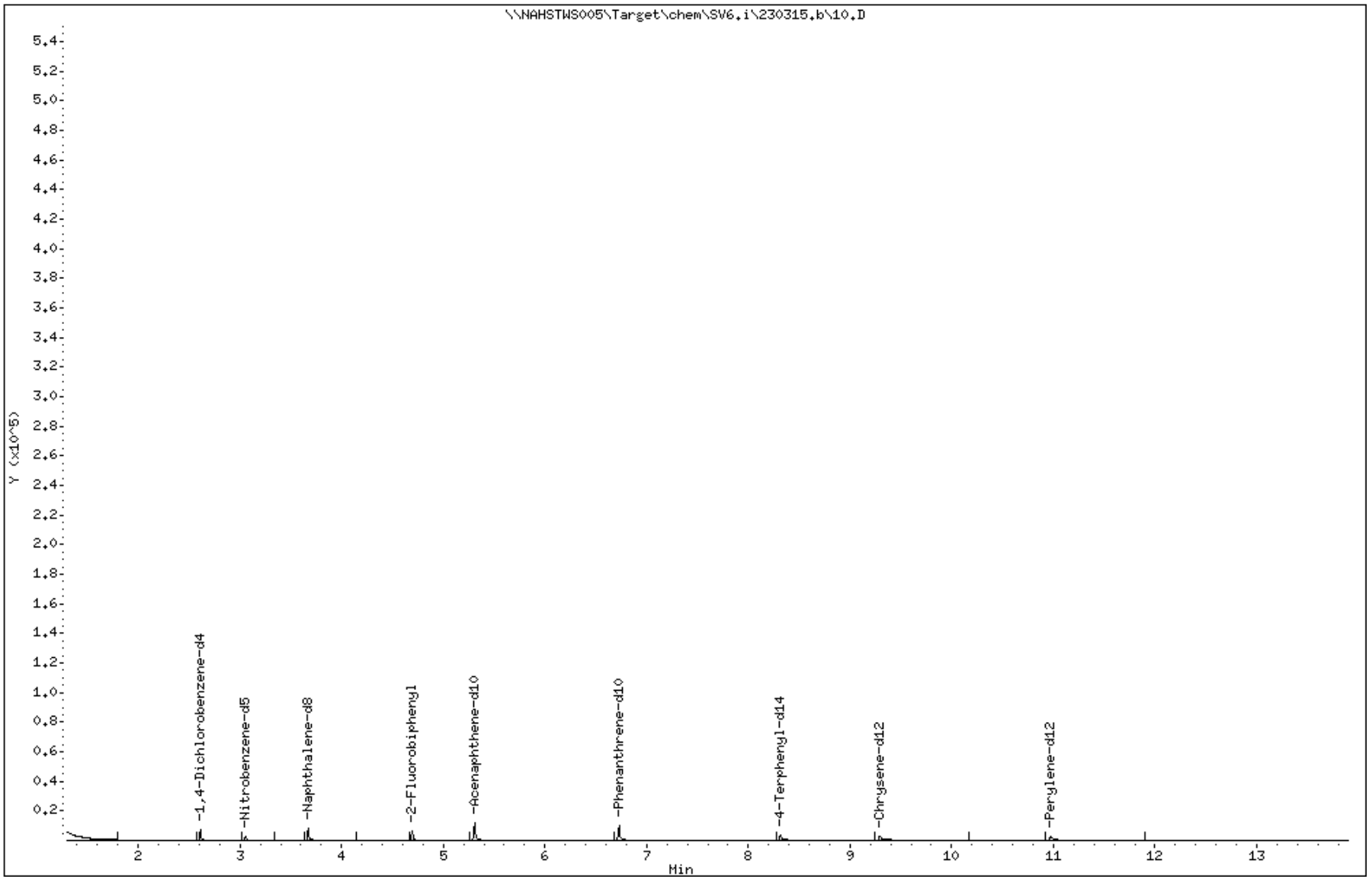
Sample Info: 14DX-0.08

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28



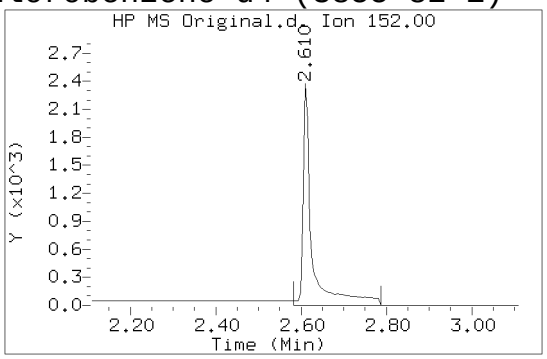
Data File : \\NAHSTWS005\Target\chem\SV6.i\230315.b\10.D
Inj Date : 15-MAR-2023 17:55
InstruID : SV6.i
LabSampID : 14DX-CCV END

1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

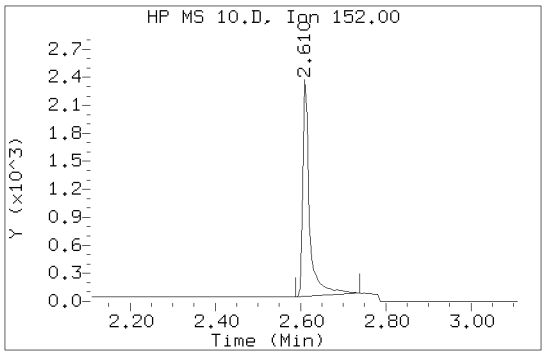
BEFORE

MASS
152
AREA
3369
HEIGHT
2374
15-Mar-2023
18:09
ALSHS
Server



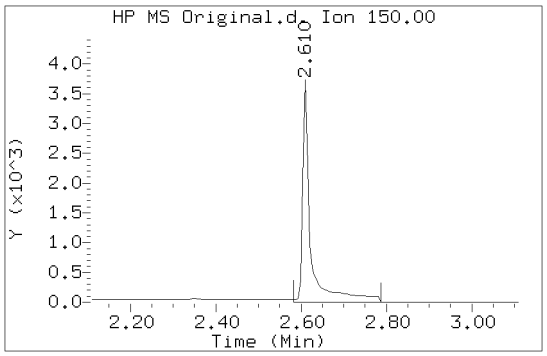
AFTER

MASS
152
AREA
2521
HEIGHT
2322
21-Mar-2023
16:55
ALSHS
Ser



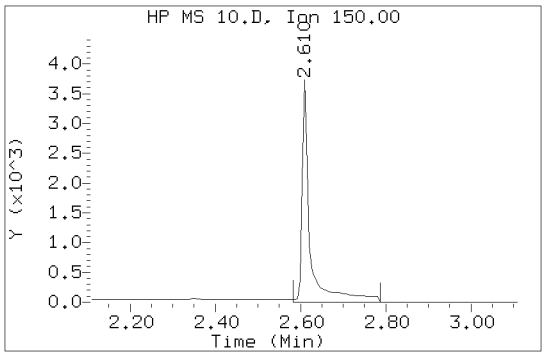
BEFORE

MASS
150
AREA
4774
HEIGHT
3732
15-Mar-2023
18:09
ALSHS
Server



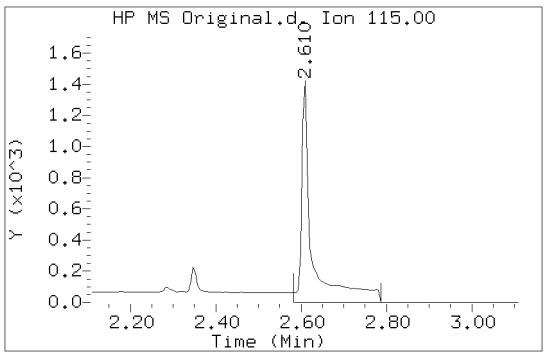
AFTER

MASS
150
AREA
4774
HEIGHT
3732
21-Mar-2023
16:55
ALSHS
Ser



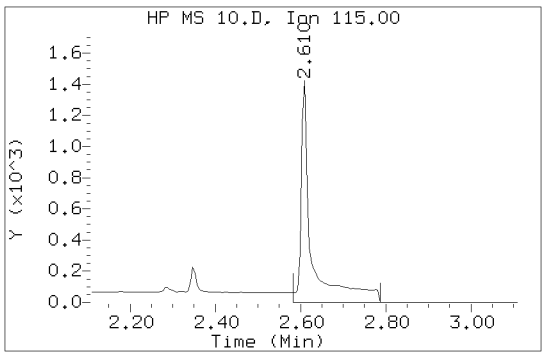
BEFORE

MASS
115
AREA
2407
HEIGHT
1423
15-Mar-2023
18:09
ALSHS
Server



AFTER

MASS
115
AREA
2407
HEIGHT
1423
21-Mar-2023
16:55
ALSHS
Ser

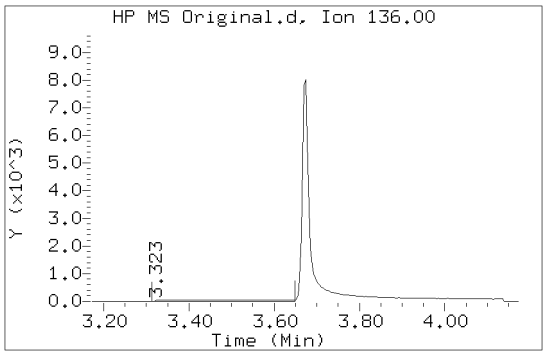


Naphthalene-d8 (1146-65-2)

Reason Code:

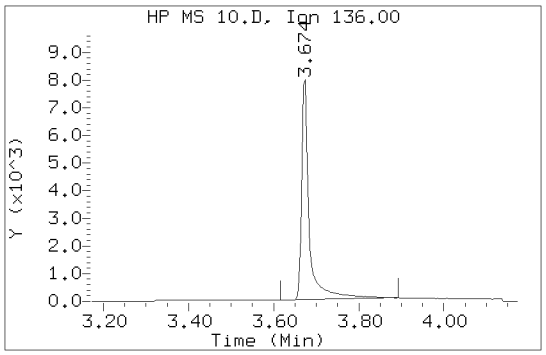
BEFORE

MASS
136
AREA
1001
HEIGHT
52
15-Mar-2023
18:09
ALSHS
Server



AFTER

MASS
136
AREA
10010
HEIGHT
7949
21-Mar-2023
16:55
ALSHS
Ser



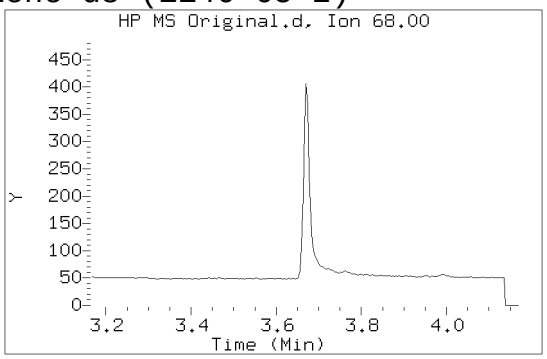
Data File : \\NAHSTWS005\Target\chem\SV6.i\230315.b\10.D
Inj Date : 15-MAR-2023 17:55
InstruID : SV6.i
LabSampID : 14DX-CCV END

Naphthalene-d8 (1146-65-2)

Reason Code:

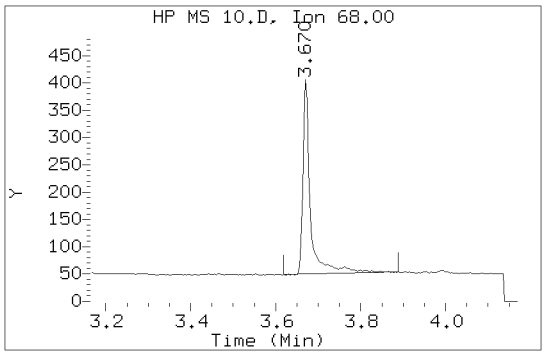
BEFORE

MASS
68
AREA
0
HEIGHT
0
15-Mar-2023
18:09
ALSHS
Server



AFTER

MASS
68
AREA
439
HEIGHT
356
21-Mar-2023
16:55
ALSHS
Ser

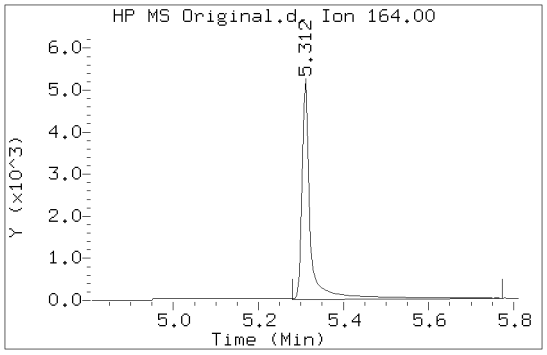


Acenaphthene-d10 (15067-26-2)

Reason Code:

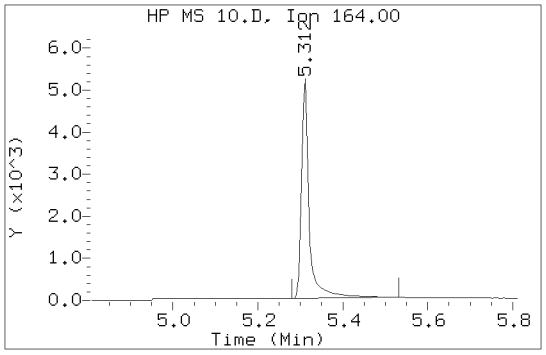
BEFORE

MASS
164
AREA
7418
HEIGHT
5249
15-Mar-2023
18:09
ALSHS
Server



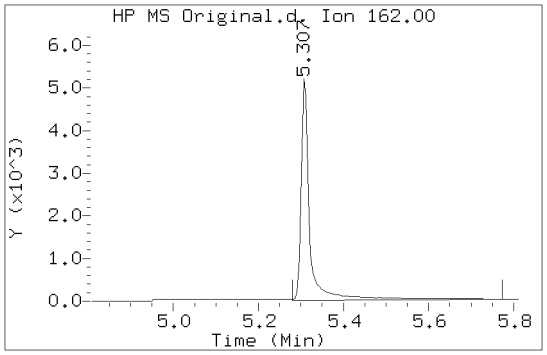
AFTER

MASS
164
AREA
6673
HEIGHT
5221
21-Mar-2023
16:55
ALSHS
Ser



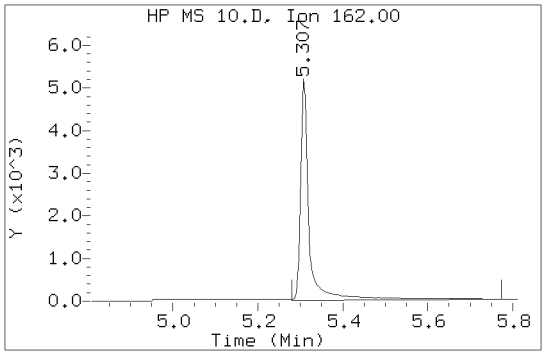
BEFORE

MASS
162
AREA
7492
HEIGHT
5191
15-Mar-2023
18:09
ALSHS
Server



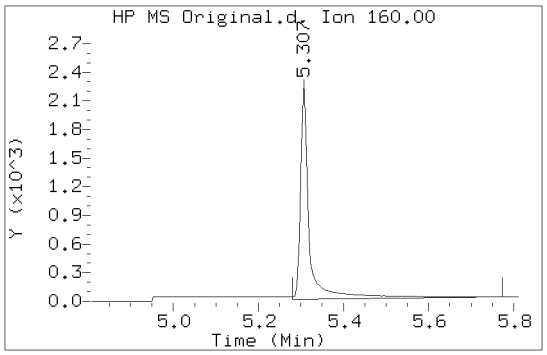
AFTER

MASS
162
AREA
7492
HEIGHT
5191
21-Mar-2023
16:55
ALSHS
Ser



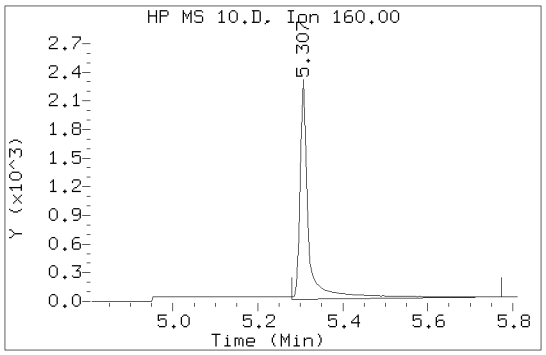
BEFORE

MASS
160
AREA
3415
HEIGHT
2302
15-Mar-2023
18:09
ALSHS
Server



AFTER

MASS
160
AREA
3415
HEIGHT
2302
21-Mar-2023
16:55
ALSHS
Ser



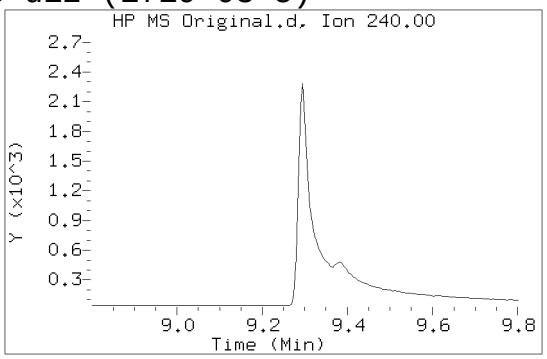
Data File : \\NAHSTWS005\Target\chem\SV6.i\230315.b\10.D
Inj Date : 15-MAR-2023 17:55
InstruID : SV6.i
LabSampID : 14DX-CCV END

Chrysene-d12 (1719-03-5)

Reason Code:

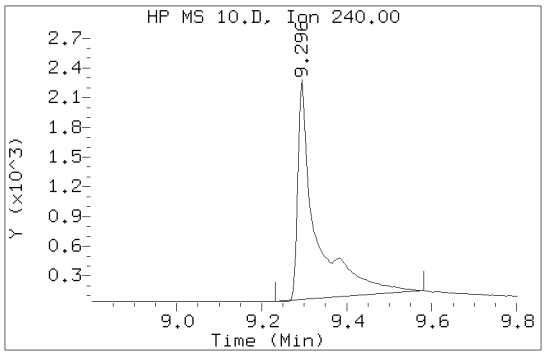
BEFORE

MASS
240
AREA
0
HEIGHT
0
15-Mar-2023
18:09
ALSHS
Server



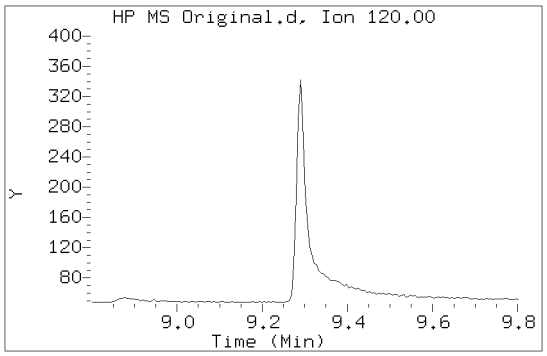
AFTER

MASS
240
AREA
6588
HEIGHT
2217
21-Mar-2023
16:55
ALSHS
Ser



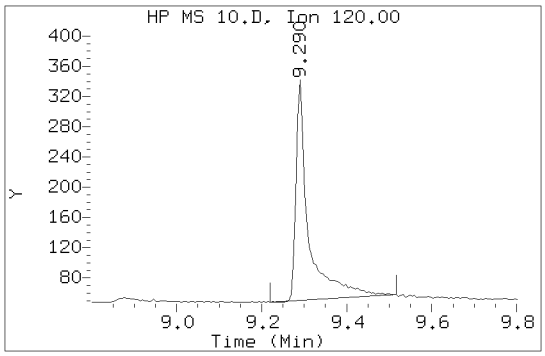
BEFORE

MASS
120
AREA
0
HEIGHT
0
15-Mar-2023
18:09
ALSHS
Server



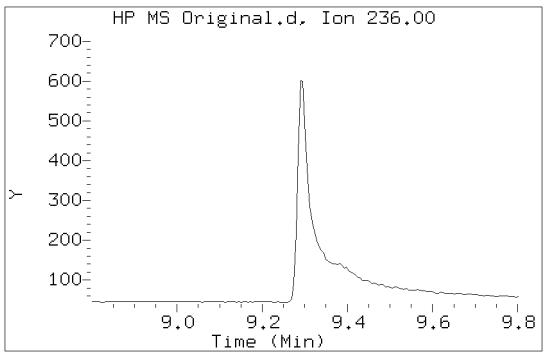
AFTER

MASS
120
AREA
601
HEIGHT
291
21-Mar-2023
16:55
ALSHS
Ser



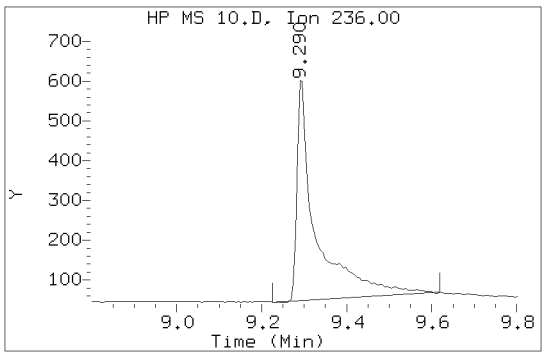
BEFORE

MASS
236
AREA
0
HEIGHT
0
15-Mar-2023
18:09
ALSHS
Server



AFTER

MASS
236
AREA
1730
HEIGHT
552
21-Mar-2023
16:55
ALSHS
Ser

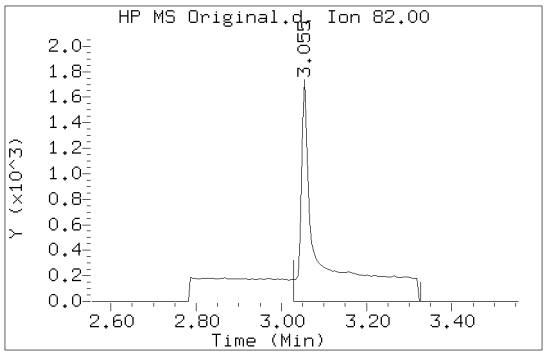


Nitrobenzene-d5 (4165-60-0)

Reason Code:

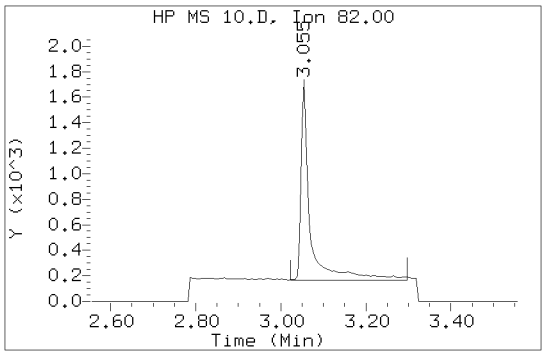
BEFORE

MASS
82
AREA
5267
HEIGHT
1737
15-Mar-2023
18:09
ALSHS
Server



AFTER

MASS
82
AREA
2346
HEIGHT
1571
21-Mar-2023
16:55
ALSHS
Ser



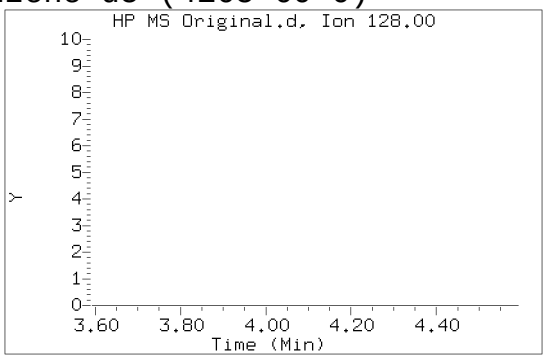
Data File : \\NAHSTWS005\Target\chem\SV6.i\230315.b\10.D
Inj Date : 15-MAR-2023 17:55
InstruID : SV6.i
LabSampID : 14DX-CCV END

Nitrobenzene-d5 (4165-60-0)

Reason Code:

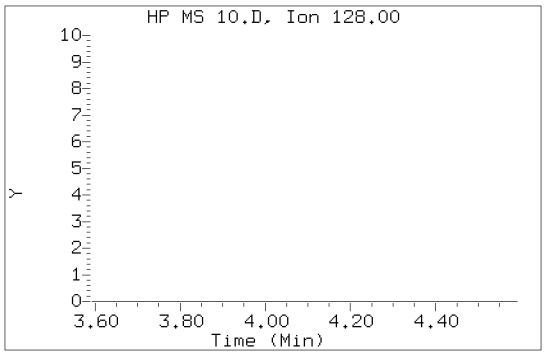
BEFORE

MASS
128
AREA
0
HEIGHT
0
15-Mar-2023
18:09
ALSHS
Server



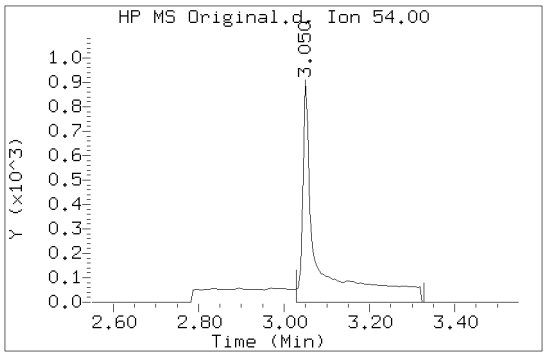
AFTER

MASS
128
AREA
0
HEIGHT
0
21-Mar-2023
16:55
ALSHS
Ser



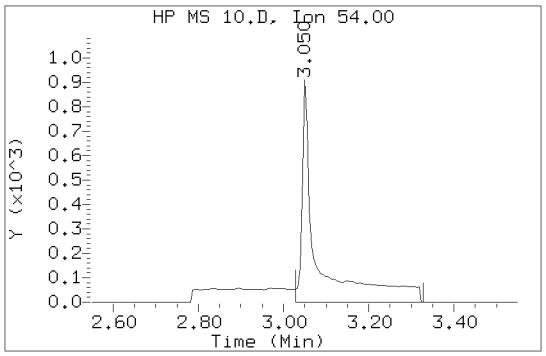
BEFORE

MASS
54
AREA
2197
HEIGHT
910
15-Mar-2023
18:09
ALSHS
Server



AFTER

MASS
54
AREA
2197
HEIGHT
910
21-Mar-2023
16:55
ALSHS
Ser

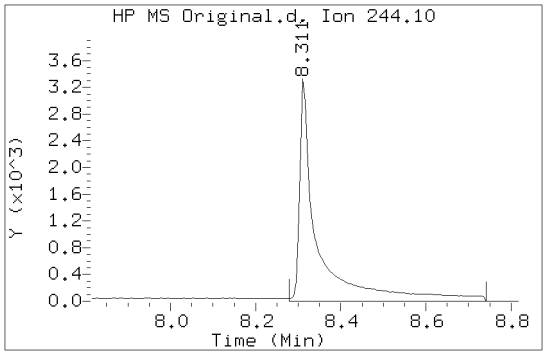


4-Terphenyl-d14 (1718-51-0)

Reason Code:

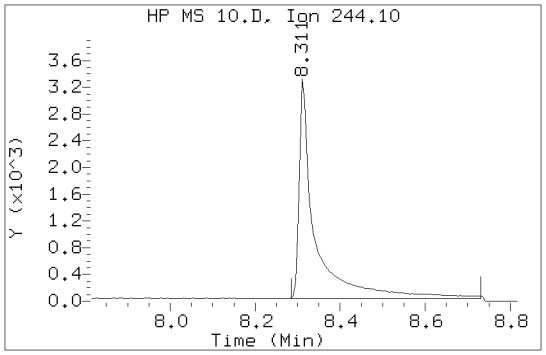
BEFORE

MASS
244.1
AREA
9720
HEIGHT
3326
15-Mar-2023
18:09
ALSHS
Server



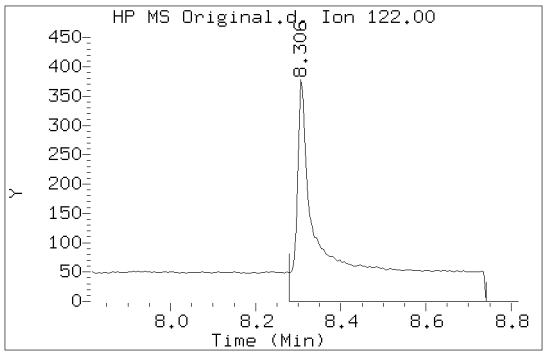
AFTER

MASS
244.1
AREA
8598
HEIGHT
3286
21-Mar-2023
16:55
ALSHS
Ser



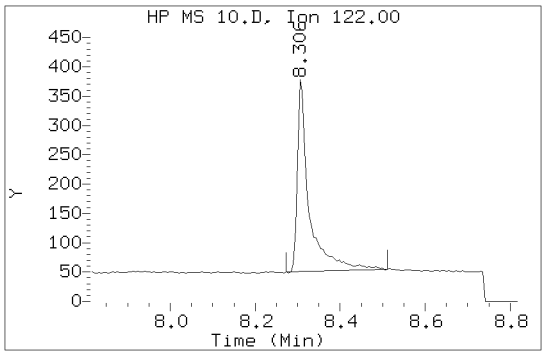
BEFORE

MASS
122
AREA
2076
HEIGHT
378
15-Mar-2023
18:09
ALSHS
Server



AFTER

MASS
122
AREA
626
HEIGHT
327
21-Mar-2023
16:55
ALSHS
Ser



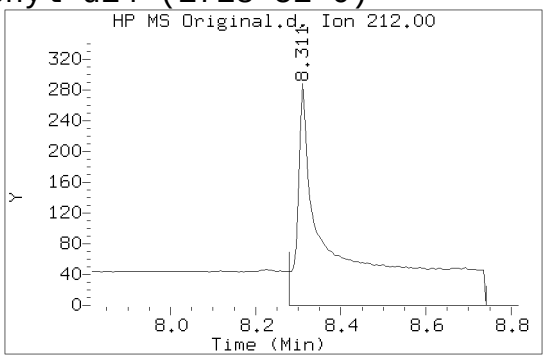
Data File : \\NAHSTWS005\Target\chem\SV6.i\230315.b\10.D
Inj Date : 15-MAR-2023 17:55
InstruID : SV6.i
LabSampID : 14DX-CCV END

4-Terphenyl-d14 (1718-51-0)

Reason Code:

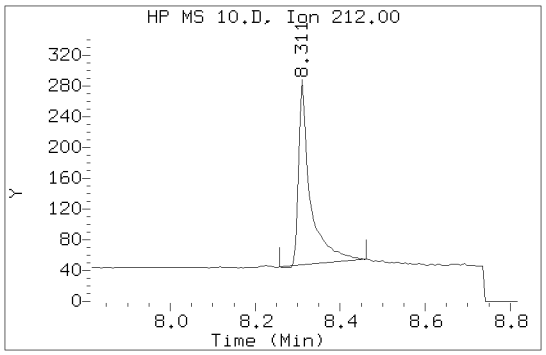
BEFORE

MASS
212
AREA
1826
HEIGHT
288
15-Mar-2023
18:09
ALSHS
Server



AFTER

MASS
212
AREA
450
HEIGHT
240
21-Mar-2023
16:55
ALSHS
Ser

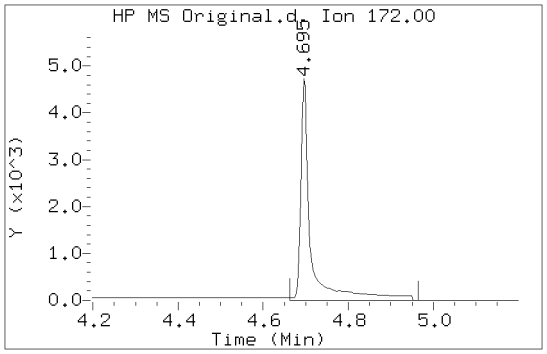


2-Fluorobiphenyl (321-60-8)

Reason Code:

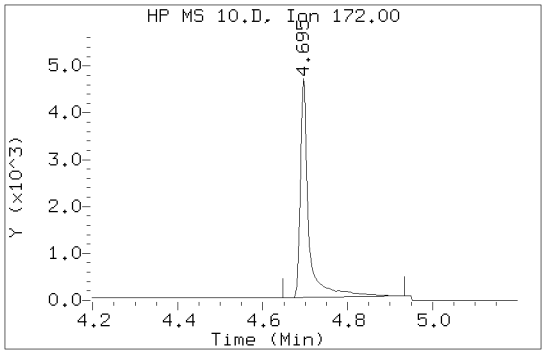
BEFORE

MASS
172
AREA
7908
HEIGHT
4729
15-Mar-2023
18:09
ALSHS
Server



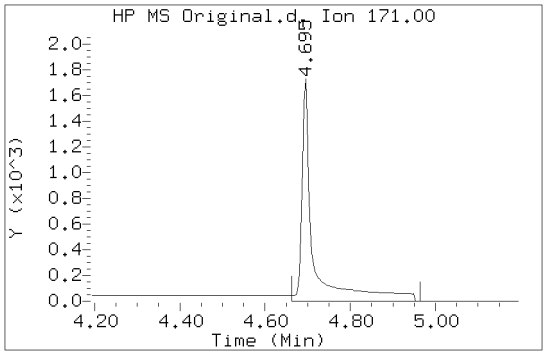
AFTER

MASS
172
AREA
6561
HEIGHT
4673
21-Mar-2023
16:55
ALSHS
Ser



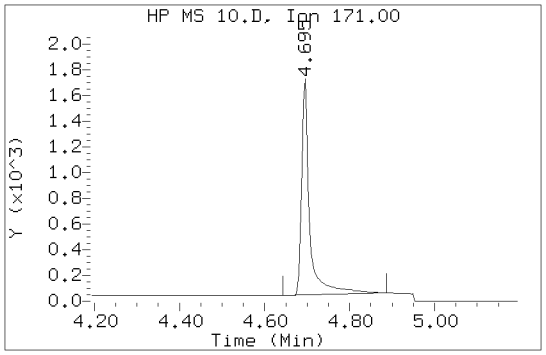
BEFORE

MASS
171
AREA
3258
HEIGHT
1731
15-Mar-2023
18:09
ALSHS
Server



AFTER

MASS
171
AREA
2243
HEIGHT
1682
21-Mar-2023
16:55
ALSHS
Ser



HS23030396 - ME - ICP_W_DOD

ALS WO# HS23030396

ALS Houston, US

Date: 17-Mar-23

Form 11 - INTERNAL STANDARD ASSOCIATION

Client: Bhate Environmental Associates, Inc.

Instrument:ICPMS06

Project: Longhorn GW Treatment Plant Monthly Effluent Samples

WorkOrder: HS23030396

Mass	Analyte	Assoc Int Standard 1	Assoc Int Standard 2	Mode
9	Beryllium	Lithium		Ar
11	Boron	Lithium		Ar
23	Sodium	Germanium		ArHe
24	Magnesium	Germanium		ArHe
27	Aluminum	Germanium		ArHe
39	Potassium	Germanium		ArHe
44	Calcium	Germanium		Ar
47	Titanium	Germanium		Ar
51	Vanadium	Germanium		ArHe
52	Chromium	Germanium		ArHe
55	Manganese	Germanium		ArHe
56	Iron	Germanium		ArHe
59	Cobalt	Germanium		ArHe
60	Nickel	Germanium		ArHe
63	Copper	Germanium		ArHe
66	Zinc	Germanium		ArHe
75	Arsenic	Germanium		ArHe
82	Selenium	Germanium		Ar
88	Strontium	Indium		Ar
95	Molybdenum	Indium		Ar
105	Palladium	Germanium		Ar
107	Silver	Indium		Ar
114	Cadmium	Indium		Ar
118	Tin	Indium		Ar
121	Antimony	Germanium		ArHe
137	Barium	Indium		Ar
205	Thallium	Bismuth		Ar
208	Lead	Bismuth		Ar

ALS Houston, US Date: 17-Mar-23

FORM 13 - ANALYSIS RUN LOG

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder: HS23030396
Start Date: 15-Mar-2023 End Date: 15-Mar-2023

Run ID:ICPMS06_430084
Instrument:ICPMS06
Method:

Sample No.	D/F	Time	FileID	Analytes
ICPMS06_430084_Tune	1	15-Mar-2023 00:00	ICPMS06_430084_Tune_1	
CAL BLK	1	15-Mar-2023 11:58	024CALB.d_7173272	AG BA PB SE
2/10/200	1	15-Mar-2023 12:00	025CALS.d_7173273	AG BA PB SE
5/25/500	1	15-Mar-2023 12:02	026CALS.d_7173274	AG BA PB SE
10/50/100	1	15-Mar-2023 12:04	027CALS.d_7173275	AG BA PB SE
100/500/10K	1	15-Mar-2023 12:06	028CALS.d_7173276	AG BA PB SE
200/1000/20K	1	15-Mar-2023 12:08	029CALS.d_7173277	AG BA PB SE
ICV	1	15-Mar-2023 12:12	031_ICV.d_7173279	AG BA PB SE
LLICV2	1	15-Mar-2023 12:14	032LCV2.d_7173280	AG BA PB SE
LLICV5	1	15-Mar-2023 12:16	033LCV5.d_7173281	AG BA PB SE
ICB	1	15-Mar-2023 12:21	035_ICB.d_7173283	AG BA PB SE
ICSA	1	15-Mar-2023 12:25	037ICSA.d_7173285	AG BA PB SE
ICSAB	1	15-Mar-2023 12:27	038ICSB.d_7173286	AG BA PB SE
CCV 1	1	15-Mar-2023 12:35	041_CCV.d_7173398	AG BA PB SE
CCB 1	1	15-Mar-2023 12:37	042_CCB.d_7173399	AG BA PB SE
LCS-190792	1	15-Mar-2023 12:41	044SMPL.d_7173400	AG BA PB SE
LH18/24-SP650_030723	1	15-Mar-2023 12:43	045SMPL.d_7173401	AG BA PB SE
ZZZZZZSD	5	15-Mar-2023 12:47	047SMPL.d_7173403	AG BA PB SE
ZZZZZZMS	1	15-Mar-2023 12:49	048SMPL.d_7173404	AG BA PB SE
ZZZZZZMSD	1	15-Mar-2023 12:51	049SMPL.d_7173405	AG BA PB SE
ZZZZZZPDS	1	15-Mar-2023 12:53	050SMPL.d_7173406	AG BA PB SE
MBLK-190792	1	15-Mar-2023 12:56	052SMPL.d_7173408	AG BA PB SE
CCV 2	1	15-Mar-2023 12:58	053_CCV.d_7173409	AG BA PB SE
CCB 2	1	15-Mar-2023 13:00	054_CCB.d_7173410	AG BA PB SE

ALS Houston, US

Date: 17-Mar-23

Form 2 - Initial and Continuing Calibration Verification

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder: HS23030396

Run ID: ICPMS06_430084
Instrument: ICPMS06
Method: SW6020A

ICV | Date: 15-Mar-2023 12:12 | Seq: 7173279 | ICV | Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Barium	100	99.376	99	90-110	
Lead	100	100.232	100	90-110	
Selenium	100	98.458	99	90-110	
Silver	100	99.877	100	90-110	

CCV1 | Date: 15-Mar-2023 12:35 | Seq: 7173398 | CCV | Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Barium	100	96.619	97	90-110	
Lead	100	96.268	96	90-110	
Selenium	100	97.269	97	90-110	
Silver	100	98.953	99	90-110	

CCV2 | Date: 15-Mar-2023 12:58 | Seq: 7173409 | CCV | Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Barium	100	98.307	98	90-110	
Lead	100	99.46	100	90-110	
Selenium	100	99.964	100	90-110	
Silver	100	102.378	102	90-110	

ALS Houston, US

Date: 17-Mar-23

Form 3 - BLANKS

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder: HS23030396

Run ID: ICPMS06_430084
Instrument: ICPMS06
Method: SW6020A

ICB	Date: 15-Mar-2023 12:21		Seq: 7173283	ICB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Barium	5	1.9	5	U	
Lead	5	0.6	5	U	
Selenium	5	1.1	5	U	
Silver	5	0.2	5	U	

CCB1	Date: 15-Mar-2023 12:37		Seq: 7173399	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Barium	4	1.9	4	U	
Lead	2	0.6	2	U	
Selenium	2	1.1	2	U	
Silver	2	0.2	2	U	

MBLK-190792	Date: 15-Mar-2023 12:56		Seq: 7173408	MBLK	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Barium	5	1.9	5	U	
Lead	5	0.6	5	U	
Selenium	5	1.1	5	U	
Silver	5	0.2	5	U	

CCB2	Date: 15-Mar-2023 13:00		Seq: 7173410	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Barium	4	1.9	4	U	
Lead	2	0.6	2	U	
Selenium	2	1.1	2	U	
Silver	2	0.2	2	U	

ALS Houston, US Date: 17-Mar-23

Form 4 - ICP Interference Check Sample

Client: Bhate Environmental Associates, Inc. Run ID:ICPMS06_430084
Project: Longhorn GW Treatment Plant Monthly Effluent Samples Instrument:ICPMS06
WorkOrder: HS23030396 Method:SW6020A

ICSA	Date: 15-Mar-2023 12:25	Seq: 7173285	ICSA	Units: ug/L
Analyte	**True**	**Found**	**%R**	
Barium		1.628	0	
Lead		0.177	0	
Selenium		-0.527	0	
Silver		0.178	0	

ICSAB	Date: 15-Mar-2023 12:27	Seq: 7173286	ICSAB	Units: ug/L
Analyte	**True**	**Found**	**%R**	
Barium	100	106.4	106	
Lead	100	104.6	105	
Selenium	100	103.3	103	
Silver	100	103.6	104	

ALS Houston, US Date: 17-Mar-23

Form 5A - Matrix Spike/Matrix Spike Duplicate Recovery

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder: HS23030396

Date Analyzed: 15-Mar-2023 12:51
Date Extracted: 14-Mar-2023 14:00
Units: ug/L

Matrix Spike: HS23030399-01MS
Client Sample ID:

Analysis Method: SW6020A

Analyte	Sample Result	MS Result	Spike Amount	% Rec	MSD Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Barium	248.1	298.8	50.00	101	302.0	50.00	108	86-114	1.06	20
Lead	5.000	48.19	50.00	96.0	48.06	50.00	95.7	88-115	0.276	20
Selenium	5.000	49.11	50.00	97.1	50.34	50.00	99.6	80-120	2.48	20
Silver	5.000	47.63	50.00	95.2	47.68	50.00	95.3	85-116	0.109	20

ALS Houston, US Date: 17-Mar-23

Form 5B - Post Digest Sample Recovery

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder: HS23030396

Date Analyzed: 15-Mar-2023 12:53
Date Extracted: 14-Mar-2023 14:00
Units: ug/L

Lab Sample ID: HS23030399-01PDS
Client Sample ID:

Analysis Method: SW6020A

Analyte	Sample Result	PDS Result	Spike Amount	% Rec	% Rec Limits
Barium	248.1	349.8	100	102	80-120
Lead	0	95.39	100	95	80-120
Selenium	0	98.67	100	98	80-120
Silver	0	96.82	100	97	80-120

ALS Houston, US Date: 17-Mar-23

Form 7 - Laboratory Control Sample

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder: HS23030396

Date Analyzed: 15-Mar-2023 12:41
Date Extracted: 14-Mar-2023 14:00
Units: ug/L

Lab Sample ID: LCS-190792 Analysis Method: SW6020A

Analyte	Spike Amount	LCS Result	% Rec	% Rec Limits
Barium	50	47.48	95	86-114
Lead	50	47.91	96	88-115
Selenium	50	49.05	98	80-120
Silver	50	50.48	101	85-116

ALS Houston, US Date: 17-Mar-23

Form 8 - ICP Serial Dilutions

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Effluent Samples
WorkOrder: HS23030396

Date Analyzed: 15-Mar-2023 12:47
Date Extracted: 14-Mar-2023 14:00
Units: ug/L

Lab Sample ID: HS23030399-01SD
Client Sample ID:

Analysis Method: SW6020A

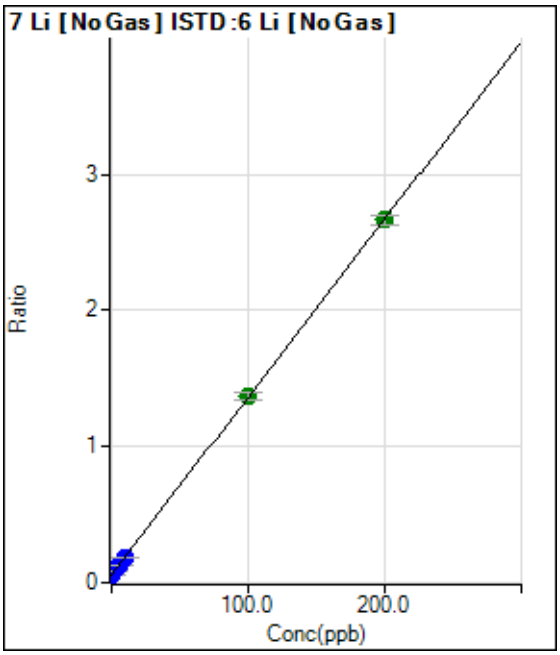
Analyte	Sample Result	C	SD Result	C	RPD	Q
Barium	248.1		243.7		2	
Lead	0	U	0	U	0	
Selenium	0	U	0	U	0	
Silver	0	U	0	U	0	

Calibration for 130_ICV.d

Batch Folder: C:\Agilent\ICPMH\1\DATA\031523A.b\
Analysis File: 031523A.batch.bin
DA Date-Time: 3/15/2023 4:05:34 PM
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	123CALB.d	CAL BLK	3/15/2023 3:51:04 PM
2	124CALS.d	2/10/200	3/15/2023 3:53:03 PM
3	125CALS.d	5/25/500	3/15/2023 3:55:02 PM
4	126CALS.d	10/50/100	3/15/2023 3:57:01 PM
5	127CALS.d	100/500/10K	3/15/2023 3:59:00 PM
6	128CALS.d	200/1000/20K	3/15/2023 4:00:55 PM

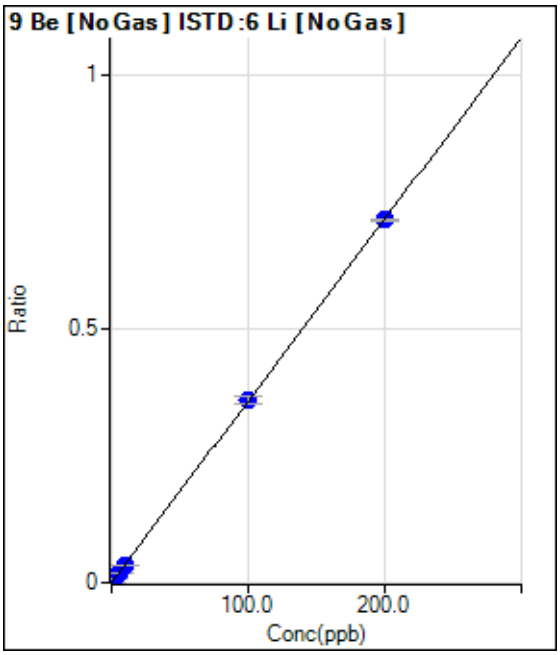
Calibration for 130_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	42269.96	0.0588	P	2.7
2	☐	2.000	2.097	59994.06	0.0862	P	1.3
3	☐	5.000	4.854	87914.45	0.1222	P	1.0
4	☐	10.000	9.906	134696.21	0.1881	P	0.5
5	☐	100.000	100.504	928709.41	1.3703	A	3.9
6	☐	200.000	199.756	1796901.01	2.6655	A	2.7

y = 0.0130 * x + 0.0588
R = 1.0000
DL = 0.3708
BEC = 4.508

Weight: <None>
Min Conc: <None>

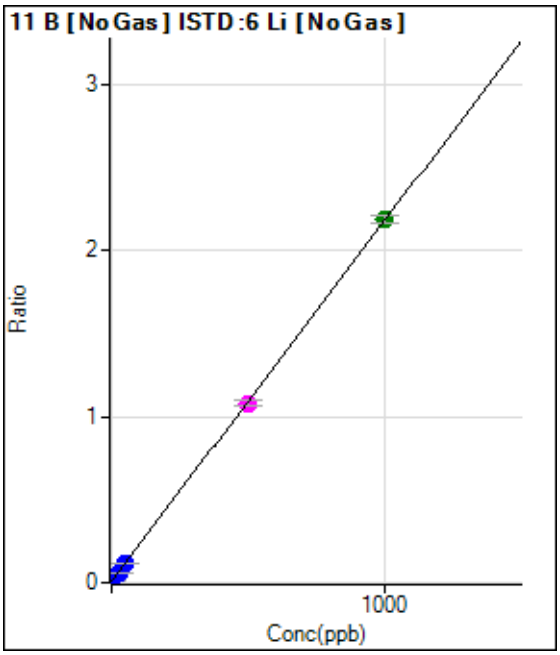


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	13.33	0.0000	P	41.2
2	☐	2.000	2.031	5080.97	0.0073	P	3.9
3	☐	5.000	4.786	12362.19	0.0172	P	0.6
4	☐	10.000	9.900	25429.73	0.0355	P	2.3
5	☐	100.000	100.590	244406.85	0.3606	P	4.0
6	☐	200.000	199.715	482680.03	0.7160	P	0.8

y = 0.0036 * x + 1.8455E-005
R = 1.0000
DL = 0.006364
BEC = 0.005148

Weight: <None>
Min Conc: <None>

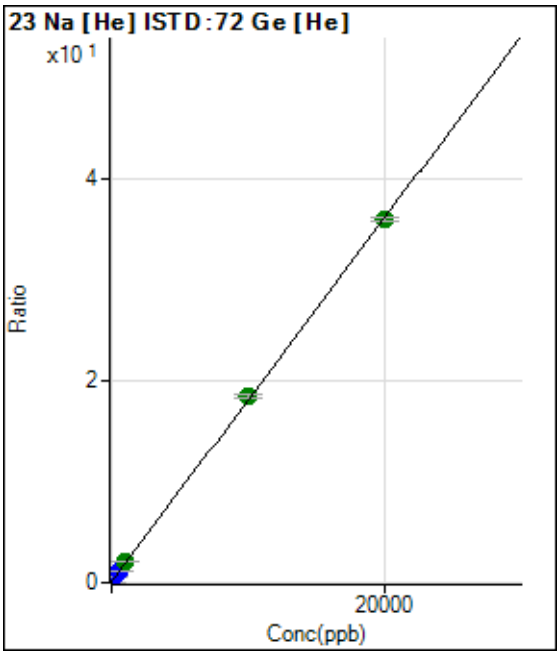
Calibration for 130_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6851.73	0.0095	P	1.0
2	☐	10.000	9.614	21156.01	0.0304	P	1.4
3	☐	25.000	23.157	43014.12	0.0598	P	1.2
4	☐	50.000	48.605	82341.52	0.1150	P	1.7
5	☐	500.000	494.122	732989.00	1.0815	M	3.6
6	☐	1000.000	1003.059	1473343.31	2.1856	A	2.1

y = 0.0022 * x + 0.0095
R = 1.0000
DL = 0.1254
BEC = 4.393

Weight: <None>
Min Conc: <None>

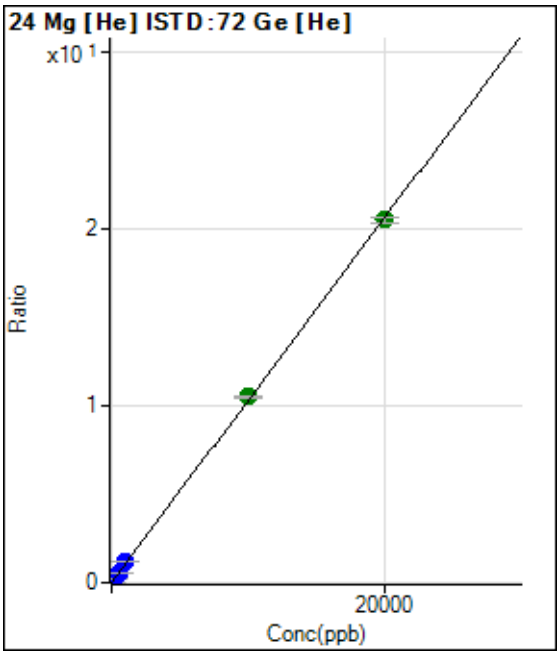


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	39399.23	0.0879	P	0.4
2	☐	200.000	218.368	214920.20	0.4816	P	2.0
3	☐	500.000	549.647	477821.09	1.0789	P	1.8
4	☐	1000.000	1094.975	925358.47	2.0621	A	1.7
5	☐	10000.00	10199.13	8163516.13	18.4769	A	1.9
6	☐	20000.00	19894.25	15625563.9	35.9571	A	0.9

y = 0.0018 * x + 0.0879
R = 0.9999
DL = 0.6311
BEC = 48.73

Weight: <None>
Min Conc: <None>

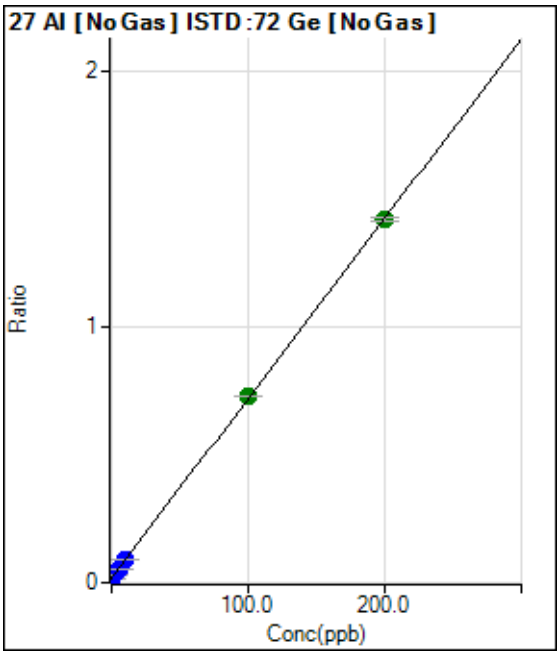
Calibration for 130_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1616.79	0.0036	P	6.7
2	☐	200.000	224.763	105151.55	0.2356	P	1.0
3	☐	500.000	561.889	258459.62	0.5836	P	1.6
4	☐	1000.000	1123.467	521978.62	1.1632	P	1.7
5	☐	10000.00	10194.25	4651063.78	10.5256	A	1.0
6	☐	20000.00	19894.90	8924316.12	20.5382	A	1.9

y = 0.0010 * x + 0.0036
R = 0.9999
DL = 0.7016
BEC = 3.493

Weight: <None>
Min Conc: <None>

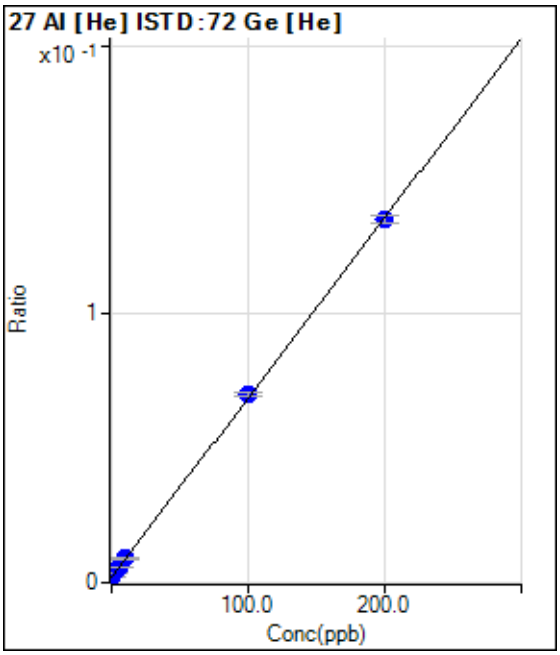


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	27901.62	0.0180	P	2.5
2	☐	2.000	2.055	49949.88	0.0324	P	1.0
3	☐	5.000	5.174	83097.72	0.0544	P	0.8
4	☐	10.000	9.871	135329.82	0.0874	P	0.7
5	☐	100.000	101.247	1108726.78	0.7304	A	0.7
6	☐	200.000	199.378	2108694.71	1.4209	A	1.0

y = 0.0070 * x + 0.0180
R = 1.0000
DL = 0.1892
BEC = 2.555

Weight: <None>
Min Conc: <None>

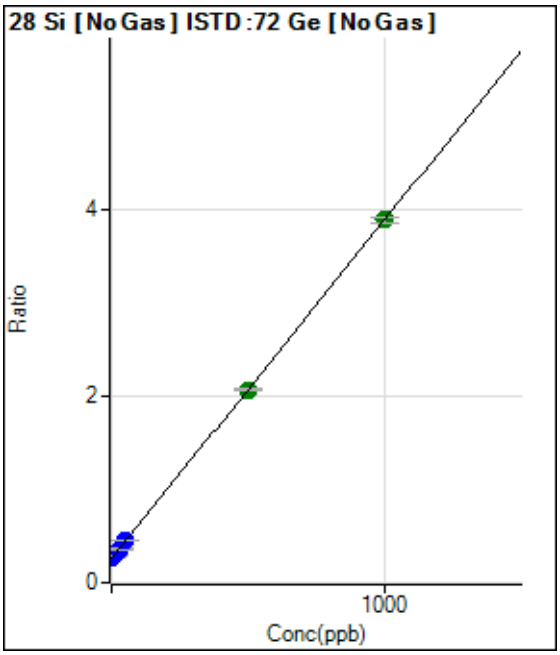
Calibration for 130_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	870.04	0.0019	P	11.0
2	☐	2.000	2.146	1506.77	0.0034	P	7.3
3	☐	5.000	5.652	2533.61	0.0057	P	1.2
4	☐	10.000	10.527	4030.75	0.0090	P	11.1
5	☐	100.000	101.810	30944.74	0.0700	P	1.7
6	☐	200.000	199.051	58697.46	0.1351	P	2.3

y = 6.6884E-004 * x + 0.0019
R = 0.9999
DL = 0.9529
BEC = 2.9

Weight: <None>
Min Conc: <None>

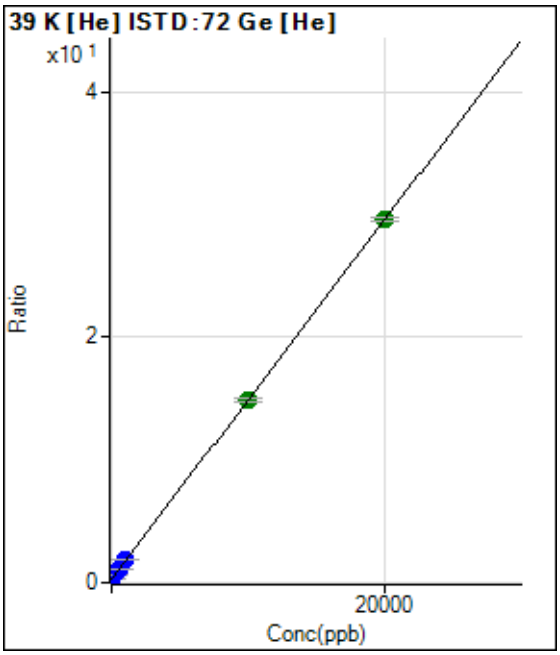


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	405483.48	0.2612	P	0.7
2	☐	10.000	10.446	460571.83	0.2992	P	2.1
3	☐	25.000	26.876	548226.50	0.3588	P	1.6
4	☐	50.000	52.364	698602.41	0.4514	P	0.7
5	☐	500.000	499.141	3147986.93	2.0737	A	0.8
6	☐	1000.000	1000.260	5778061.79	3.8934	A	1.3

y = 0.0036 * x + 0.2612
R = 1.0000
DL = 1.453
BEC = 71.94

Weight: <None>
Min Conc: <None>

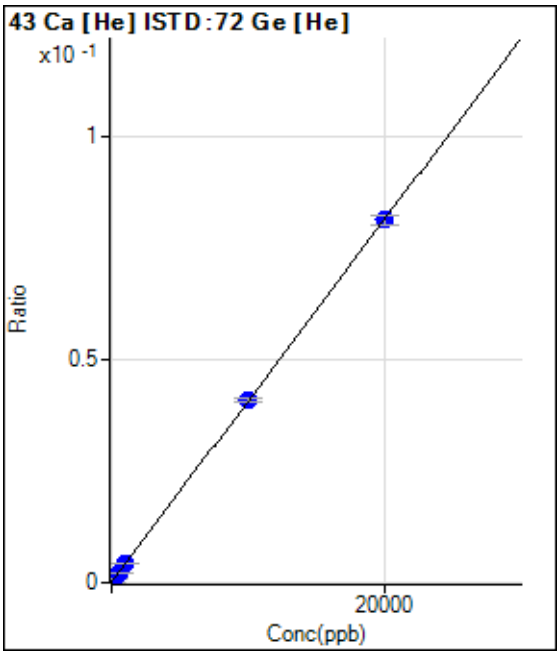
Calibration for 130_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	120703.74	0.2691	P	0.6
2	☐	200.000	215.879	261291.73	0.5854	P	1.5
3	☐	500.000	543.226	471724.36	1.0650	P	1.1
4	☐	1000.000	1089.821	837324.70	1.8659	P	1.3
5	☐	10000.00	9987.748	6584564.69	14.9026	A	1.7
6	☐	20000.00	20000.39	12850598.5	29.5726	A	1.2

y = 0.0015 * x + 0.2691
R = 1.0000
DL = 3.097
BEC = 183.7

Weight: <None>
Min Conc: <None>

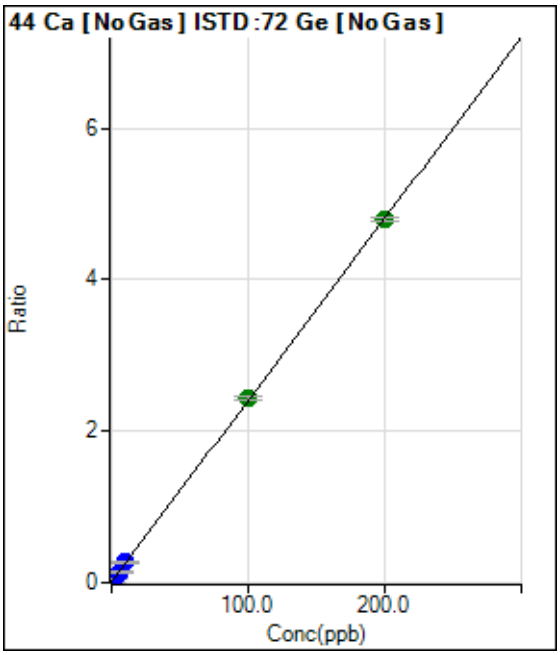


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	36.67	0.0001	P	41.6
2	☐	200.000	204.331	406.68	0.0009	P	18.9
3	☐	500.000	489.270	916.71	0.0021	P	8.1
4	☐	1000.000	1049.159	1950.17	0.0043	P	6.7
5	☐	10000.00	10039.16	18058.70	0.0409	P	2.2
6	☐	20000.00	19978.18	35309.02	0.0813	P	2.9

y = 4.0634E-006 * x + 8.1732E-005
R = 1.0000
DL = 25.07
BEC = 20.11

Weight: <None>
Min Conc: <None>

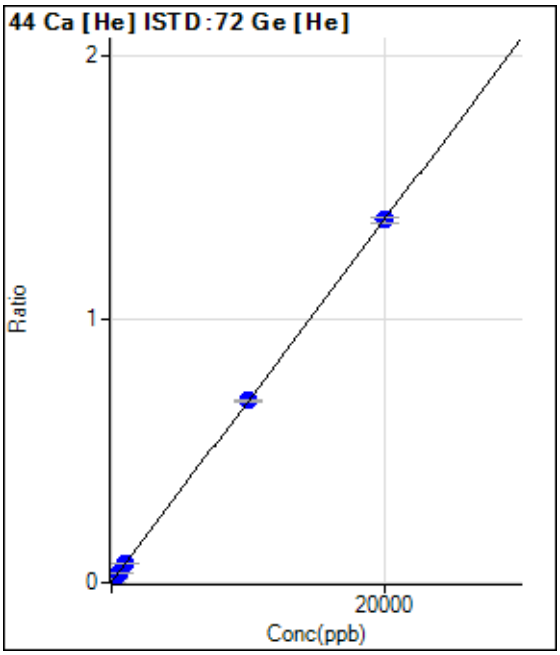
Calibration for 130_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16379.99	0.0106	P	2.1
2	☐	2.000	2.151	95610.56	0.0621	P	3.3
3	☐	5.000	5.337	211595.03	0.1385	P	2.5
4	☐	10.000	10.702	413354.22	0.2671	P	1.3
5	☐	100.000	101.035	3692416.50	2.4325	A	1.7
6	☐	200.000	199.437	7110794.89	4.7914	A	0.9

y = 0.0240 * x + 0.0106
R = 1.0000
DL = 0.02728
BEC = 0.4403

Weight: <None>
Min Conc: <None>

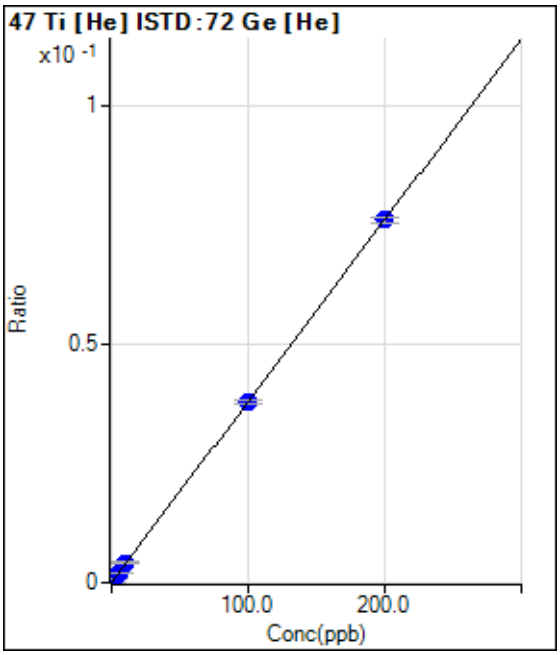


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	743.36	0.0017	P	10.9
2	☐	200.000	204.458	7021.93	0.0157	P	4.2
3	☐	500.000	514.306	16416.73	0.0371	P	2.5
4	☐	1000.000	1027.022	32482.07	0.0724	P	2.7
5	☐	10000.00	10013.14	305364.58	0.6911	P	0.7
6	☐	20000.00	19991.67	598837.01	1.3781	P	1.6

y = 6.8852E-005 * x + 0.0017
R = 1.0000
DL = 7.889
BEC = 24.08

Weight: <None>
Min Conc: <None>

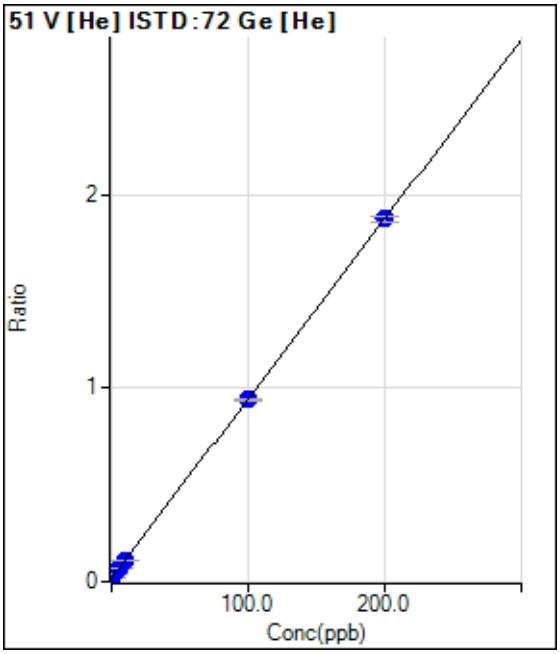
Calibration for 130_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	13.33	0.0000	P	114.5
2	☐	2.000	2.226	390.01	0.0009	P	16.6
3	☐	5.000	5.102	870.05	0.0020	P	8.0
4	☐	10.000	10.889	1866.82	0.0042	P	6.4
5	☐	100.000	99.573	16707.11	0.0378	P	2.6
6	☐	200.000	200.164	33010.03	0.0760	P	1.5

y = 3.7938E-004 * x + 2.9695E-005
R = 1.0000
DL = 0.2688
BEC = 0.07827

Weight: <None>
Min Conc: <None>

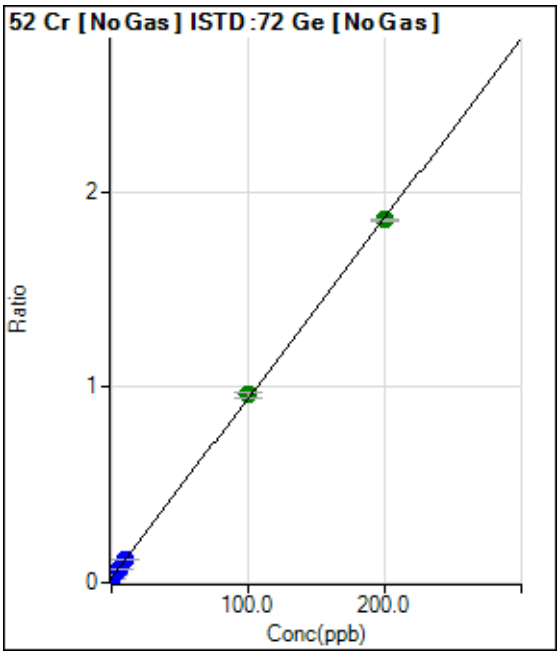


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	8236.95	0.0184	P	0.9
2	☐	2.000	2.016	16546.69	0.0371	P	0.9
3	☐	5.000	5.125	29198.87	0.0659	P	1.4
4	☐	10.000	10.291	51097.01	0.1139	P	0.6
5	☐	100.000	99.571	416343.72	0.9423	P	1.1
6	☐	200.000	200.197	815188.02	1.8760	P	1.2

y = 0.0093 * x + 0.0184
R = 1.0000
DL = 0.05296
BEC = 1.979

Weight: <None>
Min Conc: <None>

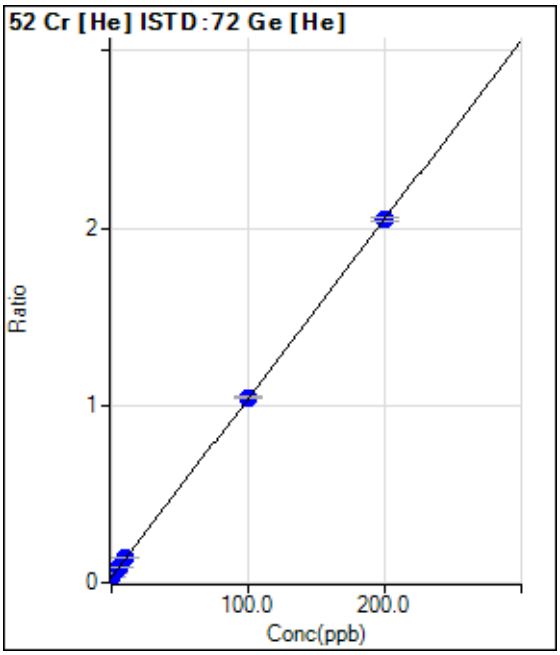
Calibration for 130_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	37478.32	0.0241	P	1.0
2	☐	2.000	2.051	66199.94	0.0430	P	2.7
3	☐	5.000	5.119	108800.33	0.0712	P	1.8
4	☐	10.000	10.252	183245.97	0.1184	P	1.3
5	☐	100.000	101.673	1455740.71	0.9589	A	2.2
6	☐	200.000	199.147	2753289.85	1.8551	A	0.5

y = 0.0092 * x + 0.0241
R = 1.0000
DL = 0.07673
BEC = 2.626

Weight: <None>
Min Conc: <None>

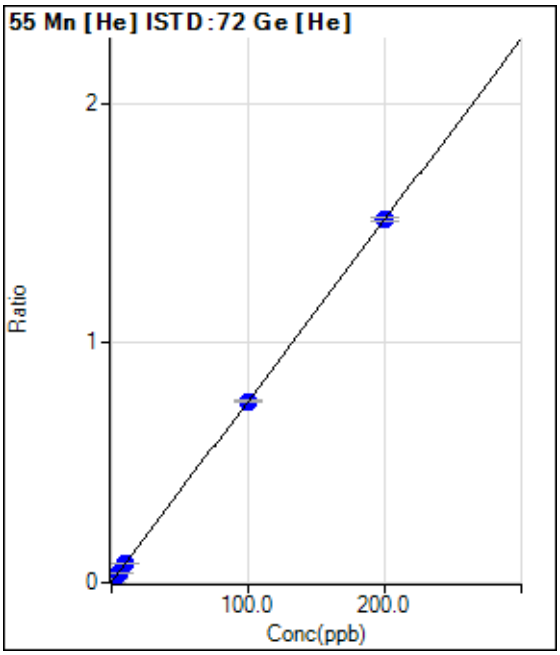


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	13556.96	0.0302	P	3.0
2	☐	2.000	2.148	23159.93	0.0519	P	2.9
3	☐	5.000	5.386	37454.99	0.0846	P	2.3
4	☐	10.000	10.500	61109.57	0.1362	P	0.4
5	☐	100.000	100.496	461377.30	1.0442	P	1.2
6	☐	200.000	199.716	888803.61	2.0453	P	1.0

y = 0.0101 * x + 0.0302
R = 1.0000
DL = 0.2722
BEC = 2.996

Weight: <None>
Min Conc: <None>

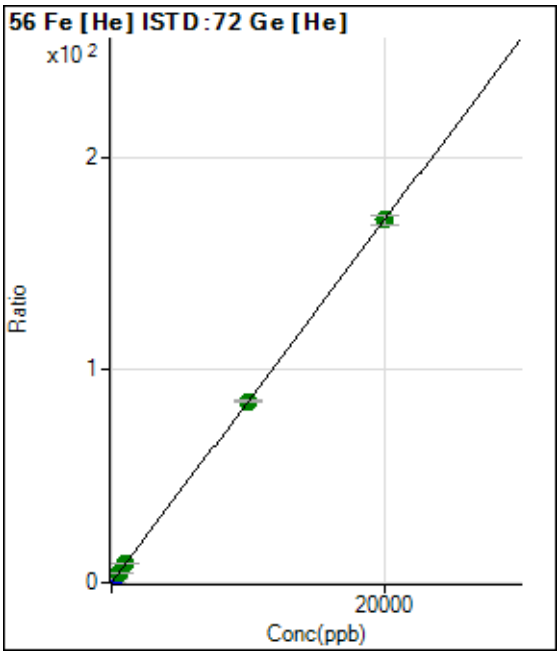
Calibration for 130_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1023.39	0.0023	P	21.1
2	☐	2.000	2.139	8239.32	0.0185	P	2.0
3	☐	5.000	5.127	18185.77	0.0411	P	4.1
4	☐	10.000	10.165	35529.91	0.0792	P	3.6
5	☐	100.000	100.007	335301.47	0.7588	P	0.5
6	☐	200.000	199.984	658353.98	1.5150	P	1.2

y = 0.0076 * x + 0.0023
R = 1.0000
DL = 0.1906
BEC = 0.3017

Weight: <None>
Min Conc: <None>

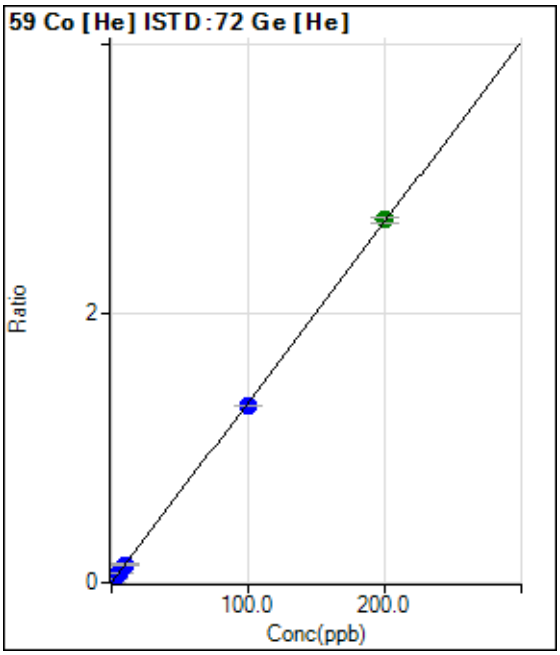


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16947.58	0.0378	P	1.9
2	☐	200.000	214.044	831439.00	1.8628	P	0.6
3	☐	500.000	536.305	2042129.55	4.6105	A	0.8
4	☐	1000.000	1042.479	4005837.33	8.9263	A	1.6
5	☐	10000.00	9993.180	37666639.4	85.2431	A	0.6
6	☐	20000.00	20000.23	74110695.5	170.566	A	2.5

y = 0.0085 * x + 0.0378
R = 1.0000
DL = 0.2529
BEC = 4.432

Weight: <None>
Min Conc: <None>

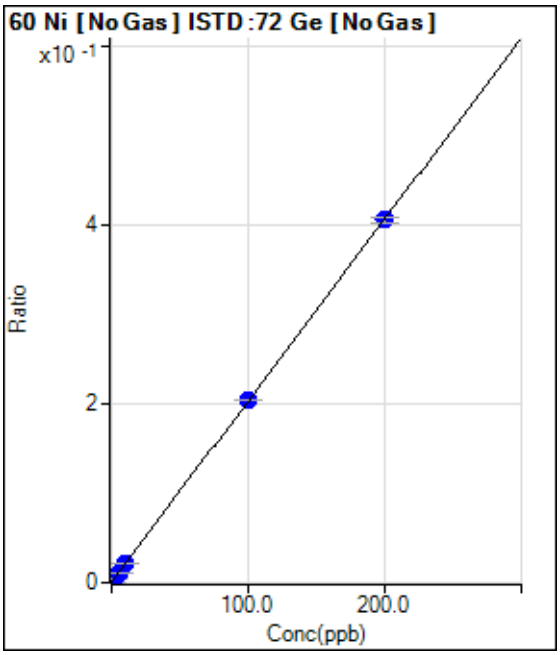
Calibration for 130_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	100.00	0.0002	P	36.2
2	☐	2.000	2.071	12472.57	0.0279	P	3.5
3	☐	5.000	5.033	29950.02	0.0676	P	3.5
4	☐	10.000	10.097	60758.99	0.1354	P	1.3
5	☐	100.000	97.705	578044.78	1.3081	P	0.2
6	☐	200.000	201.141	1170216.52	2.6927	A	1.5

y = 0.0134 * x + 2.2304E-004
R = 0.9999
DL = 0.01808
BEC = 0.01666

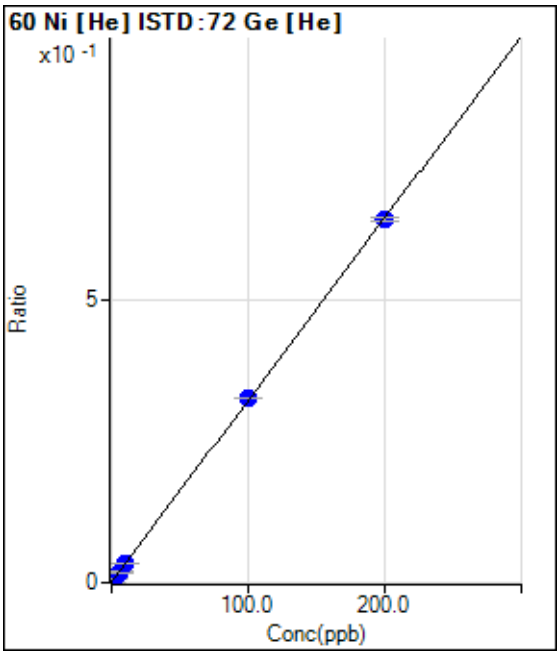
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	913.38	0.0006	P	6.2
2	☐	2.000	2.135	7562.24	0.0049	P	4.2
3	☐	5.000	5.416	17658.40	0.0116	P	0.1
4	☐	10.000	10.635	34236.64	0.0221	P	3.0
5	☐	100.000	100.377	309459.57	0.2039	P	0.6
6	☐	200.000	199.768	601214.29	0.4051	P	1.7

y = 0.0020 * x + 5.8837E-004
R = 1.0000
DL = 0.05427
BEC = 0.2905

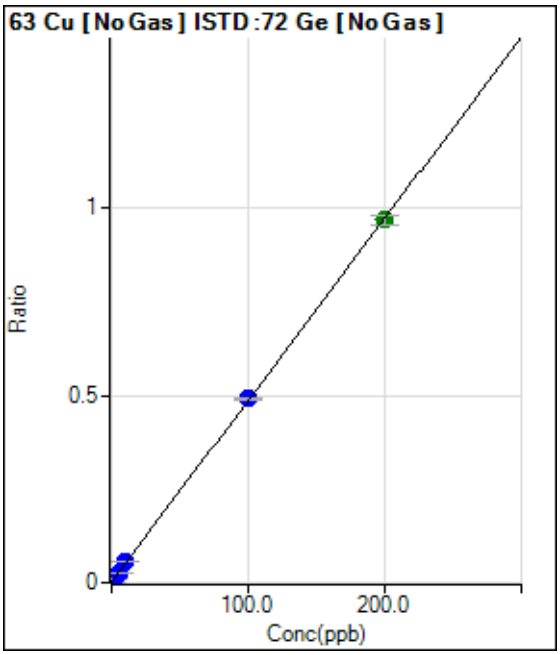
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	366.68	0.0008	P	17.6
2	☐	2.000	2.127	3413.84	0.0076	P	7.8
3	☐	5.000	5.519	8209.29	0.0185	P	2.7
4	☐	10.000	10.481	15465.71	0.0345	P	1.2
5	☐	100.000	101.640	144537.71	0.3271	P	0.2
6	☐	200.000	199.142	278148.78	0.6401	P	1.2

y = 0.0032 * x + 8.1748E-004
R = 1.0000
DL = 0.1345
BEC = 0.2547

Weight: <None>
Min Conc: <None>

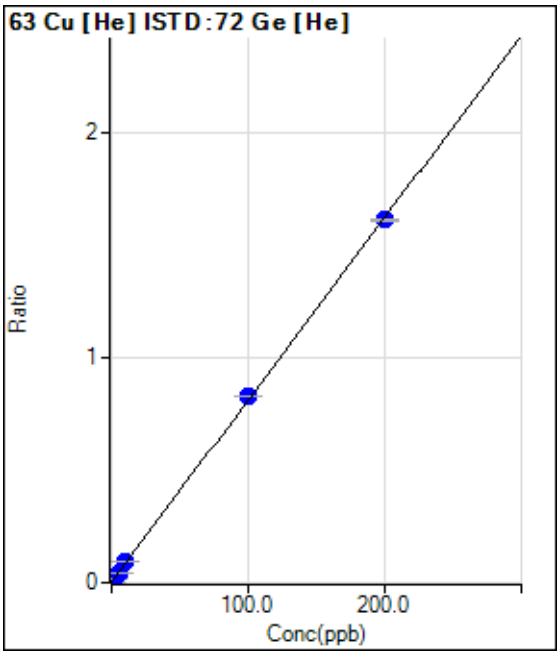


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2586.96	0.0017	P	9.1
2	☐	2.000	2.076	18075.62	0.0117	P	5.0
3	☐	5.000	5.163	40845.23	0.0267	P	3.7
4	☐	10.000	11.025	85430.67	0.0552	P	0.9
5	☐	100.000	101.122	747868.14	0.4926	P	1.3
6	☐	200.000	199.383	1439239.14	0.9697	A	2.5

y = 0.0049 * x + 0.0017
R = 1.0000
DL = 0.09391
BEC = 0.3433

Weight: <None>
Min Conc: <None>

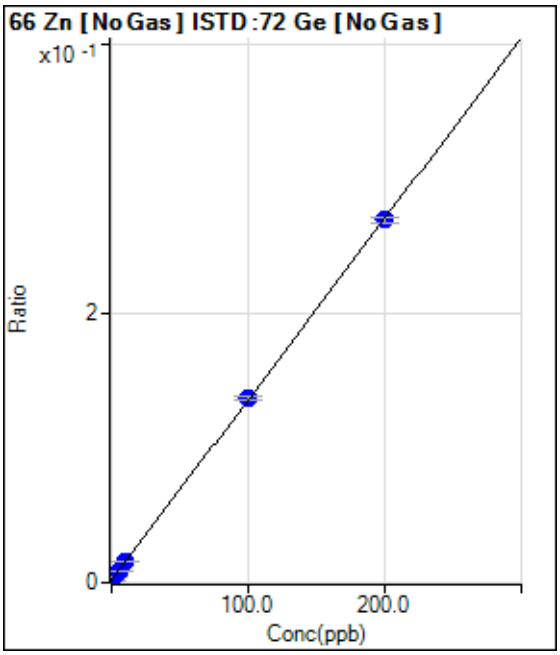
Calibration for 130_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1360.09	0.0030	P	4.8
2	☐	2.000	1.959	8429.42	0.0189	P	2.1
3	☐	5.000	5.238	20115.22	0.0454	P	3.0
4	☐	10.000	11.176	41941.76	0.0935	P	3.6
5	☐	100.000	102.024	366137.68	0.8286	P	0.4
6	☐	200.000	198.924	700816.27	1.6127	P	0.9

y = 0.0081 * x + 0.0030
R = 0.9999
DL = 0.05393
BEC = 0.3748

Weight: <None>
Min Conc: <None>

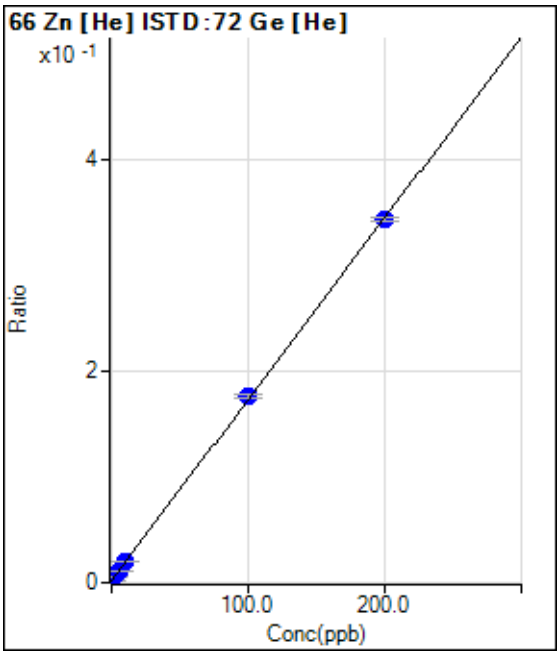


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2576.97	0.0017	P	5.0
2	☐	2.000	2.120	6935.24	0.0045	P	0.9
3	☐	5.000	5.186	13166.56	0.0086	P	3.4
4	☐	10.000	10.329	24004.81	0.0155	P	2.5
5	☐	100.000	101.070	208275.34	0.1372	P	1.5
6	☐	200.000	199.443	399400.91	0.2691	P	1.7

y = 0.0013 * x + 0.0017
R = 1.0000
DL = 0.1842
BEC = 1.238

Weight: <None>
Min Conc: <None>

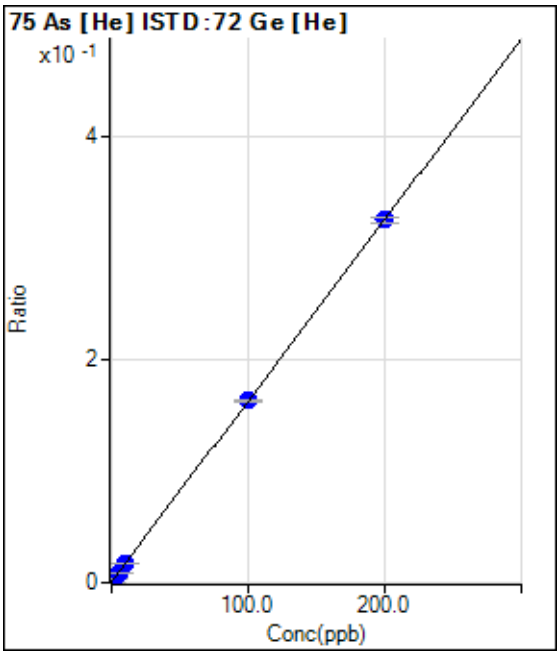
Calibration for 130_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	913.38	0.0020	P	4.5
2	☐	2.000	2.055	2483.61	0.0056	P	9.6
3	☐	5.000	5.092	4770.92	0.0108	P	2.5
4	☐	10.000	10.255	8809.67	0.0196	P	2.8
5	☐	100.000	101.750	78013.78	0.1766	P	2.0
6	☐	200.000	199.110	149308.22	0.3436	P	1.0

y = 0.0017 * x + 0.0020
R = 0.9999
DL = 0.161
BEC = 1.187

Weight: <None>
Min Conc: <None>

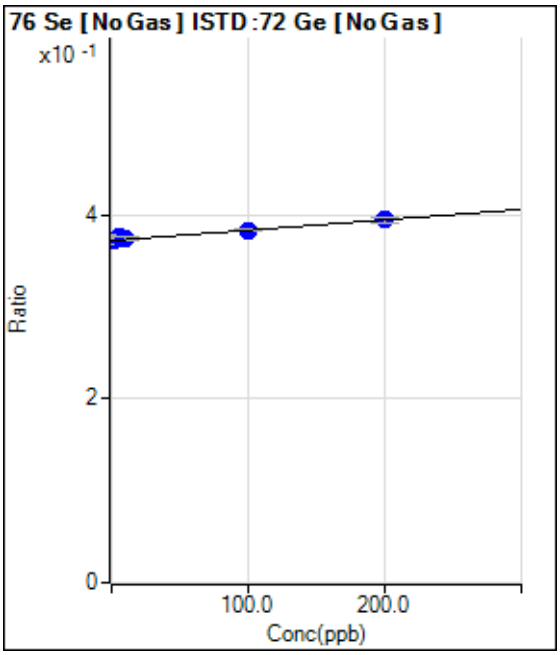


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	326.67	0.0007	P	8.8
2	☐	2.000	2.106	1849.03	0.0041	P	8.2
3	☐	5.000	4.994	3911.69	0.0088	P	1.7
4	☐	10.000	9.989	7598.85	0.0169	P	3.1
5	☐	100.000	99.966	71978.43	0.1629	P	1.4
6	☐	200.000	200.016	141302.14	0.3252	P	1.9

y = 0.0016 * x + 7.2845E-004
R = 1.0000
DL = 0.1191
BEC = 0.4491

Weight: <None>
Min Conc: <None>

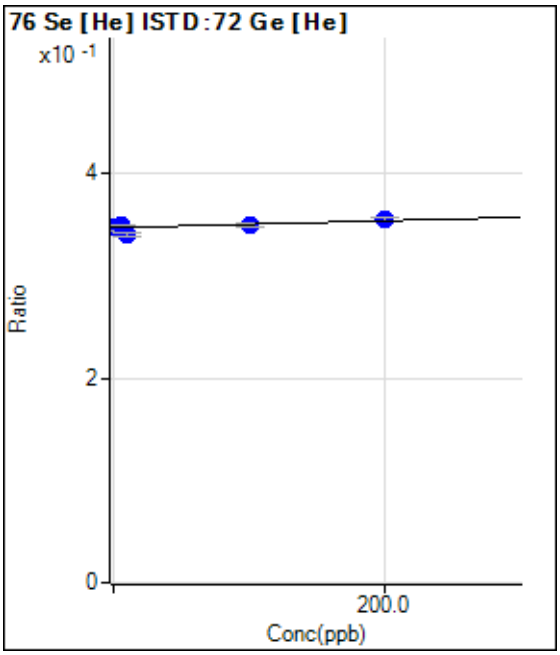
Calibration for 130_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	577133.45	0.3718	P	1.0
2	☐	2.000	-5.440	571496.58	0.3712	P	1.9
3	☐	5.000	41.117	575191.56	0.3765	P	1.1
4	☐	10.000	18.308	578644.50	0.3739	P	1.5
5	☐	100.000	100.507	581665.33	0.3832	P	0.5
6	☐	200.000	198.503	585102.44	0.3942	P	1.4

y = 1.1291E-004 * x + 0.3718
R = 0.9819
DL = 97.51
BEC = 3293

Weight: <None>
Min Conc: <None>

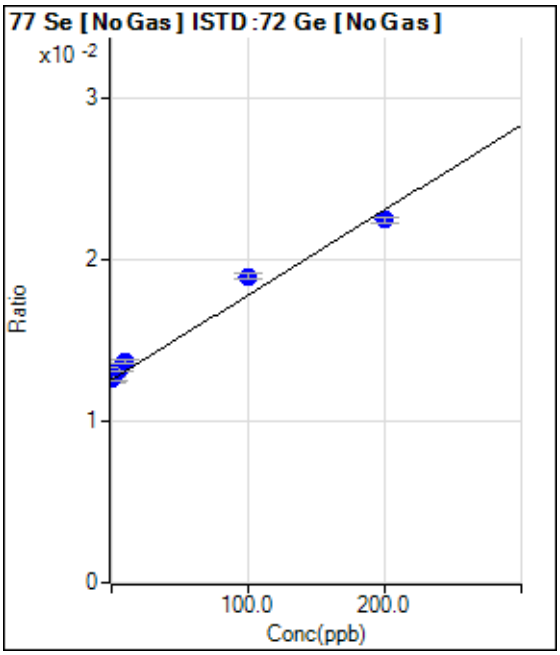


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	155627.52	0.3470	P	0.5
2	☐	2.000	-29.885	154437.42	0.3460	P	0.7
3	☐	5.000	48.873	154437.13	0.3487	P	0.9
4	☐	10.000	-196.173	152742.08	0.3403	P	0.7
5	☐	100.000	74.377	154454.60	0.3495	P	0.9
6	☐	200.000	222.342	154082.27	0.3546	P	0.9

y = 3.4008E-005 * x + 0.3470
R = 0.7807
DL = 167.5
BEC = 1.02E+04

Weight: <None>
Min Conc: <None>

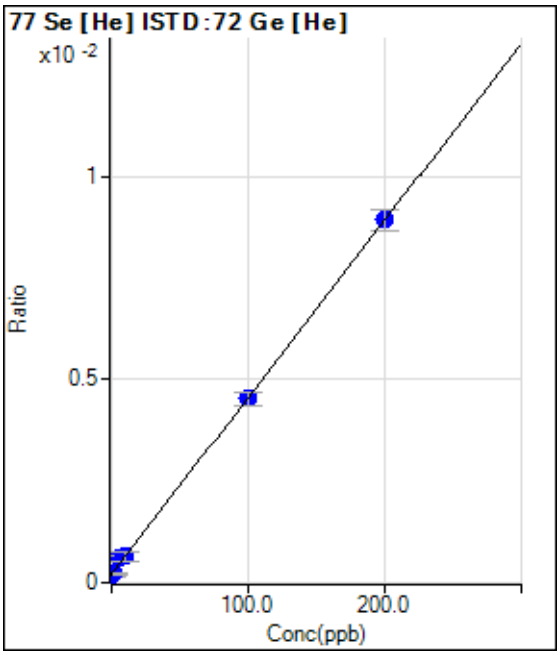
Calibration for 130_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	19491.10	0.0126	P	2.5
2	☐	2.000	3.563	19621.22	0.0127	P	3.8
3	☐	5.000	11.915	20142.04	0.0132	P	2.1
4	☐	10.000	21.327	21173.59	0.0137	P	2.3
5	☐	100.000	122.144	28807.95	0.0190	P	2.1
6	☐	200.000	188.173	33318.14	0.0224	P	1.7

y = 5.2573E-005 * x + 0.0126
R = 0.9905
DL = 17.89
BEC = 238.9

Weight: <None>
Min Conc: <None>

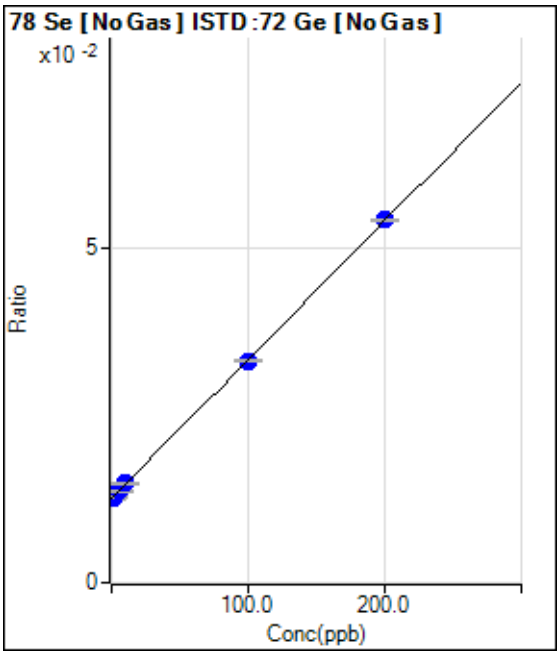


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	93.33	0.0002	P	44.4
2	☐	2.000	0.535	103.33	0.0002	P	21.5
3	☐	5.000	9.045	266.67	0.0006	P	27.8
4	☐	10.000	10.082	290.01	0.0006	P	38.7
5	☐	100.000	99.067	1996.84	0.0045	P	8.2
6	☐	200.000	200.376	3877.30	0.0089	P	5.5

y = 4.3496E-005 * x + 2.0801E-004
R = 0.9997
DL = 6.375
BEC = 4.782

Weight: <None>
Min Conc: <None>

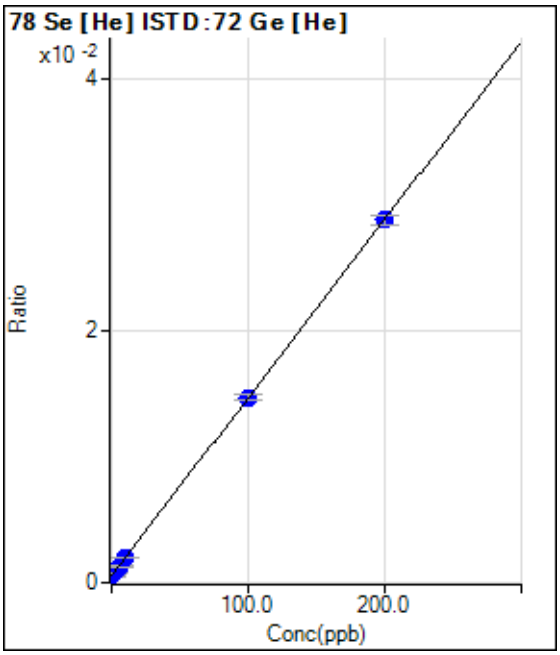
Calibration for 130_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	19561.13	0.0126	P	3.5
2	☐	2.000	0.482	19564.44	0.0127	P	2.1
3	☐	5.000	4.939	20816.36	0.0136	P	1.3
4	☐	10.000	10.444	22846.38	0.0148	P	1.4
5	☐	100.000	98.767	50119.95	0.0330	P	1.0
6	☐	200.000	200.611	80244.75	0.0541	P	0.4

y = 2.0669E-004 * x + 0.0126
R = 0.9999
DL = 6.415
BEC = 60.97

Weight: <None>
Min Conc: <None>

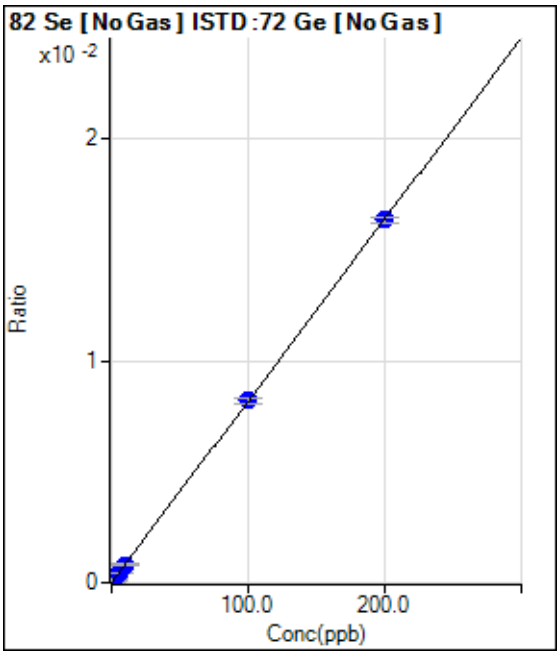


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	246.00	0.0005	P	11.1
2	☐	2.000	1.887	364.01	0.0008	P	3.4
3	☐	5.000	4.934	552.01	0.0012	P	11.9
4	☐	10.000	10.156	890.70	0.0020	P	6.3
5	☐	100.000	100.255	6505.58	0.0147	P	3.3
6	☐	200.000	199.868	12519.84	0.0288	P	2.6

y = 1.4141E-004 * x + 5.4859E-004
R = 1.0000
DL = 1.29
BEC = 3.879

Weight: <None>
Min Conc: <None>

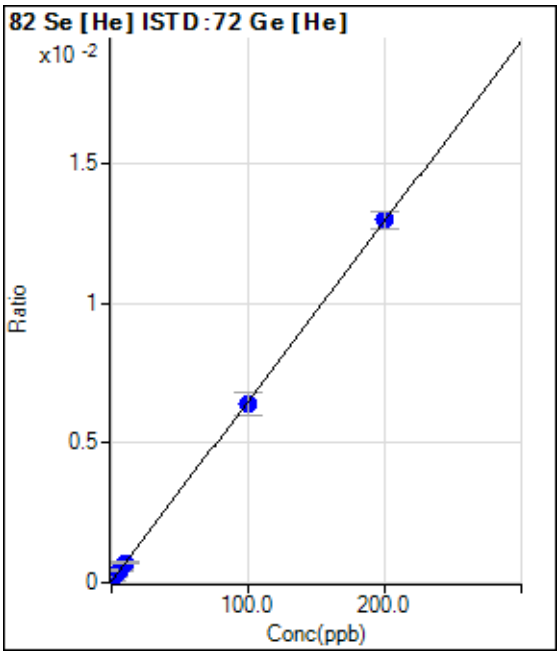
Calibration for 130_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	-1.80	0.0000	P	-1502.2
2	☐	2.000	1.877	235.33	0.0002	P	37.1
3	☐	5.000	5.167	644.54	0.0004	P	8.8
4	☐	10.000	9.864	1248.28	0.0008	P	10.7
5	☐	100.000	100.438	12474.62	0.0082	P	3.4
6	☐	200.000	199.785	24267.27	0.0163	P	1.4

y = 8.1839E-005 * x - 1.1443E-006
R = 1.0000
DL = 0.6301
BEC = -0.01398

Weight: <None>
Min Conc: <None>

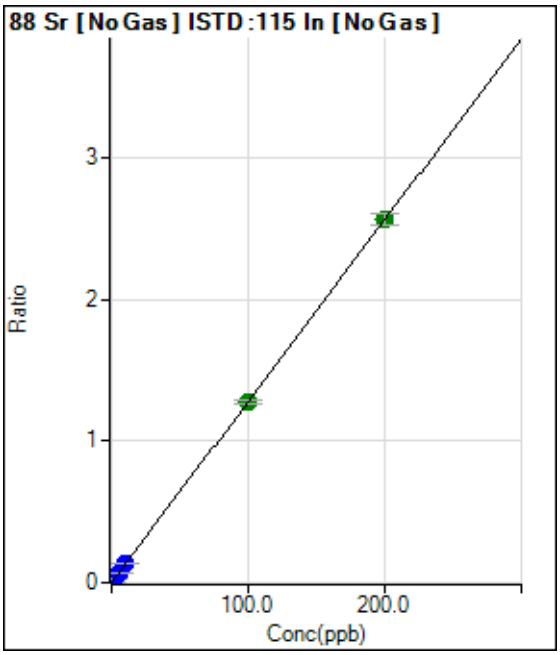


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	23.33	0.0001	P	24.8
2	☐	2.000	2.441	93.33	0.0002	P	27.3
3	☐	5.000	5.849	190.00	0.0004	P	13.7
4	☐	10.000	10.375	323.34	0.0007	P	4.6
5	☐	100.000	98.474	2827.01	0.0064	P	12.4
6	☐	200.000	200.719	5641.27	0.0130	P	5.0

y = 6.4427E-005 * x + 5.2034E-005
R = 0.9999
DL = 0.6014
BEC = 0.8076

Weight: <None>
Min Conc: <None>

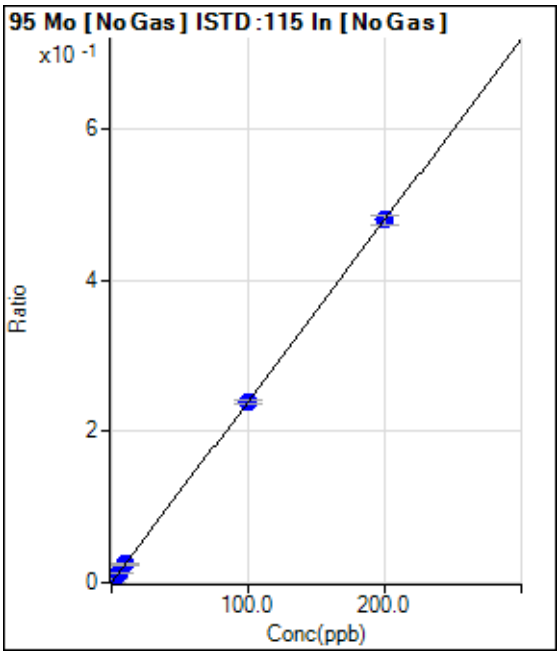
Calibration for 130_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	746.70	0.0005	P	8.4
2	☐	2.000	2.086	41050.15	0.0272	P	0.1
3	☐	5.000	5.190	99877.76	0.0670	P	1.4
4	☐	10.000	10.440	203079.58	0.1344	P	0.4
5	☐	100.000	99.669	1890089.50	1.2785	A	2.8
6	☐	200.000	200.138	3714290.78	2.5667	A	3.0

y = 0.0128 * x + 4.9192E-004
R = 1.0000
DL = 0.009712
BEC = 0.03836

Weight: <None>
Min Conc: <None>

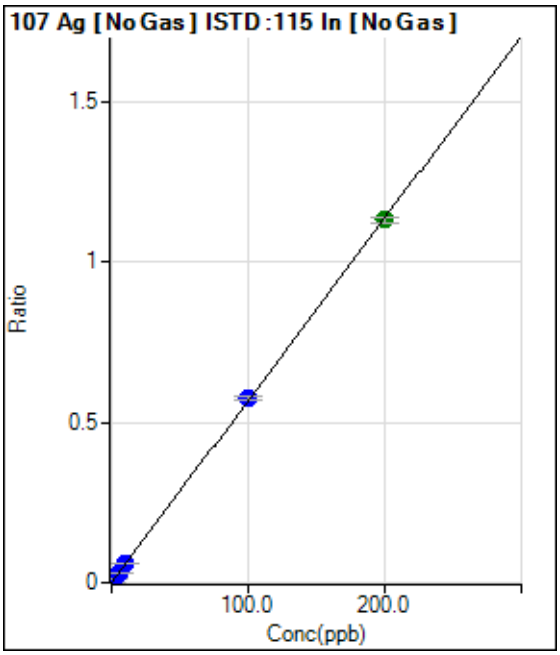


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	80.00	0.0001	P	37.8
2	☐	2.000	1.930	7055.31	0.0047	P	6.7
3	☐	5.000	4.982	17888.91	0.0120	P	1.5
4	☐	10.000	10.131	36831.34	0.0244	P	1.8
5	☐	100.000	99.713	353846.57	0.2393	P	1.6
6	☐	200.000	200.138	695177.78	0.4803	P	2.4

y = 0.0024 * x + 5.2813E-005
R = 1.0000
DL = 0.02496
BEC = 0.02201

Weight: <None>
Min Conc: <None>

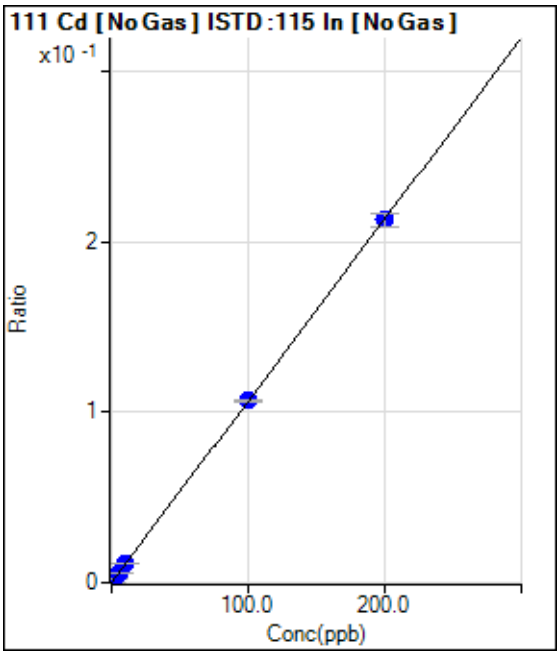
Calibration for 130_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	93.33	0.0001	P	11.5
2	☐	2.000	2.024	17398.35	0.0115	P	0.7
3	☐	5.000	5.135	43491.99	0.0292	P	1.1
4	☐	10.000	10.367	88998.76	0.0589	P	0.4
5	☐	100.000	101.515	851593.27	0.5760	P	1.7
6	☐	200.000	199.220	1635975.91	1.1303	A	1.9

y = 0.0057 * x + 6.1481E-005
R = 1.0000
DL = 0.00374
BEC = 0.01084

Weight: <None>
Min Conc: <None>

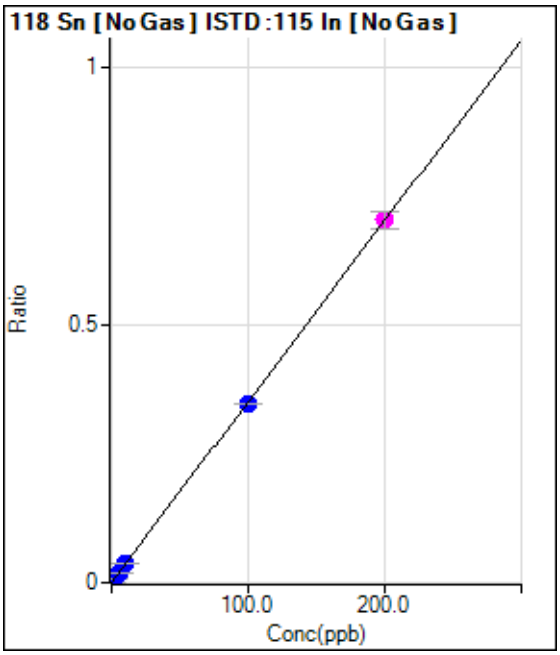


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6.42	0.0000	P	247.8
2	☐	2.000	1.981	3190.81	0.0021	P	5.9
3	☐	5.000	5.044	8021.61	0.0054	P	3.4
4	☐	10.000	10.332	16665.00	0.0110	P	2.1
5	☐	100.000	100.465	158431.01	0.1072	P	1.2
6	☐	200.000	199.750	308255.47	0.2131	P	3.9

y = 0.0011 * x + 4.1840E-006
R = 1.0000
DL = 0.02916
BEC = 0.003923

Weight: <None>
Min Conc: <None>

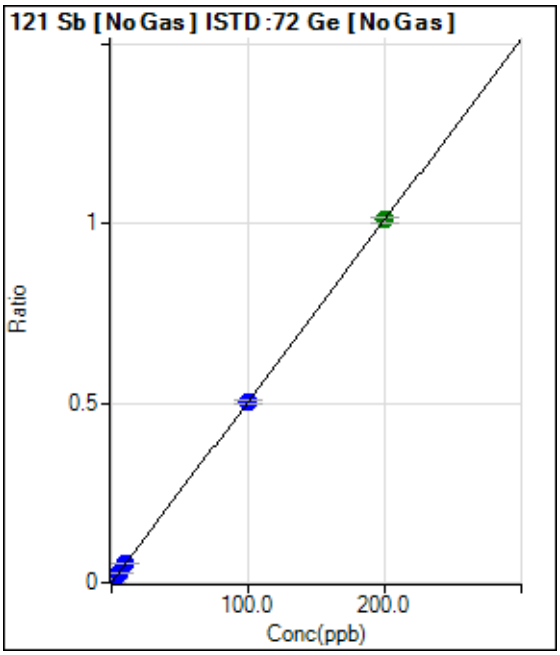
Calibration for 130_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	600.02	0.0004	P	12.7
2	☐	2.000	1.997	11174.97	0.0074	P	6.0
3	☐	5.000	5.013	26834.36	0.0180	P	0.4
4	☐	10.000	10.244	55012.45	0.0364	P	1.2
5	☐	100.000	98.850	514223.16	0.3478	P	0.6
6	☐	200.000	200.563	1020219.70	0.7052	M	4.6

y = 0.0035 * x + 3.9581E-004
R = 1.0000
DL = 0.043
BEC = 0.1126

Weight: <None>
Min Conc: <None>

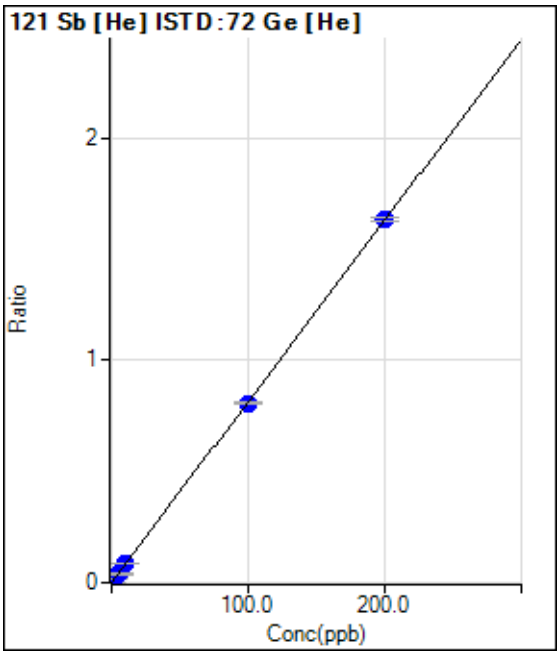


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	93.33	0.0001	P	54.2
2	☐	2.000	2.067	16153.47	0.0105	P	3.5
3	☐	5.000	5.082	39292.40	0.0257	P	0.5
4	☐	10.000	10.243	80138.15	0.0518	P	2.2
5	☐	100.000	99.684	764088.01	0.5033	P	1.4
6	☐	200.000	200.143	1499679.09	1.0106	A	1.7

y = 0.0050 * x + 6.0178E-005
R = 1.0000
DL = 0.01937
BEC = 0.01192

Weight: <None>
Min Conc: <None>

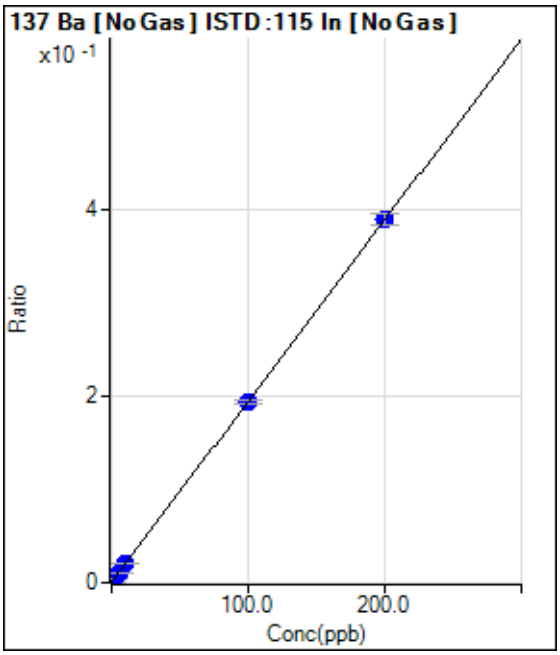
Calibration for 130_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	70.00	0.0002	P	37.9
2	☐	2.000	1.965	7208.78	0.0162	P	5.9
3	☐	5.000	4.869	17632.21	0.0398	P	5.6
4	☐	10.000	10.210	37383.62	0.0833	P	1.3
5	☐	100.000	99.225	357112.16	0.8082	P	1.2
6	☐	200.000	200.381	709198.45	1.6320	P	1.0

y = 0.0081 * x + 1.5610E-004
R = 1.0000
DL = 0.02177
BEC = 0.01917

Weight: <None>
Min Conc: <None>

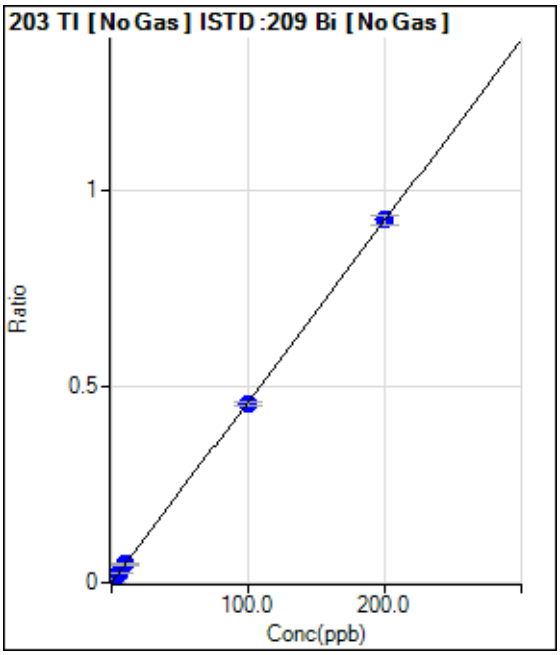


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	670.03	0.0004	P	8.0
2	☐	2.000	2.064	6695.19	0.0044	P	1.7
3	☐	5.000	5.114	15426.14	0.0104	P	3.6
4	☐	10.000	10.103	30275.58	0.0200	P	2.2
5	☐	100.000	99.483	285829.88	0.1933	P	1.9
6	☐	200.000	200.250	562482.65	0.3887	P	3.2

y = 0.0019 * x + 4.4162E-004
R = 1.0000
DL = 0.05435
BEC = 0.2278

Weight: <None>
Min Conc: <None>

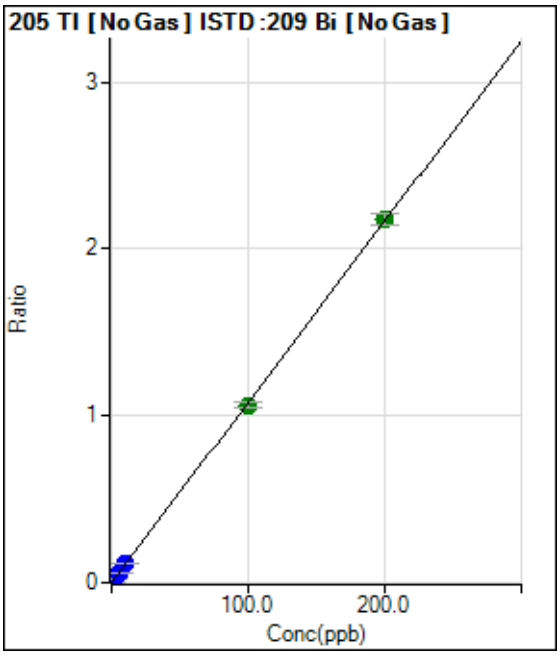
Calibration for 130_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	53.33	0.0001	P	29.0
2	☐	2.000	2.048	9703.91	0.0095	P	0.8
3	☐	5.000	4.933	23579.25	0.0228	P	1.2
4	☐	10.000	10.120	48654.96	0.0468	P	3.0
5	☐	100.000	98.917	467133.53	0.4571	P	2.8
6	☐	200.000	200.537	930008.24	0.9266	P	2.5

y = 0.0046 * x + 5.1892E-005
R = 1.0000
DL = 0.009784
BEC = 0.01123

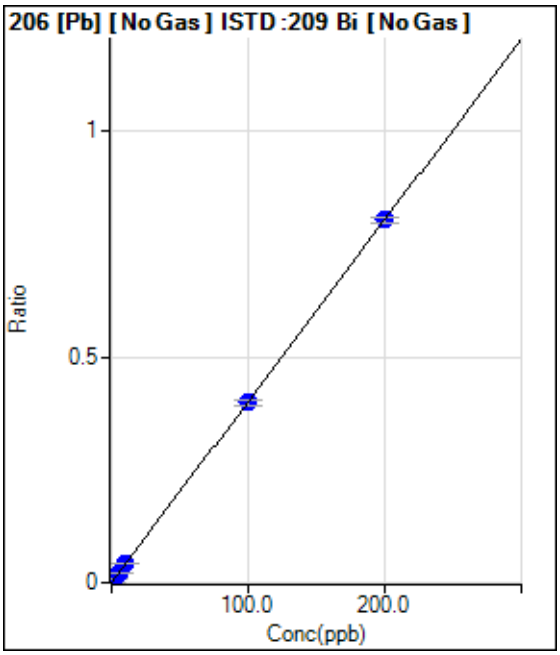
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	73.33	0.0001	P	34.2
2	☐	2.000	2.056	22761.02	0.0223	P	2.8
3	☐	5.000	5.110	57088.13	0.0553	P	2.7
4	☐	10.000	10.316	116019.20	0.1116	P	2.8
5	☐	100.000	98.060	1083758.84	1.0604	A	3.3
6	☐	200.000	200.951	2181107.21	2.1730	A	3.0

y = 0.0108 * x + 7.1271E-005
R = 0.9999
DL = 0.006768
BEC = 0.006591

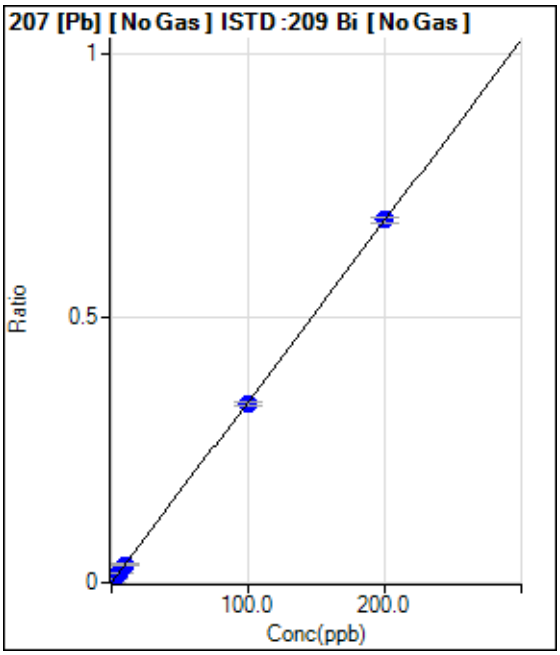
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	193.34	0.0002	P	3.3
2	☐	2.000	2.069	8656.51	0.0085	P	0.5
3	☐	5.000	5.117	21368.64	0.0207	P	3.6
4	☐	10.000	10.341	43308.86	0.0417	P	1.1
5	☐	100.000	99.529	408097.22	0.3994	P	2.9
6	☐	200.000	200.215	806138.69	0.8032	P	1.9

y = 0.0040 * x + 1.8798E-004
R = 1.0000
DL = 0.00471
BEC = 0.04687

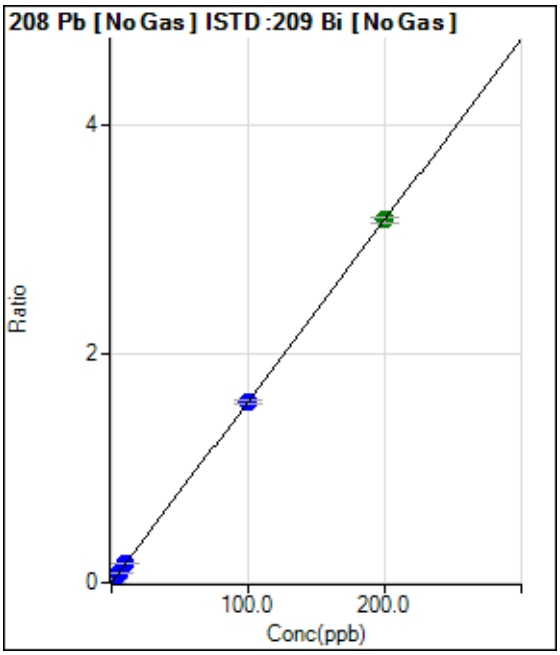
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	136.67	0.0001	P	23.8
2	☐	2.000	2.086	7412.34	0.0073	P	2.0
3	☐	5.000	4.977	17712.88	0.0172	P	1.6
4	☐	10.000	9.998	35684.87	0.0343	P	2.9
5	☐	100.000	98.991	346176.76	0.3388	P	2.5
6	☐	200.000	200.504	688542.33	0.6860	P	1.9

y = 0.0034 * x + 1.3295E-004
R = 1.0000
DL = 0.0278
BEC = 0.03887

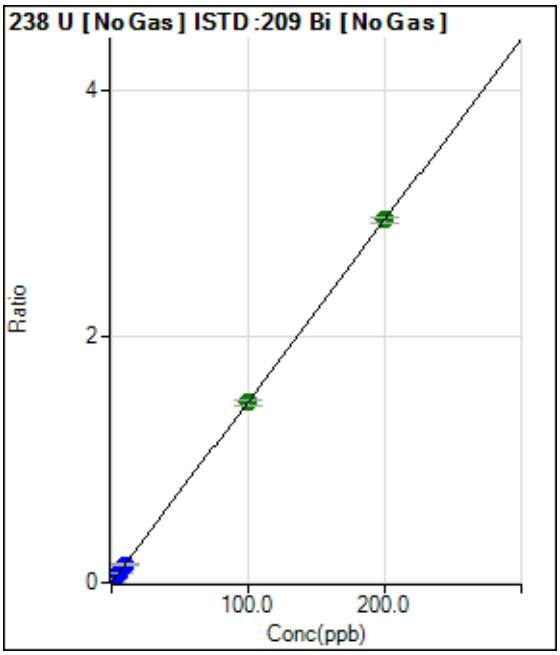
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	680.02	0.0007	P	8.6
2	☐	2.000	2.021	33314.33	0.0327	P	1.0
3	☐	5.000	5.061	83347.15	0.0808	P	2.7
4	☐	10.000	10.121	167245.58	0.1609	P	1.4
5	☐	100.000	99.660	1612826.34	1.5783	P	2.6
6	☐	200.000	200.162	3180923.39	3.1692	A	1.9

y = 0.0158 * x + 6.6128E-004
R = 1.0000
DL = 0.01075
BEC = 0.04177

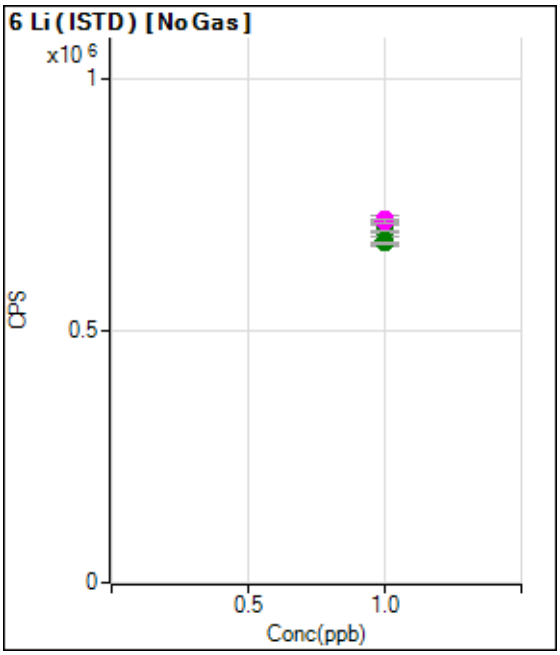
Weight: <None>
Min Conc: <None>



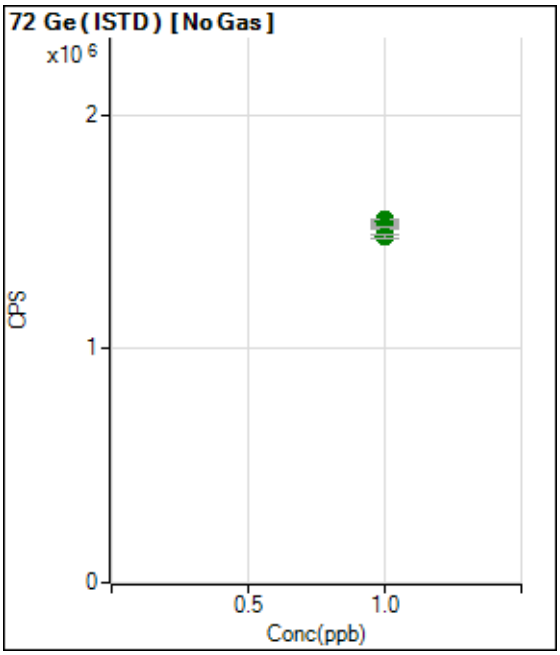
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	20.00	0.0000	P	49.9
2	☐	2.000	2.006	30120.86	0.0295	P	0.7
3	☐	5.000	4.960	75324.66	0.0730	P	2.5
4	☐	10.000	10.012	153147.54	0.1473	P	1.5
5	☐	100.000	99.578	1497114.40	1.4651	A	3.5
6	☐	200.000	200.212	2956942.45	2.9457	A	1.4

y = 0.0147 * x + 1.9432E-005
R = 1.0000
DL = 0.001978
BEC = 0.001321

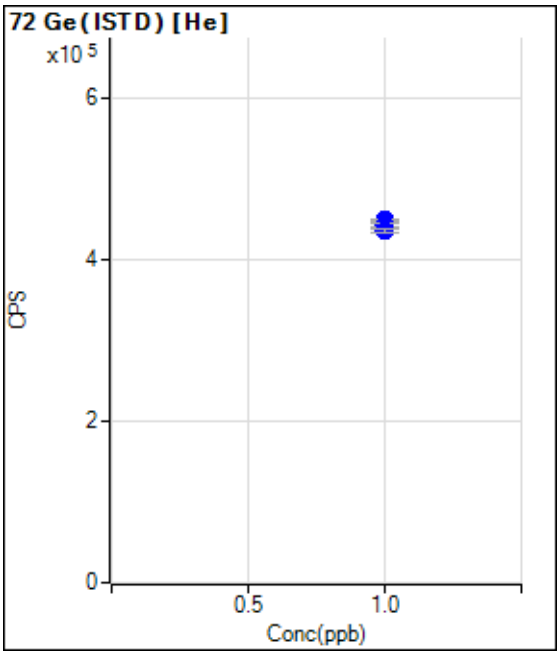
Weight: <None>
Min Conc: <None>



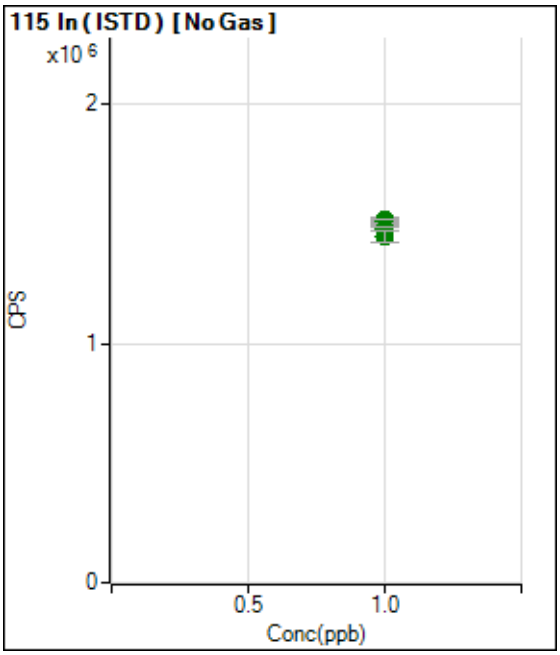
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		718916.17		A	2.6
2	☐	1.000		696178.77		A	0.9
3	☐	1.000		719677.29		M	0.7
4	☐	1.000		716125.93		M	1.2
5	☐	1.000		678245.65		A	3.0
6	☐	1.000		674180.95		A	0.9



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1552135.91		A	0.4
2	☐	1.000		1539839.92		A	1.7
3	☐	1.000		1527940.03		A	0.8
4	☐	1.000		1547729.40		A	1.0
5	☐	1.000		1518015.71		A	0.5
6	☐	1.000		1484182.58		A	1.2

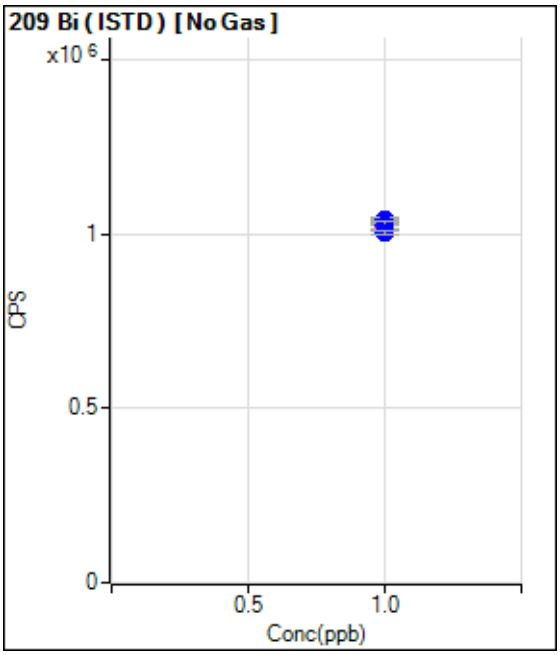


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		448476.41		P	0.2
2	☐	1.000		446338.35		P	0.8
3	☐	1.000		442952.99		P	1.2
4	☐	1.000		448785.36		P	0.8
5	☐	1.000		441889.43		P	1.4
6	☐	1.000		434588.31		P	1.3



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1516997.46		A	1.1
2	☐	1.000		1506915.14		A	0.6
3	☐	1.000		1489655.86		A	0.4
4	☐	1.000		1511554.23		A	0.6
5	☐	1.000		1478642.68		A	1.3
6	☐	1.000		1447940.81		A	2.9

Calibration for 130_ICV.d



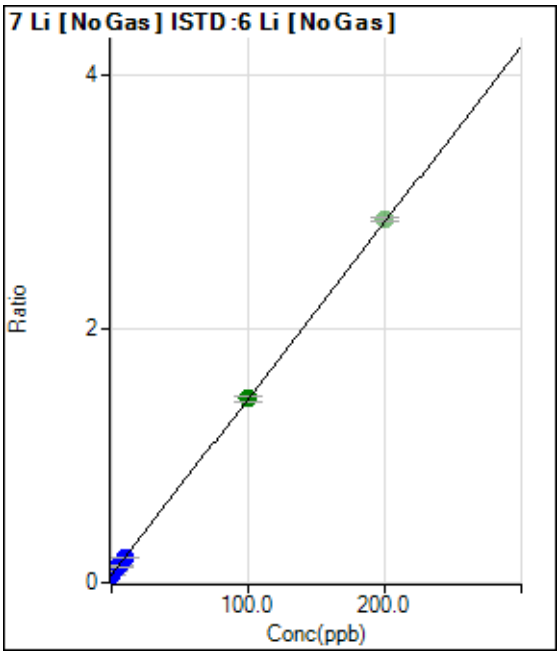
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1028570.45		P	0.4
2	☐	1.000		1020174.67		M	1.8
3	☐	1.000		1032262.28		P	1.9
4	☐	1.000		1039660.64		P	1.4
5	☐	1.000		1022334.41		P	2.5
6	☐	1.000		1003845.17		P	1.3

Calibration for 031_ICV.d

Batch Folder: C:\Agilent\ICPMH\1\DATA\031523A.b\
Analysis File: 031523A.batch.bin
DA Date-Time: 3/15/2023 12:19:21 PM
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	024CALB.d	CAL BLK	3/15/2023 11:58:35 AM
2	025CALS.d	2/10/200	3/15/2023 12:00:35 PM
3	026CALS.d	5/25/500	3/15/2023 12:02:34 PM
4	027CALS.d	10/50/100	3/15/2023 12:04:33 PM
5	028CALS.d	100/500/10K	3/15/2023 12:06:32 PM
6	029CALS.d	200/1000/20K	3/15/2023 12:08:29 PM

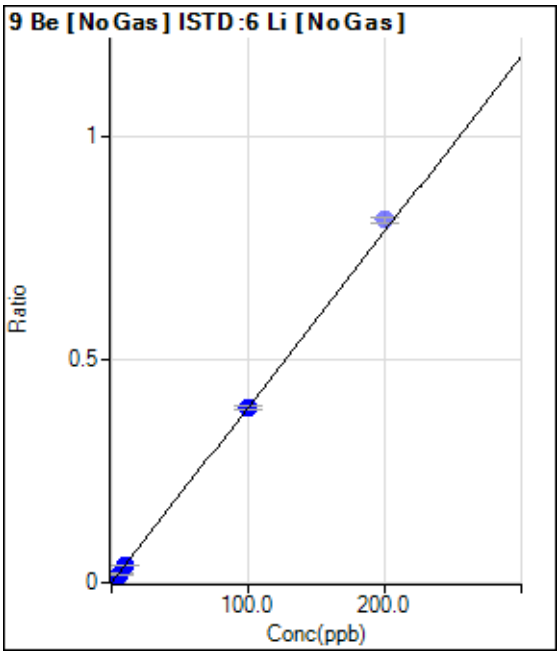
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	40320.95	0.0611	P	0.9
2	☐	2.000	2.047	58355.33	0.0895	P	1.8
3	☐	5.000	4.928	84465.06	0.1294	P	1.5
4	☐	10.000	9.864	127935.19	0.1980	P	0.4
5	☐	100.000	100.016	906816.37	1.4492	A	3.2
6	☑	200.000		1701567.01	2.8574	A	0.9

y = 0.0139 * x + 0.0611
R = 1.0000
DL = 0.1212
BEC = 4.399

Weight: <None>
Min Conc: <None>

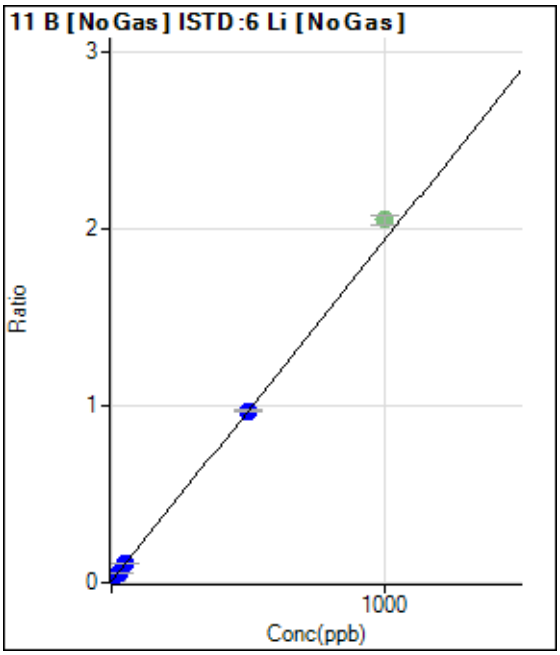


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16.67	0.0000	P	18.0
2	☐	2.000	1.930	4967.58	0.0076	P	4.0
3	☐	5.000	4.917	12629.06	0.0194	P	5.6
4	☐	10.000	9.892	25157.54	0.0389	P	1.5
5	☐	100.000	100.016	246221.56	0.3934	P	2.0
6	☑	200.000		484231.77	0.8132	P	1.8

y = 0.0039 * x + 2.5254E-005
R = 1.0000
DL = 0.00346
BEC = 0.006421

Weight: <None>
Min Conc: <None>

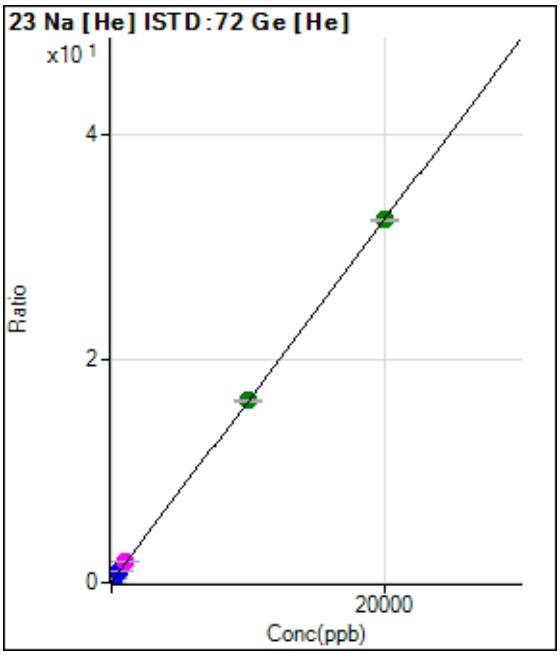
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6106.37	0.0092	P	2.2
2	☐	10.000	9.785	18338.72	0.0281	P	3.2
3	☐	25.000	24.432	36773.16	0.0564	P	3.0
4	☐	50.000	49.731	67955.18	0.1052	P	1.4
5	☐	500.000	500.060	609491.51	0.9736	P	1.7
6	☑	1000.000		1222636.34	2.0535	A	2.6

y = 0.0019 * x + 0.0092
R = 1.0000
DL = 0.3106
BEC = 4.794

Weight: <None>
Min Conc: <None>

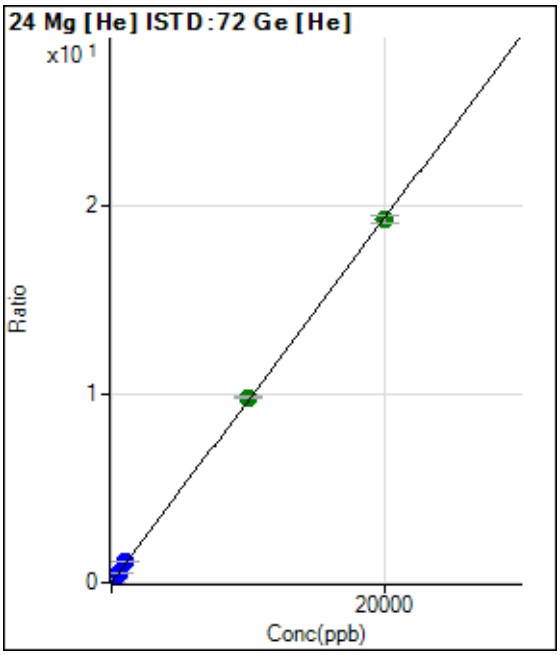


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	27560.91	0.0689	P	1.6
2	☐	200.000	218.861	166919.60	0.4228	P	1.8
3	☐	500.000	554.280	379976.73	0.9652	P	1.1
4	☐	1000.000	1101.736	726704.99	1.8504	M	0.8
5	☐	10000.00	10002.29	6292377.41	16.2426	A	0.9
6	☐	20000.00	19992.22	12277975.6	32.3963	A	0.5

y = 0.0016 * x + 0.0689
R = 1.0000
DL = 2.109
BEC = 42.63

Weight: <None>
Min Conc: <None>

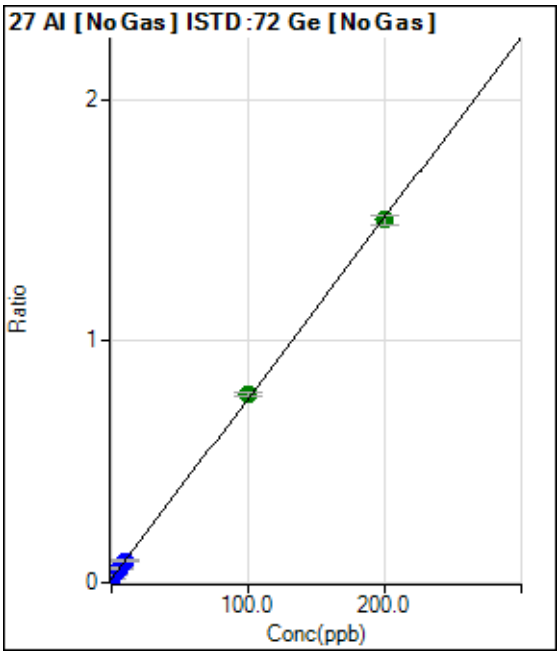
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	750.04	0.0019	P	14.2
2	☐	200.000	224.612	86332.98	0.2187	P	1.4
3	☐	500.000	553.965	211252.21	0.5366	P	1.0
4	☐	1000.000	1121.641	425904.50	1.0846	P	1.2
5	☐	10000.00	10169.42	3803597.24	9.8182	A	0.4
6	☐	20000.00	19907.61	7282762.39	19.2182	A	1.9

y = 9.6527E-004 * x + 0.0019
R = 0.9999
DL = 0.8318
BEC = 1.946

Weight: <None>
Min Conc: <None>

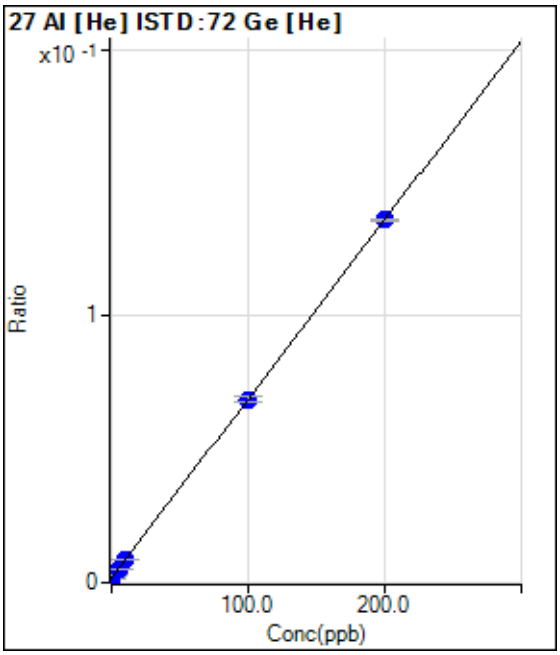


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	21196.56	0.0167	P	5.1
2	☐	2.000	1.888	39700.37	0.0308	P	1.2
3	☐	5.000	5.707	75072.11	0.0594	P	10.4
4	☐	10.000	9.964	114821.86	0.0912	P	3.0
5	☐	100.000	102.259	967334.44	0.7806	A	2.4
6	☐	200.000	198.856	1809603.78	1.5023	A	2.3

y = 0.0075 * x + 0.0167
R = 0.9999
DL = 0.3409
BEC = 2.238

Weight: <None>
Min Conc: <None>

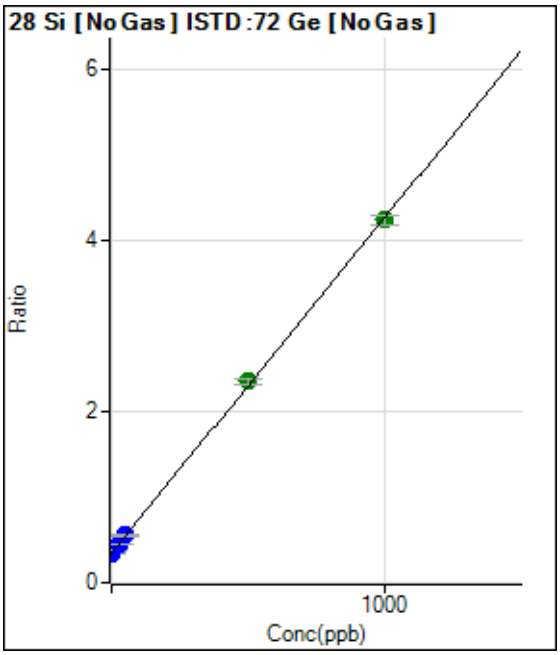
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	706.70	0.0018	P	16.5
2	☐	2.000	2.612	1390.09	0.0035	P	16.3
3	☐	5.000	4.980	2013.51	0.0051	P	2.3
4	☐	10.000	10.432	3447.17	0.0088	P	4.0
5	☐	100.000	99.864	26665.80	0.0688	P	2.9
6	☐	200.000	200.041	51585.76	0.1361	P	0.8

y = 6.7159E-004 * x + 0.0018
R = 1.0000
DL = 1.307
BEC = 2.636

Weight: <None>
Min Conc: <None>

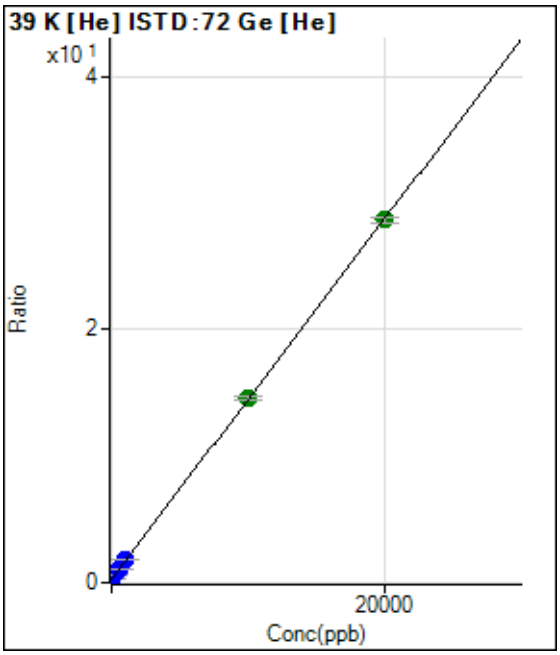


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	440379.29	0.3473	P	2.1
2	☐	10.000	11.678	505955.01	0.3930	P	4.8
3	☐	25.000	26.297	569399.86	0.4501	P	0.6
4	☐	50.000	51.827	692660.07	0.5498	P	1.2
5	☐	500.000	511.290	2905484.75	2.3451	A	3.3
6	☐	1000.000	994.214	5097516.38	4.2320	A	2.5

y = 0.0039 * x + 0.3473
R = 0.9999
DL = 5.615
BEC = 88.9

Weight: <None>
Min Conc: <None>

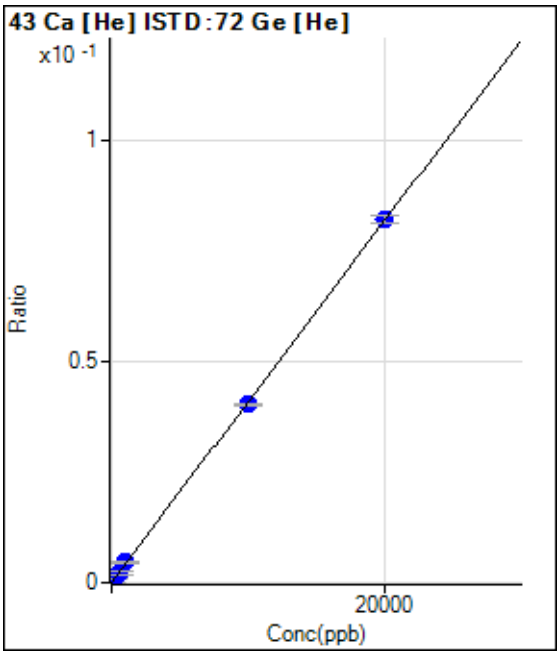
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	107767.92	0.2696	P	2.2
2	☐	200.000	218.563	229272.42	0.5808	P	1.6
3	☐	500.000	545.595	411953.07	1.0464	P	0.6
4	☐	1000.000	1097.878	719688.11	1.8327	P	0.7
5	☐	10000.00	10072.58	5659508.04	14.6099	A	2.2
6	☐	20000.00	19957.49	10870933.5	28.6830	A	1.4

y = 0.0014 * x + 0.2696
R = 1.0000
DL = 12.71
BEC = 189.4

Weight: <None>
Min Conc: <None>

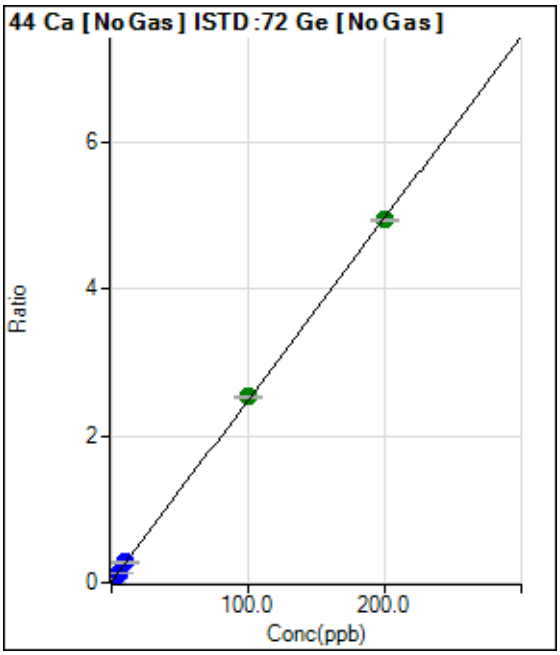


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	13.33	0.0000	P	86.6
2	☐	200.000	188.284	316.68	0.0008	P	12.1
3	☐	500.000	526.607	860.05	0.0022	P	27.9
4	☐	1000.000	1111.806	1796.81	0.0046	P	7.9
5	☐	10000.00	9868.496	15629.21	0.0403	P	1.0
6	☐	20000.00	20059.61	31072.07	0.0820	P	2.1

y = 4.0847E-006 * x + 3.3654E-005
R = 0.9999
DL = 21.41
BEC = 8.239

Weight: <None>
Min Conc: <None>

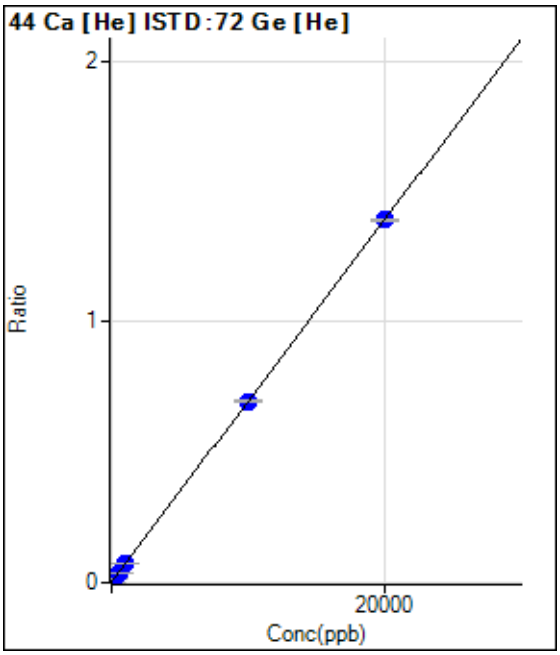
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16213.12	0.0128	P	3.7
2	☐	2.000	2.090	83177.26	0.0646	P	0.8
3	☐	5.000	5.234	180279.88	0.1425	P	2.2
4	☐	10.000	10.633	348096.18	0.2763	P	1.4
5	☐	100.000	101.693	3138881.52	2.5332	A	1.8
6	☐	200.000	199.115	5961550.95	4.9477	A	0.4

y = 0.0248 * x + 0.0128
R = 0.9999
DL = 0.05705
BEC = 0.516

Weight: <None>
Min Conc: <None>

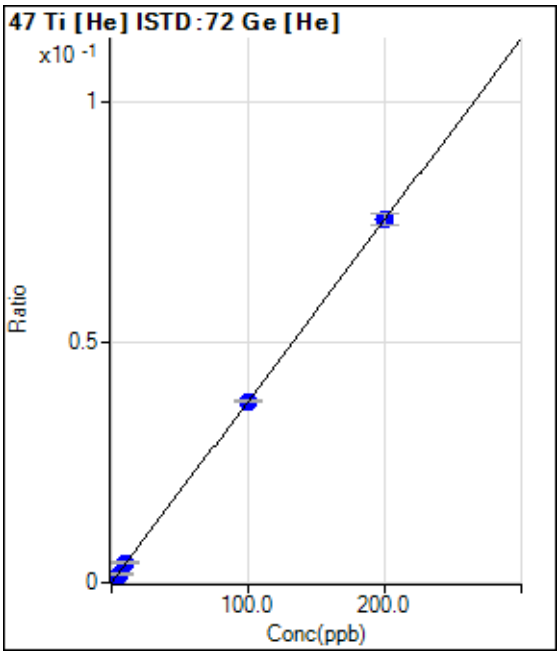


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	640.03	0.0016	P	11.6
2	☐	200.000	207.547	6318.24	0.0160	P	7.5
3	☐	500.000	510.233	14574.60	0.0370	P	0.3
4	☐	1000.000	1024.138	28546.54	0.0727	P	1.1
5	☐	10000.00	9985.707	269142.67	0.6948	P	1.4
6	☐	20000.00	20005.60	526934.82	1.3903	P	0.3

y = 6.9415E-005 * x + 0.0016
R = 1.0000
DL = 8.013
BEC = 23.09

Weight: <None>
Min Conc: <None>

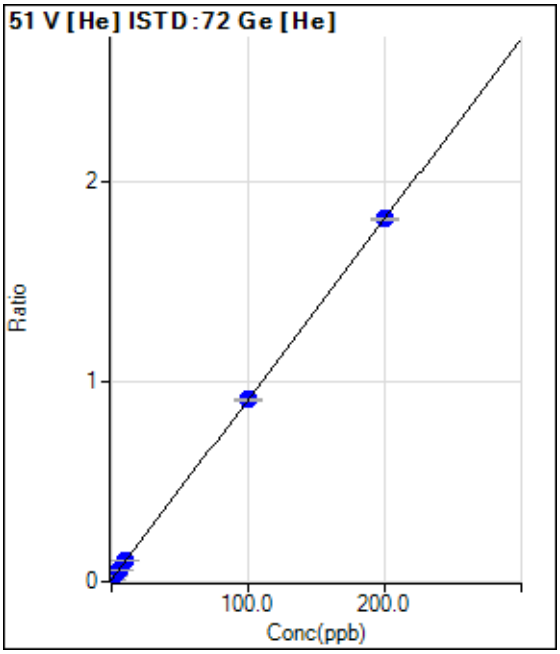
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	10.00	0.0000	P	1.6
2	☐	2.000	2.020	310.01	0.0008	P	4.3
3	☐	5.000	4.588	690.03	0.0018	P	7.0
4	☐	10.000	10.843	1613.46	0.0041	P	13.9
5	☐	100.000	99.890	14577.98	0.0376	P	1.2
6	☐	200.000	200.023	28553.36	0.0753	P	3.0

y = 3.7647E-004 * x + 2.5016E-005
R = 1.0000
DL = 0.003109
BEC = 0.06645

Weight: <None>
Min Conc: <None>

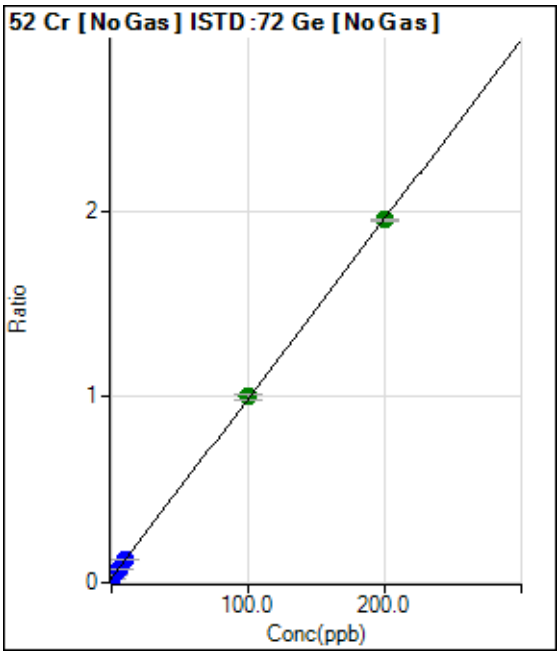


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3584.94	0.0090	P	3.7
2	☐	2.000	2.086	10958.88	0.0278	P	4.4
3	☐	5.000	5.128	21717.25	0.0552	P	1.9
4	☐	10.000	10.310	40000.40	0.1019	P	0.8
5	☐	100.000	99.839	351952.89	0.9085	P	0.6
6	☐	200.000	200.061	686540.89	1.8115	P	0.7

y = 0.0090 * x + 0.0090
R = 1.0000
DL = 0.1113
BEC = 0.9954

Weight: <None>
Min Conc: <None>

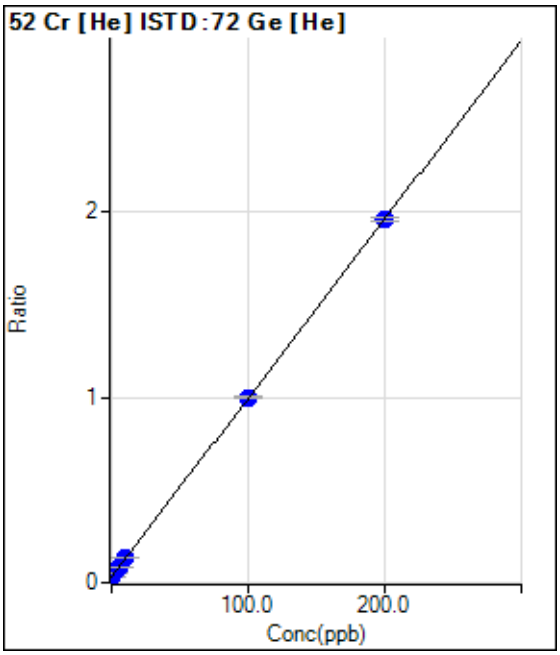
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	31045.65	0.0245	P	4.0
2	☐	2.000	1.834	54398.43	0.0422	P	1.7
3	☐	5.000	5.017	92387.49	0.0730	P	1.0
4	☐	10.000	10.165	154724.08	0.1228	P	2.2
5	☐	100.000	100.877	1239597.74	1.0004	A	2.7
6	☐	200.000	199.555	2355630.54	1.9551	A	0.5

y = 0.0097 * x + 0.0245
R = 1.0000
DL = 0.3005
BEC = 2.532

Weight: <None>
Min Conc: <None>

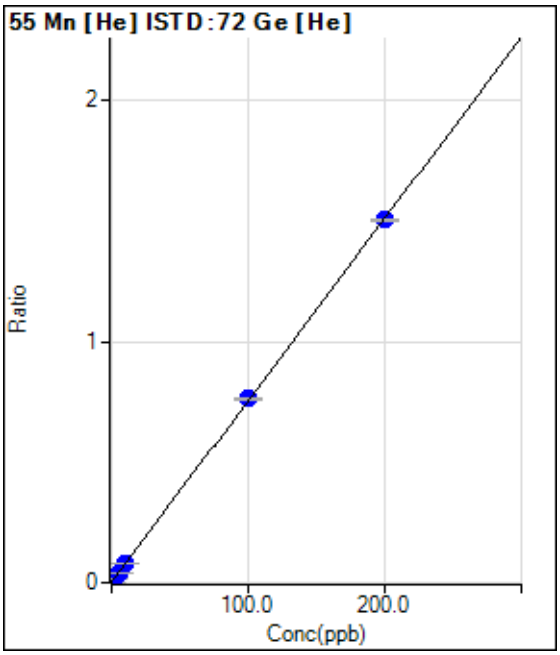


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	12205.66	0.0305	P	6.4
2	☐	2.000	2.203	20445.59	0.0518	P	1.0
3	☐	5.000	5.313	32188.15	0.0818	P	1.6
4	☐	10.000	10.788	52832.05	0.1345	P	2.2
5	☐	100.000	100.462	386981.57	0.9989	P	0.8
6	☐	200.000	199.720	741164.68	1.9557	P	1.2

y = 0.0096 * x + 0.0305
R = 1.0000
DL = 0.6092
BEC = 3.169

Weight: <None>
Min Conc: <None>

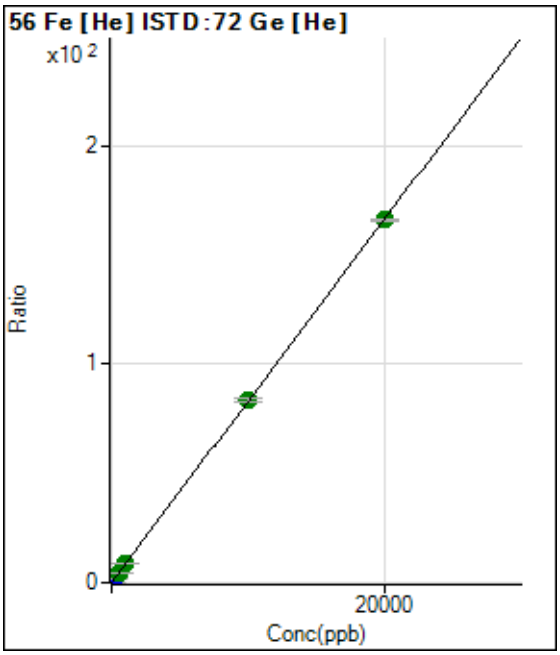
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	606.69	0.0015	P	12.4
2	☐	2.000	2.082	6795.14	0.0172	P	7.7
3	☐	5.000	5.095	15732.64	0.0400	P	4.6
4	☐	10.000	10.288	31075.70	0.0791	P	0.5
5	☐	100.000	101.102	296073.59	0.7643	P	1.0
6	☐	200.000	199.431	570805.29	1.5061	P	0.6

y = 0.0075 * x + 0.0015
R = 1.0000
DL = 0.07475
BEC = 0.2011

Weight: <None>
Min Conc: <None>

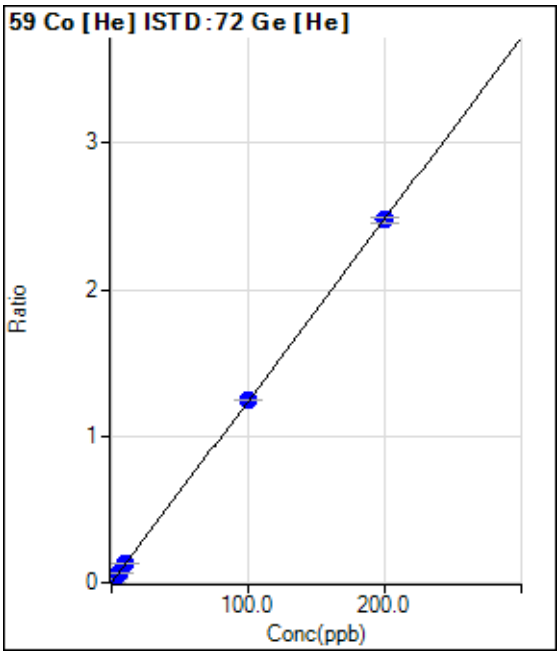


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	13717.13	0.0343	P	2.5
2	☐	200.000	215.053	719490.41	1.8225	P	0.9
3	☐	500.000	524.882	1731767.89	4.3987	A	0.7
4	☐	1000.000	1038.764	3405485.99	8.6716	A	0.4
5	☐	10000.00	10057.92	32410837.0	83.6660	A	1.6
6	☐	20000.00	19968.32	62937790.7	166.071	A	0.8

y = 0.0083 * x + 0.0343
R = 1.0000
DL = 0.3051
BEC = 4.127

Weight: <None>
Min Conc: <None>

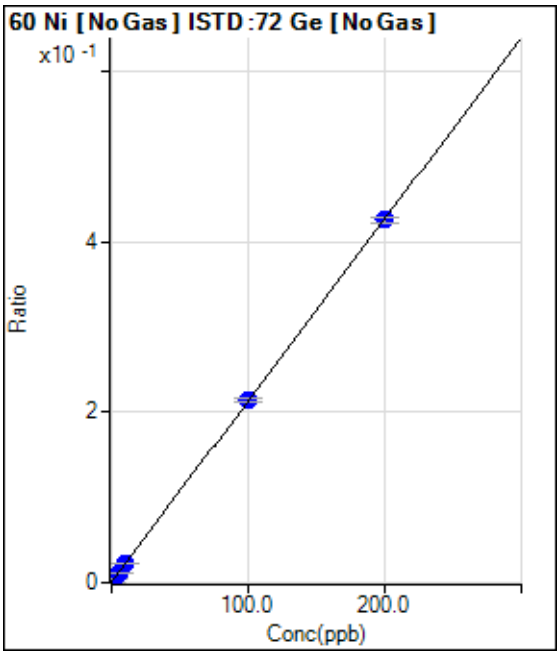
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	86.67	0.0002	P	39.3
2	☐	2.000	2.058	10153.95	0.0257	P	1.4
3	☐	5.000	5.332	26095.29	0.0663	P	1.3
4	☐	10.000	10.459	50975.61	0.1298	P	1.9
5	☐	100.000	100.469	482356.20	1.2451	P	0.9
6	☐	200.000	199.734	937984.96	2.4751	P	1.5

y = 0.0124 * x + 2.1611E-004
R = 1.0000
DL = 0.02057
BEC = 0.01744

Weight: <None>
Min Conc: <None>

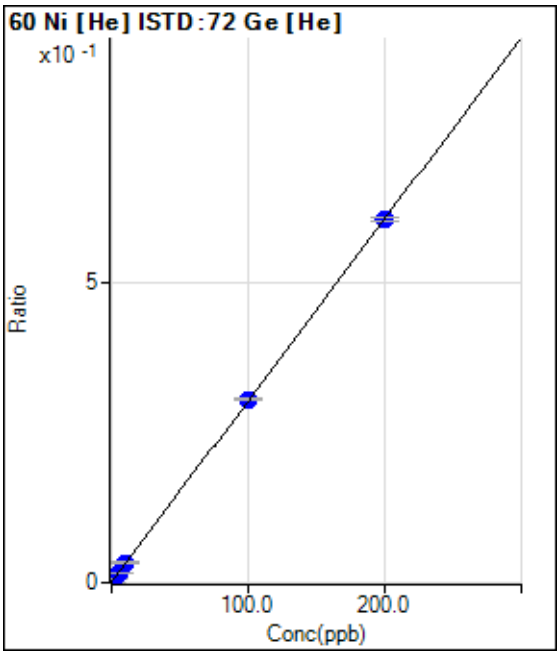


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	800.04	0.0006	P	11.7
2	☐	2.000	2.036	6394.95	0.0050	P	2.3
3	☐	5.000	5.339	15175.42	0.0120	P	1.7
4	☐	10.000	10.367	28597.12	0.0227	P	2.5
5	☐	100.000	100.553	266012.54	0.2147	P	2.8
6	☐	200.000	199.696	512924.94	0.4258	P	1.4

y = 0.0021 * x + 6.3023E-004
R = 1.0000
DL = 0.1042
BEC = 0.296

Weight: <None>
Min Conc: <None>

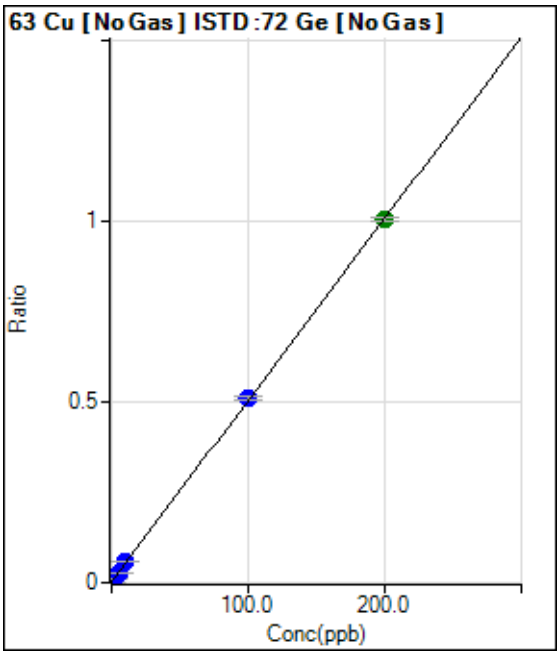
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	233.34	0.0006	P	25.5
2	☐	2.000	2.233	2903.70	0.0074	P	2.8
3	☐	5.000	5.336	6598.38	0.0168	P	4.8
4	☐	10.000	10.899	13206.61	0.0336	P	3.7
5	☐	100.000	100.600	118371.46	0.3056	P	0.8
6	☐	200.000	199.644	229588.22	0.6058	P	1.1

y = 0.0030 * x + 5.8437E-004
R = 1.0000
DL = 0.1475
BEC = 0.1928

Weight: <None>
Min Conc: <None>

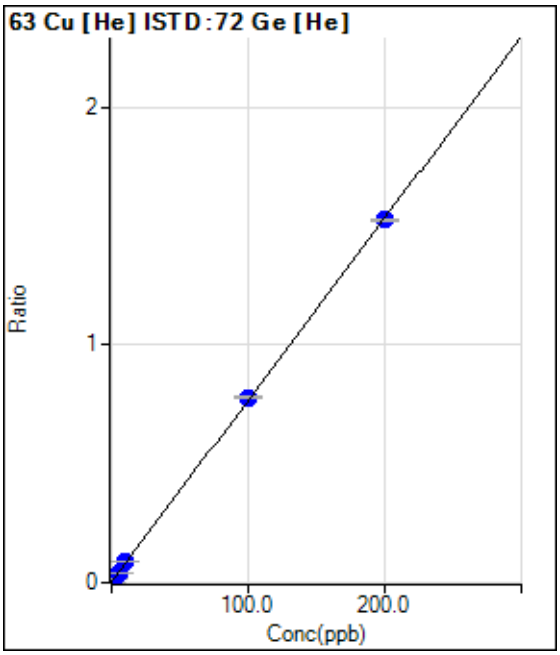


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2943.70	0.0023	P	8.8
2	☐	2.000	2.015	16019.67	0.0124	P	0.6
3	☐	5.000	5.211	36044.85	0.0285	P	1.6
4	☐	10.000	11.193	73746.53	0.0585	P	1.1
5	☐	100.000	101.067	631844.17	0.5099	P	2.3
6	☐	200.000	199.401	1209371.96	1.0038	A	1.2

y = 0.0050 * x + 0.0023
R = 1.0000
DL = 0.1225
BEC = 0.462

Weight: <None>
Min Conc: <None>

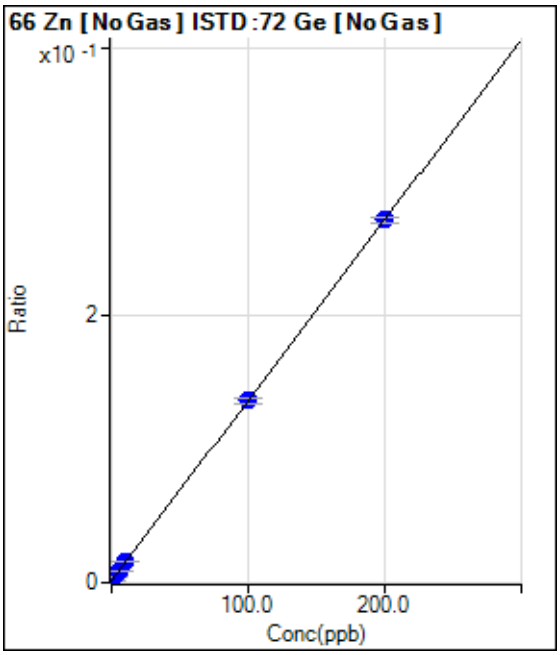
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1250.08	0.0031	P	4.0
2	☐	2.000	2.044	7405.47	0.0188	P	4.6
3	☐	5.000	5.362	17374.70	0.0441	P	1.3
4	☐	10.000	11.281	35108.90	0.0894	P	1.5
5	☐	100.000	101.449	301775.49	0.7790	P	1.0
6	☐	200.000	199.202	578556.84	1.5266	P	0.8

y = 0.0076 * x + 0.0031
R = 1.0000
DL = 0.04935
BEC = 0.4087

Weight: <None>
Min Conc: <None>

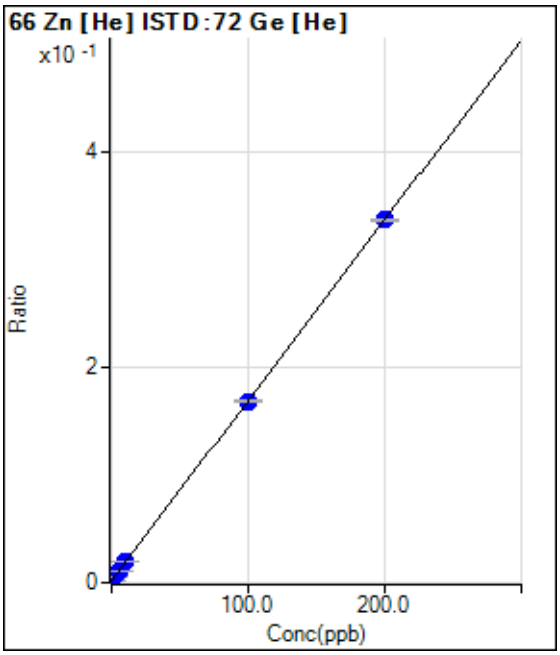


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2003.52	0.0016	P	5.0
2	☐	2.000	1.855	5261.10	0.0041	P	2.9
3	☐	5.000	5.155	10807.83	0.0085	P	3.7
4	☐	10.000	10.138	19243.86	0.0153	P	0.3
5	☐	100.000	99.855	169080.99	0.1365	P	3.6
6	☐	200.000	200.063	327467.03	0.2718	P	1.9

y = 0.0014 * x + 0.0016
R = 1.0000
DL = 0.1764
BEC = 1.169

Weight: <None>
Min Conc: <None>

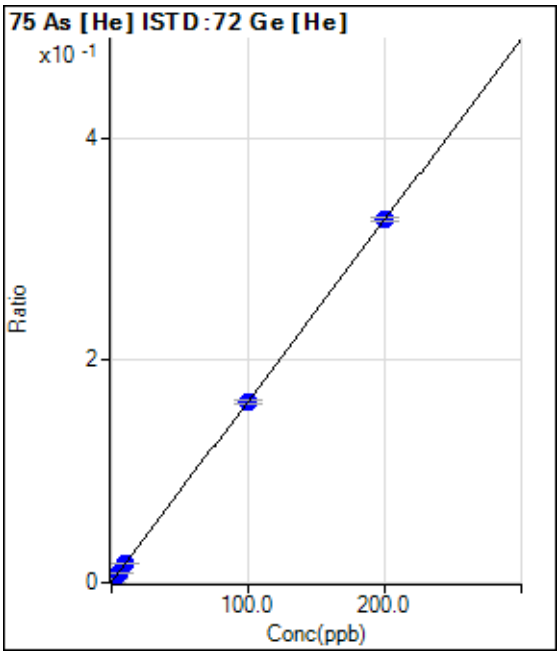
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	813.37	0.0020	P	10.8
2	☐	2.000	2.271	2303.56	0.0058	P	6.7
3	☐	5.000	5.194	4224.06	0.0107	P	7.7
4	☐	10.000	10.219	7518.88	0.0191	P	3.6
5	☐	100.000	99.489	65337.25	0.1687	P	0.6
6	☐	200.000	200.237	127872.01	0.3374	P	0.4

y = 0.0017 * x + 0.0020
R = 1.0000
DL = 0.393
BEC = 1.213

Weight: <None>
Min Conc: <None>

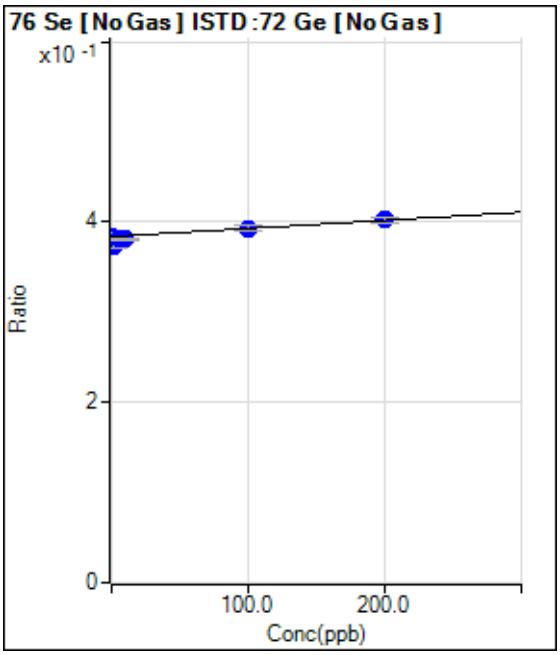


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	214.45	0.0005	P	9.0
2	☐	2.000	1.918	1443.42	0.0037	P	4.0
3	☐	5.000	4.929	3369.33	0.0086	P	2.2
4	☐	10.000	10.410	6862.88	0.0175	P	1.6
5	☐	100.000	99.831	63135.65	0.1630	P	2.2
6	☐	200.000	200.067	123582.49	0.3261	P	1.1

y = 0.0016 * x + 5.3608E-004
R = 1.0000
DL = 0.08921
BEC = 0.3294

Weight: <None>
Min Conc: <None>

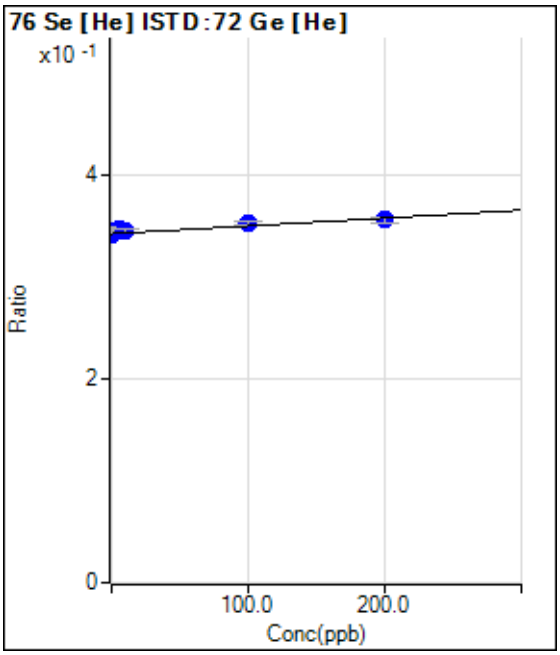
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	486642.72	0.3839	P	2.7
2	☐	2.000	-117.520	480634.50	0.3732	P	1.7
3	☐	5.000	-25.492	482708.14	0.3816	P	1.3
4	☐	10.000	-28.799	480321.35	0.3813	P	0.6
5	☐	100.000	98.922	486708.54	0.3928	P	1.8
6	☐	200.000	204.437	484674.47	0.4023	P	1.6

y = 9.0312E-005 * x + 0.3839
R = 0.9343
DL = 349.9
BEC = 4250

Weight: <None>
Min Conc: <None>

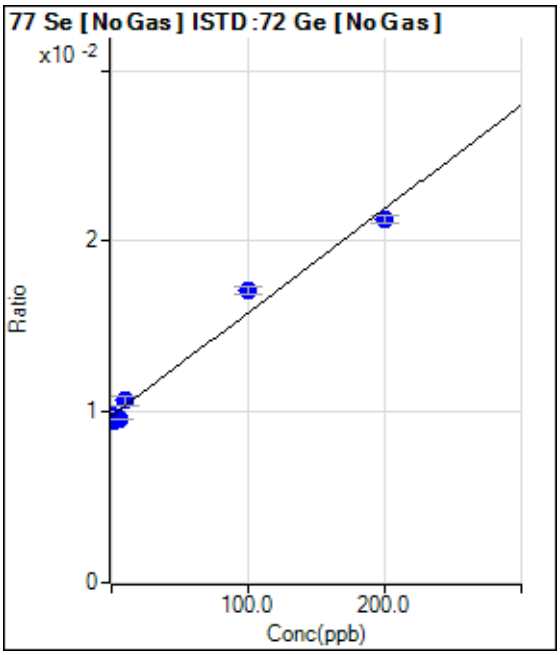


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	136580.14	0.3416	P	1.2
2	☐	2.000	46.690	136303.98	0.3452	P	0.4
3	☐	5.000	55.782	136186.47	0.3459	P	1.2
4	☐	10.000	36.232	135260.55	0.3444	P	0.9
5	☐	100.000	141.639	136577.02	0.3526	P	1.3
6	☐	200.000	176.152	134620.28	0.3552	P	1.8

y = 7.7071E-005 * x + 0.3416
R = 0.9395
DL = 166.2
BEC = 4433

Weight: <None>
Min Conc: <None>

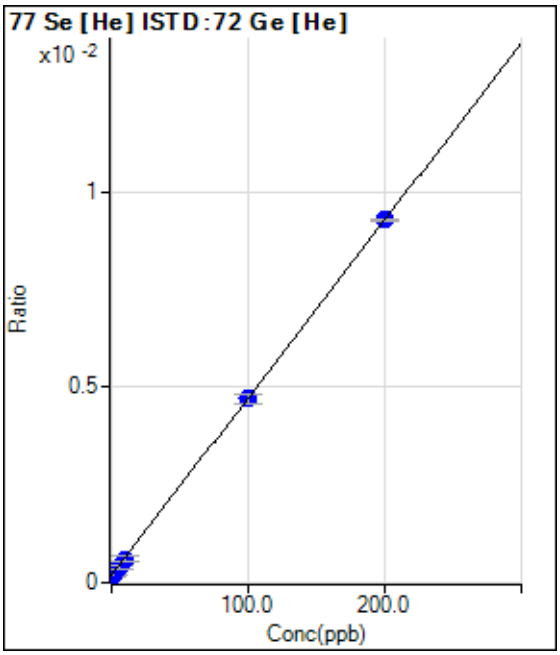
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	12369.29	0.0098	P	5.0
2	☐	2.000	-5.161	12162.37	0.0094	P	1.7
3	☐	5.000	-3.166	12102.26	0.0096	P	0.8
4	☐	10.000	15.313	13460.26	0.0107	P	5.4
5	☐	100.000	121.534	21237.04	0.0171	P	2.9
6	☐	200.000	189.243	25601.33	0.0213	P	2.0

y = 6.0733E-005 * x + 0.0098
R = 0.9893
DL = 23.96
BEC = 160.7

Weight: <None>
Min Conc: <None>

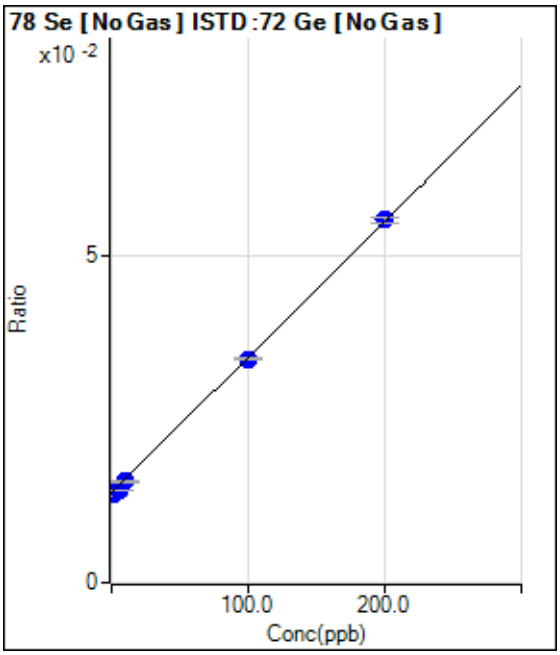


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	76.67	0.0002	P	38.4
2	☐	2.000	0.417	83.33	0.0002	P	6.4
3	☐	5.000	4.540	156.67	0.0004	P	32.8
4	☐	10.000	9.241	240.01	0.0006	P	29.3
5	☐	100.000	99.527	1823.49	0.0047	P	5.8
6	☐	200.000	200.302	3517.19	0.0093	P	0.8

y = 4.5370E-005 * x + 1.9211E-004
R = 1.0000
DL = 4.879
BEC = 4.234

Weight: <None>
Min Conc: <None>

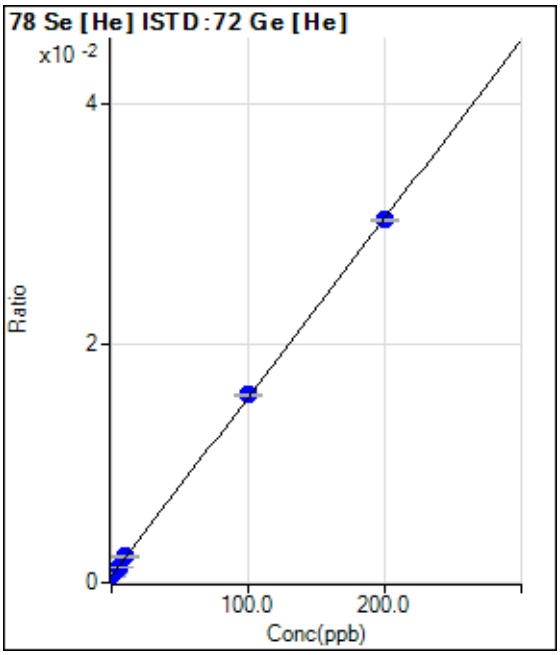
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	17391.53	0.0137	P	3.6
2	☐	2.000	-0.466	17538.40	0.0136	P	3.3
3	☐	5.000	2.133	17918.79	0.0142	P	1.8
4	☐	10.000	8.696	19571.17	0.0155	P	2.3
5	☐	100.000	98.547	42480.63	0.0343	P	1.3
6	☐	200.000	200.888	67023.23	0.0556	P	1.9

y = 2.0866E-004 * x + 0.0137
R = 0.9999
DL = 7.119
BEC = 65.75

Weight: <None>
Min Conc: <None>

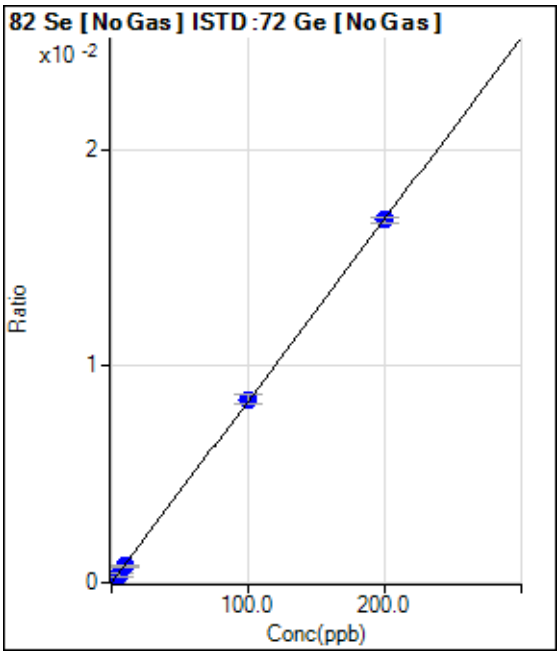


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	226.00	0.0006	P	10.7
2	☐	2.000	1.945	338.01	0.0009	P	3.2
3	☐	5.000	4.852	508.01	0.0013	P	1.6
4	☐	10.000	11.162	876.70	0.0022	P	5.7
5	☐	100.000	101.279	6077.38	0.0157	P	0.4
6	☐	200.000	199.307	11492.92	0.0303	P	0.3

y = 1.4930E-004 * x + 5.6588E-004
R = 1.0000
DL = 1.221
BEC = 3.79

Weight: <None>
Min Conc: <None>

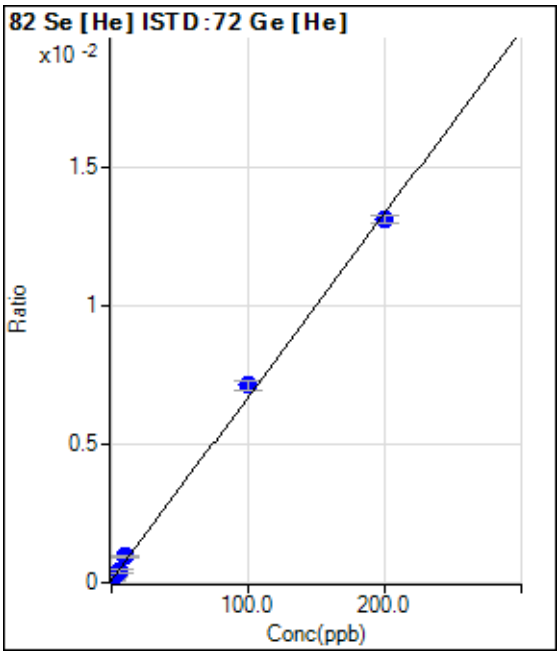
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	-8.41	0.0000	P	-750.0
2	☐	2.000	2.280	238.48	0.0002	P	24.9
3	☐	5.000	4.265	444.89	0.0004	P	29.1
4	☐	10.000	9.010	944.54	0.0007	P	1.6
5	☐	100.000	100.673	10459.53	0.0084	P	5.2
6	☐	200.000	199.729	20187.60	0.0168	P	1.3

y = 8.3931E-005 * x - 6.4597E-006
R = 1.0000
DL = 1.732
BEC = -0.07696

Weight: <None>
Min Conc: <None>

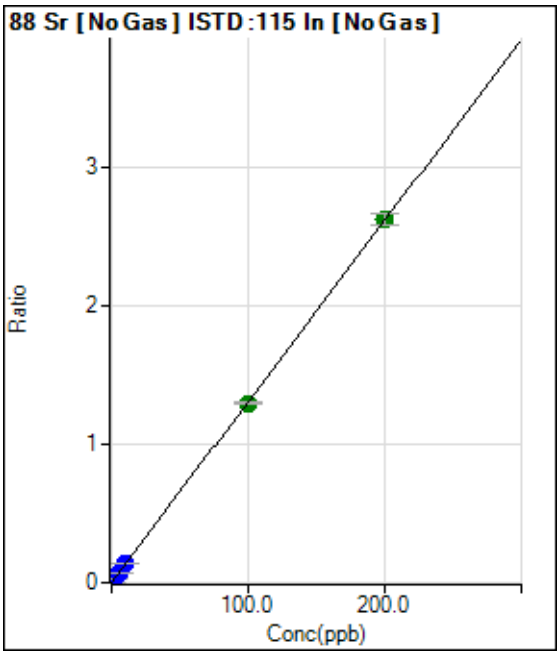


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	36.67	0.0001	P	67.6
2	☐	2.000	1.808	83.33	0.0002	P	6.4
3	☐	5.000	4.623	156.67	0.0004	P	28.2
4	☐	10.000	12.848	370.01	0.0009	P	7.5
5	☐	100.000	106.589	2770.34	0.0072	P	5.0
6	☐	200.000	196.574	4971.01	0.0131	P	2.0

y = 6.6247E-005 * x + 9.1237E-005
R = 0.9991
DL = 2.794
BEC = 1.377

Weight: <None>
Min Conc: <None>

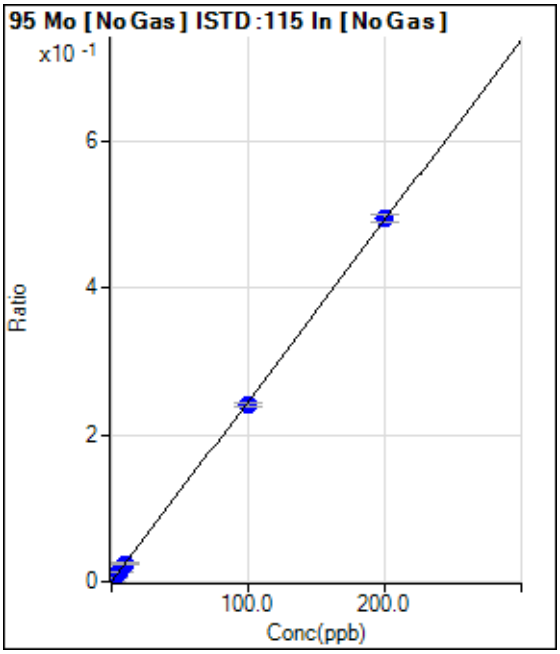
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	520.02	0.0004	P	14.2
2	☐	2.000	2.047	34788.79	0.0272	P	2.2
3	☐	5.000	5.280	87569.17	0.0695	P	3.5
4	☐	10.000	10.434	171978.03	0.1369	P	2.1
5	☐	100.000	99.009	1605213.20	1.2955	A	1.2
6	☐	200.000	200.467	3154268.81	2.6226	A	3.0

y = 0.0131 * x + 4.0735E-004
R = 1.0000
DL = 0.01326
BEC = 0.03114

Weight: <None>
Min Conc: <None>

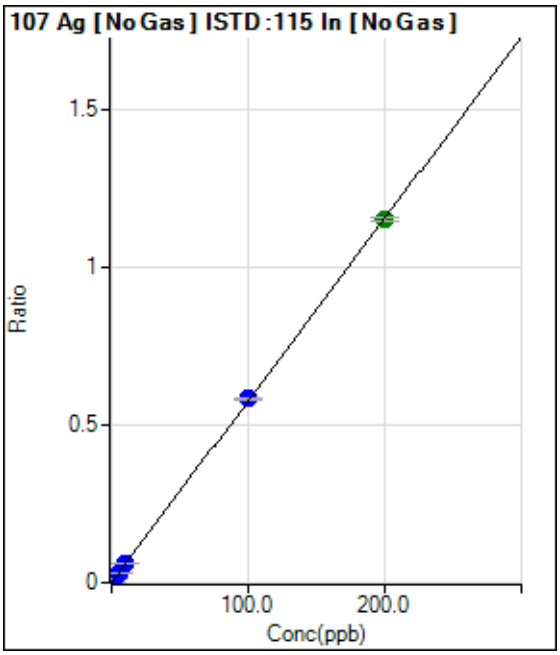


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	56.67	0.0000	P	45.5
2	☐	2.000	1.967	6251.59	0.0049	P	5.3
3	☐	5.000	4.881	15202.32	0.0121	P	2.7
4	☐	10.000	9.948	30812.70	0.0245	P	3.4
5	☐	100.000	98.107	299180.64	0.2415	P	2.1
6	☐	200.000	200.952	594867.13	0.4946	P	2.1

y = 0.0025 * x + 4.4520E-005
R = 0.9999
DL = 0.02468
BEC = 0.01809

Weight: <None>
Min Conc: <None>

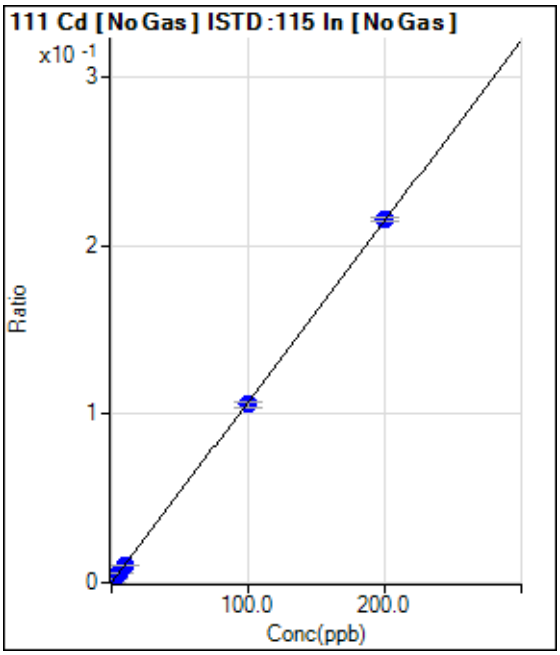
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	110.00	0.0001	P	26.2
2	☐	2.000	1.995	14855.30	0.0116	P	1.4
3	☐	5.000	5.079	37099.06	0.0294	P	0.3
4	☐	10.000	10.404	75609.29	0.0602	P	1.6
5	☐	100.000	101.153	724085.30	0.5843	P	1.1
6	☐	200.000	199.401	1385596.49	1.1518	A	1.0

y = 0.0058 * x + 8.5952E-005
R = 1.0000
DL = 0.01172
BEC = 0.01488

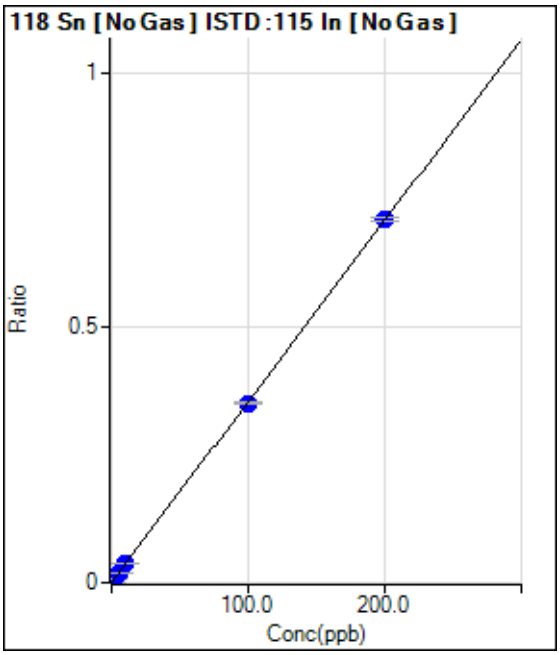
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2.85	0.0000	P	538.2
2	☐	2.000	1.870	2572.08	0.0020	P	2.6
3	☐	5.000	4.923	6666.22	0.0053	P	2.4
4	☐	10.000	9.929	13392.96	0.0107	P	1.7
5	☐	100.000	98.637	131170.54	0.1059	P	2.8
6	☐	200.000	200.688	259127.92	0.2154	P	1.1

y = 0.0011 * x + 2.3352E-006
R = 1.0000
DL = 0.03512
BEC = 0.002176

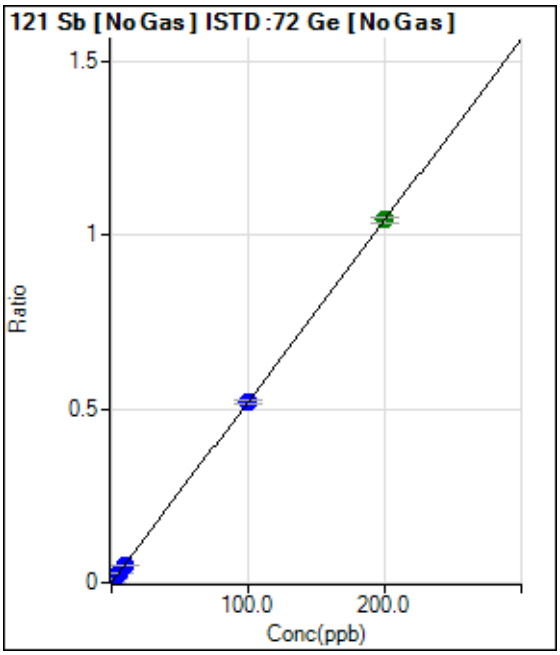
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	613.36	0.0005	P	15.8
2	☐	2.000	2.006	9717.07	0.0076	P	2.5
3	☐	5.000	4.890	22462.87	0.0178	P	2.4
4	☐	10.000	10.053	45382.01	0.0361	P	1.7
5	☐	100.000	99.135	436119.68	0.3519	P	0.9
6	☐	200.000	200.433	855362.12	0.7111	P	0.9

y = 0.0035 * x + 4.7996E-004
R = 1.0000
DL = 0.06422
BEC = 0.1354

Weight: <None>
Min Conc: <None>

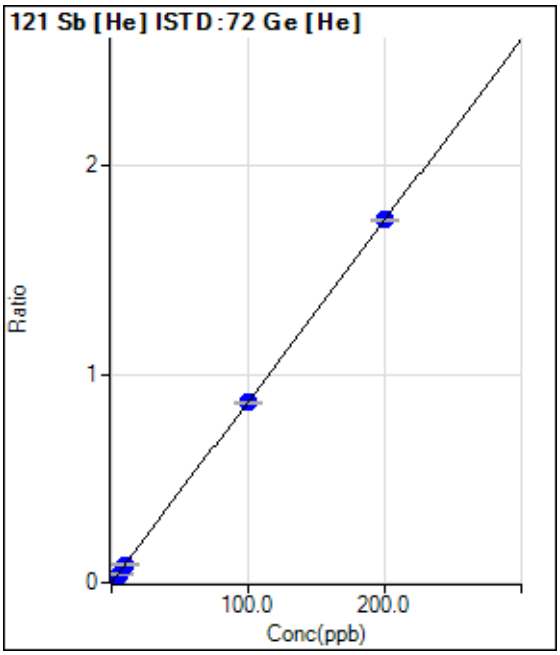


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	143.33	0.0001	P	26.4
2	☐	2.000	1.951	13256.93	0.0103	P	1.5
3	☐	5.000	4.890	32417.10	0.0256	P	2.5
4	☐	10.000	9.898	65198.50	0.0518	P	1.4
5	☐	100.000	99.409	642788.25	0.5188	P	1.9
6	☐	200.000	200.304	1259138.19	1.0452	A	1.6

y = 0.0052 * x + 1.1342E-004
R = 1.0000
DL = 0.01722
BEC = 0.02174

Weight: <None>
Min Conc: <None>

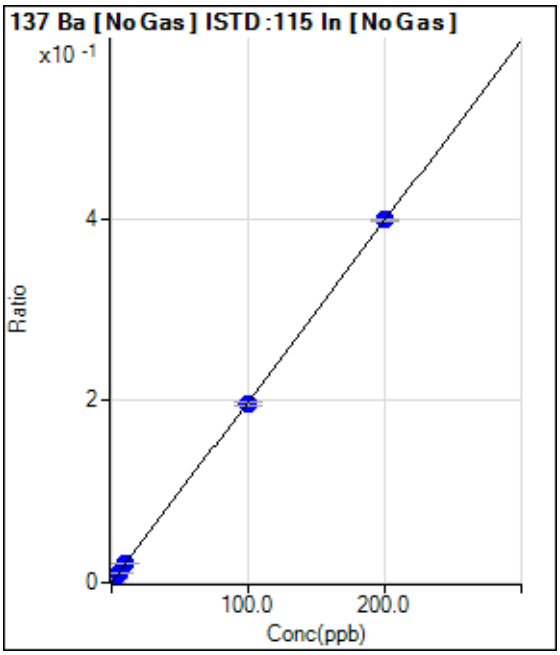
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	53.33	0.0001	P	11.6
2	☐	2.000	1.945	6721.83	0.0170	P	4.3
3	☐	5.000	4.761	16333.79	0.0415	P	3.8
4	☐	10.000	10.066	34385.52	0.0876	P	0.8
5	☐	100.000	99.353	334348.04	0.8631	P	1.4
6	☐	200.000	200.327	659478.90	1.7401	P	0.7

y = 0.0087 * x + 1.3348E-004
R = 1.0000
DL = 0.005346
BEC = 0.01537

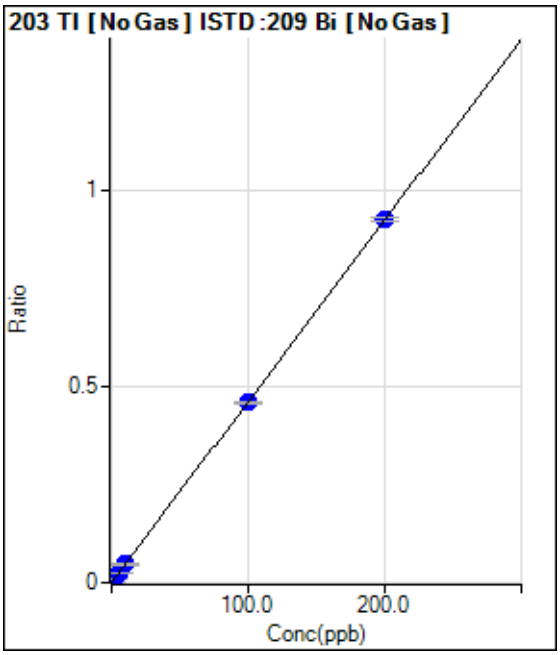
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	373.35	0.0003	P	21.5
2	☐	2.000	2.162	5868.09	0.0046	P	3.6
3	☐	5.000	5.198	13370.39	0.0106	P	3.5
4	☐	10.000	10.228	25859.44	0.0206	P	4.6
5	☐	100.000	98.827	243331.87	0.1964	P	1.5
6	☐	200.000	200.569	479170.97	0.3983	P	0.6

y = 0.0020 * x + 2.9278E-004
R = 1.0000
DL = 0.09525
BEC = 0.1476

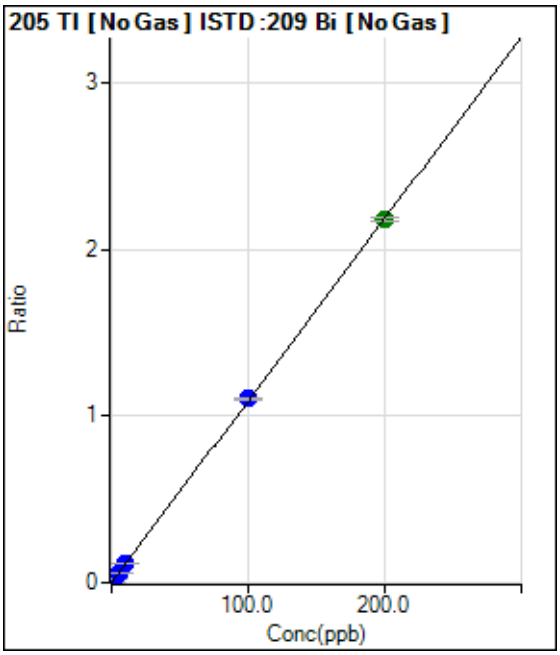
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	66.67	0.0001	P	54.7
2	☐	2.000	1.982	7899.29	0.0092	P	3.2
3	☐	5.000	5.080	20340.19	0.0236	P	2.0
4	☐	10.000	10.121	40369.02	0.0469	P	1.8
5	☐	100.000	99.305	391903.83	0.4593	P	1.1
6	☐	200.000	200.339	772128.69	0.9264	P	1.1

y = 0.0046 * x + 7.6544E-005
R = 1.0000
DL = 0.02718
BEC = 0.01655

Weight: <None>
Min Conc: <None>

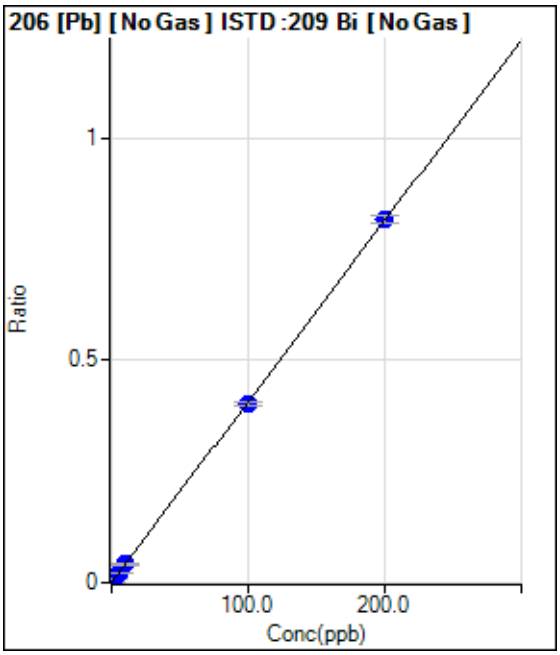


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	136.67	0.0002	P	15.9
2	☐	2.000	1.945	18290.33	0.0214	P	3.2
3	☐	5.000	5.118	48370.52	0.0560	P	2.5
4	☐	10.000	10.303	97008.82	0.1127	P	2.4
5	☐	100.000	100.984	941121.86	1.1028	P	0.8
6	☐	200.000	199.490	1815560.49	2.1785	A	1.2

y = 0.0109 * x + 1.5783E-004
R = 1.0000
DL = 0.006913
BEC = 0.01445

Weight: <None>
Min Conc: <None>

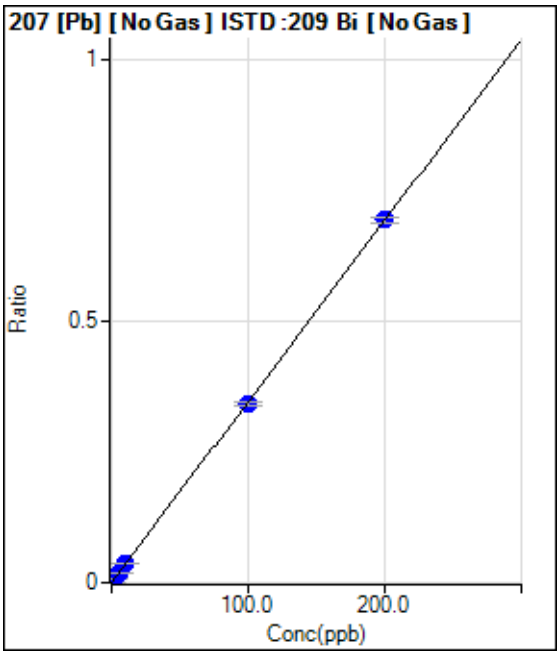
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	310.01	0.0004	P	21.2
2	☐	2.000	2.005	7272.24	0.0085	P	5.7
3	☐	5.000	4.927	17599.39	0.0204	P	3.4
4	☐	10.000	10.026	35414.15	0.0411	P	4.2
5	☐	100.000	98.827	343265.05	0.4023	P	1.4
6	☐	200.000	200.587	680167.49	0.8161	P	2.2

y = 0.0041 * x + 3.5888E-004
R = 1.0000
DL = 0.05605
BEC = 0.08824

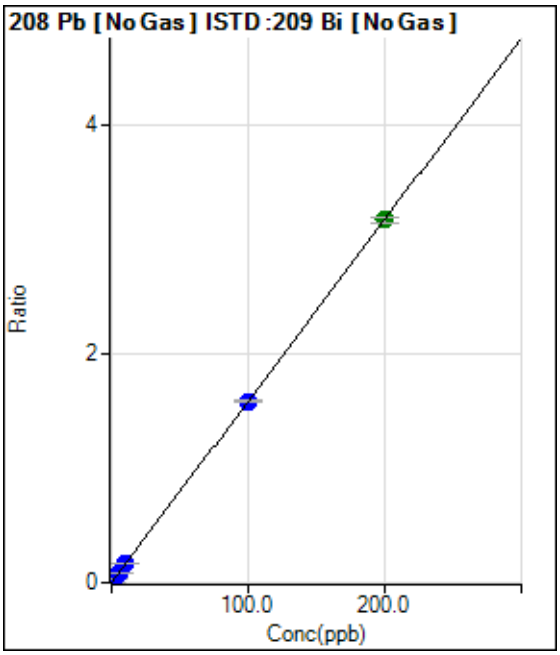
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	190.01	0.0002	P	9.1
2	☐	2.000	1.995	6094.95	0.0071	P	1.7
3	☐	5.000	4.931	14925.89	0.0173	P	3.0
4	☐	10.000	10.263	30791.68	0.0358	P	1.9
5	☐	100.000	99.122	293043.12	0.3434	P	1.9
6	☐	200.000	200.428	578553.12	0.6942	P	1.4

y = 0.0035 * x + 2.1950E-004
R = 1.0000
DL = 0.01727
BEC = 0.06339

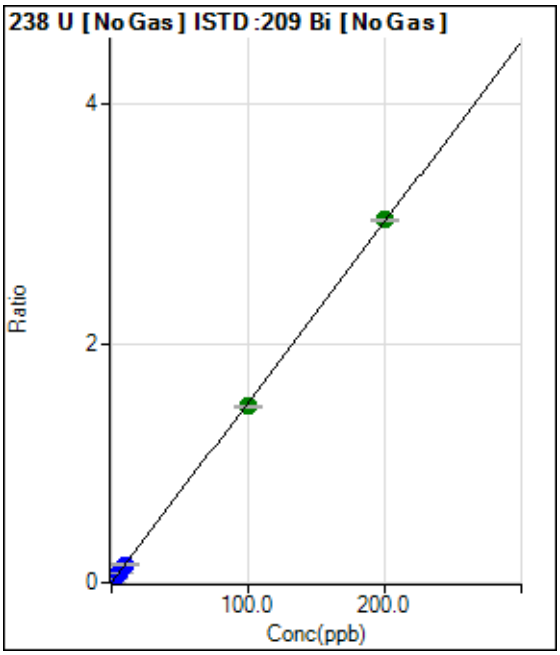
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	970.04	0.0011	P	4.8
2	☐	2.000	1.999	28062.76	0.0328	P	1.0
3	☐	5.000	5.018	69670.99	0.0807	P	1.7
4	☐	10.000	10.281	141402.85	0.1642	P	2.1
5	☐	100.000	100.014	1354714.46	1.5876	P	1.5
6	☐	200.000	199.979	2644668.19	3.1733	A	1.7

y = 0.0159 * x + 0.0011
R = 1.0000
DL = 0.01025
BEC = 0.07067

Weight: <None>
Min Conc: <None>

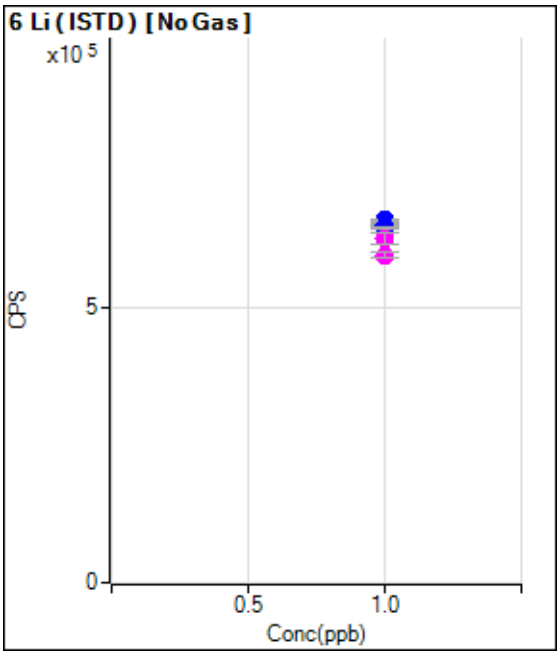


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	20.00	0.0000	P	50.8
2	☐	2.000	1.985	25627.28	0.0300	P	0.4
3	☐	5.000	4.955	64546.65	0.0748	P	3.7
4	☐	10.000	10.088	131129.92	0.1523	P	1.8
5	☐	100.000	97.638	1257475.45	1.4736	A	1.6
6	☐	200.000	201.178	2530505.22	3.0363	A	0.6

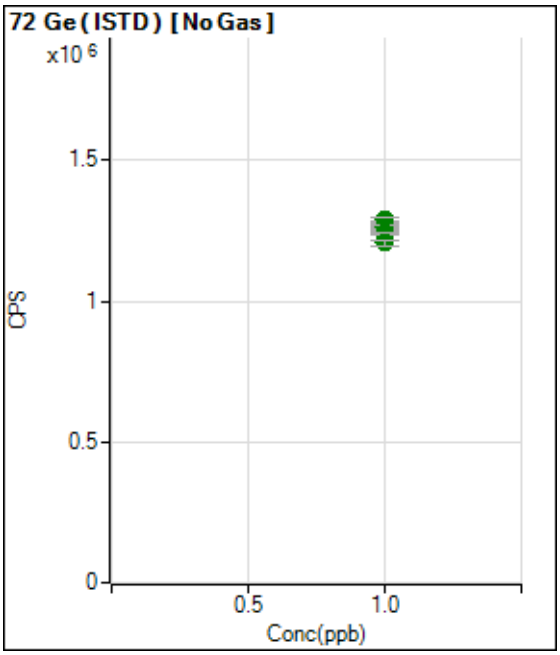
y = 0.0151 * x + 2.3150E-005
R = 0.9999
DL = 0.002338
BEC = 0.001534

Weight: <None>
Min Conc: <None>

Calibration for 031_ICV.d

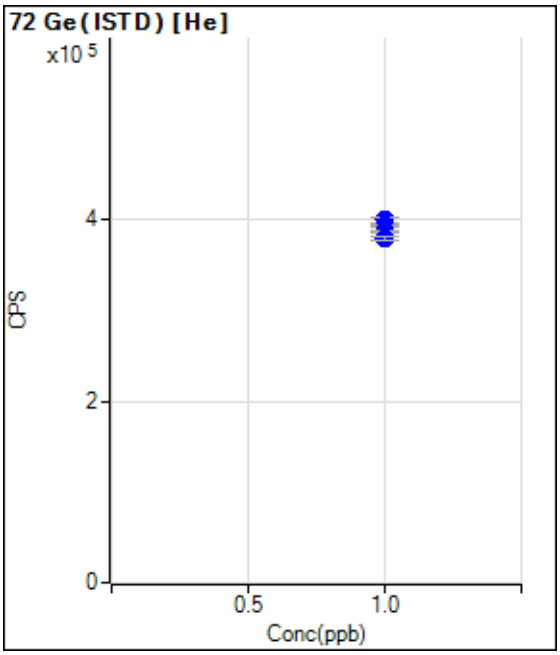


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		660437.16		P	0.6
2	☐	1.000		652226.81		P	0.4
3	☐	1.000		652594.64		P	1.3
4	☐	1.000		646298.60		P	0.7
5	☐	1.000		626127.04		M	3.0
6	☐	1.000		595553.16		M	1.8

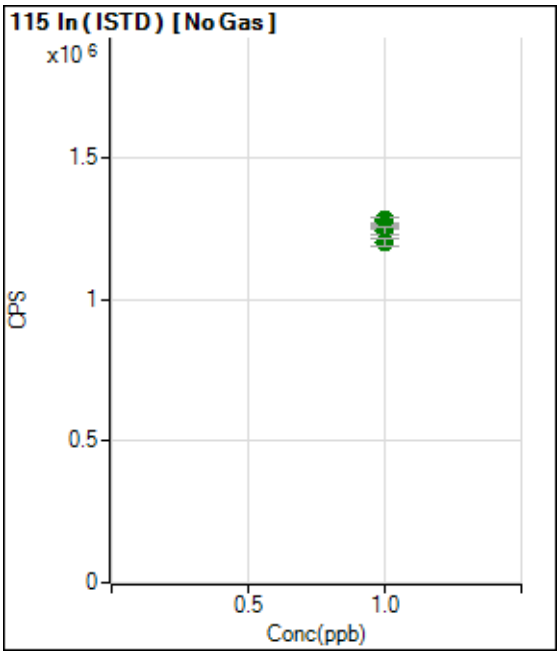


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1268210.66		A	2.1
2	☐	1.000		1287959.96		A	1.7
3	☐	1.000		1265111.85		A	0.5
4	☐	1.000		1259879.25		A	1.2
5	☐	1.000		1239239.41		A	1.0
6	☐	1.000		1204969.15		A	2.2

Calibration for 031_ICV.d

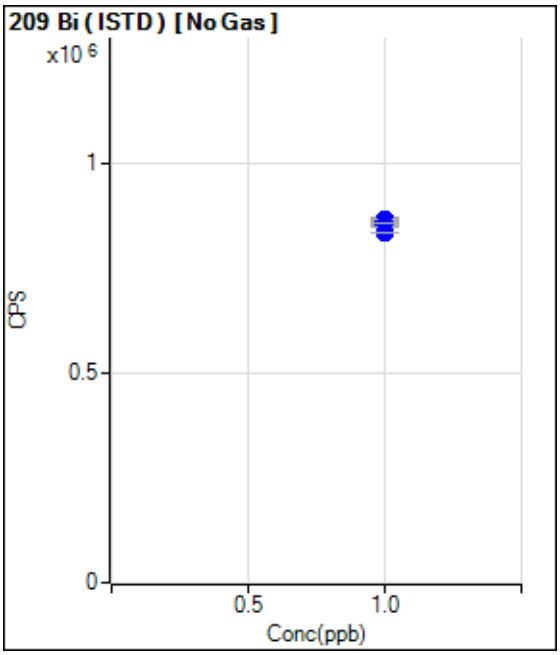


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		399803.20		P	1.6
2	☐	1.000		394813.76		P	1.2
3	☐	1.000		393686.75		P	0.7
4	☐	1.000		392710.28		P	0.5
5	☐	1.000		387407.92		P	0.7
6	☐	1.000		379008.11		P	1.3



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1277170.56		A	1.3
2	☐	1.000		1280079.52		A	1.5
3	☐	1.000		1261000.86		A	1.7
4	☐	1.000		1256559.63		A	1.2
5	☐	1.000		1239303.70		A	2.3
6	☐	1.000		1203081.79		A	2.1

Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		864957.67		P	1.9
2	☐	1.000		854930.95		P	1.8
3	☐	1.000		863335.01		P	2.1
4	☐	1.000		861297.38		P	1.4
5	☐	1.000		853377.41		P	0.8
6	☐	1.000		833427.80		P	0.2

Calibration Blank Report

Sample Table

Sample Name	CAL BLK
Data File Name	024CALB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\031523A.b
Acq Date Time	2023-03-15T11:58:35-05:00
Sample Type	CalBlk
Level	1
Dilution	1
Comment	

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	7	1	No Gas	40321	0.00
Be	9	1	No Gas	17	103.92
V	51	2	He	3585	0.10
Cr	52	2	He	12206	0.04
Fe	56	2	He	13717	0.01
Se	78	2	He	226	4.13
As	75	2	He	214	4.66
Ca	44	2	He	640	1.60
Na	23	2	He	27561	0.01
Mg	24	2	He	750	1.71
K	39	2	He	107768	0.00
Mn	55	2	He	607	2.04
Co	59	2	He	87	46.76
Ni	60	2	He	233	10.60
Cu	63	2	He	1250	0.42
Zn	66	2	He	813	1.53
Al	27	2	He	707	2.14
B	11	1	No Gas	6106	0.04
Al	27	1	No Gas	21197	0.02
Si	28	1	No Gas	440379	0.00
Ag	107	1	No Gas	110	24.79
Cd	111	1	No Gas	3	19648.29
Sr	88	1	No Gas	520	2.67
Mo	95	1	No Gas	57	78.37
Sn	118	1	No Gas	613	2.69
Sb	121	1	No Gas	143	17.09
Ba	137	1	No Gas	373	5.48
Tl	205	1	No Gas	137	12.36
Tl	203	1	No Gas	67	85.18
Pb	208	1	No Gas	970	0.64
U	238	1	No Gas	20	250.00
Ca	43	2	He	13	649.52
Sb	121	2	He	53	20.30
Ti	47	2	He	10	0.00
Cu	63	1	No Gas	2944	0.32

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD

Calibration Blank Report

Li	6	1	No Gas	660437	0.63
Ge	72	2	He	399803	1.57
Ge	72	1	No Gas	1268211	2.05
In	115	1	No Gas	1277171	1.34

Calibration Blank Report

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Bi	209	1	No Gas	864958	1.90

Calibration Standard Report

Sample Table

Sample Name	2/10/200
Data File Name	025CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\031523A.b
Acq Date Time	2023-03-15T12:00:35-05:00
Sample Type	CalStd
Level	2
Dilution	1
Comment	
ISTD Ref File Name	024CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	4968	0.09
V	51	2	He	10959	0.04
Cr	52	2	He	20446	0.01
Fe	56	2	He	719490	0.00
Se	78	2	He	338	0.80
As	75	2	He	1443	0.22
Ca	44	2	He	6318	0.11
Na	23	2	He	166920	0.00
Mg	24	2	He	86333	0.00
K	39	2	He	229272	0.00
Mn	55	2	He	6795	0.10
Co	59	2	He	10154	0.03
Ni	60	2	He	2904	0.09
Cu	63	2	He	7405	0.07
Zn	66	2	He	2304	0.27
Al	27	2	He	1390	1.09
B	11	1	No Gas	18339	0.02
Al	27	1	No Gas	39700	0.01
Si	28	1	No Gas	505955	0.00
Ag	107	1	No Gas	14855	0.01
Cd	111	1	No Gas	2572	0.04
Sr	88	1	No Gas	34789	0.00
Mo	95	1	No Gas	6252	0.06
Sn	118	1	No Gas	9717	0.02
Sb	121	1	No Gas	13257	0.02
Ba	137	1	No Gas	5868	0.08
Tl	205	1	No Gas	18290	0.01
Tl	203	1	No Gas	7899	0.03
Pb	208	1	No Gas	28063	0.00
U	238	1	No Gas	25627	0.01
Ca	43	2	He	317	3.50
Sb	121	2	He	6722	0.05
Cu	63	1	No Gas	16020	0.01

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	652227	0.37	660437	98.76	70	120	
Ge	72	2	He	394814	1.18	399803	98.75	70	120	
Ge	72	1	No Gas	1287960	1.75	1268211	101.56	70	120	

Calibration Standard Report

In	115	1	No Gas	1280080	1.50	1277171	100.23	70	120	
Bi	209	1	No Gas	854931	1.76	864958	98.84	70	120	

Calibration Standard Report

Sample Table

Sample Name	5/25/500
Data File Name	026CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\031523A.b
Acq Date Time	2023-03-15T12:02:34-05:00
Sample Type	CalStd
Level	3
Dilution	1
Comment	
ISTD Ref File Name	024CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	12629	0.03
V	51	2	He	21717	0.01
Cr	52	2	He	32188	0.01
Fe	56	2	He	1731768	0.00
Se	78	2	He	508	0.43
As	75	2	He	3369	0.08
Ca	44	2	He	14575	0.01
Na	23	2	He	379977	0.00
Mg	24	2	He	211252	0.00
K	39	2	He	411953	0.00
Mn	55	2	He	15733	0.03
Co	59	2	He	26095	0.01
Ni	60	2	He	6598	0.08
Cu	63	2	He	17375	0.01
Zn	66	2	He	4224	0.18
Al	27	2	He	2014	0.09
B	11	1	No Gas	36773	0.00
Al	27	1	No Gas	75072	0.01
Si	28	1	No Gas	569400	0.00
Ag	107	1	No Gas	37099	0.00
Cd	111	1	No Gas	6666	0.04
Sr	88	1	No Gas	87569	0.00
Mo	95	1	No Gas	15202	0.02
Sn	118	1	No Gas	22463	0.01
Sb	121	1	No Gas	32417	0.01
Ba	137	1	No Gas	13370	0.01
Tl	205	1	No Gas	48371	0.00
Tl	203	1	No Gas	20340	0.01
Pb	208	1	No Gas	69671	0.00
U	238	1	No Gas	64547	0.00
Ca	43	2	He	860	3.25
Sb	121	2	He	16334	0.02
Cu	63	1	No Gas	36045	0.00

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	652595	1.34	660437	98.81	70	120	
Ge	72	2	He	393687	0.69	399803	98.47	70	120	
Ge	72	1	No Gas	1265112	0.53	1268211	99.76	70	120	

Calibration Standard Report

In	115	1	No Gas	1261001	1.66	1277171	98.73	70	120	
Bi	209	1	No Gas	863335	2.08	864958	99.81	70	120	

Calibration Standard Report

Sample Table

Sample Name	10/50/100
Data File Name	027CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\031523A.b
Acq Date Time	2023-03-15T12:04:33-05:00
Sample Type	CalStd
Level	4
Dilution	1
Comment	
ISTD Ref File Name	024CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	25158	0.00
V	51	2	He	40000	0.00
Cr	52	2	He	52832	0.00
Fe	56	2	He	3405486	0.00
Se	78	2	He	877	0.65
As	75	2	He	6863	0.02
Ca	44	2	He	28547	0.00
Na	23	2	He	726705	0.00
Mg	24	2	He	425904	0.00
K	39	2	He	719688	0.00
Mn	55	2	He	31076	0.00
Co	59	2	He	50976	0.00
Ni	60	2	He	13207	0.03
Cu	63	2	He	35109	0.01
Zn	66	2	He	7519	0.05
Al	27	2	He	3447	0.13
B	11	1	No Gas	67955	0.00
Al	27	1	No Gas	114822	0.00
Si	28	1	No Gas	692660	0.00
Ag	107	1	No Gas	75609	0.00
Cd	111	1	No Gas	13393	0.01
Sr	88	1	No Gas	171978	0.00
Mo	95	1	No Gas	30813	0.01
Sn	118	1	No Gas	45382	0.00
Sb	121	1	No Gas	65198	0.00
Ba	137	1	No Gas	25859	0.01
Tl	205	1	No Gas	97009	0.00
Tl	203	1	No Gas	40369	0.00
Pb	208	1	No Gas	141403	0.00
U	238	1	No Gas	131130	0.00
Ca	43	2	He	1797	0.45
Sb	121	2	He	34386	0.00
Cu	63	1	No Gas	73747	0.00

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	646299	0.68	660437	97.86	70	120	
Ge	72	2	He	392710	0.50	399803	98.23	70	120	
Ge	72	1	No Gas	1259879	1.16	1268211	99.34	70	120	

Calibration Standard Report

In	115	1	No Gas	1256560	1.24	1277171	98.39	70	120	
Bi	209	1	No Gas	861297	1.39	864958	99.58	70	120	

Calibration Standard Report

Sample Table

Sample Name	100/500/10K
Data File Name	028CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\031523A.b
Acq Date Time	2023-03-15T12:06:32-05:00
Sample Type	CalStd
Level	5
Dilution	1
Comment	
ISTD Ref File Name	024CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	246222	0.00
V	51	2	He	351953	0.00
Cr	52	2	He	386982	0.00
Fe	56	2	He	32410837	0.00
Se	78	2	He	6077	0.02
As	75	2	He	63136	0.00
Ca	44	2	He	269143	0.00
Na	23	2	He	6292377	0.00
Mg	24	2	He	3803597	0.00
K	39	2	He	5659508	0.00
Mn	55	2	He	296074	0.00
Co	59	2	He	482356	0.00
Ni	60	2	He	118371	0.00
Cu	63	2	He	301775	0.00
Zn	66	2	He	65337	0.00
Al	27	2	He	26666	0.01
B	11	1	No Gas	609492	0.00
Al	27	1	No Gas	967334	0.00
Si	28	1	No Gas	2905485	0.00
Ag	107	1	No Gas	724085	0.00
Cd	111	1	No Gas	131171	0.00
Sr	88	1	No Gas	1605213	0.00
Mo	95	1	No Gas	299181	0.00
Sn	118	1	No Gas	436120	0.00
Sb	121	1	No Gas	642788	0.00
Ba	137	1	No Gas	243332	0.00
Tl	205	1	No Gas	941122	0.00
Tl	203	1	No Gas	391904	0.00
Pb	208	1	No Gas	1354714	0.00
U	238	1	No Gas	1257475	0.00
Ca	43	2	He	15629	0.01
Sb	121	2	He	334348	0.00
Cu	63	1	No Gas	631844	0.00

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	626127	2.96	660437	94.80	70	120	
Ge	72	2	He	387408	0.71	399803	96.90	70	120	
Ge	72	1	No Gas	1239239	0.99	1268211	97.72	70	120	

Calibration Standard Report

In	115	1	No Gas	1239304	2.26	1277171	97.04	70	120	
Bi	209	1	No Gas	853377	0.83	864958	98.66	70	120	

Calibration Standard Report

Sample Table

Sample Name	200/1000/20K
Data File Name	029CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\031523A.b
Acq Date Time	2023-03-15T12:08:29-05:00
Sample Type	CalStd
Level	6
Dilution	1
Comment	
ISTD Ref File Name	024CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	484232	0.00
V	51	2	He	686541	0.00
Cr	52	2	He	741165	0.00
Fe	56	2	He	62937791	0.00
Se	78	2	He	11493	0.01
As	75	2	He	123582	0.00
Ca	44	2	He	526935	0.00
Na	23	2	He	12277976	0.00
Mg	24	2	He	7282762	0.00
K	39	2	He	10870934	0.00
Mn	55	2	He	570805	0.00
Co	59	2	He	937985	0.00
Ni	60	2	He	229588	0.00
Cu	63	2	He	578557	0.00
Zn	66	2	He	127872	0.00
Al	27	2	He	51586	0.00
B	11	1	No Gas	1222636	0.00
Al	27	1	No Gas	1809604	0.00
Si	28	1	No Gas	5097516	0.00
Ag	107	1	No Gas	1385596	0.00
Cd	111	1	No Gas	259128	0.00
Sr	88	1	No Gas	3154269	0.00
Mo	95	1	No Gas	594867	0.00
Sn	118	1	No Gas	855362	0.00
Sb	121	1	No Gas	1259138	0.00
Ba	137	1	No Gas	479171	0.00
Tl	205	1	No Gas	1815560	0.00
Tl	203	1	No Gas	772129	0.00
Pb	208	1	No Gas	2644668	0.00
U	238	1	No Gas	2530505	0.00
Ca	43	2	He	31072	0.01
Sb	121	2	He	659479	0.00
Cu	63	1	No Gas	1209372	0.00

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	595553	1.75	660437	90.18	70	120	
Ge	72	2	He	379008	1.29	399803	94.80	70	120	
Ge	72	1	No Gas	1204969	2.25	1268211	95.01	70	120	

Calibration Standard Report

In	115	1	No Gas	1203082	2.11	1277171	94.20	70	120	
Bi	209	1	No Gas	833428	0.18	864958	96.35	70	120	

Initial Calibration Verification (ICV) Report

Sample Table

Sample Name	ICV
Data File Name	031_ICV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\031523A.b
Acq Date Time	2023-03-15T12:12:38-05:00
Sample Type	ICV
Dilution	1
Comment	
ISTD Ref File Name	024CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	1	No Gas	97.070	1.026	891427	1.51	100	97.1	90	110	
Be	9	1	No Gas	96.644	1.010	245691	0.49	100	96.6	90	110	
V	51	2	He	98.275	0.354	350263	0.58	100	98.3	90	110	
Cr	52	2	He	98.067	0.994	382152	1.17	100	98.1	90	110	
Fe	56	2	He	9938.518	1.616	32374875	1.52	10000	99.4	90	110	
Se	78	2	He	98.458	1.699	5978	1.28	100	98.5	90	110	
As	75	2	He	102.239	1.070	65358	0.28	100	102.2	90	110	
Ca	44	2	He	9882.987	0.642	269279	0.46	10000	98.8	90	110	
Na	23	2	He	10123.708	1.785	6437066	0.87	10000	101.2	90	110	
Mg	24	2	He	10112.359	0.718	3823214	0.19	10000	101.1	90	110	
K	39	2	He	10186.040	2.611	5783886	1.73	10000	101.9	90	110	
Mn	55	2	He	100.403	1.652	297211	0.96	100	100.4	90	110	
Co	59	2	He	100.180	1.527	486184	1.12	100	100.2	90	110	
Ni	60	2	He	101.171	0.985	120331	0.19	100	101.2	90	110	
Cu	63	2	He	101.923	2.138	306483	2.22	100	101.9	90	110	
Zn	66	2	He	101.836	1.002	67585	0.82	100	101.8	90	110	
Al	27	2	He	102.098	2.156	27544	2.02	100	102.1	90	110	
B	11	1	No Gas	476.172	1.085	611529	1.81	500	95.2	90	110	
Al	27	1	No Gas	101.203	5.586	955682	2.41	100	101.2	90	110	
Si	28	1	No Gas	506.051	4.493	2876074	1.50	500	101.2	90	110	
Ag	107	1	No Gas	99.877	1.206	717208	1.20	100	99.9	90	110	
Cd	111	1	No Gas	98.329	0.567	131204	1.35	100	98.3	90	110	
Sr	88	1	No Gas	97.252	0.839	1581789	1.14	100	97.3	90	110	
Mo	95	1	No Gas	95.857	1.830	293261	0.46	100	95.9	90	110	
Sn	118	1	No Gas	97.681	0.688	431067	0.85	100	97.7	90	110	
Sb	121	1	No Gas	100.505	2.564	649031	0.60	100	100.5	90	110	
Ba	137	1	No Gas	99.376	1.945	245452	1.00	100	99.4	90	110	
Tl	205	1	No Gas	104.707	0.977	972200	0.70	100	104.7	90	110	
Tl	203	1	No Gas	102.531	0.697	403154	0.58	100	102.5	90	110	
Pb	208	1	No Gas	100.232	0.822	1352727	0.51	100	100.2	90	110	
U	238	1	No Gas	98.905	1.034	1269109	0.50	100	98.9	90	110	
Ca	43	2	He	9718.291	2.075	15559	2.30	10000	97.2	90	110	
Sb	121	2	He	101.436	0.940	345075	1.05	100	101.4	90	110	
Ti	47	2	He	100.685	1.677	14855	2.34	100	100.7	90	110	
Cu	63	1	No Gas	102.197	2.217	638097	0.98	100	102.2	90	110	
Se	82	1	No Gas	99.555	5.300	10326	2.27	100	99.6	90	110	

QC ISTD Table

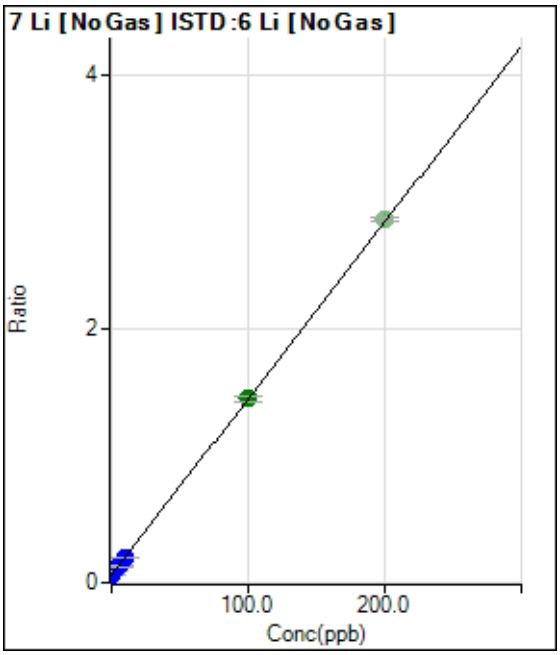
Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	629432	1.28	660437	95.31	70	120	
Ge	72	2	He	391616	0.90	399803	97.95	70	120	
Ge	72	1	No Gas	1238149	3.17	1268211	97.63	70	120	
In	115	1	No Gas	1243129	1.53	1277171	97.33	70	120	
Bi	209	1	No Gas	850242	0.91	864958	98.30	70	120	

Calibration for 031_ICV.d

Batch Folder: C:\Agilent\ICPMH\1\DATA\031523A.b\
Analysis File: 031523A.batch.bin
DA Date-Time: 3/15/2023 12:19:21 PM
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	024CALB.d	CAL BLK	3/15/2023 11:58:35 AM
2	025CALS.d	2/10/200	3/15/2023 12:00:35 PM
3	026CALS.d	5/25/500	3/15/2023 12:02:34 PM
4	027CALS.d	10/50/100	3/15/2023 12:04:33 PM
5	028CALS.d	100/500/10K	3/15/2023 12:06:32 PM
6	029CALS.d	200/1000/20K	3/15/2023 12:08:29 PM

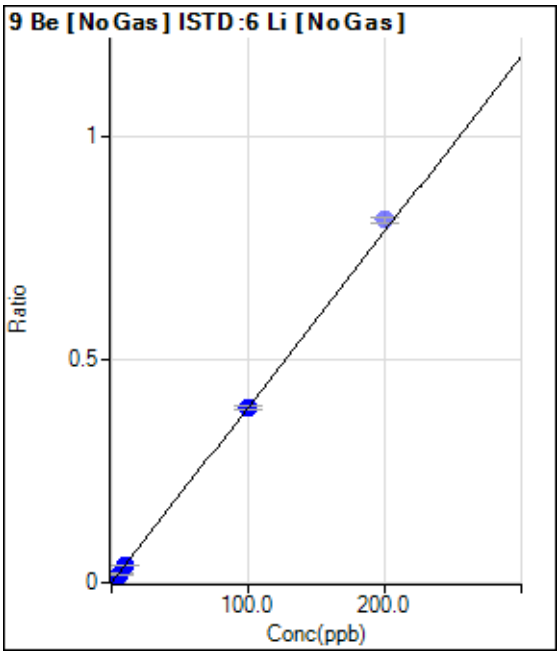
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	40320.95	0.0611	P	0.9
2	☐	2.000	2.047	58355.33	0.0895	P	1.8
3	☐	5.000	4.928	84465.06	0.1294	P	1.5
4	☐	10.000	9.864	127935.19	0.1980	P	0.4
5	☐	100.000	100.016	906816.37	1.4492	A	3.2
6	☑	200.000		1701567.01	2.8574	A	0.9

y = 0.0139 * x + 0.0611
R = 1.0000
DL = 0.1212
BEC = 4.399

Weight: <None>
Min Conc: <None>

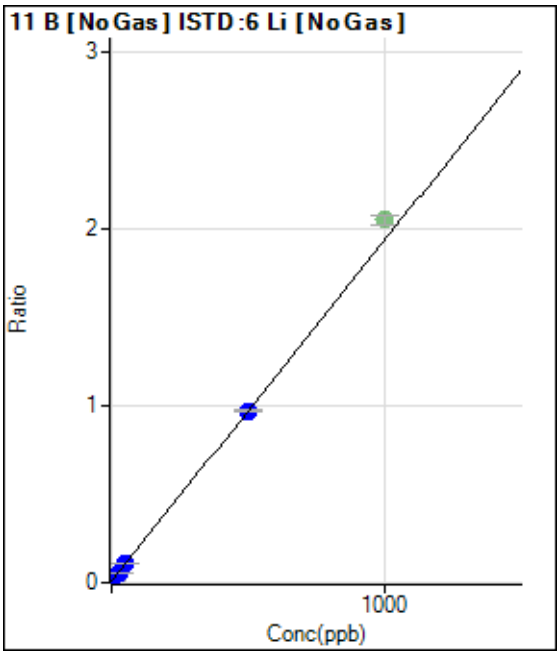


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16.67	0.0000	P	18.0
2	☐	2.000	1.930	4967.58	0.0076	P	4.0
3	☐	5.000	4.917	12629.06	0.0194	P	5.6
4	☐	10.000	9.892	25157.54	0.0389	P	1.5
5	☐	100.000	100.016	246221.56	0.3934	P	2.0
6	☑	200.000		484231.77	0.8132	P	1.8

y = 0.0039 * x + 2.5254E-005
R = 1.0000
DL = 0.00346
BEC = 0.006421

Weight: <None>
Min Conc: <None>

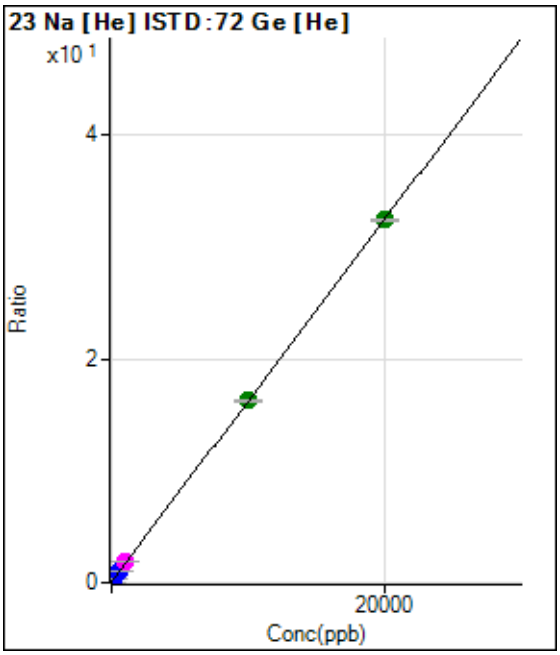
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6106.37	0.0092	P	2.2
2	☐	10.000	9.785	18338.72	0.0281	P	3.2
3	☐	25.000	24.432	36773.16	0.0564	P	3.0
4	☐	50.000	49.731	67955.18	0.1052	P	1.4
5	☐	500.000	500.060	609491.51	0.9736	P	1.7
6	☑	1000.000		1222636.34	2.0535	A	2.6

y = 0.0019 * x + 0.0092
R = 1.0000
DL = 0.3106
BEC = 4.794

Weight: <None>
Min Conc: <None>

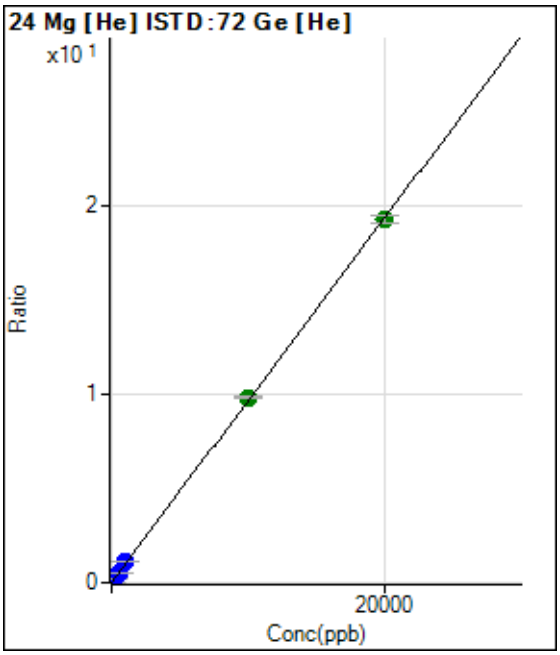


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	27560.91	0.0689	P	1.6
2	☐	200.000	218.861	166919.60	0.4228	P	1.8
3	☐	500.000	554.280	379976.73	0.9652	P	1.1
4	☐	1000.000	1101.736	726704.99	1.8504	M	0.8
5	☐	10000.00	10002.29	6292377.41	16.2426	A	0.9
6	☐	20000.00	19992.22	12277975.6	32.3963	A	0.5

y = 0.0016 * x + 0.0689
R = 1.0000
DL = 2.109
BEC = 42.63

Weight: <None>
Min Conc: <None>

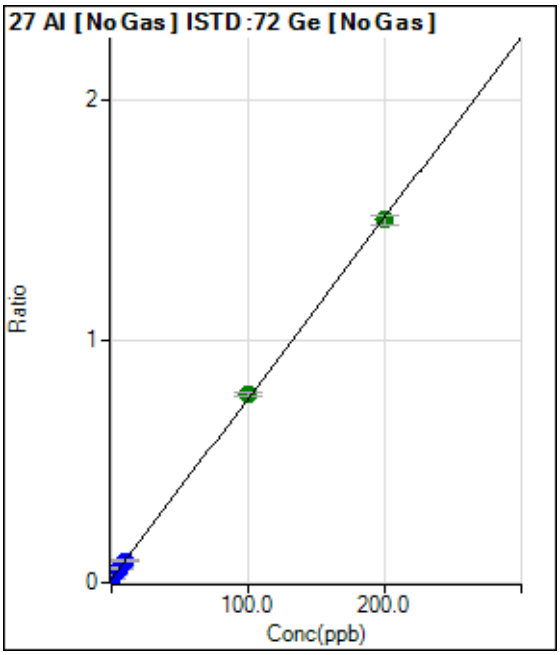
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	750.04	0.0019	P	14.2
2	☐	200.000	224.612	86332.98	0.2187	P	1.4
3	☐	500.000	553.965	211252.21	0.5366	P	1.0
4	☐	1000.000	1121.641	425904.50	1.0846	P	1.2
5	☐	10000.00	10169.42	3803597.24	9.8182	A	0.4
6	☐	20000.00	19907.61	7282762.39	19.2182	A	1.9

y = 9.6527E-004 * x + 0.0019
R = 0.9999
DL = 0.8318
BEC = 1.946

Weight: <None>
Min Conc: <None>

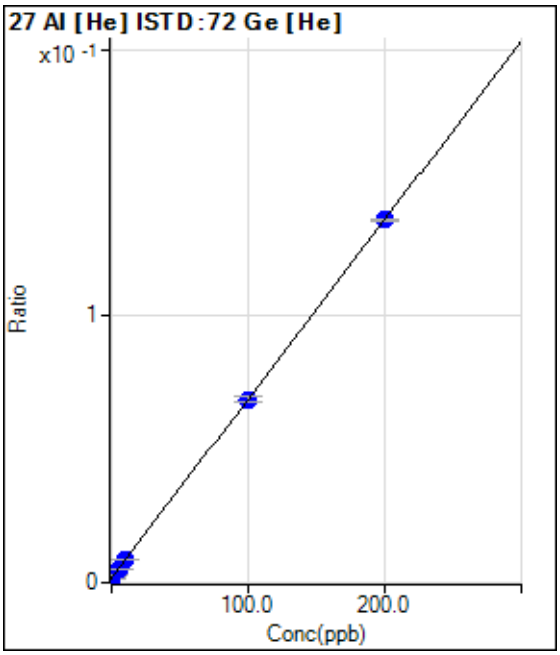


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	21196.56	0.0167	P	5.1
2	☐	2.000	1.888	39700.37	0.0308	P	1.2
3	☐	5.000	5.707	75072.11	0.0594	P	10.4
4	☐	10.000	9.964	114821.86	0.0912	P	3.0
5	☐	100.000	102.259	967334.44	0.7806	A	2.4
6	☐	200.000	198.856	1809603.78	1.5023	A	2.3

y = 0.0075 * x + 0.0167
R = 0.9999
DL = 0.3409
BEC = 2.238

Weight: <None>
Min Conc: <None>

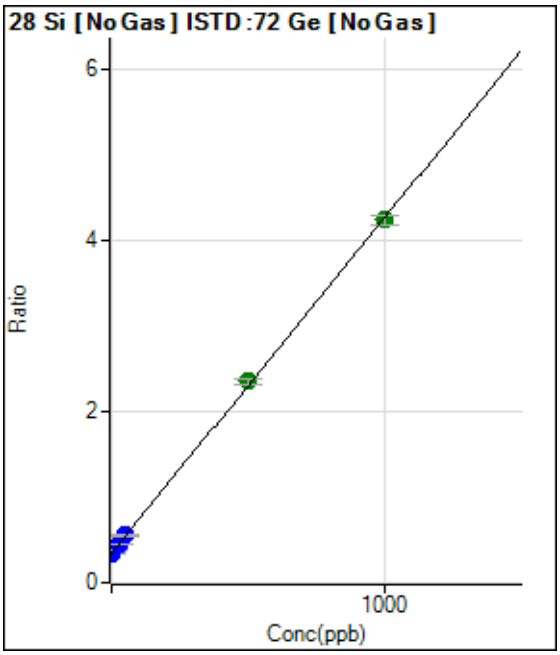
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	706.70	0.0018	P	16.5
2	☐	2.000	2.612	1390.09	0.0035	P	16.3
3	☐	5.000	4.980	2013.51	0.0051	P	2.3
4	☐	10.000	10.432	3447.17	0.0088	P	4.0
5	☐	100.000	99.864	26665.80	0.0688	P	2.9
6	☐	200.000	200.041	51585.76	0.1361	P	0.8

y = 6.7159E-004 * x + 0.0018
R = 1.0000
DL = 1.307
BEC = 2.636

Weight: <None>
Min Conc: <None>

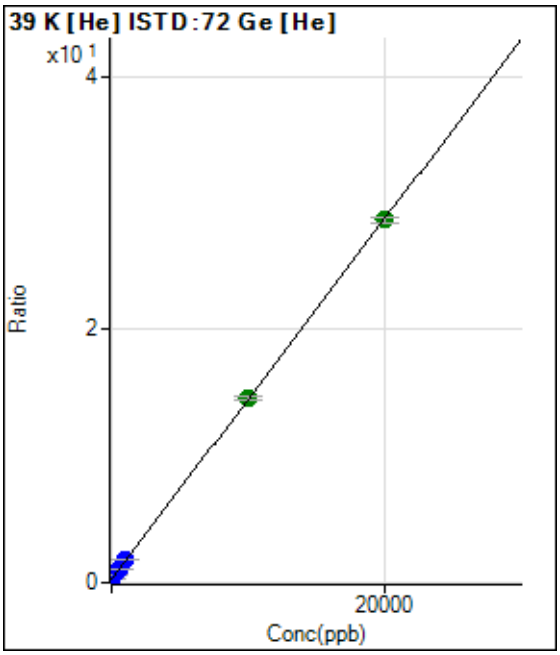


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	440379.29	0.3473	P	2.1
2	☐	10.000	11.678	505955.01	0.3930	P	4.8
3	☐	25.000	26.297	569399.86	0.4501	P	0.6
4	☐	50.000	51.827	692660.07	0.5498	P	1.2
5	☐	500.000	511.290	2905484.75	2.3451	A	3.3
6	☐	1000.000	994.214	5097516.38	4.2320	A	2.5

y = 0.0039 * x + 0.3473
R = 0.9999
DL = 5.615
BEC = 88.9

Weight: <None>
Min Conc: <None>

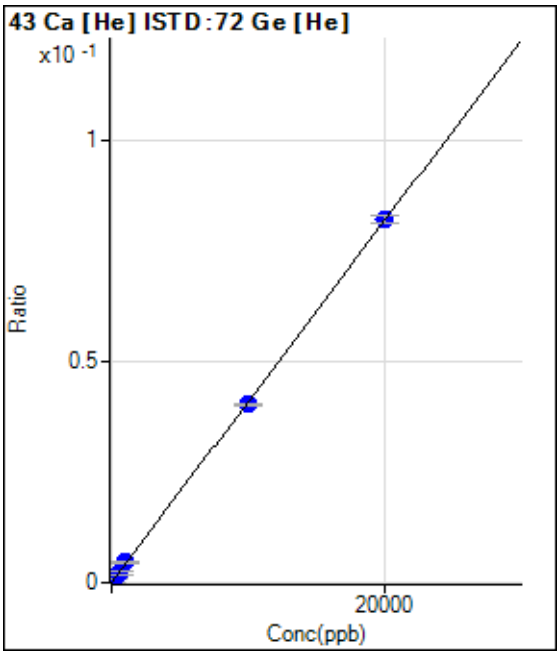
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	107767.92	0.2696	P	2.2
2	☐	200.000	218.563	229272.42	0.5808	P	1.6
3	☐	500.000	545.595	411953.07	1.0464	P	0.6
4	☐	1000.000	1097.878	719688.11	1.8327	P	0.7
5	☐	10000.00	10072.58	5659508.04	14.6099	A	2.2
6	☐	20000.00	19957.49	10870933.5	28.6830	A	1.4

y = 0.0014 * x + 0.2696
R = 1.0000
DL = 12.71
BEC = 189.4

Weight: <None>
Min Conc: <None>

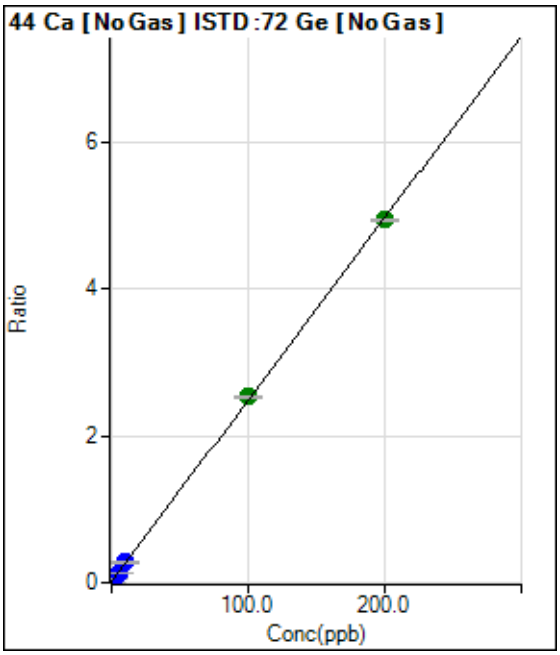


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	13.33	0.0000	P	86.6
2	☐	200.000	188.284	316.68	0.0008	P	12.1
3	☐	500.000	526.607	860.05	0.0022	P	27.9
4	☐	1000.000	1111.806	1796.81	0.0046	P	7.9
5	☐	10000.00	9868.496	15629.21	0.0403	P	1.0
6	☐	20000.00	20059.61	31072.07	0.0820	P	2.1

y = 4.0847E-006 * x + 3.3654E-005
R = 0.9999
DL = 21.41
BEC = 8.239

Weight: <None>
Min Conc: <None>

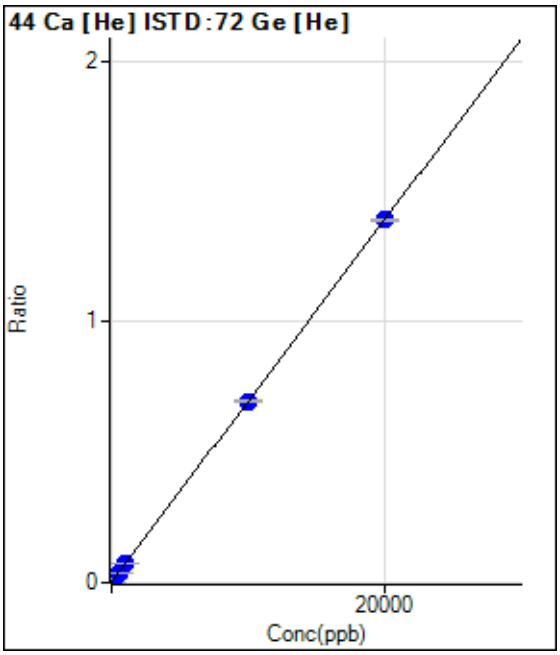
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16213.12	0.0128	P	3.7
2	☐	2.000	2.090	83177.26	0.0646	P	0.8
3	☐	5.000	5.234	180279.88	0.1425	P	2.2
4	☐	10.000	10.633	348096.18	0.2763	P	1.4
5	☐	100.000	101.693	3138881.52	2.5332	A	1.8
6	☐	200.000	199.115	5961550.95	4.9477	A	0.4

y = 0.0248 * x + 0.0128
R = 0.9999
DL = 0.05705
BEC = 0.516

Weight: <None>
Min Conc: <None>

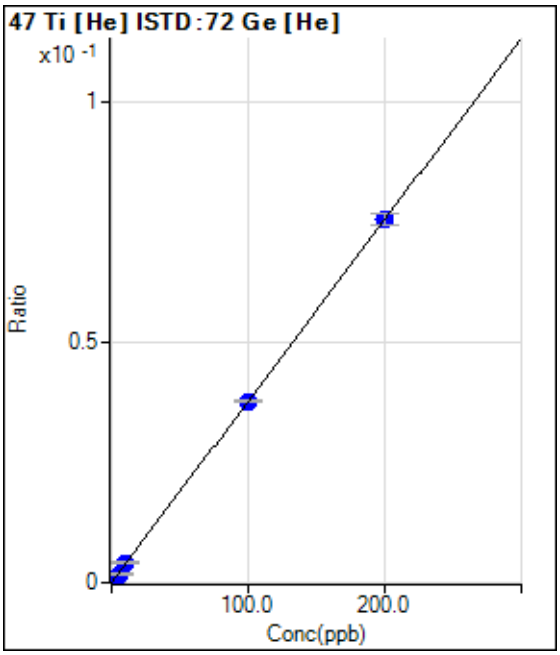


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	640.03	0.0016	P	11.6
2	☐	200.000	207.547	6318.24	0.0160	P	7.5
3	☐	500.000	510.233	14574.60	0.0370	P	0.3
4	☐	1000.000	1024.138	28546.54	0.0727	P	1.1
5	☐	10000.00	9985.707	269142.67	0.6948	P	1.4
6	☐	20000.00	20005.60	526934.82	1.3903	P	0.3

y = 6.9415E-005 * x + 0.0016
R = 1.0000
DL = 8.013
BEC = 23.09

Weight: <None>
Min Conc: <None>

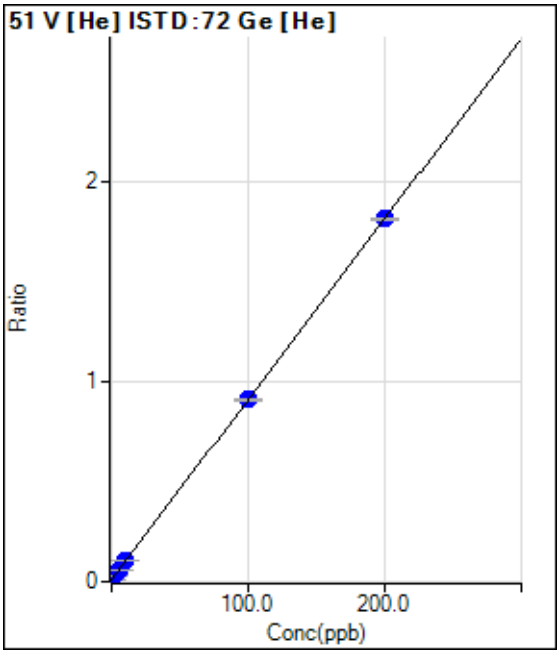
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	10.00	0.0000	P	1.6
2	☐	2.000	2.020	310.01	0.0008	P	4.3
3	☐	5.000	4.588	690.03	0.0018	P	7.0
4	☐	10.000	10.843	1613.46	0.0041	P	13.9
5	☐	100.000	99.890	14577.98	0.0376	P	1.2
6	☐	200.000	200.023	28553.36	0.0753	P	3.0

y = 3.7647E-004 * x + 2.5016E-005
R = 1.0000
DL = 0.003109
BEC = 0.06645

Weight: <None>
Min Conc: <None>

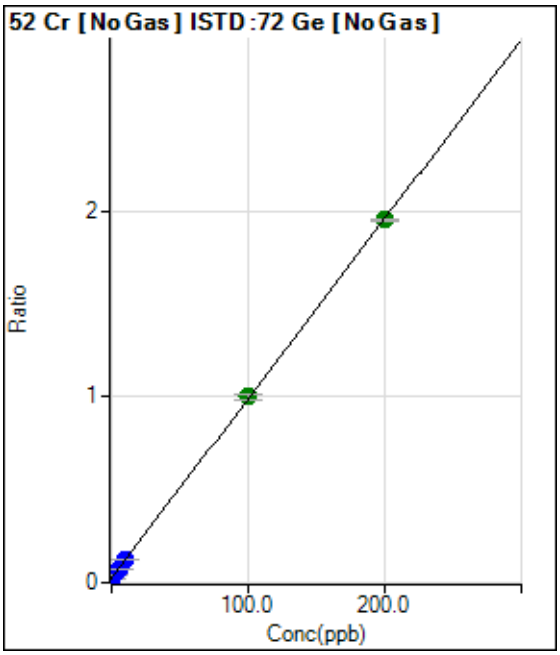


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3584.94	0.0090	P	3.7
2	☐	2.000	2.086	10958.88	0.0278	P	4.4
3	☐	5.000	5.128	21717.25	0.0552	P	1.9
4	☐	10.000	10.310	40000.40	0.1019	P	0.8
5	☐	100.000	99.839	351952.89	0.9085	P	0.6
6	☐	200.000	200.061	686540.89	1.8115	P	0.7

y = 0.0090 * x + 0.0090
R = 1.0000
DL = 0.1113
BEC = 0.9954

Weight: <None>
Min Conc: <None>

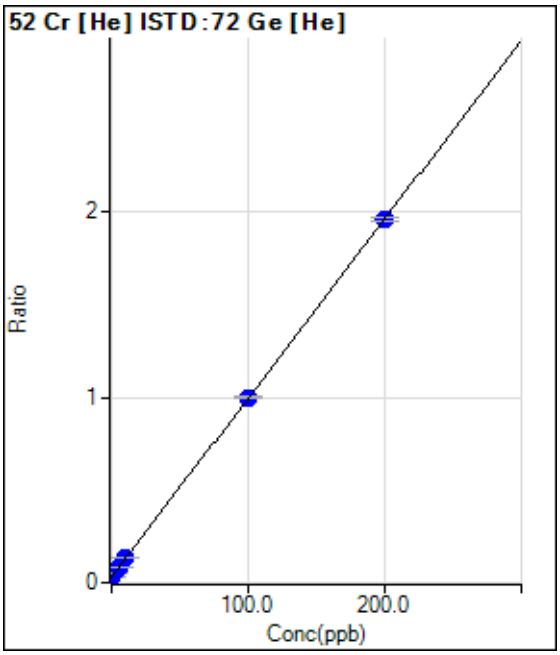
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	31045.65	0.0245	P	4.0
2	☐	2.000	1.834	54398.43	0.0422	P	1.7
3	☐	5.000	5.017	92387.49	0.0730	P	1.0
4	☐	10.000	10.165	154724.08	0.1228	P	2.2
5	☐	100.000	100.877	1239597.74	1.0004	A	2.7
6	☐	200.000	199.555	2355630.54	1.9551	A	0.5

y = 0.0097 * x + 0.0245
R = 1.0000
DL = 0.3005
BEC = 2.532

Weight: <None>
Min Conc: <None>

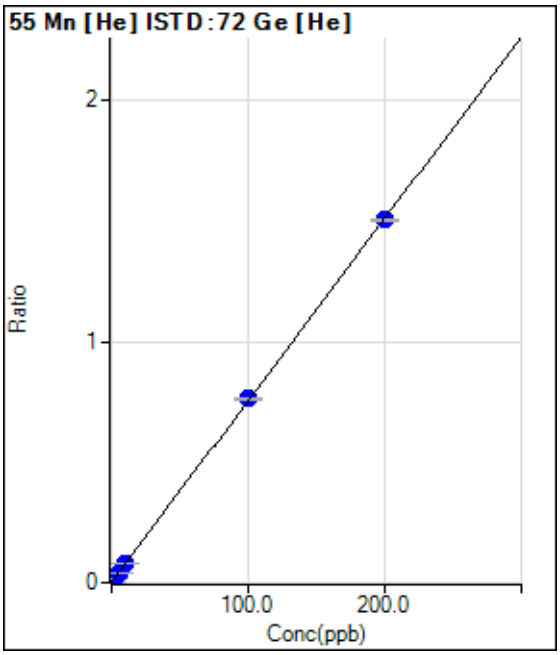


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	12205.66	0.0305	P	6.4
2	☐	2.000	2.203	20445.59	0.0518	P	1.0
3	☐	5.000	5.313	32188.15	0.0818	P	1.6
4	☐	10.000	10.788	52832.05	0.1345	P	2.2
5	☐	100.000	100.462	386981.57	0.9989	P	0.8
6	☐	200.000	199.720	741164.68	1.9557	P	1.2

y = 0.0096 * x + 0.0305
R = 1.0000
DL = 0.6092
BEC = 3.169

Weight: <None>
Min Conc: <None>

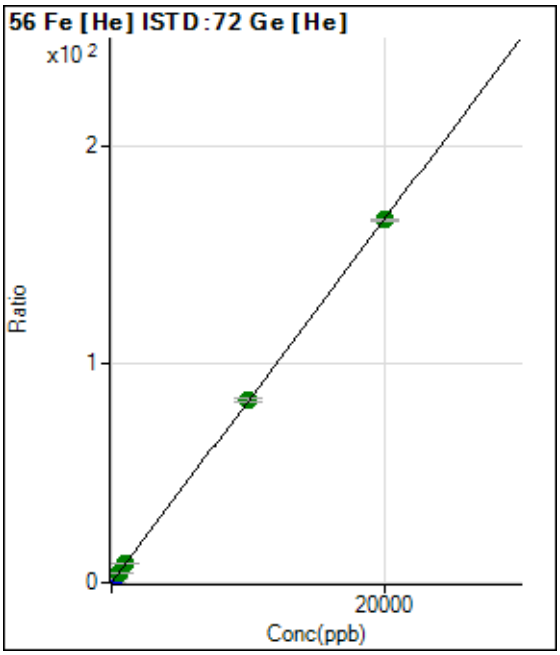
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	606.69	0.0015	P	12.4
2	☐	2.000	2.082	6795.14	0.0172	P	7.7
3	☐	5.000	5.095	15732.64	0.0400	P	4.6
4	☐	10.000	10.288	31075.70	0.0791	P	0.5
5	☐	100.000	101.102	296073.59	0.7643	P	1.0
6	☐	200.000	199.431	570805.29	1.5061	P	0.6

y = 0.0075 * x + 0.0015
R = 1.0000
DL = 0.07475
BEC = 0.2011

Weight: <None>
Min Conc: <None>

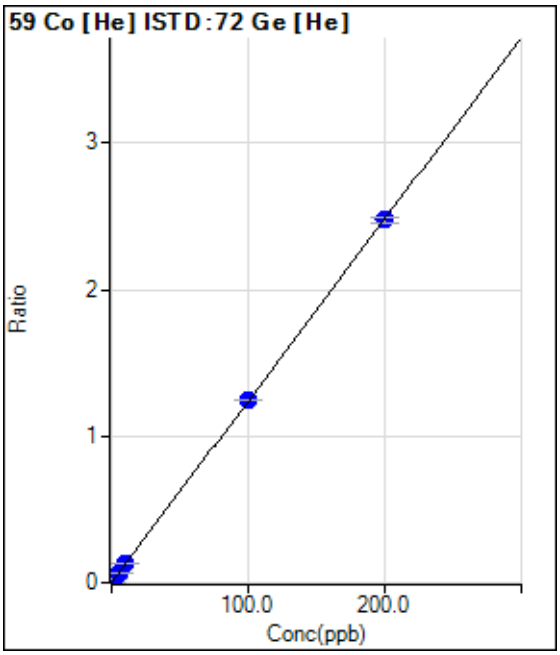


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	13717.13	0.0343	P	2.5
2	☐	200.000	215.053	719490.41	1.8225	P	0.9
3	☐	500.000	524.882	1731767.89	4.3987	A	0.7
4	☐	1000.000	1038.764	3405485.99	8.6716	A	0.4
5	☐	10000.00	10057.92	32410837.0	83.6660	A	1.6
6	☐	20000.00	19968.32	62937790.7	166.071	A	0.8

y = 0.0083 * x + 0.0343
R = 1.0000
DL = 0.3051
BEC = 4.127

Weight: <None>
Min Conc: <None>

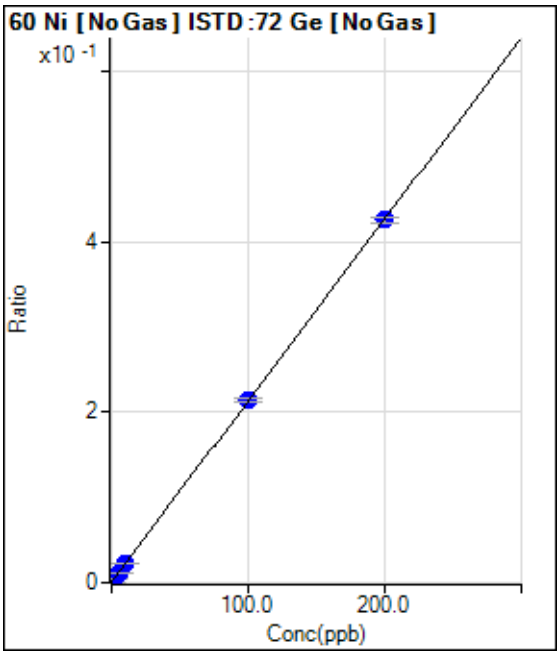
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	86.67	0.0002	P	39.3
2	☐	2.000	2.058	10153.95	0.0257	P	1.4
3	☐	5.000	5.332	26095.29	0.0663	P	1.3
4	☐	10.000	10.459	50975.61	0.1298	P	1.9
5	☐	100.000	100.469	482356.20	1.2451	P	0.9
6	☐	200.000	199.734	937984.96	2.4751	P	1.5

y = 0.0124 * x + 2.1611E-004
R = 1.0000
DL = 0.02057
BEC = 0.01744

Weight: <None>
Min Conc: <None>

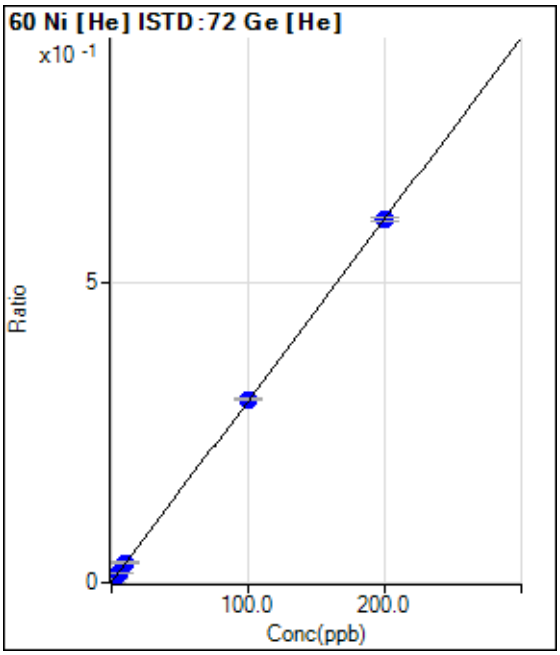


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	800.04	0.0006	P	11.7
2	☐	2.000	2.036	6394.95	0.0050	P	2.3
3	☐	5.000	5.339	15175.42	0.0120	P	1.7
4	☐	10.000	10.367	28597.12	0.0227	P	2.5
5	☐	100.000	100.553	266012.54	0.2147	P	2.8
6	☐	200.000	199.696	512924.94	0.4258	P	1.4

y = 0.0021 * x + 6.3023E-004
R = 1.0000
DL = 0.1042
BEC = 0.296

Weight: <None>
Min Conc: <None>

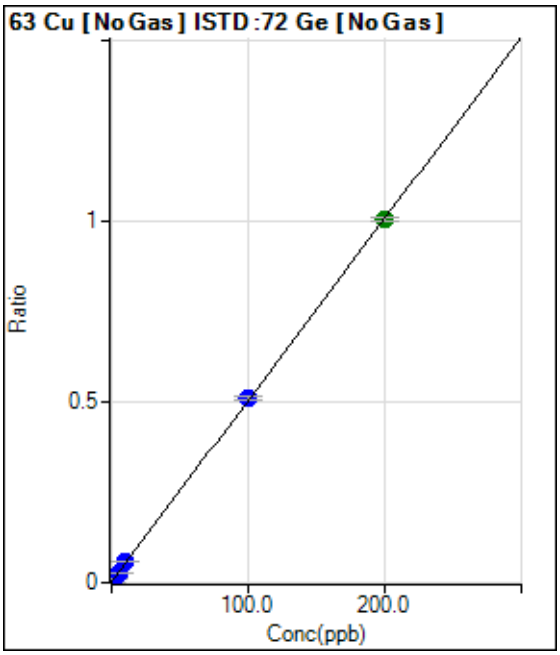
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	233.34	0.0006	P	25.5
2	☐	2.000	2.233	2903.70	0.0074	P	2.8
3	☐	5.000	5.336	6598.38	0.0168	P	4.8
4	☐	10.000	10.899	13206.61	0.0336	P	3.7
5	☐	100.000	100.600	118371.46	0.3056	P	0.8
6	☐	200.000	199.644	229588.22	0.6058	P	1.1

y = 0.0030 * x + 5.8437E-004
R = 1.0000
DL = 0.1475
BEC = 0.1928

Weight: <None>
Min Conc: <None>

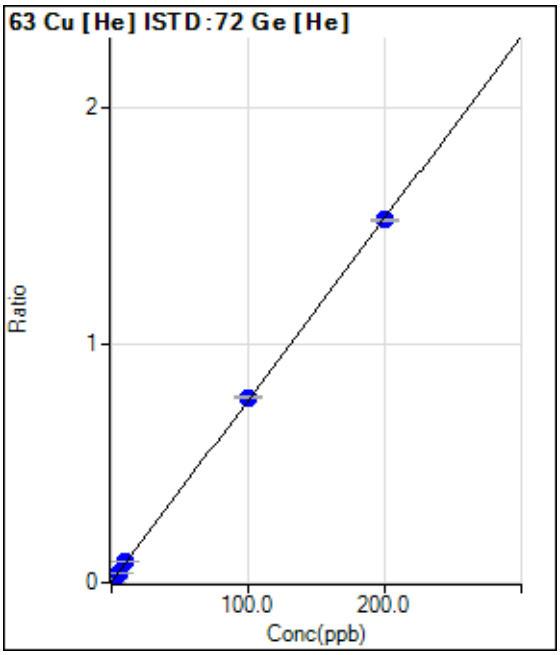


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2943.70	0.0023	P	8.8
2	☐	2.000	2.015	16019.67	0.0124	P	0.6
3	☐	5.000	5.211	36044.85	0.0285	P	1.6
4	☐	10.000	11.193	73746.53	0.0585	P	1.1
5	☐	100.000	101.067	631844.17	0.5099	P	2.3
6	☐	200.000	199.401	1209371.96	1.0038	A	1.2

y = 0.0050 * x + 0.0023
R = 1.0000
DL = 0.1225
BEC = 0.462

Weight: <None>
Min Conc: <None>

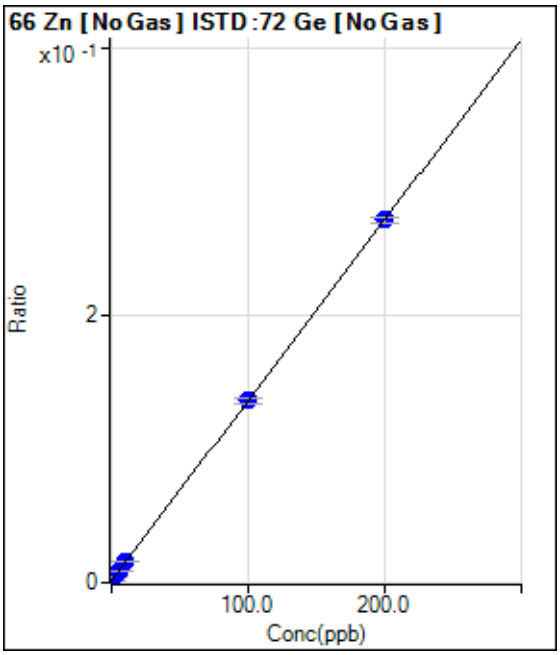
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1250.08	0.0031	P	4.0
2	☐	2.000	2.044	7405.47	0.0188	P	4.6
3	☐	5.000	5.362	17374.70	0.0441	P	1.3
4	☐	10.000	11.281	35108.90	0.0894	P	1.5
5	☐	100.000	101.449	301775.49	0.7790	P	1.0
6	☐	200.000	199.202	578556.84	1.5266	P	0.8

y = 0.0076 * x + 0.0031
R = 1.0000
DL = 0.04935
BEC = 0.4087

Weight: <None>
Min Conc: <None>

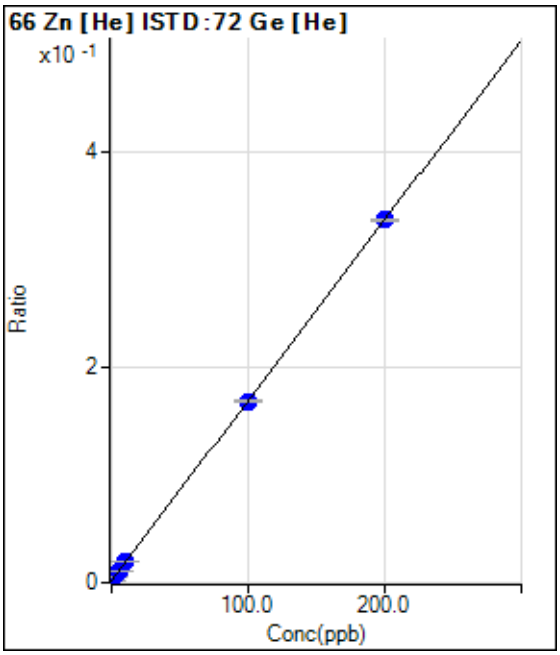


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2003.52	0.0016	P	5.0
2	☐	2.000	1.855	5261.10	0.0041	P	2.9
3	☐	5.000	5.155	10807.83	0.0085	P	3.7
4	☐	10.000	10.138	19243.86	0.0153	P	0.3
5	☐	100.000	99.855	169080.99	0.1365	P	3.6
6	☐	200.000	200.063	327467.03	0.2718	P	1.9

y = 0.0014 * x + 0.0016
R = 1.0000
DL = 0.1764
BEC = 1.169

Weight: <None>
Min Conc: <None>

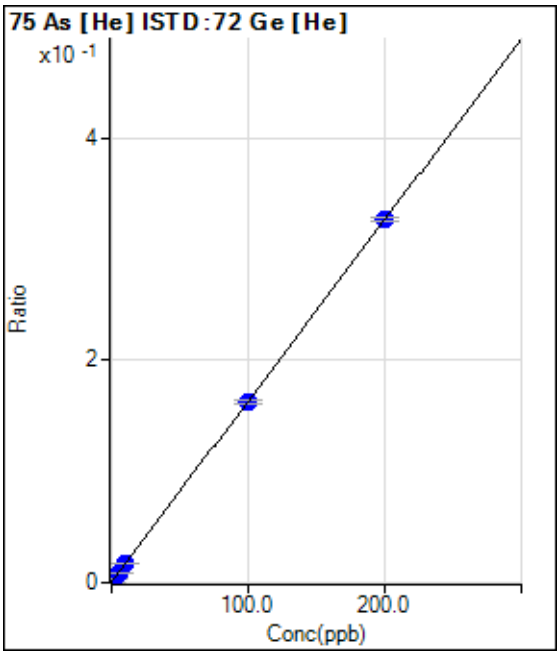
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	813.37	0.0020	P	10.8
2	☐	2.000	2.271	2303.56	0.0058	P	6.7
3	☐	5.000	5.194	4224.06	0.0107	P	7.7
4	☐	10.000	10.219	7518.88	0.0191	P	3.6
5	☐	100.000	99.489	65337.25	0.1687	P	0.6
6	☐	200.000	200.237	127872.01	0.3374	P	0.4

y = 0.0017 * x + 0.0020
R = 1.0000
DL = 0.393
BEC = 1.213

Weight: <None>
Min Conc: <None>

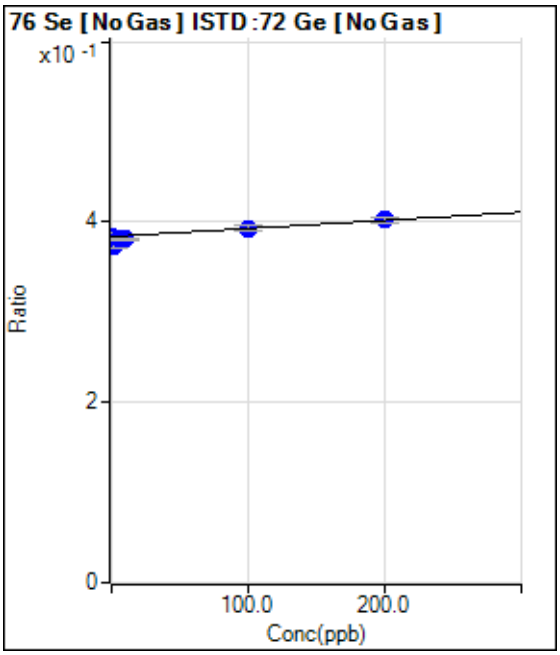


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	214.45	0.0005	P	9.0
2	☐	2.000	1.918	1443.42	0.0037	P	4.0
3	☐	5.000	4.929	3369.33	0.0086	P	2.2
4	☐	10.000	10.410	6862.88	0.0175	P	1.6
5	☐	100.000	99.831	63135.65	0.1630	P	2.2
6	☐	200.000	200.067	123582.49	0.3261	P	1.1

y = 0.0016 * x + 5.3608E-004
R = 1.0000
DL = 0.08921
BEC = 0.3294

Weight: <None>
Min Conc: <None>

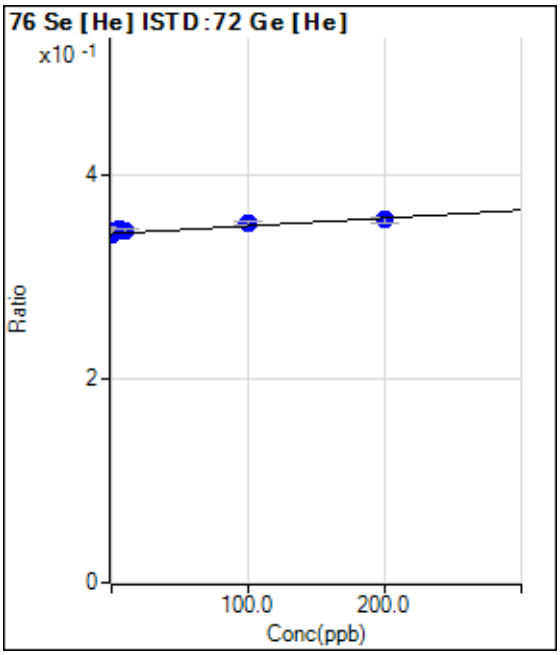
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	486642.72	0.3839	P	2.7
2	☐	2.000	-117.520	480634.50	0.3732	P	1.7
3	☐	5.000	-25.492	482708.14	0.3816	P	1.3
4	☐	10.000	-28.799	480321.35	0.3813	P	0.6
5	☐	100.000	98.922	486708.54	0.3928	P	1.8
6	☐	200.000	204.437	484674.47	0.4023	P	1.6

y = 9.0312E-005 * x + 0.3839
R = 0.9343
DL = 349.9
BEC = 4250

Weight: <None>
Min Conc: <None>

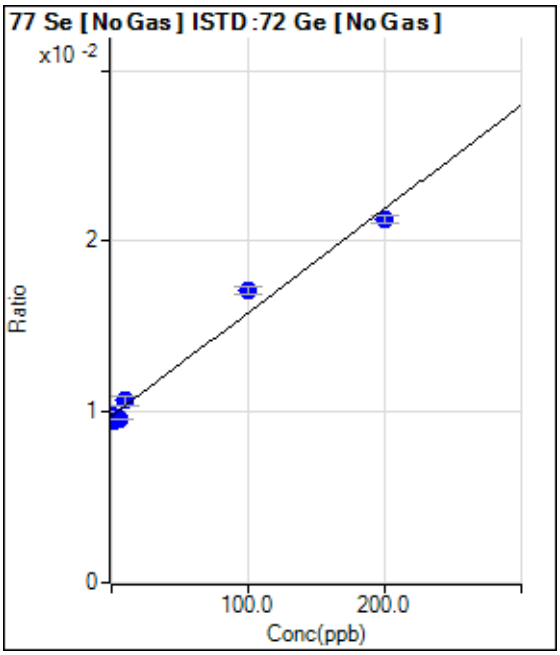


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	136580.14	0.3416	P	1.2
2	☐	2.000	46.690	136303.98	0.3452	P	0.4
3	☐	5.000	55.782	136186.47	0.3459	P	1.2
4	☐	10.000	36.232	135260.55	0.3444	P	0.9
5	☐	100.000	141.639	136577.02	0.3526	P	1.3
6	☐	200.000	176.152	134620.28	0.3552	P	1.8

y = 7.7071E-005 * x + 0.3416
R = 0.9395
DL = 166.2
BEC = 4433

Weight: <None>
Min Conc: <None>

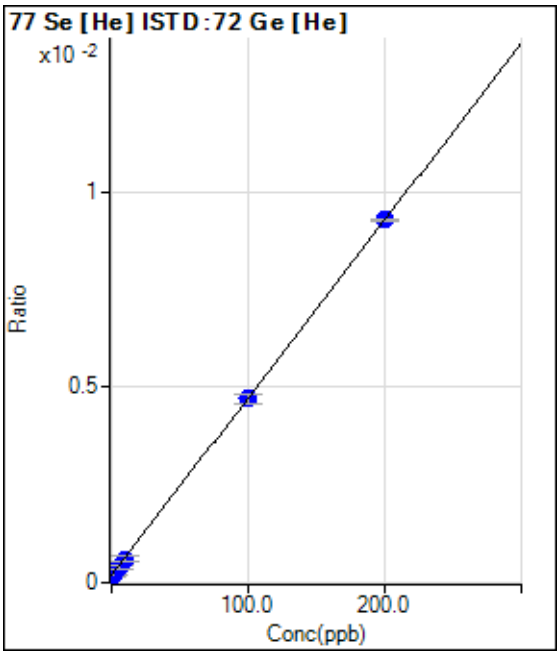
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	12369.29	0.0098	P	5.0
2	☐	2.000	-5.161	12162.37	0.0094	P	1.7
3	☐	5.000	-3.166	12102.26	0.0096	P	0.8
4	☐	10.000	15.313	13460.26	0.0107	P	5.4
5	☐	100.000	121.534	21237.04	0.0171	P	2.9
6	☐	200.000	189.243	25601.33	0.0213	P	2.0

y = 6.0733E-005 * x + 0.0098
R = 0.9893
DL = 23.96
BEC = 160.7

Weight: <None>
Min Conc: <None>

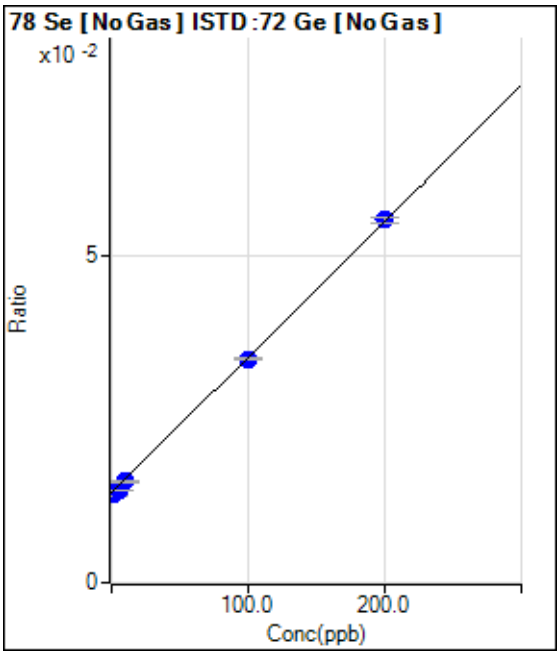


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	76.67	0.0002	P	38.4
2	☐	2.000	0.417	83.33	0.0002	P	6.4
3	☐	5.000	4.540	156.67	0.0004	P	32.8
4	☐	10.000	9.241	240.01	0.0006	P	29.3
5	☐	100.000	99.527	1823.49	0.0047	P	5.8
6	☐	200.000	200.302	3517.19	0.0093	P	0.8

y = 4.5370E-005 * x + 1.9211E-004
R = 1.0000
DL = 4.879
BEC = 4.234

Weight: <None>
Min Conc: <None>

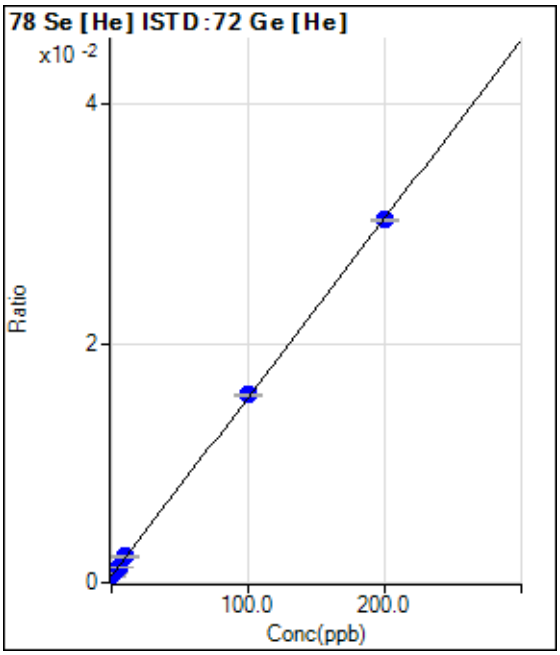
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	17391.53	0.0137	P	3.6
2	☐	2.000	-0.466	17538.40	0.0136	P	3.3
3	☐	5.000	2.133	17918.79	0.0142	P	1.8
4	☐	10.000	8.696	19571.17	0.0155	P	2.3
5	☐	100.000	98.547	42480.63	0.0343	P	1.3
6	☐	200.000	200.888	67023.23	0.0556	P	1.9

y = 2.0866E-004 * x + 0.0137
R = 0.9999
DL = 7.119
BEC = 65.75

Weight: <None>
Min Conc: <None>

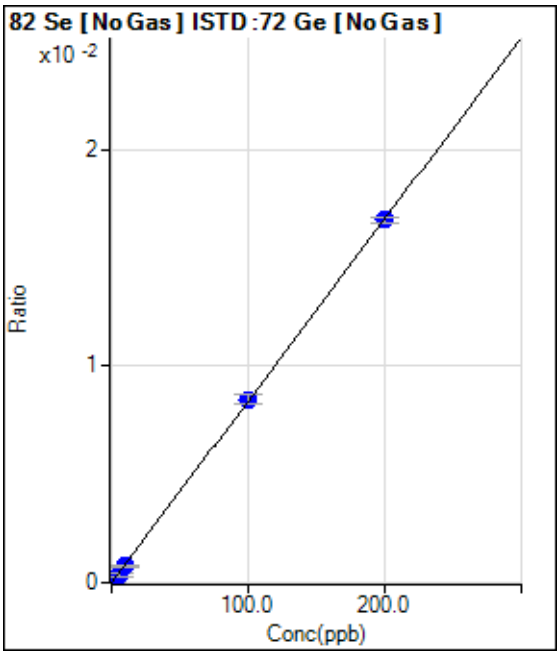


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	226.00	0.0006	P	10.7
2	☐	2.000	1.945	338.01	0.0009	P	3.2
3	☐	5.000	4.852	508.01	0.0013	P	1.6
4	☐	10.000	11.162	876.70	0.0022	P	5.7
5	☐	100.000	101.279	6077.38	0.0157	P	0.4
6	☐	200.000	199.307	11492.92	0.0303	P	0.3

y = 1.4930E-004 * x + 5.6588E-004
R = 1.0000
DL = 1.221
BEC = 3.79

Weight: <None>
Min Conc: <None>

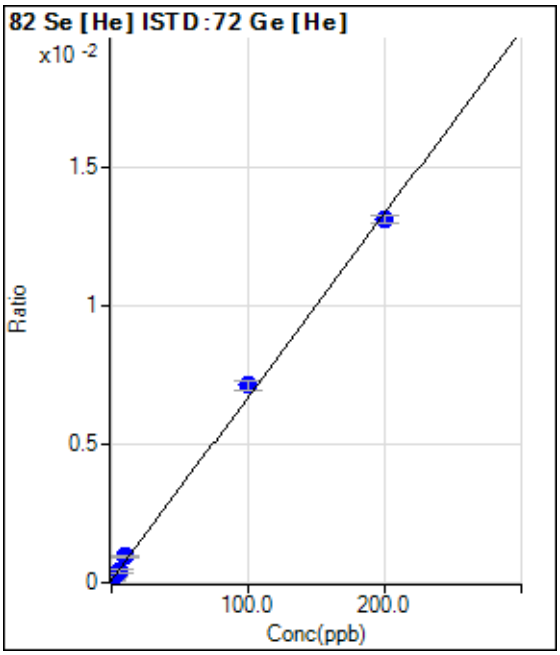
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	-8.41	0.0000	P	-750.0
2	☐	2.000	2.280	238.48	0.0002	P	24.9
3	☐	5.000	4.265	444.89	0.0004	P	29.1
4	☐	10.000	9.010	944.54	0.0007	P	1.6
5	☐	100.000	100.673	10459.53	0.0084	P	5.2
6	☐	200.000	199.729	20187.60	0.0168	P	1.3

y = 8.3931E-005 * x - 6.4597E-006
R = 1.0000
DL = 1.732
BEC = -0.07696

Weight: <None>
Min Conc: <None>

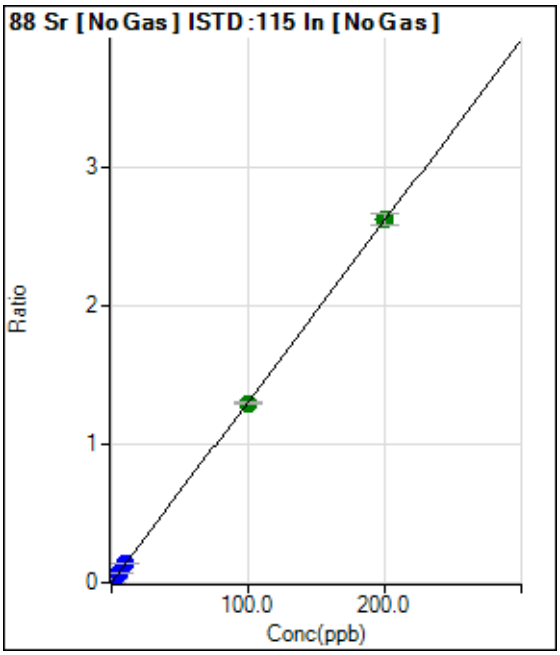


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	36.67	0.0001	P	67.6
2	☐	2.000	1.808	83.33	0.0002	P	6.4
3	☐	5.000	4.623	156.67	0.0004	P	28.2
4	☐	10.000	12.848	370.01	0.0009	P	7.5
5	☐	100.000	106.589	2770.34	0.0072	P	5.0
6	☐	200.000	196.574	4971.01	0.0131	P	2.0

y = 6.6247E-005 * x + 9.1237E-005
R = 0.9991
DL = 2.794
BEC = 1.377

Weight: <None>
Min Conc: <None>

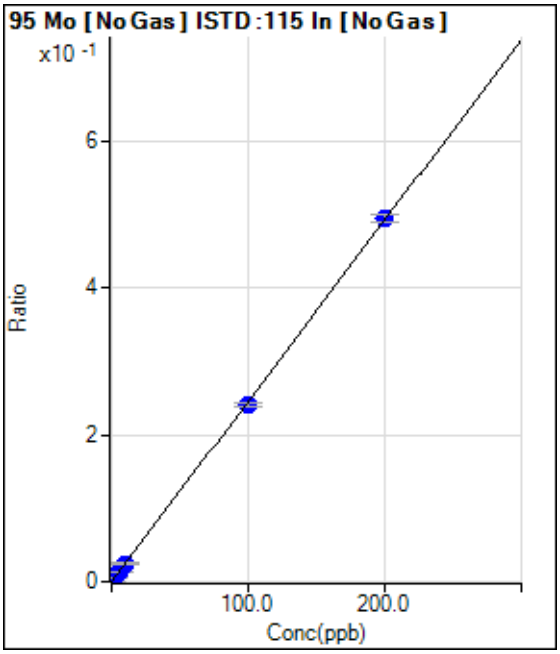
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	520.02	0.0004	P	14.2
2	☐	2.000	2.047	34788.79	0.0272	P	2.2
3	☐	5.000	5.280	87569.17	0.0695	P	3.5
4	☐	10.000	10.434	171978.03	0.1369	P	2.1
5	☐	100.000	99.009	1605213.20	1.2955	A	1.2
6	☐	200.000	200.467	3154268.81	2.6226	A	3.0

y = 0.0131 * x + 4.0735E-004
R = 1.0000
DL = 0.01326
BEC = 0.03114

Weight: <None>
Min Conc: <None>

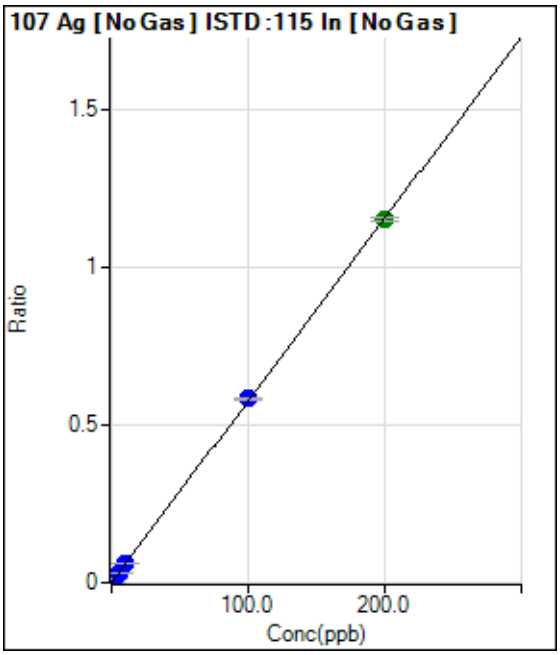


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	56.67	0.0000	P	45.5
2	☐	2.000	1.967	6251.59	0.0049	P	5.3
3	☐	5.000	4.881	15202.32	0.0121	P	2.7
4	☐	10.000	9.948	30812.70	0.0245	P	3.4
5	☐	100.000	98.107	299180.64	0.2415	P	2.1
6	☐	200.000	200.952	594867.13	0.4946	P	2.1

y = 0.0025 * x + 4.4520E-005
R = 0.9999
DL = 0.02468
BEC = 0.01809

Weight: <None>
Min Conc: <None>

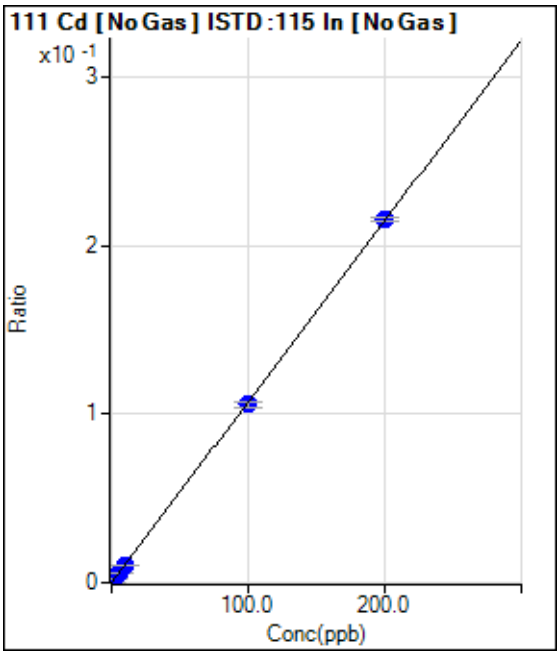
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	110.00	0.0001	P	26.2
2	☐	2.000	1.995	14855.30	0.0116	P	1.4
3	☐	5.000	5.079	37099.06	0.0294	P	0.3
4	☐	10.000	10.404	75609.29	0.0602	P	1.6
5	☐	100.000	101.153	724085.30	0.5843	P	1.1
6	☐	200.000	199.401	1385596.49	1.1518	A	1.0

y = 0.0058 * x + 8.5952E-005
R = 1.0000
DL = 0.01172
BEC = 0.01488

Weight: <None>
Min Conc: <None>

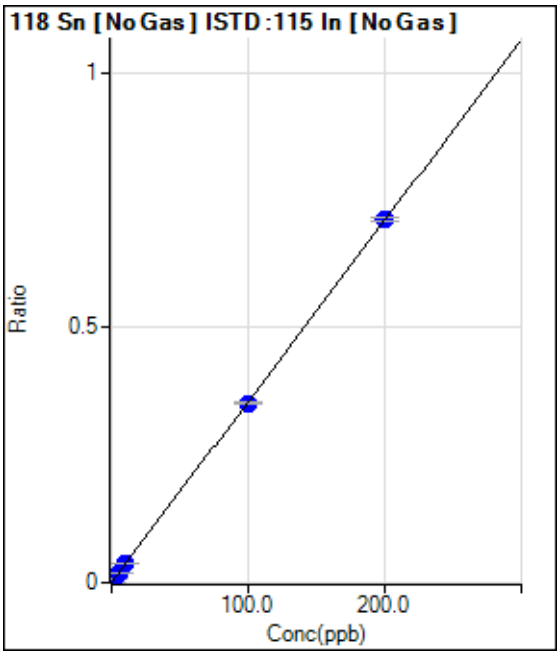


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2.85	0.0000	P	538.2
2	☐	2.000	1.870	2572.08	0.0020	P	2.6
3	☐	5.000	4.923	6666.22	0.0053	P	2.4
4	☐	10.000	9.929	13392.96	0.0107	P	1.7
5	☐	100.000	98.637	131170.54	0.1059	P	2.8
6	☐	200.000	200.688	259127.92	0.2154	P	1.1

y = 0.0011 * x + 2.3352E-006
R = 1.0000
DL = 0.03512
BEC = 0.002176

Weight: <None>
Min Conc: <None>

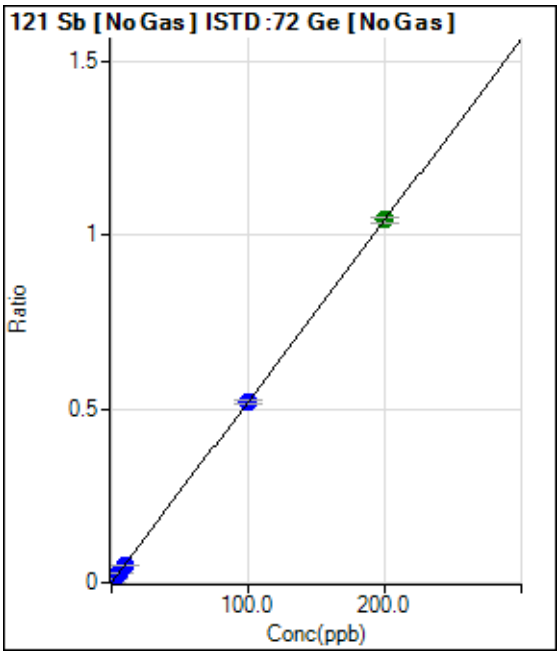
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	613.36	0.0005	P	15.8
2	☐	2.000	2.006	9717.07	0.0076	P	2.5
3	☐	5.000	4.890	22462.87	0.0178	P	2.4
4	☐	10.000	10.053	45382.01	0.0361	P	1.7
5	☐	100.000	99.135	436119.68	0.3519	P	0.9
6	☐	200.000	200.433	855362.12	0.7111	P	0.9

y = 0.0035 * x + 4.7996E-004
R = 1.0000
DL = 0.06422
BEC = 0.1354

Weight: <None>
Min Conc: <None>

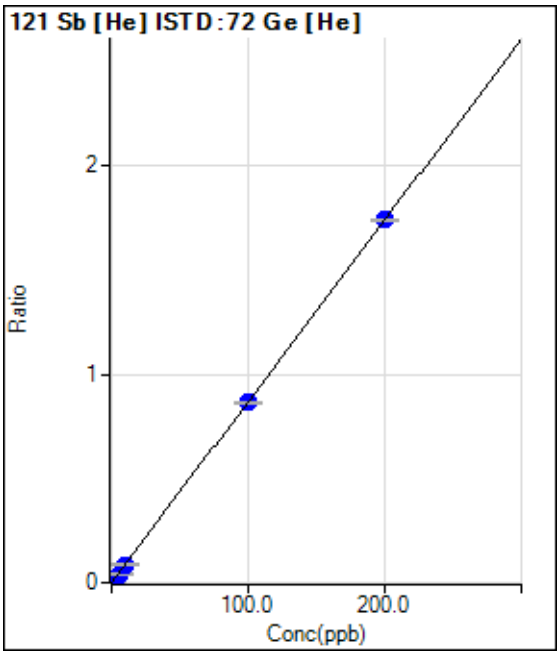


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	143.33	0.0001	P	26.4
2	☐	2.000	1.951	13256.93	0.0103	P	1.5
3	☐	5.000	4.890	32417.10	0.0256	P	2.5
4	☐	10.000	9.898	65198.50	0.0518	P	1.4
5	☐	100.000	99.409	642788.25	0.5188	P	1.9
6	☐	200.000	200.304	1259138.19	1.0452	A	1.6

y = 0.0052 * x + 1.1342E-004
R = 1.0000
DL = 0.01722
BEC = 0.02174

Weight: <None>
Min Conc: <None>

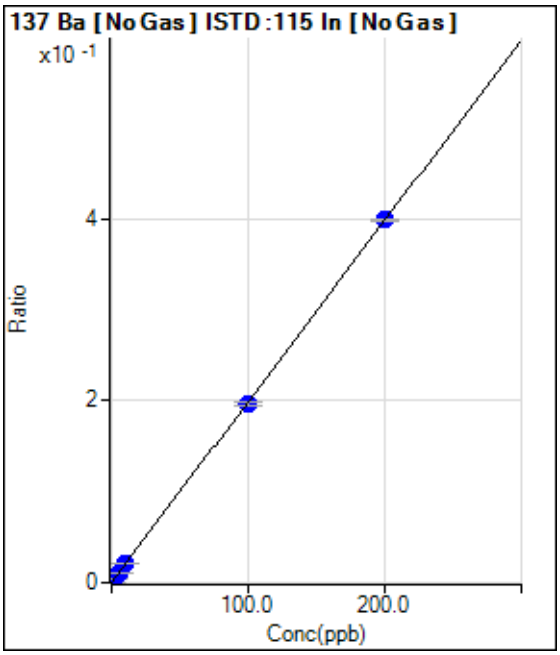
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	53.33	0.0001	P	11.6
2	☐	2.000	1.945	6721.83	0.0170	P	4.3
3	☐	5.000	4.761	16333.79	0.0415	P	3.8
4	☐	10.000	10.066	34385.52	0.0876	P	0.8
5	☐	100.000	99.353	334348.04	0.8631	P	1.4
6	☐	200.000	200.327	659478.90	1.7401	P	0.7

y = 0.0087 * x + 1.3348E-004
R = 1.0000
DL = 0.005346
BEC = 0.01537

Weight: <None>
Min Conc: <None>

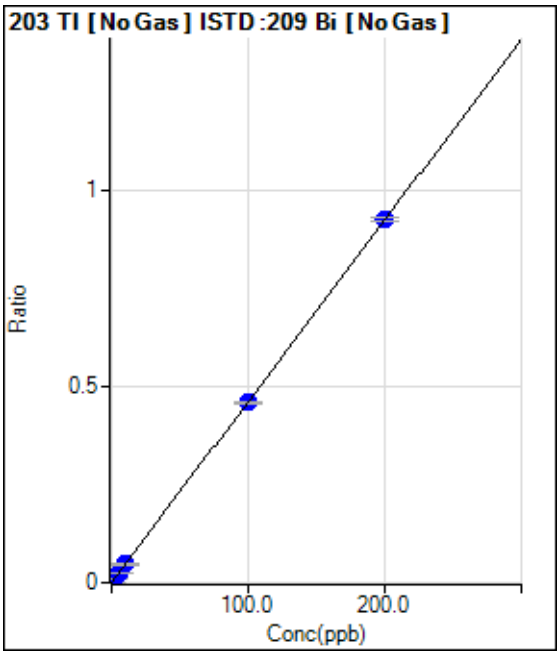


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	373.35	0.0003	P	21.5
2	☐	2.000	2.162	5868.09	0.0046	P	3.6
3	☐	5.000	5.198	13370.39	0.0106	P	3.5
4	☐	10.000	10.228	25859.44	0.0206	P	4.6
5	☐	100.000	98.827	243331.87	0.1964	P	1.5
6	☐	200.000	200.569	479170.97	0.3983	P	0.6

y = 0.0020 * x + 2.9278E-004
R = 1.0000
DL = 0.09525
BEC = 0.1476

Weight: <None>
Min Conc: <None>

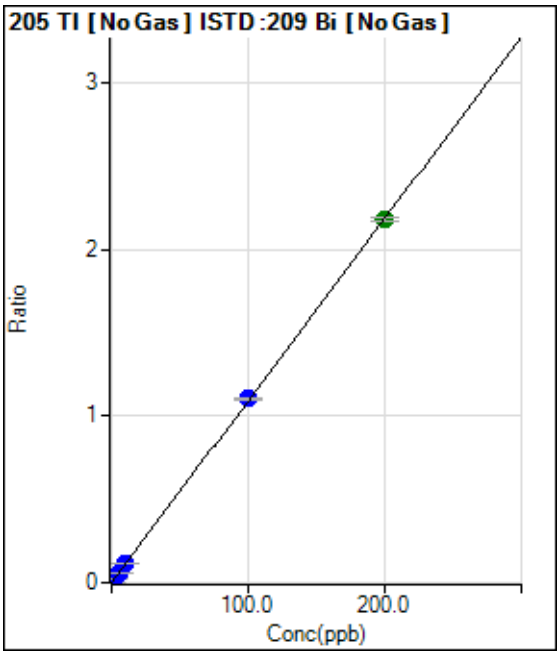
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	66.67	0.0001	P	54.7
2	☐	2.000	1.982	7899.29	0.0092	P	3.2
3	☐	5.000	5.080	20340.19	0.0236	P	2.0
4	☐	10.000	10.121	40369.02	0.0469	P	1.8
5	☐	100.000	99.305	391903.83	0.4593	P	1.1
6	☐	200.000	200.339	772128.69	0.9264	P	1.1

y = 0.0046 * x + 7.6544E-005
R = 1.0000
DL = 0.02718
BEC = 0.01655

Weight: <None>
Min Conc: <None>

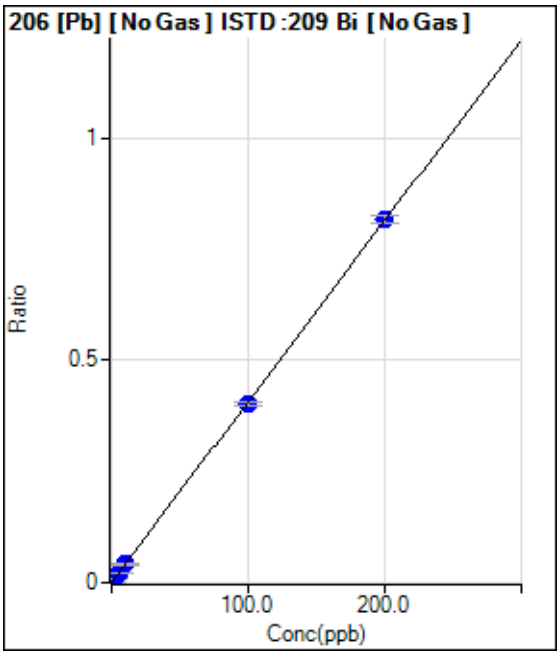


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	136.67	0.0002	P	15.9
2	☐	2.000	1.945	18290.33	0.0214	P	3.2
3	☐	5.000	5.118	48370.52	0.0560	P	2.5
4	☐	10.000	10.303	97008.82	0.1127	P	2.4
5	☐	100.000	100.984	941121.86	1.1028	P	0.8
6	☐	200.000	199.490	1815560.49	2.1785	A	1.2

y = 0.0109 * x + 1.5783E-004
R = 1.0000
DL = 0.006913
BEC = 0.01445

Weight: <None>
Min Conc: <None>

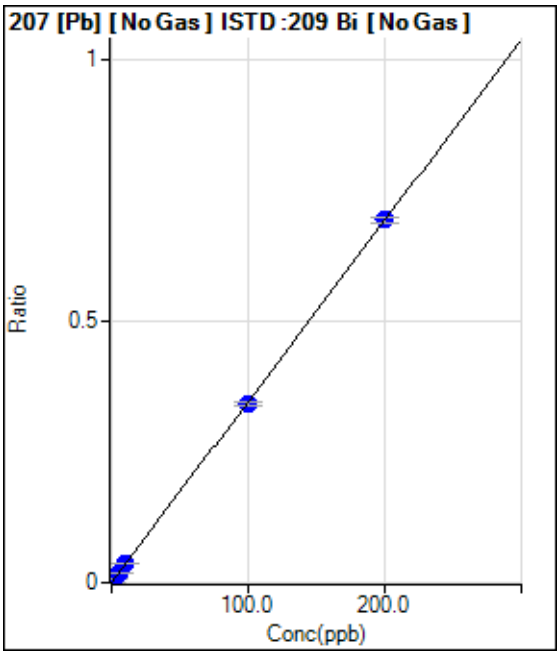
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	310.01	0.0004	P	21.2
2	☐	2.000	2.005	7272.24	0.0085	P	5.7
3	☐	5.000	4.927	17599.39	0.0204	P	3.4
4	☐	10.000	10.026	35414.15	0.0411	P	4.2
5	☐	100.000	98.827	343265.05	0.4023	P	1.4
6	☐	200.000	200.587	680167.49	0.8161	P	2.2

y = 0.0041 * x + 3.5888E-004
R = 1.0000
DL = 0.05605
BEC = 0.08824

Weight: <None>
Min Conc: <None>

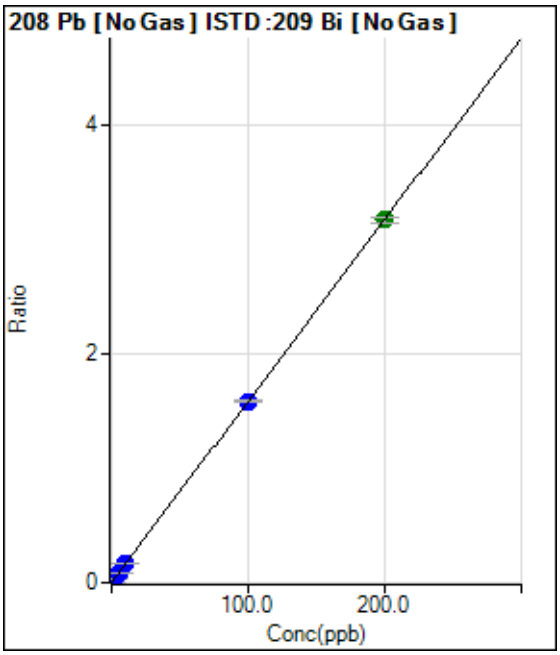


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	190.01	0.0002	P	9.1
2	☐	2.000	1.995	6094.95	0.0071	P	1.7
3	☐	5.000	4.931	14925.89	0.0173	P	3.0
4	☐	10.000	10.263	30791.68	0.0358	P	1.9
5	☐	100.000	99.122	293043.12	0.3434	P	1.9
6	☐	200.000	200.428	578553.12	0.6942	P	1.4

y = 0.0035 * x + 2.1950E-004
R = 1.0000
DL = 0.01727
BEC = 0.06339

Weight: <None>
Min Conc: <None>

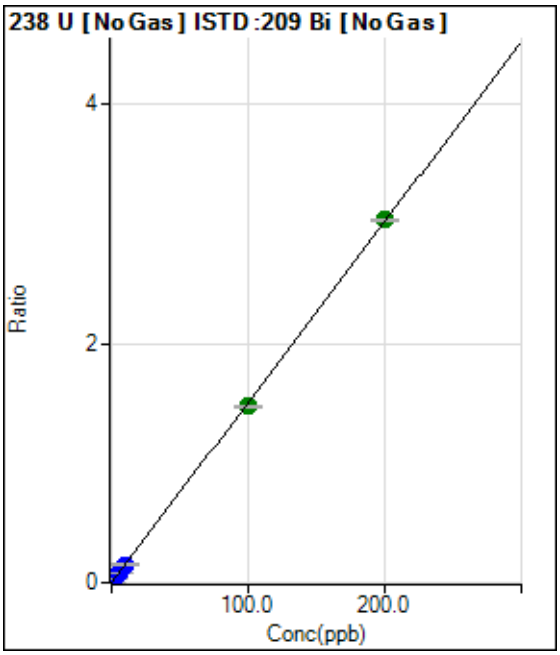
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	970.04	0.0011	P	4.8
2	☐	2.000	1.999	28062.76	0.0328	P	1.0
3	☐	5.000	5.018	69670.99	0.0807	P	1.7
4	☐	10.000	10.281	141402.85	0.1642	P	2.1
5	☐	100.000	100.014	1354714.46	1.5876	P	1.5
6	☐	200.000	199.979	2644668.19	3.1733	A	1.7

y = 0.0159 * x + 0.0011
R = 1.0000
DL = 0.01025
BEC = 0.07067

Weight: <None>
Min Conc: <None>

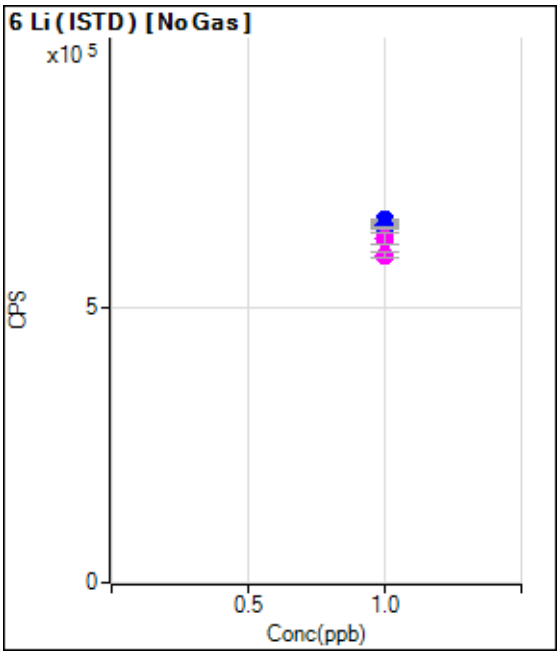


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	20.00	0.0000	P	50.8
2	☐	2.000	1.985	25627.28	0.0300	P	0.4
3	☐	5.000	4.955	64546.65	0.0748	P	3.7
4	☐	10.000	10.088	131129.92	0.1523	P	1.8
5	☐	100.000	97.638	1257475.45	1.4736	A	1.6
6	☐	200.000	201.178	2530505.22	3.0363	A	0.6

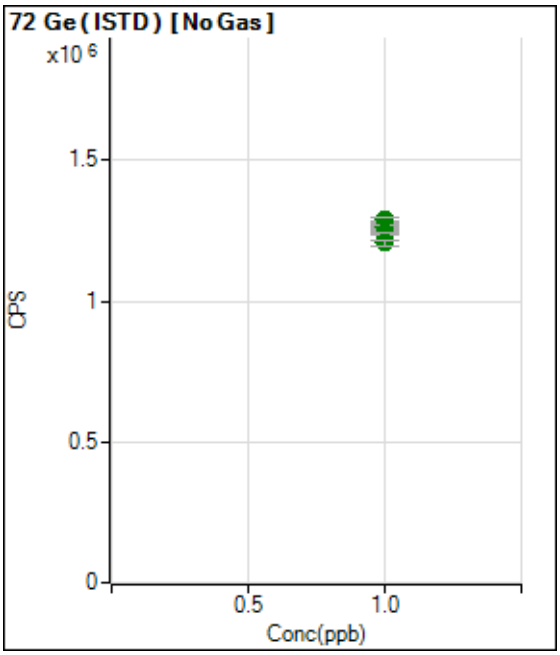
y = 0.0151 * x + 2.3150E-005
R = 0.9999
DL = 0.002338
BEC = 0.001534

Weight: <None>
Min Conc: <None>

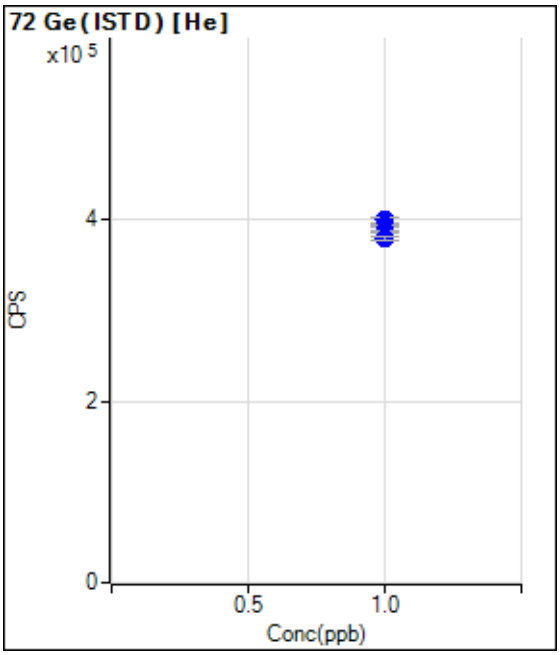
Calibration for 031_ICV.d



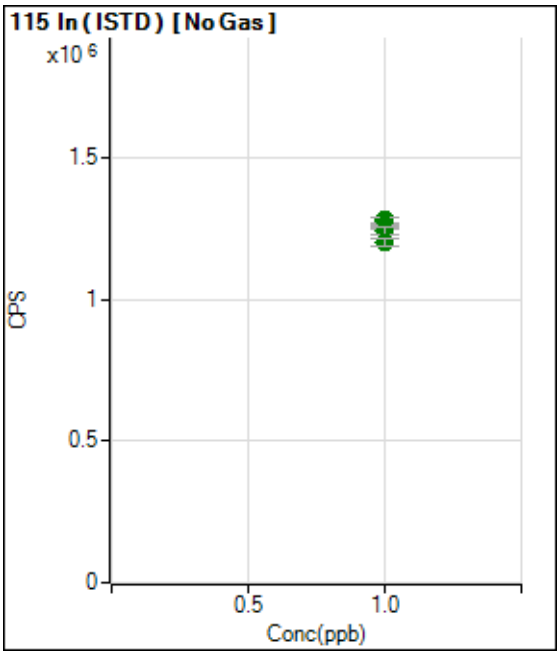
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		660437.16		P	0.6
2	☐	1.000		652226.81		P	0.4
3	☐	1.000		652594.64		P	1.3
4	☐	1.000		646298.60		P	0.7
5	☐	1.000		626127.04		M	3.0
6	☐	1.000		595553.16		M	1.8



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1268210.66		A	2.1
2	☐	1.000		1287959.96		A	1.7
3	☐	1.000		1265111.85		A	0.5
4	☐	1.000		1259879.25		A	1.2
5	☐	1.000		1239239.41		A	1.0
6	☐	1.000		1204969.15		A	2.2

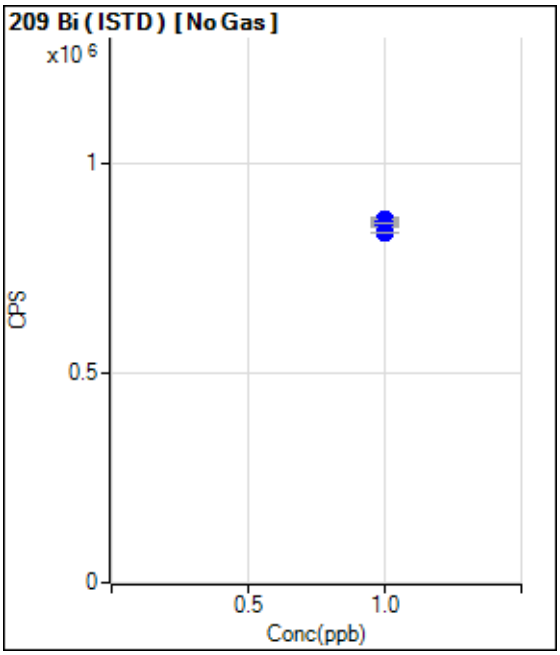


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		399803.20		P	1.6
2	☐	1.000		394813.76		P	1.2
3	☐	1.000		393686.75		P	0.7
4	☐	1.000		392710.28		P	0.5
5	☐	1.000		387407.92		P	0.7
6	☐	1.000		379008.11		P	1.3



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1277170.56		A	1.3
2	☐	1.000		1280079.52		A	1.5
3	☐	1.000		1261000.86		A	1.7
4	☐	1.000		1256559.63		A	1.2
5	☐	1.000		1239303.70		A	2.3
6	☐	1.000		1203081.79		A	2.1

Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		864957.67		P	1.9
2	☐	1.000		854930.95		P	1.8
3	☐	1.000		863335.01		P	2.1
4	☐	1.000		861297.38		P	1.4
5	☐	1.000		853377.41		P	0.8
6	☐	1.000		833427.80		P	0.2

Sample Report

Sample Table

Sample Name	LLICV2
Data File Name	032LCV2.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\031523A.b
Acq Date Time	2023-03-15T12:14:34-05:00
Sample Type	LLCCV2
Dilution	1
Comment	
ISTD Ref FileName	024CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	2.022	2.022	2.87	57933	0.00	2	
Be	9	1	No Gas	1.917	1.917	1.01	5041	0.04	2	
V	51	2	He	1.549	1.549	4.64	8973	0.02	2	
Cr	52	2	He	1.960	1.960	11.70	19351	0.01	2	
Fe	56	2	He	215.595	215.595	0.99	715087	0.03	200	
Se	78	2	He	1.835	1.835	21.70	329	0.56	2	
As	75	2	He	1.886	1.886	4.98	1411	0.13	2	
Ca	44	2	He	208.227	208.227	0.58	6285	3.31	200	
Na	23	2	He	218.984	218.984	2.13	165577	0.13	200	
Mg	24	2	He	222.305	222.305	1.58	84723	0.26	200	
K	39	2	He	211.113	211.113	1.31	223170	0.09	200	
Mn	55	2	He	2.080	2.080	0.95	6735	0.03	2	
Co	59	2	He	2.022	2.022	2.56	9890	0.02	2	
Ni	60	2	He	2.364	2.364	5.25	3034	0.08	2	
Cu	63	2	He	2.052	2.052	6.52	7365	0.03	2	
Zn	66	2	He	2.066	2.066	8.24	2150	0.10	2	
Al	27	2	He	2.107	2.107	23.40	1247	0.17	2	
B	11	1	No Gas	31.022	31.022	8.33	46661	0.07	10	NewName Main CR1 Failed
Al	27	1	No Gas	1.952	1.952	4.36	39115	0.00	2	
Si	28	1	No Gas	11.016	11.016	24.83	487693	0.00	10	
Ag	107	1	No Gas	2.095	2.095	2.92	15346	0.01	2	
Cd	111	1	No Gas	2.077	2.077	4.55	2810	0.07	2	
Sr	88	1	No Gas	2.080	2.080	2.27	34769	0.01	2	
Mo	95	1	No Gas	2.058	2.058	5.58	6428	0.03	2	
Sn	118	1	No Gas	2.134	2.134	2.05	10127	0.02	2	
Sb	121	1	No Gas	2.057	2.057	4.89	13544	0.02	2	
Ba	137	1	No Gas	2.137	2.137	7.25	5708	0.04	2	
Tl	205	1	No Gas	2.146	2.146	0.64	20517	0.01	2	
Tl	203	1	No Gas	2.181	2.181	4.87	8837	0.02	2	
Pb	208	1	No Gas	2.055	2.055	0.62	29324	0.01	2	
U	238	1	No Gas	2.024	2.024	1.46	26586	0.01	2	
Ca	43	2	He	231.406	231.406	22.57	383	60.36	200	
Sb	121	2	He	2.001	2.001	3.56	6855	0.03	2	
Ti	47	2	He	1.765	1.765	13.39	270	0.65	200	
Cu	63	1	No Gas	2.035	2.035	4.81	15663	0.01	2	
Se	82	1	No Gas	1.280	1.280	58.53	125	1.02	2	NewName Main CR1 Failed

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	648897	0.91	660437	98.25	70	120	
Ge	72	2	He	391412	0.48	399803	97.90	70	120	
Ge	72	1	No Gas	1249983	3.05	1268211	98.56	70	120	
In	115	1	No Gas	1258962	1.64	1277171	98.57	70	120	
Bi	209	1	No Gas	869814	1.00	864958	100.56	70	120	

Sample Report

Sample Table

Sample Name	LLICV5
Data File Name	033LCV5.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\031523A.b
Acq Date Time	2023-03-15T12:16:34-05:00
Sample Type	LLCCV5
Dilution	1
Comment	
ISTD Ref FileName	024CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	4.923	4.923	2.16	83938	0.01	5	
Be	9	1	No Gas	4.670	4.670	2.29	12215	0.04	5	
V	51	2	He	4.454	4.454	1.19	19445	0.02	5	
Cr	52	2	He	5.011	5.011	4.12	31229	0.02	5	
Fe	56	2	He	529.526	529.526	1.57	1757324	0.03	500	
Se	78	2	He	4.757	4.757	6.80	505	0.94	5	
As	75	2	He	4.841	4.841	6.05	3332	0.15	5	
Ca	44	2	He	501.149	501.149	2.42	14411	3.48	500	
Na	23	2	He	540.161	540.161	0.61	373216	0.14	500	
Mg	24	2	He	542.606	542.606	0.67	208173	0.26	500	
K	39	2	He	525.582	525.582	0.46	403114	0.13	500	
Mn	55	2	He	5.219	5.219	2.03	16193	0.03	5	
Co	59	2	He	5.166	5.166	1.92	25437	0.02	5	
Ni	60	2	He	5.536	5.536	3.26	6879	0.08	5	
Cu	63	2	He	5.072	5.072	1.47	16600	0.03	5	
Zn	66	2	He	4.757	4.757	7.66	3961	0.12	5	
Al	27	2	He	5.585	5.585	4.74	2187	0.26	5	
B	11	1	No Gas	34.412	34.412	1.43	50949	0.07	25	NewName2 Main CR1 Failed
Al	27	1	No Gas	5.287	5.287	1.68	69842	0.01	5	
Si	28	1	No Gas	27.308	27.308	7.44	563974	0.00	25	
Ag	107	1	No Gas	5.051	5.051	2.57	36765	0.01	5	
Cd	111	1	No Gas	4.822	4.822	7.46	6502	0.07	5	
Sr	88	1	No Gas	5.107	5.107	1.88	84422	0.01	5	
Mo	95	1	No Gas	4.933	4.933	5.55	15306	0.03	5	
Sn	118	1	No Gas	4.959	4.959	3.96	22680	0.02	5	
Sb	121	1	No Gas	4.910	4.910	1.22	31969	0.02	5	
Ba	137	1	No Gas	5.078	5.078	4.14	13027	0.04	5	
Tl	205	1	No Gas	5.050	5.050	2.92	47936	0.01	5	
Tl	203	1	No Gas	4.978	4.978	1.62	20020	0.02	5	
Pb	208	1	No Gas	5.038	5.038	1.17	70246	0.01	5	
U	238	1	No Gas	4.943	4.943	0.24	64691	0.01	5	
Ca	43	2	He	529.476	529.476	8.42	870	60.86	500	
Sb	121	2	He	4.990	4.990	2.39	17218	0.03	5	
Ti	47	2	He	4.695	4.695	8.58	710	0.66	5	
Cu	63	1	No Gas	5.194	5.194	1.22	35293	0.01	5	
Se	82	1	No Gas	5.118	5.118	10.06	525	0.97	5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	646707	1.05	660437	97.92	70	120	
Ge	72	2	He	396035	0.45	399803	99.06	70	120	
Ge	72	1	No Gas	1242416	2.00	1268211	97.97	70	120	
In	115	1	No Gas	1256250	1.39	1277171	98.36	70	120	
Bi	209	1	No Gas	866879	0.56	864958	100.22	70	120	

Initial Calibration Blank (ICB) Report

Sample Table

Sample Name	ICB
Data File Name	035_ICB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\031523A.b
Acq Date Time	2023-03-15T12:21:03-05:00
Sample Type	ICB
Dilution	1
Comment	
ISTD Ref File Name	024CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Li	7	1	No Gas	0.064	61.9	40520	1.3	0.5	
Be	9	1	No Gas	0.010	29.3	42	18.3	0.5	
V	51	2	He	-0.395	-6.1	2126	3.7	2.5	
Cr	52	2	He	-0.066	-177.2	11762	3.2	2.5	
Fe	56	2	He	-0.019	-886.4	13434	3.8	100	
Se	78	2	He	0.013	3672.6	223	12.8	1	
As	75	2	He	-0.104	-27.0	144	11.8	2.5	
Ca	44	2	He	0.605	298.9	647	7.1	100	
Na	23	2	He	0.173	409.0	27223	1.2	100	
Mg	24	2	He	-0.207	-136.5	660	16.0	100	
K	39	2	He	-1.171	-115.3	105386	0.7	100	
Mn	55	2	He	-0.008	-258.4	573	10.7	2.5	
Co	59	2	He	0.000	-1263.2	83	25.0	2.5	
Ni	60	2	He	0.090	81.2	337	25.3	2.5	
Cu	63	2	He	-0.048	-69.4	1083	9.0	1	
Zn	66	2	He	-0.050	-115.0	767	5.4	2.5	
Al	27	2	He	0.103	232.8	723	8.3	5	
B	11	1	No Gas	5.454	1.4	12929	1.2	0.5	ICB Main CR1 Failed
Al	27	1	No Gas	-0.060	-86.9	20265	3.3	5	
Si	28	1	No Gas	1.360	61.1	439194	0.2	10	
Ag	107	1	No Gas	-0.002	-234.3	93	32.7	2.5	
Cd	111	1	No Gas	-0.003	-291.6	-1	-1469.9	1	
Sr	88	1	No Gas	0.000	1016.0	513	11.4	2.5	
Mo	95	1	No Gas	0.010	15.3	87	6.7	2.5	
Sn	118	1	No Gas	0.044	69.7	790	15.8	5	
Sb	121	1	No Gas	0.010	76.0	207	24.4	2.5	
Ba	137	1	No Gas	0.001	3232.2	367	18.2	2.5	
Tl	205	1	No Gas	0.015	90.8	273	45.7	1	
Tl	203	1	No Gas	0.015	27.8	127	12.1	1	
Pb	208	1	No Gas	-0.004	-253.8	900	15.8	2.5	
U	238	1	No Gas	-0.001	-177.8	10	173.2	2.5	
Ca	43	2	He	12.505	57.4	33	34.6	100	
Sb	121	2	He	0.014	40.9	100	20.0	2.5	
Ti	47	2	He	-0.044	-89.5	3	173.2	2.5	
Se	82	1	No Gas	-0.383	-101.6	-48	-84.7	1	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	654198	0.63	660437	99.06	70	120	
Ge	72	2	He	393313	0.60	399803	98.38	70	120	
Ge	72	1	No Gas	1245472	0.91	1268211	98.21	70	120	
In	115	1	No Gas	1245756	1.27	1277171	97.54	70	120	
Bi	209	1	No Gas	857428	1.79	864958	99.13	70	120	

Interference Check Solution A (ICS-A) Report

Sample Table

Sample Name	ICSA
Data File Name	037ICSA.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\031523A.b
Acq Date Time	2023-03-15T12:25:04-05:00
Sample Type	ICSA
Dilution	1
Comment	
ISTD Ref File Name	024CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Li	7	1	No Gas	0.212	42.2	39599	3.1	0	ICSA Main CR1 Failed
Be	9	1	No Gas	0.008	24.2	35	14.3	0	ICSA Main CR1 Failed
V	51	2	He	0.085	12.2	3649	1.1	0	ICSA Main CR1 Failed
Cr	52	2	He	2.000	5.8	18686	2.7	0	ICSA Main CR1 Failed
Fe	56	2	He	102857.131	2.1	320711669	1.8	0	
Se	78	2	He	-0.527	-35.9	183	5.6	0	ICSA Main CR1 Failed
As	75	2	He	0.321	29.8	397	14.3	0	ICSA Main CR1 Failed
Ca	44	2	He	100727.002	1.1	2622626	1.6	0	
Na	23	2	He	104820.493	0.8	63583299	0.4	0	
Mg	24	2	He	103662.027	1.3	37521686	0.9	0	
K	39	2	He	102970.910	1.5	55072884	1.3	0	
Mn	55	2	He	1.348	5.9	4384	5.4	0	ICSA Main CR1 Failed
Co	59	2	He	0.491	3.1	2364	2.9	0	ICSA Main CR1 Failed
Ni	60	2	He	1.373	5.3	1780	4.4	0	ICSA Main CR1 Failed
Cu	63	2	He	1.596	5.3	5748	4.1	0	ICSA Main CR1 Failed
Zn	66	2	He	4.733	11.2	3734	8.5	0	ICSA Main CR1 Failed
Al	27	2	He	103043.667	1.4	25951785	1.8	0	
B	11	1	No Gas	5.913	5.2	12773	2.0	0	
Al	27	1	No Gas	96930.703	3.3	874156867	1.9	0	
Si	28	1	No Gas	35.220	8.9	585447	0.8	0	
Ag	107	1	No Gas	0.178	12.7	1313	9.6	0	ICSA Main CR1 Failed
Cd	111	1	No Gas	0.162	147.3	205	145.8	0	ICSA Main CR1 Failed
Sr	88	1	No Gas	4.938	4.5	76612	3.1	0	ICSA Main CR1 Failed
Mo	95	1	No Gas	2059.586	2.2	5975626	1.8	0	
Sn	118	1	No Gas	0.512	7.4	2710	7.8	0	ICSA Main CR1 Failed
Sb	121	1	No Gas	0.256	2.7	1747	2.3	0	ICSA Main CR1 Failed
Ba	137	1	No Gas	1.628	7.8	4151	5.4	0	ICSA Main CR1 Failed
Tl	205	1	No Gas	0.019	41.4	293	23.2	0	ICSA Main CR1 Failed
Tl	203	1	No Gas	0.015	62.2	117	30.1	0	ICSA Main CR1 Failed
Pb	208	1	No Gas	0.177	14.1	3147	10.4	0	ICSA Main CR1 Failed
U	238	1	No Gas	0.009	37.5	123	32.8	0	ICSA Main CR1 Failed
Ca	43	2	He	100758.230	1.7	154344	1.6	0	
Sb	121	2	He	0.264	13.0	910	12.2	0	ICSA Main CR1 Failed
Ti	47	2	He	2141.871	0.8	302385	0.9	0	
Se	82	1	No Gas	-0.569	-70.3	-66	-61.7	0	ICSA Main CR1 Failed

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	618660	1.17	660437	93.67	70	120	
Ge	72	2	He	374991	0.48	399803	93.79	70	120	
Ge	72	1	No Gas	1207610	1.88	1268211	95.22	70	120	
In	115	1	No Gas	1179181	2.10	1277171	92.33	70	120	
Bi	209	1	No Gas	801339	0.80	864958	92.64	70	120	

Interference Check Solution AB (ICS-AB) Report

Sample Table

Sample Name	ICSAB
Data File Name	038ICSB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\031523A.b
Acq Date Time	2023-03-15T12:27:05-05:00
Sample Type	ICSB
Dilution	1
Comment	
ISTD Ref File Name	024CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	1	No Gas	98.056	0.874	878824	0.68	100	98.1	180	120	ICSB Main CR1 Failed
Be	9	1	No Gas	102.174	0.751	248370	0.66	100	102.2	80	120	
V	51	2	He	102.525	0.259	351524	0.15	100	102.5	80	120	
Cr	52	2	He	102.911	0.908	385376	0.58	100	102.9	80	120	
Fe	56	2	He	111870.811	2.135	350575155	1.74	100	111870.8	80	120	
Se	78	2	He	103.289	1.760	6025	1.80	100	103.3	80	120	
As	75	2	He	103.133	1.172	63453	1.30	100	103.1	80	120	
Ca	44	2	He	109889.378	1.403	2875403	1.06	100	109889.4	80	120	
Na	23	2	He	113482.256	0.992	69184231	0.95	100	113482.3	80	120	
Mg	24	2	He	113056.189	1.208	41129095	0.81	100	113056.2	80	120	
K	39	2	He	111778.092	0.849	60077109	0.45	100	111778.1	80	120	
Mn	55	2	He	102.937	0.894	293257	0.53	100	102.9	80	120	
Co	59	2	He	103.764	1.108	484663	1.25	100	103.8	80	120	
Ni	60	2	He	102.744	1.913	117605	1.59	100	102.7	80	120	
Cu	63	2	He	101.917	0.779	294941	0.85	100	101.9	80	120	
Zn	66	2	He	105.985	2.247	67665	2.36	100	106.0	80	120	
Al	27	2	He	101803.700	1.427	25767365	1.03	100	101803.7	80	120	ICSB Main CR1 Failed
B	11	1	No Gas	521.800	0.473	627709	1.76	100	521.8	80	120	
Al	27	1	No Gas	97415.710	1.931	886467453	1.13	100	97415.7	80	120	ICSB Main CR1 Failed
Si	28	1	No Gas	563.415	2.755	3104555	1.74	100	563.4	80	120	
Ag	107	1	No Gas	103.564	1.712	708968	1.00	100	103.6	80	120	
Cd	111	1	No Gas	102.509	0.280	130409	1.46	100	102.5	80	120	
Sr	88	1	No Gas	107.539	2.432	1667292	1.37	100	107.5	80	120	
Mo	95	1	No Gas	2161.202	1.352	6303139	1.14	100	2161.2	80	120	
Sn	118	1	No Gas	103.958	0.381	437359	0.96	100	104.0	80	120	
Sb	121	1	No Gas	102.301	1.625	650273	0.53	100	102.3	80	120	
Ba	137	1	No Gas	106.365	1.397	250497	2.35	100	106.4	80	120	
Tl	205	1	No Gas	103.367	0.686	902781	0.77	100	103.4	80	120	
Tl	203	1	No Gas	102.694	1.042	379814	1.01	100	102.7	80	120	
Pb	208	1	No Gas	104.568	0.570	1327442	1.00	100	104.6	80	120	
U	238	1	No Gas	107.801	2.382	1301060	1.91	100	107.8	80	120	
Ca	43	2	He	110847.220	0.593	170658	0.49	100	110847.2	80	120	
Sb	121	2	He	103.292	0.302	338175	0.11	100	103.3	80	120	
Ti	47	2	He	2241.113	0.983	317986	0.60	100	2241.1	80	120	
Cu	63	1	No Gas	101.919	2.683	626285	1.21	100	101.9	80	120	
Se	82	1	No Gas	103.754	4.717	10596	3.16	100	103.8	80	120	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	618084	1.31	660437	93.59	70	120	
Ge	72	2	He	376886	0.40	399803	94.27	70	120	
Ge	72	1	No Gas	1218285	1.59	1268211	96.06	70	120	
In	115	1	No Gas	1185168	1.31	1277171	92.80	70	120	
Bi	209	1	No Gas	799743	0.77	864958	92.46	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	041_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\031523A.b
Acq Date Time	2023-03-15T12:35:06-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	024CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	No Gas	93.261	2.882	876367	1.95	100	93.3	90	110	
Be	9	1	No Gas	94.370	1.511	240004	0.63	100	94.4	90	110	
V	51	2	He	96.146	0.960	344048	0.64	100	96.1	90	110	
Cr	52	2	He	96.571	1.402	377915	0.64	100	96.6	90	110	
Fe	56	2	He	9680.680	0.629	31655903	0.70	10000	96.8	90	110	
Se	78	2	He	97.269	3.354	5931	3.32	100	97.3	90	110	
As	75	2	He	97.441	0.868	62540	0.14	100	97.4	90	110	
Ca	44	2	He	9690.803	1.504	265046	0.60	10000	96.9	90	110	
Na	23	2	He	9876.431	1.435	6304647	0.85	10000	98.8	90	110	
Mg	24	2	He	9690.660	0.650	3677926	1.10	10000	96.9	90	110	
K	39	2	He	9841.248	1.522	5613323	0.72	10000	98.4	90	110	
Mn	55	2	He	97.848	1.435	290766	0.51	100	97.8	90	110	
Co	59	2	He	97.394	1.323	474457	0.44	100	97.4	90	110	
Ni	60	2	He	97.754	1.594	116717	1.22	100	97.8	90	110	
Cu	63	2	He	99.126	1.570	299230	1.28	100	99.1	90	110	
Zn	66	2	He	97.502	1.795	64986	1.05	100	97.5	90	110	
Al	27	2	He	98.284	2.699	26639	1.66	100	98.3	90	110	
B	11	1	No Gas	471.650	1.876	594185	2.20	500	94.3	90	110	
Al	27	1	No Gas	98.239	2.188	948635	1.96	100	98.2	90	110	
Si	28	1	No Gas	587.471	2.417	3339870	1.73	5000	11.7	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	98.953	1.440	709401	1.47	100	99.0	90	110	
Cd	111	1	No Gas	95.621	3.254	127331	0.62	100	95.6	90	110	
Sr	88	1	No Gas	96.973	2.703	1574304	1.10	100	97.0	90	110	
Mo	95	1	No Gas	95.085	1.686	290437	1.23	100	95.1	90	110	
Sn	118	1	No Gas	95.997	2.227	422881	0.78	100	96.0	90	110	
Sb	121	1	No Gas	95.784	2.247	631692	1.79	100	95.8	90	110	
Ba	137	1	No Gas	96.619	2.178	238247	0.70	100	96.6	90	110	
Tl	205	1	No Gas	99.607	1.727	928577	1.74	100	99.6	90	110	
Tl	203	1	No Gas	98.779	1.435	389967	1.63	100	98.8	90	110	
Pb	208	1	No Gas	96.268	1.822	1304503	1.87	100	96.3	90	110	
U	238	1	No Gas	95.678	3.271	1232664	3.29	100	95.7	90	110	
Ca	43	2	He	9805.549	1.934	15759	2.50	10000	98.1	90	110	
Sb	121	2	He	97.478	1.402	332864	0.98	100	97.5	90	110	
Ti	47	2	He	95.148	2.072	14091	2.10	100	95.1	90	110	
Cu	63	1	No Gas	97.497	2.146	621808	2.02	100	97.5	90	110	
Se	82	1	No Gas	91.771	4.030	9726	3.60	100	91.8	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	646690	1.25	660437	97.92	70	120	
Ge	72	2	He	393110	0.97	399803	98.33	70	120	
Ge	72	1	No Gas	1263991	1.79	1268211	99.67	70	120	
In	115	1	No Gas	1241321	2.88	1277171	97.19	70	120	
Bi	209	1	No Gas	853648	0.87	864958	98.69	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	042_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\031523A.b
Acq Date Time	2023-03-15T12:37:03-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	024CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Li	7	1	No Gas	0.299	39.8	43485	3.1	0.5	
Be	9	1	No Gas	0.026	25.8	85	21.2	0.5	
V	51	2	He	-0.164	-15.8	2959	2.8	2.5	
Cr	52	2	He	-0.013	-891.7	12022	3.4	2.5	
Fe	56	2	He	1.992	11.8	20102	3.5	100	
Se	78	2	He	-0.107	-355.4	217	10.8	2	
As	75	2	He	-0.048	-85.5	181	14.9	2.5	
Ca	44	2	He	3.053	94.1	717	10.6	100	
Na	23	2	He	8.062	10.1	32391	2.1	100	
Mg	24	2	He	2.038	30.8	1520	16.1	100	
K	39	2	He	0.657	406.5	106898	1.5	100	
Mn	55	2	He	0.078	27.4	833	7.2	2.5	
Co	59	2	He	0.015	50.3	157	22.4	2.5	
Ni	60	2	He	0.122	26.9	377	11.1	2.5	
Cu	63	2	He	0.004	972.9	1247	8.9	2	
Zn	66	2	He	0.101	182.7	870	14.4	2.5	
Al	27	2	He	-0.034	-1470.4	690	18.8	5	
B	11	1	No Gas	15.547	10.2	26151	7.1	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	-0.005	-907.7	21240	2.0	5	
Si	28	1	No Gas	1.144	75.1	447952	0.7	10	
Ag	107	1	No Gas	0.024	8.9	287	4.0	2.5	
Cd	111	1	No Gas	0.041	19.6	60	16.7	1	
Sr	88	1	No Gas	0.023	31.1	907	12.9	2.5	
Mo	95	1	No Gas	0.106	44.8	393	37.1	2.5	
Sn	118	1	No Gas	0.074	11.5	960	3.1	5	
Sb	121	1	No Gas	0.066	28.3	583	21.4	2.5	
Ba	137	1	No Gas	0.050	22.9	507	4.1	2.5	
Tl	205	1	No Gas	0.148	22.5	1550	19.7	1	
Tl	203	1	No Gas	0.151	9.2	677	7.6	1	
Pb	208	1	No Gas	0.031	18.2	1410	6.3	2.5	
U	238	1	No Gas	0.031	29.7	433	27.5	2.5	
Ca	43	2	He	8.288	43.4	27	21.7	100	
Sb	121	2	He	0.051	38.7	227	29.4	2.5	
Ti	47	2	He	0.113	69.9	27	43.3	2.5	
Cu	63	1	No Gas	-0.019	-108.0	2830	4.6	2.5	
Se	82	1	No Gas	-0.063	-610.5	-15	-273.1	2	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	666902	0.72	660437	100.98	70	120	
Ge	72	2	He	395113	0.69	399803	98.83	70	120	
Ge	72	1	No Gas	1273317	0.22	1268211	100.40	70	120	
In	115	1	No Gas	1292352	2.33	1277171	101.19	70	120	
Bi	209	1	No Gas	872733	0.78	864958	100.90	70	120	

Sample Report

Sample Table

Sample Name	LCS-190792
Data File Name	044SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\031523A.b
Acq Date Time	2023-03-15T12:41:03-05:00
Sample Type	Sample
Dilution	1
Comment	TW DOD B 190792
ISTD Ref FileName	024CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	0.132	0.132	14.68	43204	0.00	2000	
Be	9	1	No Gas	46.275	46.275	0.91	125057	0.04	2000	
V	51	2	He	47.966	47.966	1.22	180331	0.03	2000	
Cr	52	2	He	47.052	47.052	1.45	197901	0.02	2000	
Fe	56	2	He	4869.353	4869.353	1.33	16565320	0.03	200000	
Se	78	2	He	49.046	49.046	8.29	3223	1.52	2000	
As	75	2	He	49.195	49.195	0.62	32946	0.15	2000	
Ca	44	2	He	4776.601	4776.601	2.19	136185	3.51	200000	
Na	23	2	He	4997.256	4997.256	1.94	3331320	0.15	200000	
Mg	24	2	He	5022.226	5022.226	2.15	1982475	0.25	200000	
K	39	2	He	5021.664	5021.664	1.97	3032728	0.17	200000	
Mn	55	2	He	48.894	48.894	1.64	151408	0.03	2000	
Co	59	2	He	49.108	49.108	2.54	248811	0.02	2000	
Ni	60	2	He	49.184	49.184	0.87	61194	0.08	2000	
Cu	63	2	He	49.264	49.264	1.37	155296	0.03	2000	
Zn	66	2	He	49.660	49.660	2.99	34835	0.14	2000	
Al	27	2	He	51.046	51.046	3.87	14735	0.35	2000	
B	11	1	No Gas	4.198	4.198	4.37	11913	0.04	2000	
Al	27	1	No Gas	49.921	49.921	3.52	516672	0.01	2000	
Si	28	1	No Gas	47.393	47.393	8.64	706161	0.01	2000	
Ag	107	1	No Gas	50.477	50.477	1.07	380931	0.01	2000	
Cd	111	1	No Gas	48.828	48.828	1.56	68472	0.07	2000	
Sr	88	1	No Gas	0.033	0.033	6.05	1100	0.00	2000	
Mo	95	1	No Gas	47.557	47.557	0.49	152934	0.03	2000	
Sn	118	1	No Gas	0.017	0.017	231.43	707	0.00	2000	
Sb	121	1	No Gas	48.261	48.261	3.88	333986	0.01	2000	
Ba	137	1	No Gas	47.483	47.483	0.94	123446	0.04	2000	
Tl	205	1	No Gas	48.234	48.234	1.94	475783	0.01	2000	
Tl	203	1	No Gas	47.355	47.355	1.53	197828	0.02	2000	
Pb	208	1	No Gas	47.912	47.912	1.36	687400	0.01	2000	
U	238	1	No Gas	0.001	0.001	98.55	37	0.00	2000	
Ca	43	2	He	4672.244	4672.244	1.09	7816	59.78	200000	
Sb	121	2	He	48.609	48.609	1.60	172662	0.03	2000	
Ti	47	2	He	47.714	47.714	5.05	7352	0.65	2000	
Cu	63	1	No Gas	48.644	48.644	3.10	327055	0.01	2000	
Zn	66	1	No Gas	48.039	48.039	3.62	88142	0.05	2000	
Se	82	1	No Gas	49.376	49.376	1.14	5490	0.90	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	687062	0.82	660437	104.03	70	120	
Ge	72	2	He	408832	1.34	399803	102.26	70	120	
Ge	72	1	No Gas	1327029	3.54	1268211	104.64	70	120	
In	115	1	No Gas	1306259	1.19	1277171	102.28	70	120	

Sample Report

Bi	209	1	No Gas	903270	1.56	864958	104.43	70	120	

Sample Report

Sample Table

Sample Name	HS23030396-01
Data File Name	045SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\031523A.b
Acq Date Time	2023-03-15T12:43:02-05:00
Sample Type	Sample
Dilution	1
Comment	TW DOD B 190792
ISTD Ref FileName	024CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	32.848	32.848	0.56	335270	0.01	2000	
Be	9	1	No Gas	0.024	0.024	31.56	77	0.03	2000	
V	51	2	He	0.083	0.083	65.11	3993	0.00	2000	
Cr	52	2	He	1.188	1.188	1.96	17265	0.01	2000	
Fe	56	2	He	170.756	170.756	1.09	597669	0.03	200000	
Se	78	2	He	0.373	0.373	102.72	255	0.15	2000	
As	75	2	He	0.270	0.270	6.40	401	0.07	2000	
Ca	44	2	He	19873.700	19873.700	1.71	567628	3.50	200000	
Na	23	2	He	534546.934	534546.934	1.45	355275021	0.15	200000	>LDR
Mg	24	2	He	20749.268	20749.268	1.82	8232237	0.25	200000	
K	39	2	He	1845.657	1845.657	2.06	1190793	0.15	200000	
Mn	55	2	He	100.830	100.830	0.99	313275	0.03	2000	
Co	59	2	He	0.229	0.229	11.67	1257	0.02	2000	
Ni	60	2	He	1.145	1.145	9.25	1667	0.07	2000	
Cu	63	2	He	4.230	4.230	3.32	14578	0.03	2000	
Zn	66	2	He	70.439	70.439	2.24	49330	0.14	2000	
Al	27	2	He	8.228	8.228	8.91	3000	0.27	2000	
B	11	1	No Gas	35.716	35.716	0.45	50664	0.07	2000	
Al	27	1	No Gas	7.931	7.931	15.78	97426	0.01	2000	
Si	28	1	No Gas	7310.095	7310.095	1.91	37110710	0.02	2000	>LDR
Ag	107	1	No Gas	0.057	0.057	39.10	513	0.01	2000	
Cd	111	1	No Gas	0.006	0.006	348.43	12	0.05	2000	
Sr	88	1	No Gas	496.915	496.915	2.38	8030411	0.01	2000	
Mo	95	1	No Gas	0.172	0.172	12.32	577	0.03	2000	
Sn	118	1	No Gas	0.048	0.048	46.61	803	0.01	2000	
Sb	121	1	No Gas	0.284	0.284	5.61	2044	0.01	2000	
Ba	137	1	No Gas	227.705	227.705	0.75	558639	0.04	2000	
Tl	205	1	No Gas	0.078	0.078	30.81	830	0.01	2000	
Tl	203	1	No Gas	0.071	0.071	25.11	333	0.02	2000	
Pb	208	1	No Gas	0.194	0.194	8.83	3457	0.01	2000	
U	238	1	No Gas	0.011	0.011	14.88	157	0.01	2000	
Ca	43	2	He	20481.559	20481.559	2.08	34397	59.54	200000	
Sb	121	2	He	0.258	0.258	13.34	977	0.03	2000	
Ti	47	2	He	1.827	1.827	16.92	293	0.62	2000	
Cu	63	1	No Gas	11.041	11.041	12.56	74042	0.01	2000	
Zn	66	1	No Gas	70.664	70.664	2.38	124541	0.06	2000	
Se	82	1	No Gas	-0.051	-0.051	-1627.40	-12	0.41	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	648530	1.73	660437	98.20	70	120	
Ge	72	2	He	411028	0.95	399803	102.81	70	120	
Ge	72	1	No Gas	1283903	2.42	1268211	101.24	70	120	
In	115	1	No Gas	1235757	2.37	1277171	96.76	70	120	
Bi	209	1	No Gas	823073	0.48	864958	95.16	70	120	

Sample Report

Sample Table

Sample Name	HS23030399-01SD
Data File Name	047SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\031523A.b
Acq Date Time	2023-03-15T12:47:03-05:00
Sample Type	Sample
Dilution	5
Comment	TW DOD B 190792
ISTD Ref FileName	024CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	6.325	31.624	2.06	106581	0.01	2000	
Be	9	1	No Gas	0.015	0.077	6.19	62	0.03	2000	
V	51	2	He	2.258	11.288	1.83	12293	0.02	2000	
Cr	52	2	He	3.167	15.834	4.17	25618	0.01	2000	
Fe	56	2	He	145.016	725.079	1.80	520153	0.03	200000	
Se	78	2	He	-0.117	-0.587	-42.86	230	-0.05	2000	
As	75	2	He	0.631	3.155	18.01	656	0.10	2000	
Ca	44	2	He	5180.142	25900.710	1.09	151494	3.42	200000	
Na	23	2	He	47043.708	235218.538	1.14	31935125	0.15	200000	
Mg	24	2	He	4699.439	23497.194	1.37	1903427	0.25	200000	
K	39	2	He	259.741	1298.707	0.76	268190	0.10	200000	
Mn	55	2	He	47.903	239.515	0.51	152220	0.03	2000	
Co	59	2	He	0.700	3.499	7.50	3727	0.02	2000	
Ni	60	2	He	3.486	17.430	3.19	4678	0.07	2000	
Cu	63	2	He	1.923	9.614	2.45	7479	0.03	2000	
Zn	66	2	He	3.120	15.599	9.03	3044	0.10	2000	
Al	27	2	He	6.334	31.670	16.47	2527	0.25	2000	
B	11	1	No Gas	8.770	43.850	0.18	18733	0.05	2000	
Al	27	1	No Gas	5.993	29.964	10.50	84072	0.01	2000	
Si	28	1	No Gas	2623.430	13117.149	2.24	14480840	0.02	2000	>LDR
Ag	107	1	No Gas	0.005	0.025	45.54	153	0.00	2000	
Cd	111	1	No Gas	0.003	0.016	813.04	8	0.04	2000	
Sr	88	1	No Gas	103.096	515.482	0.78	1795858	0.01	2000	
Mo	95	1	No Gas	0.186	0.929	19.82	667	0.03	2000	
Sn	118	1	No Gas	0.245	1.226	98.33	1813	0.01	2000	
Sb	121	1	No Gas	0.153	0.765	12.25	1247	0.01	2000	
Ba	137	1	No Gas	48.749	243.745	0.33	129179	0.04	2000	
Tl	205	1	No Gas	0.010	0.048	45.50	233	0.00	2000	
Tl	203	1	No Gas	0.011	0.055	45.58	113	0.01	2000	
Pb	208	1	No Gas	0.016	0.080	44.41	1223	0.00	2000	
U	238	1	No Gas	0.166	0.831	4.43	2254	0.01	2000	
Ca	43	2	He	5215.442	26077.209	2.59	8950	58.27	200000	
Sb	121	2	He	0.149	0.747	27.89	600	0.02	2000	
Ti	47	2	He	0.314	1.568	35.09	60	0.52	2000	
Cu	63	1	No Gas	2.392	11.962	4.46	19588	0.01	2000	
Zn	66	1	No Gas	3.258	16.288	8.02	8169	0.04	2000	
Se	82	1	No Gas	0.241	1.205	299.29	18	1.32	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	716115	0.34	660437	108.43	70	120	
Ge	72	2	He	419434	0.15	399803	104.91	70	120	
Ge	72	1	No Gas	1366588	1.03	1268211	107.76	70	120	
In	115	1	No Gas	1331445	2.22	1277171	104.25	70	120	

Sample Report

Bi	209	1	No Gas	890636	0.24	864958	102.97	70	120	

Sample Report

Sample Table

Sample Name	HS23030399-01MS
Data File Name	048SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\031523A.b
Acq Date Time	2023-03-15T12:49:01-05:00
Sample Type	Sample
Dilution	1
Comment	TW DOD B 190792
ISTD Ref FileName	024CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	23.195	23.195	0.67	266357	0.01	2000	
Be	9	1	No Gas	47.889	47.889	1.39	131011	0.04	2000	
V	51	2	He	50.163	50.163	0.43	195285	0.03	2000	
Cr	52	2	He	47.664	47.664	0.92	207597	0.02	2000	
Fe	56	2	He	5483.599	5483.599	1.01	19332339	0.03	200000	
Se	78	2	He	49.107	49.107	2.66	3346	1.47	2000	
As	75	2	He	52.415	52.415	1.69	36362	0.14	2000	
Ca	44	2	He	30595.087	30595.087	2.17	900420	3.40	200000	
Na	23	2	He	238849.769	238849.769	1.02	163663701	0.15	200000	>LDR
Mg	24	2	He	27144.268	27144.268	0.42	11101742	0.24	200000	
K	39	2	He	6303.740	6303.740	0.27	3916529	0.16	200000	
Mn	55	2	He	286.728	286.728	1.87	917115	0.03	2000	
Co	59	2	He	51.015	51.015	2.22	267900	0.02	2000	
Ni	60	2	He	58.181	58.181	1.94	74973	0.08	2000	
Cu	63	2	He	50.886	50.886	1.00	166210	0.03	2000	
Zn	66	2	He	62.669	62.669	0.52	45329	0.14	2000	
Al	27	2	He	79.127	79.127	4.94	23261	0.34	2000	
B	11	1	No Gas	31.573	31.573	0.43	48779	0.06	2000	
Al	27	1	No Gas	73.062	73.062	2.65	765034	0.01	2000	
Si	28	1	No Gas	13439.479	13439.479	0.47	71878921	0.02	2000	>LDR
Ag	107	1	No Gas	47.628	47.628	0.96	362250	0.01	2000	
Cd	111	1	No Gas	48.125	48.125	2.04	67993	0.07	2000	
Sr	88	1	No Gas	508.122	508.122	0.89	8749729	0.01	2000	
Mo	95	1	No Gas	48.634	48.634	1.21	157608	0.03	2000	
Sn	118	1	No Gas	0.026	0.026	129.23	757	0.00	2000	
Sb	121	1	No Gas	48.479	48.479	1.01	344097	0.01	2000	
Ba	137	1	No Gas	298.758	298.758	1.14	780732	0.04	2000	
Tl	205	1	No Gas	44.109	44.109	0.56	414403	0.01	2000	
Tl	203	1	No Gas	43.009	43.009	1.15	171119	0.03	2000	
Pb	208	1	No Gas	48.189	48.189	1.56	658424	0.01	2000	
U	238	1	No Gas	0.796	0.796	2.37	10348	0.01	2000	
Ca	43	2	He	31098.110	31098.110	1.14	53832	57.77	200000	
Sb	121	2	He	49.012	49.012	0.73	180412	0.03	2000	
Ti	47	2	He	53.370	53.370	3.37	8523	0.63	2000	
Cu	63	1	No Gas	52.670	52.670	0.47	362881	0.01	2000	
Zn	66	1	No Gas	61.702	61.702	1.19	115499	0.05	2000	
Se	82	1	No Gas	49.837	49.837	8.74	5680	0.88	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	695519	1.38	660437	105.31	70	120	
Ge	72	2	He	423677	0.52	399803	105.97	70	120	
Ge	72	1	No Gas	1359832	0.74	1268211	107.22	70	120	
In	115	1	No Gas	1316493	1.73	1277171	103.08	70	120	
Bi	209	1	No Gas	860122	0.34	864958	99.44	70	120	

Sample Report

Sample Table

Sample Name	HS23030399-01MSD
Data File Name	049SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\031523A.b
Acq Date Time	2023-03-15T12:51:01-05:00
Sample Type	Sample
Dilution	1
Comment	TW DOD B 190792
ISTD Ref FileName	024CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	23.626	23.626	2.14	269482	0.01	2000	
Be	9	1	No Gas	48.287	48.287	2.16	131595	0.04	2000	
V	51	2	He	50.440	50.440	0.91	193266	0.03	2000	
Cr	52	2	He	48.499	48.499	0.76	207705	0.02	2000	
Fe	56	2	He	5495.828	5495.828	1.37	19071580	0.03	200000	
Se	78	2	He	50.338	50.338	3.41	3370	1.49	2000	
As	75	2	He	52.054	52.054	0.35	35550	0.15	2000	
Ca	44	2	He	30753.172	30753.172	1.42	890886	3.45	200000	
Na	23	2	He	239095.839	239095.839	0.94	161260594	0.15	200000	>LDR
Mg	24	2	He	27726.393	27726.393	0.82	11162375	0.25	200000	
K	39	2	He	6276.840	6276.840	1.73	3838905	0.16	200000	
Mn	55	2	He	285.318	285.318	1.02	898313	0.03	2000	
Co	59	2	He	51.682	51.682	1.04	267167	0.02	2000	
Ni	60	2	He	58.450	58.450	0.93	74141	0.08	2000	
Cu	63	2	He	51.155	51.155	0.84	164469	0.03	2000	
Zn	66	2	He	63.091	63.091	0.59	44915	0.14	2000	
Al	27	2	He	78.673	78.673	2.53	22769	0.35	2000	
B	11	1	No Gas	31.846	31.846	2.87	48953	0.07	2000	
Al	27	1	No Gas	72.539	72.539	0.72	757580	0.01	2000	
Si	28	1	No Gas	13336.430	13336.430	0.36	71140889	0.02	2000	>LDR
Ag	107	1	No Gas	47.680	47.680	1.51	355173	0.01	2000	
Cd	111	1	No Gas	48.391	48.391	1.15	66965	0.07	2000	
Sr	88	1	No Gas	512.750	512.750	2.30	8645931	0.01	2000	
Mo	95	1	No Gas	49.396	49.396	0.86	156785	0.03	2000	
Sn	118	1	No Gas	0.048	0.048	15.44	840	0.01	2000	
Sb	121	1	No Gas	48.086	48.086	1.04	340402	0.01	2000	
Ba	137	1	No Gas	301.954	301.954	0.79	772844	0.04	2000	
Tl	205	1	No Gas	44.099	44.099	1.98	410040	0.01	2000	
Tl	203	1	No Gas	43.605	43.605	1.99	171702	0.03	2000	
Pb	208	1	No Gas	48.056	48.056	2.19	649849	0.01	2000	
U	238	1	No Gas	0.815	0.815	4.19	10488	0.01	2000	
Ca	43	2	He	31474.578	31474.578	1.46	53628	58.69	200000	
Sb	121	2	He	50.108	50.108	1.47	181555	0.03	2000	
Ti	47	2	He	52.190	52.190	1.65	8206	0.64	2000	
Cu	63	1	No Gas	52.047	52.047	1.02	357672	0.01	2000	
Zn	66	1	No Gas	60.561	60.561	0.31	113092	0.05	2000	
Se	82	1	No Gas	48.805	48.805	6.58	5547	0.88	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	692990	1.72	660437	104.93	70	120	
Ge	72	2	He	417065	1.30	399803	104.32	70	120	
Ge	72	1	No Gas	1356189	0.39	1268211	106.94	70	120	
In	115	1	No Gas	1289400	2.28	1277171	100.96	70	120	
Bi	209	1	No Gas	851345	0.96	864958	98.43	70	120	

Sample Report

Sample Table

Sample Name	HS23030399-01PDS
Data File Name	050SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\031523A.b
Acq Date Time	2023-03-15T12:53:01-05:00
Sample Type	Sample
Dilution	1
Comment	TW DOD B 190792
ISTD Ref FileName	024CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	23.099	23.099	1.06	266381	0.01	2000	
Be	9	1	No Gas	92.837	92.837	1.06	254848	0.04	2000	
V	51	2	He	96.616	96.616	0.41	369281	0.03	2000	
Cr	52	2	He	93.353	93.353	0.59	390668	0.02	2000	
Fe	56	2	He	10202.527	10202.527	0.16	35635084	0.03	200000	
Se	78	2	He	98.672	98.672	2.06	6424	1.54	2000	
As	75	2	He	100.939	100.939	1.31	69191	0.15	2000	
Ca	44	2	He	35178.164	35178.164	1.47	1025980	3.43	200000	
Na	23	2	He	241391.128	241391.128	0.48	163920404	0.15	200000	>LDR
Mg	24	2	He	31934.804	31934.804	1.02	12943947	0.25	200000	
K	39	2	He	10999.467	10999.467	0.44	6688640	0.16	200000	
Mn	55	2	He	333.777	333.777	2.65	1057953	0.03	2000	
Co	59	2	He	96.825	96.825	0.11	503855	0.02	2000	
Ni	60	2	He	104.048	104.048	2.21	132698	0.08	2000	
Cu	63	2	He	95.286	95.286	1.78	307301	0.03	2000	
Zn	66	2	He	110.559	110.559	1.10	78604	0.14	2000	
Al	27	2	He	123.839	123.839	2.61	35666	0.35	2000	
B	11	1	No Gas	31.074	31.074	0.52	48281	0.06	2000	
Al	27	1	No Gas	129.935	129.935	14.11	1304956	0.01	2000	
Si	28	1	No Gas	13498.175	13498.175	0.71	70273382	0.02	2000	>LDR
Ag	107	1	No Gas	96.822	96.822	2.22	711208	0.01	2000	
Cd	111	1	No Gas	95.000	95.000	0.94	129690	0.07	2000	
Sr	88	1	No Gas	514.949	514.949	1.69	8566034	0.01	2000	
Mo	95	1	No Gas	96.976	96.976	1.93	303544	0.03	2000	
Sn	118	1	No Gas	0.025	0.025	55.48	723	0.00	2000	
Sb	121	1	No Gas	92.529	92.529	0.95	639122	0.01	2000	
Ba	137	1	No Gas	349.786	349.786	1.87	882996	0.04	2000	
Tl	205	1	No Gas	101.532	101.532	1.44	937472	0.01	2000	
Tl	203	1	No Gas	100.105	100.105	2.26	391387	0.03	2000	
Pb	208	1	No Gas	95.392	95.392	1.19	1280430	0.01	2000	
U	238	1	No Gas	0.811	0.811	4.10	10368	0.01	2000	
Ca	43	2	He	35616.468	35616.468	0.64	61102	58.29	200000	
Sb	121	2	He	93.181	93.181	0.35	339890	0.03	2000	
Ti	47	2	He	95.885	95.885	2.30	15169	0.63	2000	
Cu	63	1	No Gas	97.722	97.722	1.58	652653	0.01	2000	
Zn	66	1	No Gas	108.875	108.875	1.36	196768	0.06	2000	
Se	82	1	No Gas	99.543	99.543	5.42	11043	0.90	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	698028	2.01	660437	105.69	70	120	
Ge	72	2	He	419887	0.58	399803	105.02	70	120	
Ge	72	1	No Gas	1323723	2.03	1268211	104.38	70	120	
In	115	1	No Gas	1272006	2.55	1277171	99.60	70	120	
Bi	209	1	No Gas	845576	1.45	864958	97.76	70	120	

Sample Report

Sample Table

Sample Name	MBLK-190792
Data File Name	052SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\031523A.b
Acq Date Time	2023-03-15T12:56:59-05:00
Sample Type	Sample
Dilution	1
Comment	TW DOD B 190792
ISTD Ref FileName	024CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	0.942	0.942	2.04	53133	0.00	2000	
Be	9	1	No Gas	0.013	0.013	30.36	53	0.02	2000	
V	51	2	He	0.614	0.614	3.71	6008	0.01	2000	
Cr	52	2	He	0.212	0.212	87.16	13503	0.00	2000	
Fe	56	2	He	1.331	1.331	4.16	18803	0.01	200000	
Se	78	2	He	-0.320	-0.320	-73.54	215	-0.15	2000	
As	75	2	He	0.094	0.094	64.08	286	0.03	2000	
Ca	44	2	He	2.870	2.870	115.77	747	0.38	200000	
Na	23	2	He	60.123	60.123	4.78	68846	0.09	200000	
Mg	24	2	He	1.363	1.363	16.81	1323	0.10	200000	
K	39	2	He	9.916	9.916	23.75	117560	0.01	200000	
Mn	55	2	He	0.087	0.087	7.38	900	0.01	2000	
Co	59	2	He	0.012	0.012	15.98	150	0.01	2000	
Ni	60	2	He	0.094	0.094	39.04	360	0.03	2000	
Cu	63	2	He	0.124	0.124	21.47	1687	0.01	2000	
Zn	66	2	He	0.252	0.252	45.04	1017	0.02	2000	
Al	27	2	He	-0.168	-0.168	-100.87	687	-0.02	2000	
B	11	1	No Gas	1.765	1.765	10.97	9065	0.02	2000	
Al	27	1	No Gas	0.136	0.136	117.23	23921	0.00	2000	
Si	28	1	No Gas	2.329	2.329	16.24	480609	0.00	2000	
Ag	107	1	No Gas	0.002	0.002	571.19	127	0.00	2000	
Cd	111	1	No Gas	-0.002	-0.002	-13.28	0	0.97	2000	
Sr	88	1	No Gas	0.038	0.038	17.38	1167	0.00	2000	
Mo	95	1	No Gas	0.070	0.070	46.76	280	0.03	2000	
Sn	118	1	No Gas	0.001	0.001	4572.80	623	0.00	2000	
Sb	121	1	No Gas	0.146	0.146	9.10	1180	0.01	2000	
Ba	137	1	No Gas	0.028	0.028	98.11	450	0.01	2000	
Tl	205	1	No Gas	0.011	0.011	32.72	243	0.00	2000	
Tl	203	1	No Gas	0.018	0.018	28.20	140	0.01	2000	
Pb	208	1	No Gas	-0.007	-0.007	-170.39	903	0.00	2000	
U	238	1	No Gas	0.000	0.000	-146.57	17	0.00	2000	
Ca	43	2	He	27.186	27.186	57.08	60	45.31	200000	
Sb	121	2	He	0.148	0.148	3.16	587	0.03	2000	
Ti	47	2	He	0.019	0.019	193.67	13	0.14	2000	
Cu	63	1	No Gas	0.207	0.207	17.36	4534	0.00	2000	
Zn	66	1	No Gas	0.326	0.326	44.58	2724	0.01	2000	
Se	82	1	No Gas	-0.556	-0.556	-167.47	-72	0.77	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	716736	0.84	660437	108.52	70	120	
Ge	72	2	He	414330	0.27	399803	103.63	70	120	

Sample Report

Ge	72	1	No Gas	1348402	0.74	1268211	106.32	70	120	
In	115	1	No Gas	1295269	3.56	1277171	101.42	70	120	
Bi	209	1	No Gas	888940	0.70	864958	102.77	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	053_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\031523A.b
Acq Date Time	2023-03-15T12:58:59-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	024CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	No Gas	95.088	1.373	942971	0.77	100	95.1	90	110	
Be	9	1	No Gas	96.181	0.371	258363	0.45	100	96.2	90	110	
V	51	2	He	98.860	1.158	373499	0.70	100	98.9	90	110	
Cr	52	2	He	98.879	1.034	408365	0.48	100	98.9	90	110	
Fe	56	2	He	10055.730	1.438	34726705	1.48	10000	100.6	90	110	
Se	78	2	He	99.964	1.730	6431	1.45	100	100.0	90	110	
As	75	2	He	101.230	1.369	68608	1.03	100	101.2	90	110	
Ca	44	2	He	9963.185	1.509	287772	0.98	10000	99.6	90	110	
Na	23	2	He	10181.057	0.191	6863201	0.44	10000	101.8	90	110	
Mg	24	2	He	10219.301	0.714	4096085	0.98	10000	102.2	90	110	
K	39	2	He	10209.767	1.206	6146284	0.88	10000	102.1	90	110	
Mn	55	2	He	100.418	1.620	315141	1.42	100	100.4	90	110	
Co	59	2	He	99.584	1.156	512359	0.86	100	99.6	90	110	
Ni	60	2	He	99.731	1.376	125754	0.90	100	99.7	90	110	
Cu	63	2	He	100.812	1.643	321367	1.25	100	100.8	90	110	
Zn	66	2	He	100.365	2.021	70627	2.01	100	100.4	90	110	
Al	27	2	He	106.987	2.879	30564	2.79	100	107.0	90	110	
B	11	1	No Gas	482.166	1.268	641390	1.53	500	96.4	90	110	
Al	27	1	No Gas	103.196	1.600	1045274	1.35	100	103.2	90	110	
Si	28	1	No Gas	604.095	2.336	3593137	1.27	5000	12.1	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	102.378	2.396	768362	1.65	100	102.4	90	110	
Cd	111	1	No Gas	98.038	1.946	136724	1.49	100	98.0	90	110	
Sr	88	1	No Gas	100.852	2.739	1714369	2.10	100	100.9	90	110	
Mo	95	1	No Gas	97.903	2.029	313095	1.61	100	97.9	90	110	
Sn	118	1	No Gas	98.038	1.191	452228	1.30	100	98.0	90	110	
Sb	121	1	No Gas	97.171	1.020	672964	0.98	100	97.2	90	110	
Ba	137	1	No Gas	98.307	1.046	253821	0.27	100	98.3	90	110	
Tl	205	1	No Gas	101.828	1.553	976269	0.55	100	101.8	90	110	
Tl	203	1	No Gas	99.289	1.242	403148	1.16	100	99.3	90	110	
Pb	208	1	No Gas	99.460	1.184	1386071	0.38	100	99.5	90	110	
U	238	1	No Gas	98.121	1.570	1300270	2.18	100	98.1	90	110	
Ca	43	2	He	9987.495	1.188	16951	1.22	10000	99.9	90	110	
Sb	121	2	He	99.587	0.759	359150	0.47	100	99.6	90	110	
Ti	47	2	He	100.804	1.661	15766	2.00	100	100.8	90	110	
Cu	63	1	No Gas	101.268	1.089	678101	1.44	100	101.3	90	110	
Se	82	1	No Gas	100.109	5.890	11143	6.15	100	100.1	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	682981	0.79	660437	103.41	70	120	
Ge	72	2	He	415156	0.53	399803	103.84	70	120	
Ge	72	1	No Gas	1327172	1.04	1268211	104.65	70	120	
In	115	1	No Gas	1299336	0.82	1277171	101.74	70	120	
Bi	209	1	No Gas	878004	1.22	864958	101.51	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	054_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\031523A.b
Acq Date Time	2023-03-15T13:00:56-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	024CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Li	7	1	No Gas	0.708	9.2	50671	0.7	0.5	CCB Main CR1 Failed
Be	9	1	No Gas	0.026	38.1	90	30.9	0.5	
V	51	2	He	-0.010	-49.6	3711	1.1	2.5	
Cr	52	2	He	0.485	14.2	14725	2.5	2.5	
Fe	56	2	He	1.953	9.8	21127	2.3	100	
Se	78	2	He	-0.286	-7.0	219	1.1	2	
As	75	2	He	0.103	15.5	294	4.0	2.5	
Ca	44	2	He	0.580	192.9	687	5.1	100	
Na	23	2	He	33.609	3.0	51529	1.9	100	
Mg	24	2	He	1.533	27.7	1403	12.1	100	
K	39	2	He	5.019	28.1	115668	0.7	100	
Mn	55	2	He	0.029	99.2	727	12.0	2.5	
Co	59	2	He	0.015	22.1	167	9.2	2.5	
Ni	60	2	He	0.051	155.3	310	33.7	2.5	
Cu	63	2	He	-0.067	-24.2	1093	5.0	2	
Zn	66	2	He	-0.127	-90.6	760	9.9	2.5	
Al	27	2	He	0.002	16643.9	740	11.7	5	
B	11	1	No Gas	13.439	10.5	25129	7.3	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	-0.011	-460.7	22859	1.8	5	
Si	28	1	No Gas	1.270	80.6	484099	0.6	10	
Ag	107	1	No Gas	0.026	29.5	317	17.4	2.5	
Cd	111	1	No Gas	0.048	35.9	73	34.5	1	
Sr	88	1	No Gas	0.028	49.5	1040	22.7	2.5	
Mo	95	1	No Gas	0.085	35.8	340	28.1	2.5	
Sn	118	1	No Gas	0.102	27.9	1137	10.5	5	
Sb	121	1	No Gas	0.114	7.7	970	6.3	2.5	
Ba	137	1	No Gas	-0.083	-23.3	173	29.0	2.5	
Tl	205	1	No Gas	0.145	21.7	1573	19.9	1	
Tl	203	1	No Gas	0.136	9.3	637	8.7	1	
Pb	208	1	No Gas	0.027	50.0	1400	14.3	2.5	
U	238	1	No Gas	0.035	36.2	497	34.3	2.5	
Ca	43	2	He	17.204	53.6	43	35.3	100	
Sb	121	2	He	0.104	22.8	433	20.8	2.5	
Ti	47	2	He	-0.024	-150.4	7	86.6	2.5	
Cu	63	1	No Gas	-0.074	-33.0	2677	5.7	2.5	
Se	82	1	No Gas	0.005	10674.3	-9	-777.9	2	

QC ISTD Table

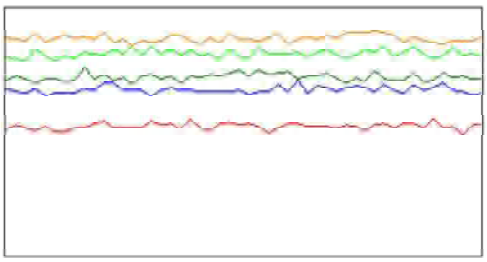
Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	714847	0.61	660437	108.24	70	120	
Ge	72	2	He	417948	1.01	399803	104.54	70	120	
Ge	72	1	No Gas	1374181	0.74	1268211	108.36	70	120	
In	115	1	No Gas	1350687	1.58	1277171	105.76	70	120	
Bi	209	1	No Gas	900742	0.75	864958	104.14	70	120	

Tune Check Report

Operator Name	ALSHS NoUser
Acq/Data Batch	C:\Agilent\ICPMH\1\DATA\031523A.b
Acq. Date-Time	3/15/2023 10:42:52 AM
Report Comment	---
Instrument Name	G8421A SG18523544

[No Gas]

Sensitivity



Sampling Period [sec]	0.514
Integration Time [sec]	0.1

Mass	Range	Count	Resp [cps/ug/l]	Resp (Required) [cps/ug/l]	Resp (Flag)
9	5000	2628	26277.92		
24	10000	8196	81960.18		
59	20000	13475	134747.11		
115	20000	17591	175908.75		
208	10000	7244	72437.65		

Mass	Resp Ratio	Resp Ratio (Required)	Resp Ratio (Flag)
9		-	
24		-	
59		-	
115		-	
208		-	

Mass	RSD%	RSD% (Required)	RSD% (Flag)
9	2.572	5.000	
24	1.816	5.000	
59	2.066	5.000	
115	1.636	5.000	
208	2.068	5.000	

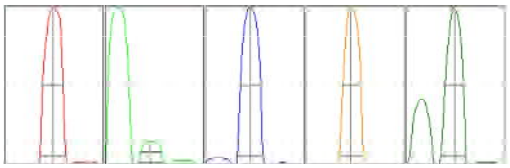
Mass	Background	Background (Required)	Background (Flag)
9	2.100		
24	1.400		
59	1.600		
115	1.800		
208	5.300		

Oxide/Doubly Charged Ratio

Oxide	156 / 140 0.616 %
Doubly Charged	70 / 140 1.113 %

Tune Check Report

Resolution/Axis



Integration Time [sec]	0.1
Acquisition Time [sec]	37.4
Y Axis	Linear

Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
9	2737.51	9.00	8.90 - 9.10	
24	8150.20	23.90	23.90 - 24.10	
59	13813.81	58.90	58.90 - 59.10	
115	18071.00	114.90	114.90 - 115.10	
208	7306.31	208.00	207.90 - 208.10	

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
9	0.63	0.783		
24	0.64	0.751		
59	0.60	0.777		
115	0.54	0.727		
208	0.57	0.767		

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas	0.48 L/min	Dilution Gas	0.60 L/min
RF Power	1600 W	Option Gas	---	Auxiliary Gas	0.90 L/min
RF Matching	1.80 V	Nebulizer Pump	0.10 rps	Plasma Gas	15.0 L/min
Sample Depth	8.0 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	0.0 V	Omega Lens	9.5 V	Deflect	16.2 V
Extract 2	-200.0 V	Cell Entrance	-30 V	Plate Bias	-50 V
Omega Bias	-90 V	Cell Exit	-50 V		

Cell Parameters

Use Gas	No	3rd Gas Flow	---	Energy Discrimination	5.0 V
He Flow	0.0 mL/min	OctP Bias	-8.0 V		
H2 Flow	---	OctP RF	200 V		

QP Parameters

Mass Gain	133	Axis Gain	1.0003	QP Bias	-3.0 V
Mass Offset	125	Axis Offset	0.06		

Hardware Settings

Torch

Torch H	1.3 mm	Torch V	-0.6 mm

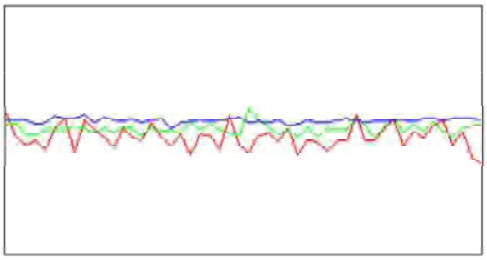
EM

Discriminator	4.6 mV	Analog HV	2952 V	Pulse HV	1615 V

[He]

Tune Check Report

Sensitivity



Sampling Period [sec]	0.306
Integration Time [sec]	0.1

Mass	Range	Count	Resp [cps/ug/l]	Resp (Required) [cps/ug/l]	Resp (Flag)
9	200	95	945.03		
24	1000	508	5078.52		
59	10000	5403	54025.23		

Mass	Resp Ratio	Resp Ratio (Required)	Resp Ratio (Flag)
9		-	
24		-	
59		-	

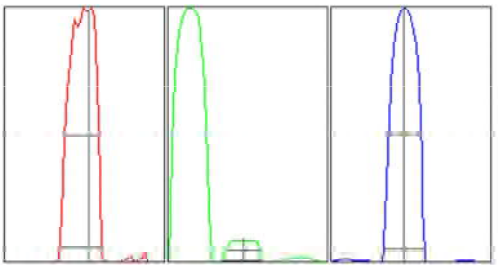
Mass	RSD%	RSD% (Required)	RSD% (Flag)
9	10.142	5.000	Fail
24	4.562	5.000	
59	1.902	5.000	

Mass	Background	Background (Required)	Background (Flag)
9	0.400		
24	0.400		
59	0.300		

Oxide/Doubly Charged Ratio

Oxide	156 / 140 1.182 %
Doubly Charged	70 / 140 1.005 %

Resolution/Axis



Integration Time [sec]	0.1
Acquisition Time [sec]	22.24
Y Axis	Linear

Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
9	92.51	9.10	8.90 - 9.10	
24	482.60	23.95	23.90 - 24.10	
59	5489.94	58.90	58.90 - 59.10	

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
9	0.65	0.784		
24	0.64	0.743		

Tune Check Report

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
59	0.60	0.775		

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas	0.48 L/min	Dilution Gas	0.60 L/min
RF Power	1600 W	Option Gas	---	Auxiliary Gas	0.90 L/min
RF Matching	1.80 V	Nebulizer Pump	0.10 rps	Plasma Gas	15.0 L/min
Sample Depth	8.0 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	0.0 V	Omega Lens	9.6 V	Deflect	0.5 V
Extract 2	-200.0 V	Cell Entrance	-40 V	Plate Bias	-60 V
Omega Bias	-90 V	Cell Exit	-60 V		

Cell Parameters

Use Gas	Yes	3rd Gas Flow	---	Energy Discrimination	3.0 V
He Flow	4.0 mL/min	OctP Bias	-18.0 V		
H2 Flow	---	OctP RF	200 V		

QP Parameters

Mass Gain	133	Axis Gain	1.0003	QP Bias	-15.0 V
Mass Offset	125	Axis Offset	0.06		

Hardware Settings

Torch

Torch H	1.3 mm	Torch V	-0.6 mm

EM

Discriminator	4.6 mV	Analog HV	2952 V	Pulse HV	1615 V

HS23030396 Wet Chemistry

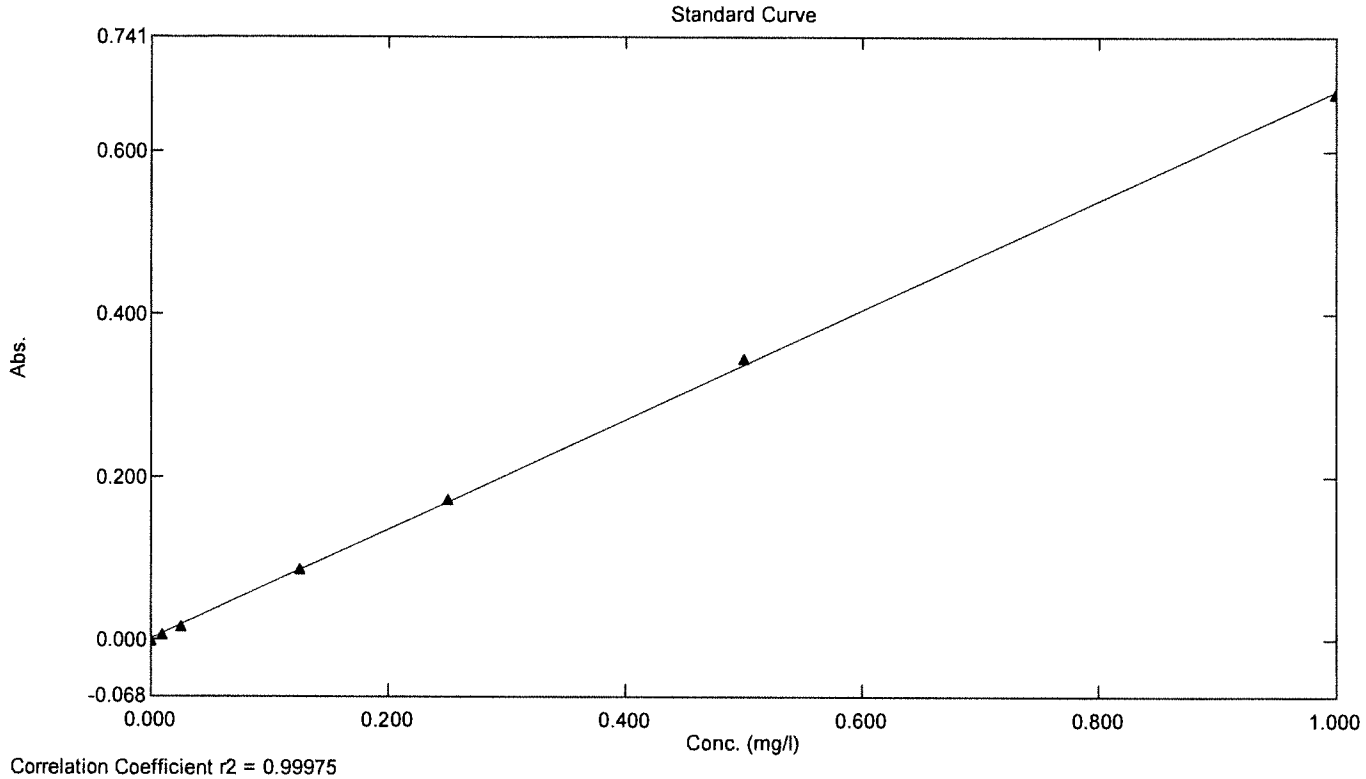
ALS WO# HS23030396

HS230396
HS230396

Standard Table Report

03/13/2023 05:15:57 PM

File Name: C:\Program Files (x86)\Shimadzu\UVProbe\Data\CR6+_UNKNOWN\2023\03082023CR6_W.pho



Correlation Coefficient r2 = 0.99975

Standard Table

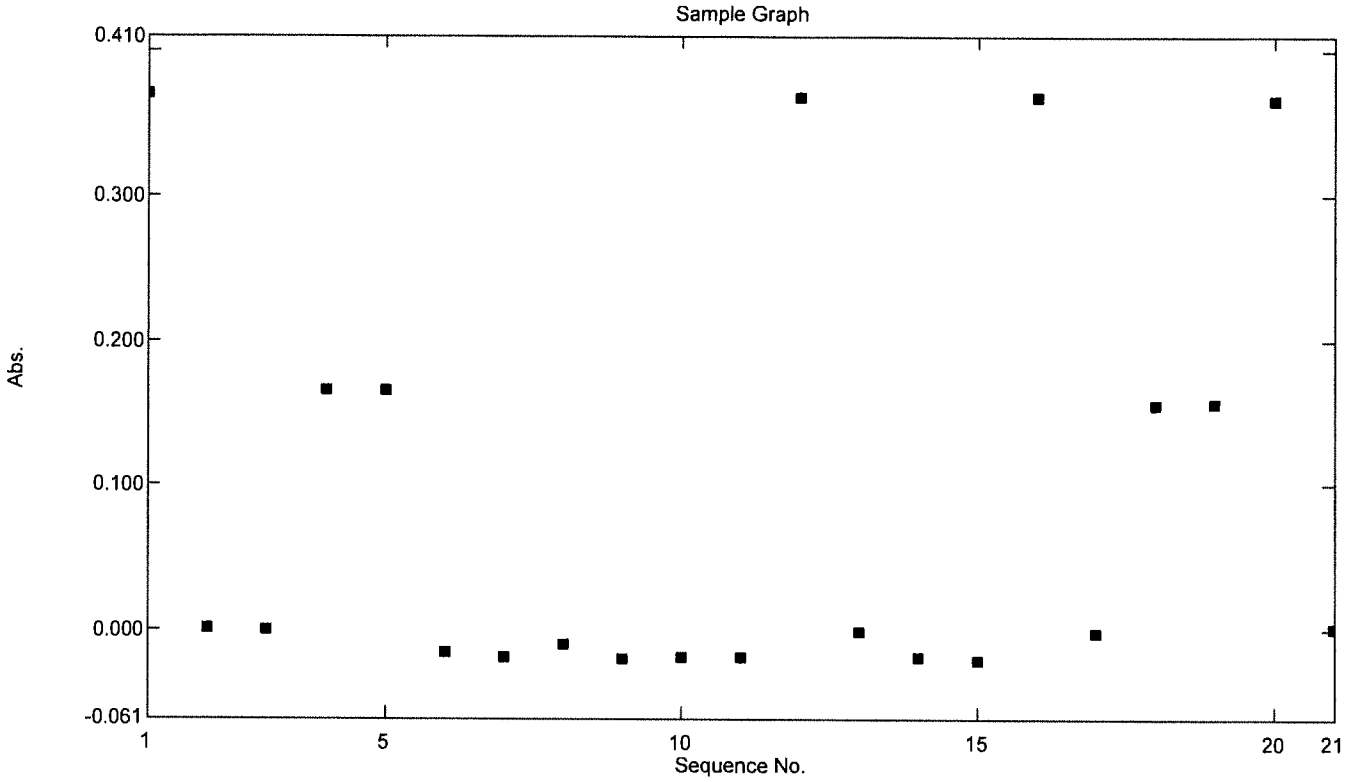
	Sample ID	Type	Ex	Conc	WL540.0	Wgt.Factor	Comments
1	STD1	Standard		0.000	-0.000	1.000	
2	STD2	Standard		0.010	0.007	1.000	
3	STD3	Standard		0.025	0.018	1.000	
4	STD4	Standard		0.125	0.086	1.000	
5	STD5	Standard		0.250	0.173	1.000	
6	STD6	Standard		0.500	0.345	1.000	
7	STD7	Standard		1.000	0.670	1.000	05/02/2023
8							

HS230303 96

Sample Table Report

03/13/2023 05:15:51 PM

File Name: C:\Program Files (x86)\Shimadzu\UVProbe\Data\CR6+_UNKNOWN\2023\03082023CR6_W.pho



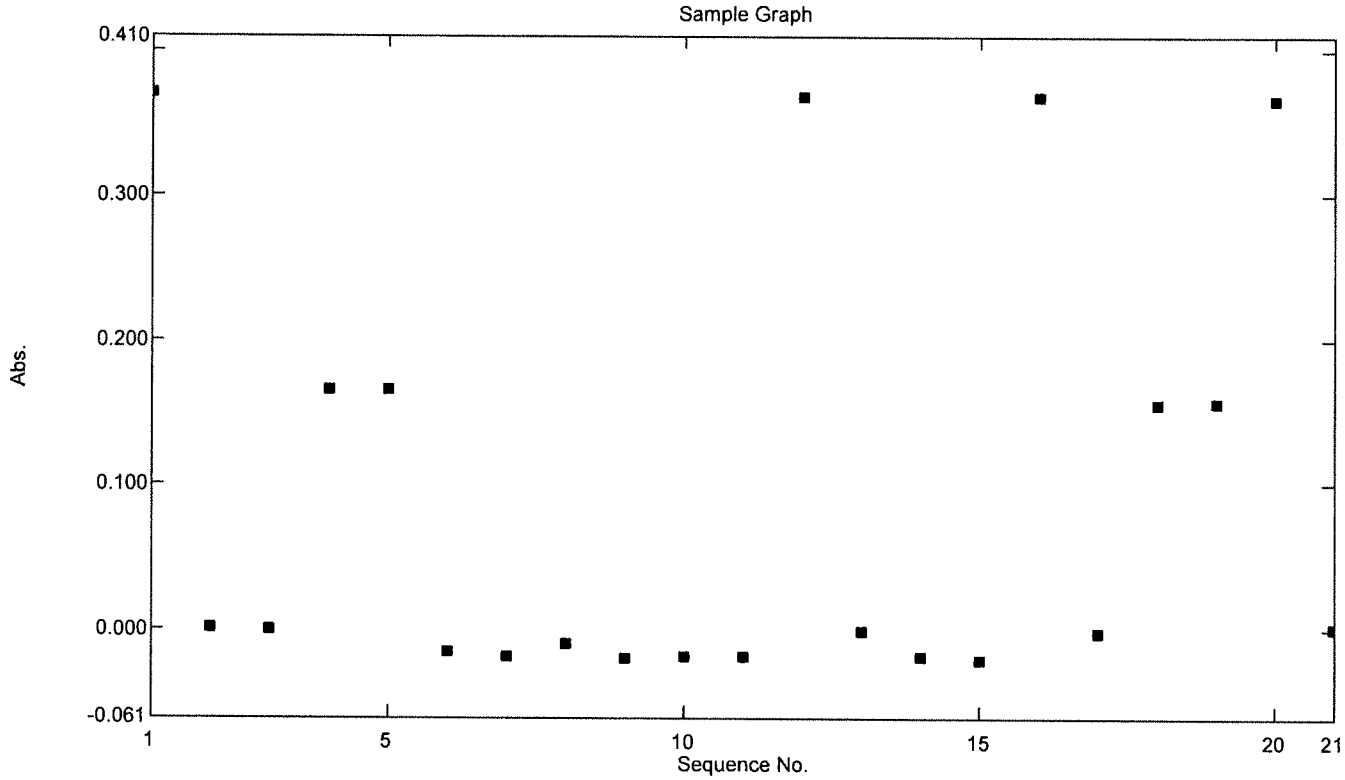
Sample Table

	Sample ID	Type	Ex	Date	Time	Conc	WL540.0	Comments
1	CCV	Unknown		03/08/2023	11:24:53 AM	0.549	0.371	CCV- 231103602
2	CCB	Unknown		03/08/2023	11:25:21 AM	-0.002	0.001	LCS- 321103601
3	MBLK	Unknown		03/08/2023	11:25:30 AM	-0.003	0.000	WC- 13
4	LCS	Unknown		03/08/2023	11:27:38 AM	0.243	0.166	
5	LCSD	Unknown		03/08/2023	11:28:43 AM	0.243	0.165	
6	P7.17	Unknown		03/08/2023	11:30:18 AM	-0.026	-0.015	0 HS23030400-15
7	P7.17 BKG	Unknown		03/08/2023	11:31:17 AM	-0.032	-0.019	
8	P7.16	Unknown		03/08/2023	11:32:39 AM	-0.019	-0.010	0 HS23030400-16
9	P7.16 BKG	Unknown		03/08/2023	11:33:22 AM	-0.034	-0.020	
10	2H1824.SP650	Unknown		03/08/2023	11:34:23 AM	-0.032	-0.019	0 HS23030369-01
11	2H1824.SP650BKG	Unknown		03/08/2023	11:35:08 AM	-0.031	-0.019	
12	CCV2	Unknown		03/08/2023	11:35:45 AM	0.545	0.369	
13	CCB2	Unknown		03/08/2023	11:36:08 AM	-0.006	-0.002	
14	LH18.24.SP140	Unknown		03/08/2023	11:36:56 AM	-0.032	-0.019	0 HS23030399-01
15	LH18.24.SP140 BKG	Unknown		03/08/2023	11:37:30 AM	-0.035	-0.022	
16	CCV3	Unknown		03/08/2023	11:37:46 AM	0.545	0.368	
17	CCB3	Unknown		03/08/2023	11:37:58 AM	-0.007	-0.002	
18	P2.17MS	Unknown		03/08/2023	11:41:44 AM	0.229	0.156	HS23030400-15
19	P2.17MSD	Unknown		03/08/2023	11:42:06 AM	0.230	0.157	

Sample Table Report

03/13/2023 05:15:51 PM

File Name: C:\Program Files (x86)\Shimadzu\UVProbe\Data\CR6+_UNKNOWN\2023\03082023CR6_W.pho



Sample Table

	Sample ID	Type	Ex	Date	Time	Conc	WL540.0	Comments
20	CCV4	Unknown		03/08/2023	11:42:18 AM	0.542	0.366	
21	CCB4	Unknown		03/08/2023	11:42:36 AM	-0.002	0.001	
22								

HS23030396-E2300239 Perchlorate Report
Level IV

ALS WO# HS23030396

March 17, 2023 Service Request No:E2300239

Dane Wacasey
ALS Group USA, Corp.
10450 Stancliff Road
Suite 210
Houston, TX 77099-4338

Laboratory Results for: HS23030396

Dear Dane,

Enclosed are the results of the sample(s) submitted to our laboratory March 13, 2023
For your reference, these analyses have been assigned our service request number **E2300239.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current TNI standards, where applicable, and except as noted in the laboratory case narrative provided. All results are intended to be considered in their entirety and ALS Environmental is not responsible for use of less than the complete final report. Results apply only to the items submitted to the laboratory, as received for analysis. In accordance with the current TNI Standard, a statement on the estimated uncertainty of measurement of any quantitative analysis will be supplied upon request.

Please contact me if you have any questions. My extension is 2188. You may also contact me via email at James.Guin@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental



James Guin

Certificate of Analysis

ALS Environmental - Houston HRMS
10450 Stancliff Rd, Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

ALS Environmental

Client:	ALS Environmental - US	**Service Request No.:**	E2300239
Project:	HS23030396	**Date Received:**	03/13/23
Sample Matrix:	Water		

CASE NARRATIVE

All analyses were performed in adherence to the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier IV. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

One sample was received for analysis at ALS Environmental in Houston on 03/13/23.

The sample was received in good condition and is consistent with the accompanying chain of custody form. The sample was stored in a refrigerator at 4°C upon receipt at the laboratory.

Data Validation Notes and Discussion

Precision and Accuracy:

EQ2300127: Laboratory Control Spike/Duplicate Laboratory Control Spike (LCS/DLCS) samples were analyzed and reported in addition to a MS/MSD for this extraction batch.

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.

Use of ALS group USA Corp dba ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.

Client: ALS Environmental - US **Service Request:**E2300239
Project: HS23030396

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
E2300239-001	LH18/24-SP650_030723_AIX	3/7/2023	1300

Service Request Summary

Folder #: **E2300239**
Client Name: ALS Environmental - US
Project Name: HS23030396
Project Number:

Report To: Dane Wacasey
ALS Group USA, Corp.
10450 Stancliff Road
Houston, TX 77099-4338
USA
Phone Number: 281-575-2190
Cell Number:
Fax Number: 281-530-5887
E-mail: dane.wacasey@alsglobal.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 03/13/23
Internal Due Date: 3/17/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23030396
EDD: BASIC_WQC_CASNo_LOD

1 120 mL-Plastic Bottle Natural WM Unpreserved
Location: EHRMS-AirArch 1
Pressure Gas:

Lab Samp No.	Client Samp No	Matrix	Collected	HOUSTON ClO4 DOD/6850
E2300239-001	LH18/24-SP650_030723_AIX	Water	03/07/23 1300	IV

Service Request Summary

Folder #: **E2300239**
Client Name: ALS Environmental - US
Project Name: HS23030396
Project Number:

Report To: Dane Wacasey
ALS Group USA, Corp.
10450 Stancliff Road
Houston, TX 77099-4338
USA
Phone Number: 281-575-2190
Cell Number:
Fax Number: 281-530-5887
E-mail: dane.wacasey@alsglobal.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 03/13/23
Internal Due Date: 3/17/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23030396
EDD: BASIC_WQC_CASNo_LOD

1 120 mL-Plastic Bottle Natural WM Unpreserved
Location: EHRMS-AirArch 1
Pressure Gas:

Data Qualifiers

Lab Standard

+	Possible Tedlar bag artifact.
A	TIC is a suspected aldol-condensation product
B	Analyte found in the associated method blank as well as in the sample.
BC	Reported results are not blank corrected.
BH	The back section of the tube yielded higher results than the front.
BT	Results indicated possible breakthrough; back section >=10% front section.
C	Result identification confirmed.
D	Compound identified in an analysis at a secondary dilution factor
D	Spike was diluted out
DE	Reported results are corrected for desorption efficiency.
E	Estimated value. Concentration above calibration range
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
H	The chromatographic fingerprint of the sample resembles a petroleum product but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
H1	Sample analysis performed past holding time. See case narrative.
H2	Initial analysis within holding time. Reanalysis for the required dilution was past holding time.
H3	Sample was received and analyzed past holding time.
H4	Sample was extracted past required extraction holding time, but analyzed within analysis holding time. See case narrative.
I	(Auto) The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
I	Internal standard not within the specified limits. See case narrative.
I	The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
J	Estimated Value. Concentration found below MRL.
K	A deflection in the QC ion may indicate interference with the quantitation of this ion. The concentration of this analyte should be considered as an estimate.
K	Analyte was detected above the method reporting limit prior to normalization.
K	The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
L1	Laboratory control sample recovery outside the specified limits; results may be biased high.
L2	Laboratory control sample recovery outside the specified limits; results may be biased low.
L3	Laboratory control sample recovery outside the specified limits.
M	Matrix interference; results may be biased high.
M	The duplicate injection precision not met.

Data Qualifiers

Lab Standard

M1	Matrix interference due to coelution with a non-target compound; results may be biased high.
N	Presumptive evidence of a compound for TICs that have been identified based on a mass spectral library search.
N	The Matrix Spike sample recovery is not within control limits. See case narrative.
O	The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
P	Indicates chlorodiphenyl ether interference present at the retention time of the target compound.
P	Pesticide/Aroclor target analyte > 40% difference for detected concentrations between GC columns
Q	Indicates as estimated value because the P and P + 2 theoretical abundance ratio does not meet method criteria.
R	Duplicate Precision not met.
R1	Duplicate precision not within the specified limits; however, the results are below the MRL and considered estimated.
S	Surrogate recovery not within specified limits.
S	The reported value was determined by the Method of Standard Additions (MSA).
T	Analyte is a tentatively identified compound, result is estimated.
U	Compound was analyzed for, but was not detected (ND).
V1	The continuing calibration verification standard was outside (biased high) the specified limits for this compound.
V2	The continuing calibration verification standard was outside (biased low) the specified limits for this compound.
W	Result quantified, but the corresponding peak was detected outside the generated retention time window.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
X	See case narrative.
Y	Recovery outside limits
Y	The chromatogram resembles a petroleum product but does not match the calibration standard.
Z	The chromatogram does not resemble a petroleum product.
i	The MRL/MDL has been elevated due to a matrix interference.

ALS Laboratory Group

Acronyms

Cal	Calibration
Conc	CONCentration
Dioxin(s)	Polychlorinated dibenzo-p-dioxin(s)
EDL	Estimated Detection Limit
EMPC	Estimated Maximum Possible Concentration
Flags	Data qualifiers
Furan(s)	Polychlorinated dibenzofuran(s)
g	Grams
ICAL	Initial CALibration
ID	IDentifier
Ions	Masses monitored for the analyte during data acquisition
L	Liter (s)
LCS	Laboratory Control Sample
DLCS	Duplicate Laboratory Control Sample
MB	Method Blank
MCL	Method Calibration Limit
MDL	Method Detection Limit
mL	Milliliters
MS	Matrix Spiked sample
DMS	Duplicate Matrix Spiked sample
NO	Number of peaks meeting all identification criteria
PCDD(s)	Polychlorinated dibenzo-p-dioxin(s)
PCDF(s)	Polychlorinated dibenzofuran(s)
ppb	Parts per billion
ppm	Parts per million
ppq	Parts per quadrillion
ppt	Parts per trillion
QA	Quality Assurance
QC	Quality Control
Ratio	Ratio of areas from monitored ions for an analyte
% Rec.	Percent recovery
RPD	Relative Percent Difference
RRF	Relative Response Factor
RT	Retention Time
SDG	Sample Delivery Group
S/N	Signal-to-noise ratio
TEF	Toxicity Equivalence Factor
TEQ	Toxicity Equivalence Quotient

10450 Stancliff Rd, Houston, TX 77099 | 281-530-5656 | www.alsglobal.com

ALS Environmental

State Certifications, Accreditations, and Licenses

Agency	Number	Expire Date
Arizona Department of Health Services	AZ0793	5/27/2023
Arkansas Department of Environmental Quality	22-041-0	3/27/2023
California Department of Health Services	2919-2023	4/30/2023
Department of Defense	L22-90	3/31/2024
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Hawaii Department of Health	2022	4/30/2023
Illinois Environmental Protection Agency	2000322022-9	5/9/2023
Kansas Department of Health and Environment	E-10352 2022-2023	7/31/2023
Louisiana Department of Environmental Quality	03087-2022	6/30/2023
Louisiana Department of Health and Hospitals	LA028-2023	12/31/2023
Maine Department of Health and Human Services	2022017	6/5/2024
Maryland Department of the Environment	343	6/30/2023
Michigan Depratment of Environmental Quality	9971-2022	4/30/2023
Minnesota Department of Health	2368363	12/31/2023
Nebraska Department of Health and Human Services	NE-OS-25-13	4/30/2023
Nevada Department of Conservation and Natural Resources	TX026932023-1	7/31/2023
New Hampshire Environmental Laboratory Accreditation Program	209422	4/24/2023
New Jersey Department of Environmental Protection	TX008-2023	6/30/2023
New York Department of Health	11707	3/31/2023
Oklahoma Department of Environmental Quality	2022-141	8/31/2023
Oregon Environmental Laboratory Accreditation Program	TX200002	5/15/2023
Pennsylvania Department of Environmental Protection	68-03441-016	6/30/2023
Perry Johnson Laboratory Accreditation	L22-91	3/31/2024
Tennessee Department of Environment and Concervation	04016-2022	4/30/2023
Texas Commision on Environmental Quality	T104704231-22-29	4/30/2023
Utah Department of Health Environmental Laboratory Certification	TX026932022-13	7/31/2023
Washington Department of Ecology	C819-22	11/14/2023

ALS

Chain of Custody

ALS Environmental - Houston HRMS
10450 Stancliff Rd, Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

AIS.

10450 Stancliff Rd, Ste 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887
www.alsglobal.com

Subcontract Chain of Custody

SAMPLING STATE: Dept of Defense **COC ID:** 21066

SUBCONTRACT TO:

ALS Environmental
10450 Stancliff RoadSuite 210
Houston, TX 77084

Phone: +1 281 530 5656

CUSTOMER INFORMATION:

Company:	ALS Houston
Contact:	Dane J. Wacasey
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Email:	Dane.Wacasey@alsglobal.com
Alternate Contact:	Jumoke M. Lawal
Email:	jumoke.lawal@alsglobal.com

INVOICE INFORMATION:

Company:	ALS Houston
Contact:	Accounts Payable
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Reference:	HS23030396
TSR:	Houston House Acct

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS23030396-02**	**LH18/24-SP650_030723_AIX**	**Water**	**07 Mar 2023 13:00**
	Provide Level II and Level IV reports in separate pdf			17 Mar 2023

Comments: Please analyze for the analysis listed above.
Send report to the emails shown above.

QC Level: DOD IV (DoD Data Package)

Relinquished By: _____ Date/Time: _____

Received By: _____ Date/Time: 3.8.23 0800

Cooler ID(s): _____ Temperature(s): _____

Cooler Receipt Form

ALS Environmental

Project Chemist JH

Client/Project ALS-H

Thermometer ID IR71

Date/Time Received: 3.13.23 Initials: CG

Date/Time Logged in: 3.13.23 Initials CG

1. Method of delivery: ○ US Mail ○ Fed Ex ○ UPS ○ DHL ☒ ALS Courier ○ Client

2. Samples received in: ☒ Cooler ○ Box ○ Envelope ○ Other

3. Were custody seals on coolers? ○ Yes ☒ No
   Were they intact? ○ Yes ○ No ☒ N/A
   Were they signed and dated? ○ Yes ○ No ☒ N/A
   If yes, how many and where?

4. Packing Material: ○ Inserts ☑ Baggies ○ Bubble Wrap ○ Gel Packs ☑ Wet Ice ○ Sleeves ○ Other

5. Foreign or Regulated Soil? ○ Yes ○ No Location of Sampling:

Cooler Tracking Number	COC ID	Date Opened	Time Opened	Opened By	Temp. °C	Temp Blank?
NA		3.13.23	0800	CG	0.9	☑
						☐
						☐
						☐

6. Were custody papers properly filled out (ink, signed, dated, etc)? ☒ Yes ○ No
7. Did all bottles arrive in good condition (not broken, no signs of leakage)? ☒ Yes ○ No
8. Were all sample labels complete (i.e., sample ID, analysis, preservation, etc)? ☒ Yes ○ No
9. Were appropriate bottles/containers and volumes received for the requested tests? ☒ Yes ○ No
10. Did sample labels and tags agree with custody documents? ☒ Yes ○ No

Notes, Discrepancies, & Resolutions:

Service request Label:

10450 Stancliff Rd., Suite 210
Houston, TX 77099
T: +1 713 266 1599
F: +1 713 266 1599
www.alsglobal.com

SAMPLE ACCEPTANCE POLICY

This policy outlines the criteria samples must meet to be accepted by ALS Environmental – Houston HRMS.

Cooler Custody Seals (desirable, mandatory if specified in SAP):

- ✓ Intact on outside of cooler, signed and dated

Chain-of-Custody (COC) documentation (mandatory):

The following is required on each COC:

- ✓ Sample ID, the location, date and time of collection, collector's name, preservation type, sample type, and any other special remarks concerning the sampleThe COC must be completed in ink.
- ✓ Signature and date of relinquishing party.

In the absence of a COC at sample receipt, the COC will be requested from the client.

Sample Integrity (mandatory):

Samples are inspected upon arrival to ensure that sample integrity was not compromised during transfer to the laboratory.

- ✓ Sample containers must arrive in good condition (not broken or leaking).
- ✓ Samples must be labeled appropriately, including Sample IDs, and requested test using durable labels and indelible ink.
- ✓ The correct type of sample bottle must be used for the method requested.
- ✓ An appropriate sample volume, or weight, must be received.
- ✓ Sample IDs and number of containers must reconcile with the COC.
- ✓ Samples must be received within the method defined holding time.

Temperature Requirement (varies by sample matrix):

- ✓ Aqueous and Non-aqueous samples must be shipped and stored cold, at 0 to 6ºC.
- ✓ Tissue samples must be shipped and stored frozen, at -20 to -10ºC.
- ✓ Air samples are shipped and stored cold, at 0 to 6ºC
- ✓ The sample temperature must be recorded on the COC

All cooler inspections are documented on the Cooler Receipt Form (CRF). A separate CRF is completed for each service request. Any samples not meeting the above criteria are noted on the CRF and the Project Manager notified. The Project Manager must resolve any sample integrity issues with the client prior to proceeding with the analysis. Such resolutions are documented in writing and filed with the project folder. Data associated with samples received outside of this acceptance policy will be qualified on the case narrative of the final report

Preparation Information Benchsheets

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

Preparation Information Benchsheet

Prep Run#: 416444 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/XMI **Prep Method:** Method **Prep Date/Time:** 3/14/23 08:36

#	Lab Code	Client ID	B#	Method /Test	pH	Cl	Matrix	Amt. Ext.	Sample Description
1	E2300231-001	RSA-095-INT-02	.01	6850/ClO4 DOD			Water	10mL	
2	E2300231-002	RSA-095-INT-05	.01	6850/ClO4 DOD			Water	10mL	
3	E2300231-003	RSA-095-INT-06	.01	6850/ClO4 DOD			Water	10mL	
4	E2300231-004	RSA-195-INT-05	.01	6850/ClO4 DOD			Water	10mL	
5	E2300231-005	RSA-195-INT-04	.01	6850/ClO4 DOD			Water	10mL	
6	E2300235-001	46DP09-GP01-5156-022823	.01	6850/ClO4 DOD			Water	10mL	
7	E2300235-002	46DP09-GP02-6065-022823	.01	6850/ClO4 DOD			Water	10mL	
8	E2300235-003	WO-EB01-022823	.01	6850/ClO4 DOD			Water	10mL	
9	E2300239-001	LH18/24-SP650_030723_AIX	.01	6850/ClO4 DOD			Water	10mL	
10	E2300240-001	LH18/24-SP140_030723	.01	6850/ClO4 DOD			Water	10mL	
11	EQ2300127-01	MB		6850/ClO4			Liquid	10mL	
12	EQ2300127-02	LCS		6850/ClO4			Liquid	10mL	
13	EQ2300127-03	DLCS		6850/ClO4			Liquid	10mL	
14	R2301866-011	2303021402C BLM-13-300	.01	6850/ClO4			Water	10mL	
15	R2301866-013	2303020954A BLM-9-419	.01	6850/ClO4			Water	10mL	
16	R2301868-012	2303040818 100L-SB-14	.01	6850/ClO4			Water	10mL	
17	R2301870-012	2303041458 100L-SB-16	.01	6850/ClO4			Water	10mL	
18	R2301872-012	2303040953 200L-SB-17	.01	6850/ClO4			Water	10mL	
19	R2301874-012	2303041117 100L-SB-18	.01	6850/ClO4			Water	10mL	
20	R2301876-012	2303041223 100L-SB-19	.01	6850/ClO4			Water	10mL	
21	R2301914-005	2303061044C ST-4-690	.01	6850/ClO4			Water	10mL	
22	R2301914-014	2303061515C ST-4-481	.01	6850/ClO4			Water	10mL	

Spiking Solutions

Name: Perchlorate Internal Standard 1ug/mL Inventory ID 226778 Logbook Ref: Perchlorate Internal Standard Expires On: 05/31/2023

E2300231-001	100.00µL	E2300231-002	100.00µL	E2300231-003	100.00µL	E2300231-004	100.00µL	E2300231-005	100.00µL	E2300235-001	100.00µL
E2300235-002	100.00µL	E2300235-003	100.00µL	E2300239-001	100.00µL	E2300240-001	100.00µL	EQ2300127-01	100.00µL	EQ2300127-01	100.00µL
EQ2300127-02	100.00µL	EQ2300127-02	100.00µL	EQ2300127-03	100.00µL	EQ2300127-03	100.00µL	R2301866-011	100.00µL	R2301866-013	100.00µL
R2301868-012	100.00µL	R2301870-012	100.00µL	R2301872-012	100.00µL	R2301874-012	100.00µL	R2301876-012	100.00µL	R2301914-005	100.00µL
R2301914-014	100.00µL										

Name: Perchlorate Intermediate Stock1 Inventory ID 227236 Logbook Ref: Perchlorate (1st Source) Expires On: 07/31/2023

EQ2300127-02	1.00µL	EQ2300127-02	1.00µL	EQ2300127-03	1.00µL	EQ2300127-03	1.00µL

Preparation Information Benchsheet

Prep Run#: 416444 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/XMI **Prep Method:** Method **Prep Date/Time:** 3/14/23 08:36

Preparation Materials

Water HPLC Grade	01/04/2023 Water (226857)	6850 Amber Glass screw vial	2mL Screw Top Vial (221894)	6850 0.45um syringe filters	6850 Syringe Filters (224414)
6850 Luer-Lok Syringes	Luer-Lok Syringes (221305)				

Preparation Steps

Step: Preparation
Started: 3/14/23 08:36
Finished: 3/14/23 10:50
By: XMI
Comments

Comments: _____

Reviewed By: XMI Date: 03/14/23

Chain of Custody

Relinquished By: _____ Date: _____ Extracts Examined

Received By: _____ Date: _____ Yes No

Analytical Results

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300239
Project:	HS23030396	**Date Collected:**	3/ 7/23 1300
Sample Matrix:	Water	**Date Received:**	3/13/23
Sample Name:	LH18/24-SP650_030723_AIX	**Units:**	µg/L
Lab Code:	E2300239-001	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**9.22**		0.100	0.0500	0.0250	1	3/14/23	3/15/23 13:39	416444	797835	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300239
Project:	HS23030396	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	EQ2300127-01	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	ND	U	0.100	0.0500	0.0250	1	3/14/23	3/15/23 12:30	416444	797835	

Accuracy & Precision

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23030396
Sample Matrix: Water

Service Request: E2300239
Date Analyzed: 3/15/23

Lab Control Sample Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Units: µg/L
Basis: NA

Extraction Lot: 416444

	Lab Control Sample EQ2300127-02			Duplicate Lab Control Sample EQ2300127-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Perchlorate	0.106	0.100	106	0.0940	0.100	94	84 - 119	12	15

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300239
Project:	HS23030396	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2300127-02	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.106**		0.100	0.0500	0.0250	1	3/14/23	3/15/23 12:36	416444	797835	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300239
Project:	HS23030396	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2300127-03	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.0940**	J	0.100	0.0500	0.0250	1	3/14/23	3/15/23 12:42	416444	797835	

Initial Calibration

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

20230201-793296

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XMI
2nd Review: Kneir

ICAL Date: 2/1/2023
Cal. Std. xp: 07/31/2023
ICAL ID: EC2300002

Mobile Phases : A:0.10% Formic Acid/Water 3210303-02 **B:**MeOH 224417

	Sample Name		File Name	Acquisition Method	Dilution	R	Comments	Date/Time
1	PERCHLORATE1		20230201-003	Perchlorate6850c.lcm	1x	☒	227245	2/1/2023 11:50
2	PERCHLORATE2		20230201-004	Perchlorate6850c.lcm	1x	☒	227246	2/1/2023 11:55
3	PERCHLORATE3		20230201-005	Perchlorate6850c.lcm	1x	☒	227247	2/1/2023 12:01
4	PERCHLORATE4		20230201-006	Perchlorate6850c.lcm	1x	☒	227248	2/1/2023 12:07
5	PERCHLORATE5		20230201-007	Perchlorate6850c.lcm	1x	☒	227249	2/1/2023 12:13
6	PERCHLORATE6		20230201-008	Perchlorate6850c.lcm	1x	☒	227250	2/1/2023 12:19
7	PERCHLORATE7		20230201-009	Perchlorate6850c.lcm	1x	☒	227251	2/1/2023 12:25
8	PERCHLORATE8		20230201-010	Perchlorate6850c.lcm	1x	☒	227252	2/1/2023 12:30
9	PERCHLORATE9		20230201-011	Perchlorate6850c.lcm	1x	☒	227253	2/1/2023 12:36
10	PERCHLORATE10		20230201-012	Perchlorate6850c.lcm	1x	☒	227254	2/1/2023 12:42
11	PERCHLORATEICV		20230201-013	Perchlorate6850c.lcm	1x	☒	227256	2/1/2023 12:48
12	LODV		20230201-014	Perchlorate6850c.lcm	1x	☒	225199	2/1/2023 12:54
13	ICS		20230201-015	Perchlorate6850c.lcm	1x	☒	32103024	2/1/2023 13:00
14	PERCHLORATE7		20230201-016	Perchlorate6850c.lcm	1x	☒	227251	2/1/2023 15:24
15	EQ2300047-01		20230201-017	Perchlorate6850c.lcm	1x	☒		2/1/2023 15:30
16	EQ2300047-02		20230201-018	Perchlorate6850c.lcm	1x	☒		2/1/2023 15:36
17	EQ2300047-03		20230201-019	Perchlorate6850c.lcm	1x	☒		2/1/2023 15:41
18	R2300589-005		20230201-020	Perchlorate6850c.lcm	1x	☒		2/1/2023 15:48
19	R2300589-010		20230201-021	Perchlorate6850c.lcm	1x	☒	DNU-BAD PEAK SHAPE	2/1/2023 15:54
20	R2300648-018		20230201-022	Perchlorate6850c.lcm	1x	☒		2/1/2023 16:00
21	R2300648-025		20230201-023	Perchlorate6850c.lcm	1x	☒		2/1/2023 16:06
22	PERCHLORATE7		20230201-024	Perchlorate6850c.lcm	1x	☒	227251	2/1/2023 16:17
23	E2300092-001		20230201-025	Perchlorate6850c.lcm	1x	☒		2/1/2023 16:23
24	E2300092-002		20230201-026	Perchlorate6850c.lcm	1x	☒		2/1/2023 16:29
25	E2300092-003		20230201-027	Perchlorate6850c.lcm	1x	☒		2/1/2023 16:35
26	E2300092-004		20230201-028	Perchlorate6850c.lcm	1x	☒		2/1/2023 16:41
27	E2300094-001		20230201-029	Perchlorate6850c.lcm	1x	☒		2/1/2023 16:47
28	E2300094-002		20230201-030	Perchlorate6850c.lcm	1x	☒		2/1/2023 16:52
29	E2300094-003		20230201-031	Perchlorate6850c.lcm	1x	☒		2/1/2023 16:58
30	E2300094-004		20230201-032	Perchlorate6850c.lcm	1x	☒		2/1/2023 17:04
31	E2300094-005		20230201-033	Perchlorate6850c.lcm	1x	☒		2/1/2023 17:10
32	PERCHLORATE7		20230201-034	Perchlorate6850c.lcm	1x	☒	227251	2/1/2023 17:16
33	E2300096-001		20230201-035	Perchlorate6850c.lcm	1x	☒		2/1/2023 17:21
34	E2300096-002		20230201-036	Perchlorate6850c.lcm	1x	☒		2/1/2023 17:27
35	E2300096-003		20230201-037	Perchlorate6850c.lcm	1x	☒		2/1/2023 17:33
36	E2300096-004		20230201-038	Perchlorate6850c.lcm	1x	☒		2/1/2023 17:39
37	E2300096-005		20230201-039	Perchlorate6850c.lcm	1x	☒		2/1/2023 17:45
38	E2300096-006		20230201-040	Perchlorate6850c.lcm	1x	☒		2/1/2023 17:51
39	E2300096-007		20230201-041	Perchlorate6850c.lcm	1x	☒		2/1/2023 17:56
40	PERCHLORATE7		20230201-042	Perchlorate6850c.lcm	1x	☒	227251	2/1/2023 18:02

Initial Calibration - Detailed Report

Calibration ID: EC2300002 **Instrument ID:** E-LCMS-01
Column Name: 1

#	Lab Code	Sample Name	File Location	Aquisition Date
01	EC2300002-01	PERCHLORATE1	20230201-003	02/01/2023 11:50
02	EC2300002-02	PERCHLORATE2	20230201-004	02/01/2023 11:55
03	EC2300002-03	PERCHLORATE3	20230201-005	02/01/2023 12:01
04	EC2300002-04	PERCHLORATE4	20230201-006	02/01/2023 12:07
05	EC2300002-05	PERCHLORATE5	20230201-007	02/01/2023 12:13
06	EC2300002-06	PERCHLORATE6	20230201-008	02/01/2023 12:19
07	EC2300002-07	PERCHLORATE7	20230201-009	02/01/2023 12:25
08	EC2300002-08	PERCHLORATE8	20230201-010	02/01/2023 12:30
09	EC2300002-09	PERCHLORATE9	20230201-011	02/01/2023 12:36
10	EC2300002-10	PERCHLORATE10	20230201-012	02/01/2023 12:42

Analyte **Curve Fit** **Weighting**

Perchlorate **Average RF** **RSD = 4.86** **Average RF = 0.1385**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.1000	0.1253	02	0.5000	0.13	03	0.7000	0.1346	04	1.0000	0.1399
05	2.0000	0.1406	06	5.0000	0.1404	07	10.0000	0.1416	08	20.0000	0.1407
09	30.0000	0.1447	10	50.0000	0.1477						

Analyte

Perchlorate RSE = 4.86

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.1000	0.0904	-9.6	02	0.5000	0.469	-6.1	03	0.7000	0.680	-2.8
04	1.0000	1.01	0.9	05	2.0000	2.03	1.5	06	5.0000	5.07	1.3
07	10.0000	10.2	2.2	08	20.0000	20.3	1.5	09	30.0000	31.3	4.5
10	50.0000	53.3	6.6								

Initial Calibration Verification Summary Report

Calibration ID:	EC2300002	**Instrument ID:**	E-LCMS-01
Datafile ID:	20230201-013	**Column Name:**	1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
Perchlorate	EC2300002-11	T	Average RF	10	10.538	ng/mL	5.4	<= 15

Insight Report

Printed at 2/1/2023 2:06:14 PM

Method File: I:\LCMS01\DATA\02012023\20230201.lcm
Project File: I:\LCMS01\DATA\02012023\20230201.damlp

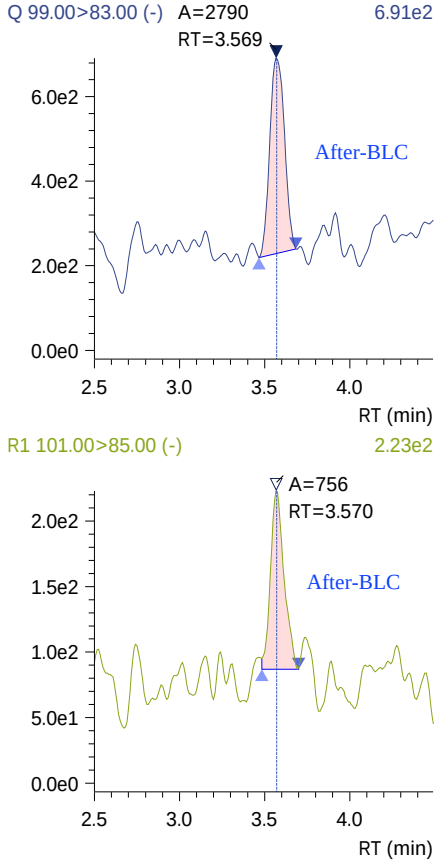
PERCHLORATE1

Sample ID: PERCHLORATE1
Date Acquired: 2/1/2023 11:50:11 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\02012023\20230201-003.lcd
Vial: 1 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	M	3.569	2790	222693	0.0904	ng/mL	101.00 >85.00	27.11	24.11 -44.78
Sodium Perchlorate-18O4_IS	Auto	3.568	222693	222693	1.0000	ng/mL	----	----	

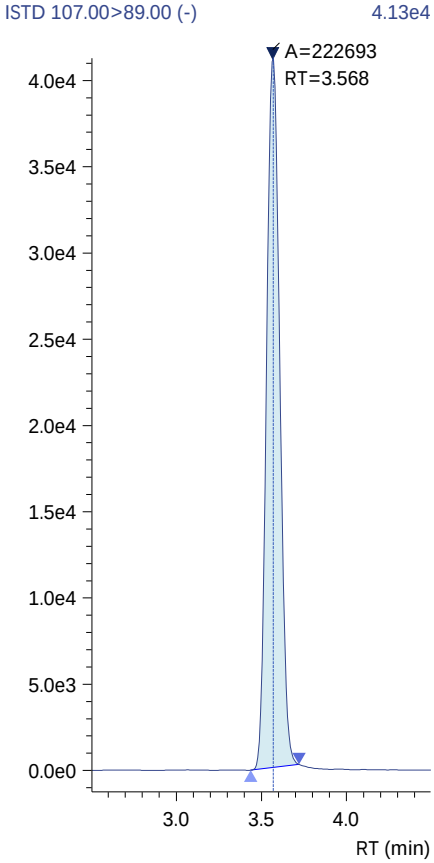
Perchlorate

Conc 0.0904
R#1 27.11 (31.99)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/1/2023 1:30:25 PM

Method File: I:\LCMS01\DATA\20230201\20230201ICAL.lcm
Project File: I:\LCMS01\DATA\20230201\20230201ICAL.damIp

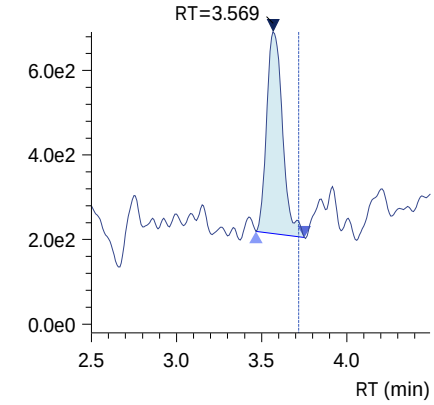
PERCHLORATE1

Sample ID: PERCHLORATE1
Date Acquired: 2/1/2023 11:50:11 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\02012023\20230201-003.lcd
Vial: 1 | Inj. Volume: 25.0000uL | Tray: 1

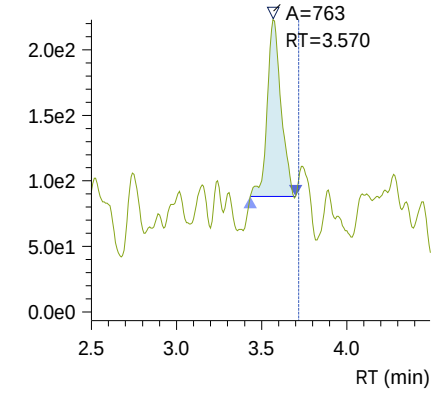
Perchlorate

Conc 0.0996
R#1 24.56 (34.45)

Q 99.00>83.00 (-) A=3105 6.91e2



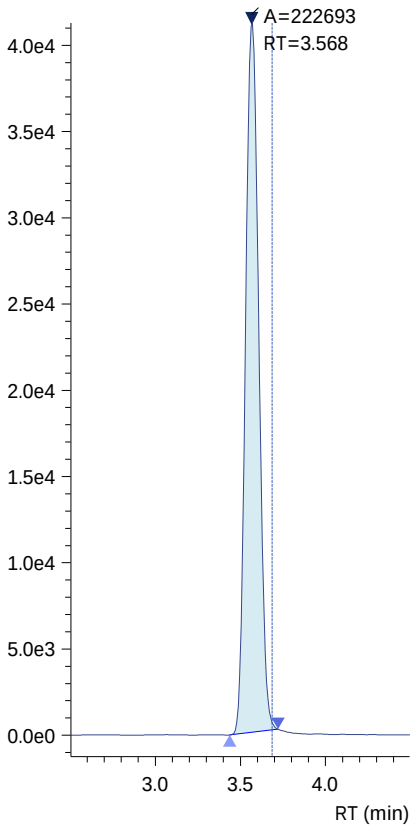
R1 101.00>85.00 (-) 2.23e2



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 4.13e4



Insight Report

Printed at 2/1/2023 2:06:14 PM

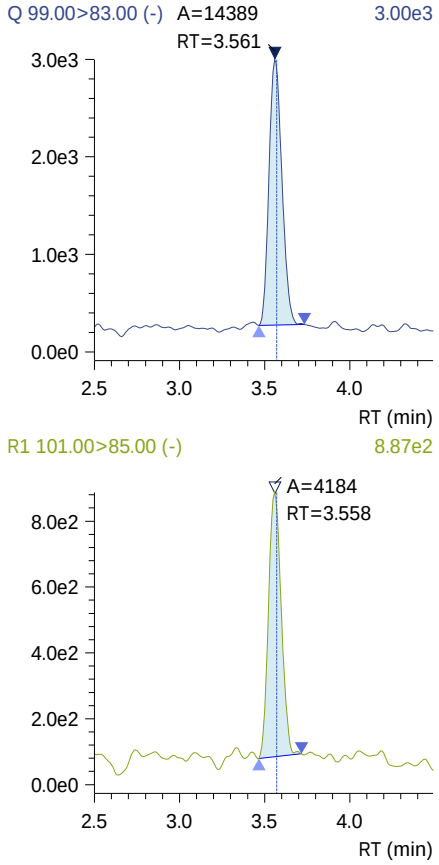
PERCHLORATE2

Sample ID: PERCHLORATE2
Date Acquired: 2/1/2023 11:55:59 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\02012023\20230201-004.lcd
Vial: 2 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.561	14389	221291	0.4694	ng/mL	101.00 >85.00	29.08	24.11 -44.78
Sodium Perchlorate-18O4_IS	Auto	3.558	221291	221291	1.0000	ng/mL	----	----	

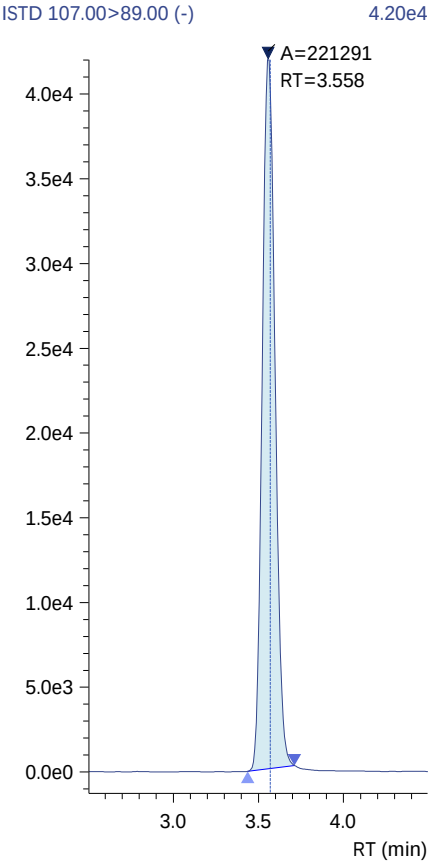
Perchlorate

Conc 0.4694
R#1 29.08 (31.99)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/1/2023 2:06:14 PM

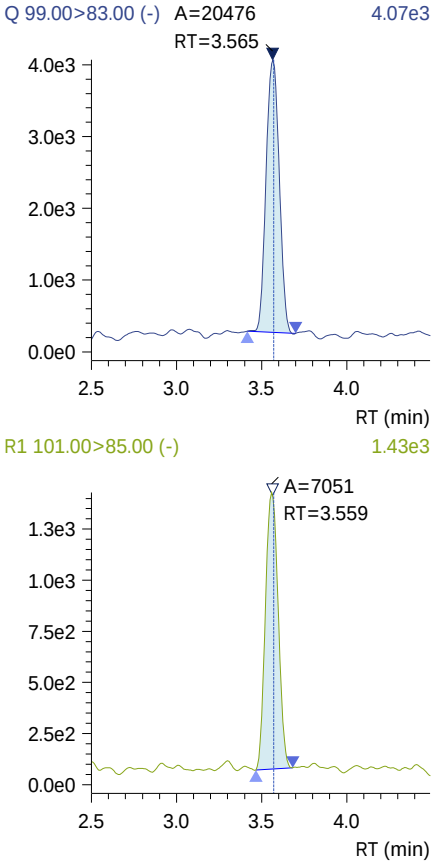
PERCHLORATE3

Sample ID: PERCHLORATE3
Date Acquired: 2/1/2023 12:01:49 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\02012023\20230201-005.lcd
Vial: 3 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.565	20476	217325	0.6801	ng/mL	101.00 >85.00	34.44	24.11 -44.78
Sodium Perchlorate-18O4_IS	Auto	3.559	217325	217325	1.0000	ng/mL	----	----	

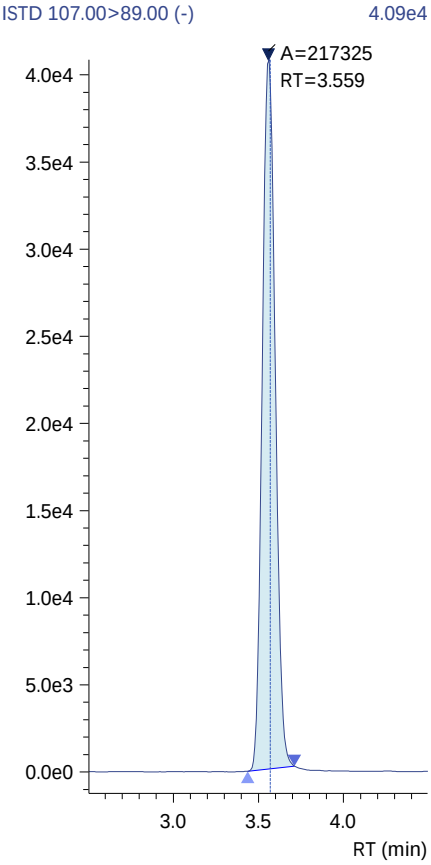
Perchlorate

Conc 0.6801
R#1 34.44 (31.99)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/1/2023 2:06:14 PM

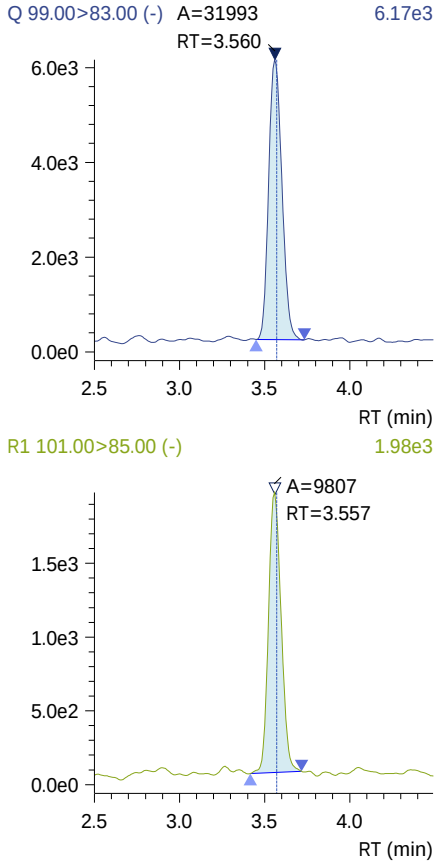
PERCHLORATE4

Sample ID: PERCHLORATE4
Date Acquired: 2/1/2023 12:07:38 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\02012023\20230201-006.lcd
Vial: 4 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.560	31993	228763	1.0095	ng/mL	101.00 >85.00	30.65	24.11 -44.78
Sodium Perchlorate-18O4_IS	Auto	3.557	228763	228763	1.0000	ng/mL	----	----	

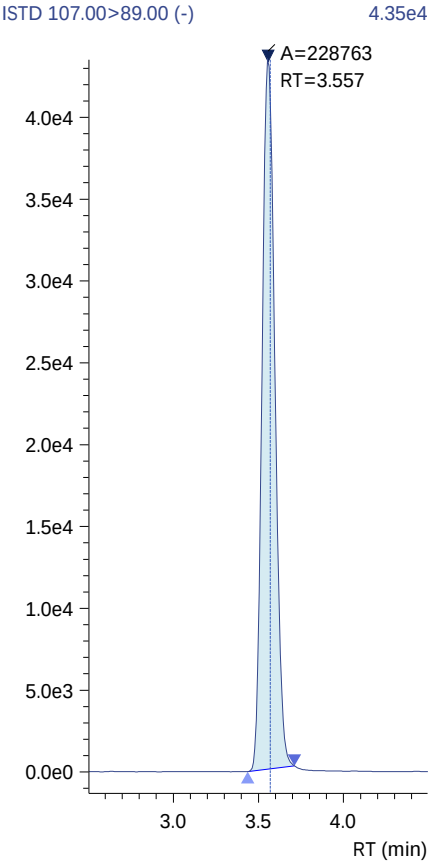
Perchlorate

Conc 1.0095
R#1 30.65 (31.99)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/1/2023 2:06:14 PM

PERCHLORATE5

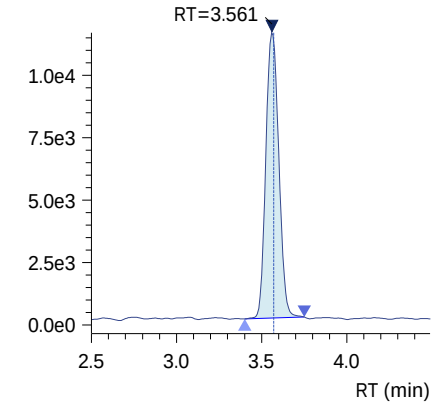
Sample ID: PERCHLORATE5
Date Acquired: 2/1/2023 12:13:29 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\02012023\20230201-007.lcd
Vial: 5 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.561	60751	216066	2.0296	ng/mL	101.00 >85.00	32.70	24.11 -44.78
Sodium Perchlorate-18O4_IS	Auto	3.557	216066	216066	1.0000	ng/mL	----	----	

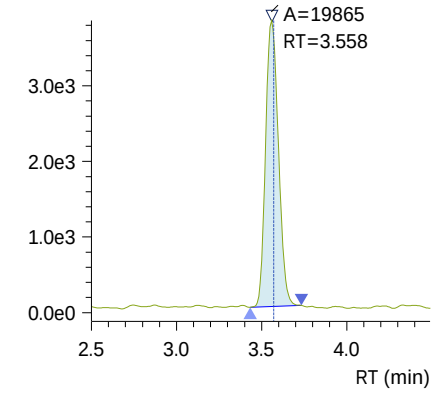
Perchlorate

Conc 2.0296
R#1 32.70 (31.99)

Q 99.00>83.00 (-) A=60751 1.17e4



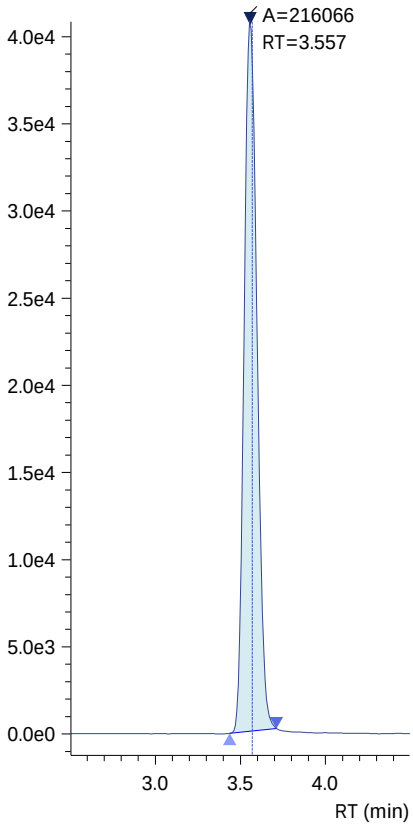
R1 101.00>85.00 (-) 3.87e3



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 4.09e4



Insight Report

Printed at 2/1/2023 2:06:14 PM

PERCHLORATE6

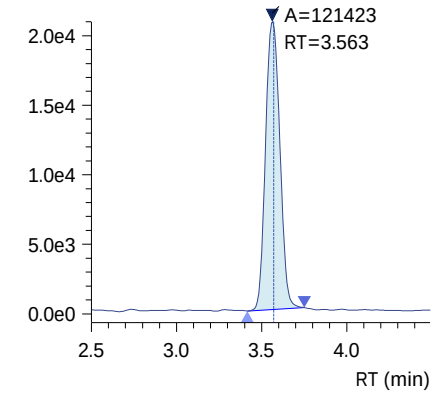
Sample ID: PERCHLORATE6
Date Acquired: 2/1/2023 12:19:20 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\02012023\20230201-008.lcd
Vial: 6 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.563	121423	172986	5.0667	ng/mL	101.00	32.55	24.11
							>85.00		-44.78
Sodium Perchlorate-18O4_IS	Auto	3.558	172986	172986	1.0000	ng/mL	----	----	

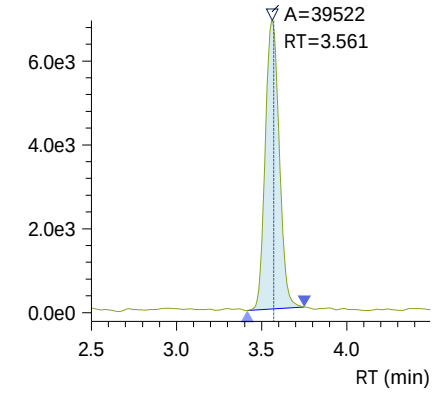
Perchlorate

Conc 5.0667
R#1 32.55 (31.99)

Q 99.00>83.00 (-) 2.10e4



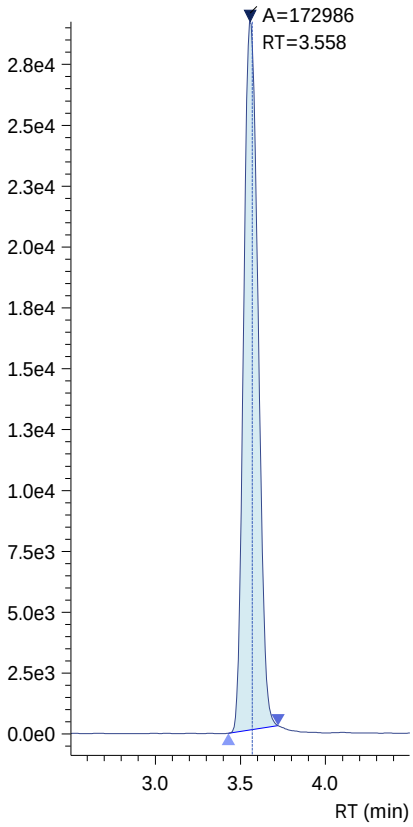
R1 101.00>85.00 (-) 6.97e3



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.93e4



Insight Report

Printed at 2/1/2023 2:06:14 PM

PERCHLORATE7

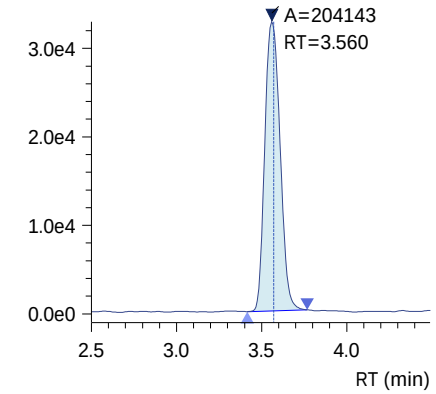
Sample ID: PERCHLORATE7
Date Acquired: 2/1/2023 12:25:10 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\02012023\20230201-009.lcd
Vial: 7 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.560	2041 43	144196	10.2 192	ng/mL	101.00 >85.00	31.99	24.11 -44.78
Sodium Perchlorate-18O4_IS	Auto	3.555	1441 96	144196	1.0000	ng/mL	----	----	

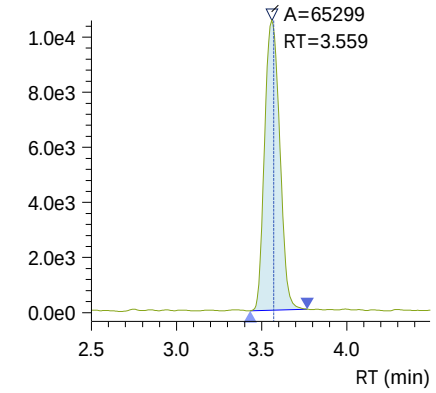
Perchlorate

Conc 10.2192
R#1 31.99 (31.99)

Q 99.00>83.00 (-) 3.30e4



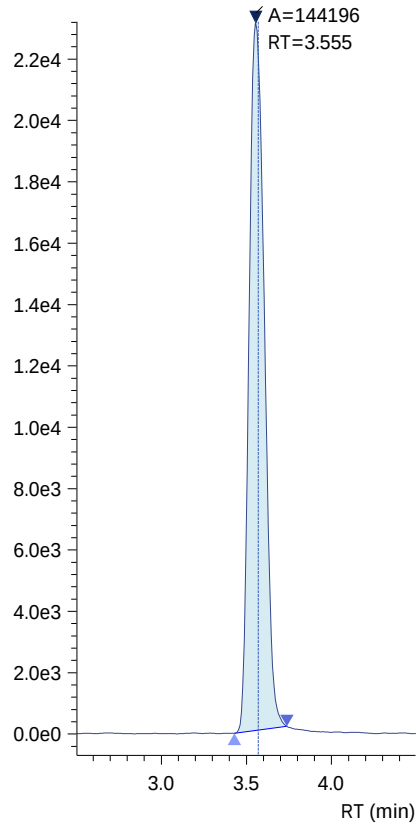
R1 101.00>85.00 (-) 1.06e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.32e4



Insight Report

Printed at 2/1/2023 2:06:14 PM

PERCHLORATE8

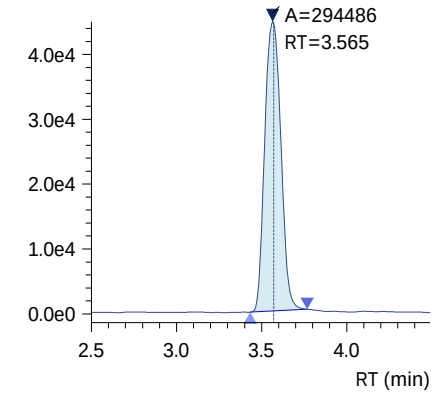
Sample ID: PERCHLORATE8
Date Acquired: 2/1/2023 12:30:57 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\02012023\20230201-010.lcd
Vial: 8 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.565	294486	104680	20.3065	ng/mL	101.00 >85.00	32.66	24.11 -44.78
Sodium Perchlorate-18O4_IS	Auto	3.557	104680	104680	1.0000	ng/mL	----	----	

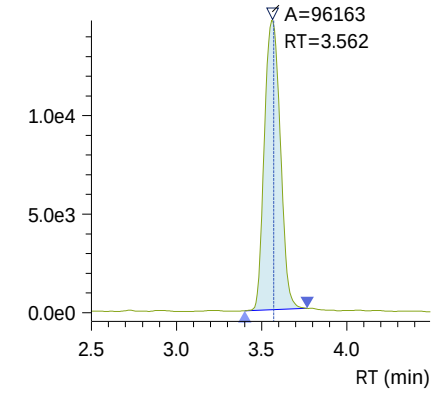
Perchlorate

Conc 20.3065
R#1 32.66 (31.99)

Q 99.00>83.00 (-) 4.50e4



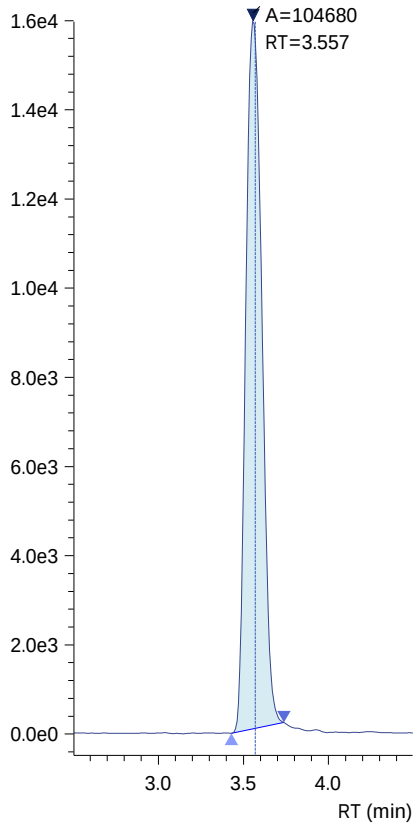
R1 101.00>85.00 (-) 1.48e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.60e4



Insight Report

Printed at 2/1/2023 2:06:14 PM

PERCHLORATE9

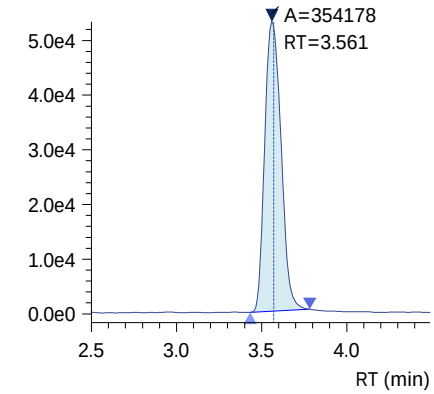
Sample ID: PERCHLORATE9
Date Acquired: 2/1/2023 12:36:45 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\02012023\20230201-011.lcd
Vial: 9 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.561	3541	81577	31.3	ng/mL	101.00	31.89	24.11
			78		395		>85.00		-44.78
Sodium Perchlorate-18O4 _IS	Auto	3.557	81577	81577	1.0000	ng/mL	----	----	

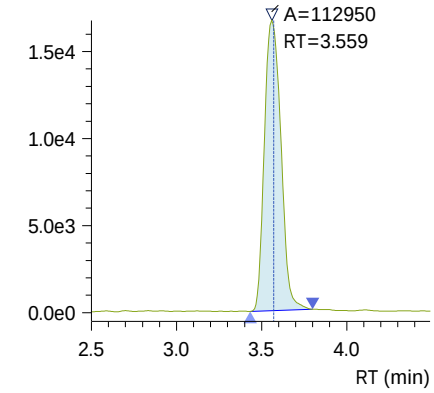
Perchlorate

Conc 31.3395
R#1 31.89 (31.99)

Q 99.00>83.00 (-) 5.34e4



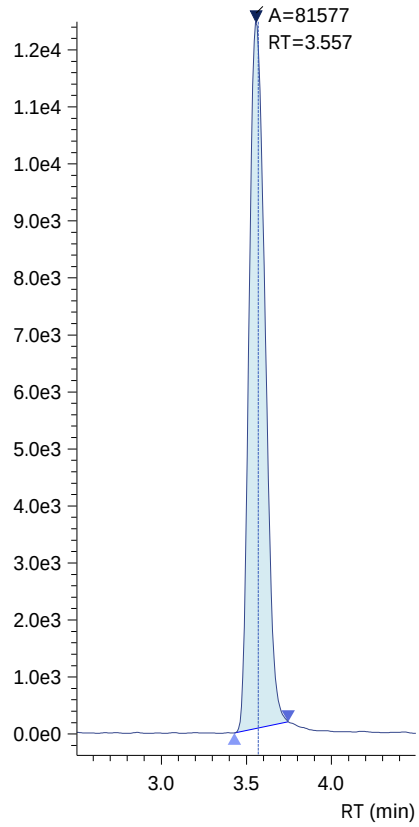
R1 101.00>85.00 (-) 1.68e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.25e4



Insight Report

Printed at 2/1/2023 2:06:14 PM

PERCHLORATE10

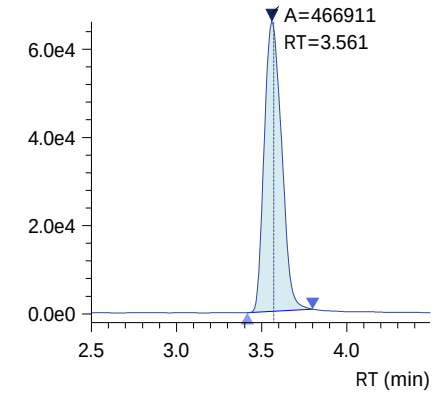
Sample ID: PERCHLORATE10
Date Acquired: 2/1/2023 12:42:34 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\02012023\20230201-012.lcd
Vial: 10 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.561	4669	63237	53.2	ng/mL	101.00	32.40	24.11
			11		964		>85.00		-44.78
Sodium Perchlorate-18O4_IS	Auto	3.554	63237	63237	1.0000	ng/mL	----	----	

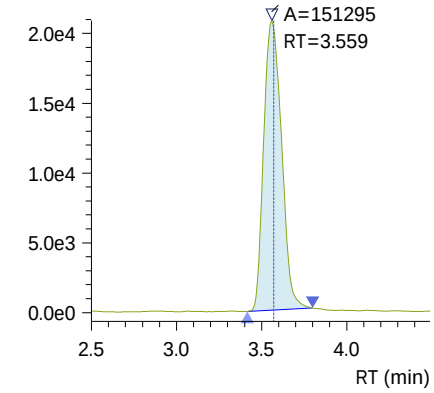
Perchlorate

Conc 53.2964
R#1 32.40 (31.99)

Q 99.00>83.00 (-) 6.62e4



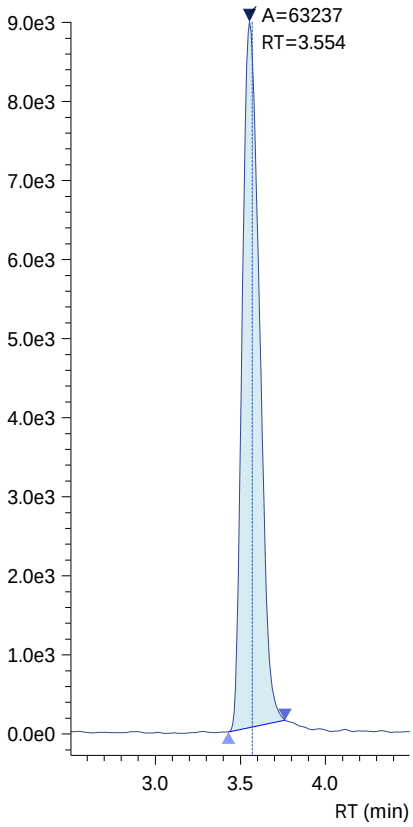
R1 101.00>85.00 (-) 2.09e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 9.01e3



Insight Report

Printed at 2/1/2023 2:06:14 PM

PERCHLORATEICV

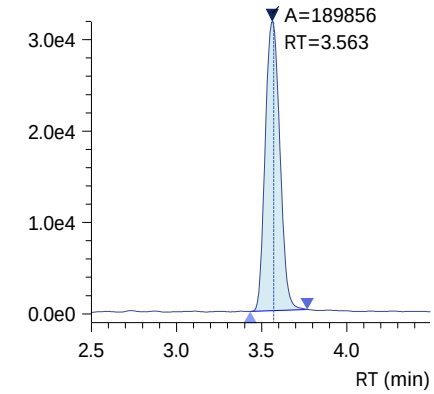
Sample ID: PERCHLORATEICV
Date Acquired: 2/1/2023 12:48:22 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\02012023\20230201-013.lcd
Vial: 11 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.563	189856 1898	130049	10.5 379	ng/mL	101.00 >85.00	32.76	24.11 -44.78
Sodium Perchlorate-18O4_IS	Auto	3.557	130049	130049	1.0000	ng/mL	----	----	

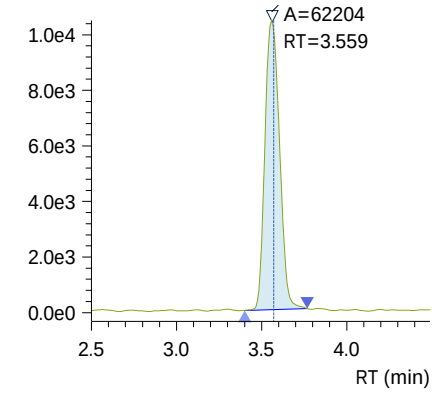
Perchlorate

Conc 10.5379
R#1 32.76 (31.99)

Q 99.00>83.00 (-) 3.20e4



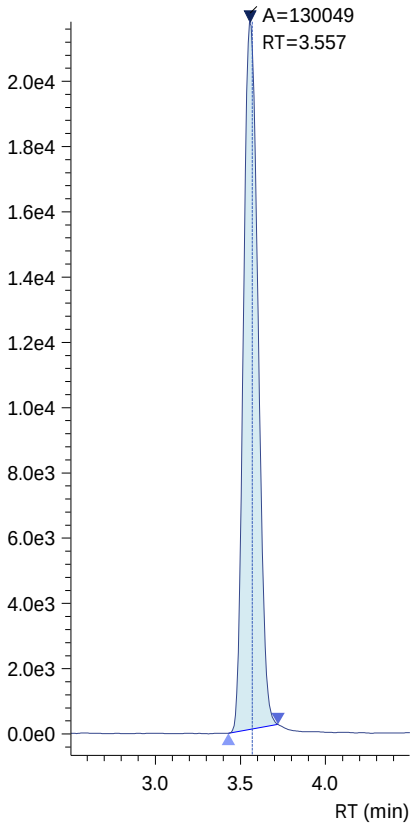
R1 101.00>85.00 (-) 1.05e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.18e4



Chromatograms and Selected Ion Monitoring

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 320, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

20230315-797835

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XMI
2nd Review: KNEIR

ICAL Date: 2/1/2023
Cal. Std. xp: 07/31/2023
ICAL ID: EC2300002

Mobile Phases : A:0.10% Formic Acid/Water 3210303-05 **B:**MeOH 224417

	Sample Name		File Name	Acquisition Method	Dilution	R	Comments	Date/Time
1	IB		20230315-001	Perchlorate6850c.lcm	1x	☒		3/15/2023 8:46
2	LODV		20230315-002	Perchlorate6850c.lcm	1x	☒	DNU-IR	3/15/2023 8:52
3	ICS		20230315-003	Perchlorate6850c.lcm	1x	☒	32103024	3/15/2023 8:58
4	LODV		20230315-004	Perchlorate6850c.lcm	1x	☒	227501	3/15/2023 9:05
5	PERCHLORATE7		20230315-005	Perchlorate6850c.lcm	1x	☒	227251	3/15/2023 9:25
6	EQ2300128-01		20230315-006	Perchlorate6850c.lcm	1x	☒		3/15/2023 9:30
7	EQ2300128-02		20230315-007	Perchlorate6850c.lcm	1x	☒		3/15/2023 9:36
8	EQ2300128-03		20230315-008	Perchlorate6850c.lcm	1x	☒		3/15/2023 9:42
9	R2301893-005		20230315-009	Perchlorate6850c.lcm	1x	☒		3/15/2023 10:05
10	R2301893-010		20230315-010	Perchlorate6850c.lcm	1x	☒		3/15/2023 10:10
11	R2301893-015		20230315-011	Perchlorate6850c.lcm	1x	☒		3/15/2023 10:21
12	R2301893-020		20230315-012	Perchlorate6850c.lcm	1x	☒		3/15/2023 10:27
13	R2301893-025		20230315-013	Perchlorate6850c.lcm	1x	☒		3/15/2023 10:33
14	R2301893-034		20230315-014	Perchlorate6850c.lcm	1x	☒		3/15/2023 10:38
15	R2301893-035		20230315-015	Perchlorate6850c.lcm	1x	☒	DNU-RR	3/15/2023 10:44
16	PERCHLORATE7		20230315-016	Perchlorate6850c.lcm	1x	☒	227251	3/15/2023 10:50
17	R2301893-044		20230315-017	Perchlorate6850c.lcm	1x	☒		3/15/2023 10:55
18	R2301893-045		20230315-018	Perchlorate6850c.lcm	1x	☒		3/15/2023 11:01
19	R2301893-050		20230315-019	Perchlorate6850c.lcm	1x	☒		3/15/2023 11:07
20	EQ2300128-04		20230315-020	Perchlorate6850c.lcm	1x	☒		3/15/2023 11:13
21	EQ2300128-05		20230315-021	Perchlorate6850c.lcm	1x	☒		3/15/2023 11:19
22	R2301893-055		20230315-022	Perchlorate6850c.lcm	1x	☒		3/15/2023 11:27
23	R2301896-009		20230315-023	Perchlorate6850c.lcm	1x	☒		3/15/2023 11:33
24	R2301896-010		20230315-024	Perchlorate6850c.lcm	1x	☒		3/15/2023 11:39
25	R2301896-015		20230315-025	Perchlorate6850c.lcm	1x	☒		3/15/2023 11:44
26	R2301896-024		20230315-026	Perchlorate6850c.lcm	1x	☒		3/15/2023 11:50
27	PERCHLORATE7		20230315-027	Perchlorate6850c.lcm	1x	☒	227251	3/15/2023 11:56
28	R2301896-025		20230315-028	Perchlorate6850c.lcm	1x	☒		3/15/2023 12:02
29	R2301896-034		20230315-029	Perchlorate6850c.lcm	1x	☒		3/15/2023 12:07
30	R2301896-035		20230315-030	Perchlorate6850c.lcm	1x	☒		3/15/2023 12:13
31	R2301896-040		20230315-031	Perchlorate6850c.lcm	1x	☒	DNU-CONFIRM PEAK	3/15/2023 12:19
32	R2301896-045		20230315-032	Perchlorate6850c.lcm	1x	☒		3/15/2023 12:24
33	EQ2300127-01		20230315-033	Perchlorate6850c.lcm	1x	☒		3/15/2023 12:30
34	EQ2300127-02		20230315-034	Perchlorate6850c.lcm	1x	☒		3/15/2023 12:36
35	EQ2300127-03		20230315-035	Perchlorate6850c.lcm	1x	☒		3/15/2023 12:42
36	E2300231-001		20230315-036	Perchlorate6850c.lcm	1x	☒		3/15/2023 12:48
37	E2300231-002		20230315-037	Perchlorate6850c.lcm	1x	☒		3/15/2023 12:54

20230315-797835

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XMI
2nd Review: KNEIR

ICAL Date: 2/1/2023
Cal. Std. xp: 07/31/2023
ICAL ID: EC2300002

Mobile Phases : **A:**0.10% Formic Acid/Water 3210303-05 **B:**MeOH 224417

	Sample Name		File Name	Acquisition Method	Dilution	R	Comments	Date/Time
38	PERCHLORATE7		20230315-038	Perchlorate6850c.lcm	1x	☒	227251	3/15/2023 12:59
39	E2300231-003		20230315-039	Perchlorate6850c.lcm	1x	☒		3/15/2023 13:05
40	E2300231-004		20230315-040	Perchlorate6850c.lcm	1x	☒	DNU-IR	3/15/2023 13:11
41	E2300231-005		20230315-041	Perchlorate6850c.lcm	1x	☒		3/15/2023 13:16
42	E2300235-001		20230315-042	Perchlorate6850c.lcm	1x	☒		3/15/2023 13:22
43	E2300235-002		20230315-043	Perchlorate6850c.lcm	1x	☒		3/15/2023 13:28
44	E2300235-003		20230315-044	Perchlorate6850c.lcm	1x	☒		3/15/2023 13:34
45	E2300239-001		20230315-045	Perchlorate6850c.lcm	1x	☒		3/15/2023 13:39
46	E2300240-001		20230315-046	Perchlorate6850c.lcm	1x	☒	DNU-out of ICAL range	3/15/2023 13:45
47	R2301866-011		20230315-047	Perchlorate6850c.lcm	1x	☒		3/15/2023 13:51
48	R2301866-013		20230315-048	Perchlorate6850c.lcm	1x	☒		3/15/2023 13:57
49	PERCHLORATE7		20230315-049	Perchlorate6850c.lcm	1x	☒	227251	3/15/2023 14:37
50	R2301868-012		20230315-050	Perchlorate6850c.lcm	1x	☒		3/15/2023 14:44
51	R2301870-012		20230315-051	Perchlorate6850c.lcm	1x	☒		3/15/2023 14:50
52	R2301872-012		20230315-052	Perchlorate6850c.lcm	1x	☒		3/15/2023 14:56
53	R2301874-012		20230315-053	Perchlorate6850c.lcm	1x	☒		3/15/2023 15:01
54	R2301876-012		20230315-054	Perchlorate6850c.lcm	1x	☒		3/15/2023 15:07
55	R2301914-005		20230315-055	Perchlorate6850c.lcm	1x	☒		3/15/2023 15:13
56	R2301914-014		20230315-056	Perchlorate6850c.lcm	1x	☒		3/15/2023 15:19
57	R2301896-040		20230315-057	Perchlorate6850c.lcm	1x	☒		3/15/2023 15:24
58	E2300231-004		20230315-058	Perchlorate6850c.lcm	1x	☒		3/15/2023 15:30
59	E2300240-001		20230315-059	Perchlorate6850c.lcm	1000x	☒		3/15/2023 15:52
60	PERCHLORATE7		20230315-060	Perchlorate6850c.lcm	1x	☒	227251	3/15/2023 16:59

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2300239
Project:	HS23030396	**Date Analyzed:**	3/15/23 12:59

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20230315\20230315-038	**Lab Code:**	EQ2300132-04
Instrument ID:	E-LCMS-01	**Analysis Lot:**	797835
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	167,281	3.56
	Upper Limit ==>	250,922	5.56
	Lower Limit ==>	83,641	1.56
Associated Analyses			
Continuing Calibration Verification	EQ2300132-04	207,678	3.39
LH18/24-SP650_030723_AIX	E2300239-001	197,751	3.39

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2300239
Project:	HS23030396	**Date Analyzed:**	3/15/23 14:37

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20230315\20230315-049	**Lab Code:**	EQ2300132-05
Instrument ID:	E-LCMS-01	**Analysis Lot:**	797835
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	167,281	3.56
	Upper Limit ==>	250,922	5.56
	Lower Limit ==>	83,641	1.56
Associated Analyses			
Continuing Calibration Verification	EQ2300132-05	222,551	3.38

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2300239
Project:	HS23030396	**Date Analyzed:**	3/15/23 16:59

Internal Standard Area and RT Summary

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20230315\20230315-060-5	**Lab Code:**	EQ2300132-06
Instrument ID:	E-LCMS-01	**Analysis Lot:**	797835
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	167,281	3.56
	Upper Limit ==>	250,922	5.56
	Lower Limit ==>	83,641	1.56
Associated Analyses			
Continuing Calibration Verification	EQ2300132-06	173,264	3.35

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23030396

Service Request: E2300239
Date Analyzed: 3/15/23

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20230315\20230315-038

Calibration Date: 2/1/23
Calibration ID: EC2300002
Analysis Lot: 797835
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	8.67	0.1385	0.1201	-13.3	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23030396

Service Request: E2300239
Date Analyzed: 3/15/23

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20230315\20230315-049

Calibration Date: 2/1/23
Calibration ID: EC2300002
Analysis Lot: 797835
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	8.68	0.1385	0.1203	-13.2	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23030396

Service Request: E2300239
Date Analyzed: 3/15/23

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20230315\20230315-060-5

Calibration Date: 2/1/23
Calibration ID: EC2300002
Analysis Lot: 797835
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	10.8	0.1385	0.1495	7.9	NA	± 15 %	Average RF

Insight Report

Printed at 3/16/2023 9:16:42 AM

Method File: I:\LCMS01\DATA\20230315\20230315.lcm
Project File: I:\LCMS01\DATA\20230315\20230315.damlp

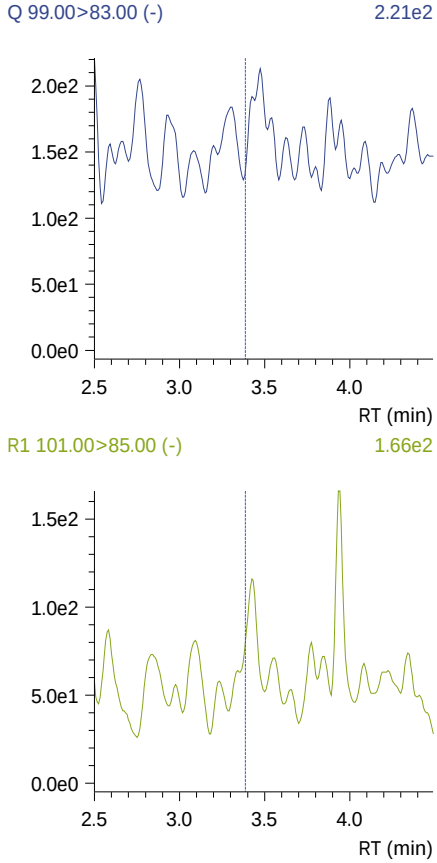
IB

Sample ID: IB
Date Acquired: 3/15/2023 8:46:51 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230315\20230315-001.lcd
Vial: 4 | Inj. Volume: 25.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	228254	----	ng/mL	101.00 >85.00	0.00	22.03 -40.92
Sodium Perchlorate-18O4_IS	Auto	3.430	228254	228254	1.0000	ng/mL	----	----	

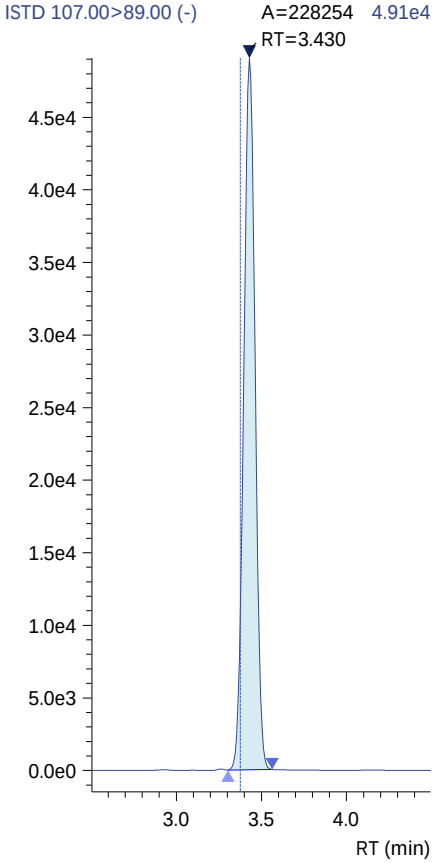
Perchlorate

Conc ----
R#1 0.00 (31.48)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 3/16/2023 9:16:42 AM

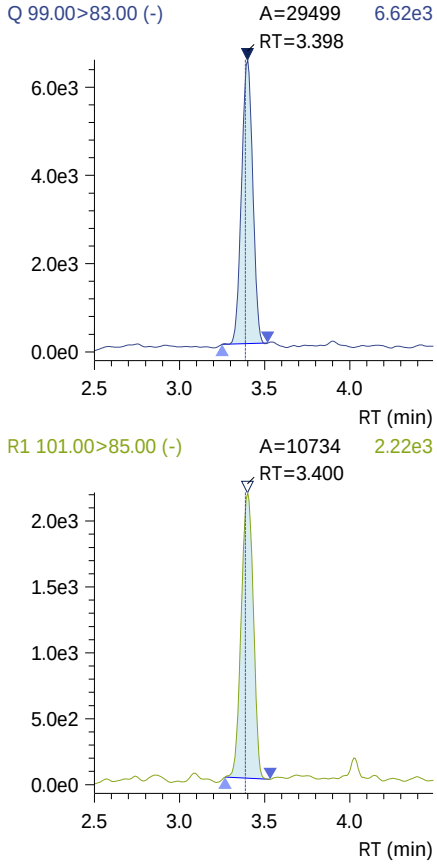
ICS

Sample ID: ICS
Date Acquired: 3/15/2023 8:58:42 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230315\20230315-003.lcd
Vial: 2 | Inj. Volume: 25.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.398	29499	198883	1.0707	ng/mL	101.00 >85.00	36.39	22.03 -40.92
Sodium Perchlorate-18O4_IS	Auto	3.394	198883	198883	1.0000	ng/mL	----	----	

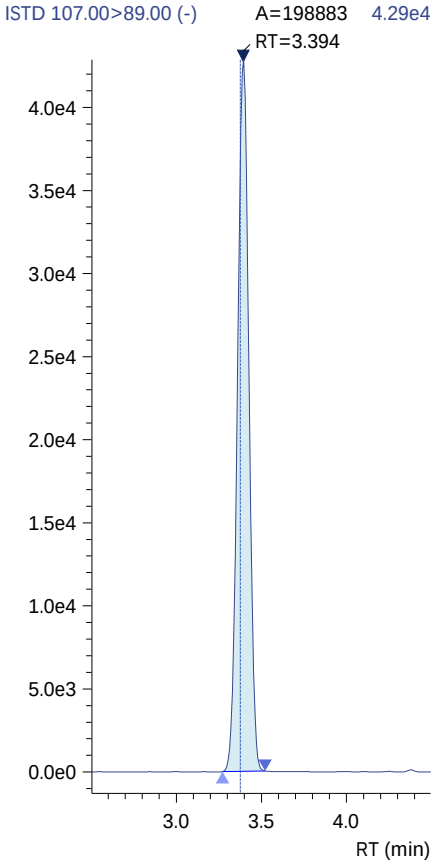
Perchlorate

Conc 1.0707
R#1 36.39 (31.48)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 3/16/2023 9:16:42 AM

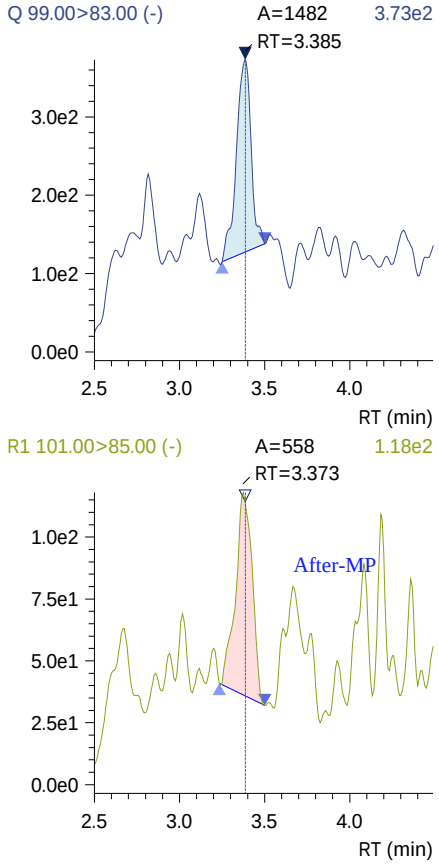
LODV

Sample ID: LODV
Date Acquired: 3/15/2023 9:05:11 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230315\20230315-004.lcd
Vial: 1 | Inj. Volume: 25.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	MI R1	3.385	1482	174618	0.0613	ng/mL	101.00 >85.00	37.64	22.03 -40.92
Sodium Perchlorate-18O4_IS	Auto	3.383	174618	174618	1.0000	ng/mL	----	----	

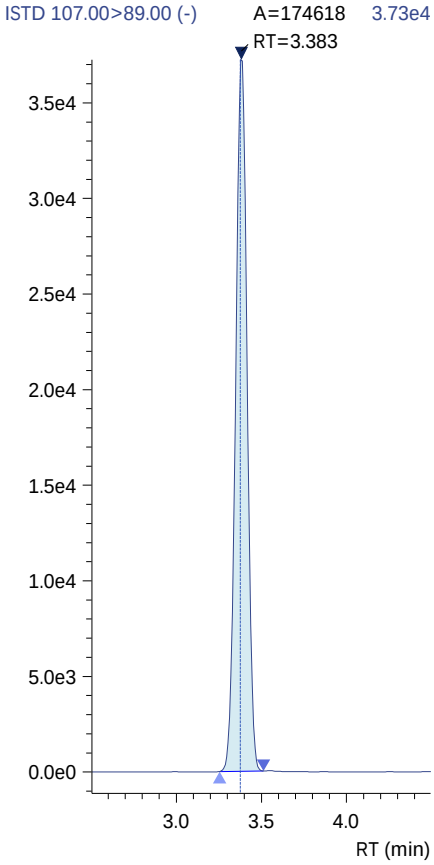
Perchlorate

Conc 0.0613
R#1 37.64 (31.48)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 3/16/2023 9:18:29 AM

Method File: I:\LCMS01\DATA\20230315\20230315.lcm
Project File: I:\LCMS01\DATA\20230315\20230315.damlp

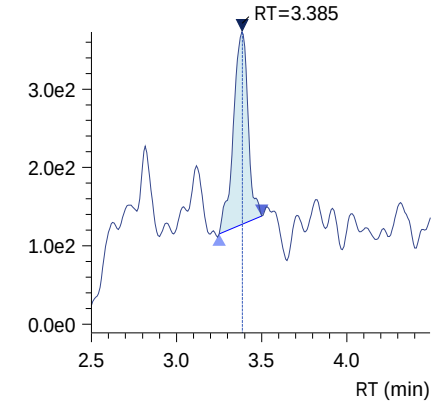
LODV

Sample ID: LODV
Date Acquired: 3/15/2023 9:05:11 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230315\20230315-004.lcd
Vial: 1 | Inj. Volume: 25.0000uL | Tray: 0

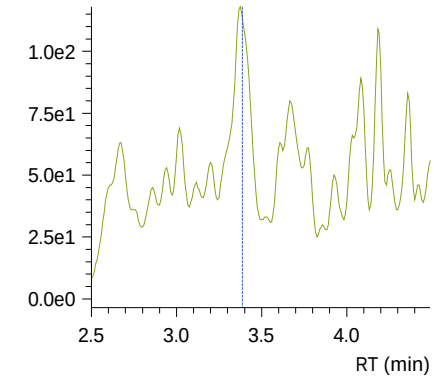
Perchlorate

Conc 0.0606
R#1 0.00 (31.48)

Q 99.00>83.00 (-) A=1482 3.73e2



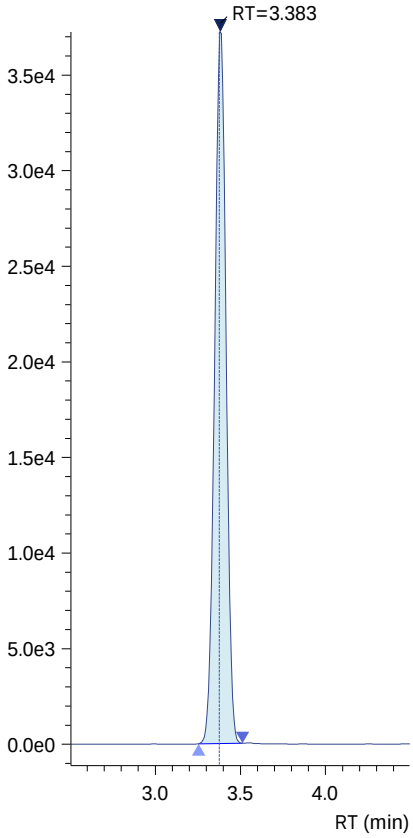
R1 101.00>85.00 (-) 1.18e2



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) A=174618 3.73e4



Insight Report

Printed at 3/16/2023 9:16:42 AM

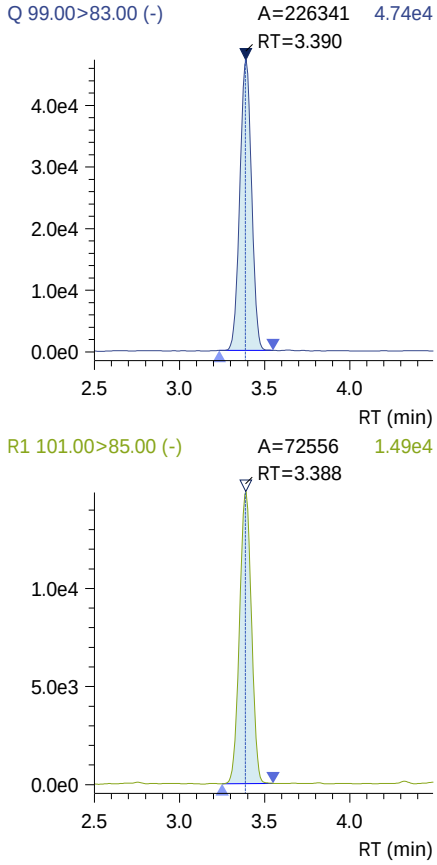
PERCHLORATE7

Sample ID: PERCHLORATE7
Date Acquired: 3/15/2023 9:25:10 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230315\20230315-005.lcd
Vial: 3 | Inj. Volume: 25.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.390	226341	177502	9.2044	ng/mL	101.00 >85.00	32.06	22.03 -40.92
Sodium Perchlorate-18O4_IS	Auto	3.385	177502	177502	1.0000	ng/mL	----	----	

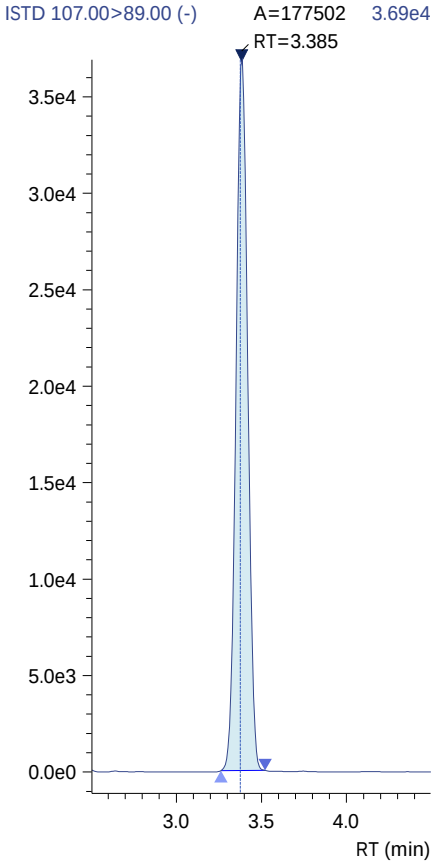
Perchlorate

Conc 9.2044
R#1 32.06 (31.48)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 3/16/2023 9:16:42 AM

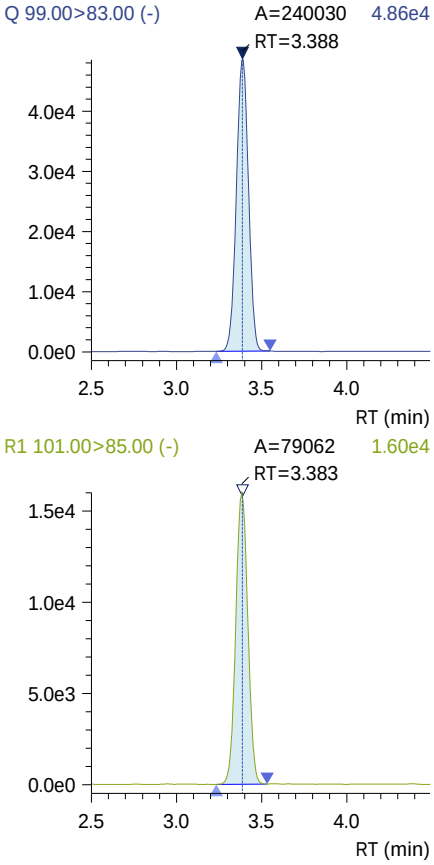
PERCHLORATE7

Sample ID: PERCHLORATE7
Date Acquired: 3/15/2023 11:56:15 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230315\20230315-027.lcd
Vial: 3 | Inj. Volume: 25.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.388	240030	198746	8.7177	ng/mL	101.00 >85.00	32.94	22.03 -40.92
Sodium Perchlorate-18O4_IS	Auto	3.385	198746	198746	1.0000	ng/mL	----	----	

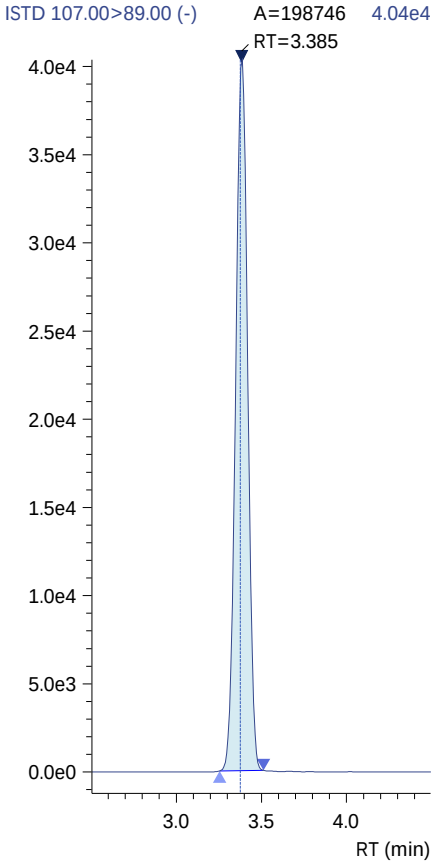
Perchlorate

Conc 8.7177
R#1 32.94 (31.48)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 3/16/2023 9:16:42 AM

EQ2300127-01

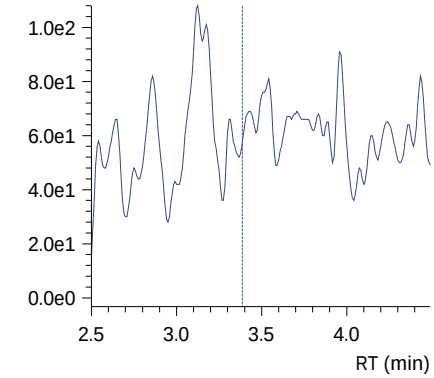
Sample ID: EQ2300127-01
Date Acquired: 3/15/2023 12:30:34 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230315\20230315-033.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 4

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	201202	----	ng/mL	101.00 >85.00	0.00	22.03 -40.92
Sodium Perchlorate-18O4_IS	Auto	3.385	201202	201202	1.0000	ng/mL	----	----	

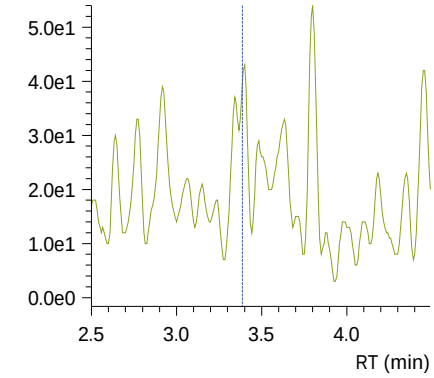
Perchlorate

Conc ----
R#1 0.00 (31.48)

Q 99.00>83.00 (-) 1.08e2



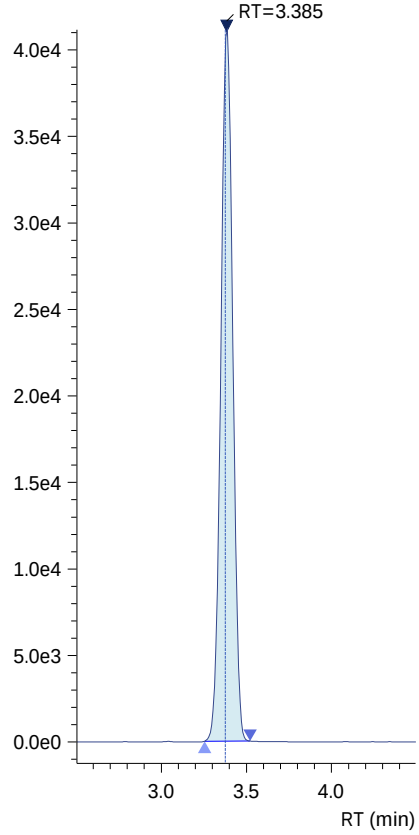
R1 101.00>85.00 (-) 5.40e1



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) A=201202 4.12e4
RT=3.385



Insight Report

Printed at 3/16/2023 9:16:42 AM

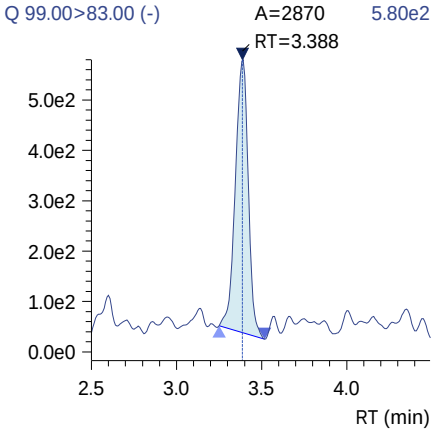
EQ2300127-02

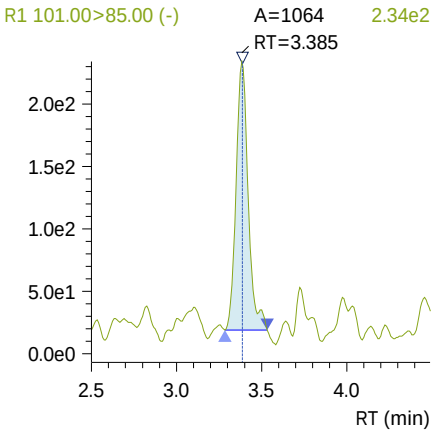
Sample ID: EQ2300127-02
Date Acquired: 3/15/2023 12:36:18 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230315\20230315-034.lcd
Vial: 27 | Inj. Volume: 25.0000uL | Tray: 4

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.388	2870	195012	0.1062	ng/mL	101.00 >85.00	37.05	22.03 -40.92
Sodium Perchlorate-18O4_IS	Auto	3.383	1950 12	195012	1.0000	ng/mL	----	----	

Perchlorate

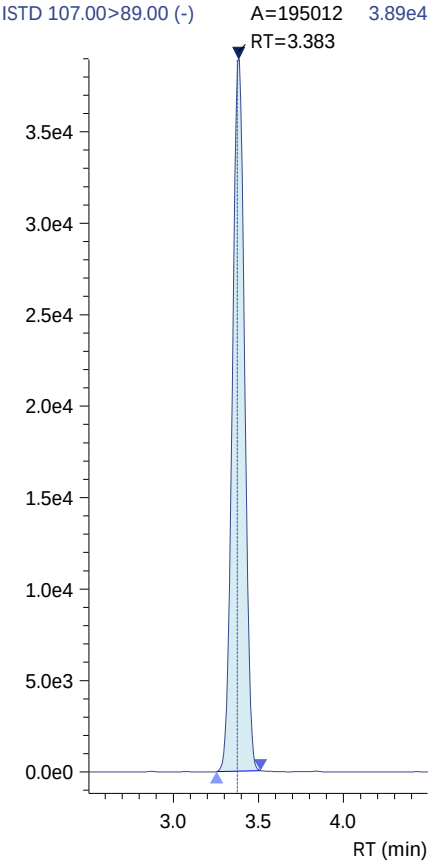
Conc 0.1062
R#1 37.05 (31.48)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 3/16/2023 9:16:42 AM

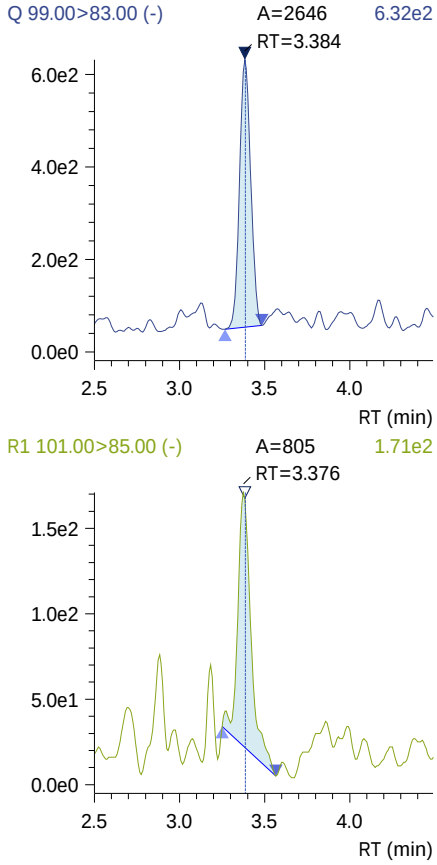
EQ2300127-03

Sample ID: EQ2300127-03
Date Acquired: 3/15/2023 12:42:02 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230315\20230315-035.lcd
Vial: 28 | Inj. Volume: 25.0000uL | Tray: 4

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.384	2646	203253	0.0940	ng/mL	101.00 >85.00	30.41	22.03 -40.92
Sodium Perchlorate-18O4_IS	Auto	3.381	203253	203253	1.0000	ng/mL	----	----	

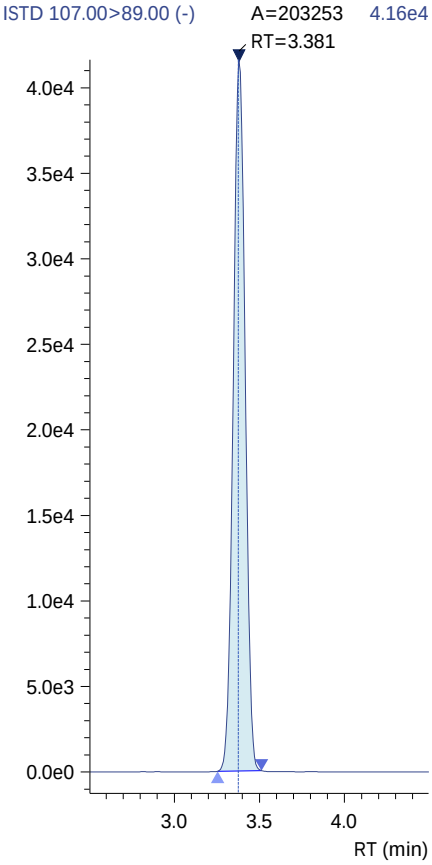
Perchlorate

Conc 0.0940
R#1 30.41 (31.48)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 3/16/2023 9:16:42 AM

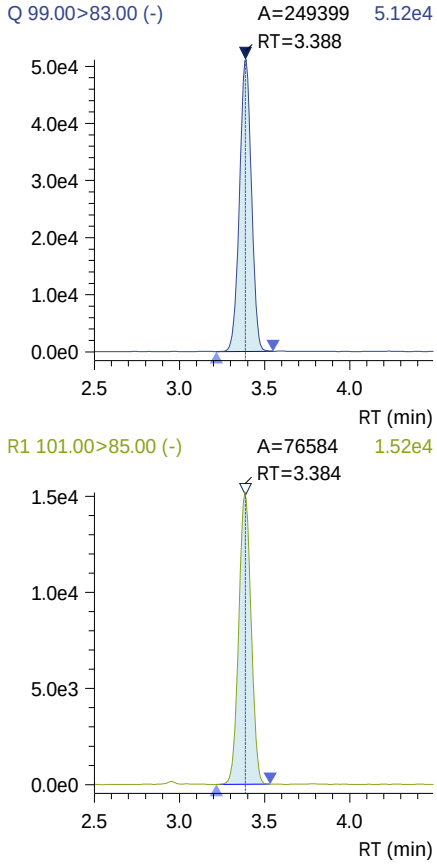
PERCHLORATE7

Sample ID: PERCHLORATE7
Date Acquired: 3/15/2023 12:59:44 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230315\20230315-038.lcd
Vial: 3 | Inj. Volume: 25.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.388	249399	207678	8.6684	ng/mL	101.00 >85.00	30.71	22.03 -40.92
Sodium Perchlorate-18O4_IS	Auto	3.385	207678	207678	1.0000	ng/mL	----	----	

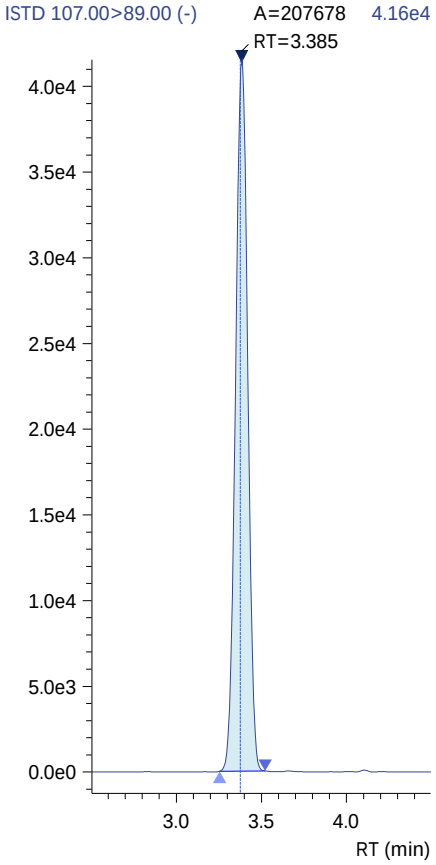
Perchlorate

Conc 8.6684
R#1 30.71 (31.48)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 3/16/2023 9:16:42 AM

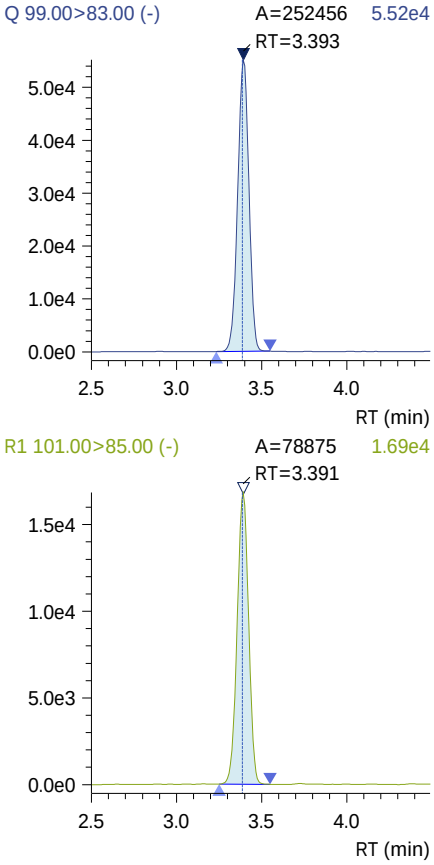
E2300239-001

Sample ID: E2300239-001
Date Acquired: 3/15/2023 1:39:54 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230315\20230315-045.lcd
Vial: 37 | Inj. Volume: 25.0000uL | Tray: 4

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.393	252456	197751	9.2151	ng/mL	101.00 >85.00	31.24	22.03 -40.92
Sodium Perchlorate-18O4_IS	Auto	3.390	197751	197751	1.0000	ng/mL	----	----	

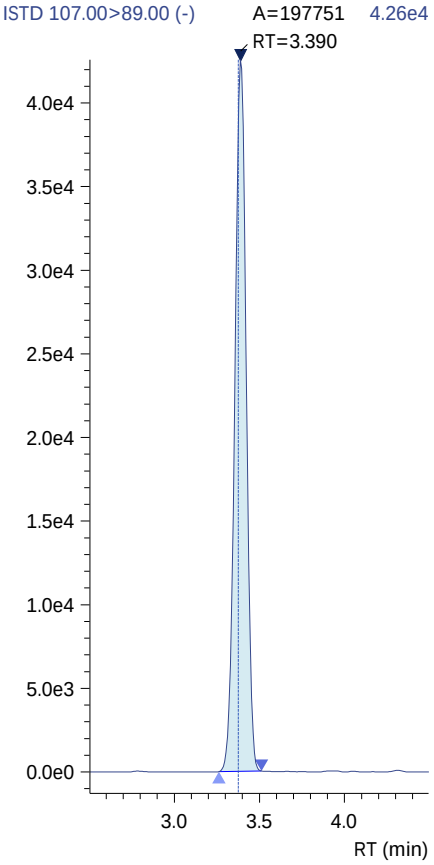
Perchlorate

Conc 9.2151
R#1 31.24 (31.48)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 3/16/2023 9:16:42 AM

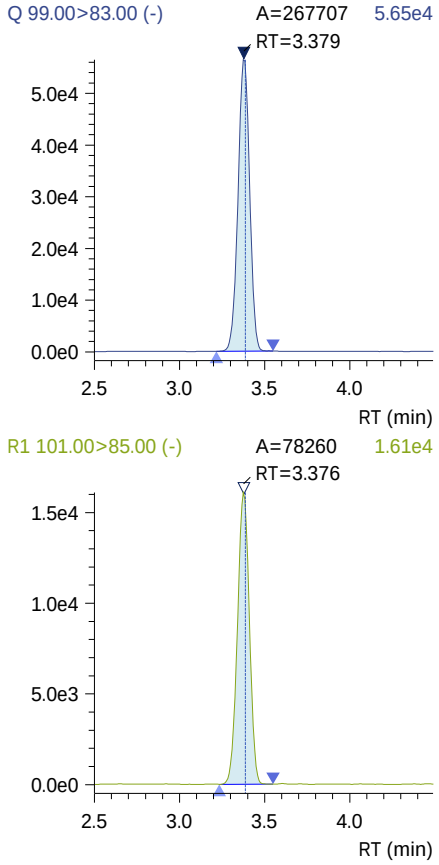
PERCHLORATE7

Sample ID: PERCHLORATE7
Date Acquired: 3/15/2023 2:37:55 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230315\20230315-049.lcd
Vial: 3 | Inj. Volume: 25.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.379	267707	222551	8.6829	ng/mL	101.00 >85.00	29.23	22.03 -40.92
Sodium Perchlorate-18O4_IS	Auto	3.375	222551	222551	1.0000	ng/mL	----	----	

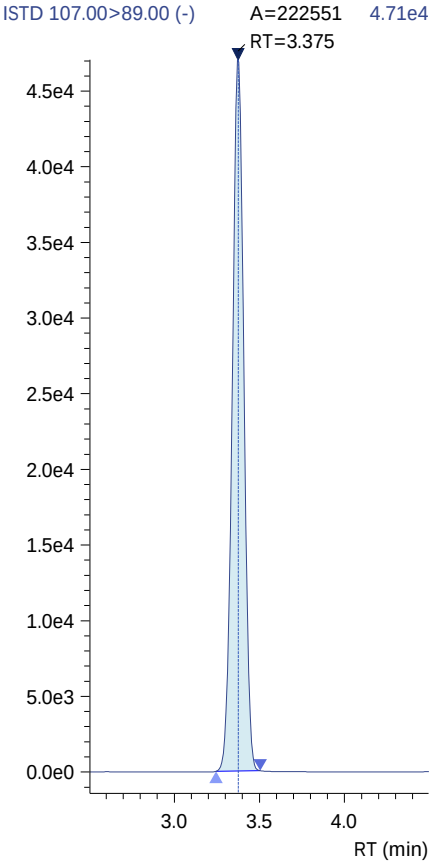
Perchlorate

Conc 8.6829
R#1 29.23 (31.48)



Sodium Perchlorate-18O4_IS

Conc 1.0000



HS23030399 Longhorn GW Treatment Plant
Monthly Influent Samples Cover Page

ALS WO# HS23030399

ALS Environmental
ALS Group USA, Corp
10450 Stancliff Road, Suite 210
Houston, TX 77099
T : +1 281 530 5656
F : +1 281 530 5887
www.alsglobal.com

Table of Contents

HS23030399 Longhorn GW Treatment Plant Monthly Influent Samples Cover Page
- CoverPage
- HS23030399 Longhorn GW Treatment Plant Monthly Influent Samples Final
  - CoverLetter
  - Sample Summary
  - CaseNarrative
  - LH18/24-SP140_030723
  - Weight/Volume Log
  - Dates Report
  - QC
  - Acronyms
  - Certifications
  - SampleReceiptCheckList
  - COC
  - HS23030399-E2300240 Perchlorate Report Level II
- HS23030399 - ME - ICP_W_DOD
  - Form 11 - ICPMS06 Internal Standard Association
  - Form 13 - ICPMS06_430084 Run Log
  - Form 2 - ICPMS06_430084 CCV
  - Form 3 - ICPMS06_430084 CCB
  - Form 4 - ICPMS06_430084 ICSA
  - Form 5A - ICPMS06_430084 MS

Table of Contents (continued)

- Form 5B - ICPMS06_430084 PDS
- Form 7 - ICPMS06_430084 LCS
- Form 8 - ICPMS06_430084 SD

HS23030399 Wet Chemistry

HS23030399-E2300240 Perchlorate Report Level IV

- CoverLetter
- Certificate of Analysis
- Chain of Custody
- Preparation Sheets
- Analytical Results
- Accuracy and Precision
- Initial Calibration
- Chromatograms and Selected Ion Monitoring

10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887
alsglobal.com

WorkOrder: HS23030399

Longhorn GW Treatment Plant Monthly Influent Samples

Bhate Environmental Associates, Inc.

Marcia Olive
445 Union Blvd Ste 129
Lakewood CO 80228

27-Mar-2023

HS23030399 Longhorn GW Treatment Plant Monthly Influent Samples Final

ALS WO# HS23030399

10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887

March 24, 2023

Marcia Olive
Bhate Environmental Associates, Inc.
445 Union Blvd Ste 129
Lakewood, CO 80228

Work Order: **HS23030399**

Laboratory Results for: **Longhorn GW Treatment Plant Monthly Influent Samples**

Dear Marcia Olive,

ALS Environmental received 1 sample(s) on Mar 08, 2023 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Generated By: JUMOKE.LAWAL
Dane J. Wacasey

ALS Houston, US Date: 24-Mar-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent Samples
Work Order: HS23030399

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS23030399-01	LH18/24-SP140_030723	Water		07-Mar-2023 13:00	08-Mar-2023 10:15	☐

ALS Houston, US Date: 24-Mar-23

Client: Bhate Environmental Associates, Inc. **CASE NARRATIVE**
Project: Longhorn GW Treatment Plant Monthly Influent Samples
Work Order: HS23030399

Work Order Comments

- The analysis for Perchlorate was subcontracted to ALS Houston High-Res Lab. Final report attached

Metals by Method SW6020A

Batch ID: 190792

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method SW7196

Batch ID: R429769

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

ALS Houston, US Date: 24-Mar-23

Client: Bhate Environmental Associates, Inc.
ANALYTICAL REPORT
Project: Longhorn GW Treatment Plant Monthly Influent Samples
WorkOrder:HS23030399
Sample ID: LH18/24-SP140_030723
Lab ID:HS23030399-01
Collection Date: 07-Mar-2023 13:00
Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
METALS BY ICPMS BY SW6020A		**Method:SW6020A**				Prep:SW3010A / 14-Mar-2023		Analyst: JC
Selenium	0.00250	U	0.00110	0.00250	0.00500	mg/L	1	15-Mar-2023 12:45
Silver	0.000500	U	0.000200	0.000500	0.00500	mg/L	1	15-Mar-2023 12:45
HEXAVALENT CHROMIUM BY SW7196A		**Method:SW7196**						Analyst: JAC
Chromium, Hexavalent	0.00600	U	0.00600	0.00600	0.0100	mg/L	1	08-Mar-2023 11:24
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: SUB
Subcontract Analysis	See Attached		0	0		NA	1	24-Mar-2023 11:10

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Weight / Prep Log

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent Samples
WorkOrder: HS23030399

Batch ID: 190792 **Start Date:** 14 Mar 2023 14:00 **End Date:** 14 Mar 2023 18:00
Method: WATER - SW3010A **Prep Code:** 3010A

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS23030399-01		10 (mL)	10 (mL)	1	120 plastic HNO3

ALS Houston, US Date: 24-Mar-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent Samples
WorkOrder: HS23030399

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: 190792 (0)	**Test Name :** METALS BY ICPMS BY SW6020A				**Matrix:** Water	
HS23030399-01	LH18/24-SP140_030723	07 Mar 2023 13:00		14 Mar 2023 14:00	15 Mar 2023 12:45	1
Batch ID: R429769 (0)	**Test Name :** HEXAVALENT CHROMIUM BY SW7196A				**Matrix:** Water	
HS23030399-01	LH18/24-SP140_030723	07 Mar 2023 13:00			08 Mar 2023 11:24	1
Batch ID: R430874 (0)	**Test Name :** SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)				**Matrix:** Water	
HS23030399-01	LH18/24-SP140_030723	07 Mar 2023 13:00			24 Mar 2023 11:10	1

ALS Houston, US Date: 24-Mar-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent Samples
WorkOrder: HS23030399

QC BATCH REPORT

Batch ID: 190792 (0) **Instrument: ICPMS06** **Method: METALS BY ICPMS BY SW6020A**

MBLK Sample ID: **MBLK-190792** Units: **mg/L** Analysis Date: **15-Mar-2023 12:56**
Client ID: Run ID: **ICPMS06_430084** SeqNo: **7173408** PrepDate: **14-Mar-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Selenium	0.00250	0.00500								U
Silver	0.000500	0.00500								U

LCS Sample ID: **LCS-190792** Units: **mg/L** Analysis Date: **15-Mar-2023 12:41**
Client ID: Run ID: **ICPMS06_430084** SeqNo: **7173400** PrepDate: **14-Mar-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Selenium	0.04905	0.00500	0.05	0	98.1	80 - 120				
Silver	0.05048	0.00500	0.05	0	101	85 - 116				

MS Sample ID: **HS23030399-01MS** Units: **mg/L** Analysis Date: **15-Mar-2023 12:49**
Client ID: **LH18/24-SP140_030723** Run ID: **ICPMS06_430084** SeqNo: **7173404** PrepDate: **14-Mar-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Selenium	0.04911	0.00500	0.05	0.000553	97.1	80 - 120				
Silver	0.04763	0.00500	0.05	0.000017	95.2	85 - 116				

MSD Sample ID: **HS23030399-01MSD** Units: **mg/L** Analysis Date: **15-Mar-2023 12:51**
Client ID: **LH18/24-SP140_030723** Run ID: **ICPMS06_430084** SeqNo: **7173405** PrepDate: **14-Mar-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Selenium	0.05034	0.00500	0.05	0.000553	99.6	80 - 120	0.04911	2.48	20	
Silver	0.04768	0.00500	0.05	0.000017	95.3	85 - 116	0.04763	0.109	20	

PDS Sample ID: **HS23030399-01PDS** Units: **mg/L** Analysis Date: **15-Mar-2023 12:53**
Client ID: **LH18/24-SP140_030723** Run ID: **ICPMS06_430084** SeqNo: **7173406** PrepDate: **14-Mar-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Selenium	0.09867	0.00500	0.1	0.000553	98.1	80 - 120				
Silver	0.09682	0.00500	0.1	0.000017	96.8	80 - 120				

ALS Houston, US Date: 24-Mar-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent Samples
WorkOrder: HS23030399

QC BATCH REPORT

Batch ID: 190792 (0) **Instrument:** ICPMS06 **Method:** METALS BY ICPMS BY SW6020A

SD Sample ID: **HS23030399-01SD** Units: **mg/L** Analysis Date: **15-Mar-2023 12:47**
Client ID: **LH18/24-SP140_030723** Run ID: **ICPMS06_430084** SeqNo: **7173403** PrepDate: **14-Mar-2023** DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Selenium	0.0125	0.0250					0.000553	0	10	U
Silver	0.00250	0.0250					0.000017	0	10	U

The following samples were analyzed in this batch: HS23030399-01

ALS Houston, US Date: 24-Mar-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent Samples
WorkOrder: HS23030399

QC BATCH REPORT

Batch ID: R429769 (0) **Instrument: UV-2450** **Method: HEXAVALENT CHROMIUM BY SW7196A**

MBLK Sample ID: **MBLK-R429769** Units: **mg/L** Analysis Date: **08-Mar-2023 11:24**
Client ID: Run ID: **UV-2450_429769** SeqNo: **7166138** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	0	0.0100								U

LCS Sample ID: **LCS-R429769** Units: **mg/L** Analysis Date: **08-Mar-2023 11:24**
Client ID: Run ID: **UV-2450_429769** SeqNo: **7166137** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	0.243	0.0100	0.25	0	97.2	80 - 120				

LCSD Sample ID: **LCSD-R429769** Units: **mg/L** Analysis Date: **08-Mar-2023 11:24**
Client ID: Run ID: **UV-2450_429769** SeqNo: **7166136** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	0.243	0.0100	0.25	0	97.2	86 - 117	0.243	0	15	

MS Sample ID: **HS23030400-15MS** Units: **mg/L** Analysis Date: **08-Mar-2023 11:24**
Client ID: Run ID: **UV-2450_429769** SeqNo: **7166140** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	0.229	0.0100	0.25	0	91.6	86 - 117				

MSD Sample ID: **HS23030400-15MSD** Units: **mg/L** Analysis Date: **08-Mar-2023 11:24**
Client ID: Run ID: **UV-2450_429769** SeqNo: **7166139** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	0.23	0.0100	0.25	0	92.0	86 - 117	0.229	0.436	15	

The following samples were analyzed in this batch: HS23030399-01

ALS Houston, US Date: 24-Mar-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent Samples
WorkOrder: **HS23030399**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	22-041-0	27-Mar-2023
California	2919 2022-2023	30-Apr-2023
Dept of Defense	L21-682	31-Dec-2023
Florida	E87611-36	30-Jun-2023
Illinois	2000322022-9	09-May-2023
Kansas	E-10352; 2022-2023	31-Jul-2023
Kentucky	123043, 2022-2023	30-Apr-2023
Louisiana	03087, 2022-2023	30-Jun-2023
Maryland	343, 2022-2023	30-Jun-2023
North Carolina	624-2023	31-Dec-2023
North Dakota	R-193 2022-2023	30-Apr-2023
Oklahoma	2022-141	31-Aug-2023
Texas	T104704231-22-29	30-Apr-2023
Utah	TX026932022-13	31-Jul-2023

ALS Houston, US Date: 24-Mar-23

Sample Receipt Checklist

Work Order ID: HS23030399 **Date/Time Received:** 08-Mar-2023 10:15

Client Name: Bhate Environmental **Received by:** Paresh M. Giga

Completed By:	/S/ Paresh M. Giga	08-Mar-2023 12:09	**Reviewed by:**	/S/ Dane J. Wacasey	09-Mar-2023 08:26
	eSignature	Date/Time		eSignature	Date/Time

Matrices: **Water** Carrier name: **FedEx Priority Overnight**

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
VOA/TX1005/TX1006 Solids in hermetically sealed vials?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	1 Page(s)
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	COC IDs:none
Samplers name present on COC?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	

Temperature(s)/Thermometer(s):	1.4C/0.9C U/C	IR31
Cooler(s)/Kit(s):	49894	
Date/Time sample(s) sent to storage:	3/8/23 12:15	

Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐
pH adjusted?	Yes ☐	No ☑	N/A ☐
pH adjusted by:			

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:

CHAIN OF CUSTODY

Name Of Lab Shipping To: ALS 10450 Stancliff Rd., Suite 210 Houston, TX. 77099 (281) 530-5656 ATTN: Ragen Gigi

Page 1 of 1

Project: BHATE LONGHORN ARMY AMMN. PLANT (LHAAP) GROUNDWATER TREATMENT PLANT (GWTP) KARNACK, TEXAS	Project No. NWO1312.0150.0 16.0001
Job: **GROUNDWATER TREATMENT PLANT MONTHLY INFLUENT SAMPLES**	
Prepared By: Scott Beesinger	P.O. Number

HS23030399

Bhate Environmental Associates, Inc.

Longhorn GW Treatment Plant Monthly Influent Sample

Field Sample I.D.	Sample Matrix	Date / Time	MS / MSD	No. OF CONTAINERS	Analyses: SILVER & SELENIUM	HEXAVALENT CHROMIUM	PERCHLORATE	Remarks (Preservatives, etc.)	Lab I.D.#
LH18/24-SP140_030723	Water	03/07/23 / 13:00		1	X			HNO3	
LH18/24-SP140_030723	Water	03/07/23 / 13:00		2		X	X	NONE	

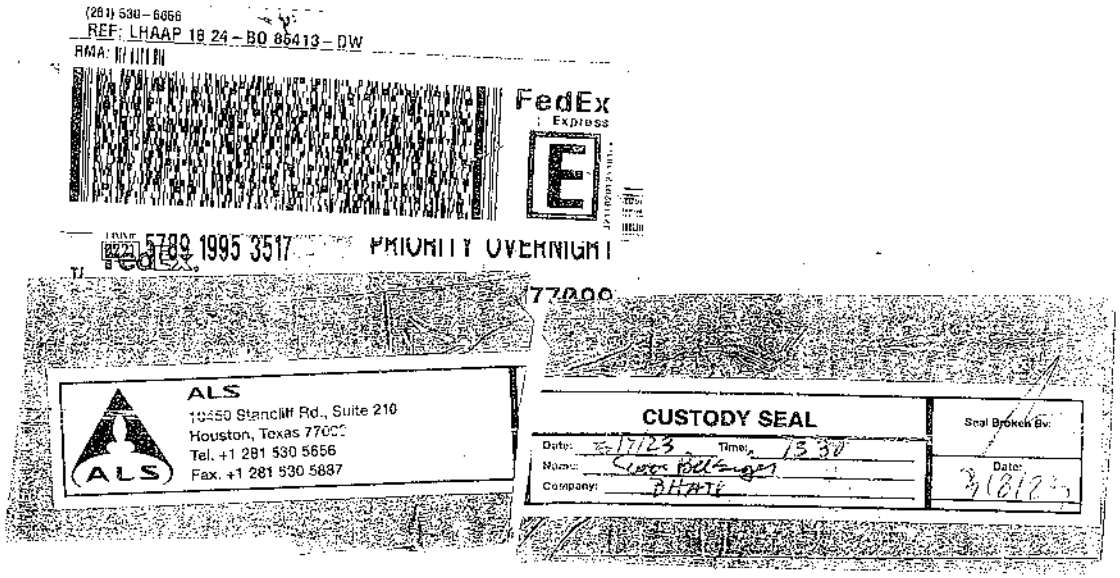
Additional Remarks: **STANDARD TURN AROUND TIME**

Relinquished By:	Date	Time	Received By:	Date	Time	Relinquished By:	Date	Time	Received By:	Date	Time
Scott Beesinger	0307/23	13:30		3/8/23	10:15						

For Lab Use Only

Received At Lab By:	Date	Time	Airbill No.	Opened By:	Date	Time	Temp of Container	Seal No.	Condition
4984 0.4°C +0.3 0.7°C									

Remarks: cf(+) 0.3


(281) 530-5656
REF: LHAAP 18 24-BO 85413-DW
RMA:
FedEx
Express
5789 1995 3517
PRIORITY OVERNIGHT
77090
ALS
19459 Stancliff Rd., Suite 210
Houston, Texas 77090
Tel. +1 281 530 5656
Fax. +1 281 530 5887
CUSTODY SEAL
Date: 3/17/23
Time: 1530
Name:
Company: BHATE
Seal Broken By:
Date:
3/18/23

March 17, 2023 Service Request No:E2300240

Dane Wacasey
ALS Group USA, Corp.
10450 Stancliff Road
Suite 210
Houston, TX 77099-4338

Laboratory Results for: HS23030399

Dear Dane,

Enclosed are the results of the sample(s) submitted to our laboratory March 13, 2023
For your reference, these analyses have been assigned our service request number **E2300240.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current TNI standards, where applicable, and except as noted in the laboratory case narrative provided. All results are intended to be considered in their entirety and ALS Environmental is not responsible for use of less than the complete final report. Results apply only to the items submitted to the laboratory, as received for analysis. In accordance with the current TNI Standard, a statement on the estimated uncertainty of measurement of any quantitative analysis will be supplied upon request.

Please contact me if you have any questions. My extension is 2188. You may also contact me via email at James.Guin@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

James Guin

ADDRESS 10450 Stancliff Rd., Suite 210, Houston, TX 77099
PHONE +1 281 530 5656 | FAX +1 281 530 5887
ALS Group USA, Corp.
dba ALS Environmental

Certificate of Analysis

ALS Environmental - Houston HRMS
10450 Stancliff Rd, Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

ALS Environmental

Client:	ALS Environmental - US	**Service Request No.:**	E2300240
Project:	HS23030399	**Date Received:**	03/14/23
Sample Matrix:	Water		

CASE NARRATIVE

All analyses were performed in adherence to the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

One sample was received for analysis at ALS Environmental in Houston on 03/14/23.

The sample was received in good condition and is consistent with the accompanying chain of custody form. The sample was stored in a refrigerator at 4°C upon receipt at the laboratory.

Data Validation Notes and Discussion

Precision and Accuracy:

EQ2300127: Laboratory Control Spike/Duplicate Laboratory Control Spike (LCS/DLCS) samples were analyzed and reported in addition to a MS/MSD for this extraction batch.

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.

Use of ALS group USA Corp dba ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.

Client: ALS Environmental - US **Service Request:**E2300240
Project: HS23030399

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
E2300240-001	LH18/24-SP140_030723	3/7/2023	1300

Service Request Summary

Folder #: **E2300240**
Client Name: ALS Environmental - US
Project Name: HS23030399
Project Number:

Report To: Dane Wacasey
ALS Group USA, Corp.
10450 Stancliff Road
Houston, TX 77099-4338
USA
Phone Number: 281-575-2190
Cell Number:
Fax Number: 281-530-5887
E-mail: dane.wacasey@alsglobal.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 03/13/23
Internal Due Date: 3/16/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23030399
EDD: BASIC_WQC_CASNo_LOD

1 120 mL-Plastic Bottle Natural WM Unpreserved
Location: EHRMS-AirArch 1
Pressure Gas:

Lab Samp No.	Client Samp No	Matrix	Collected	HOUSTON ClO4 DOD/6850
E2300240-001	LH18/24-SP140_030723	Water	03/07/23 1300	IV

Service Request Summary

Folder #: **E2300240**
Client Name: ALS Environmental - US
Project Name: HS23030399
Project Number:

Report To: Dane Wacasey
ALS Group USA, Corp.
10450 Stancliff Road
Houston, TX 77099-4338
USA
Phone Number: 281-575-2190
Cell Number:
Fax Number: 281-530-5887
E-mail: dane.wacasey@alsglobal.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 03/13/23
Internal Due Date: 3/16/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23030399
EDD: BASIC_WQC_CASNo_LOD

1 120 mL-Plastic Bottle Natural WM Unpreserved
Location: EHRMS-AirArch 1
Pressure Gas:

Data Qualifiers

Lab Standard

+	Possible Tedlar bag artifact.
A	TIC is a suspected aldol-condensation product
B	Analyte found in the associated method blank as well as in the sample.
BC	Reported results are not blank corrected.
BH	The back section of the tube yielded higher results than the front.
BT	Results indicated possible breakthrough; back section >=10% front section.
C	Result identification confirmed.
D	Compound identified in an analysis at a secondary dilution factor
D	Spike was diluted out
DE	Reported results are corrected for desorption efficiency.
E	Estimated value. Concentration above calibration range
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
H	The chromatographic fingerprint of the sample resembles a petroleum product but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
H1	Sample analysis performed past holding time. See case narrative.
H2	Initial analysis within holding time. Reanalysis for the required dilution was past holding time.
H3	Sample was received and analyzed past holding time.
H4	Sample was extracted past required extraction holding time, but analyzed within analysis holding time. See case narrative.
I	(Auto) The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
I	Internal standard not within the specified limits. See case narrative.
I	The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
J	Estimated Value. Concentration found below MRL.
K	A deflection in the QC ion may indicate interference with the quantitation of this ion. The concentration of this analyte should be considered as an estimate.
K	Analyte was detected above the method reporting limit prior to normalization.
K	The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
L1	Laboratory control sample recovery outside the specified limits; results may be biased high.
L2	Laboratory control sample recovery outside the specified limits; results may be biased low.
L3	Laboratory control sample recovery outside the specified limits.
M	Matrix interference; results may be biased high.
M	The duplicate injection precision not met.

Data Qualifiers

Lab Standard

M1	Matrix interference due to coelution with a non-target compound; results may be biased high.
N	Presumptive evidence of a compound for TICs that have been identified based on a mass spectral library search.
N	The Matrix Spike sample recovery is not within control limits. See case narrative.
O	The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
P	Indicates chlorodiphenyl ether interference present at the retention time of the target compound.
P	Pesticide/Aroclor target analyte > 40% difference for detected concentrations between GC columns
Q	Indicates as estimated value because the P and P + 2 theoretical abundance ratio does not meet method criteria.
R	Duplicate Precision not met.
R1	Duplicate precision not within the specified limits; however, the results are below the MRL and considered estimated.
S	Surrogate recovery not within specified limits.
S	The reported value was determined by the Method of Standard Additions (MSA).
T	Analyte is a tentatively identified compound, result is estimated.
U	Compound was analyzed for, but was not detected (ND).
V1	The continuing calibration verification standard was outside (biased high) the specified limits for this compound.
V2	The continuing calibration verification standard was outside (biased low) the specified limits for this compound.
W	Result quantified, but the corresponding peak was detected outside the generated retention time window.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
X	See case narrative.
Y	Recovery outside limits
Y	The chromatogram resembles a petroleum product but does not match the calibration standard.
Z	The chromatogram does not resemble a petroleum product.
i	The MRL/MDL has been elevated due to a matrix interference.

ALS Laboratory Group

Acronyms

Cal	Calibration
Conc	CONCentration
Dioxin(s)	Polychlorinated dibenzo-p-dioxin(s)
EDL	Estimated Detection Limit
EMPC	Estimated Maximum Possible Concentration
Flags	Data qualifiers
Furan(s)	Polychlorinated dibenzofuran(s)
g	Grams
ICAL	Initial CALibration
ID	IDentifier
Ions	Masses monitored for the analyte during data acquisition
L	Liter (s)
LCS	Laboratory Control Sample
DLCS	Duplicate Laboratory Control Sample
MB	Method Blank
MCL	Method Calibration Limit
MDL	Method Detection Limit
mL	Milliliters
MS	Matrix Spiked sample
DMS	Duplicate Matrix Spiked sample
NO	Number of peaks meeting all identification criteria
PCDD(s)	Polychlorinated dibenzo-p-dioxin(s)
PCDF(s)	Polychlorinated dibenzofuran(s)
ppb	Parts per billion
ppm	Parts per million
ppq	Parts per quadrillion
ppt	Parts per trillion
QA	Quality Assurance
QC	Quality Control
Ratio	Ratio of areas from monitored ions for an analyte
% Rec.	Percent recovery
RPD	Relative Percent Difference
RRF	Relative Response Factor
RT	Retention Time
SDG	Sample Delivery Group
S/N	Signal-to-noise ratio
TEF	Toxicity Equivalence Factor
TEQ	Toxicity Equivalence Quotient

10450 Stancliff Rd, Houston, TX 77099 | 281-530-5656 | www.alsglobal.com

State Certifications, Accreditations, and Licenses

Agency	Number	Expire Date
Arizona Department of Health Services	AZ0793	5/27/2023
Arkansas Department of Environmental Quality	22-041-0	3/27/2023
California Department of Health Services	2919-2023	4/30/2023
Department of Defense	L22-90	3/31/2024
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Hawaii Department of Health	2022	4/30/2023
Illinois Environmental Protection Agency	2000322022-9	5/9/2023
Kansas Department of Health and Environment	E-10352 2022-2023	7/31/2023
Louisiana Department of Environmental Quality	03087-2022	6/30/2023
Louisiana Department of Health and Hospitals	LA028-2023	12/31/2023
Maine Department of Health and Human Services	2022017	6/5/2024
Maryland Department of the Environment	343	6/30/2023
Michigan Depratment of Environmental Quality	9971-2022	4/30/2023
Minnesota Department of Health	2368363	12/31/2023
Nebraska Department of Health and Human Services	NE-OS-25-13	4/30/2023
Nevada Department of Conservation and Natural Resources	TX026932023-1	7/31/2023
New Hampshire Environmental Laboratory Accreditation Program	209422	4/24/2023
New Jersey Department of Environmental Protection	TX008-2023	6/30/2023
New York Department of Health	11707	3/31/2023
Oklahoma Department of Environmental Quality	2022-141	8/31/2023
Oregon Environmental Laboratory Accreditation Program	TX200002	5/15/2023
Pennsylvania Department of Environmental Protection	68-03441-016	6/30/2023
Perry Johnson Laboratory Accreditation	L22-91	3/31/2024
Tennessee Department of Environment and Concervation	04016-2022	4/30/2023
Texas Commision on Environmental Quality	T104704231-22-29	4/30/2023
Utah Department of Health Environmental Laboratory Certification	TX026932022-13	7/31/2023
Washington Department of Ecology	C819-22	11/14/2023

Chain of Custody

ALS Environmental - Houston HRMS
10450 Stancliff Rd, Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

10450 Stancliff Rd, Ste 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887
www.alsglobal.com

Subcontract Chain of Custody

SAMPLING STATE: Dept of Defense **COC ID:** 21069

SUBCONTRACT TO:

ALS Environmental
10450 Stancliff RoadSuite 210
Houston, TX 77084

Phone: +1 281 530 5656

CUSTOMER INFORMATION:

Company:	ALS Houston
Contact:	Dane J. Wacasey
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Email:	Dane.Wacasey@alsglobal.com
Alternate Contact:	Jumoke M. Lawal
Email:	jumoke.lawal@alsglobal.com

INVOICE INFORMATION:

Company:	ALS Houston
Contact:	Accounts Payable
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Reference:	HS23030399
TSR:	Houston House Acct

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS23030399-01**	**LH18/24-SP140_030723**	**Water**	**07 Mar 2023 13:00**
	6850-Perch. DOD Level II & Level IV in separate pdf			16 Mar 2023

Comments: Please analyze for the analysis listed above.
Send report to the emails shown above.

QC Level: DOD IV (DoD Data Package)

Relinquished By: _____ Date/Time: _____

Received By: _____ Date/Time: 3-13-23 0800

Cooler ID(s): _____ Temperature(s): _____

Cooler Receipt Form

ALS Environmental

Project Chemist JH

Client/Project ALS-H

Thermometer ID 1871

Date/Time Received: 3.13.23 Initials: LG

Date/Time Logged in: 3-13-23 Initials LG

1. Method of delivery: ○ US Mail ○ Fed Ex ○ UPS ○ DHL ☒ ALS Courier ○ Client

2. Samples received in: ☒ Cooler ○ Box ○ Envelope ○ Other

3. Were custody seals on coolers? ○ Yes ☒ No

If yes, how many and where?

Were they intact? ○ Yes ○ No ☒ N/A

Were they signed and dated? ○ Yes ○ No ☒ N/A

4. Packing Material: ○ Inserts ☒ Baggies ○ Bubble Wrap ○ Gel Packs ☒ Wet Ice ○ Sleeves ○ Other

5. Foreign or Regulated Soil? ○ Yes ○ No Location of Sampling:

Cooler Tracking Number	COC ID	Date Opened	Time Opened	Opened By	Temp. °C	Temp Blank?
NA		3-13-23	0900	LG	0.9	☑
						☐
						☐
						☐

6. Were custody papers properly filled out (ink, signed, dated, etc)? ☒ Yes ○ No

7. Did all bottles arrive in good condition (not broken, no signs of leakage)? ☒ Yes ○ No

8. Were all sample labels complete (i.e., sample ID, analysis, preservation, etc)? ☒ Yes ○ No

9. Were appropriate bottles/containers and volumes received for the requested tests? ☒ Yes ○ No

10. Did sample labels and tags agree with custody documents? ☒ Yes ○ No

Notes, Discrepancies, & Resolutions:

Service request Label:

10450 Stancliff Rd., Suite 210
Houston, TX 77099
T: +1 713 266 1599
F: +1 713 266 1599
www.alsglobal.com

SAMPLE ACCEPTANCE POLICY

This policy outlines the criteria samples must meet to be accepted by ALS Environmental – Houston HRMS.

Cooler Custody Seals (desirable, mandatory if specified in SAP):

- ✓ Intact on outside of cooler, signed and dated

Chain-of-Custody (COC) documentation (mandatory):

The following is required on each COC:

- ✓ Sample ID, the location, date and time of collection, collector's name, preservation type, sample type, and any other special remarks concerning the sampleThe COC must be completed in ink.
- ✓ Signature and date of relinquishing party.

In the absence of a COC at sample receipt, the COC will be requested from the client.

Sample Integrity (mandatory):

Samples are inspected upon arrival to ensure that sample integrity was not compromised during transfer to the laboratory.

- ✓ Sample containers must arrive in good condition (not broken or leaking).
- ✓ Samples must be labeled appropriately, including Sample IDs, and requested test using durable labels and indelible ink.
- ✓ The correct type of sample bottle must be used for the method requested.
- ✓ An appropriate sample volume, or weight, must be received.
- ✓ Sample IDs and number of containers must reconcile with the COC.
- ✓ Samples must be received within the method defined holding time.

Temperature Requirement (varies by sample matrix):

- ✓ Aqueous and Non-aqueous samples must be shipped and stored cold, at 0 to 6ºC.
- ✓ Tissue samples must be shipped and stored frozen, at -20 to -10ºC.
- ✓ Air samples are shipped and stored cold, at 0 to 6ºC
- ✓ The sample temperature must be recorded on the COC

All cooler inspections are documented on the Cooler Receipt Form (CRF). A separate CRF is completed for each service request. Any samples not meeting the above criteria are noted on the CRF and the Project Manager notified. The Project Manager must resolve any sample integrity issues with the client prior to proceeding with the analysis. Such resolutions are documented in writing and filed with the project folder. Data associated with samples received outside of this acceptance policy will be qualified on the case narrative of the final report

Preparation Information Benchsheets

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

Preparation Information Benchsheet

Prep Run#: 416444 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/XMI **Prep Method:** Method **Prep Date/Time:** 3/14/23 08:36

#	Lab Code	Client ID	B#	Method /Test	pH	Cl	Matrix	Amt. Ext.	Sample Description
1	E2300231-001	RSA-095-INT-02	.01	6850/ClO4 DOD			Water	10mL	
2	E2300231-002	RSA-095-INT-05	.01	6850/ClO4 DOD			Water	10mL	
3	E2300231-003	RSA-095-INT-06	.01	6850/ClO4 DOD			Water	10mL	
4	E2300231-004	RSA-195-INT-05	.01	6850/ClO4 DOD			Water	10mL	
5	E2300231-005	RSA-195-INT-04	.01	6850/ClO4 DOD			Water	10mL	
6	E2300235-001	46DP09-GP01-5156-022823	.01	6850/ClO4 DOD			Water	10mL	
7	E2300235-002	46DP09-GP02-6065-022823	.01	6850/ClO4 DOD			Water	10mL	
8	E2300235-003	WO-EB01-022823	.01	6850/ClO4 DOD			Water	10mL	
9	E2300239-001	LH18/24-SP650_030723_AIX	.01	6850/ClO4 DOD			Water	10mL	
10	E2300240-001	LH18/24-SP140_030723	.01	6850/ClO4 DOD			Water	10mL	
11	EQ2300127-01	MB		6850/ClO4			Liquid	10mL	
12	EQ2300127-02	LCS		6850/ClO4			Liquid	10mL	
13	EQ2300127-03	DLCS		6850/ClO4			Liquid	10mL	
14	R2301866-011	2303021402C BLM-13-300	.01	6850/ClO4			Water	10mL	
15	R2301866-013	2303020954A BLM-9-419	.01	6850/ClO4			Water	10mL	
16	R2301868-012	2303040818 100L-SB-14	.01	6850/ClO4			Water	10mL	
17	R2301870-012	2303041458 100L-SB-16	.01	6850/ClO4			Water	10mL	
18	R2301872-012	2303040953 200L-SB-17	.01	6850/ClO4			Water	10mL	
19	R2301874-012	2303041117 100L-SB-18	.01	6850/ClO4			Water	10mL	
20	R2301876-012	2303041223 100L-SB-19	.01	6850/ClO4			Water	10mL	
21	R2301914-005	2303061044C ST-4-690	.01	6850/ClO4			Water	10mL	
22	R2301914-014	2303061515C ST-4-481	.01	6850/ClO4			Water	10mL	

Spiking Solutions

Name: Perchlorate Internal Standard 1ug/mL Inventory ID 226778 Logbook Ref: Perchlorate Internal Standard Expires On: 05/31/2023

E2300231-001	100.00µL	E2300231-002	100.00µL	E2300231-003	100.00µL	E2300231-004	100.00µL	E2300231-005	100.00µL	E2300235-001	100.00µL
E2300235-002	100.00µL	E2300235-003	100.00µL	E2300239-001	100.00µL	E2300240-001	100.00µL	EQ2300127-01	100.00µL	EQ2300127-01	100.00µL
EQ2300127-02	100.00µL	EQ2300127-02	100.00µL	EQ2300127-03	100.00µL	EQ2300127-03	100.00µL	R2301866-011	100.00µL	R2301866-013	100.00µL
R2301868-012	100.00µL	R2301870-012	100.00µL	R2301872-012	100.00µL	R2301874-012	100.00µL	R2301876-012	100.00µL	R2301914-005	100.00µL
R2301914-014	100.00µL										

Name: Perchlorate Intermediate Stock1 Inventory ID 227236 Logbook Ref: Perchlorate (1st Source) Expires On: 07/31/2023

EQ2300127-02	1.00µL	EQ2300127-02	1.00µL	EQ2300127-03	1.00µL	EQ2300127-03	1.00µL

Preparation Information Benchsheet

Prep Run#: 416444 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/XMI **Prep Method:** Method **Prep Date/Time:** 3/14/23 08:36

Preparation Materials

Water HPLC Grade	01/04/2023 Water (226857)	6850 Amber Glass screw vial	2mL Screw Top Vial (221894)	6850 0.45um syringe filters	6850 Syringe Filters (224414)
6850 Luer-Lok Syringes	Luer-Lok Syringes (221305)				

Preparation Steps

Step: Preparation
Started: 3/14/23 08:36
Finished: 3/14/23 10:50
By: XMI
Comments

Comments: _____

Reviewed By: XMI Date: 03/14/23

Chain of Custody

Relinquished By: _____ Date: _____ Extracts Examined

Received By: _____ Date: _____ Yes No

Analytical Results

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300240
Project:	HS23030399	**Date Collected:**	3/ 7/23 1300
Sample Matrix:	Water	**Date Received:**	3/13/23
Sample Name:	LH18/24-SP140_030723	**Units:**	µg/L
Lab Code:	E2300240-001	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**12600**		100	50.0	25.0	1000	3/14/23	3/15/23 15:52	416444	797835	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300240
Project:	HS23030399	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	EQ2300127-01	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	ND	U	0.100	0.0500	0.0250	1	3/14/23	3/15/23 12:30	416444	797835	

Accuracy & Precision

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23030399
Sample Matrix: Water

Service Request: E2300240
Date Analyzed: 3/15/23

Lab Control Sample Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Units: µg/L
Basis: NA

Extraction Lot: 416444

	Lab Control Sample EQ2300127-02			Duplicate Lab Control Sample EQ2300127-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Perchlorate	0.106	0.100	106	0.0940	0.100	94	84 - 119	12	15

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300240
Project:	HS23030399	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2300127-02	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.106**		0.100	0.0500	0.0250	1	3/14/23	3/15/23 12:36	416444	797835	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300240
Project:	HS23030399	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2300127-03	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.0940**	J	0.100	0.0500	0.0250	1	3/14/23	3/15/23 12:42	416444	797835	

HS23030399 - ME - ICP_W_DOD

ALS WO# HS23030399

ALS Houston, US Date: 17-Mar-23

Form 11 - INTERNAL STANDARD ASSOCIATION

Client: Bhate Environmental Associates, Inc. Instrument:ICPMS06
Project: Longhorn GW Treatment Plant Monthly Influent Samples
WorkOrder: HS23030399

Mass	Analyte	Assoc Int Standard 1	Assoc Int Standard 2	Mode
9	Beryllium	Lithium		Ar
11	Boron	Lithium		Ar
23	Sodium	Germanium		ArHe
24	Magnesium	Germanium		ArHe
27	Aluminum	Germanium		ArHe
39	Potassium	Germanium		ArHe
44	Calcium	Germanium		Ar
47	Titanium	Germanium		Ar
51	Vanadium	Germanium		ArHe
52	Chromium	Germanium		ArHe
55	Manganese	Germanium		ArHe
56	Iron	Germanium		ArHe
59	Cobalt	Germanium		ArHe
60	Nickel	Germanium		ArHe
63	Copper	Germanium		ArHe
66	Zinc	Germanium		ArHe
75	Arsenic	Germanium		ArHe
82	Selenium	Germanium		Ar
88	Strontium	Indium		Ar
95	Molybdenum	Indium		Ar
105	Palladium	Germanium		Ar
107	Silver	Indium		Ar
114	Cadmium	Indium		Ar
118	Tin	Indium		Ar
121	Antimony	Germanium		ArHe
137	Barium	Indium		Ar
205	Thallium	Bismuth		Ar
208	Lead	Bismuth		Ar

ALS Houston, US

Date: 17-Mar-23

FORM 13 - ANALYSIS RUN LOG

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent Samples
WorkOrder: HS23030399
Start Date: 15-Mar-2023 End Date: 15-Mar-2023

Run ID:ICPMS06_430084
Instrument:ICPMS06
Method:

Sample No.	D/F	Time	FileID	Analytes
ICPMS06_430084_Tune	1	15-Mar-2023 00:00	ICPMS06_430084_Tune_1	
CAL BLK	1	15-Mar-2023 11:58	024CALB.d_7173272	AG SE
2/10/200	1	15-Mar-2023 12:00	025CALS.d_7173273	AG SE
5/25/500	1	15-Mar-2023 12:02	026CALS.d_7173274	AG SE
10/50/100	1	15-Mar-2023 12:04	027CALS.d_7173275	AG SE
100/500/10K	1	15-Mar-2023 12:06	028CALS.d_7173276	AG SE
200/1000/20K	1	15-Mar-2023 12:08	029CALS.d_7173277	AG SE
ICV	1	15-Mar-2023 12:12	031_ICV.d_7173279	AG SE
LLICV2	1	15-Mar-2023 12:14	032LCV2.d_7173280	AG SE
LLICV5	1	15-Mar-2023 12:16	033LCV5.d_7173281	AG SE
ICB	1	15-Mar-2023 12:21	035_ICB.d_7173283	AG SE
ICSA	1	15-Mar-2023 12:25	037ICSA.d_7173285	AG SE
ICSAB	1	15-Mar-2023 12:27	038ICSB.d_7173286	AG SE
CCV 1	1	15-Mar-2023 12:35	041_CCV.d_7173398	AG SE
CCB 1	1	15-Mar-2023 12:37	042_CCB.d_7173399	AG SE
LCS-190792	1	15-Mar-2023 12:41	044SMPL.d_7173400	AG SE
LH18/24-SP140_030723	1	15-Mar-2023 12:45	046SMPL.d_7173402	AG SE
LH18/24-SP140_030723SD	5	15-Mar-2023 12:47	047SMPL.d_7173403	AG SE
LH18/24-SP140_030723MS	1	15-Mar-2023 12:49	048SMPL.d_7173404	AG SE
LH18/24-SP140_030723MSD	1	15-Mar-2023 12:51	049SMPL.d_7173405	AG SE
LH18/24-SP140_030723PDS	1	15-Mar-2023 12:53	050SMPL.d_7173406	AG SE
MBLK-190792	1	15-Mar-2023 12:56	052SMPL.d_7173408	AG SE
CCV 2	1	15-Mar-2023 12:58	053_CCV.d_7173409	AG SE
CCB 2	1	15-Mar-2023 13:00	054_CCB.d_7173410	AG SE

ALS Houston, US

Date: 17-Mar-23

Form 2 - Initial and Continuing Calibration Verification

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent Samples
WorkOrder: HS23030399

Run ID: ICPMS06_430084
Instrument: ICPMS06
Method: SW6020A

ICV | Date: 15-Mar-2023 12:12 | Seq: 7173279 | ICV | Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Selenium	100	98.458	99	90-110	
Silver	100	99.877	100	90-110	

CCV1 | Date: 15-Mar-2023 12:35 | Seq: 7173398 | CCV | Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Selenium	100	97.269	97	90-110	
Silver	100	98.953	99	90-110	

CCV2 | Date: 15-Mar-2023 12:58 | Seq: 7173409 | CCV | Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Selenium	100	99.964	100	90-110	
Silver	100	102.378	102	90-110	

ALS Houston, US

Date: 17-Mar-23

Form 3 - BLANKS

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent Samples
WorkOrder: HS23030399

Run ID: ICPMS06_430084
Instrument: ICPMS06
Method: SW6020A

ICB	Date: 15-Mar-2023 12:21		Seq: 7173283	ICB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Selenium	5	1.1	5	U	
Silver	5	0.2	5	U	

CCB1	Date: 15-Mar-2023 12:37		Seq: 7173399	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Selenium	2	1.1	2	U	
Silver	2	0.2	2	U	

MBLK-190792	Date: 15-Mar-2023 12:56		Seq: 7173408	MBLK	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Selenium	5	1.1	5	U	
Silver	5	0.2	5	U	

CCB2	Date: 15-Mar-2023 13:00		Seq: 7173410	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Selenium	2	1.1	2	U	
Silver	2	0.2	2	U	

ALS Houston, US Date: 17-Mar-23

Form 4 - ICP Interference Check Sample

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent Samples
WorkOrder: HS23030399

Run ID: ICPMS06_430084
Instrument: ICPMS06
Method: SW6020A

ICSA	Date: 15-Mar-2023 12:25	Seq: 7173285	ICSA	Units: ug/L
Analyte	**True**	**Found**	**%R**	
Selenium		-0.527	0	
Silver		0.178	0	

ICSAB	Date: 15-Mar-2023 12:27	Seq: 7173286	ICSAB	Units: ug/L
Analyte	**True**	**Found**	**%R**	
Selenium	100	103.3	103	
Silver	100	103.6	104	

ALS Houston, US

Date: 17-Mar-23

Form 5A - Matrix Spike/Matrix Spike Duplicate Recovery

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent Samples
WorkOrder: HS23030399

Date Analyzed: 15-Mar-2023 12:51
Date Extracted: 14-Mar-2023 14:00
Units: ug/L

Matrix Spike: HS23030399-01MS
Client Sample ID: LH18/24-SP140_030723

Analysis Method: SW6020A

Analyte	Sample Result	MS Result	Spike Amount	% Rec	MSD Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Selenium	5.000	49.11	50.00	97.1	50.34	50.00	99.6	80-120	2.48	20
Silver	5.000	47.63	50.00	95.2	47.68	50.00	95.3	85-116	0.109	20

ALS Houston, US

Date: 17-Mar-23

Form 5B - Post Digest Sample Recovery

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent Samples
WorkOrder: HS23030399

Date Analyzed: 15-Mar-2023 12:53
Date Extracted: 14-Mar-2023 14:00
Units: ug/L

Lab Sample ID: HS23030399-01PDS
Client Sample ID: LH18/24-SP140_030723

Analysis Method: SW6020A

Analyte	Sample Result	PDS Result	Spike Amount	% Rec	% Rec Limits
Selenium	0	98.67	100	98	80-120
Silver	0	96.82	100	97	80-120

ALS Houston, US Date: 17-Mar-23

Form 7 - Laboratory Control Sample

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent Samples
WorkOrder: HS23030399

Date Analyzed: 15-Mar-2023 12:41
Date Extracted: 14-Mar-2023 14:00
Units: ug/L

Lab Sample ID: LCS-190792 Analysis Method: SW6020A

Analyte	Spike Amount	LCS Result	% Rec	% Rec Limits
Selenium	50	49.05	98	80-120
Silver	50	50.48	101	85-116

ALS Houston, US

Date: 17-Mar-23

Form 8 - ICP Serial Dilutions

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Monthly Influent Samples
WorkOrder: HS23030399

Date Analyzed: 15-Mar-2023 12:47
Date Extracted: 14-Mar-2023 14:00
Units: ug/L

Lab Sample ID: HS23030399-01SD
Client Sample ID:LH18/24-SP140_030723

Analysis Method: SW6020A

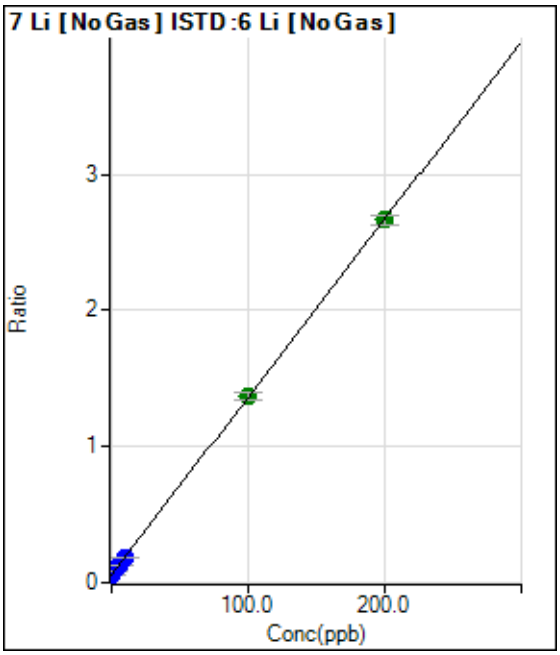
Analyte	Sample Result	C	SD Result	C	RPD	Q
Selenium	0	U	0	U	0	
Silver	0	U	0	U	0	

Calibration for 130_ICV.d

Batch Folder: C:\Agilent\ICPMH\1\DATA\031523A.b\
Analysis File: 031523A.batch.bin
DA Date-Time: 3/15/2023 4:05:34 PM
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	123CALB.d	CAL BLK	3/15/2023 3:51:04 PM
2	124CALS.d	2/10/200	3/15/2023 3:53:03 PM
3	125CALS.d	5/25/500	3/15/2023 3:55:02 PM
4	126CALS.d	10/50/100	3/15/2023 3:57:01 PM
5	127CALS.d	100/500/10K	3/15/2023 3:59:00 PM
6	128CALS.d	200/1000/20K	3/15/2023 4:00:55 PM

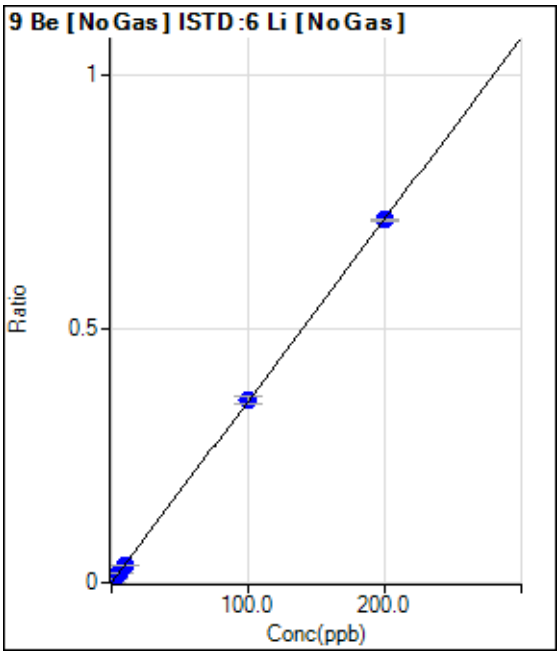
Calibration for 130_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	42269.96	0.0588	P	2.7
2	☐	2.000	2.097	59994.06	0.0862	P	1.3
3	☐	5.000	4.854	87914.45	0.1222	P	1.0
4	☐	10.000	9.906	134696.21	0.1881	P	0.5
5	☐	100.000	100.504	928709.41	1.3703	A	3.9
6	☐	200.000	199.756	1796901.01	2.6655	A	2.7

y = 0.0130 * x + 0.0588
R = 1.0000
DL = 0.3708
BEC = 4.508

Weight: <None>
Min Conc: <None>

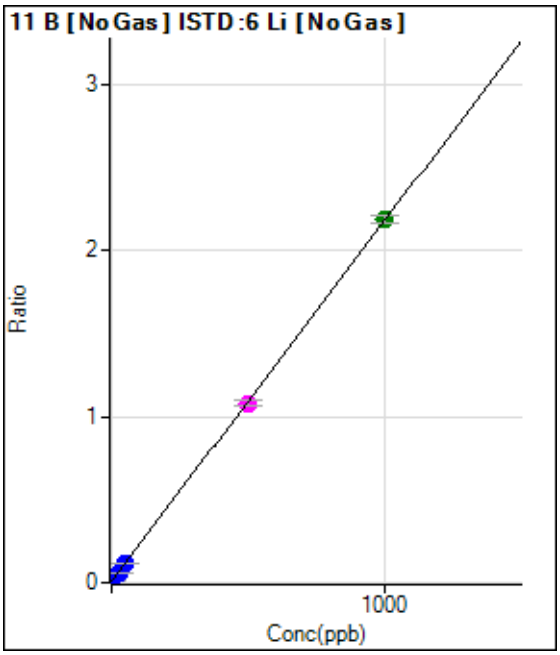


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	13.33	0.0000	P	41.2
2	☐	2.000	2.031	5080.97	0.0073	P	3.9
3	☐	5.000	4.786	12362.19	0.0172	P	0.6
4	☐	10.000	9.900	25429.73	0.0355	P	2.3
5	☐	100.000	100.590	244406.85	0.3606	P	4.0
6	☐	200.000	199.715	482680.03	0.7160	P	0.8

y = 0.0036 * x + 1.8455E-005
R = 1.0000
DL = 0.006364
BEC = 0.005148

Weight: <None>
Min Conc: <None>

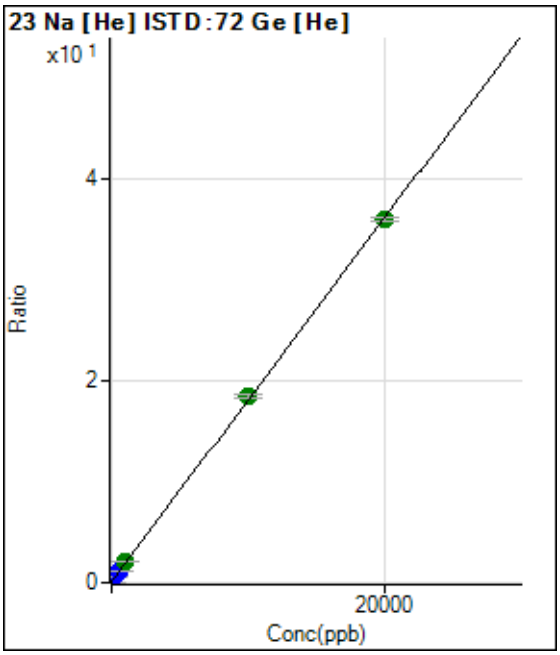
Calibration for 130_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6851.73	0.0095	P	1.0
2	☐	10.000	9.614	21156.01	0.0304	P	1.4
3	☐	25.000	23.157	43014.12	0.0598	P	1.2
4	☐	50.000	48.605	82341.52	0.1150	P	1.7
5	☐	500.000	494.122	732989.00	1.0815	M	3.6
6	☐	1000.000	1003.059	1473343.31	2.1856	A	2.1

y = 0.0022 * x + 0.0095
R = 1.0000
DL = 0.1254
BEC = 4.393

Weight: <None>
Min Conc: <None>

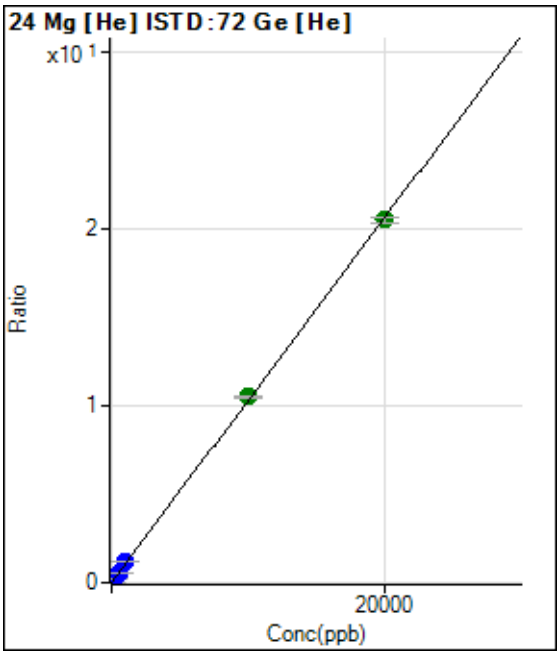


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	39399.23	0.0879	P	0.4
2	☐	200.000	218.368	214920.20	0.4816	P	2.0
3	☐	500.000	549.647	477821.09	1.0789	P	1.8
4	☐	1000.000	1094.975	925358.47	2.0621	A	1.7
5	☐	10000.00	10199.13	8163516.13	18.4769	A	1.9
6	☐	20000.00	19894.25	15625563.9	35.9571	A	0.9

y = 0.0018 * x + 0.0879
R = 0.9999
DL = 0.6311
BEC = 48.73

Weight: <None>
Min Conc: <None>

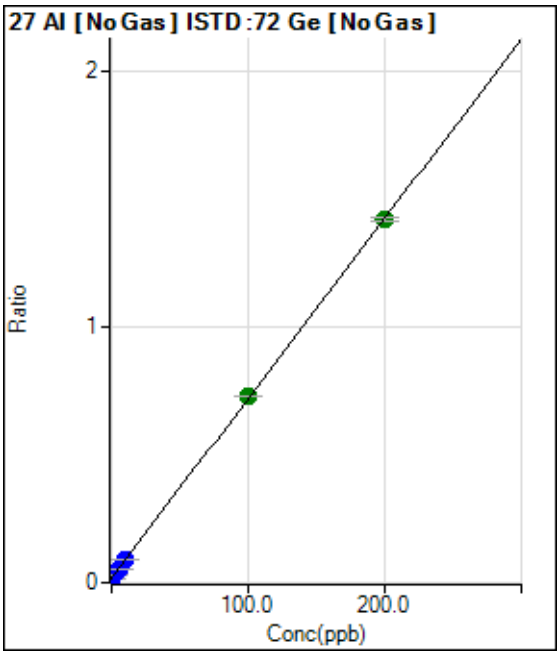
Calibration for 130_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1616.79	0.0036	P	6.7
2	☐	200.000	224.763	105151.55	0.2356	P	1.0
3	☐	500.000	561.889	258459.62	0.5836	P	1.6
4	☐	1000.000	1123.467	521978.62	1.1632	P	1.7
5	☐	10000.00	10194.25	4651063.78	10.5256	A	1.0
6	☐	20000.00	19894.90	8924316.12	20.5382	A	1.9

y = 0.0010 * x + 0.0036
R = 0.9999
DL = 0.7016
BEC = 3.493

Weight: <None>
Min Conc: <None>

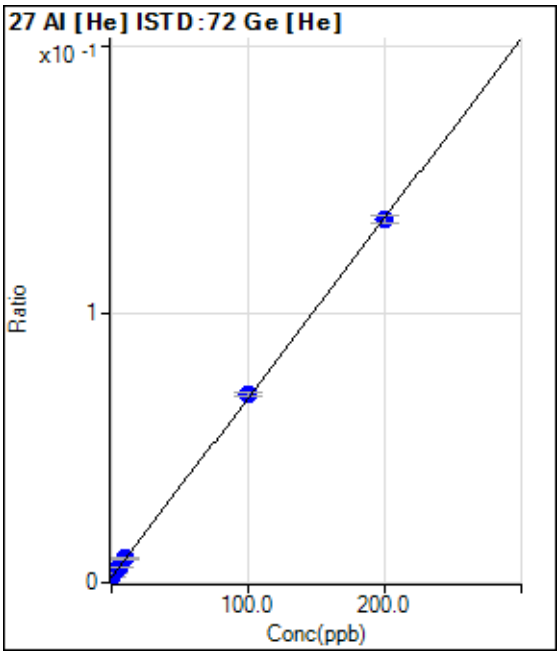


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	27901.62	0.0180	P	2.5
2	☐	2.000	2.055	49949.88	0.0324	P	1.0
3	☐	5.000	5.174	83097.72	0.0544	P	0.8
4	☐	10.000	9.871	135329.82	0.0874	P	0.7
5	☐	100.000	101.247	1108726.78	0.7304	A	0.7
6	☐	200.000	199.378	2108694.71	1.4209	A	1.0

y = 0.0070 * x + 0.0180
R = 1.0000
DL = 0.1892
BEC = 2.555

Weight: <None>
Min Conc: <None>

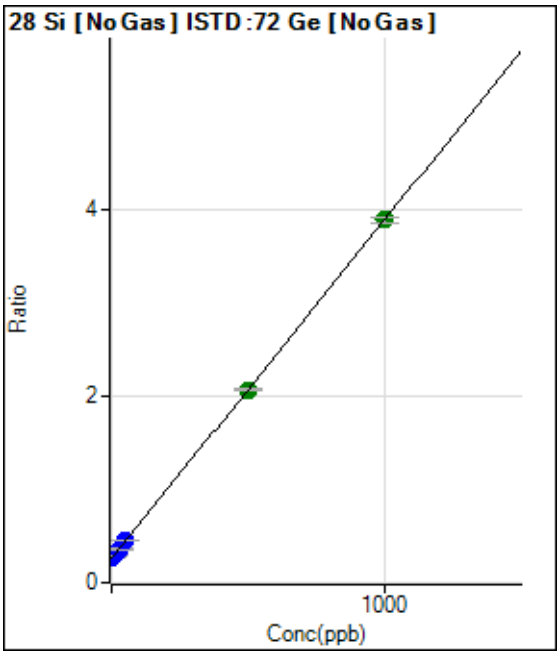
Calibration for 130_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	870.04	0.0019	P	11.0
2	☐	2.000	2.146	1506.77	0.0034	P	7.3
3	☐	5.000	5.652	2533.61	0.0057	P	1.2
4	☐	10.000	10.527	4030.75	0.0090	P	11.1
5	☐	100.000	101.810	30944.74	0.0700	P	1.7
6	☐	200.000	199.051	58697.46	0.1351	P	2.3

y = 6.6884E-004 * x + 0.0019
R = 0.9999
DL = 0.9529
BEC = 2.9

Weight: <None>
Min Conc: <None>

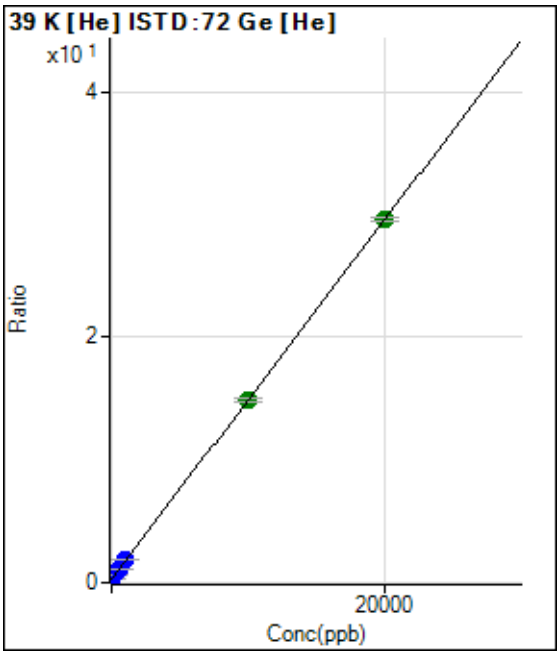


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	405483.48	0.2612	P	0.7
2	☐	10.000	10.446	460571.83	0.2992	P	2.1
3	☐	25.000	26.876	548226.50	0.3588	P	1.6
4	☐	50.000	52.364	698602.41	0.4514	P	0.7
5	☐	500.000	499.141	3147986.93	2.0737	A	0.8
6	☐	1000.000	1000.260	5778061.79	3.8934	A	1.3

y = 0.0036 * x + 0.2612
R = 1.0000
DL = 1.453
BEC = 71.94

Weight: <None>
Min Conc: <None>

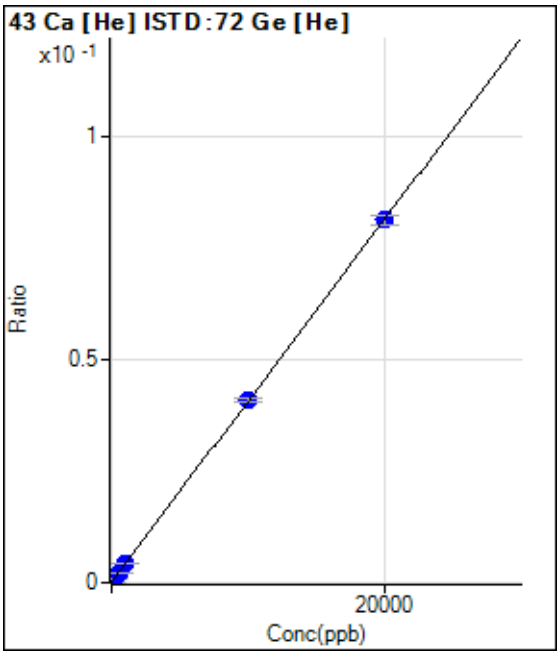
Calibration for 130_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	120703.74	0.2691	P	0.6
2	☐	200.000	215.879	261291.73	0.5854	P	1.5
3	☐	500.000	543.226	471724.36	1.0650	P	1.1
4	☐	1000.000	1089.821	837324.70	1.8659	P	1.3
5	☐	10000.00	9987.748	6584564.69	14.9026	A	1.7
6	☐	20000.00	20000.39	12850598.5	29.5726	A	1.2

y = 0.0015 * x + 0.2691
R = 1.0000
DL = 3.097
BEC = 183.7

Weight: <None>
Min Conc: <None>

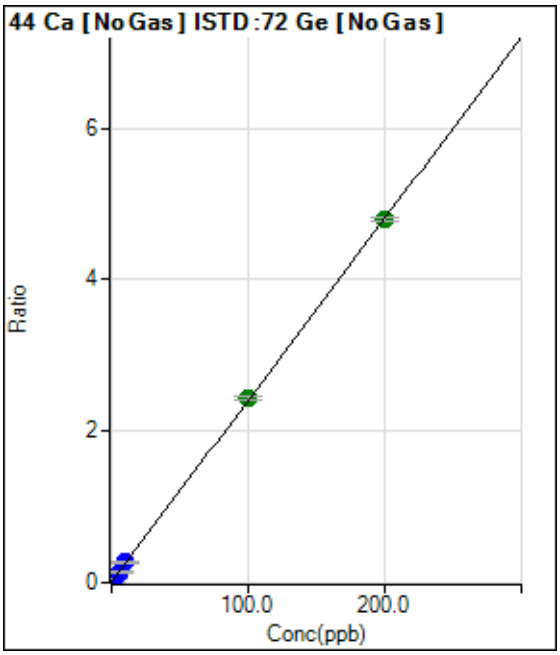


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	36.67	0.0001	P	41.6
2	☐	200.000	204.331	406.68	0.0009	P	18.9
3	☐	500.000	489.270	916.71	0.0021	P	8.1
4	☐	1000.000	1049.159	1950.17	0.0043	P	6.7
5	☐	10000.00	10039.16	18058.70	0.0409	P	2.2
6	☐	20000.00	19978.18	35309.02	0.0813	P	2.9

y = 4.0634E-006 * x + 8.1732E-005
R = 1.0000
DL = 25.07
BEC = 20.11

Weight: <None>
Min Conc: <None>

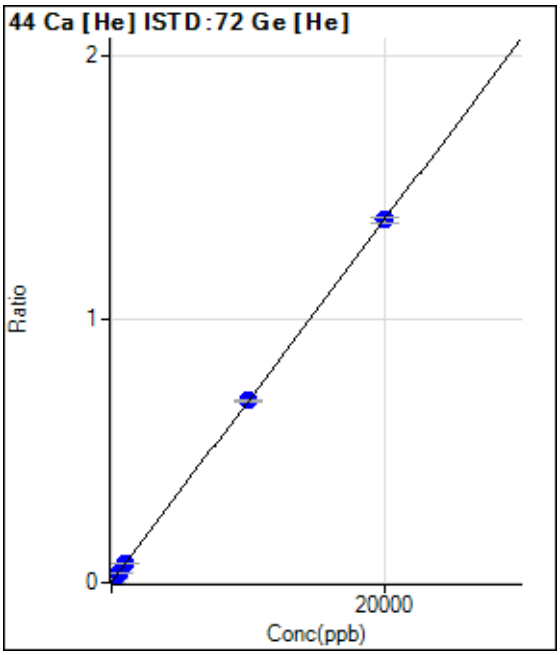
Calibration for 130_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16379.99	0.0106	P	2.1
2	☐	2.000	2.151	95610.56	0.0621	P	3.3
3	☐	5.000	5.337	211595.03	0.1385	P	2.5
4	☐	10.000	10.702	413354.22	0.2671	P	1.3
5	☐	100.000	101.035	3692416.50	2.4325	A	1.7
6	☐	200.000	199.437	7110794.89	4.7914	A	0.9

y = 0.0240 * x + 0.0106
R = 1.0000
DL = 0.02728
BEC = 0.4403

Weight: <None>
Min Conc: <None>

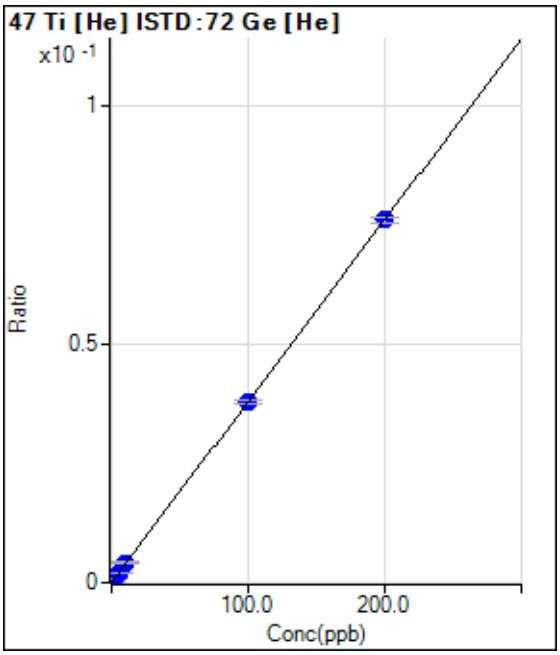


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	743.36	0.0017	P	10.9
2	☐	200.000	204.458	7021.93	0.0157	P	4.2
3	☐	500.000	514.306	16416.73	0.0371	P	2.5
4	☐	1000.000	1027.022	32482.07	0.0724	P	2.7
5	☐	10000.00	10013.14	305364.58	0.6911	P	0.7
6	☐	20000.00	19991.67	598837.01	1.3781	P	1.6

y = 6.8852E-005 * x + 0.0017
R = 1.0000
DL = 7.889
BEC = 24.08

Weight: <None>
Min Conc: <None>

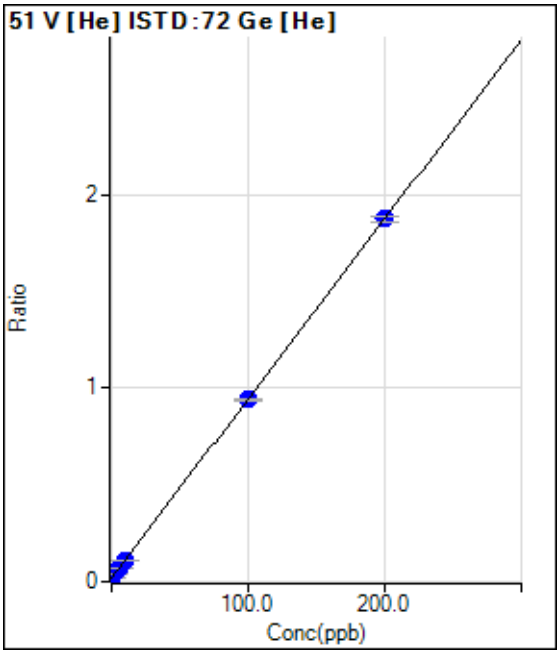
Calibration for 130_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	13.33	0.0000	P	114.5
2	☐	2.000	2.226	390.01	0.0009	P	16.6
3	☐	5.000	5.102	870.05	0.0020	P	8.0
4	☐	10.000	10.889	1866.82	0.0042	P	6.4
5	☐	100.000	99.573	16707.11	0.0378	P	2.6
6	☐	200.000	200.164	33010.03	0.0760	P	1.5

y = 3.7938E-004 * x + 2.9695E-005
R = 1.0000
DL = 0.2688
BEC = 0.07827

Weight: <None>
Min Conc: <None>

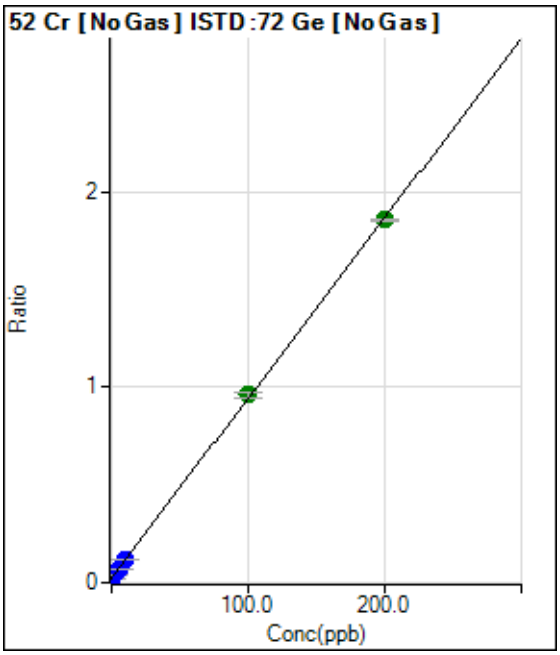


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	8236.95	0.0184	P	0.9
2	☐	2.000	2.016	16546.69	0.0371	P	0.9
3	☐	5.000	5.125	29198.87	0.0659	P	1.4
4	☐	10.000	10.291	51097.01	0.1139	P	0.6
5	☐	100.000	99.571	416343.72	0.9423	P	1.1
6	☐	200.000	200.197	815188.02	1.8760	P	1.2

y = 0.0093 * x + 0.0184
R = 1.0000
DL = 0.05296
BEC = 1.979

Weight: <None>
Min Conc: <None>

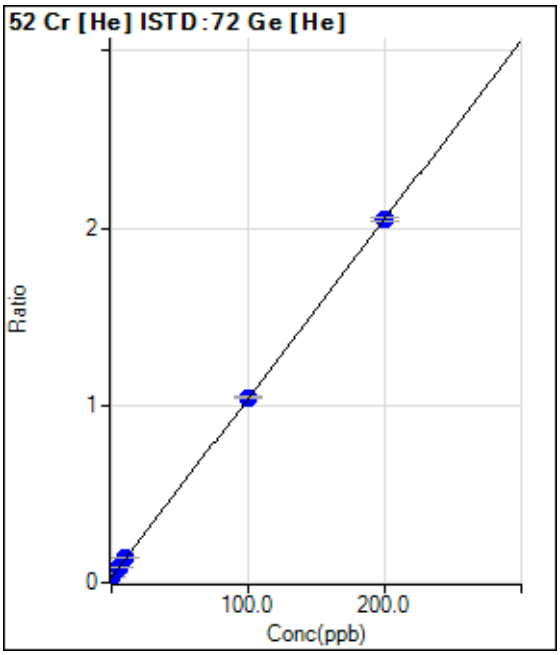
Calibration for 130_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	37478.32	0.0241	P	1.0
2	☐	2.000	2.051	66199.94	0.0430	P	2.7
3	☐	5.000	5.119	108800.33	0.0712	P	1.8
4	☐	10.000	10.252	183245.97	0.1184	P	1.3
5	☐	100.000	101.673	1455740.71	0.9589	A	2.2
6	☐	200.000	199.147	2753289.85	1.8551	A	0.5

y = 0.0092 * x + 0.0241
R = 1.0000
DL = 0.07673
BEC = 2.626

Weight: <None>
Min Conc: <None>

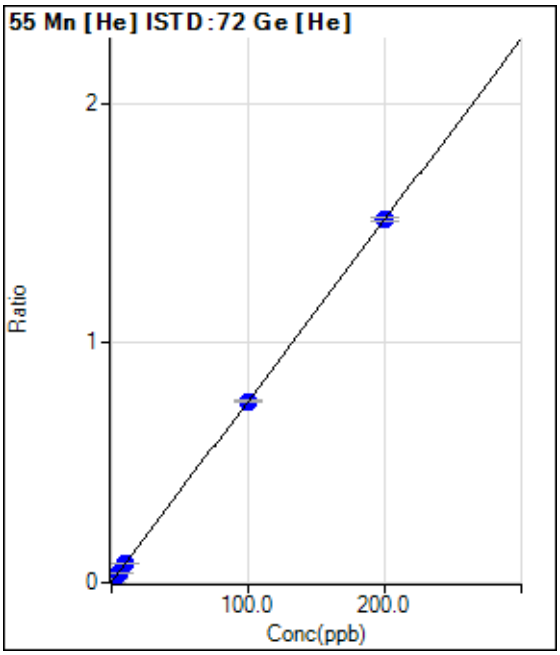


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	13556.96	0.0302	P	3.0
2	☐	2.000	2.148	23159.93	0.0519	P	2.9
3	☐	5.000	5.386	37454.99	0.0846	P	2.3
4	☐	10.000	10.500	61109.57	0.1362	P	0.4
5	☐	100.000	100.496	461377.30	1.0442	P	1.2
6	☐	200.000	199.716	888803.61	2.0453	P	1.0

y = 0.0101 * x + 0.0302
R = 1.0000
DL = 0.2722
BEC = 2.996

Weight: <None>
Min Conc: <None>

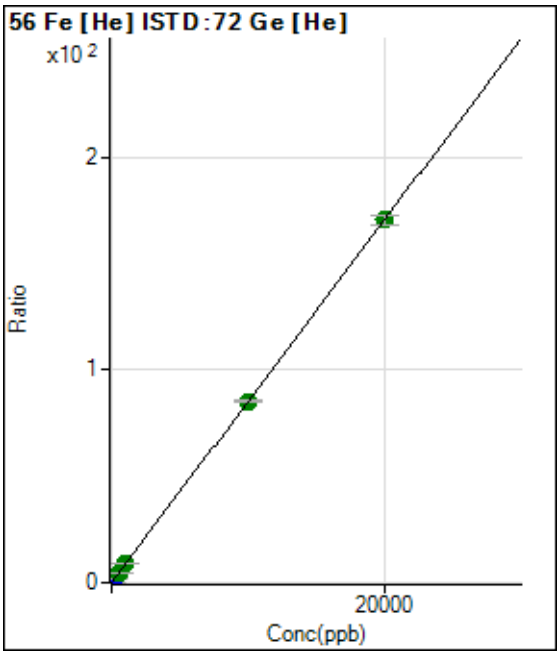
Calibration for 130_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1023.39	0.0023	P	21.1
2	☐	2.000	2.139	8239.32	0.0185	P	2.0
3	☐	5.000	5.127	18185.77	0.0411	P	4.1
4	☐	10.000	10.165	35529.91	0.0792	P	3.6
5	☐	100.000	100.007	335301.47	0.7588	P	0.5
6	☐	200.000	199.984	658353.98	1.5150	P	1.2

y = 0.0076 * x + 0.0023
R = 1.0000
DL = 0.1906
BEC = 0.3017

Weight: <None>
Min Conc: <None>

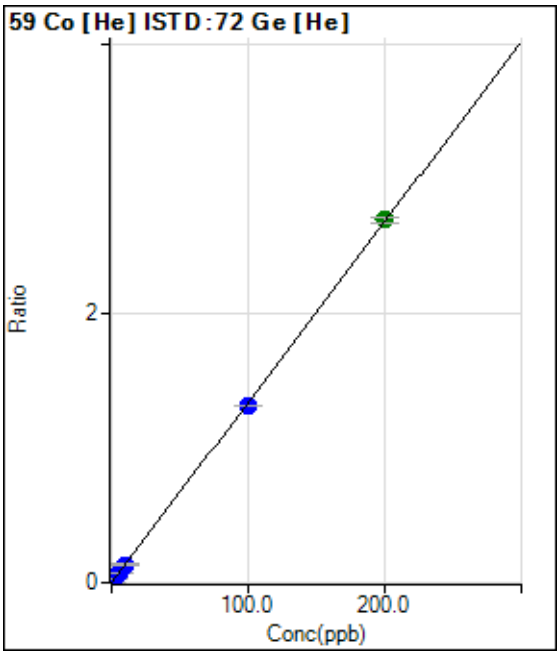


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16947.58	0.0378	P	1.9
2	☐	200.000	214.044	831439.00	1.8628	P	0.6
3	☐	500.000	536.305	2042129.55	4.6105	A	0.8
4	☐	1000.000	1042.479	4005837.33	8.9263	A	1.6
5	☐	10000.00	9993.180	37666639.4	85.2431	A	0.6
6	☐	20000.00	20000.23	74110695.5	170.566	A	2.5

y = 0.0085 * x + 0.0378
R = 1.0000
DL = 0.2529
BEC = 4.432

Weight: <None>
Min Conc: <None>

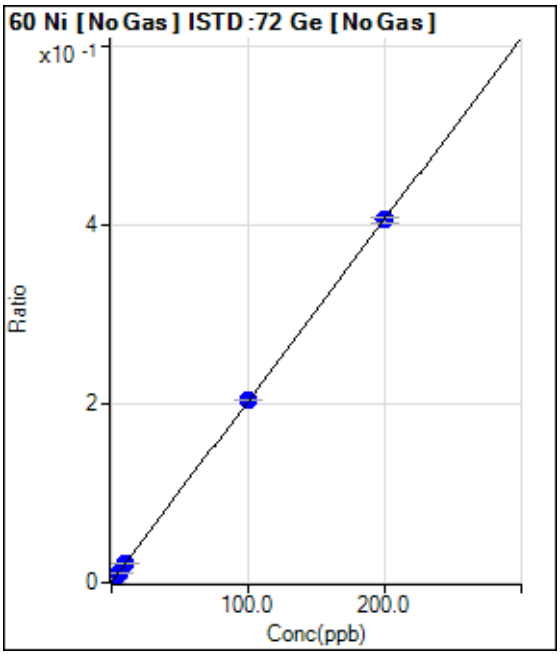
Calibration for 130_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	100.00	0.0002	P	36.2
2	☐	2.000	2.071	12472.57	0.0279	P	3.5
3	☐	5.000	5.033	29950.02	0.0676	P	3.5
4	☐	10.000	10.097	60758.99	0.1354	P	1.3
5	☐	100.000	97.705	578044.78	1.3081	P	0.2
6	☐	200.000	201.141	1170216.52	2.6927	A	1.5

y = 0.0134 * x + 2.2304E-004
R = 0.9999
DL = 0.01808
BEC = 0.01666

Weight: <None>
Min Conc: <None>

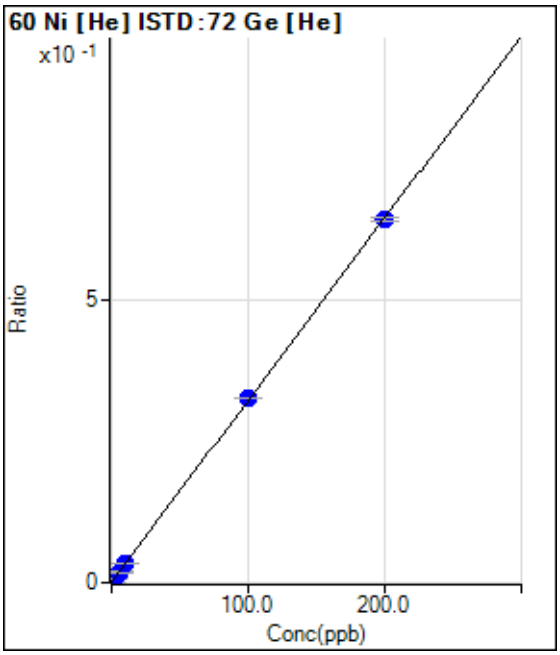


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	913.38	0.0006	P	6.2
2	☐	2.000	2.135	7562.24	0.0049	P	4.2
3	☐	5.000	5.416	17658.40	0.0116	P	0.1
4	☐	10.000	10.635	34236.64	0.0221	P	3.0
5	☐	100.000	100.377	309459.57	0.2039	P	0.6
6	☐	200.000	199.768	601214.29	0.4051	P	1.7

y = 0.0020 * x + 5.8837E-004
R = 1.0000
DL = 0.05427
BEC = 0.2905

Weight: <None>
Min Conc: <None>

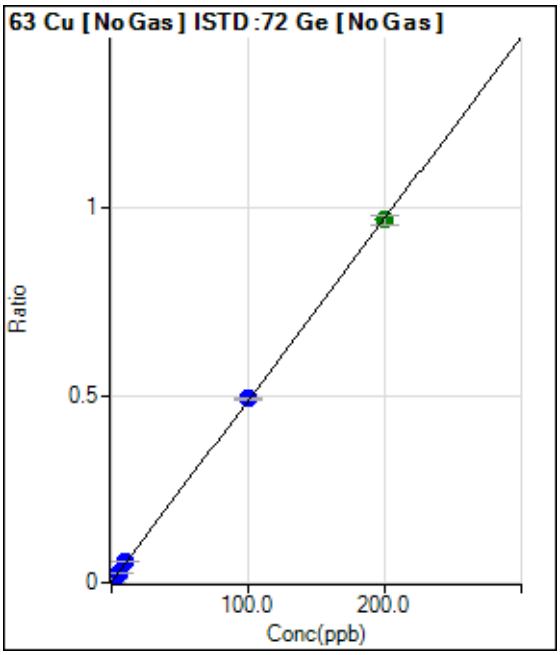
Calibration for 130_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	366.68	0.0008	P	17.6
2	☐	2.000	2.127	3413.84	0.0076	P	7.8
3	☐	5.000	5.519	8209.29	0.0185	P	2.7
4	☐	10.000	10.481	15465.71	0.0345	P	1.2
5	☐	100.000	101.640	144537.71	0.3271	P	0.2
6	☐	200.000	199.142	278148.78	0.6401	P	1.2

y = 0.0032 * x + 8.1748E-004
R = 1.0000
DL = 0.1345
BEC = 0.2547

Weight: <None>
Min Conc: <None>

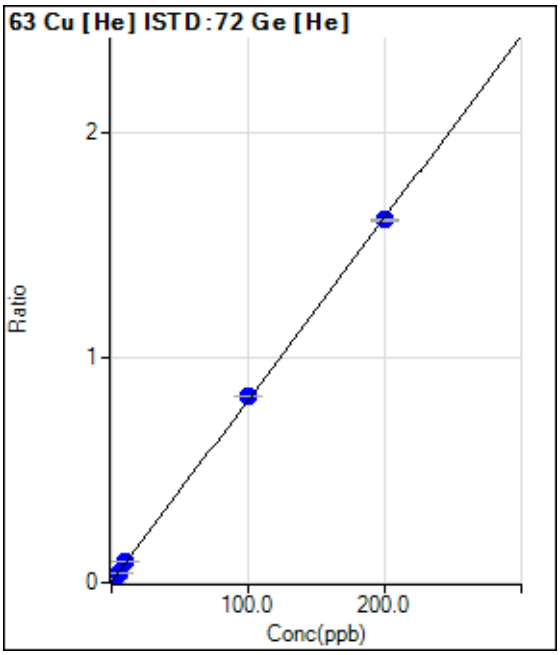


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2586.96	0.0017	P	9.1
2	☐	2.000	2.076	18075.62	0.0117	P	5.0
3	☐	5.000	5.163	40845.23	0.0267	P	3.7
4	☐	10.000	11.025	85430.67	0.0552	P	0.9
5	☐	100.000	101.122	747868.14	0.4926	P	1.3
6	☐	200.000	199.383	1439239.14	0.9697	A	2.5

y = 0.0049 * x + 0.0017
R = 1.0000
DL = 0.09391
BEC = 0.3433

Weight: <None>
Min Conc: <None>

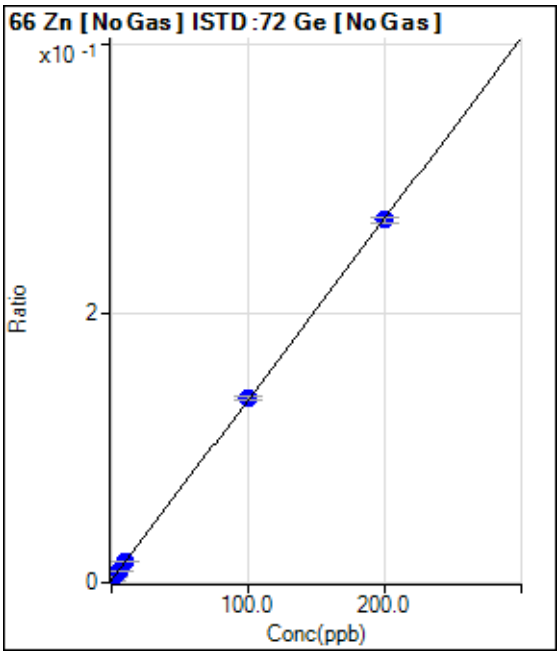
Calibration for 130_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1360.09	0.0030	P	4.8
2	☐	2.000	1.959	8429.42	0.0189	P	2.1
3	☐	5.000	5.238	20115.22	0.0454	P	3.0
4	☐	10.000	11.176	41941.76	0.0935	P	3.6
5	☐	100.000	102.024	366137.68	0.8286	P	0.4
6	☐	200.000	198.924	700816.27	1.6127	P	0.9

y = 0.0081 * x + 0.0030
R = 0.9999
DL = 0.05393
BEC = 0.3748

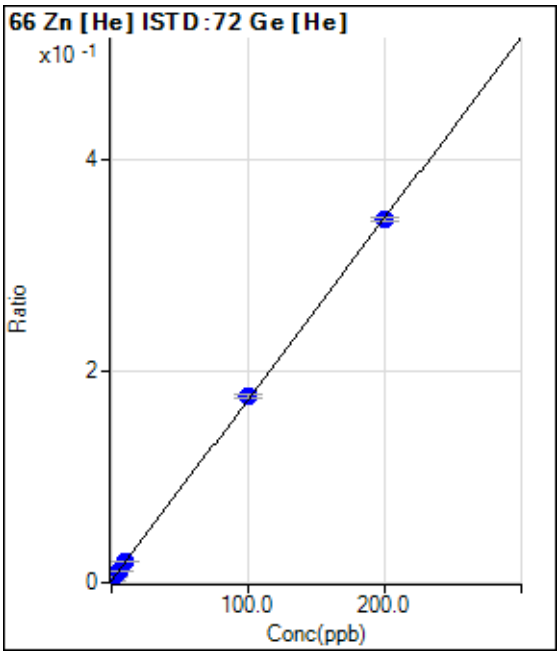
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2576.97	0.0017	P	5.0
2	☐	2.000	2.120	6935.24	0.0045	P	0.9
3	☐	5.000	5.186	13166.56	0.0086	P	3.4
4	☐	10.000	10.329	24004.81	0.0155	P	2.5
5	☐	100.000	101.070	208275.34	0.1372	P	1.5
6	☐	200.000	199.443	399400.91	0.2691	P	1.7

y = 0.0013 * x + 0.0017
R = 1.0000
DL = 0.1842
BEC = 1.238

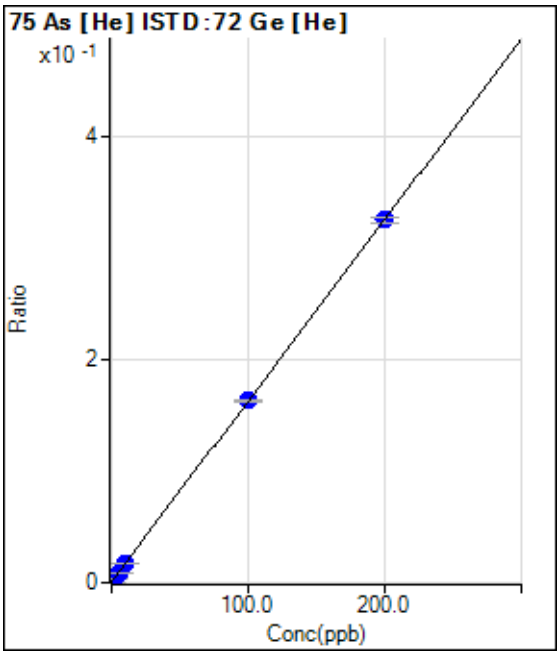
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	913.38	0.0020	P	4.5
2	☐	2.000	2.055	2483.61	0.0056	P	9.6
3	☐	5.000	5.092	4770.92	0.0108	P	2.5
4	☐	10.000	10.255	8809.67	0.0196	P	2.8
5	☐	100.000	101.750	78013.78	0.1766	P	2.0
6	☐	200.000	199.110	149308.22	0.3436	P	1.0

y = 0.0017 * x + 0.0020
R = 0.9999
DL = 0.161
BEC = 1.187

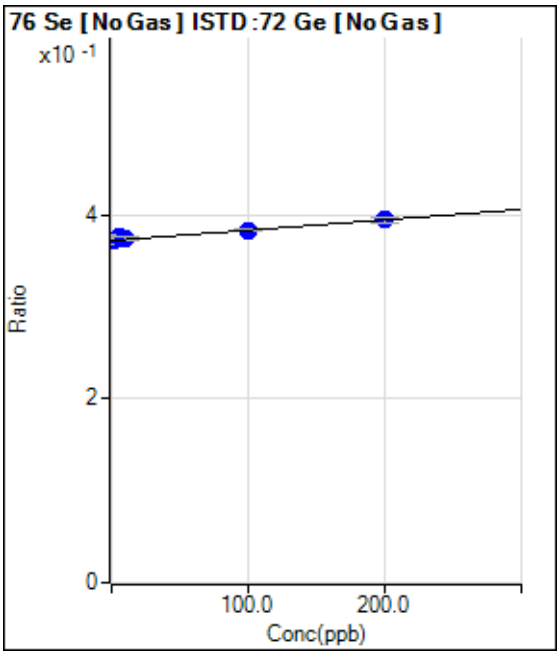
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	326.67	0.0007	P	8.8
2	☐	2.000	2.106	1849.03	0.0041	P	8.2
3	☐	5.000	4.994	3911.69	0.0088	P	1.7
4	☐	10.000	9.989	7598.85	0.0169	P	3.1
5	☐	100.000	99.966	71978.43	0.1629	P	1.4
6	☐	200.000	200.016	141302.14	0.3252	P	1.9

y = 0.0016 * x + 7.2845E-004
R = 1.0000
DL = 0.1191
BEC = 0.4491

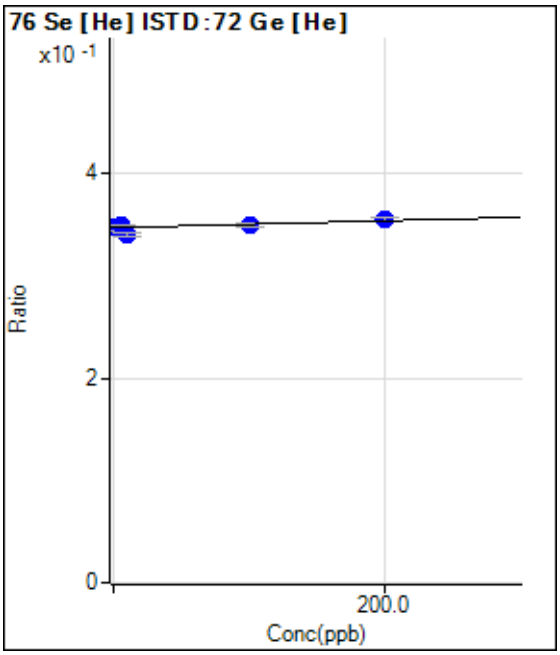
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	577133.45	0.3718	P	1.0
2	☐	2.000	-5.440	571496.58	0.3712	P	1.9
3	☐	5.000	41.117	575191.56	0.3765	P	1.1
4	☐	10.000	18.308	578644.50	0.3739	P	1.5
5	☐	100.000	100.507	581665.33	0.3832	P	0.5
6	☐	200.000	198.503	585102.44	0.3942	P	1.4

y = 1.1291E-004 * x + 0.3718
R = 0.9819
DL = 97.51
BEC = 3293

Weight: <None>
Min Conc: <None>

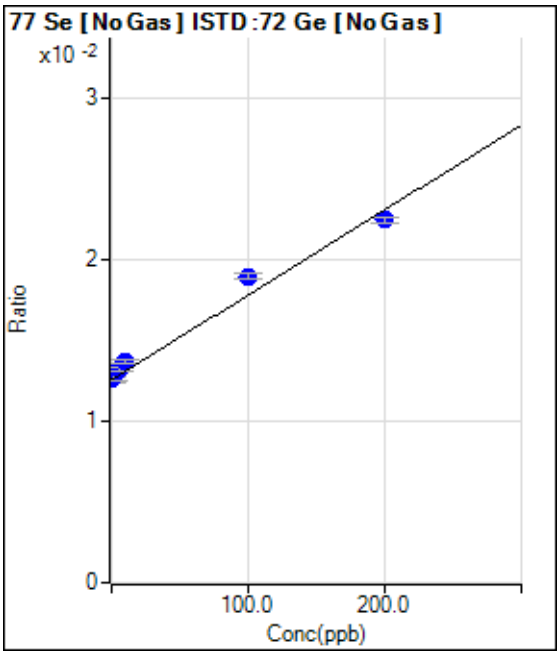


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	155627.52	0.3470	P	0.5
2	☐	2.000	-29.885	154437.42	0.3460	P	0.7
3	☐	5.000	48.873	154437.13	0.3487	P	0.9
4	☐	10.000	-196.173	152742.08	0.3403	P	0.7
5	☐	100.000	74.377	154454.60	0.3495	P	0.9
6	☐	200.000	222.342	154082.27	0.3546	P	0.9

y = 3.4008E-005 * x + 0.3470
R = 0.7807
DL = 167.5
BEC = 1.02E+04

Weight: <None>
Min Conc: <None>

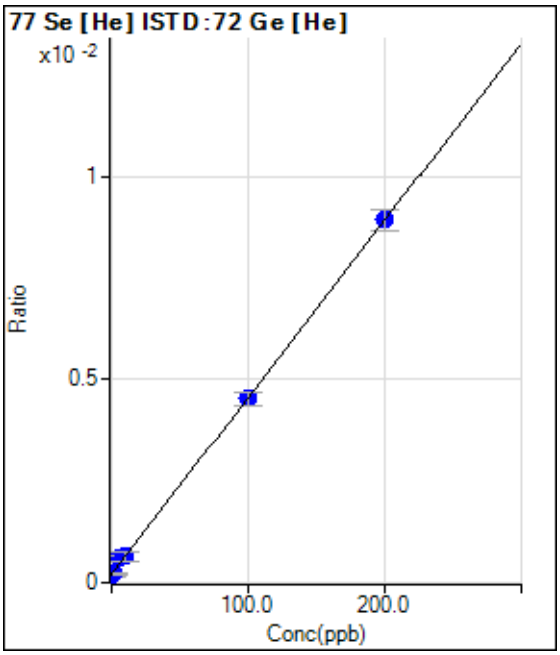
Calibration for 130_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	19491.10	0.0126	P	2.5
2	☐	2.000	3.563	19621.22	0.0127	P	3.8
3	☐	5.000	11.915	20142.04	0.0132	P	2.1
4	☐	10.000	21.327	21173.59	0.0137	P	2.3
5	☐	100.000	122.144	28807.95	0.0190	P	2.1
6	☐	200.000	188.173	33318.14	0.0224	P	1.7

y = 5.2573E-005 * x + 0.0126
R = 0.9905
DL = 17.89
BEC = 238.9

Weight: <None>
Min Conc: <None>

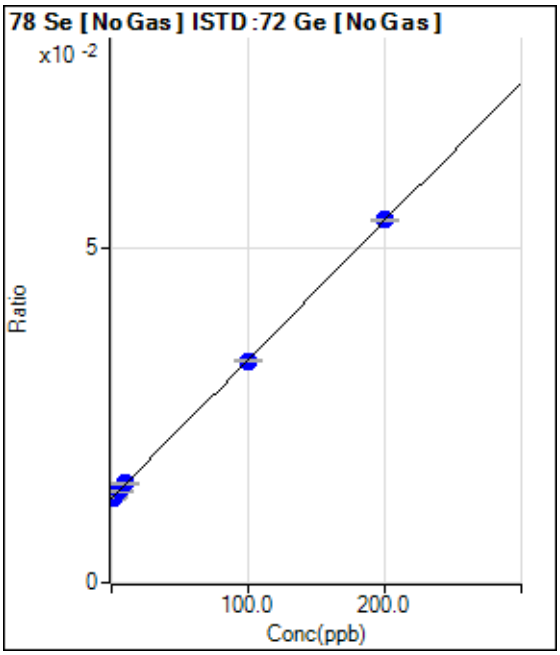


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	93.33	0.0002	P	44.4
2	☐	2.000	0.535	103.33	0.0002	P	21.5
3	☐	5.000	9.045	266.67	0.0006	P	27.8
4	☐	10.000	10.082	290.01	0.0006	P	38.7
5	☐	100.000	99.067	1996.84	0.0045	P	8.2
6	☐	200.000	200.376	3877.30	0.0089	P	5.5

y = 4.3496E-005 * x + 2.0801E-004
R = 0.9997
DL = 6.375
BEC = 4.782

Weight: <None>
Min Conc: <None>

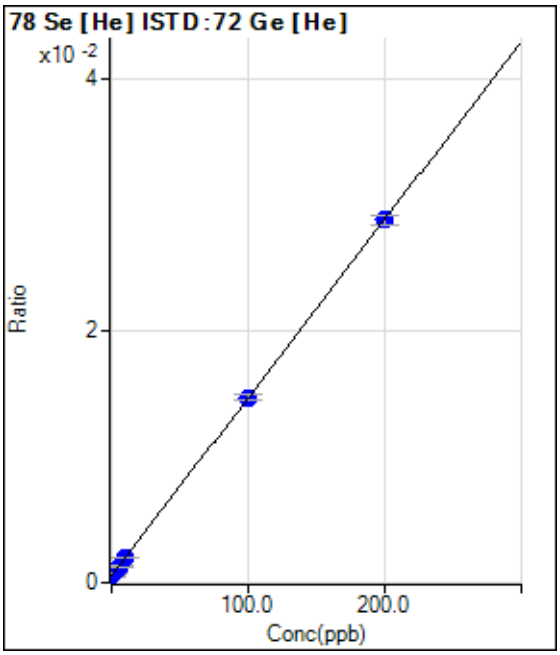
Calibration for 130_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	19561.13	0.0126	P	3.5
2	☐	2.000	0.482	19564.44	0.0127	P	2.1
3	☐	5.000	4.939	20816.36	0.0136	P	1.3
4	☐	10.000	10.444	22846.38	0.0148	P	1.4
5	☐	100.000	98.767	50119.95	0.0330	P	1.0
6	☐	200.000	200.611	80244.75	0.0541	P	0.4

y = 2.0669E-004 * x + 0.0126
R = 0.9999
DL = 6.415
BEC = 60.97

Weight: <None>
Min Conc: <None>

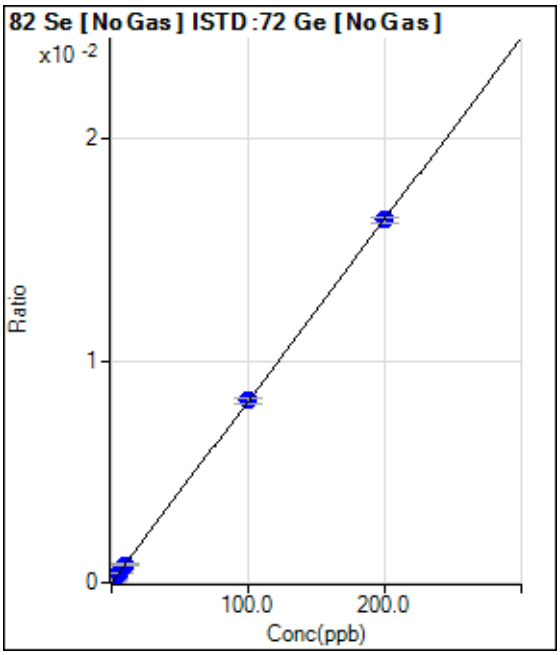


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	246.00	0.0005	P	11.1
2	☐	2.000	1.887	364.01	0.0008	P	3.4
3	☐	5.000	4.934	552.01	0.0012	P	11.9
4	☐	10.000	10.156	890.70	0.0020	P	6.3
5	☐	100.000	100.255	6505.58	0.0147	P	3.3
6	☐	200.000	199.868	12519.84	0.0288	P	2.6

y = 1.4141E-004 * x + 5.4859E-004
R = 1.0000
DL = 1.29
BEC = 3.879

Weight: <None>
Min Conc: <None>

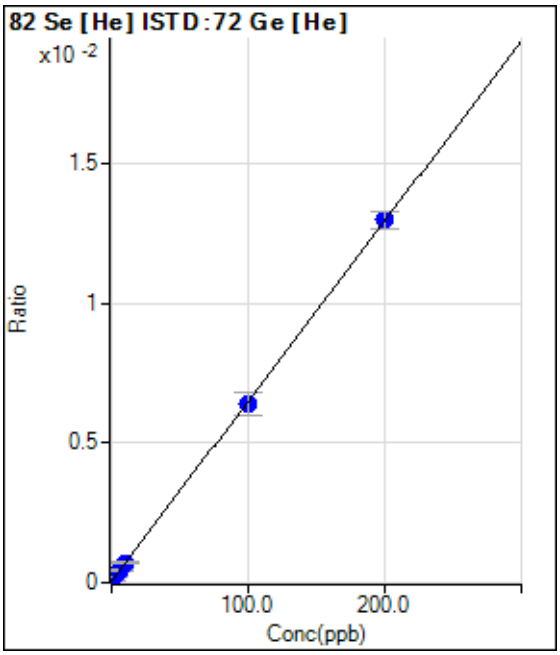
Calibration for 130_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	-1.80	0.0000	P	-1502.2
2	☐	2.000	1.877	235.33	0.0002	P	37.1
3	☐	5.000	5.167	644.54	0.0004	P	8.8
4	☐	10.000	9.864	1248.28	0.0008	P	10.7
5	☐	100.000	100.438	12474.62	0.0082	P	3.4
6	☐	200.000	199.785	24267.27	0.0163	P	1.4

y = 8.1839E-005 * x - 1.1443E-006
R = 1.0000
DL = 0.6301
BEC = -0.01398

Weight: <None>
Min Conc: <None>

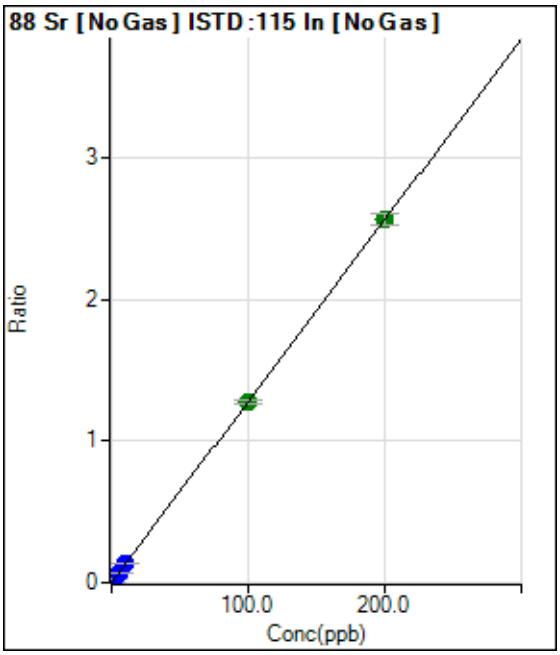


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	23.33	0.0001	P	24.8
2	☐	2.000	2.441	93.33	0.0002	P	27.3
3	☐	5.000	5.849	190.00	0.0004	P	13.7
4	☐	10.000	10.375	323.34	0.0007	P	4.6
5	☐	100.000	98.474	2827.01	0.0064	P	12.4
6	☐	200.000	200.719	5641.27	0.0130	P	5.0

y = 6.4427E-005 * x + 5.2034E-005
R = 0.9999
DL = 0.6014
BEC = 0.8076

Weight: <None>
Min Conc: <None>

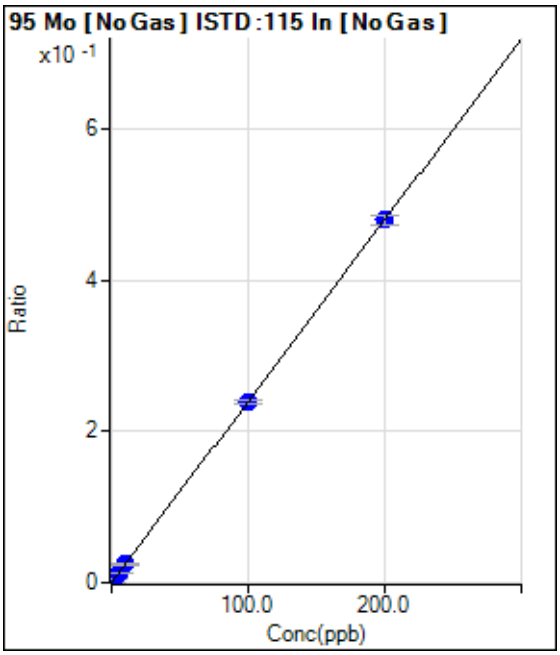
Calibration for 130_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	746.70	0.0005	P	8.4
2	☐	2.000	2.086	41050.15	0.0272	P	0.1
3	☐	5.000	5.190	99877.76	0.0670	P	1.4
4	☐	10.000	10.440	203079.58	0.1344	P	0.4
5	☐	100.000	99.669	1890089.50	1.2785	A	2.8
6	☐	200.000	200.138	3714290.78	2.5667	A	3.0

y = 0.0128 * x + 4.9192E-004
R = 1.0000
DL = 0.009712
BEC = 0.03836

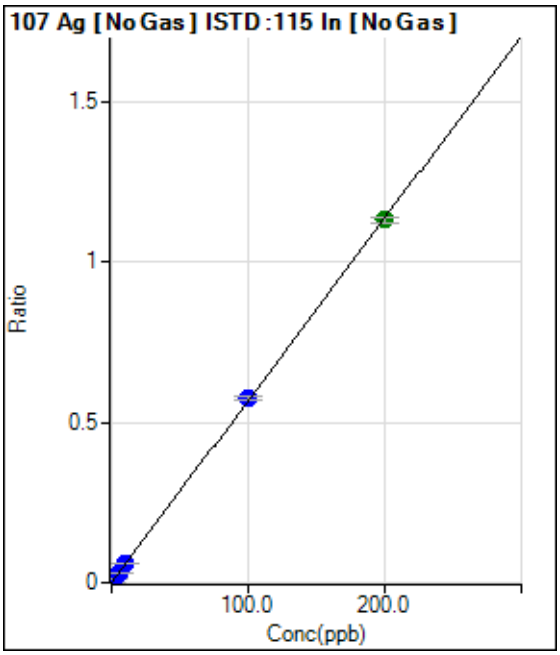
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	80.00	0.0001	P	37.8
2	☐	2.000	1.930	7055.31	0.0047	P	6.7
3	☐	5.000	4.982	17888.91	0.0120	P	1.5
4	☐	10.000	10.131	36831.34	0.0244	P	1.8
5	☐	100.000	99.713	353846.57	0.2393	P	1.6
6	☐	200.000	200.138	695177.78	0.4803	P	2.4

y = 0.0024 * x + 5.2813E-005
R = 1.0000
DL = 0.02496
BEC = 0.02201

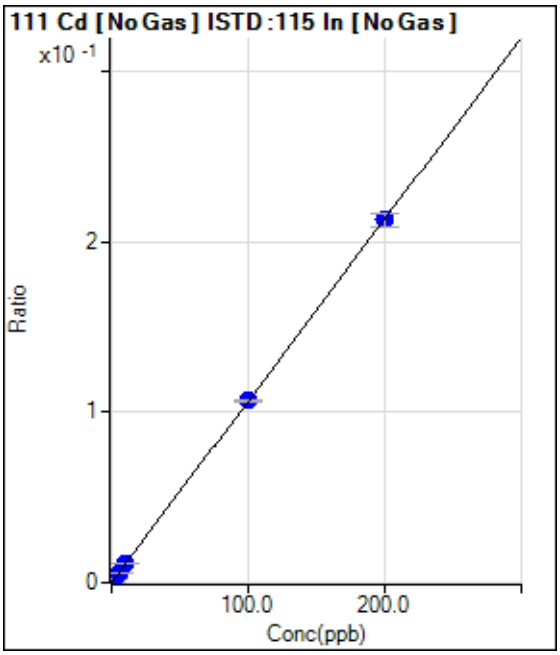
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	93.33	0.0001	P	11.5
2	☐	2.000	2.024	17398.35	0.0115	P	0.7
3	☐	5.000	5.135	43491.99	0.0292	P	1.1
4	☐	10.000	10.367	88998.76	0.0589	P	0.4
5	☐	100.000	101.515	851593.27	0.5760	P	1.7
6	☐	200.000	199.220	1635975.91	1.1303	A	1.9

y = 0.0057 * x + 6.1481E-005
R = 1.0000
DL = 0.00374
BEC = 0.01084

Weight: <None>
Min Conc: <None>

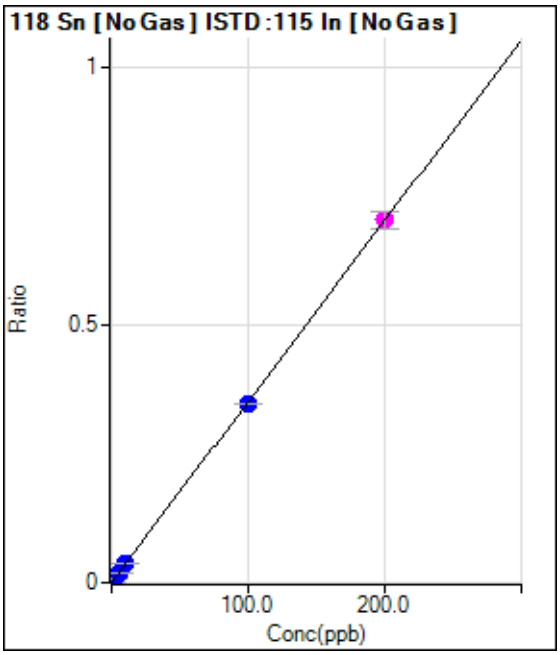


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6.42	0.0000	P	247.8
2	☐	2.000	1.981	3190.81	0.0021	P	5.9
3	☐	5.000	5.044	8021.61	0.0054	P	3.4
4	☐	10.000	10.332	16665.00	0.0110	P	2.1
5	☐	100.000	100.465	158431.01	0.1072	P	1.2
6	☐	200.000	199.750	308255.47	0.2131	P	3.9

y = 0.0011 * x + 4.1840E-006
R = 1.0000
DL = 0.02916
BEC = 0.003923

Weight: <None>
Min Conc: <None>

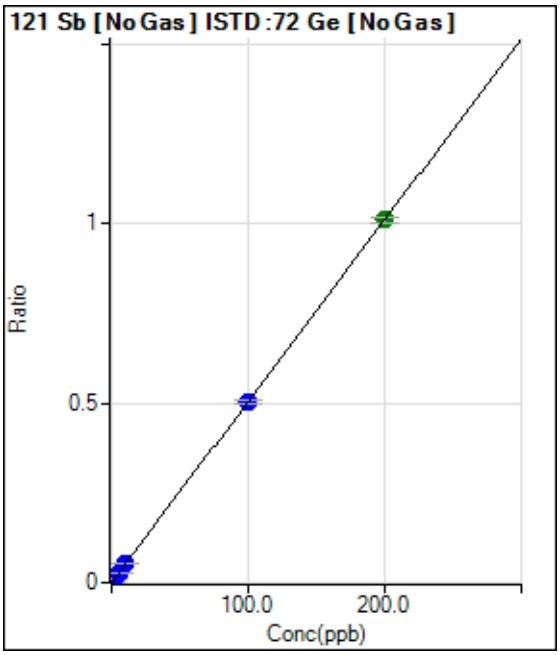
Calibration for 130_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	600.02	0.0004	P	12.7
2	☐	2.000	1.997	11174.97	0.0074	P	6.0
3	☐	5.000	5.013	26834.36	0.0180	P	0.4
4	☐	10.000	10.244	55012.45	0.0364	P	1.2
5	☐	100.000	98.850	514223.16	0.3478	P	0.6
6	☐	200.000	200.563	1020219.70	0.7052	M	4.6

y = 0.0035 * x + 3.9581E-004
R = 1.0000
DL = 0.043
BEC = 0.1126

Weight: <None>
Min Conc: <None>

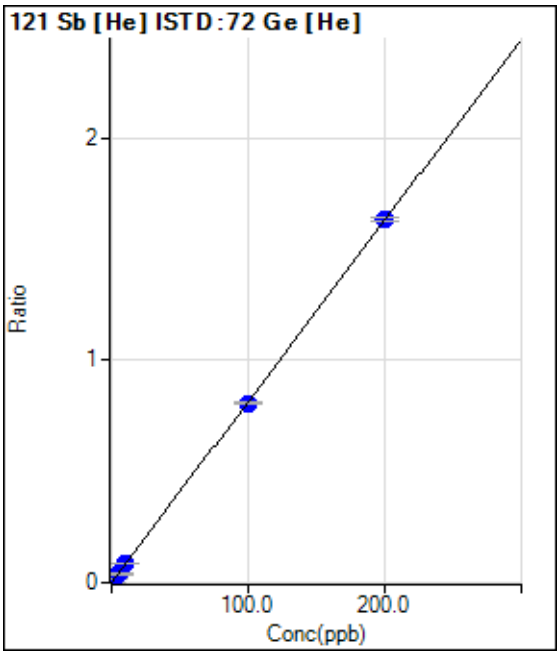


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	93.33	0.0001	P	54.2
2	☐	2.000	2.067	16153.47	0.0105	P	3.5
3	☐	5.000	5.082	39292.40	0.0257	P	0.5
4	☐	10.000	10.243	80138.15	0.0518	P	2.2
5	☐	100.000	99.684	764088.01	0.5033	P	1.4
6	☐	200.000	200.143	1499679.09	1.0106	A	1.7

y = 0.0050 * x + 6.0178E-005
R = 1.0000
DL = 0.01937
BEC = 0.01192

Weight: <None>
Min Conc: <None>

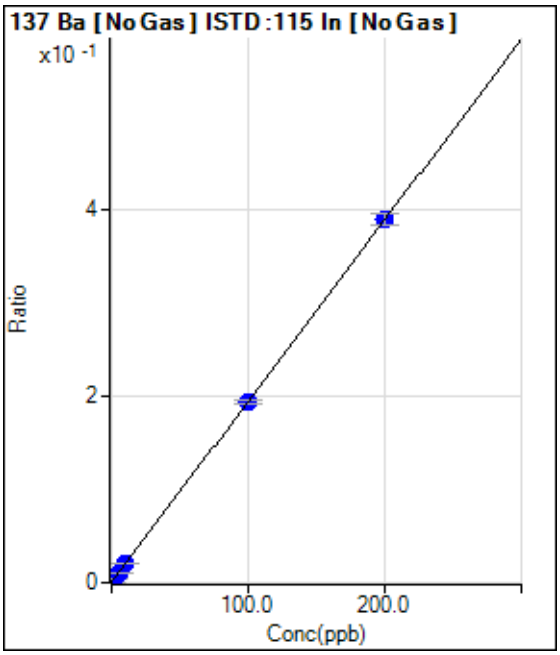
Calibration for 130_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	70.00	0.0002	P	37.9
2	☐	2.000	1.965	7208.78	0.0162	P	5.9
3	☐	5.000	4.869	17632.21	0.0398	P	5.6
4	☐	10.000	10.210	37383.62	0.0833	P	1.3
5	☐	100.000	99.225	357112.16	0.8082	P	1.2
6	☐	200.000	200.381	709198.45	1.6320	P	1.0

y = 0.0081 * x + 1.5610E-004
R = 1.0000
DL = 0.02177
BEC = 0.01917

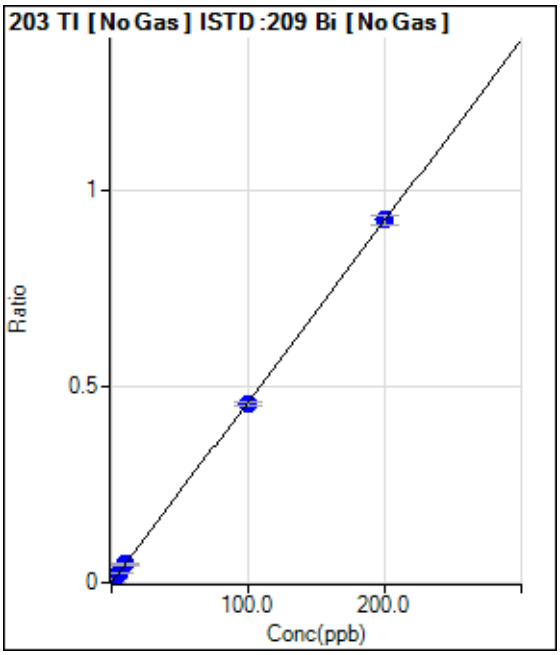
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	670.03	0.0004	P	8.0
2	☐	2.000	2.064	6695.19	0.0044	P	1.7
3	☐	5.000	5.114	15426.14	0.0104	P	3.6
4	☐	10.000	10.103	30275.58	0.0200	P	2.2
5	☐	100.000	99.483	285829.88	0.1933	P	1.9
6	☐	200.000	200.250	562482.65	0.3887	P	3.2

y = 0.0019 * x + 4.4162E-004
R = 1.0000
DL = 0.05435
BEC = 0.2278

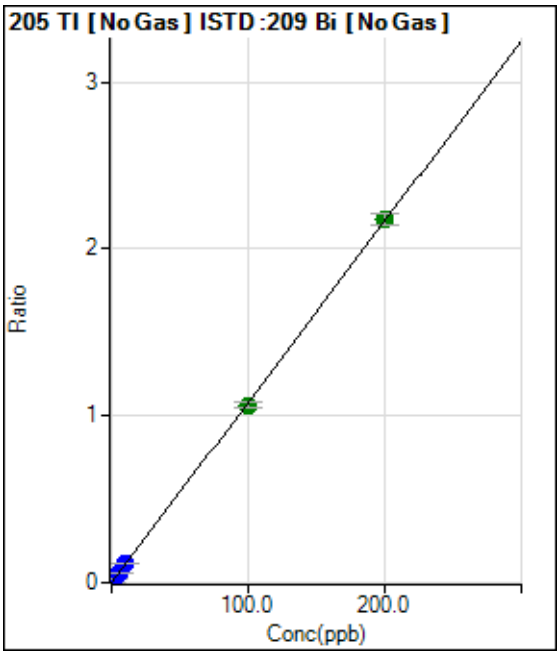
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	53.33	0.0001	P	29.0
2	☐	2.000	2.048	9703.91	0.0095	P	0.8
3	☐	5.000	4.933	23579.25	0.0228	P	1.2
4	☐	10.000	10.120	48654.96	0.0468	P	3.0
5	☐	100.000	98.917	467133.53	0.4571	P	2.8
6	☐	200.000	200.537	930008.24	0.9266	P	2.5

y = 0.0046 * x + 5.1892E-005
R = 1.0000
DL = 0.009784
BEC = 0.01123

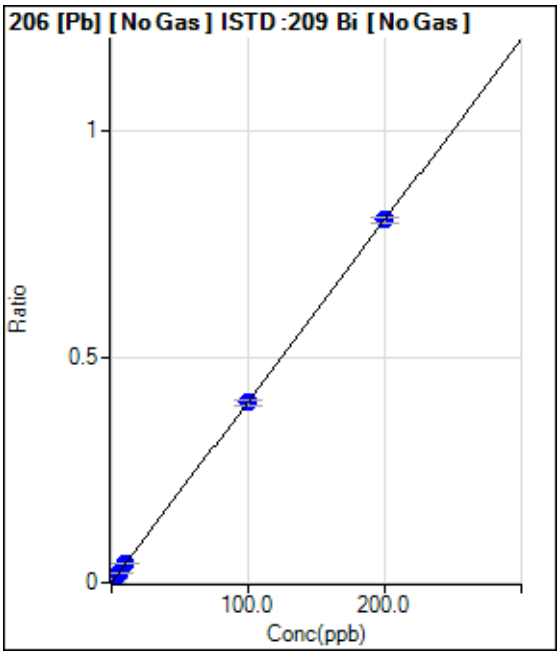
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	73.33	0.0001	P	34.2
2	☐	2.000	2.056	22761.02	0.0223	P	2.8
3	☐	5.000	5.110	57088.13	0.0553	P	2.7
4	☐	10.000	10.316	116019.20	0.1116	P	2.8
5	☐	100.000	98.060	1083758.84	1.0604	A	3.3
6	☐	200.000	200.951	2181107.21	2.1730	A	3.0

y = 0.0108 * x + 7.1271E-005
R = 0.9999
DL = 0.006768
BEC = 0.006591

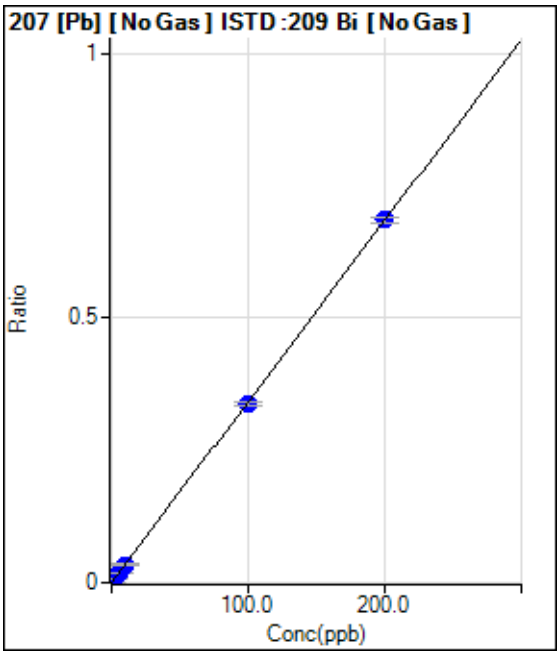
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	193.34	0.0002	P	3.3
2	☐	2.000	2.069	8656.51	0.0085	P	0.5
3	☐	5.000	5.117	21368.64	0.0207	P	3.6
4	☐	10.000	10.341	43308.86	0.0417	P	1.1
5	☐	100.000	99.529	408097.22	0.3994	P	2.9
6	☐	200.000	200.215	806138.69	0.8032	P	1.9

y = 0.0040 * x + 1.8798E-004
R = 1.0000
DL = 0.00471
BEC = 0.04687

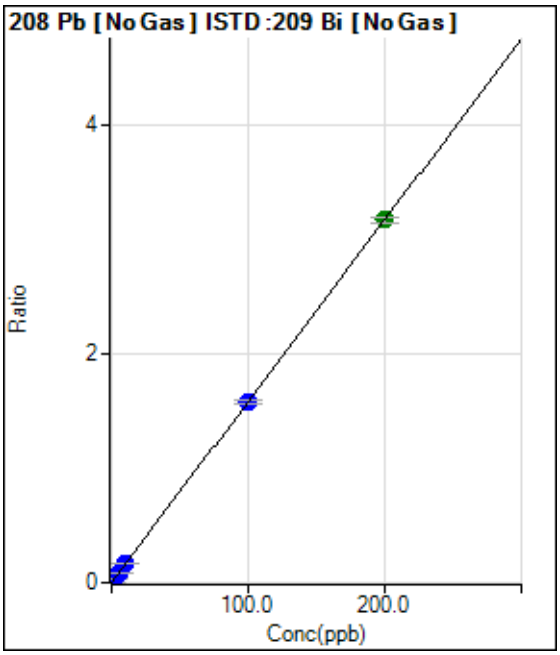
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	136.67	0.0001	P	23.8
2	☐	2.000	2.086	7412.34	0.0073	P	2.0
3	☐	5.000	4.977	17712.88	0.0172	P	1.6
4	☐	10.000	9.998	35684.87	0.0343	P	2.9
5	☐	100.000	98.991	346176.76	0.3388	P	2.5
6	☐	200.000	200.504	688542.33	0.6860	P	1.9

y = 0.0034 * x + 1.3295E-004
R = 1.0000
DL = 0.0278
BEC = 0.03887

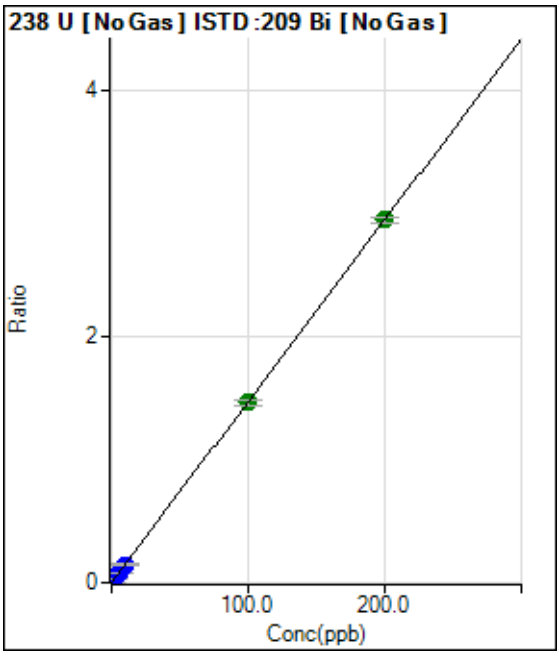
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	680.02	0.0007	P	8.6
2	☐	2.000	2.021	33314.33	0.0327	P	1.0
3	☐	5.000	5.061	83347.15	0.0808	P	2.7
4	☐	10.000	10.121	167245.58	0.1609	P	1.4
5	☐	100.000	99.660	1612826.34	1.5783	P	2.6
6	☐	200.000	200.162	3180923.39	3.1692	A	1.9

y = 0.0158 * x + 6.6128E-004
R = 1.0000
DL = 0.01075
BEC = 0.04177

Weight: <None>
Min Conc: <None>

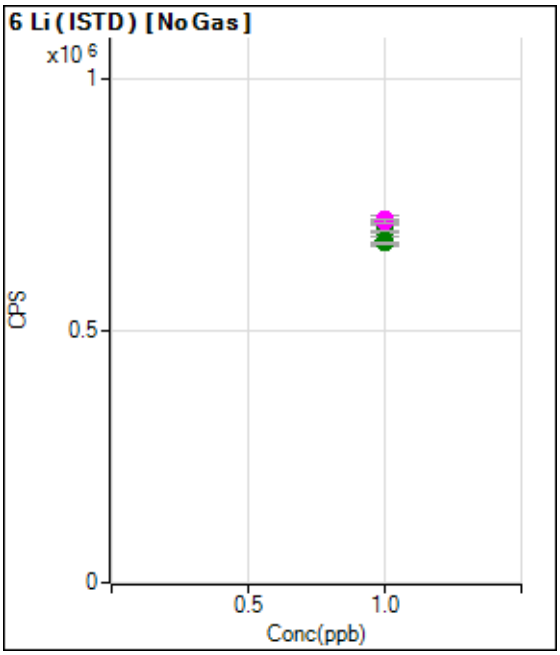


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	20.00	0.0000	P	49.9
2	☐	2.000	2.006	30120.86	0.0295	P	0.7
3	☐	5.000	4.960	75324.66	0.0730	P	2.5
4	☐	10.000	10.012	153147.54	0.1473	P	1.5
5	☐	100.000	99.578	1497114.40	1.4651	A	3.5
6	☐	200.000	200.212	2956942.45	2.9457	A	1.4

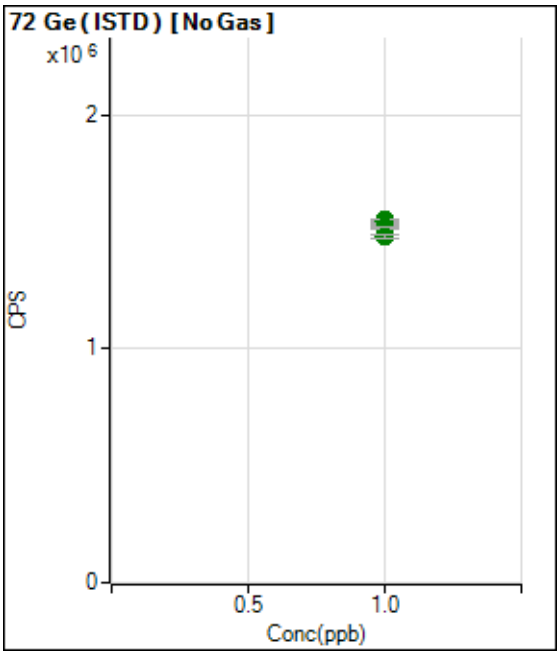
y = 0.0147 * x + 1.9432E-005
R = 1.0000
DL = 0.001978
BEC = 0.001321

Weight: <None>
Min Conc: <None>

Calibration for 130_ICV.d

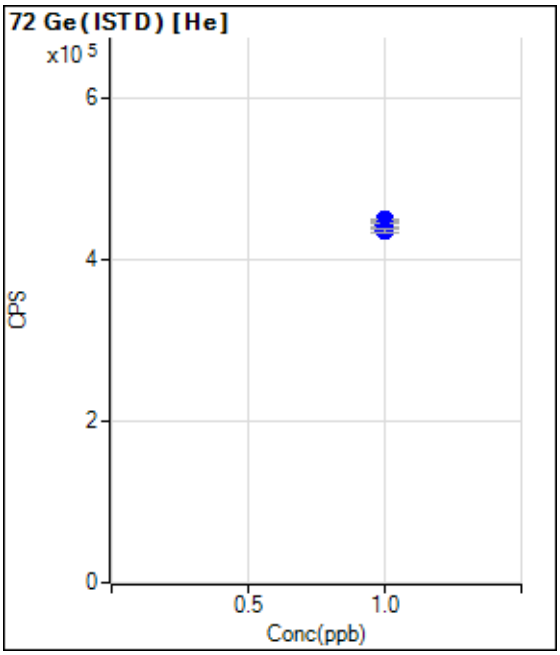


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		718916.17		A	2.6
2	☐	1.000		696178.77		A	0.9
3	☐	1.000		719677.29		M	0.7
4	☐	1.000		716125.93		M	1.2
5	☐	1.000		678245.65		A	3.0
6	☐	1.000		674180.95		A	0.9

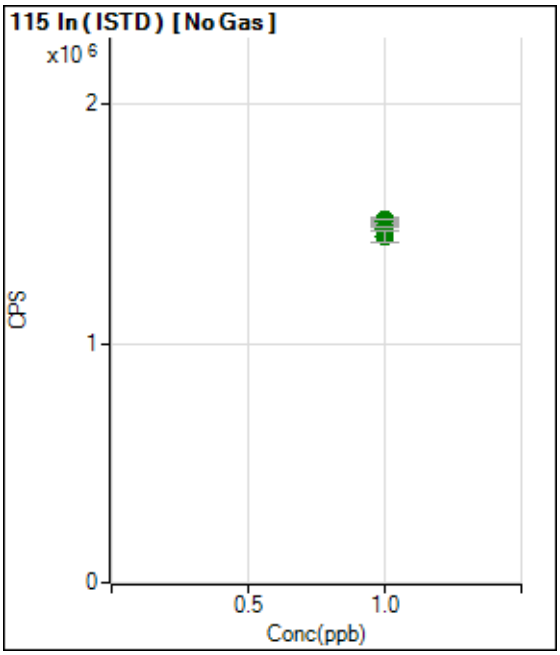


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1552135.91		A	0.4
2	☐	1.000		1539839.92		A	1.7
3	☐	1.000		1527940.03		A	0.8
4	☐	1.000		1547729.40		A	1.0
5	☐	1.000		1518015.71		A	0.5
6	☐	1.000		1484182.58		A	1.2

Calibration for 130_ICV.d

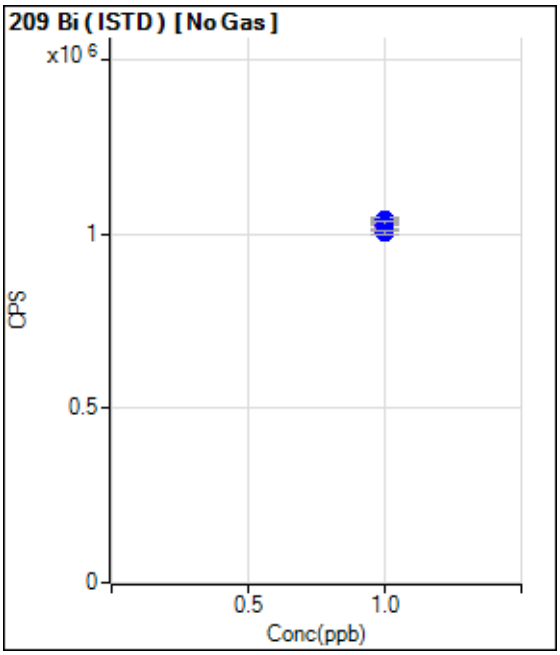


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		448476.41		P	0.2
2	☐	1.000		446338.35		P	0.8
3	☐	1.000		442952.99		P	1.2
4	☐	1.000		448785.36		P	0.8
5	☐	1.000		441889.43		P	1.4
6	☐	1.000		434588.31		P	1.3



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1516997.46		A	1.1
2	☐	1.000		1506915.14		A	0.6
3	☐	1.000		1489655.86		A	0.4
4	☐	1.000		1511554.23		A	0.6
5	☐	1.000		1478642.68		A	1.3
6	☐	1.000		1447940.81		A	2.9

Calibration for 130_ICV.d



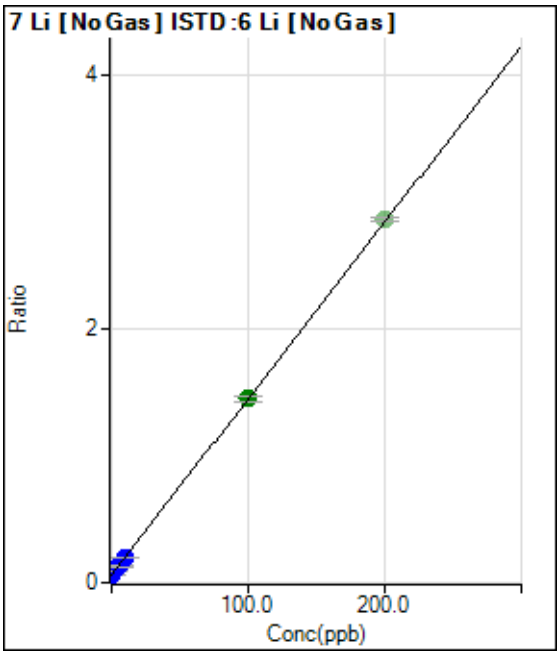
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1028570.45		P	0.4
2	☐	1.000		1020174.67		M	1.8
3	☐	1.000		1032262.28		P	1.9
4	☐	1.000		1039660.64		P	1.4
5	☐	1.000		1022334.41		P	2.5
6	☐	1.000		1003845.17		P	1.3

Calibration for 031_ICV.d

Batch Folder: C:\Agilent\ICPMH\1\DATA\031523A.b\
Analysis File: 031523A.batch.bin
DA Date-Time: 3/15/2023 12:19:21 PM
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	024CALB.d	CAL BLK	3/15/2023 11:58:35 AM
2	025CALS.d	2/10/200	3/15/2023 12:00:35 PM
3	026CALS.d	5/25/500	3/15/2023 12:02:34 PM
4	027CALS.d	10/50/100	3/15/2023 12:04:33 PM
5	028CALS.d	100/500/10K	3/15/2023 12:06:32 PM
6	029CALS.d	200/1000/20K	3/15/2023 12:08:29 PM

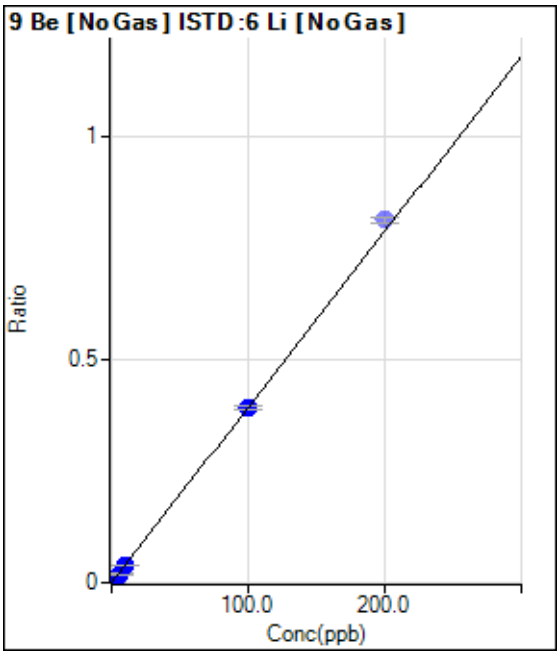
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	40320.95	0.0611	P	0.9
2	☐	2.000	2.047	58355.33	0.0895	P	1.8
3	☐	5.000	4.928	84465.06	0.1294	P	1.5
4	☐	10.000	9.864	127935.19	0.1980	P	0.4
5	☐	100.000	100.016	906816.37	1.4492	A	3.2
6	☑	200.000		1701567.01	2.8574	A	0.9

y = 0.0139 * x + 0.0611
R = 1.0000
DL = 0.1212
BEC = 4.399

Weight: <None>
Min Conc: <None>

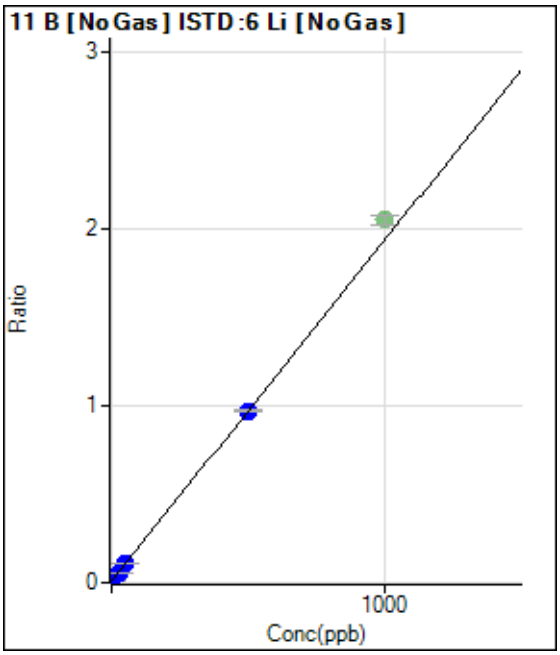


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16.67	0.0000	P	18.0
2	☐	2.000	1.930	4967.58	0.0076	P	4.0
3	☐	5.000	4.917	12629.06	0.0194	P	5.6
4	☐	10.000	9.892	25157.54	0.0389	P	1.5
5	☐	100.000	100.016	246221.56	0.3934	P	2.0
6	☑	200.000		484231.77	0.8132	P	1.8

y = 0.0039 * x + 2.5254E-005
R = 1.0000
DL = 0.00346
BEC = 0.006421

Weight: <None>
Min Conc: <None>

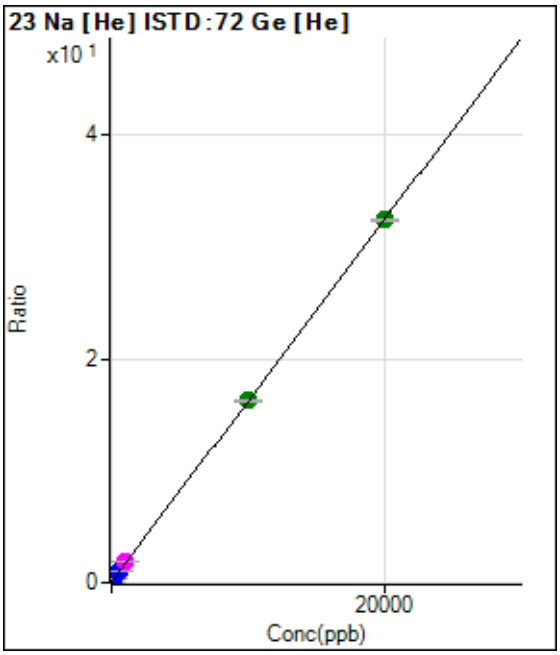
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6106.37	0.0092	P	2.2
2	☐	10.000	9.785	18338.72	0.0281	P	3.2
3	☐	25.000	24.432	36773.16	0.0564	P	3.0
4	☐	50.000	49.731	67955.18	0.1052	P	1.4
5	☐	500.000	500.060	609491.51	0.9736	P	1.7
6	☑	1000.000		1222636.34	2.0535	A	2.6

y = 0.0019 * x + 0.0092
R = 1.0000
DL = 0.3106
BEC = 4.794

Weight: <None>
Min Conc: <None>

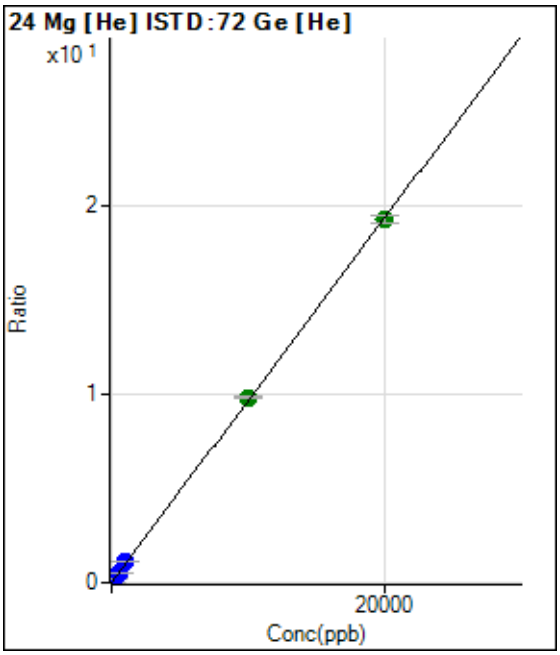


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	27560.91	0.0689	P	1.6
2	☐	200.000	218.861	166919.60	0.4228	P	1.8
3	☐	500.000	554.280	379976.73	0.9652	P	1.1
4	☐	1000.000	1101.736	726704.99	1.8504	M	0.8
5	☐	10000.00	10002.29	6292377.41	16.2426	A	0.9
6	☐	20000.00	19992.22	12277975.6	32.3963	A	0.5

y = 0.0016 * x + 0.0689
R = 1.0000
DL = 2.109
BEC = 42.63

Weight: <None>
Min Conc: <None>

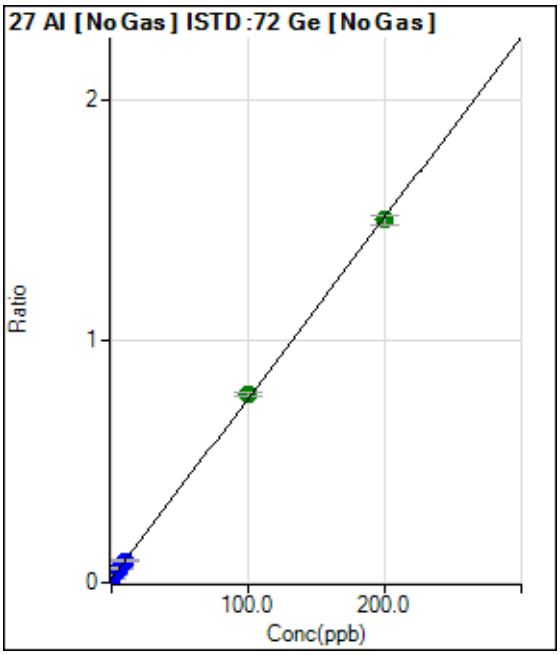
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	750.04	0.0019	P	14.2
2	☐	200.000	224.612	86332.98	0.2187	P	1.4
3	☐	500.000	553.965	211252.21	0.5366	P	1.0
4	☐	1000.000	1121.641	425904.50	1.0846	P	1.2
5	☐	10000.00	10169.42	3803597.24	9.8182	A	0.4
6	☐	20000.00	19907.61	7282762.39	19.2182	A	1.9

y = 9.6527E-004 * x + 0.0019
R = 0.9999
DL = 0.8318
BEC = 1.946

Weight: <None>
Min Conc: <None>

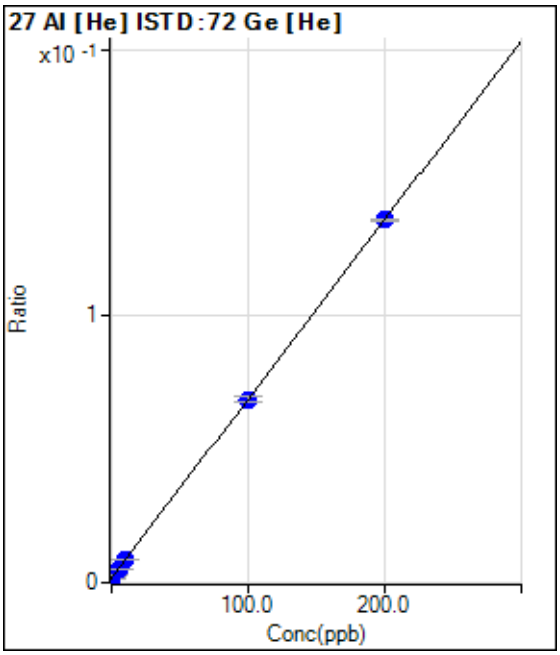


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	21196.56	0.0167	P	5.1
2	☐	2.000	1.888	39700.37	0.0308	P	1.2
3	☐	5.000	5.707	75072.11	0.0594	P	10.4
4	☐	10.000	9.964	114821.86	0.0912	P	3.0
5	☐	100.000	102.259	967334.44	0.7806	A	2.4
6	☐	200.000	198.856	1809603.78	1.5023	A	2.3

y = 0.0075 * x + 0.0167
R = 0.9999
DL = 0.3409
BEC = 2.238

Weight: <None>
Min Conc: <None>

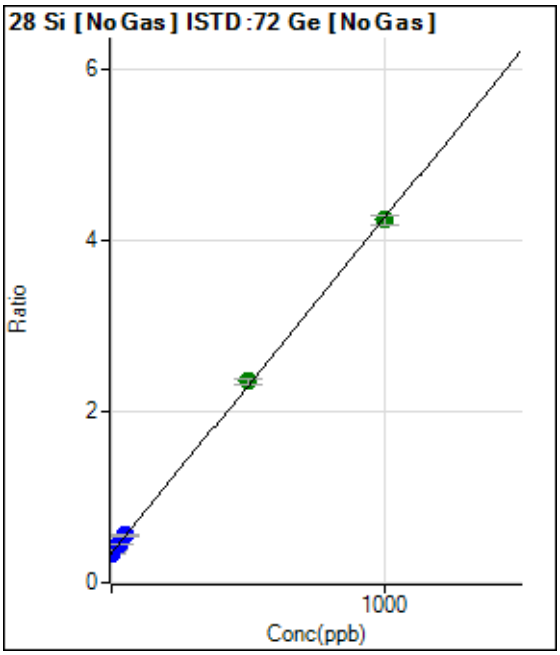
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	706.70	0.0018	P	16.5
2	☐	2.000	2.612	1390.09	0.0035	P	16.3
3	☐	5.000	4.980	2013.51	0.0051	P	2.3
4	☐	10.000	10.432	3447.17	0.0088	P	4.0
5	☐	100.000	99.864	26665.80	0.0688	P	2.9
6	☐	200.000	200.041	51585.76	0.1361	P	0.8

y = 6.7159E-004 * x + 0.0018
R = 1.0000
DL = 1.307
BEC = 2.636

Weight: <None>
Min Conc: <None>

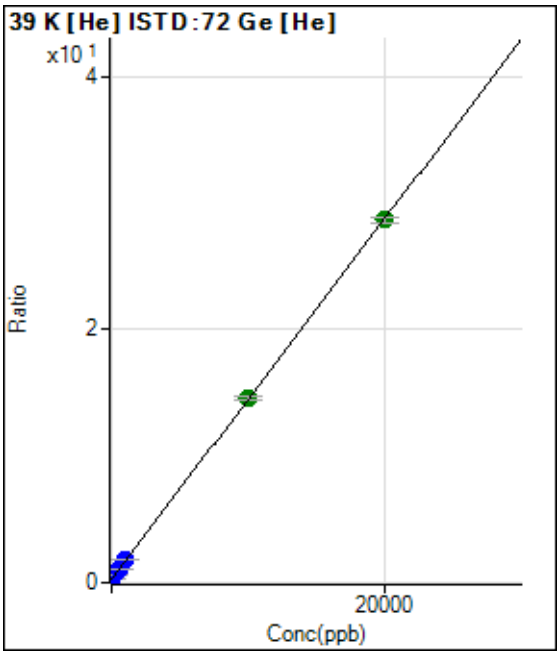


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	440379.29	0.3473	P	2.1
2	☐	10.000	11.678	505955.01	0.3930	P	4.8
3	☐	25.000	26.297	569399.86	0.4501	P	0.6
4	☐	50.000	51.827	692660.07	0.5498	P	1.2
5	☐	500.000	511.290	2905484.75	2.3451	A	3.3
6	☐	1000.000	994.214	5097516.38	4.2320	A	2.5

y = 0.0039 * x + 0.3473
R = 0.9999
DL = 5.615
BEC = 88.9

Weight: <None>
Min Conc: <None>

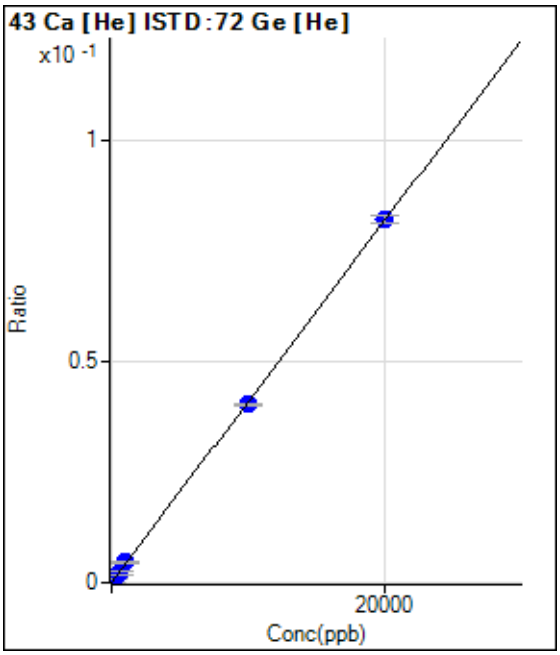
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	107767.92	0.2696	P	2.2
2	☐	200.000	218.563	229272.42	0.5808	P	1.6
3	☐	500.000	545.595	411953.07	1.0464	P	0.6
4	☐	1000.000	1097.878	719688.11	1.8327	P	0.7
5	☐	10000.00	10072.58	5659508.04	14.6099	A	2.2
6	☐	20000.00	19957.49	10870933.5	28.6830	A	1.4

y = 0.0014 * x + 0.2696
R = 1.0000
DL = 12.71
BEC = 189.4

Weight: <None>
Min Conc: <None>

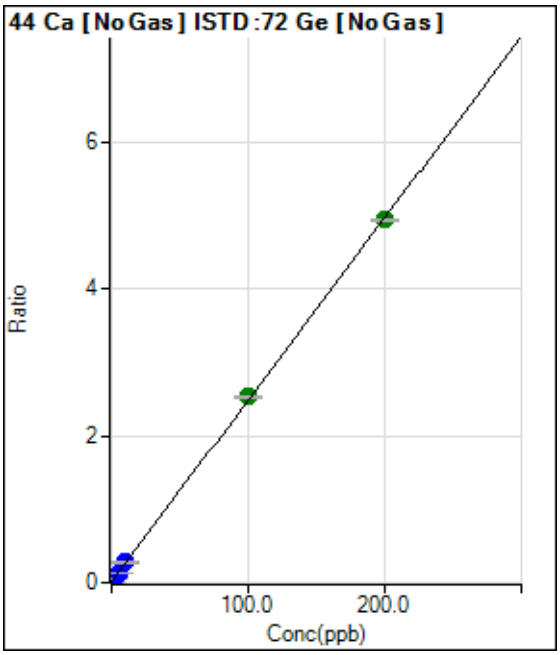


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	13.33	0.0000	P	86.6
2	☐	200.000	188.284	316.68	0.0008	P	12.1
3	☐	500.000	526.607	860.05	0.0022	P	27.9
4	☐	1000.000	1111.806	1796.81	0.0046	P	7.9
5	☐	10000.00	9868.496	15629.21	0.0403	P	1.0
6	☐	20000.00	20059.61	31072.07	0.0820	P	2.1

y = 4.0847E-006 * x + 3.3654E-005
R = 0.9999
DL = 21.41
BEC = 8.239

Weight: <None>
Min Conc: <None>

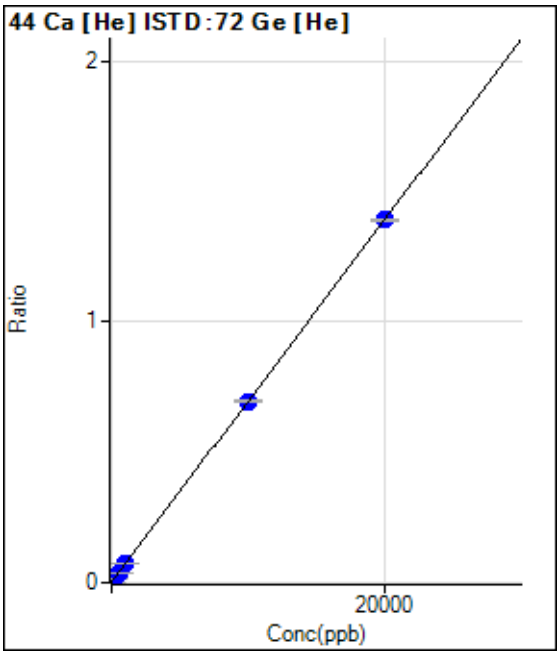
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16213.12	0.0128	P	3.7
2	☐	2.000	2.090	83177.26	0.0646	P	0.8
3	☐	5.000	5.234	180279.88	0.1425	P	2.2
4	☐	10.000	10.633	348096.18	0.2763	P	1.4
5	☐	100.000	101.693	3138881.52	2.5332	A	1.8
6	☐	200.000	199.115	5961550.95	4.9477	A	0.4

y = 0.0248 * x + 0.0128
R = 0.9999
DL = 0.05705
BEC = 0.516

Weight: <None>
Min Conc: <None>

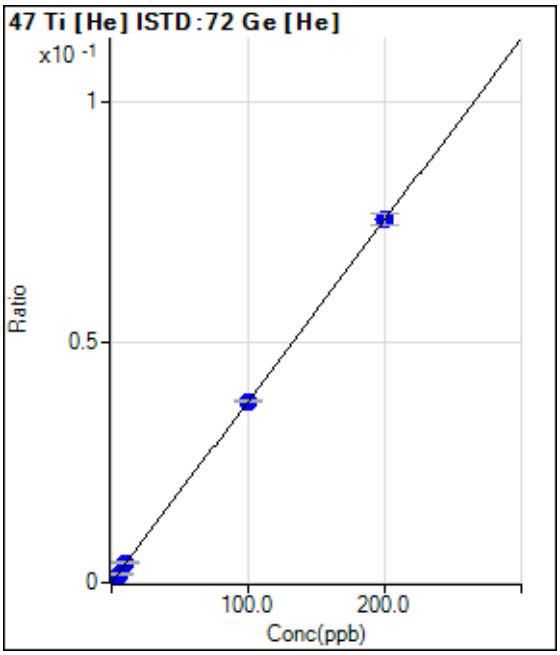


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	640.03	0.0016	P	11.6
2	☐	200.000	207.547	6318.24	0.0160	P	7.5
3	☐	500.000	510.233	14574.60	0.0370	P	0.3
4	☐	1000.000	1024.138	28546.54	0.0727	P	1.1
5	☐	10000.00	9985.707	269142.67	0.6948	P	1.4
6	☐	20000.00	20005.60	526934.82	1.3903	P	0.3

y = 6.9415E-005 * x + 0.0016
R = 1.0000
DL = 8.013
BEC = 23.09

Weight: <None>
Min Conc: <None>

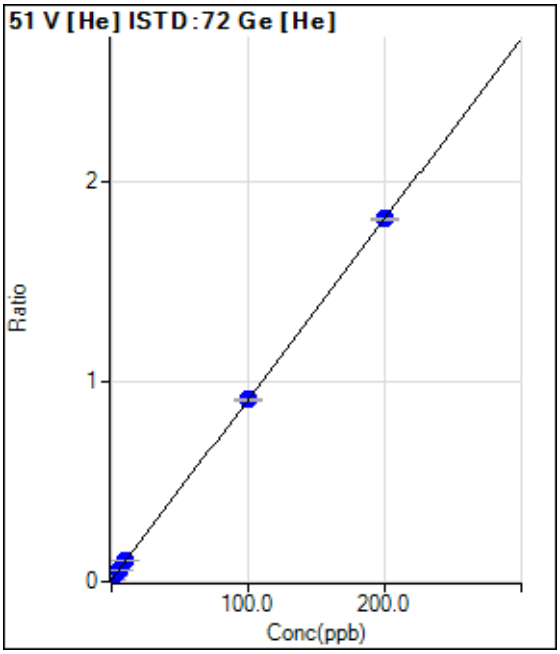
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	10.00	0.0000	P	1.6
2	☐	2.000	2.020	310.01	0.0008	P	4.3
3	☐	5.000	4.588	690.03	0.0018	P	7.0
4	☐	10.000	10.843	1613.46	0.0041	P	13.9
5	☐	100.000	99.890	14577.98	0.0376	P	1.2
6	☐	200.000	200.023	28553.36	0.0753	P	3.0

y = 3.7647E-004 * x + 2.5016E-005
R = 1.0000
DL = 0.003109
BEC = 0.06645

Weight: <None>
Min Conc: <None>

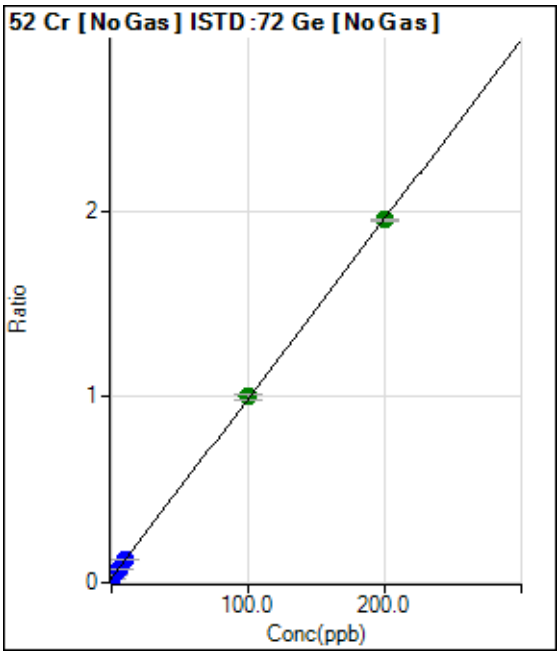


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3584.94	0.0090	P	3.7
2	☐	2.000	2.086	10958.88	0.0278	P	4.4
3	☐	5.000	5.128	21717.25	0.0552	P	1.9
4	☐	10.000	10.310	40000.40	0.1019	P	0.8
5	☐	100.000	99.839	351952.89	0.9085	P	0.6
6	☐	200.000	200.061	686540.89	1.8115	P	0.7

y = 0.0090 * x + 0.0090
R = 1.0000
DL = 0.1113
BEC = 0.9954

Weight: <None>
Min Conc: <None>

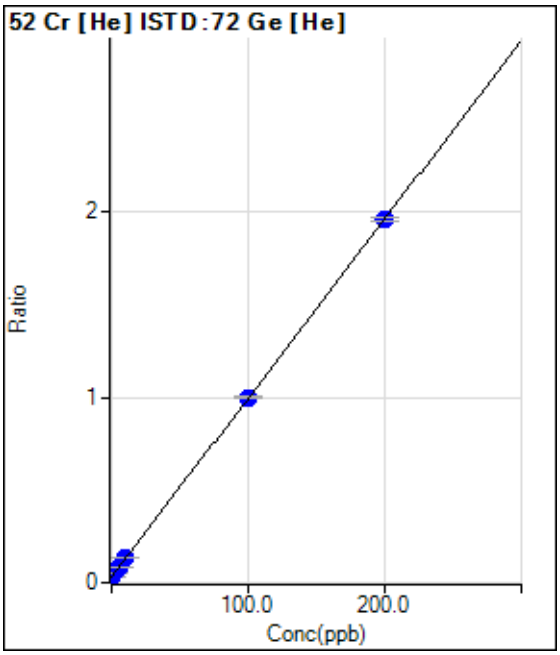
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	31045.65	0.0245	P	4.0
2	☐	2.000	1.834	54398.43	0.0422	P	1.7
3	☐	5.000	5.017	92387.49	0.0730	P	1.0
4	☐	10.000	10.165	154724.08	0.1228	P	2.2
5	☐	100.000	100.877	1239597.74	1.0004	A	2.7
6	☐	200.000	199.555	2355630.54	1.9551	A	0.5

y = 0.0097 * x + 0.0245
R = 1.0000
DL = 0.3005
BEC = 2.532

Weight: <None>
Min Conc: <None>

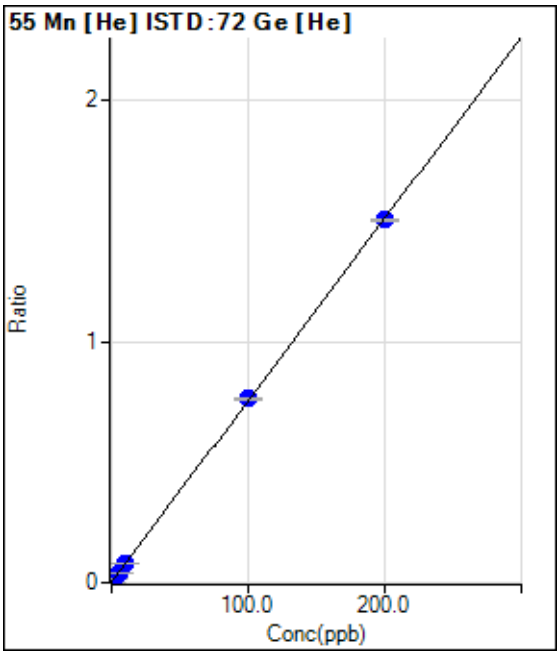


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	12205.66	0.0305	P	6.4
2	☐	2.000	2.203	20445.59	0.0518	P	1.0
3	☐	5.000	5.313	32188.15	0.0818	P	1.6
4	☐	10.000	10.788	52832.05	0.1345	P	2.2
5	☐	100.000	100.462	386981.57	0.9989	P	0.8
6	☐	200.000	199.720	741164.68	1.9557	P	1.2

y = 0.0096 * x + 0.0305
R = 1.0000
DL = 0.6092
BEC = 3.169

Weight: <None>
Min Conc: <None>

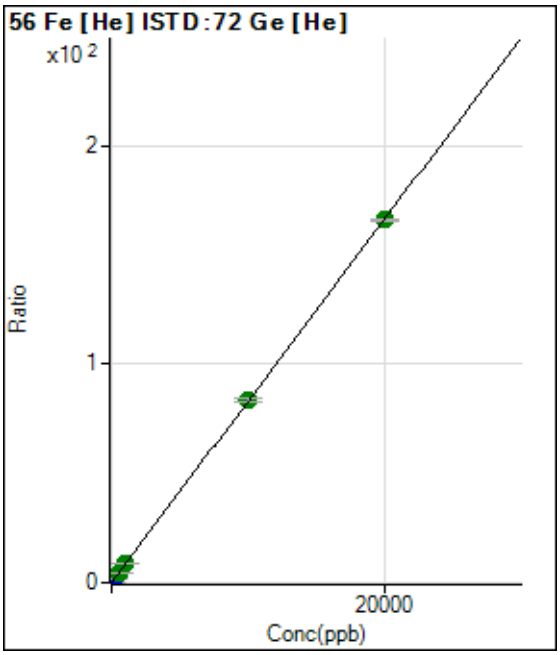
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	606.69	0.0015	P	12.4
2	☐	2.000	2.082	6795.14	0.0172	P	7.7
3	☐	5.000	5.095	15732.64	0.0400	P	4.6
4	☐	10.000	10.288	31075.70	0.0791	P	0.5
5	☐	100.000	101.102	296073.59	0.7643	P	1.0
6	☐	200.000	199.431	570805.29	1.5061	P	0.6

y = 0.0075 * x + 0.0015
R = 1.0000
DL = 0.07475
BEC = 0.2011

Weight: <None>
Min Conc: <None>

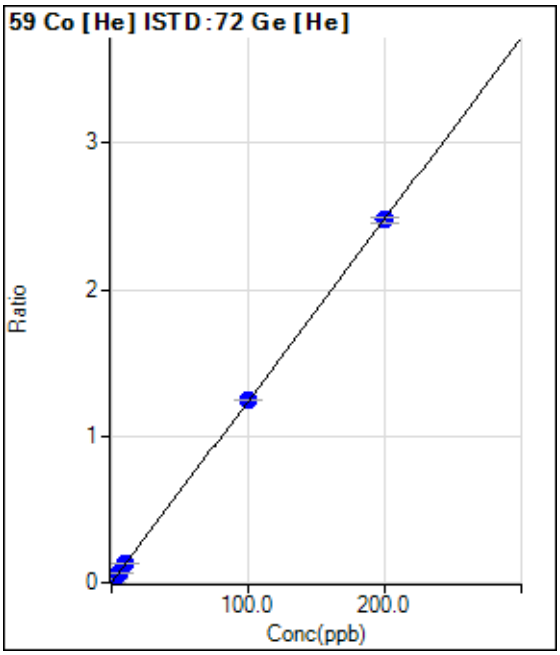


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	13717.13	0.0343	P	2.5
2	☐	200.000	215.053	719490.41	1.8225	P	0.9
3	☐	500.000	524.882	1731767.89	4.3987	A	0.7
4	☐	1000.000	1038.764	3405485.99	8.6716	A	0.4
5	☐	10000.00	10057.92	32410837.0	83.6660	A	1.6
6	☐	20000.00	19968.32	62937790.7	166.071	A	0.8

y = 0.0083 * x + 0.0343
R = 1.0000
DL = 0.3051
BEC = 4.127

Weight: <None>
Min Conc: <None>

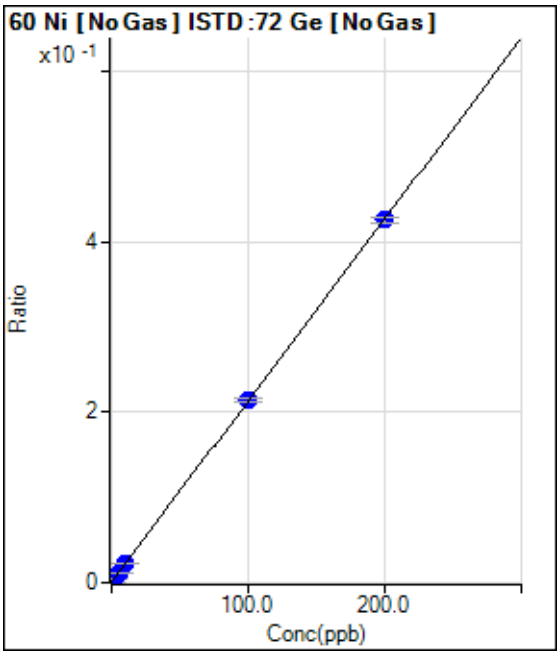
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	86.67	0.0002	P	39.3
2	☐	2.000	2.058	10153.95	0.0257	P	1.4
3	☐	5.000	5.332	26095.29	0.0663	P	1.3
4	☐	10.000	10.459	50975.61	0.1298	P	1.9
5	☐	100.000	100.469	482356.20	1.2451	P	0.9
6	☐	200.000	199.734	937984.96	2.4751	P	1.5

y = 0.0124 * x + 2.1611E-004
R = 1.0000
DL = 0.02057
BEC = 0.01744

Weight: <None>
Min Conc: <None>

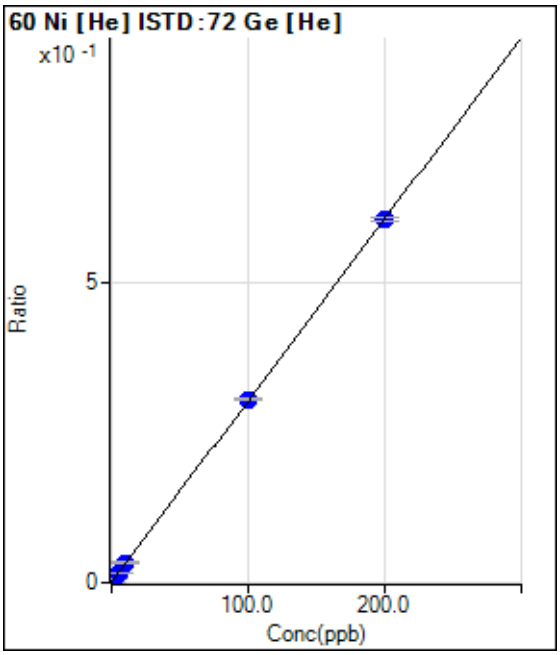


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	800.04	0.0006	P	11.7
2	☐	2.000	2.036	6394.95	0.0050	P	2.3
3	☐	5.000	5.339	15175.42	0.0120	P	1.7
4	☐	10.000	10.367	28597.12	0.0227	P	2.5
5	☐	100.000	100.553	266012.54	0.2147	P	2.8
6	☐	200.000	199.696	512924.94	0.4258	P	1.4

y = 0.0021 * x + 6.3023E-004
R = 1.0000
DL = 0.1042
BEC = 0.296

Weight: <None>
Min Conc: <None>

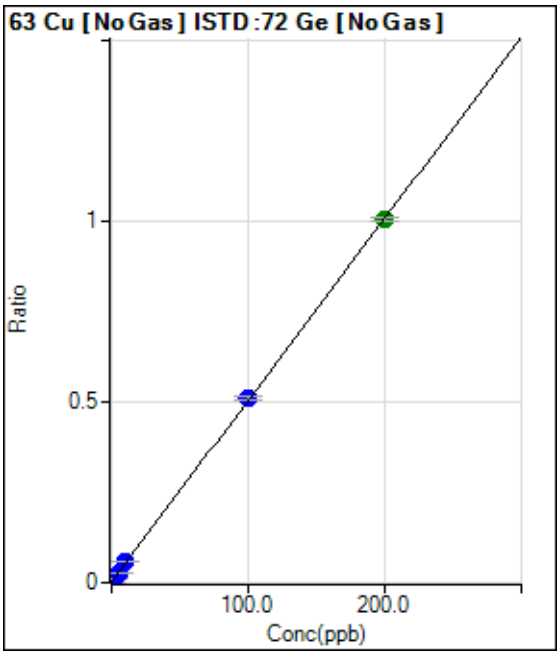
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	233.34	0.0006	P	25.5
2	☐	2.000	2.233	2903.70	0.0074	P	2.8
3	☐	5.000	5.336	6598.38	0.0168	P	4.8
4	☐	10.000	10.899	13206.61	0.0336	P	3.7
5	☐	100.000	100.600	118371.46	0.3056	P	0.8
6	☐	200.000	199.644	229588.22	0.6058	P	1.1

y = 0.0030 * x + 5.8437E-004
R = 1.0000
DL = 0.1475
BEC = 0.1928

Weight: <None>
Min Conc: <None>

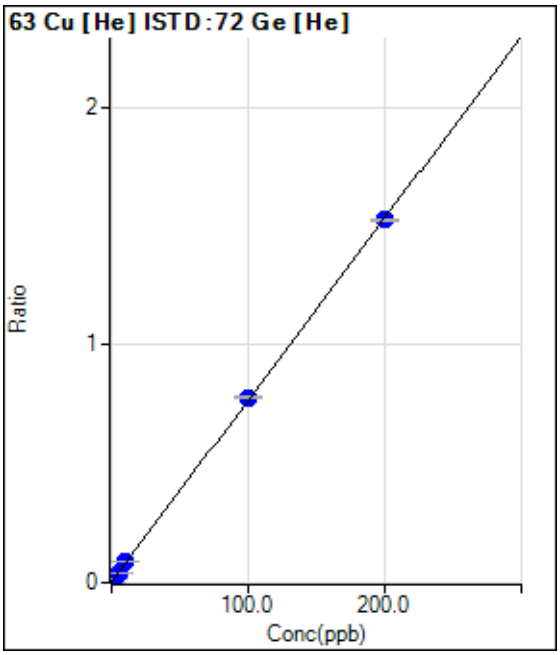


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2943.70	0.0023	P	8.8
2	☐	2.000	2.015	16019.67	0.0124	P	0.6
3	☐	5.000	5.211	36044.85	0.0285	P	1.6
4	☐	10.000	11.193	73746.53	0.0585	P	1.1
5	☐	100.000	101.067	631844.17	0.5099	P	2.3
6	☐	200.000	199.401	1209371.96	1.0038	A	1.2

y = 0.0050 * x + 0.0023
R = 1.0000
DL = 0.1225
BEC = 0.462

Weight: <None>
Min Conc: <None>

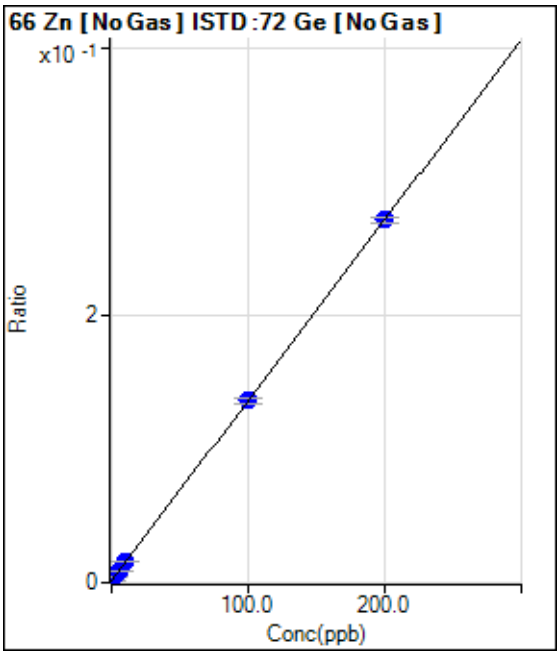
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1250.08	0.0031	P	4.0
2	☐	2.000	2.044	7405.47	0.0188	P	4.6
3	☐	5.000	5.362	17374.70	0.0441	P	1.3
4	☐	10.000	11.281	35108.90	0.0894	P	1.5
5	☐	100.000	101.449	301775.49	0.7790	P	1.0
6	☐	200.000	199.202	578556.84	1.5266	P	0.8

y = 0.0076 * x + 0.0031
R = 1.0000
DL = 0.04935
BEC = 0.4087

Weight: <None>
Min Conc: <None>

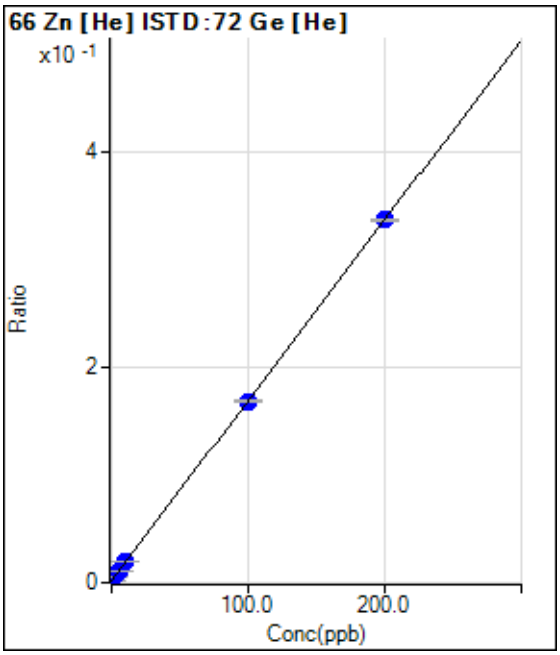


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2003.52	0.0016	P	5.0
2	☐	2.000	1.855	5261.10	0.0041	P	2.9
3	☐	5.000	5.155	10807.83	0.0085	P	3.7
4	☐	10.000	10.138	19243.86	0.0153	P	0.3
5	☐	100.000	99.855	169080.99	0.1365	P	3.6
6	☐	200.000	200.063	327467.03	0.2718	P	1.9

y = 0.0014 * x + 0.0016
R = 1.0000
DL = 0.1764
BEC = 1.169

Weight: <None>
Min Conc: <None>

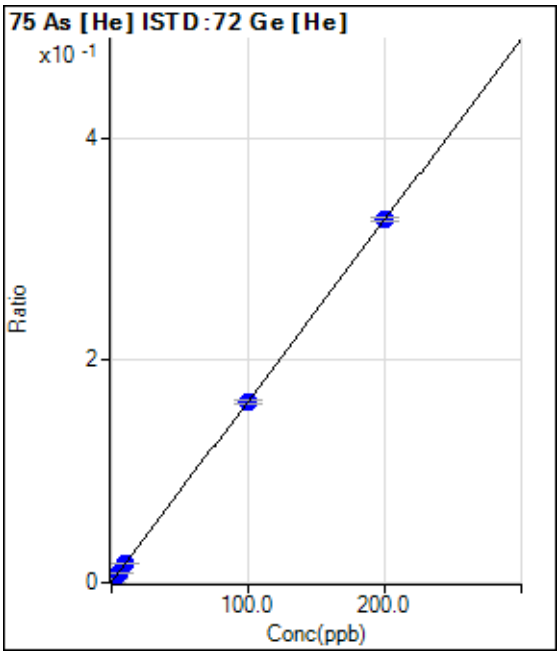
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	813.37	0.0020	P	10.8
2	☐	2.000	2.271	2303.56	0.0058	P	6.7
3	☐	5.000	5.194	4224.06	0.0107	P	7.7
4	☐	10.000	10.219	7518.88	0.0191	P	3.6
5	☐	100.000	99.489	65337.25	0.1687	P	0.6
6	☐	200.000	200.237	127872.01	0.3374	P	0.4

y = 0.0017 * x + 0.0020
R = 1.0000
DL = 0.393
BEC = 1.213

Weight: <None>
Min Conc: <None>

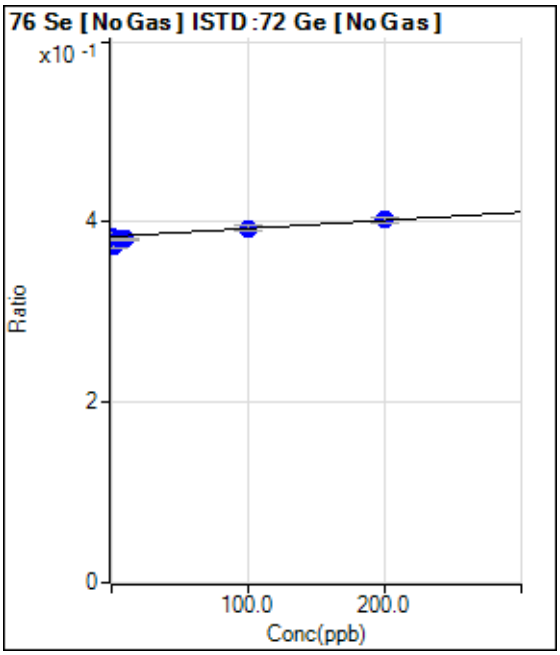


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	214.45	0.0005	P	9.0
2	☐	2.000	1.918	1443.42	0.0037	P	4.0
3	☐	5.000	4.929	3369.33	0.0086	P	2.2
4	☐	10.000	10.410	6862.88	0.0175	P	1.6
5	☐	100.000	99.831	63135.65	0.1630	P	2.2
6	☐	200.000	200.067	123582.49	0.3261	P	1.1

y = 0.0016 * x + 5.3608E-004
R = 1.0000
DL = 0.08921
BEC = 0.3294

Weight: <None>
Min Conc: <None>

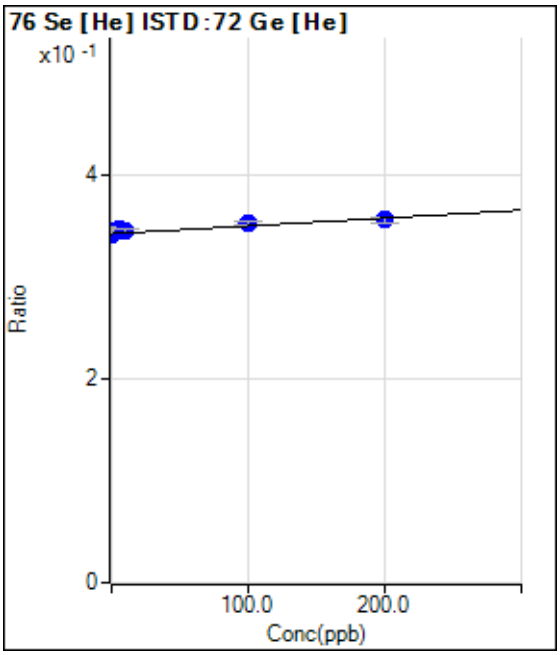
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	486642.72	0.3839	P	2.7
2	☐	2.000	-117.520	480634.50	0.3732	P	1.7
3	☐	5.000	-25.492	482708.14	0.3816	P	1.3
4	☐	10.000	-28.799	480321.35	0.3813	P	0.6
5	☐	100.000	98.922	486708.54	0.3928	P	1.8
6	☐	200.000	204.437	484674.47	0.4023	P	1.6

y = 9.0312E-005 * x + 0.3839
R = 0.9343
DL = 349.9
BEC = 4250

Weight: <None>
Min Conc: <None>

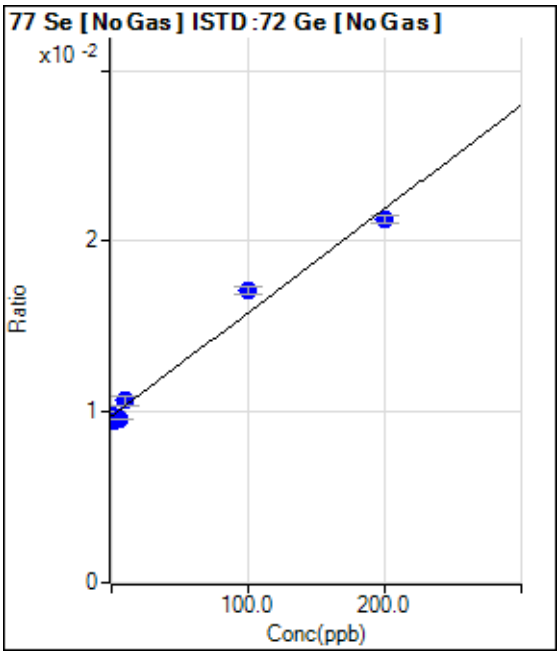


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	136580.14	0.3416	P	1.2
2	☐	2.000	46.690	136303.98	0.3452	P	0.4
3	☐	5.000	55.782	136186.47	0.3459	P	1.2
4	☐	10.000	36.232	135260.55	0.3444	P	0.9
5	☐	100.000	141.639	136577.02	0.3526	P	1.3
6	☐	200.000	176.152	134620.28	0.3552	P	1.8

y = 7.7071E-005 * x + 0.3416
R = 0.9395
DL = 166.2
BEC = 4433

Weight: <None>
Min Conc: <None>

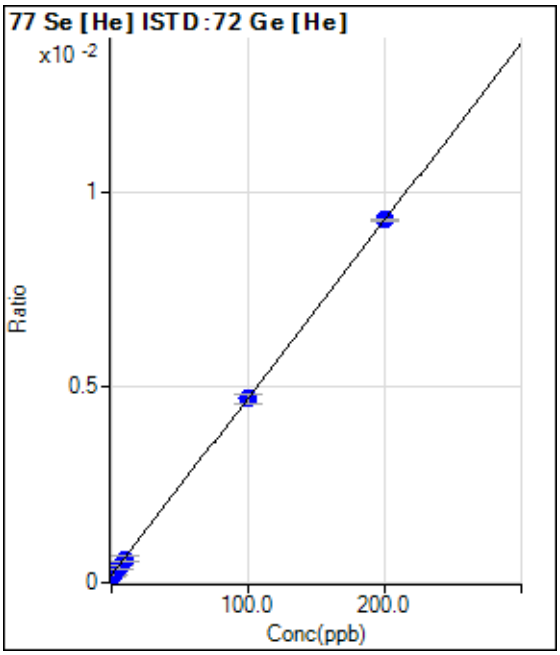
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	12369.29	0.0098	P	5.0
2	☐	2.000	-5.161	12162.37	0.0094	P	1.7
3	☐	5.000	-3.166	12102.26	0.0096	P	0.8
4	☐	10.000	15.313	13460.26	0.0107	P	5.4
5	☐	100.000	121.534	21237.04	0.0171	P	2.9
6	☐	200.000	189.243	25601.33	0.0213	P	2.0

y = 6.0733E-005 * x + 0.0098
R = 0.9893
DL = 23.96
BEC = 160.7

Weight: <None>
Min Conc: <None>

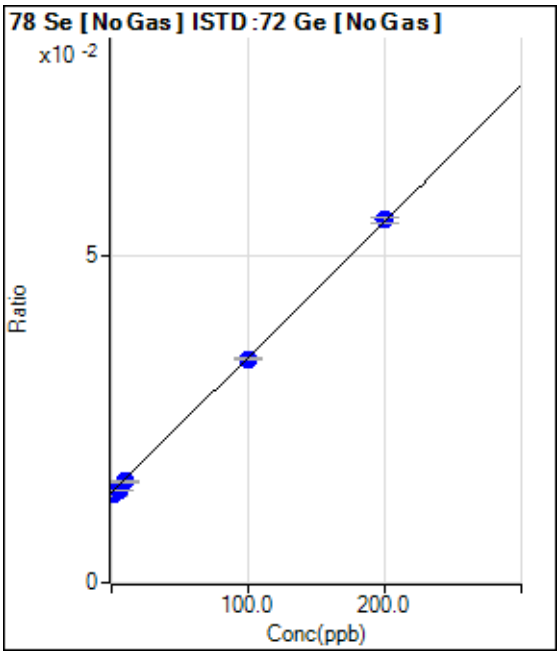


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	76.67	0.0002	P	38.4
2	☐	2.000	0.417	83.33	0.0002	P	6.4
3	☐	5.000	4.540	156.67	0.0004	P	32.8
4	☐	10.000	9.241	240.01	0.0006	P	29.3
5	☐	100.000	99.527	1823.49	0.0047	P	5.8
6	☐	200.000	200.302	3517.19	0.0093	P	0.8

y = 4.5370E-005 * x + 1.9211E-004
R = 1.0000
DL = 4.879
BEC = 4.234

Weight: <None>
Min Conc: <None>

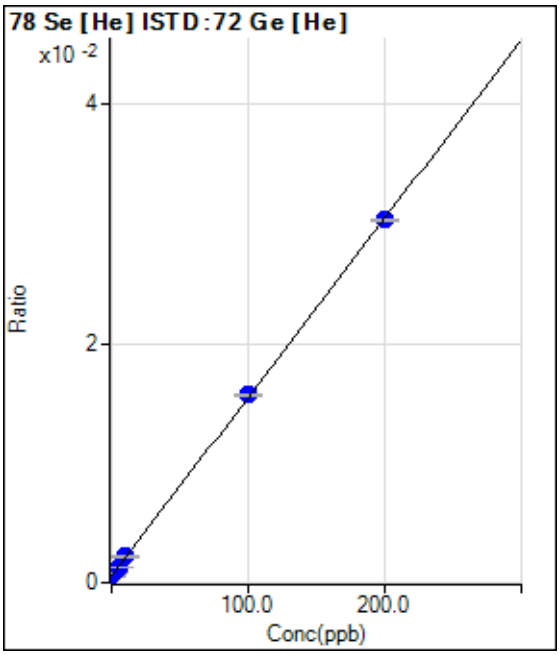
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	17391.53	0.0137	P	3.6
2	☐	2.000	-0.466	17538.40	0.0136	P	3.3
3	☐	5.000	2.133	17918.79	0.0142	P	1.8
4	☐	10.000	8.696	19571.17	0.0155	P	2.3
5	☐	100.000	98.547	42480.63	0.0343	P	1.3
6	☐	200.000	200.888	67023.23	0.0556	P	1.9

y = 2.0866E-004 * x + 0.0137
R = 0.9999
DL = 7.119
BEC = 65.75

Weight: <None>
Min Conc: <None>

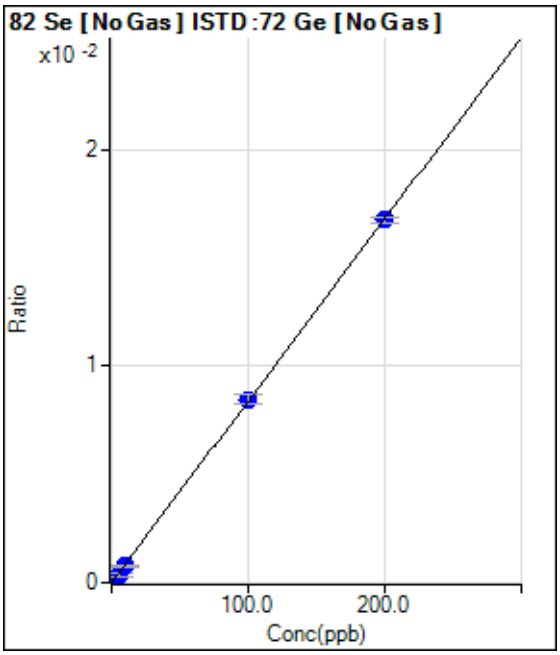


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	226.00	0.0006	P	10.7
2	☐	2.000	1.945	338.01	0.0009	P	3.2
3	☐	5.000	4.852	508.01	0.0013	P	1.6
4	☐	10.000	11.162	876.70	0.0022	P	5.7
5	☐	100.000	101.279	6077.38	0.0157	P	0.4
6	☐	200.000	199.307	11492.92	0.0303	P	0.3

y = 1.4930E-004 * x + 5.6588E-004
R = 1.0000
DL = 1.221
BEC = 3.79

Weight: <None>
Min Conc: <None>

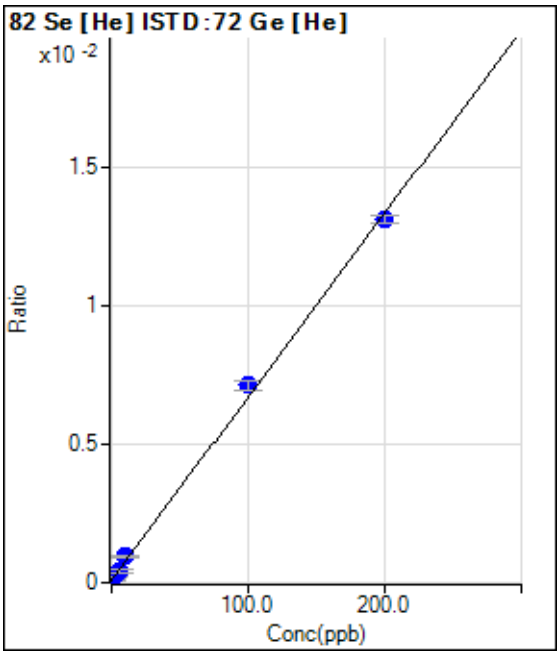
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	-8.41	0.0000	P	-750.0
2	☐	2.000	2.280	238.48	0.0002	P	24.9
3	☐	5.000	4.265	444.89	0.0004	P	29.1
4	☐	10.000	9.010	944.54	0.0007	P	1.6
5	☐	100.000	100.673	10459.53	0.0084	P	5.2
6	☐	200.000	199.729	20187.60	0.0168	P	1.3

y = 8.3931E-005 * x - 6.4597E-006
R = 1.0000
DL = 1.732
BEC = -0.07696

Weight: <None>
Min Conc: <None>

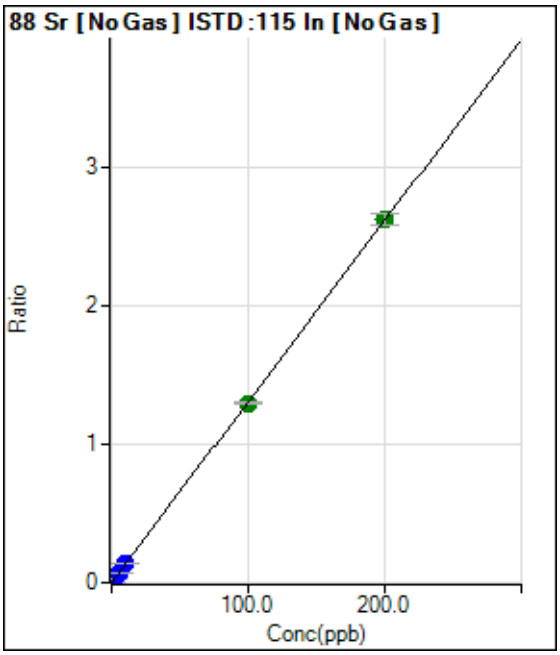


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	36.67	0.0001	P	67.6
2	☐	2.000	1.808	83.33	0.0002	P	6.4
3	☐	5.000	4.623	156.67	0.0004	P	28.2
4	☐	10.000	12.848	370.01	0.0009	P	7.5
5	☐	100.000	106.589	2770.34	0.0072	P	5.0
6	☐	200.000	196.574	4971.01	0.0131	P	2.0

y = 6.6247E-005 * x + 9.1237E-005
R = 0.9991
DL = 2.794
BEC = 1.377

Weight: <None>
Min Conc: <None>

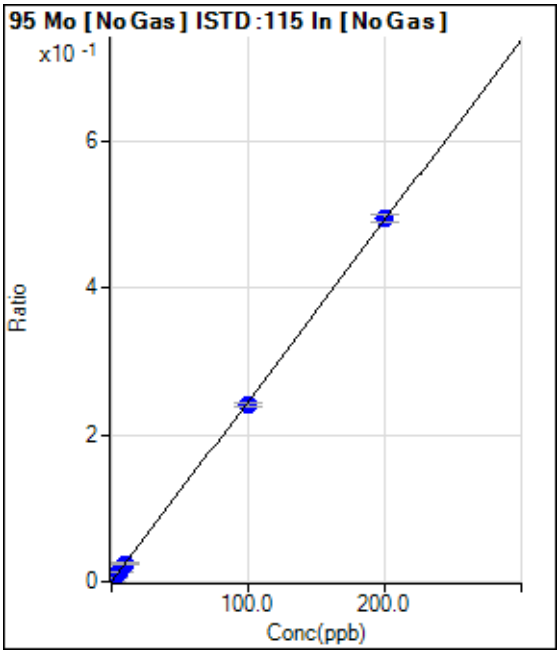
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	520.02	0.0004	P	14.2
2	☐	2.000	2.047	34788.79	0.0272	P	2.2
3	☐	5.000	5.280	87569.17	0.0695	P	3.5
4	☐	10.000	10.434	171978.03	0.1369	P	2.1
5	☐	100.000	99.009	1605213.20	1.2955	A	1.2
6	☐	200.000	200.467	3154268.81	2.6226	A	3.0

y = 0.0131 * x + 4.0735E-004
R = 1.0000
DL = 0.01326
BEC = 0.03114

Weight: <None>
Min Conc: <None>

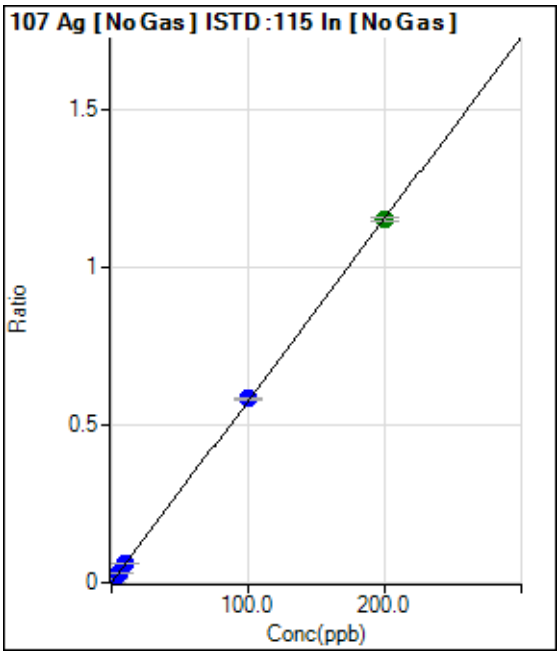


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	56.67	0.0000	P	45.5
2	☐	2.000	1.967	6251.59	0.0049	P	5.3
3	☐	5.000	4.881	15202.32	0.0121	P	2.7
4	☐	10.000	9.948	30812.70	0.0245	P	3.4
5	☐	100.000	98.107	299180.64	0.2415	P	2.1
6	☐	200.000	200.952	594867.13	0.4946	P	2.1

y = 0.0025 * x + 4.4520E-005
R = 0.9999
DL = 0.02468
BEC = 0.01809

Weight: <None>
Min Conc: <None>

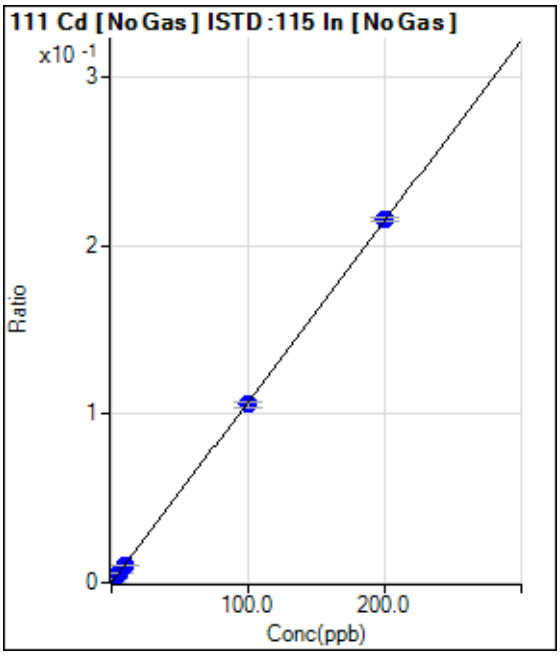
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	110.00	0.0001	P	26.2
2	☐	2.000	1.995	14855.30	0.0116	P	1.4
3	☐	5.000	5.079	37099.06	0.0294	P	0.3
4	☐	10.000	10.404	75609.29	0.0602	P	1.6
5	☐	100.000	101.153	724085.30	0.5843	P	1.1
6	☐	200.000	199.401	1385596.49	1.1518	A	1.0

y = 0.0058 * x + 8.5952E-005
R = 1.0000
DL = 0.01172
BEC = 0.01488

Weight: <None>
Min Conc: <None>

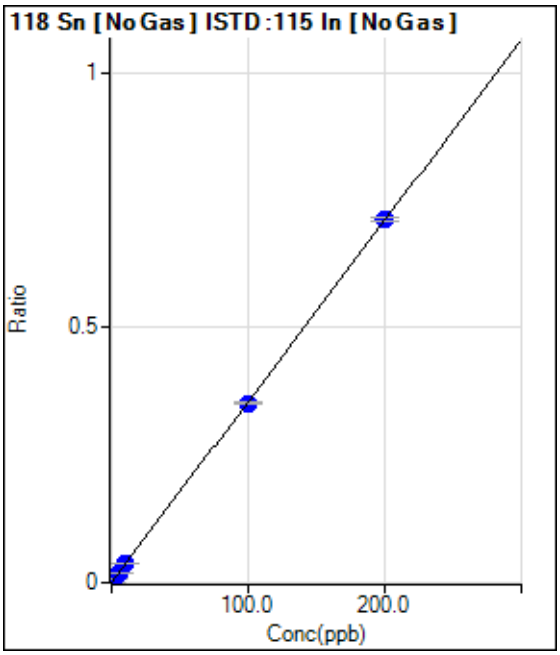


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2.85	0.0000	P	538.2
2	☐	2.000	1.870	2572.08	0.0020	P	2.6
3	☐	5.000	4.923	6666.22	0.0053	P	2.4
4	☐	10.000	9.929	13392.96	0.0107	P	1.7
5	☐	100.000	98.637	131170.54	0.1059	P	2.8
6	☐	200.000	200.688	259127.92	0.2154	P	1.1

y = 0.0011 * x + 2.3352E-006
R = 1.0000
DL = 0.03512
BEC = 0.002176

Weight: <None>
Min Conc: <None>

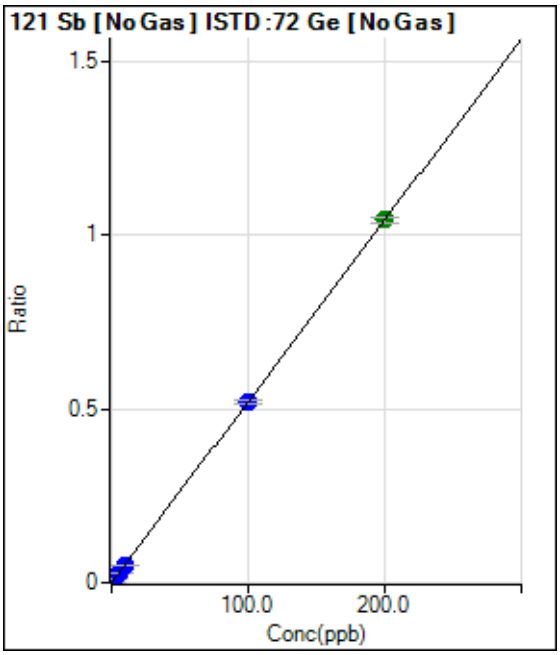
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	613.36	0.0005	P	15.8
2	☐	2.000	2.006	9717.07	0.0076	P	2.5
3	☐	5.000	4.890	22462.87	0.0178	P	2.4
4	☐	10.000	10.053	45382.01	0.0361	P	1.7
5	☐	100.000	99.135	436119.68	0.3519	P	0.9
6	☐	200.000	200.433	855362.12	0.7111	P	0.9

y = 0.0035 * x + 4.7996E-004
R = 1.0000
DL = 0.06422
BEC = 0.1354

Weight: <None>
Min Conc: <None>

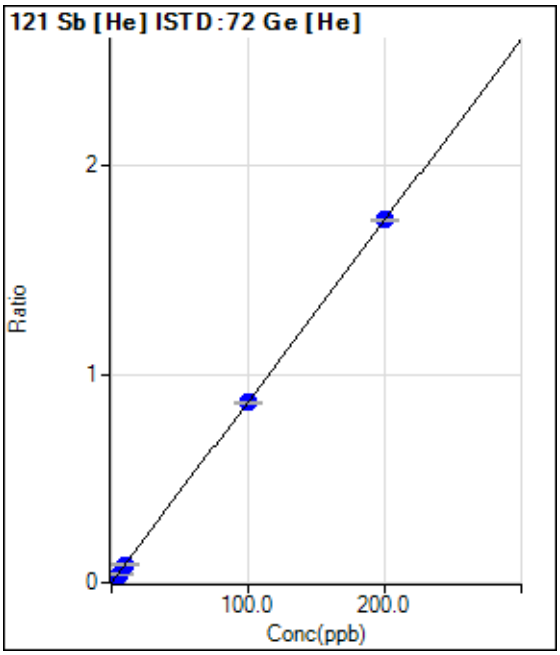


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	143.33	0.0001	P	26.4
2	☐	2.000	1.951	13256.93	0.0103	P	1.5
3	☐	5.000	4.890	32417.10	0.0256	P	2.5
4	☐	10.000	9.898	65198.50	0.0518	P	1.4
5	☐	100.000	99.409	642788.25	0.5188	P	1.9
6	☐	200.000	200.304	1259138.19	1.0452	A	1.6

y = 0.0052 * x + 1.1342E-004
R = 1.0000
DL = 0.01722
BEC = 0.02174

Weight: <None>
Min Conc: <None>

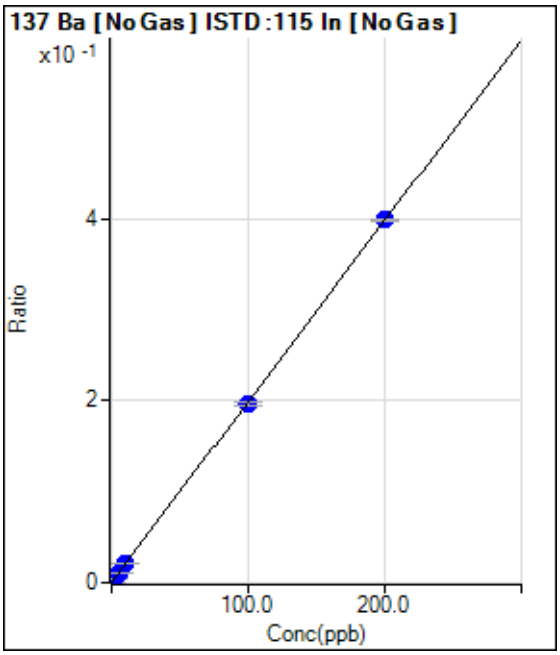
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	53.33	0.0001	P	11.6
2	☐	2.000	1.945	6721.83	0.0170	P	4.3
3	☐	5.000	4.761	16333.79	0.0415	P	3.8
4	☐	10.000	10.066	34385.52	0.0876	P	0.8
5	☐	100.000	99.353	334348.04	0.8631	P	1.4
6	☐	200.000	200.327	659478.90	1.7401	P	0.7

y = 0.0087 * x + 1.3348E-004
R = 1.0000
DL = 0.005346
BEC = 0.01537

Weight: <None>
Min Conc: <None>

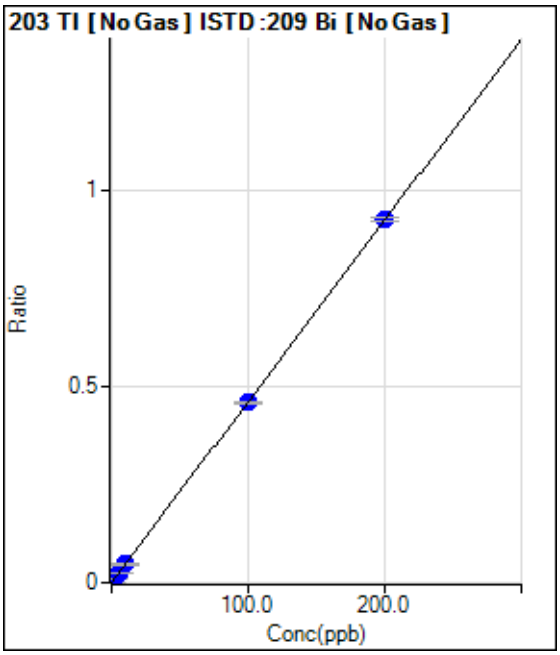


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	373.35	0.0003	P	21.5
2	☐	2.000	2.162	5868.09	0.0046	P	3.6
3	☐	5.000	5.198	13370.39	0.0106	P	3.5
4	☐	10.000	10.228	25859.44	0.0206	P	4.6
5	☐	100.000	98.827	243331.87	0.1964	P	1.5
6	☐	200.000	200.569	479170.97	0.3983	P	0.6

y = 0.0020 * x + 2.9278E-004
R = 1.0000
DL = 0.09525
BEC = 0.1476

Weight: <None>
Min Conc: <None>

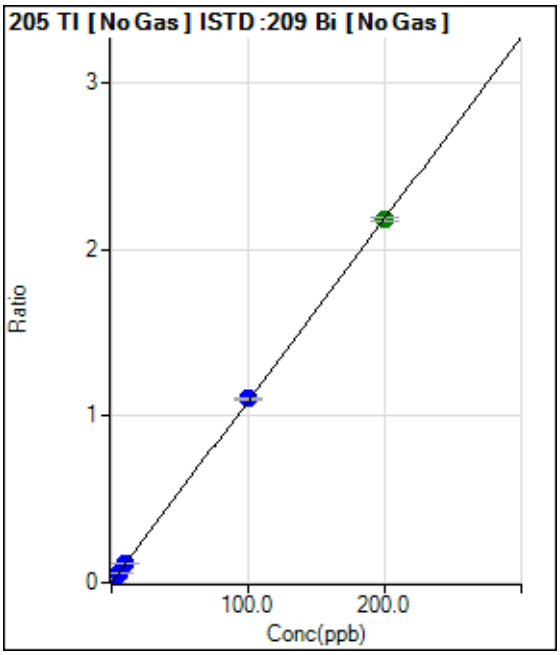
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	66.67	0.0001	P	54.7
2	☐	2.000	1.982	7899.29	0.0092	P	3.2
3	☐	5.000	5.080	20340.19	0.0236	P	2.0
4	☐	10.000	10.121	40369.02	0.0469	P	1.8
5	☐	100.000	99.305	391903.83	0.4593	P	1.1
6	☐	200.000	200.339	772128.69	0.9264	P	1.1

y = 0.0046 * x + 7.6544E-005
R = 1.0000
DL = 0.02718
BEC = 0.01655

Weight: <None>
Min Conc: <None>

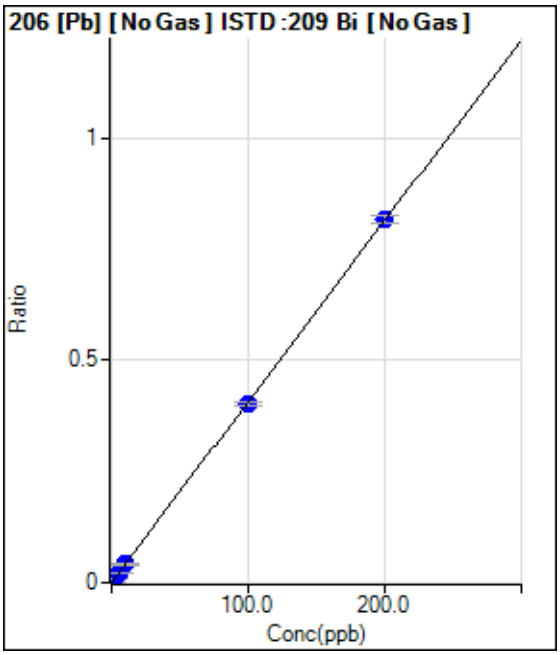


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	136.67	0.0002	P	15.9
2	☐	2.000	1.945	18290.33	0.0214	P	3.2
3	☐	5.000	5.118	48370.52	0.0560	P	2.5
4	☐	10.000	10.303	97008.82	0.1127	P	2.4
5	☐	100.000	100.984	941121.86	1.1028	P	0.8
6	☐	200.000	199.490	1815560.49	2.1785	A	1.2

y = 0.0109 * x + 1.5783E-004
R = 1.0000
DL = 0.006913
BEC = 0.01445

Weight: <None>
Min Conc: <None>

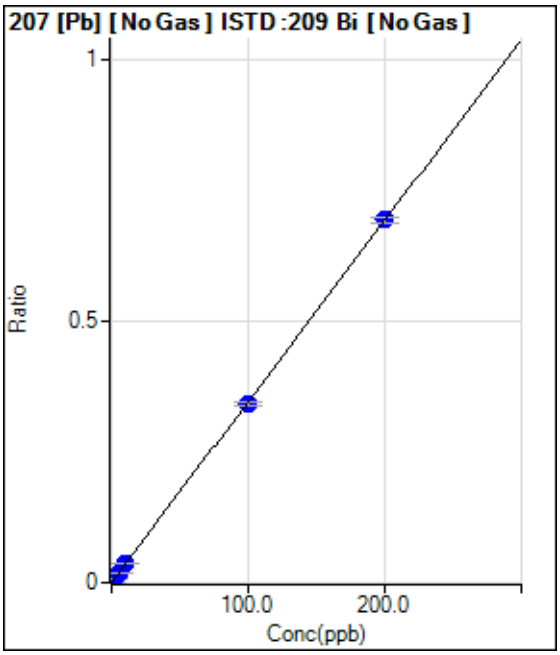
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	310.01	0.0004	P	21.2
2	☐	2.000	2.005	7272.24	0.0085	P	5.7
3	☐	5.000	4.927	17599.39	0.0204	P	3.4
4	☐	10.000	10.026	35414.15	0.0411	P	4.2
5	☐	100.000	98.827	343265.05	0.4023	P	1.4
6	☐	200.000	200.587	680167.49	0.8161	P	2.2

y = 0.0041 * x + 3.5888E-004
R = 1.0000
DL = 0.05605
BEC = 0.08824

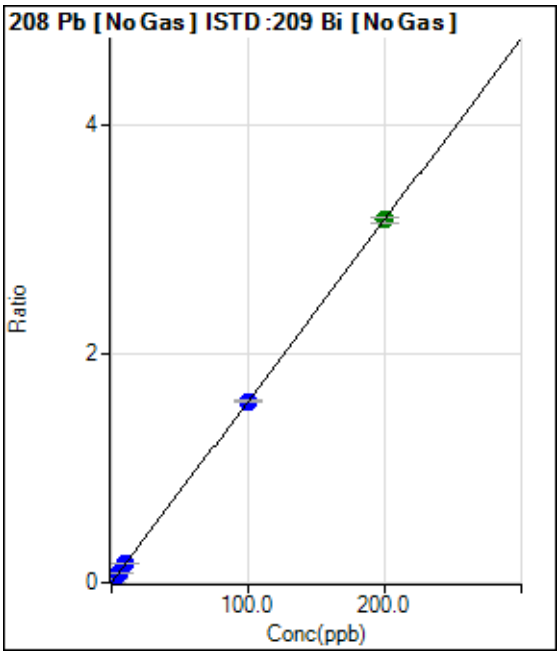
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	190.01	0.0002	P	9.1
2	☐	2.000	1.995	6094.95	0.0071	P	1.7
3	☐	5.000	4.931	14925.89	0.0173	P	3.0
4	☐	10.000	10.263	30791.68	0.0358	P	1.9
5	☐	100.000	99.122	293043.12	0.3434	P	1.9
6	☐	200.000	200.428	578553.12	0.6942	P	1.4

y = 0.0035 * x + 2.1950E-004
R = 1.0000
DL = 0.01727
BEC = 0.06339

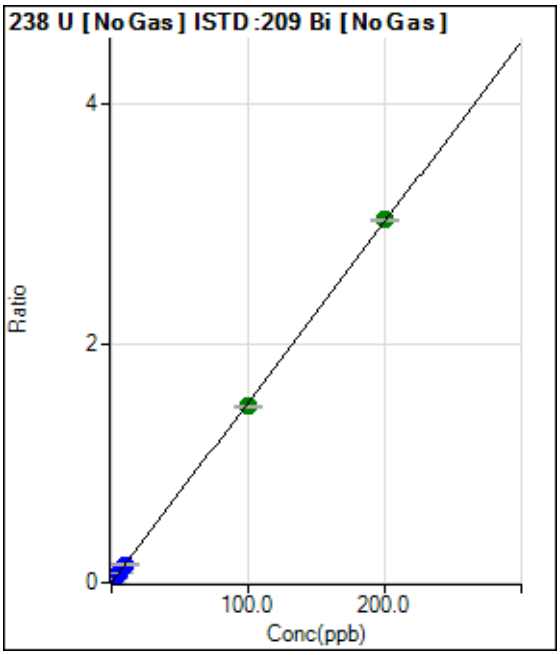
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	970.04	0.0011	P	4.8
2	☐	2.000	1.999	28062.76	0.0328	P	1.0
3	☐	5.000	5.018	69670.99	0.0807	P	1.7
4	☐	10.000	10.281	141402.85	0.1642	P	2.1
5	☐	100.000	100.014	1354714.46	1.5876	P	1.5
6	☐	200.000	199.979	2644668.19	3.1733	A	1.7

y = 0.0159 * x + 0.0011
R = 1.0000
DL = 0.01025
BEC = 0.07067

Weight: <None>
Min Conc: <None>

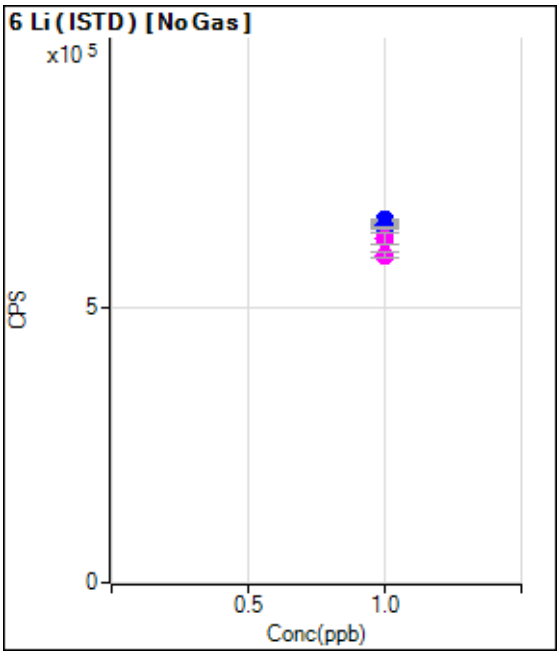


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	20.00	0.0000	P	50.8
2	☐	2.000	1.985	25627.28	0.0300	P	0.4
3	☐	5.000	4.955	64546.65	0.0748	P	3.7
4	☐	10.000	10.088	131129.92	0.1523	P	1.8
5	☐	100.000	97.638	1257475.45	1.4736	A	1.6
6	☐	200.000	201.178	2530505.22	3.0363	A	0.6

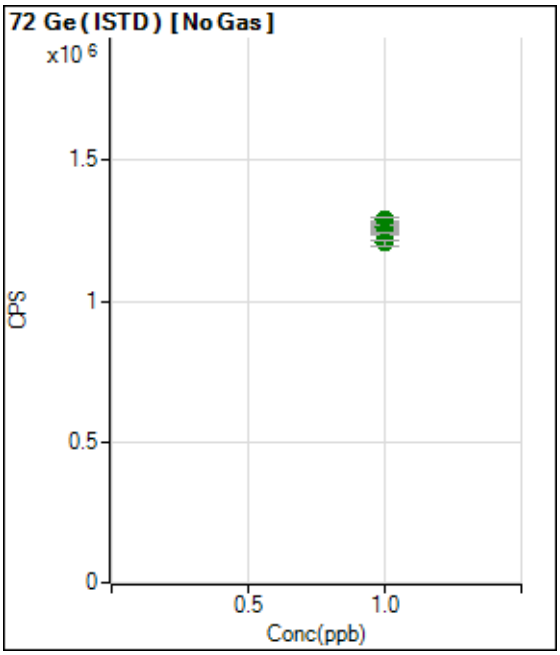
y = 0.0151 * x + 2.3150E-005
R = 0.9999
DL = 0.002338
BEC = 0.001534

Weight: <None>
Min Conc: <None>

Calibration for 031_ICV.d

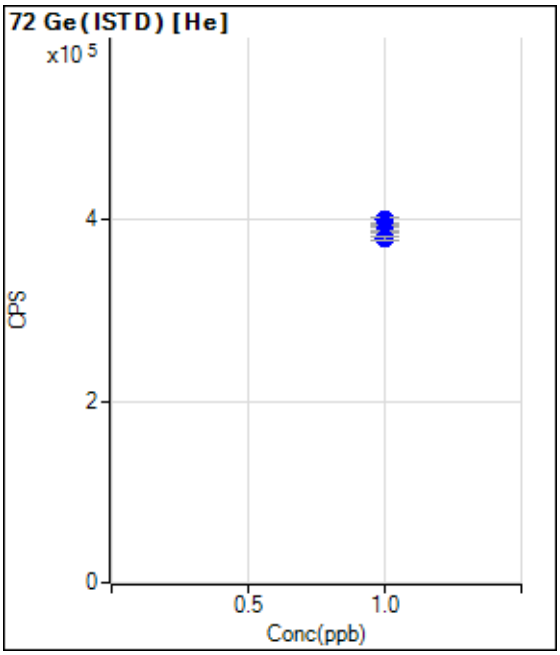


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		660437.16		P	0.6
2	☐	1.000		652226.81		P	0.4
3	☐	1.000		652594.64		P	1.3
4	☐	1.000		646298.60		P	0.7
5	☐	1.000		626127.04		M	3.0
6	☐	1.000		595553.16		M	1.8

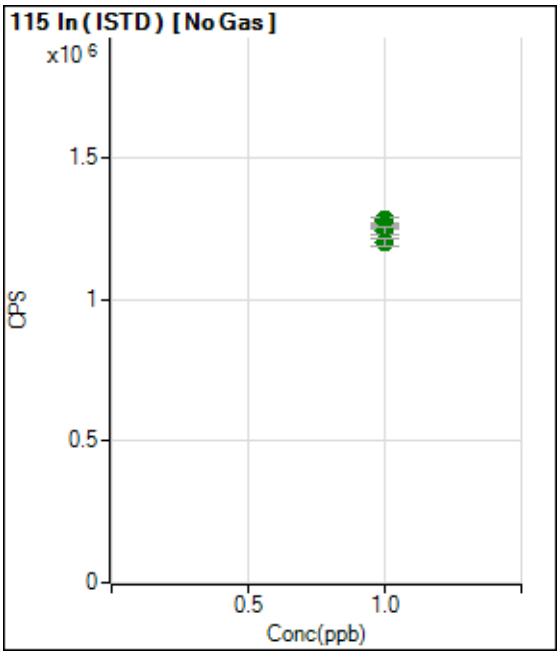


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1268210.66		A	2.1
2	☐	1.000		1287959.96		A	1.7
3	☐	1.000		1265111.85		A	0.5
4	☐	1.000		1259879.25		A	1.2
5	☐	1.000		1239239.41		A	1.0
6	☐	1.000		1204969.15		A	2.2

Calibration for 031_ICV.d

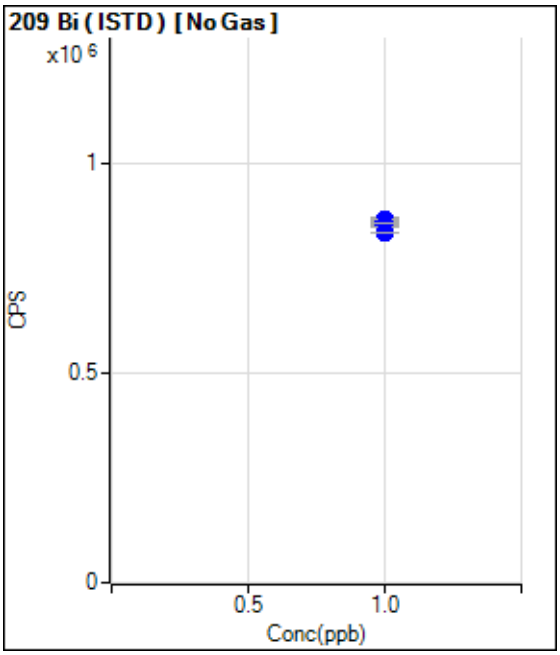


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		399803.20		P	1.6
2	☐	1.000		394813.76		P	1.2
3	☐	1.000		393686.75		P	0.7
4	☐	1.000		392710.28		P	0.5
5	☐	1.000		387407.92		P	0.7
6	☐	1.000		379008.11		P	1.3



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1277170.56		A	1.3
2	☐	1.000		1280079.52		A	1.5
3	☐	1.000		1261000.86		A	1.7
4	☐	1.000		1256559.63		A	1.2
5	☐	1.000		1239303.70		A	2.3
6	☐	1.000		1203081.79		A	2.1

Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		864957.67		P	1.9
2	☐	1.000		854930.95		P	1.8
3	☐	1.000		863335.01		P	2.1
4	☐	1.000		861297.38		P	1.4
5	☐	1.000		853377.41		P	0.8
6	☐	1.000		833427.80		P	0.2

Calibration Blank Report

Sample Table

Sample Name	CAL BLK
Data File Name	024CALB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\031523A.b
Acq Date Time	2023-03-15T11:58:35-05:00
Sample Type	CalBlk
Level	1
Dilution	1
Comment	

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	7	1	No Gas	40321	0.00
Be	9	1	No Gas	17	103.92
V	51	2	He	3585	0.10
Cr	52	2	He	12206	0.04
Fe	56	2	He	13717	0.01
Se	78	2	He	226	4.13
As	75	2	He	214	4.66
Ca	44	2	He	640	1.60
Na	23	2	He	27561	0.01
Mg	24	2	He	750	1.71
K	39	2	He	107768	0.00
Mn	55	2	He	607	2.04
Co	59	2	He	87	46.76
Ni	60	2	He	233	10.60
Cu	63	2	He	1250	0.42
Zn	66	2	He	813	1.53
Al	27	2	He	707	2.14
B	11	1	No Gas	6106	0.04
Al	27	1	No Gas	21197	0.02
Si	28	1	No Gas	440379	0.00
Ag	107	1	No Gas	110	24.79
Cd	111	1	No Gas	3	19648.29
Sr	88	1	No Gas	520	2.67
Mo	95	1	No Gas	57	78.37
Sn	118	1	No Gas	613	2.69
Sb	121	1	No Gas	143	17.09
Ba	137	1	No Gas	373	5.48
Tl	205	1	No Gas	137	12.36
Tl	203	1	No Gas	67	85.18
Pb	208	1	No Gas	970	0.64
U	238	1	No Gas	20	250.00
Ca	43	2	He	13	649.52
Sb	121	2	He	53	20.30
Ti	47	2	He	10	0.00
Cu	63	1	No Gas	2944	0.32

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD

Calibration Blank Report

Li	6	1	No Gas	660437	0.63
Ge	72	2	He	399803	1.57
Ge	72	1	No Gas	1268211	2.05
In	115	1	No Gas	1277171	1.34

Calibration Blank Report

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Bi	209	1	No Gas	864958	1.90

Calibration Standard Report

Sample Table

Sample Name	2/10/200
Data File Name	025CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\031523A.b
Acq Date Time	2023-03-15T12:00:35-05:00
Sample Type	CalStd
Level	2
Dilution	1
Comment	
ISTD Ref File Name	024CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	4968	0.09
V	51	2	He	10959	0.04
Cr	52	2	He	20446	0.01
Fe	56	2	He	719490	0.00
Se	78	2	He	338	0.80
As	75	2	He	1443	0.22
Ca	44	2	He	6318	0.11
Na	23	2	He	166920	0.00
Mg	24	2	He	86333	0.00
K	39	2	He	229272	0.00
Mn	55	2	He	6795	0.10
Co	59	2	He	10154	0.03
Ni	60	2	He	2904	0.09
Cu	63	2	He	7405	0.07
Zn	66	2	He	2304	0.27
Al	27	2	He	1390	1.09
B	11	1	No Gas	18339	0.02
Al	27	1	No Gas	39700	0.01
Si	28	1	No Gas	505955	0.00
Ag	107	1	No Gas	14855	0.01
Cd	111	1	No Gas	2572	0.04
Sr	88	1	No Gas	34789	0.00
Mo	95	1	No Gas	6252	0.06
Sn	118	1	No Gas	9717	0.02
Sb	121	1	No Gas	13257	0.02
Ba	137	1	No Gas	5868	0.08
Tl	205	1	No Gas	18290	0.01
Tl	203	1	No Gas	7899	0.03
Pb	208	1	No Gas	28063	0.00
U	238	1	No Gas	25627	0.01
Ca	43	2	He	317	3.50
Sb	121	2	He	6722	0.05
Cu	63	1	No Gas	16020	0.01

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	652227	0.37	660437	98.76	70	120	
Ge	72	2	He	394814	1.18	399803	98.75	70	120	
Ge	72	1	No Gas	1287960	1.75	1268211	101.56	70	120	

Calibration Standard Report

In	115	1	No Gas	1280080	1.50	1277171	100.23	70	120	
Bi	209	1	No Gas	854931	1.76	864958	98.84	70	120	

Calibration Standard Report

Sample Table

Sample Name	5/25/500
Data File Name	026CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\031523A.b
Acq Date Time	2023-03-15T12:02:34-05:00
Sample Type	CalStd
Level	3
Dilution	1
Comment	
ISTD Ref File Name	024CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	12629	0.03
V	51	2	He	21717	0.01
Cr	52	2	He	32188	0.01
Fe	56	2	He	1731768	0.00
Se	78	2	He	508	0.43
As	75	2	He	3369	0.08
Ca	44	2	He	14575	0.01
Na	23	2	He	379977	0.00
Mg	24	2	He	211252	0.00
K	39	2	He	411953	0.00
Mn	55	2	He	15733	0.03
Co	59	2	He	26095	0.01
Ni	60	2	He	6598	0.08
Cu	63	2	He	17375	0.01
Zn	66	2	He	4224	0.18
Al	27	2	He	2014	0.09
B	11	1	No Gas	36773	0.00
Al	27	1	No Gas	75072	0.01
Si	28	1	No Gas	569400	0.00
Ag	107	1	No Gas	37099	0.00
Cd	111	1	No Gas	6666	0.04
Sr	88	1	No Gas	87569	0.00
Mo	95	1	No Gas	15202	0.02
Sn	118	1	No Gas	22463	0.01
Sb	121	1	No Gas	32417	0.01
Ba	137	1	No Gas	13370	0.01
Tl	205	1	No Gas	48371	0.00
Tl	203	1	No Gas	20340	0.01
Pb	208	1	No Gas	69671	0.00
U	238	1	No Gas	64547	0.00
Ca	43	2	He	860	3.25
Sb	121	2	He	16334	0.02
Cu	63	1	No Gas	36045	0.00

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	652595	1.34	660437	98.81	70	120	
Ge	72	2	He	393687	0.69	399803	98.47	70	120	
Ge	72	1	No Gas	1265112	0.53	1268211	99.76	70	120	

Calibration Standard Report

In	115	1	No Gas	1261001	1.66	1277171	98.73	70	120	
Bi	209	1	No Gas	863335	2.08	864958	99.81	70	120	

Calibration Standard Report

Sample Table

Sample Name	10/50/100
Data File Name	027CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\031523A.b
Acq Date Time	2023-03-15T12:04:33-05:00
Sample Type	CalStd
Level	4
Dilution	1
Comment	
ISTD Ref File Name	024CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	25158	0.00
V	51	2	He	40000	0.00
Cr	52	2	He	52832	0.00
Fe	56	2	He	3405486	0.00
Se	78	2	He	877	0.65
As	75	2	He	6863	0.02
Ca	44	2	He	28547	0.00
Na	23	2	He	726705	0.00
Mg	24	2	He	425904	0.00
K	39	2	He	719688	0.00
Mn	55	2	He	31076	0.00
Co	59	2	He	50976	0.00
Ni	60	2	He	13207	0.03
Cu	63	2	He	35109	0.01
Zn	66	2	He	7519	0.05
Al	27	2	He	3447	0.13
B	11	1	No Gas	67955	0.00
Al	27	1	No Gas	114822	0.00
Si	28	1	No Gas	692660	0.00
Ag	107	1	No Gas	75609	0.00
Cd	111	1	No Gas	13393	0.01
Sr	88	1	No Gas	171978	0.00
Mo	95	1	No Gas	30813	0.01
Sn	118	1	No Gas	45382	0.00
Sb	121	1	No Gas	65198	0.00
Ba	137	1	No Gas	25859	0.01
Tl	205	1	No Gas	97009	0.00
Tl	203	1	No Gas	40369	0.00
Pb	208	1	No Gas	141403	0.00
U	238	1	No Gas	131130	0.00
Ca	43	2	He	1797	0.45
Sb	121	2	He	34386	0.00
Cu	63	1	No Gas	73747	0.00

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	646299	0.68	660437	97.86	70	120	
Ge	72	2	He	392710	0.50	399803	98.23	70	120	
Ge	72	1	No Gas	1259879	1.16	1268211	99.34	70	120	

Calibration Standard Report

In	115	1	No Gas	1256560	1.24	1277171	98.39	70	120	
Bi	209	1	No Gas	861297	1.39	864958	99.58	70	120	

Calibration Standard Report

Sample Table

Sample Name	100/500/10K
Data File Name	028CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\031523A.b
Acq Date Time	2023-03-15T12:06:32-05:00
Sample Type	CalStd
Level	5
Dilution	1
Comment	
ISTD Ref File Name	024CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	246222	0.00
V	51	2	He	351953	0.00
Cr	52	2	He	386982	0.00
Fe	56	2	He	32410837	0.00
Se	78	2	He	6077	0.02
As	75	2	He	63136	0.00
Ca	44	2	He	269143	0.00
Na	23	2	He	6292377	0.00
Mg	24	2	He	3803597	0.00
K	39	2	He	5659508	0.00
Mn	55	2	He	296074	0.00
Co	59	2	He	482356	0.00
Ni	60	2	He	118371	0.00
Cu	63	2	He	301775	0.00
Zn	66	2	He	65337	0.00
Al	27	2	He	26666	0.01
B	11	1	No Gas	609492	0.00
Al	27	1	No Gas	967334	0.00
Si	28	1	No Gas	2905485	0.00
Ag	107	1	No Gas	724085	0.00
Cd	111	1	No Gas	131171	0.00
Sr	88	1	No Gas	1605213	0.00
Mo	95	1	No Gas	299181	0.00
Sn	118	1	No Gas	436120	0.00
Sb	121	1	No Gas	642788	0.00
Ba	137	1	No Gas	243332	0.00
Tl	205	1	No Gas	941122	0.00
Tl	203	1	No Gas	391904	0.00
Pb	208	1	No Gas	1354714	0.00
U	238	1	No Gas	1257475	0.00
Ca	43	2	He	15629	0.01
Sb	121	2	He	334348	0.00
Cu	63	1	No Gas	631844	0.00

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	626127	2.96	660437	94.80	70	120	
Ge	72	2	He	387408	0.71	399803	96.90	70	120	
Ge	72	1	No Gas	1239239	0.99	1268211	97.72	70	120	

Calibration Standard Report

In	115	1	No Gas	1239304	2.26	1277171	97.04	70	120	
Bi	209	1	No Gas	853377	0.83	864958	98.66	70	120	

Calibration Standard Report

Sample Table

Sample Name	200/1000/20K
Data File Name	029CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\031523A.b
Acq Date Time	2023-03-15T12:08:29-05:00
Sample Type	CalStd
Level	6
Dilution	1
Comment	
ISTD Ref File Name	024CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	484232	0.00
V	51	2	He	686541	0.00
Cr	52	2	He	741165	0.00
Fe	56	2	He	62937791	0.00
Se	78	2	He	11493	0.01
As	75	2	He	123582	0.00
Ca	44	2	He	526935	0.00
Na	23	2	He	12277976	0.00
Mg	24	2	He	7282762	0.00
K	39	2	He	10870934	0.00
Mn	55	2	He	570805	0.00
Co	59	2	He	937985	0.00
Ni	60	2	He	229588	0.00
Cu	63	2	He	578557	0.00
Zn	66	2	He	127872	0.00
Al	27	2	He	51586	0.00
B	11	1	No Gas	1222636	0.00
Al	27	1	No Gas	1809604	0.00
Si	28	1	No Gas	5097516	0.00
Ag	107	1	No Gas	1385596	0.00
Cd	111	1	No Gas	259128	0.00
Sr	88	1	No Gas	3154269	0.00
Mo	95	1	No Gas	594867	0.00
Sn	118	1	No Gas	855362	0.00
Sb	121	1	No Gas	1259138	0.00
Ba	137	1	No Gas	479171	0.00
Tl	205	1	No Gas	1815560	0.00
Tl	203	1	No Gas	772129	0.00
Pb	208	1	No Gas	2644668	0.00
U	238	1	No Gas	2530505	0.00
Ca	43	2	He	31072	0.01
Sb	121	2	He	659479	0.00
Cu	63	1	No Gas	1209372	0.00

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	595553	1.75	660437	90.18	70	120	
Ge	72	2	He	379008	1.29	399803	94.80	70	120	
Ge	72	1	No Gas	1204969	2.25	1268211	95.01	70	120	

Calibration Standard Report

In	115	1	No Gas	1203082	2.11	1277171	94.20	70	120	
Bi	209	1	No Gas	833428	0.18	864958	96.35	70	120	

Initial Calibration Verification (ICV) Report

Sample Table

Sample Name	ICV
Data File Name	031_ICV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\031523A.b
Acq Date Time	2023-03-15T12:12:38-05:00
Sample Type	ICV
Dilution	1
Comment	
ISTD Ref File Name	024CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	1	No Gas	97.070	1.026	891427	1.51	100	97.1	90	110	
Be	9	1	No Gas	96.644	1.010	245691	0.49	100	96.6	90	110	
V	51	2	He	98.275	0.354	350263	0.58	100	98.3	90	110	
Cr	52	2	He	98.067	0.994	382152	1.17	100	98.1	90	110	
Fe	56	2	He	9938.518	1.616	32374875	1.52	10000	99.4	90	110	
Se	78	2	He	98.458	1.699	5978	1.28	100	98.5	90	110	
As	75	2	He	102.239	1.070	65358	0.28	100	102.2	90	110	
Ca	44	2	He	9882.987	0.642	269279	0.46	10000	98.8	90	110	
Na	23	2	He	10123.708	1.785	6437066	0.87	10000	101.2	90	110	
Mg	24	2	He	10112.359	0.718	3823214	0.19	10000	101.1	90	110	
K	39	2	He	10186.040	2.611	5783886	1.73	10000	101.9	90	110	
Mn	55	2	He	100.403	1.652	297211	0.96	100	100.4	90	110	
Co	59	2	He	100.180	1.527	486184	1.12	100	100.2	90	110	
Ni	60	2	He	101.171	0.985	120331	0.19	100	101.2	90	110	
Cu	63	2	He	101.923	2.138	306483	2.22	100	101.9	90	110	
Zn	66	2	He	101.836	1.002	67585	0.82	100	101.8	90	110	
Al	27	2	He	102.098	2.156	27544	2.02	100	102.1	90	110	
B	11	1	No Gas	476.172	1.085	611529	1.81	500	95.2	90	110	
Al	27	1	No Gas	101.203	5.586	955682	2.41	100	101.2	90	110	
Si	28	1	No Gas	506.051	4.493	2876074	1.50	500	101.2	90	110	
Ag	107	1	No Gas	99.877	1.206	717208	1.20	100	99.9	90	110	
Cd	111	1	No Gas	98.329	0.567	131204	1.35	100	98.3	90	110	
Sr	88	1	No Gas	97.252	0.839	1581789	1.14	100	97.3	90	110	
Mo	95	1	No Gas	95.857	1.830	293261	0.46	100	95.9	90	110	
Sn	118	1	No Gas	97.681	0.688	431067	0.85	100	97.7	90	110	
Sb	121	1	No Gas	100.505	2.564	649031	0.60	100	100.5	90	110	
Ba	137	1	No Gas	99.376	1.945	245452	1.00	100	99.4	90	110	
Tl	205	1	No Gas	104.707	0.977	972200	0.70	100	104.7	90	110	
Tl	203	1	No Gas	102.531	0.697	403154	0.58	100	102.5	90	110	
Pb	208	1	No Gas	100.232	0.822	1352727	0.51	100	100.2	90	110	
U	238	1	No Gas	98.905	1.034	1269109	0.50	100	98.9	90	110	
Ca	43	2	He	9718.291	2.075	15559	2.30	10000	97.2	90	110	
Sb	121	2	He	101.436	0.940	345075	1.05	100	101.4	90	110	
Ti	47	2	He	100.685	1.677	14855	2.34	100	100.7	90	110	
Cu	63	1	No Gas	102.197	2.217	638097	0.98	100	102.2	90	110	
Se	82	1	No Gas	99.555	5.300	10326	2.27	100	99.6	90	110	

QC ISTD Table

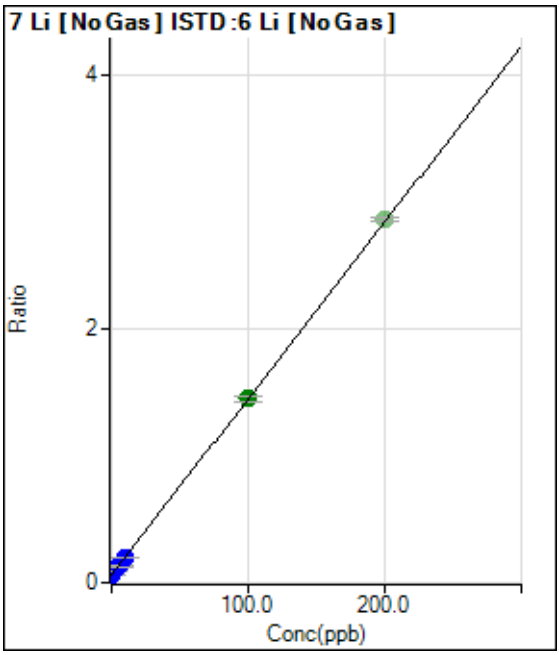
Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	629432	1.28	660437	95.31	70	120	
Ge	72	2	He	391616	0.90	399803	97.95	70	120	
Ge	72	1	No Gas	1238149	3.17	1268211	97.63	70	120	
In	115	1	No Gas	1243129	1.53	1277171	97.33	70	120	
Bi	209	1	No Gas	850242	0.91	864958	98.30	70	120	

Calibration for 031_ICV.d

Batch Folder: C:\Agilent\ICPMH\1\DATA\031523A.b\
Analysis File: 031523A.batch.bin
DA Date-Time: 3/15/2023 12:19:21 PM
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	024CALB.d	CAL BLK	3/15/2023 11:58:35 AM
2	025CALS.d	2/10/200	3/15/2023 12:00:35 PM
3	026CALS.d	5/25/500	3/15/2023 12:02:34 PM
4	027CALS.d	10/50/100	3/15/2023 12:04:33 PM
5	028CALS.d	100/500/10K	3/15/2023 12:06:32 PM
6	029CALS.d	200/1000/20K	3/15/2023 12:08:29 PM

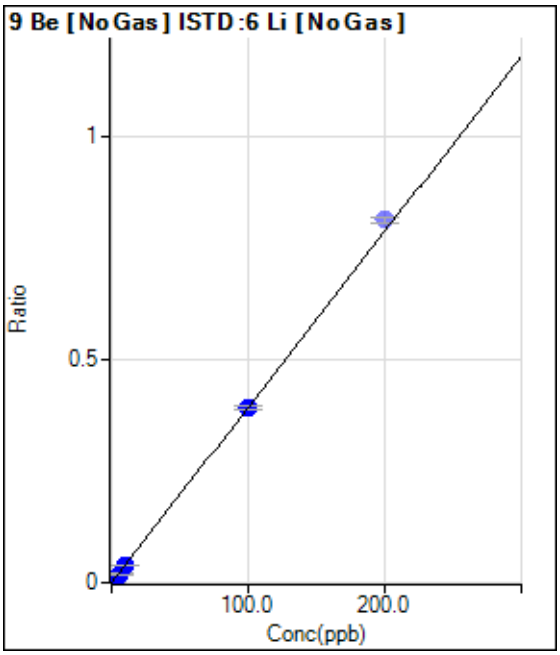
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	40320.95	0.0611	P	0.9
2	☐	2.000	2.047	58355.33	0.0895	P	1.8
3	☐	5.000	4.928	84465.06	0.1294	P	1.5
4	☐	10.000	9.864	127935.19	0.1980	P	0.4
5	☐	100.000	100.016	906816.37	1.4492	A	3.2
6	☑	200.000		1701567.01	2.8574	A	0.9

y = 0.0139 * x + 0.0611
R = 1.0000
DL = 0.1212
BEC = 4.399

Weight: <None>
Min Conc: <None>

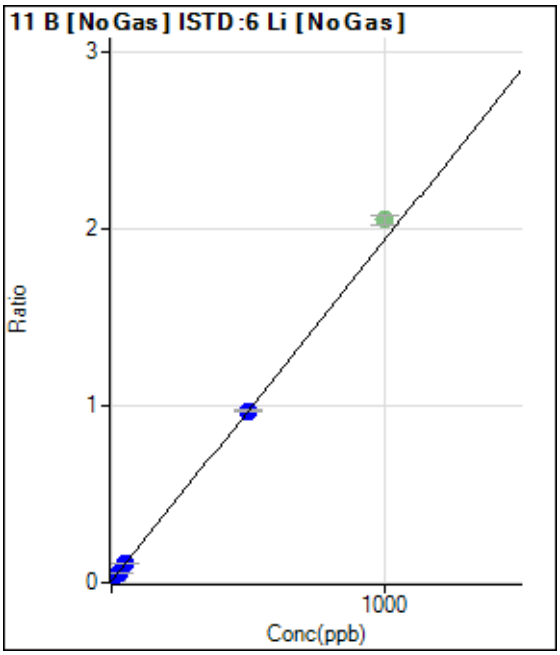


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16.67	0.0000	P	18.0
2	☐	2.000	1.930	4967.58	0.0076	P	4.0
3	☐	5.000	4.917	12629.06	0.0194	P	5.6
4	☐	10.000	9.892	25157.54	0.0389	P	1.5
5	☐	100.000	100.016	246221.56	0.3934	P	2.0
6	☑	200.000		484231.77	0.8132	P	1.8

y = 0.0039 * x + 2.5254E-005
R = 1.0000
DL = 0.00346
BEC = 0.006421

Weight: <None>
Min Conc: <None>

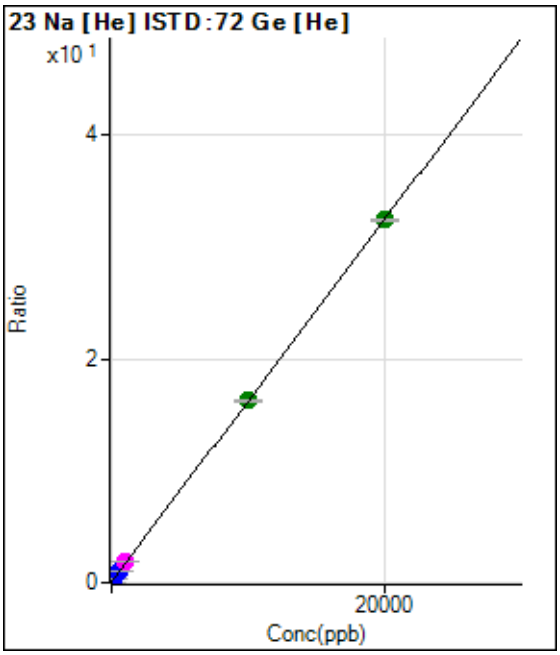
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6106.37	0.0092	P	2.2
2	☐	10.000	9.785	18338.72	0.0281	P	3.2
3	☐	25.000	24.432	36773.16	0.0564	P	3.0
4	☐	50.000	49.731	67955.18	0.1052	P	1.4
5	☐	500.000	500.060	609491.51	0.9736	P	1.7
6	☑	1000.000		1222636.34	2.0535	A	2.6

y = 0.0019 * x + 0.0092
R = 1.0000
DL = 0.3106
BEC = 4.794

Weight: <None>
Min Conc: <None>

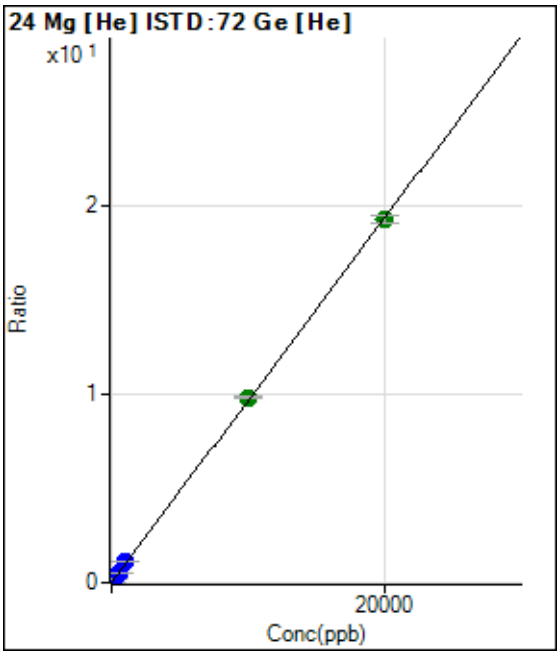


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	27560.91	0.0689	P	1.6
2	☐	200.000	218.861	166919.60	0.4228	P	1.8
3	☐	500.000	554.280	379976.73	0.9652	P	1.1
4	☐	1000.000	1101.736	726704.99	1.8504	M	0.8
5	☐	10000.00	10002.29	6292377.41	16.2426	A	0.9
6	☐	20000.00	19992.22	12277975.6	32.3963	A	0.5

y = 0.0016 * x + 0.0689
R = 1.0000
DL = 2.109
BEC = 42.63

Weight: <None>
Min Conc: <None>

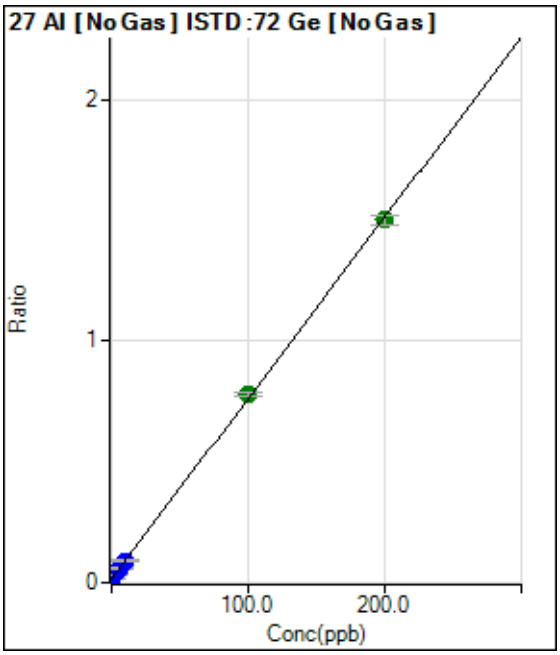
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	750.04	0.0019	P	14.2
2	☐	200.000	224.612	86332.98	0.2187	P	1.4
3	☐	500.000	553.965	211252.21	0.5366	P	1.0
4	☐	1000.000	1121.641	425904.50	1.0846	P	1.2
5	☐	10000.00	10169.42	3803597.24	9.8182	A	0.4
6	☐	20000.00	19907.61	7282762.39	19.2182	A	1.9

y = 9.6527E-004 * x + 0.0019
R = 0.9999
DL = 0.8318
BEC = 1.946

Weight: <None>
Min Conc: <None>

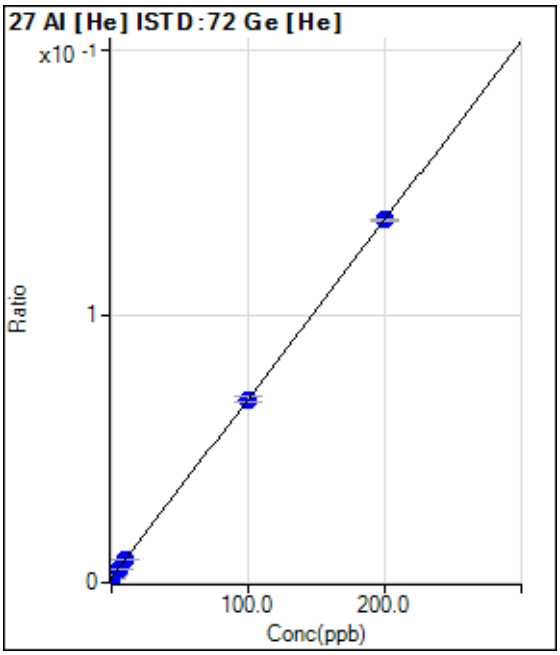


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	21196.56	0.0167	P	5.1
2	☐	2.000	1.888	39700.37	0.0308	P	1.2
3	☐	5.000	5.707	75072.11	0.0594	P	10.4
4	☐	10.000	9.964	114821.86	0.0912	P	3.0
5	☐	100.000	102.259	967334.44	0.7806	A	2.4
6	☐	200.000	198.856	1809603.78	1.5023	A	2.3

y = 0.0075 * x + 0.0167
R = 0.9999
DL = 0.3409
BEC = 2.238

Weight: <None>
Min Conc: <None>

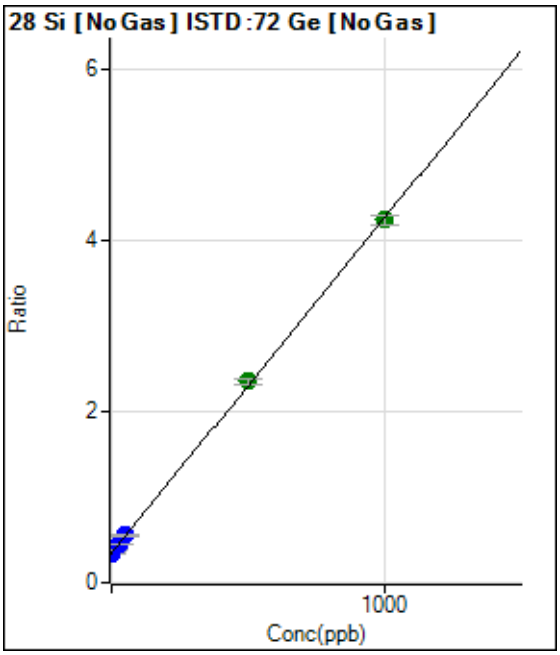
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	706.70	0.0018	P	16.5
2	☐	2.000	2.612	1390.09	0.0035	P	16.3
3	☐	5.000	4.980	2013.51	0.0051	P	2.3
4	☐	10.000	10.432	3447.17	0.0088	P	4.0
5	☐	100.000	99.864	26665.80	0.0688	P	2.9
6	☐	200.000	200.041	51585.76	0.1361	P	0.8

y = 6.7159E-004 * x + 0.0018
R = 1.0000
DL = 1.307
BEC = 2.636

Weight: <None>
Min Conc: <None>

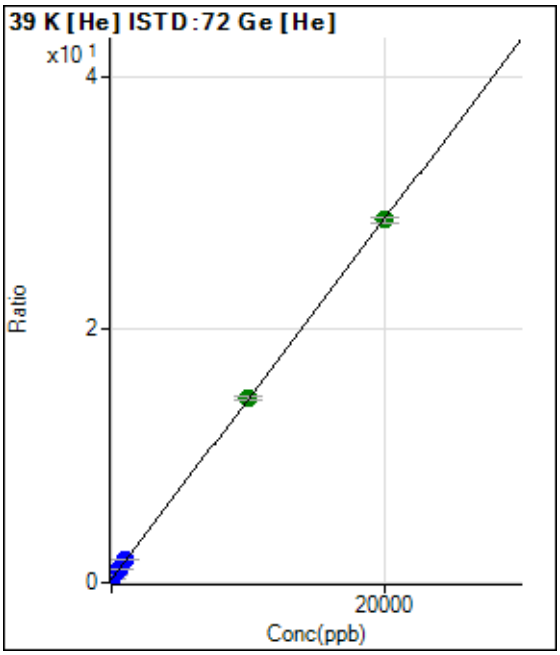


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	440379.29	0.3473	P	2.1
2	☐	10.000	11.678	505955.01	0.3930	P	4.8
3	☐	25.000	26.297	569399.86	0.4501	P	0.6
4	☐	50.000	51.827	692660.07	0.5498	P	1.2
5	☐	500.000	511.290	2905484.75	2.3451	A	3.3
6	☐	1000.000	994.214	5097516.38	4.2320	A	2.5

y = 0.0039 * x + 0.3473
R = 0.9999
DL = 5.615
BEC = 88.9

Weight: <None>
Min Conc: <None>

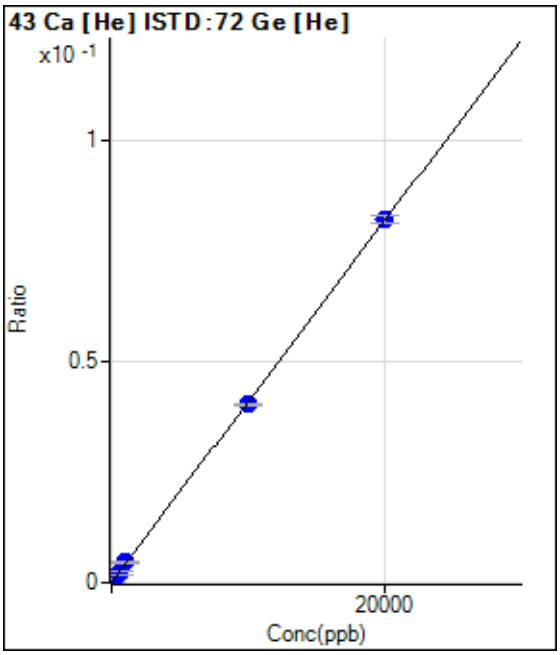
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	107767.92	0.2696	P	2.2
2	☐	200.000	218.563	229272.42	0.5808	P	1.6
3	☐	500.000	545.595	411953.07	1.0464	P	0.6
4	☐	1000.000	1097.878	719688.11	1.8327	P	0.7
5	☐	10000.00	10072.58	5659508.04	14.6099	A	2.2
6	☐	20000.00	19957.49	10870933.5	28.6830	A	1.4

y = 0.0014 * x + 0.2696
R = 1.0000
DL = 12.71
BEC = 189.4

Weight: <None>
Min Conc: <None>

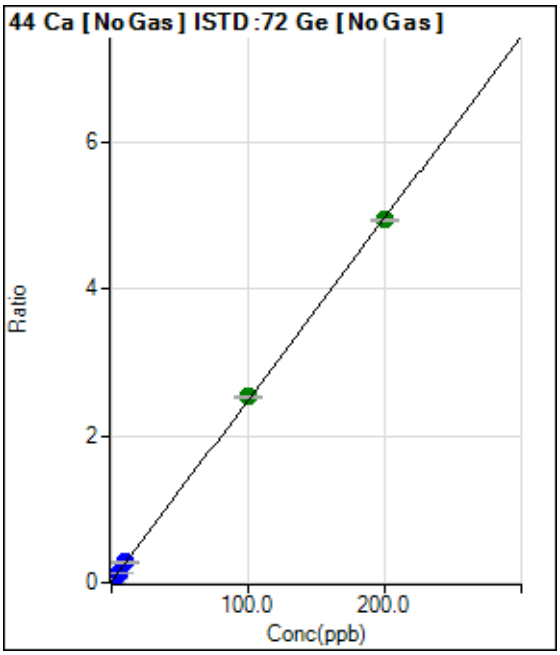


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	13.33	0.0000	P	86.6
2	☐	200.000	188.284	316.68	0.0008	P	12.1
3	☐	500.000	526.607	860.05	0.0022	P	27.9
4	☐	1000.000	1111.806	1796.81	0.0046	P	7.9
5	☐	10000.00	9868.496	15629.21	0.0403	P	1.0
6	☐	20000.00	20059.61	31072.07	0.0820	P	2.1

y = 4.0847E-006 * x + 3.3654E-005
R = 0.9999
DL = 21.41
BEC = 8.239

Weight: <None>
Min Conc: <None>

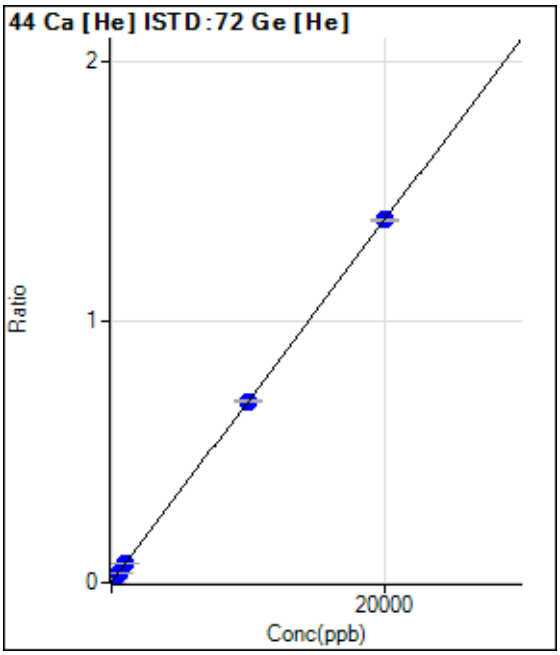
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16213.12	0.0128	P	3.7
2	☐	2.000	2.090	83177.26	0.0646	P	0.8
3	☐	5.000	5.234	180279.88	0.1425	P	2.2
4	☐	10.000	10.633	348096.18	0.2763	P	1.4
5	☐	100.000	101.693	3138881.52	2.5332	A	1.8
6	☐	200.000	199.115	5961550.95	4.9477	A	0.4

y = 0.0248 * x + 0.0128
R = 0.9999
DL = 0.05705
BEC = 0.516

Weight: <None>
Min Conc: <None>

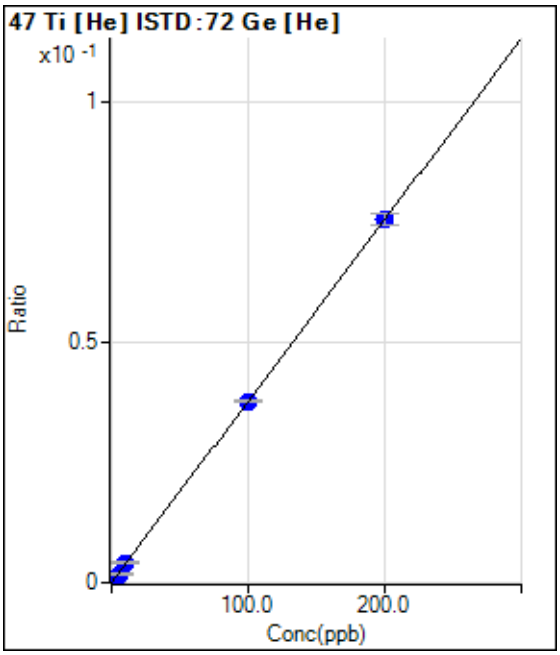


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	640.03	0.0016	P	11.6
2	☐	200.000	207.547	6318.24	0.0160	P	7.5
3	☐	500.000	510.233	14574.60	0.0370	P	0.3
4	☐	1000.000	1024.138	28546.54	0.0727	P	1.1
5	☐	10000.00	9985.707	269142.67	0.6948	P	1.4
6	☐	20000.00	20005.60	526934.82	1.3903	P	0.3

y = 6.9415E-005 * x + 0.0016
R = 1.0000
DL = 8.013
BEC = 23.09

Weight: <None>
Min Conc: <None>

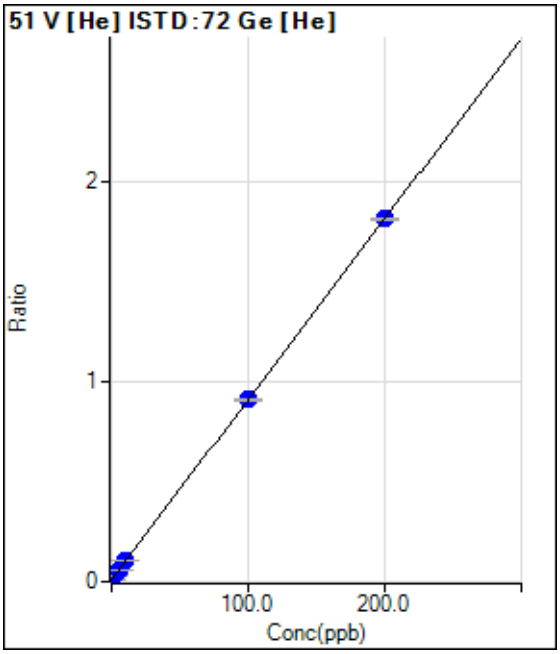
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	10.00	0.0000	P	1.6
2	☐	2.000	2.020	310.01	0.0008	P	4.3
3	☐	5.000	4.588	690.03	0.0018	P	7.0
4	☐	10.000	10.843	1613.46	0.0041	P	13.9
5	☐	100.000	99.890	14577.98	0.0376	P	1.2
6	☐	200.000	200.023	28553.36	0.0753	P	3.0

y = 3.7647E-004 * x + 2.5016E-005
R = 1.0000
DL = 0.003109
BEC = 0.06645

Weight: <None>
Min Conc: <None>

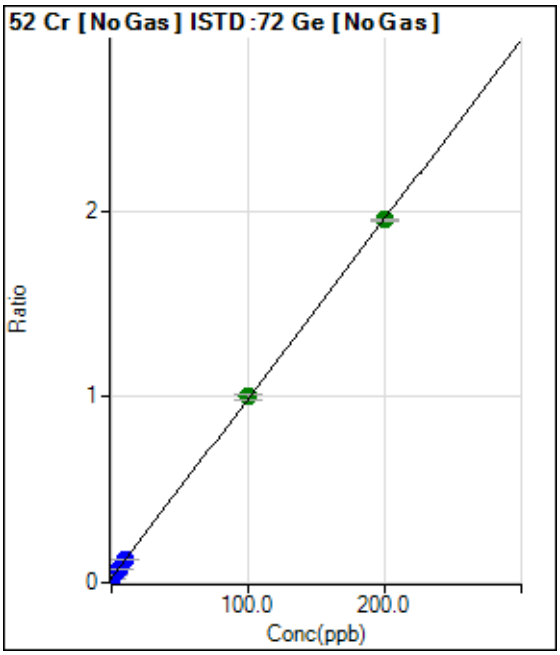


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3584.94	0.0090	P	3.7
2	☐	2.000	2.086	10958.88	0.0278	P	4.4
3	☐	5.000	5.128	21717.25	0.0552	P	1.9
4	☐	10.000	10.310	40000.40	0.1019	P	0.8
5	☐	100.000	99.839	351952.89	0.9085	P	0.6
6	☐	200.000	200.061	686540.89	1.8115	P	0.7

y = 0.0090 * x + 0.0090
R = 1.0000
DL = 0.1113
BEC = 0.9954

Weight: <None>
Min Conc: <None>

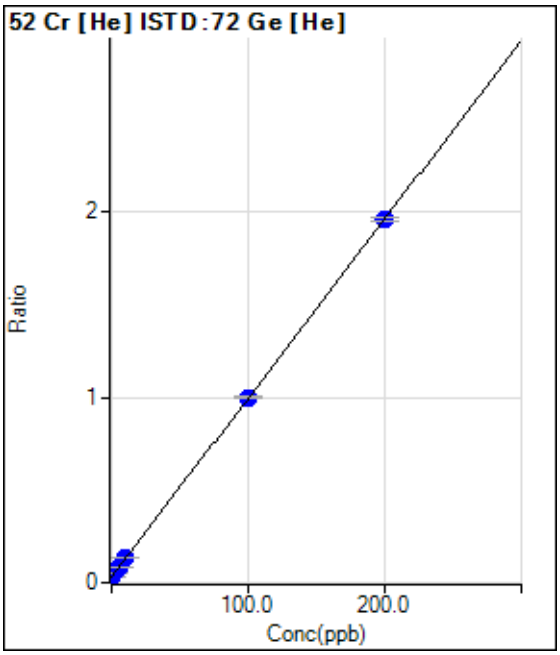
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	31045.65	0.0245	P	4.0
2	☐	2.000	1.834	54398.43	0.0422	P	1.7
3	☐	5.000	5.017	92387.49	0.0730	P	1.0
4	☐	10.000	10.165	154724.08	0.1228	P	2.2
5	☐	100.000	100.877	1239597.74	1.0004	A	2.7
6	☐	200.000	199.555	2355630.54	1.9551	A	0.5

y = 0.0097 * x + 0.0245
R = 1.0000
DL = 0.3005
BEC = 2.532

Weight: <None>
Min Conc: <None>

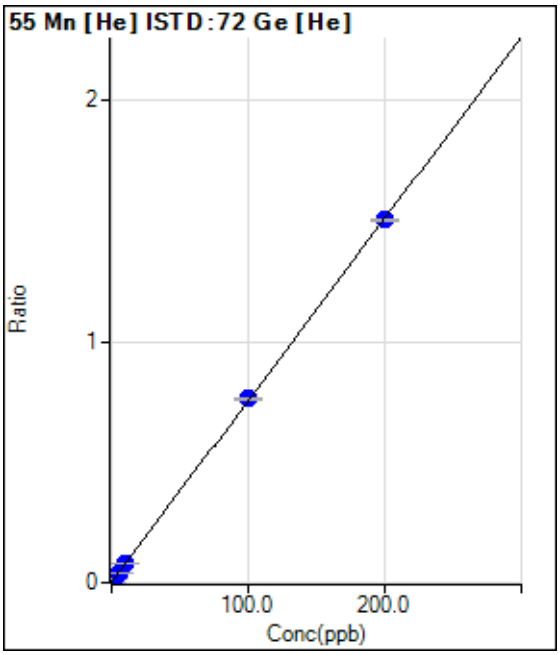


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	12205.66	0.0305	P	6.4
2	☐	2.000	2.203	20445.59	0.0518	P	1.0
3	☐	5.000	5.313	32188.15	0.0818	P	1.6
4	☐	10.000	10.788	52832.05	0.1345	P	2.2
5	☐	100.000	100.462	386981.57	0.9989	P	0.8
6	☐	200.000	199.720	741164.68	1.9557	P	1.2

y = 0.0096 * x + 0.0305
R = 1.0000
DL = 0.6092
BEC = 3.169

Weight: <None>
Min Conc: <None>

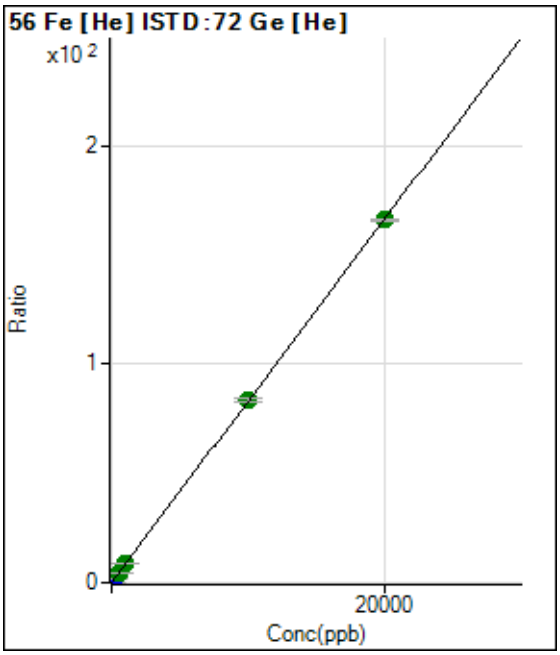
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	606.69	0.0015	P	12.4
2	☐	2.000	2.082	6795.14	0.0172	P	7.7
3	☐	5.000	5.095	15732.64	0.0400	P	4.6
4	☐	10.000	10.288	31075.70	0.0791	P	0.5
5	☐	100.000	101.102	296073.59	0.7643	P	1.0
6	☐	200.000	199.431	570805.29	1.5061	P	0.6

y = 0.0075 * x + 0.0015
R = 1.0000
DL = 0.07475
BEC = 0.2011

Weight: <None>
Min Conc: <None>

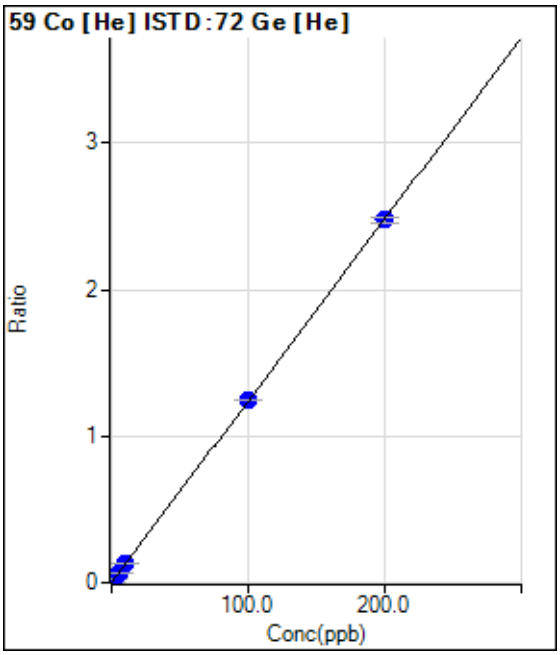


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	13717.13	0.0343	P	2.5
2	☐	200.000	215.053	719490.41	1.8225	P	0.9
3	☐	500.000	524.882	1731767.89	4.3987	A	0.7
4	☐	1000.000	1038.764	3405485.99	8.6716	A	0.4
5	☐	10000.00	10057.92	32410837.0	83.6660	A	1.6
6	☐	20000.00	19968.32	62937790.7	166.071	A	0.8

y = 0.0083 * x + 0.0343
R = 1.0000
DL = 0.3051
BEC = 4.127

Weight: <None>
Min Conc: <None>

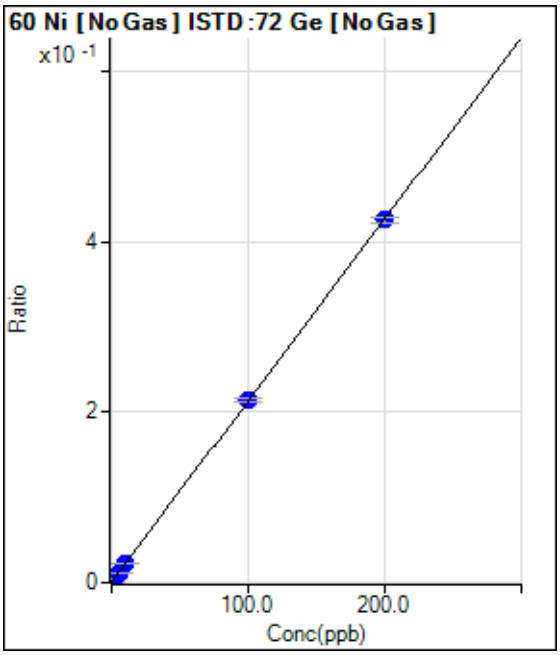
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	86.67	0.0002	P	39.3
2	☐	2.000	2.058	10153.95	0.0257	P	1.4
3	☐	5.000	5.332	26095.29	0.0663	P	1.3
4	☐	10.000	10.459	50975.61	0.1298	P	1.9
5	☐	100.000	100.469	482356.20	1.2451	P	0.9
6	☐	200.000	199.734	937984.96	2.4751	P	1.5

y = 0.0124 * x + 2.1611E-004
R = 1.0000
DL = 0.02057
BEC = 0.01744

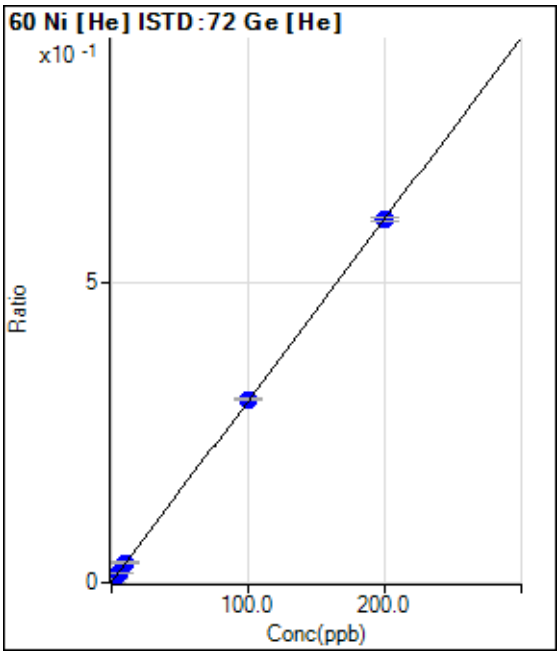
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	800.04	0.0006	P	11.7
2	☐	2.000	2.036	6394.95	0.0050	P	2.3
3	☐	5.000	5.339	15175.42	0.0120	P	1.7
4	☐	10.000	10.367	28597.12	0.0227	P	2.5
5	☐	100.000	100.553	266012.54	0.2147	P	2.8
6	☐	200.000	199.696	512924.94	0.4258	P	1.4

y = 0.0021 * x + 6.3023E-004
R = 1.0000
DL = 0.1042
BEC = 0.296

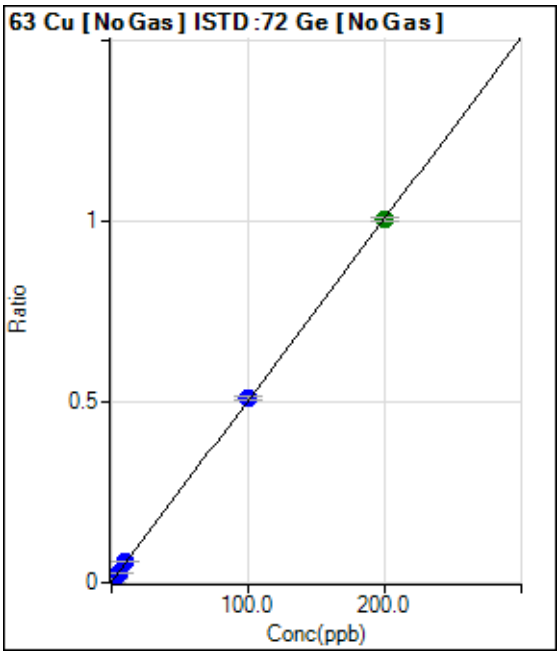
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	233.34	0.0006	P	25.5
2	☐	2.000	2.233	2903.70	0.0074	P	2.8
3	☐	5.000	5.336	6598.38	0.0168	P	4.8
4	☐	10.000	10.899	13206.61	0.0336	P	3.7
5	☐	100.000	100.600	118371.46	0.3056	P	0.8
6	☐	200.000	199.644	229588.22	0.6058	P	1.1

y = 0.0030 * x + 5.8437E-004
R = 1.0000
DL = 0.1475
BEC = 0.1928

Weight: <None>
Min Conc: <None>

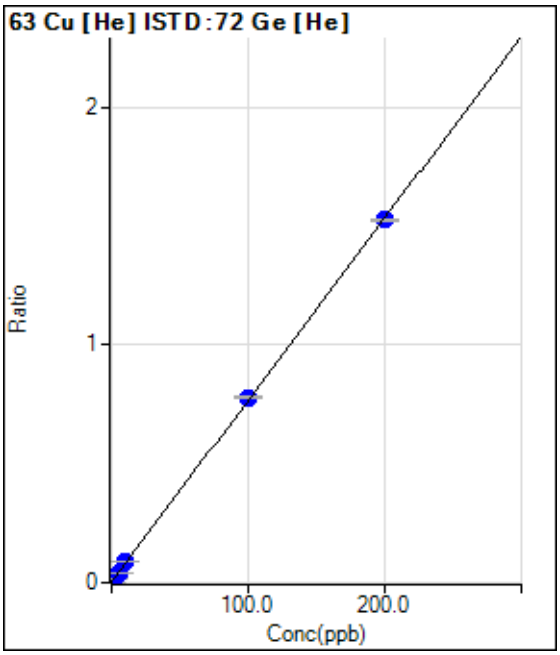


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2943.70	0.0023	P	8.8
2	☐	2.000	2.015	16019.67	0.0124	P	0.6
3	☐	5.000	5.211	36044.85	0.0285	P	1.6
4	☐	10.000	11.193	73746.53	0.0585	P	1.1
5	☐	100.000	101.067	631844.17	0.5099	P	2.3
6	☐	200.000	199.401	1209371.96	1.0038	A	1.2

y = 0.0050 * x + 0.0023
R = 1.0000
DL = 0.1225
BEC = 0.462

Weight: <None>
Min Conc: <None>

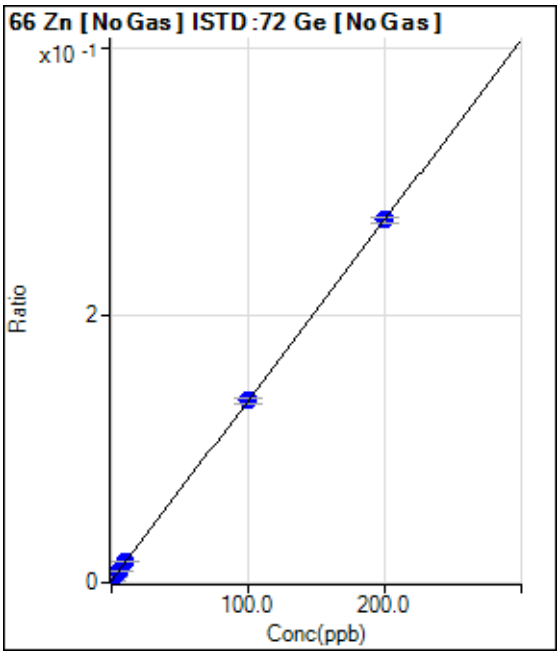
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1250.08	0.0031	P	4.0
2	☐	2.000	2.044	7405.47	0.0188	P	4.6
3	☐	5.000	5.362	17374.70	0.0441	P	1.3
4	☐	10.000	11.281	35108.90	0.0894	P	1.5
5	☐	100.000	101.449	301775.49	0.7790	P	1.0
6	☐	200.000	199.202	578556.84	1.5266	P	0.8

y = 0.0076 * x + 0.0031
R = 1.0000
DL = 0.04935
BEC = 0.4087

Weight: <None>
Min Conc: <None>

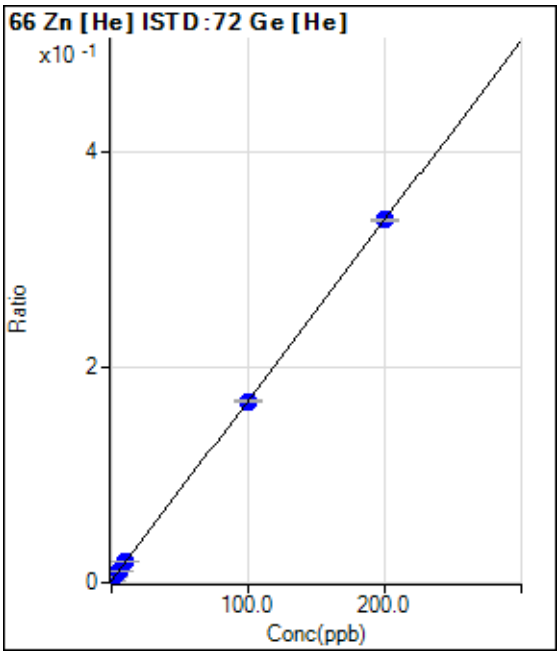


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2003.52	0.0016	P	5.0
2	☐	2.000	1.855	5261.10	0.0041	P	2.9
3	☐	5.000	5.155	10807.83	0.0085	P	3.7
4	☐	10.000	10.138	19243.86	0.0153	P	0.3
5	☐	100.000	99.855	169080.99	0.1365	P	3.6
6	☐	200.000	200.063	327467.03	0.2718	P	1.9

y = 0.0014 * x + 0.0016
R = 1.0000
DL = 0.1764
BEC = 1.169

Weight: <None>
Min Conc: <None>

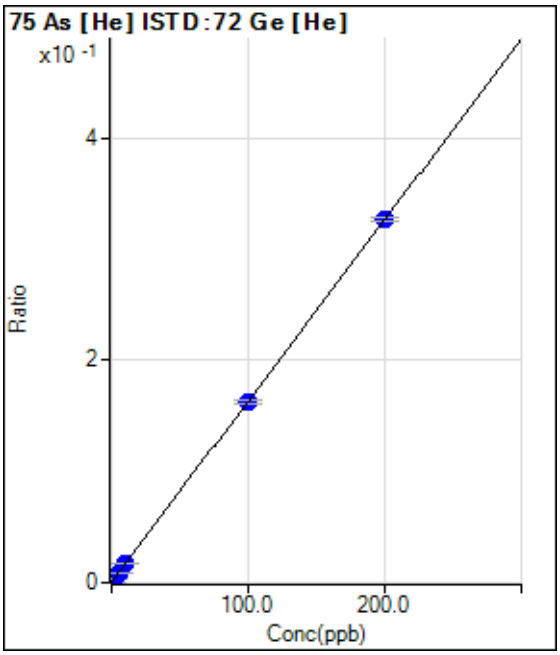
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	813.37	0.0020	P	10.8
2	☐	2.000	2.271	2303.56	0.0058	P	6.7
3	☐	5.000	5.194	4224.06	0.0107	P	7.7
4	☐	10.000	10.219	7518.88	0.0191	P	3.6
5	☐	100.000	99.489	65337.25	0.1687	P	0.6
6	☐	200.000	200.237	127872.01	0.3374	P	0.4

y = 0.0017 * x + 0.0020
R = 1.0000
DL = 0.393
BEC = 1.213

Weight: <None>
Min Conc: <None>

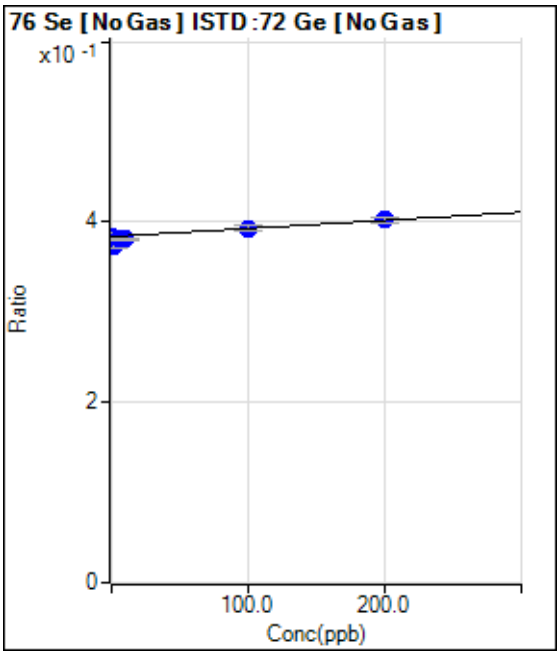


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	214.45	0.0005	P	9.0
2	☐	2.000	1.918	1443.42	0.0037	P	4.0
3	☐	5.000	4.929	3369.33	0.0086	P	2.2
4	☐	10.000	10.410	6862.88	0.0175	P	1.6
5	☐	100.000	99.831	63135.65	0.1630	P	2.2
6	☐	200.000	200.067	123582.49	0.3261	P	1.1

y = 0.0016 * x + 5.3608E-004
R = 1.0000
DL = 0.08921
BEC = 0.3294

Weight: <None>
Min Conc: <None>

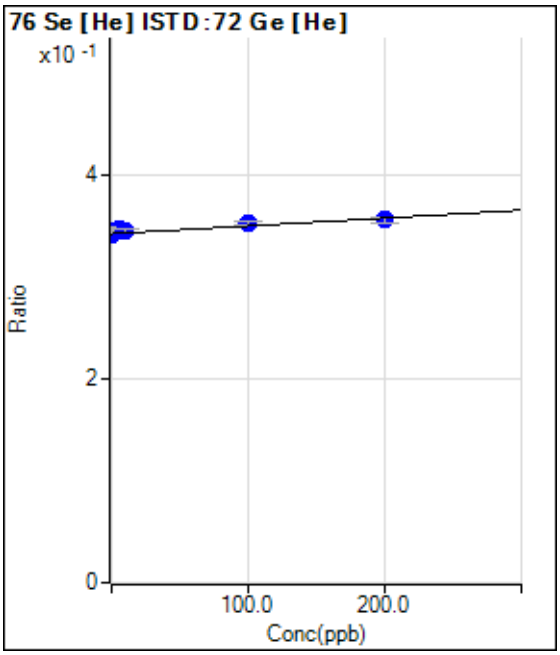
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	486642.72	0.3839	P	2.7
2	☐	2.000	-117.520	480634.50	0.3732	P	1.7
3	☐	5.000	-25.492	482708.14	0.3816	P	1.3
4	☐	10.000	-28.799	480321.35	0.3813	P	0.6
5	☐	100.000	98.922	486708.54	0.3928	P	1.8
6	☐	200.000	204.437	484674.47	0.4023	P	1.6

y = 9.0312E-005 * x + 0.3839
R = 0.9343
DL = 349.9
BEC = 4250

Weight: <None>
Min Conc: <None>

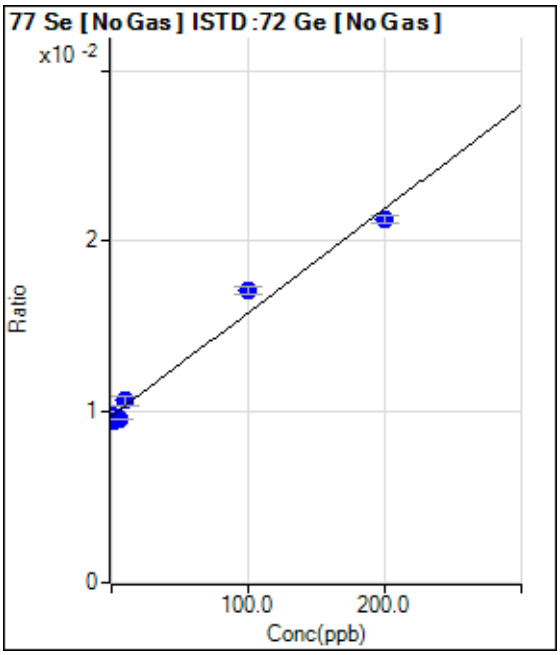


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	136580.14	0.3416	P	1.2
2	☐	2.000	46.690	136303.98	0.3452	P	0.4
3	☐	5.000	55.782	136186.47	0.3459	P	1.2
4	☐	10.000	36.232	135260.55	0.3444	P	0.9
5	☐	100.000	141.639	136577.02	0.3526	P	1.3
6	☐	200.000	176.152	134620.28	0.3552	P	1.8

y = 7.7071E-005 * x + 0.3416
R = 0.9395
DL = 166.2
BEC = 4433

Weight: <None>
Min Conc: <None>

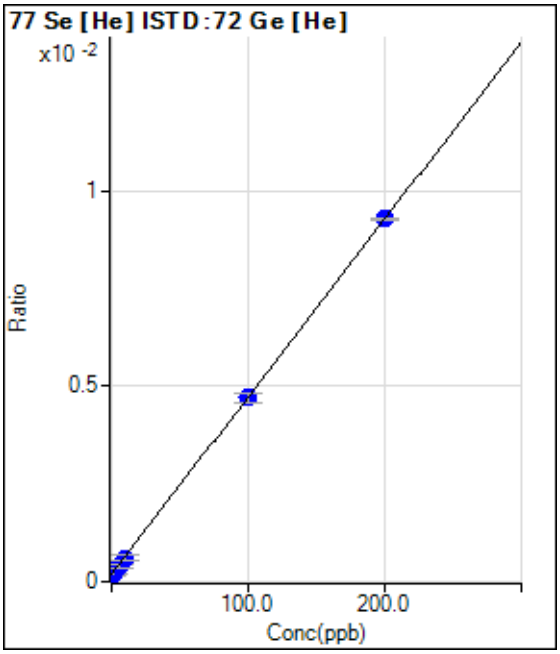
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	12369.29	0.0098	P	5.0
2	☐	2.000	-5.161	12162.37	0.0094	P	1.7
3	☐	5.000	-3.166	12102.26	0.0096	P	0.8
4	☐	10.000	15.313	13460.26	0.0107	P	5.4
5	☐	100.000	121.534	21237.04	0.0171	P	2.9
6	☐	200.000	189.243	25601.33	0.0213	P	2.0

y = 6.0733E-005 * x + 0.0098
R = 0.9893
DL = 23.96
BEC = 160.7

Weight: <None>
Min Conc: <None>

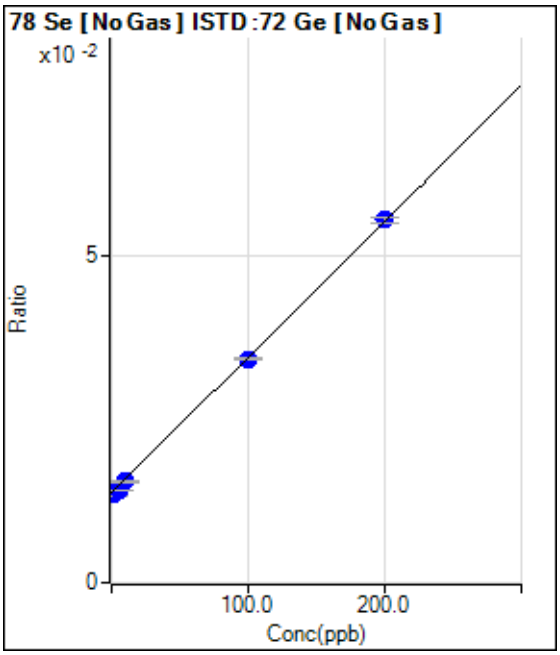


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	76.67	0.0002	P	38.4
2	☐	2.000	0.417	83.33	0.0002	P	6.4
3	☐	5.000	4.540	156.67	0.0004	P	32.8
4	☐	10.000	9.241	240.01	0.0006	P	29.3
5	☐	100.000	99.527	1823.49	0.0047	P	5.8
6	☐	200.000	200.302	3517.19	0.0093	P	0.8

y = 4.5370E-005 * x + 1.9211E-004
R = 1.0000
DL = 4.879
BEC = 4.234

Weight: <None>
Min Conc: <None>

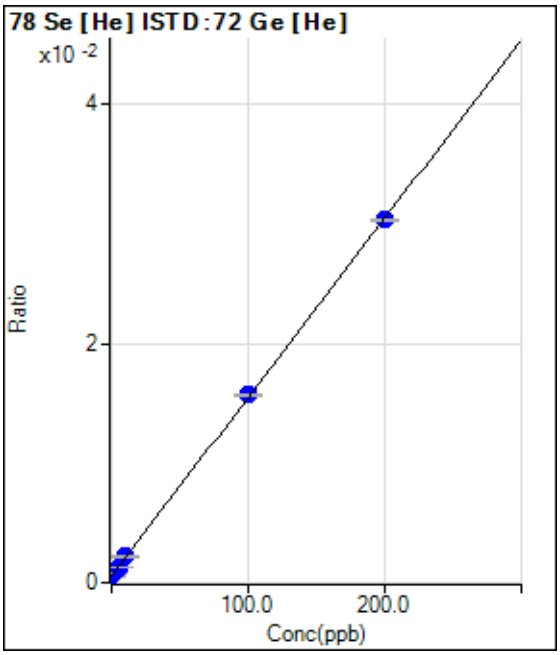
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	17391.53	0.0137	P	3.6
2	☐	2.000	-0.466	17538.40	0.0136	P	3.3
3	☐	5.000	2.133	17918.79	0.0142	P	1.8
4	☐	10.000	8.696	19571.17	0.0155	P	2.3
5	☐	100.000	98.547	42480.63	0.0343	P	1.3
6	☐	200.000	200.888	67023.23	0.0556	P	1.9

y = 2.0866E-004 * x + 0.0137
R = 0.9999
DL = 7.119
BEC = 65.75

Weight: <None>
Min Conc: <None>

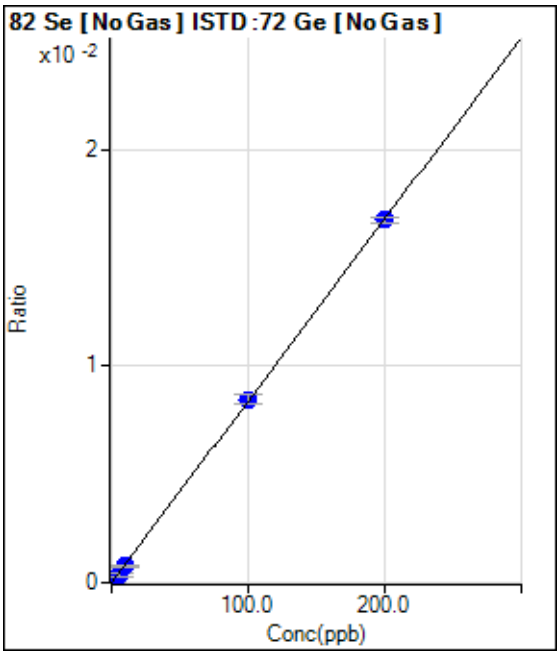


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	226.00	0.0006	P	10.7
2	☐	2.000	1.945	338.01	0.0009	P	3.2
3	☐	5.000	4.852	508.01	0.0013	P	1.6
4	☐	10.000	11.162	876.70	0.0022	P	5.7
5	☐	100.000	101.279	6077.38	0.0157	P	0.4
6	☐	200.000	199.307	11492.92	0.0303	P	0.3

y = 1.4930E-004 * x + 5.6588E-004
R = 1.0000
DL = 1.221
BEC = 3.79

Weight: <None>
Min Conc: <None>

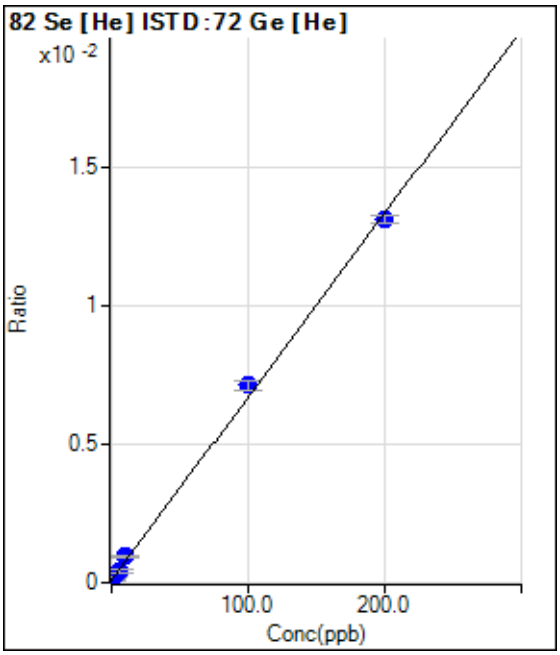
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	-8.41	0.0000	P	-750.0
2	☐	2.000	2.280	238.48	0.0002	P	24.9
3	☐	5.000	4.265	444.89	0.0004	P	29.1
4	☐	10.000	9.010	944.54	0.0007	P	1.6
5	☐	100.000	100.673	10459.53	0.0084	P	5.2
6	☐	200.000	199.729	20187.60	0.0168	P	1.3

y = 8.3931E-005 * x - 6.4597E-006
R = 1.0000
DL = 1.732
BEC = -0.07696

Weight: <None>
Min Conc: <None>

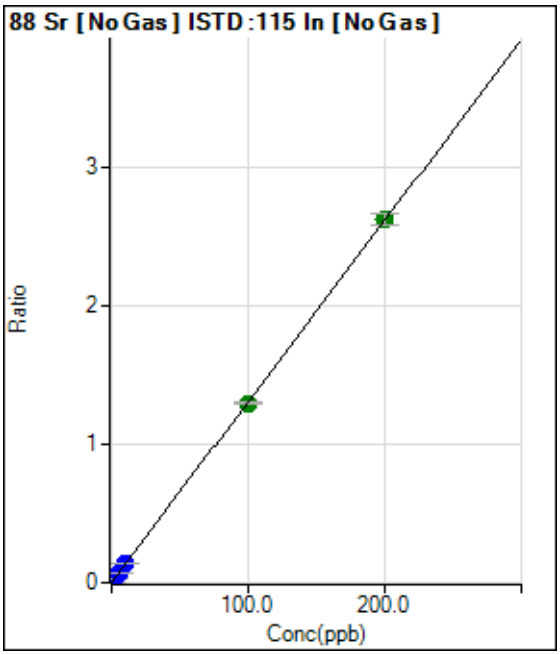


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	36.67	0.0001	P	67.6
2	☐	2.000	1.808	83.33	0.0002	P	6.4
3	☐	5.000	4.623	156.67	0.0004	P	28.2
4	☐	10.000	12.848	370.01	0.0009	P	7.5
5	☐	100.000	106.589	2770.34	0.0072	P	5.0
6	☐	200.000	196.574	4971.01	0.0131	P	2.0

y = 6.6247E-005 * x + 9.1237E-005
R = 0.9991
DL = 2.794
BEC = 1.377

Weight: <None>
Min Conc: <None>

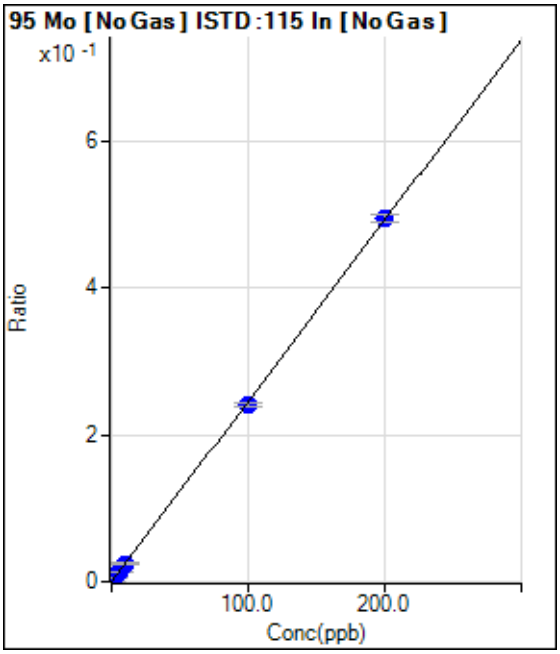
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	520.02	0.0004	P	14.2
2	☐	2.000	2.047	34788.79	0.0272	P	2.2
3	☐	5.000	5.280	87569.17	0.0695	P	3.5
4	☐	10.000	10.434	171978.03	0.1369	P	2.1
5	☐	100.000	99.009	1605213.20	1.2955	A	1.2
6	☐	200.000	200.467	3154268.81	2.6226	A	3.0

y = 0.0131 * x + 4.0735E-004
R = 1.0000
DL = 0.01326
BEC = 0.03114

Weight: <None>
Min Conc: <None>

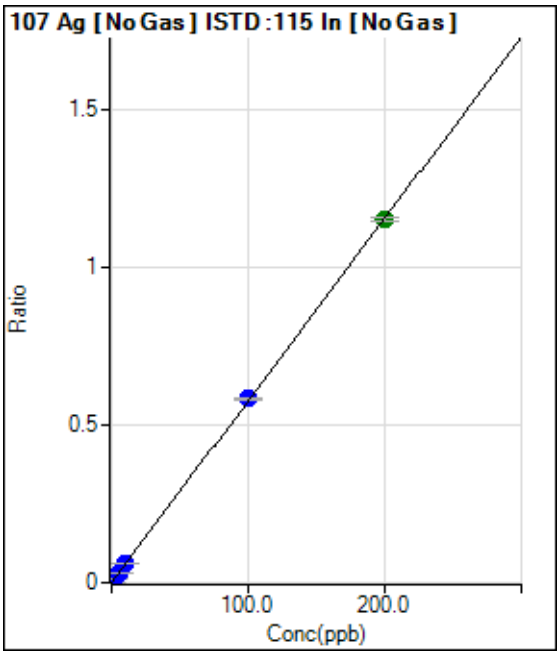


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	56.67	0.0000	P	45.5
2	☐	2.000	1.967	6251.59	0.0049	P	5.3
3	☐	5.000	4.881	15202.32	0.0121	P	2.7
4	☐	10.000	9.948	30812.70	0.0245	P	3.4
5	☐	100.000	98.107	299180.64	0.2415	P	2.1
6	☐	200.000	200.952	594867.13	0.4946	P	2.1

y = 0.0025 * x + 4.4520E-005
R = 0.9999
DL = 0.02468
BEC = 0.01809

Weight: <None>
Min Conc: <None>

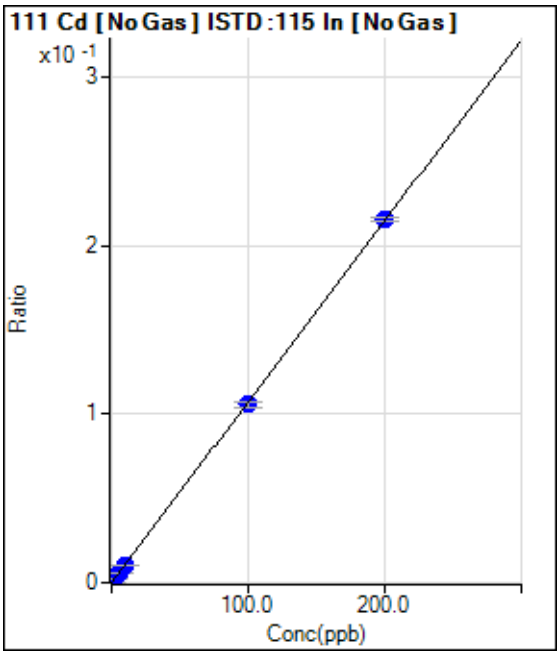
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	110.00	0.0001	P	26.2
2	☐	2.000	1.995	14855.30	0.0116	P	1.4
3	☐	5.000	5.079	37099.06	0.0294	P	0.3
4	☐	10.000	10.404	75609.29	0.0602	P	1.6
5	☐	100.000	101.153	724085.30	0.5843	P	1.1
6	☐	200.000	199.401	1385596.49	1.1518	A	1.0

y = 0.0058 * x + 8.5952E-005
R = 1.0000
DL = 0.01172
BEC = 0.01488

Weight: <None>
Min Conc: <None>

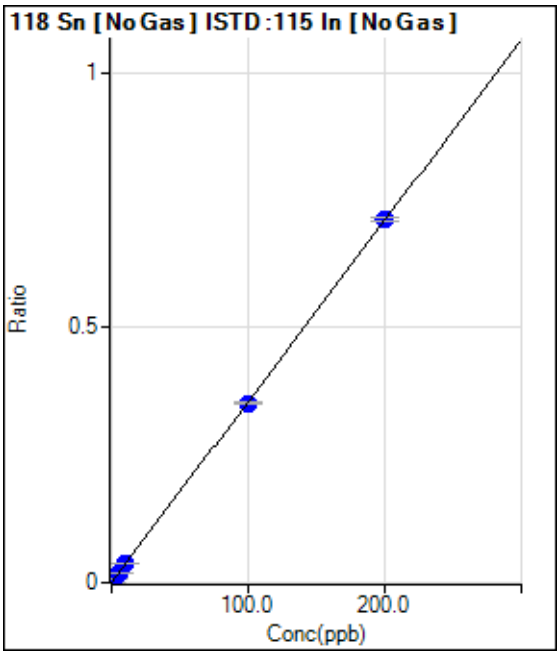


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2.85	0.0000	P	538.2
2	☐	2.000	1.870	2572.08	0.0020	P	2.6
3	☐	5.000	4.923	6666.22	0.0053	P	2.4
4	☐	10.000	9.929	13392.96	0.0107	P	1.7
5	☐	100.000	98.637	131170.54	0.1059	P	2.8
6	☐	200.000	200.688	259127.92	0.2154	P	1.1

y = 0.0011 * x + 2.3352E-006
R = 1.0000
DL = 0.03512
BEC = 0.002176

Weight: <None>
Min Conc: <None>

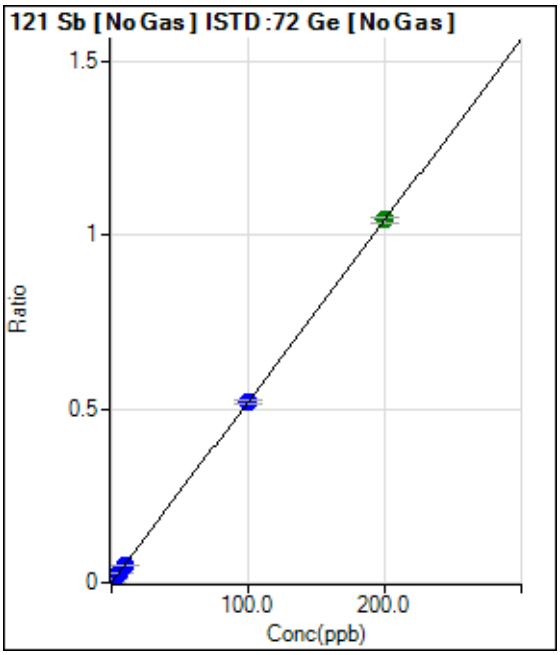
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	613.36	0.0005	P	15.8
2	☐	2.000	2.006	9717.07	0.0076	P	2.5
3	☐	5.000	4.890	22462.87	0.0178	P	2.4
4	☐	10.000	10.053	45382.01	0.0361	P	1.7
5	☐	100.000	99.135	436119.68	0.3519	P	0.9
6	☐	200.000	200.433	855362.12	0.7111	P	0.9

y = 0.0035 * x + 4.7996E-004
R = 1.0000
DL = 0.06422
BEC = 0.1354

Weight: <None>
Min Conc: <None>

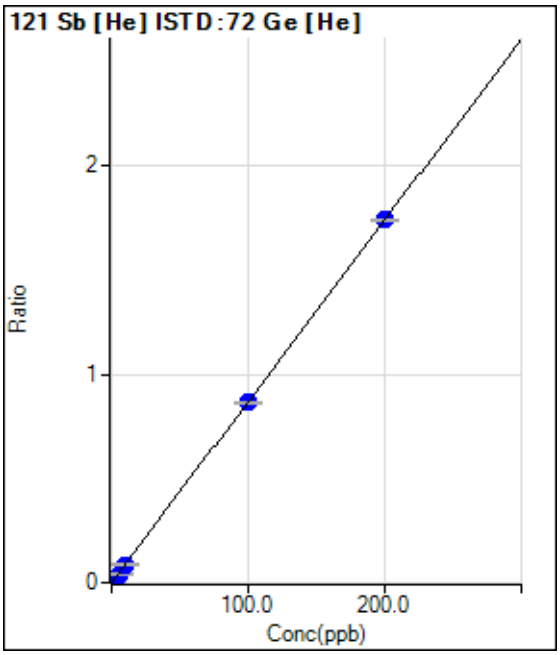


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	143.33	0.0001	P	26.4
2	☐	2.000	1.951	13256.93	0.0103	P	1.5
3	☐	5.000	4.890	32417.10	0.0256	P	2.5
4	☐	10.000	9.898	65198.50	0.0518	P	1.4
5	☐	100.000	99.409	642788.25	0.5188	P	1.9
6	☐	200.000	200.304	1259138.19	1.0452	A	1.6

y = 0.0052 * x + 1.1342E-004
R = 1.0000
DL = 0.01722
BEC = 0.02174

Weight: <None>
Min Conc: <None>

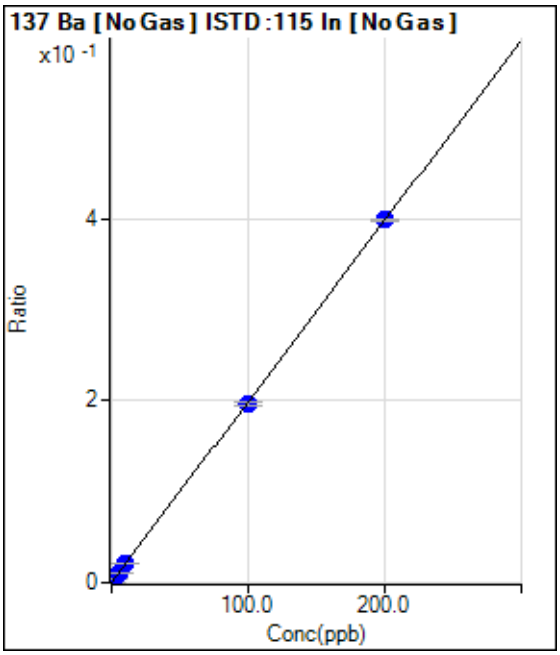
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	53.33	0.0001	P	11.6
2	☐	2.000	1.945	6721.83	0.0170	P	4.3
3	☐	5.000	4.761	16333.79	0.0415	P	3.8
4	☐	10.000	10.066	34385.52	0.0876	P	0.8
5	☐	100.000	99.353	334348.04	0.8631	P	1.4
6	☐	200.000	200.327	659478.90	1.7401	P	0.7

y = 0.0087 * x + 1.3348E-004
R = 1.0000
DL = 0.005346
BEC = 0.01537

Weight: <None>
Min Conc: <None>

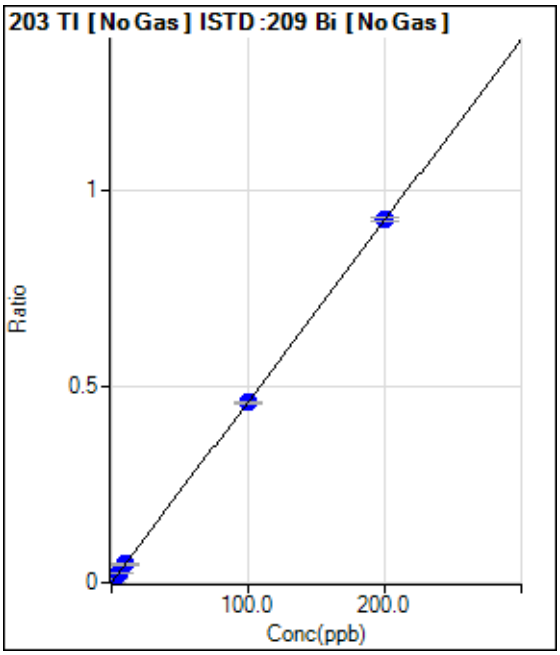


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	373.35	0.0003	P	21.5
2	☐	2.000	2.162	5868.09	0.0046	P	3.6
3	☐	5.000	5.198	13370.39	0.0106	P	3.5
4	☐	10.000	10.228	25859.44	0.0206	P	4.6
5	☐	100.000	98.827	243331.87	0.1964	P	1.5
6	☐	200.000	200.569	479170.97	0.3983	P	0.6

y = 0.0020 * x + 2.9278E-004
R = 1.0000
DL = 0.09525
BEC = 0.1476

Weight: <None>
Min Conc: <None>

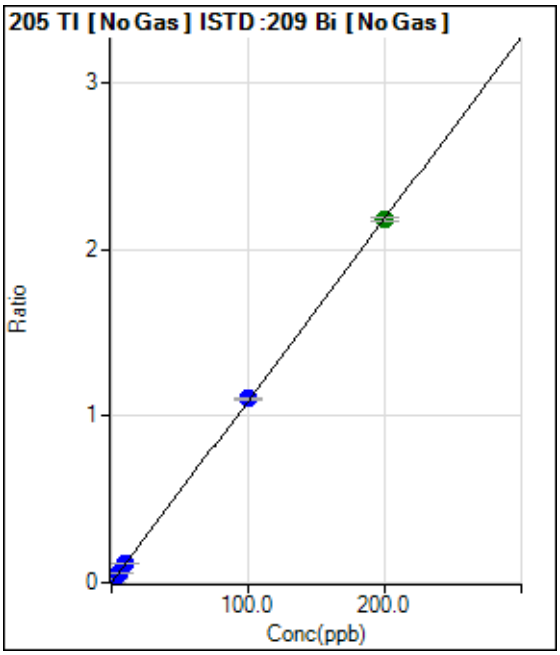
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	66.67	0.0001	P	54.7
2	☐	2.000	1.982	7899.29	0.0092	P	3.2
3	☐	5.000	5.080	20340.19	0.0236	P	2.0
4	☐	10.000	10.121	40369.02	0.0469	P	1.8
5	☐	100.000	99.305	391903.83	0.4593	P	1.1
6	☐	200.000	200.339	772128.69	0.9264	P	1.1

y = 0.0046 * x + 7.6544E-005
R = 1.0000
DL = 0.02718
BEC = 0.01655

Weight: <None>
Min Conc: <None>

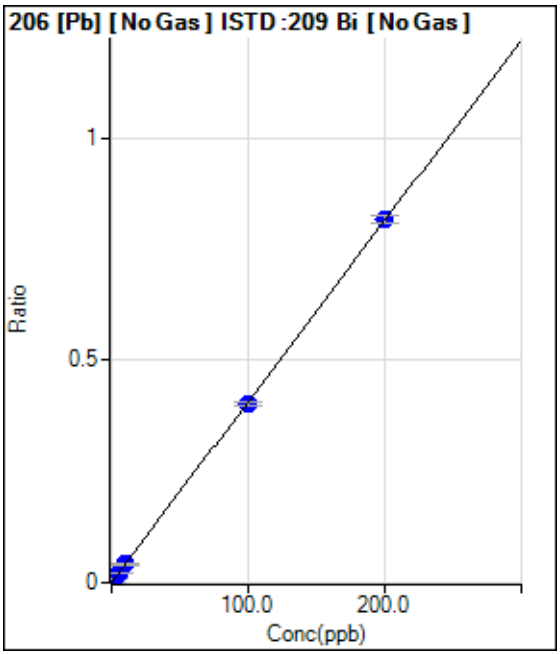


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	136.67	0.0002	P	15.9
2	☐	2.000	1.945	18290.33	0.0214	P	3.2
3	☐	5.000	5.118	48370.52	0.0560	P	2.5
4	☐	10.000	10.303	97008.82	0.1127	P	2.4
5	☐	100.000	100.984	941121.86	1.1028	P	0.8
6	☐	200.000	199.490	1815560.49	2.1785	A	1.2

y = 0.0109 * x + 1.5783E-004
R = 1.0000
DL = 0.006913
BEC = 0.01445

Weight: <None>
Min Conc: <None>

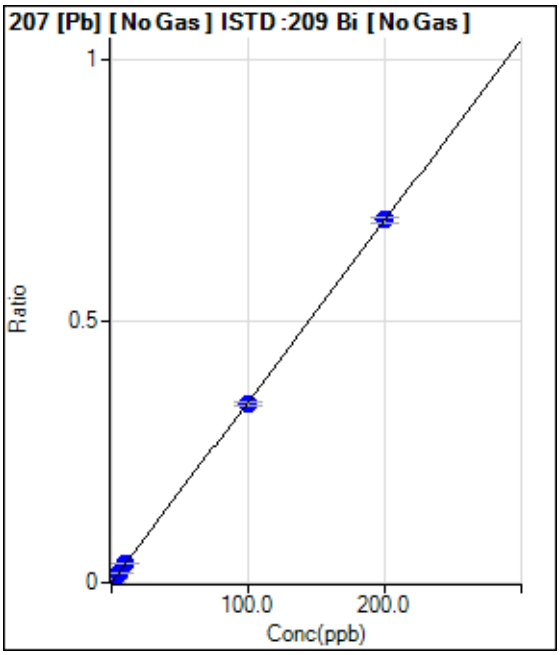
Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	310.01	0.0004	P	21.2
2	☐	2.000	2.005	7272.24	0.0085	P	5.7
3	☐	5.000	4.927	17599.39	0.0204	P	3.4
4	☐	10.000	10.026	35414.15	0.0411	P	4.2
5	☐	100.000	98.827	343265.05	0.4023	P	1.4
6	☐	200.000	200.587	680167.49	0.8161	P	2.2

y = 0.0041 * x + 3.5888E-004
R = 1.0000
DL = 0.05605
BEC = 0.08824

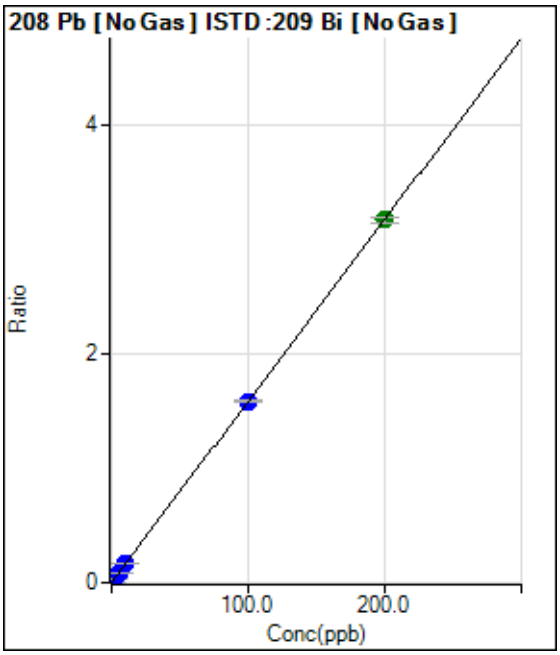
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	190.01	0.0002	P	9.1
2	☐	2.000	1.995	6094.95	0.0071	P	1.7
3	☐	5.000	4.931	14925.89	0.0173	P	3.0
4	☐	10.000	10.263	30791.68	0.0358	P	1.9
5	☐	100.000	99.122	293043.12	0.3434	P	1.9
6	☐	200.000	200.428	578553.12	0.6942	P	1.4

y = 0.0035 * x + 2.1950E-004
R = 1.0000
DL = 0.01727
BEC = 0.06339

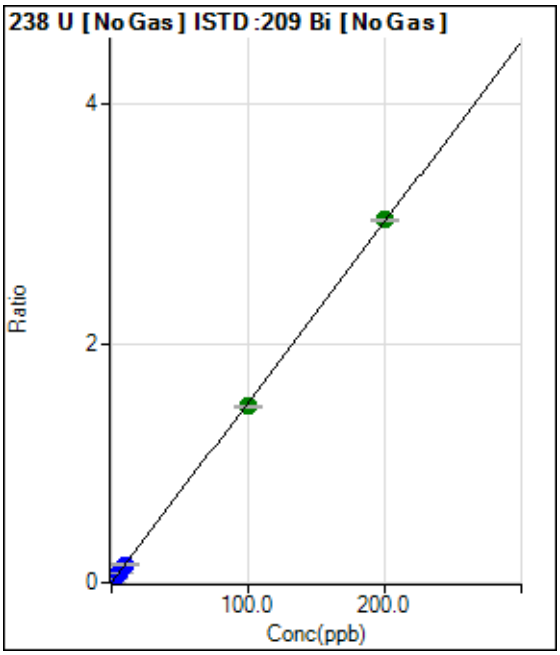
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	970.04	0.0011	P	4.8
2	☐	2.000	1.999	28062.76	0.0328	P	1.0
3	☐	5.000	5.018	69670.99	0.0807	P	1.7
4	☐	10.000	10.281	141402.85	0.1642	P	2.1
5	☐	100.000	100.014	1354714.46	1.5876	P	1.5
6	☐	200.000	199.979	2644668.19	3.1733	A	1.7

y = 0.0159 * x + 0.0011
R = 1.0000
DL = 0.01025
BEC = 0.07067

Weight: <None>
Min Conc: <None>

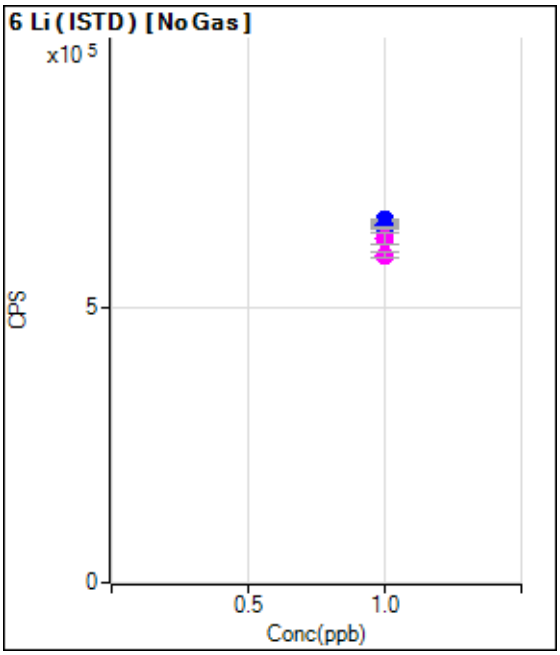


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	20.00	0.0000	P	50.8
2	☐	2.000	1.985	25627.28	0.0300	P	0.4
3	☐	5.000	4.955	64546.65	0.0748	P	3.7
4	☐	10.000	10.088	131129.92	0.1523	P	1.8
5	☐	100.000	97.638	1257475.45	1.4736	A	1.6
6	☐	200.000	201.178	2530505.22	3.0363	A	0.6

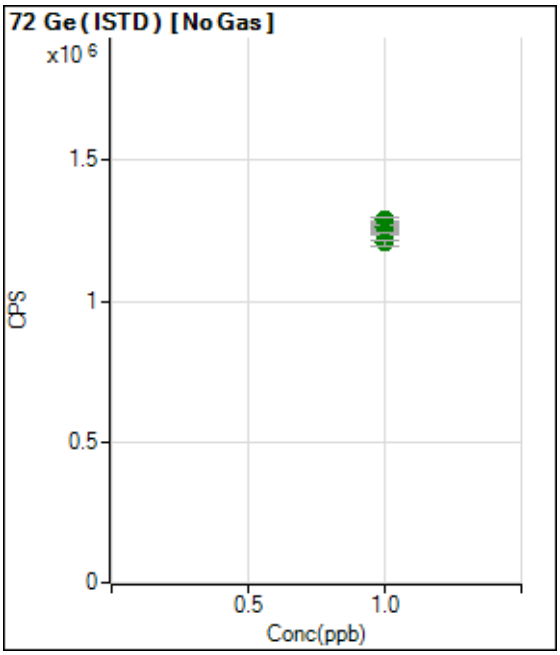
y = 0.0151 * x + 2.3150E-005
R = 0.9999
DL = 0.002338
BEC = 0.001534

Weight: <None>
Min Conc: <None>

Calibration for 031_ICV.d

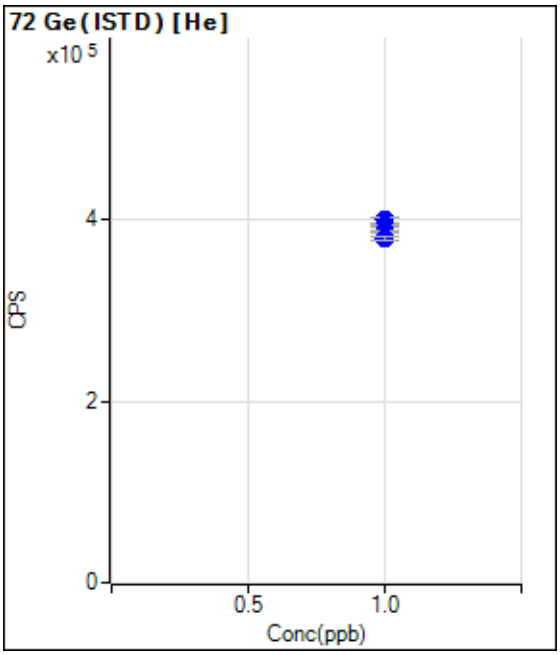


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		660437.16		P	0.6
2	☐	1.000		652226.81		P	0.4
3	☐	1.000		652594.64		P	1.3
4	☐	1.000		646298.60		P	0.7
5	☐	1.000		626127.04		M	3.0
6	☐	1.000		595553.16		M	1.8

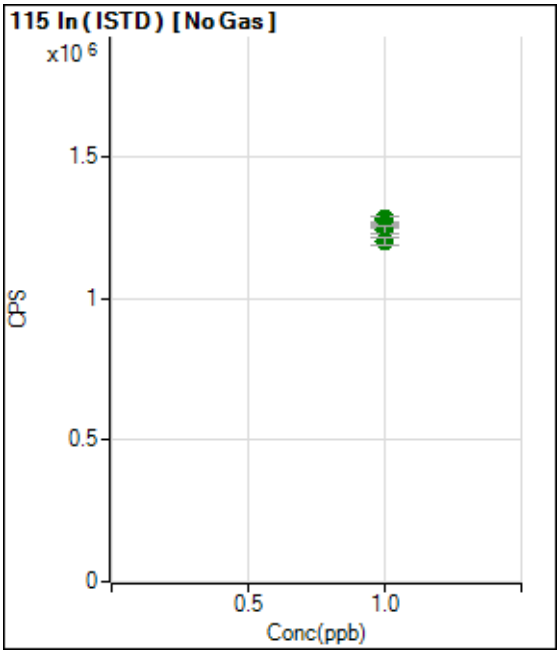


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1268210.66		A	2.1
2	☐	1.000		1287959.96		A	1.7
3	☐	1.000		1265111.85		A	0.5
4	☐	1.000		1259879.25		A	1.2
5	☐	1.000		1239239.41		A	1.0
6	☐	1.000		1204969.15		A	2.2

Calibration for 031_ICV.d

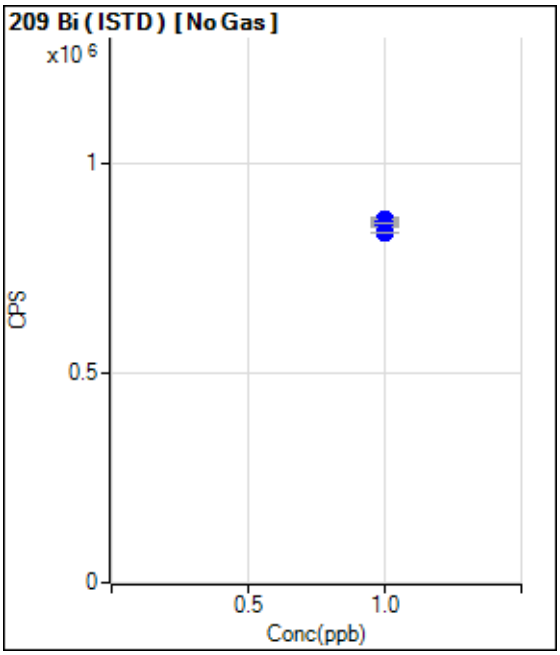


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		399803.20		P	1.6
2	☐	1.000		394813.76		P	1.2
3	☐	1.000		393686.75		P	0.7
4	☐	1.000		392710.28		P	0.5
5	☐	1.000		387407.92		P	0.7
6	☐	1.000		379008.11		P	1.3



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1277170.56		A	1.3
2	☐	1.000		1280079.52		A	1.5
3	☐	1.000		1261000.86		A	1.7
4	☐	1.000		1256559.63		A	1.2
5	☐	1.000		1239303.70		A	2.3
6	☐	1.000		1203081.79		A	2.1

Calibration for 031_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		864957.67		P	1.9
2	☐	1.000		854930.95		P	1.8
3	☐	1.000		863335.01		P	2.1
4	☐	1.000		861297.38		P	1.4
5	☐	1.000		853377.41		P	0.8
6	☐	1.000		833427.80		P	0.2

Sample Report

Sample Table

Sample Name	LLICV2
Data File Name	032LCV2.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\031523A.b
Acq Date Time	2023-03-15T12:14:34-05:00
Sample Type	LLCCV2
Dilution	1
Comment	
ISTD Ref FileName	024CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	2.022	2.022	2.87	57933	0.00	2	
Be	9	1	No Gas	1.917	1.917	1.01	5041	0.04	2	
V	51	2	He	1.549	1.549	4.64	8973	0.02	2	
Cr	52	2	He	1.960	1.960	11.70	19351	0.01	2	
Fe	56	2	He	215.595	215.595	0.99	715087	0.03	200	
Se	78	2	He	1.835	1.835	21.70	329	0.56	2	
As	75	2	He	1.886	1.886	4.98	1411	0.13	2	
Ca	44	2	He	208.227	208.227	0.58	6285	3.31	200	
Na	23	2	He	218.984	218.984	2.13	165577	0.13	200	
Mg	24	2	He	222.305	222.305	1.58	84723	0.26	200	
K	39	2	He	211.113	211.113	1.31	223170	0.09	200	
Mn	55	2	He	2.080	2.080	0.95	6735	0.03	2	
Co	59	2	He	2.022	2.022	2.56	9890	0.02	2	
Ni	60	2	He	2.364	2.364	5.25	3034	0.08	2	
Cu	63	2	He	2.052	2.052	6.52	7365	0.03	2	
Zn	66	2	He	2.066	2.066	8.24	2150	0.10	2	
Al	27	2	He	2.107	2.107	23.40	1247	0.17	2	
B	11	1	No Gas	31.022	31.022	8.33	46661	0.07	10	NewName Main CR1 Failed
Al	27	1	No Gas	1.952	1.952	4.36	39115	0.00	2	
Si	28	1	No Gas	11.016	11.016	24.83	487693	0.00	10	
Ag	107	1	No Gas	2.095	2.095	2.92	15346	0.01	2	
Cd	111	1	No Gas	2.077	2.077	4.55	2810	0.07	2	
Sr	88	1	No Gas	2.080	2.080	2.27	34769	0.01	2	
Mo	95	1	No Gas	2.058	2.058	5.58	6428	0.03	2	
Sn	118	1	No Gas	2.134	2.134	2.05	10127	0.02	2	
Sb	121	1	No Gas	2.057	2.057	4.89	13544	0.02	2	
Ba	137	1	No Gas	2.137	2.137	7.25	5708	0.04	2	
Tl	205	1	No Gas	2.146	2.146	0.64	20517	0.01	2	
Tl	203	1	No Gas	2.181	2.181	4.87	8837	0.02	2	
Pb	208	1	No Gas	2.055	2.055	0.62	29324	0.01	2	
U	238	1	No Gas	2.024	2.024	1.46	26586	0.01	2	
Ca	43	2	He	231.406	231.406	22.57	383	60.36	200	
Sb	121	2	He	2.001	2.001	3.56	6855	0.03	2	
Ti	47	2	He	1.765	1.765	13.39	270	0.65	200	
Cu	63	1	No Gas	2.035	2.035	4.81	15663	0.01	2	
Se	82	1	No Gas	1.280	1.280	58.53	125	1.02	2	NewName Main CR1 Failed

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	648897	0.91	660437	98.25	70	120	
Ge	72	2	He	391412	0.48	399803	97.90	70	120	
Ge	72	1	No Gas	1249983	3.05	1268211	98.56	70	120	
In	115	1	No Gas	1258962	1.64	1277171	98.57	70	120	
Bi	209	1	No Gas	869814	1.00	864958	100.56	70	120	

Sample Report

Sample Table

Sample Name	LLICV5
Data File Name	033LCV5.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\031523A.b
Acq Date Time	2023-03-15T12:16:34-05:00
Sample Type	LLCCV5
Dilution	1
Comment	
ISTD Ref FileName	024CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	4.923	4.923	2.16	83938	0.01	5	
Be	9	1	No Gas	4.670	4.670	2.29	12215	0.04	5	
V	51	2	He	4.454	4.454	1.19	19445	0.02	5	
Cr	52	2	He	5.011	5.011	4.12	31229	0.02	5	
Fe	56	2	He	529.526	529.526	1.57	1757324	0.03	500	
Se	78	2	He	4.757	4.757	6.80	505	0.94	5	
As	75	2	He	4.841	4.841	6.05	3332	0.15	5	
Ca	44	2	He	501.149	501.149	2.42	14411	3.48	500	
Na	23	2	He	540.161	540.161	0.61	373216	0.14	500	
Mg	24	2	He	542.606	542.606	0.67	208173	0.26	500	
K	39	2	He	525.582	525.582	0.46	403114	0.13	500	
Mn	55	2	He	5.219	5.219	2.03	16193	0.03	5	
Co	59	2	He	5.166	5.166	1.92	25437	0.02	5	
Ni	60	2	He	5.536	5.536	3.26	6879	0.08	5	
Cu	63	2	He	5.072	5.072	1.47	16600	0.03	5	
Zn	66	2	He	4.757	4.757	7.66	3961	0.12	5	
Al	27	2	He	5.585	5.585	4.74	2187	0.26	5	
B	11	1	No Gas	34.412	34.412	1.43	50949	0.07	25	NewName2 Main CR1 Failed
Al	27	1	No Gas	5.287	5.287	1.68	69842	0.01	5	
Si	28	1	No Gas	27.308	27.308	7.44	563974	0.00	25	
Ag	107	1	No Gas	5.051	5.051	2.57	36765	0.01	5	
Cd	111	1	No Gas	4.822	4.822	7.46	6502	0.07	5	
Sr	88	1	No Gas	5.107	5.107	1.88	84422	0.01	5	
Mo	95	1	No Gas	4.933	4.933	5.55	15306	0.03	5	
Sn	118	1	No Gas	4.959	4.959	3.96	22680	0.02	5	
Sb	121	1	No Gas	4.910	4.910	1.22	31969	0.02	5	
Ba	137	1	No Gas	5.078	5.078	4.14	13027	0.04	5	
Tl	205	1	No Gas	5.050	5.050	2.92	47936	0.01	5	
Tl	203	1	No Gas	4.978	4.978	1.62	20020	0.02	5	
Pb	208	1	No Gas	5.038	5.038	1.17	70246	0.01	5	
U	238	1	No Gas	4.943	4.943	0.24	64691	0.01	5	
Ca	43	2	He	529.476	529.476	8.42	870	60.86	500	
Sb	121	2	He	4.990	4.990	2.39	17218	0.03	5	
Ti	47	2	He	4.695	4.695	8.58	710	0.66	5	
Cu	63	1	No Gas	5.194	5.194	1.22	35293	0.01	5	
Se	82	1	No Gas	5.118	5.118	10.06	525	0.97	5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	646707	1.05	660437	97.92	70	120	
Ge	72	2	He	396035	0.45	399803	99.06	70	120	
Ge	72	1	No Gas	1242416	2.00	1268211	97.97	70	120	
In	115	1	No Gas	1256250	1.39	1277171	98.36	70	120	
Bi	209	1	No Gas	866879	0.56	864958	100.22	70	120	

Initial Calibration Blank (ICB) Report

Sample Table

Sample Name	ICB
Data File Name	035_ICB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\031523A.b
Acq Date Time	2023-03-15T12:21:03-05:00
Sample Type	ICB
Dilution	1
Comment	
ISTD Ref File Name	024CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Li	7	1	No Gas	0.064	61.9	40520	1.3	0.5	
Be	9	1	No Gas	0.010	29.3	42	18.3	0.5	
V	51	2	He	-0.395	-6.1	2126	3.7	2.5	
Cr	52	2	He	-0.066	-177.2	11762	3.2	2.5	
Fe	56	2	He	-0.019	-886.4	13434	3.8	100	
Se	78	2	He	0.013	3672.6	223	12.8	1	
As	75	2	He	-0.104	-27.0	144	11.8	2.5	
Ca	44	2	He	0.605	298.9	647	7.1	100	
Na	23	2	He	0.173	409.0	27223	1.2	100	
Mg	24	2	He	-0.207	-136.5	660	16.0	100	
K	39	2	He	-1.171	-115.3	105386	0.7	100	
Mn	55	2	He	-0.008	-258.4	573	10.7	2.5	
Co	59	2	He	0.000	-1263.2	83	25.0	2.5	
Ni	60	2	He	0.090	81.2	337	25.3	2.5	
Cu	63	2	He	-0.048	-69.4	1083	9.0	1	
Zn	66	2	He	-0.050	-115.0	767	5.4	2.5	
Al	27	2	He	0.103	232.8	723	8.3	5	
B	11	1	No Gas	5.454	1.4	12929	1.2	0.5	ICB Main CR1 Failed
Al	27	1	No Gas	-0.060	-86.9	20265	3.3	5	
Si	28	1	No Gas	1.360	61.1	439194	0.2	10	
Ag	107	1	No Gas	-0.002	-234.3	93	32.7	2.5	
Cd	111	1	No Gas	-0.003	-291.6	-1	-1469.9	1	
Sr	88	1	No Gas	0.000	1016.0	513	11.4	2.5	
Mo	95	1	No Gas	0.010	15.3	87	6.7	2.5	
Sn	118	1	No Gas	0.044	69.7	790	15.8	5	
Sb	121	1	No Gas	0.010	76.0	207	24.4	2.5	
Ba	137	1	No Gas	0.001	3232.2	367	18.2	2.5	
Tl	205	1	No Gas	0.015	90.8	273	45.7	1	
Tl	203	1	No Gas	0.015	27.8	127	12.1	1	
Pb	208	1	No Gas	-0.004	-253.8	900	15.8	2.5	
U	238	1	No Gas	-0.001	-177.8	10	173.2	2.5	
Ca	43	2	He	12.505	57.4	33	34.6	100	
Sb	121	2	He	0.014	40.9	100	20.0	2.5	
Ti	47	2	He	-0.044	-89.5	3	173.2	2.5	
Se	82	1	No Gas	-0.383	-101.6	-48	-84.7	1	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	654198	0.63	660437	99.06	70	120	
Ge	72	2	He	393313	0.60	399803	98.38	70	120	
Ge	72	1	No Gas	1245472	0.91	1268211	98.21	70	120	
In	115	1	No Gas	1245756	1.27	1277171	97.54	70	120	
Bi	209	1	No Gas	857428	1.79	864958	99.13	70	120	

Interference Check Solution A (ICS-A) Report

Sample Table

Sample Name	ICSA
Data File Name	037ICSA.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\031523A.b
Acq Date Time	2023-03-15T12:25:04-05:00
Sample Type	ICSA
Dilution	1
Comment	
ISTD Ref File Name	024CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Li	7	1	No Gas	0.212	42.2	39599	3.1	0	ICSA Main CR1 Failed
Be	9	1	No Gas	0.008	24.2	35	14.3	0	ICSA Main CR1 Failed
V	51	2	He	0.085	12.2	3649	1.1	0	ICSA Main CR1 Failed
Cr	52	2	He	2.000	5.8	18686	2.7	0	ICSA Main CR1 Failed
Fe	56	2	He	102857.131	2.1	320711669	1.8	0	
Se	78	2	He	-0.527	-35.9	183	5.6	0	ICSA Main CR1 Failed
As	75	2	He	0.321	29.8	397	14.3	0	ICSA Main CR1 Failed
Ca	44	2	He	100727.002	1.1	2622626	1.6	0	
Na	23	2	He	104820.493	0.8	63583299	0.4	0	
Mg	24	2	He	103662.027	1.3	37521686	0.9	0	
K	39	2	He	102970.910	1.5	55072884	1.3	0	
Mn	55	2	He	1.348	5.9	4384	5.4	0	ICSA Main CR1 Failed
Co	59	2	He	0.491	3.1	2364	2.9	0	ICSA Main CR1 Failed
Ni	60	2	He	1.373	5.3	1780	4.4	0	ICSA Main CR1 Failed
Cu	63	2	He	1.596	5.3	5748	4.1	0	ICSA Main CR1 Failed
Zn	66	2	He	4.733	11.2	3734	8.5	0	ICSA Main CR1 Failed
Al	27	2	He	103043.667	1.4	25951785	1.8	0	
B	11	1	No Gas	5.913	5.2	12773	2.0	0	
Al	27	1	No Gas	96930.703	3.3	874156867	1.9	0	
Si	28	1	No Gas	35.220	8.9	585447	0.8	0	
Ag	107	1	No Gas	0.178	12.7	1313	9.6	0	ICSA Main CR1 Failed
Cd	111	1	No Gas	0.162	147.3	205	145.8	0	ICSA Main CR1 Failed
Sr	88	1	No Gas	4.938	4.5	76612	3.1	0	ICSA Main CR1 Failed
Mo	95	1	No Gas	2059.586	2.2	5975626	1.8	0	
Sn	118	1	No Gas	0.512	7.4	2710	7.8	0	ICSA Main CR1 Failed
Sb	121	1	No Gas	0.256	2.7	1747	2.3	0	ICSA Main CR1 Failed
Ba	137	1	No Gas	1.628	7.8	4151	5.4	0	ICSA Main CR1 Failed
Tl	205	1	No Gas	0.019	41.4	293	23.2	0	ICSA Main CR1 Failed
Tl	203	1	No Gas	0.015	62.2	117	30.1	0	ICSA Main CR1 Failed
Pb	208	1	No Gas	0.177	14.1	3147	10.4	0	ICSA Main CR1 Failed
U	238	1	No Gas	0.009	37.5	123	32.8	0	ICSA Main CR1 Failed
Ca	43	2	He	100758.230	1.7	154344	1.6	0	
Sb	121	2	He	0.264	13.0	910	12.2	0	ICSA Main CR1 Failed
Ti	47	2	He	2141.871	0.8	302385	0.9	0	
Se	82	1	No Gas	-0.569	-70.3	-66	-61.7	0	ICSA Main CR1 Failed

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	618660	1.17	660437	93.67	70	120	
Ge	72	2	He	374991	0.48	399803	93.79	70	120	
Ge	72	1	No Gas	1207610	1.88	1268211	95.22	70	120	
In	115	1	No Gas	1179181	2.10	1277171	92.33	70	120	
Bi	209	1	No Gas	801339	0.80	864958	92.64	70	120	

Interference Check Solution AB (ICS-AB) Report

Sample Table

Sample Name	ICSAB
Data File Name	038ICSB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\031523A.b
Acq Date Time	2023-03-15T12:27:05-05:00
Sample Type	ICSB
Dilution	1
Comment	
ISTD Ref File Name	024CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	1	No Gas	98.056	0.874	878824	0.68	100	98.1	180	120	ICSB Main CR1 Failed
Be	9	1	No Gas	102.174	0.751	248370	0.66	100	102.2	80	120	
V	51	2	He	102.525	0.259	351524	0.15	100	102.5	80	120	
Cr	52	2	He	102.911	0.908	385376	0.58	100	102.9	80	120	
Fe	56	2	He	111870.811	2.135	350575155	1.74	100	111870.8	80	120	
Se	78	2	He	103.289	1.760	6025	1.80	100	103.3	80	120	
As	75	2	He	103.133	1.172	63453	1.30	100	103.1	80	120	
Ca	44	2	He	109889.378	1.403	2875403	1.06	100	109889.4	80	120	
Na	23	2	He	113482.256	0.992	69184231	0.95	100	113482.3	80	120	
Mg	24	2	He	113056.189	1.208	41129095	0.81	100	113056.2	80	120	
K	39	2	He	111778.092	0.849	60077109	0.45	100	111778.1	80	120	
Mn	55	2	He	102.937	0.894	293257	0.53	100	102.9	80	120	
Co	59	2	He	103.764	1.108	484663	1.25	100	103.8	80	120	
Ni	60	2	He	102.744	1.913	117605	1.59	100	102.7	80	120	
Cu	63	2	He	101.917	0.779	294941	0.85	100	101.9	80	120	
Zn	66	2	He	105.985	2.247	67665	2.36	100	106.0	80	120	
Al	27	2	He	101803.700	1.427	25767365	1.03	100	101803.7	80	120	ICSB Main CR1 Failed
B	11	1	No Gas	521.800	0.473	627709	1.76	100	521.8	80	120	
Al	27	1	No Gas	97415.710	1.931	886467453	1.13	100	97415.7	80	120	ICSB Main CR1 Failed
Si	28	1	No Gas	563.415	2.755	3104555	1.74	100	563.4	80	120	
Ag	107	1	No Gas	103.564	1.712	708968	1.00	100	103.6	80	120	
Cd	111	1	No Gas	102.509	0.280	130409	1.46	100	102.5	80	120	
Sr	88	1	No Gas	107.539	2.432	1667292	1.37	100	107.5	80	120	
Mo	95	1	No Gas	2161.202	1.352	6303139	1.14	100	2161.2	80	120	
Sn	118	1	No Gas	103.958	0.381	437359	0.96	100	104.0	80	120	
Sb	121	1	No Gas	102.301	1.625	650273	0.53	100	102.3	80	120	
Ba	137	1	No Gas	106.365	1.397	250497	2.35	100	106.4	80	120	
Tl	205	1	No Gas	103.367	0.686	902781	0.77	100	103.4	80	120	
Tl	203	1	No Gas	102.694	1.042	379814	1.01	100	102.7	80	120	
Pb	208	1	No Gas	104.568	0.570	1327442	1.00	100	104.6	80	120	
U	238	1	No Gas	107.801	2.382	1301060	1.91	100	107.8	80	120	
Ca	43	2	He	110847.220	0.593	170658	0.49	100	110847.2	80	120	
Sb	121	2	He	103.292	0.302	338175	0.11	100	103.3	80	120	
Ti	47	2	He	2241.113	0.983	317986	0.60	100	2241.1	80	120	
Cu	63	1	No Gas	101.919	2.683	626285	1.21	100	101.9	80	120	
Se	82	1	No Gas	103.754	4.717	10596	3.16	100	103.8	80	120	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	618084	1.31	660437	93.59	70	120	
Ge	72	2	He	376886	0.40	399803	94.27	70	120	
Ge	72	1	No Gas	1218285	1.59	1268211	96.06	70	120	
In	115	1	No Gas	1185168	1.31	1277171	92.80	70	120	
Bi	209	1	No Gas	799743	0.77	864958	92.46	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	041_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\031523A.b
Acq Date Time	2023-03-15T12:35:06-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	024CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	No Gas	93.261	2.882	876367	1.95	100	93.3	90	110	
Be	9	1	No Gas	94.370	1.511	240004	0.63	100	94.4	90	110	
V	51	2	He	96.146	0.960	344048	0.64	100	96.1	90	110	
Cr	52	2	He	96.571	1.402	377915	0.64	100	96.6	90	110	
Fe	56	2	He	9680.680	0.629	31655903	0.70	10000	96.8	90	110	
Se	78	2	He	97.269	3.354	5931	3.32	100	97.3	90	110	
As	75	2	He	97.441	0.868	62540	0.14	100	97.4	90	110	
Ca	44	2	He	9690.803	1.504	265046	0.60	10000	96.9	90	110	
Na	23	2	He	9876.431	1.435	6304647	0.85	10000	98.8	90	110	
Mg	24	2	He	9690.660	0.650	3677926	1.10	10000	96.9	90	110	
K	39	2	He	9841.248	1.522	5613323	0.72	10000	98.4	90	110	
Mn	55	2	He	97.848	1.435	290766	0.51	100	97.8	90	110	
Co	59	2	He	97.394	1.323	474457	0.44	100	97.4	90	110	
Ni	60	2	He	97.754	1.594	116717	1.22	100	97.8	90	110	
Cu	63	2	He	99.126	1.570	299230	1.28	100	99.1	90	110	
Zn	66	2	He	97.502	1.795	64986	1.05	100	97.5	90	110	
Al	27	2	He	98.284	2.699	26639	1.66	100	98.3	90	110	
B	11	1	No Gas	471.650	1.876	594185	2.20	500	94.3	90	110	
Al	27	1	No Gas	98.239	2.188	948635	1.96	100	98.2	90	110	
Si	28	1	No Gas	587.471	2.417	3339870	1.73	5000	11.7	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	98.953	1.440	709401	1.47	100	99.0	90	110	
Cd	111	1	No Gas	95.621	3.254	127331	0.62	100	95.6	90	110	
Sr	88	1	No Gas	96.973	2.703	1574304	1.10	100	97.0	90	110	
Mo	95	1	No Gas	95.085	1.686	290437	1.23	100	95.1	90	110	
Sn	118	1	No Gas	95.997	2.227	422881	0.78	100	96.0	90	110	
Sb	121	1	No Gas	95.784	2.247	631692	1.79	100	95.8	90	110	
Ba	137	1	No Gas	96.619	2.178	238247	0.70	100	96.6	90	110	
Tl	205	1	No Gas	99.607	1.727	928577	1.74	100	99.6	90	110	
Tl	203	1	No Gas	98.779	1.435	389967	1.63	100	98.8	90	110	
Pb	208	1	No Gas	96.268	1.822	1304503	1.87	100	96.3	90	110	
U	238	1	No Gas	95.678	3.271	1232664	3.29	100	95.7	90	110	
Ca	43	2	He	9805.549	1.934	15759	2.50	10000	98.1	90	110	
Sb	121	2	He	97.478	1.402	332864	0.98	100	97.5	90	110	
Ti	47	2	He	95.148	2.072	14091	2.10	100	95.1	90	110	
Cu	63	1	No Gas	97.497	2.146	621808	2.02	100	97.5	90	110	
Se	82	1	No Gas	91.771	4.030	9726	3.60	100	91.8	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	646690	1.25	660437	97.92	70	120	
Ge	72	2	He	393110	0.97	399803	98.33	70	120	
Ge	72	1	No Gas	1263991	1.79	1268211	99.67	70	120	
In	115	1	No Gas	1241321	2.88	1277171	97.19	70	120	
Bi	209	1	No Gas	853648	0.87	864958	98.69	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	042_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\031523A.b
Acq Date Time	2023-03-15T12:37:03-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	024CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Li	7	1	No Gas	0.299	39.8	43485	3.1	0.5	
Be	9	1	No Gas	0.026	25.8	85	21.2	0.5	
V	51	2	He	-0.164	-15.8	2959	2.8	2.5	
Cr	52	2	He	-0.013	-891.7	12022	3.4	2.5	
Fe	56	2	He	1.992	11.8	20102	3.5	100	
Se	78	2	He	-0.107	-355.4	217	10.8	2	
As	75	2	He	-0.048	-85.5	181	14.9	2.5	
Ca	44	2	He	3.053	94.1	717	10.6	100	
Na	23	2	He	8.062	10.1	32391	2.1	100	
Mg	24	2	He	2.038	30.8	1520	16.1	100	
K	39	2	He	0.657	406.5	106898	1.5	100	
Mn	55	2	He	0.078	27.4	833	7.2	2.5	
Co	59	2	He	0.015	50.3	157	22.4	2.5	
Ni	60	2	He	0.122	26.9	377	11.1	2.5	
Cu	63	2	He	0.004	972.9	1247	8.9	2	
Zn	66	2	He	0.101	182.7	870	14.4	2.5	
Al	27	2	He	-0.034	-1470.4	690	18.8	5	
B	11	1	No Gas	15.547	10.2	26151	7.1	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	-0.005	-907.7	21240	2.0	5	
Si	28	1	No Gas	1.144	75.1	447952	0.7	10	
Ag	107	1	No Gas	0.024	8.9	287	4.0	2.5	
Cd	111	1	No Gas	0.041	19.6	60	16.7	1	
Sr	88	1	No Gas	0.023	31.1	907	12.9	2.5	
Mo	95	1	No Gas	0.106	44.8	393	37.1	2.5	
Sn	118	1	No Gas	0.074	11.5	960	3.1	5	
Sb	121	1	No Gas	0.066	28.3	583	21.4	2.5	
Ba	137	1	No Gas	0.050	22.9	507	4.1	2.5	
Tl	205	1	No Gas	0.148	22.5	1550	19.7	1	
Tl	203	1	No Gas	0.151	9.2	677	7.6	1	
Pb	208	1	No Gas	0.031	18.2	1410	6.3	2.5	
U	238	1	No Gas	0.031	29.7	433	27.5	2.5	
Ca	43	2	He	8.288	43.4	27	21.7	100	
Sb	121	2	He	0.051	38.7	227	29.4	2.5	
Ti	47	2	He	0.113	69.9	27	43.3	2.5	
Cu	63	1	No Gas	-0.019	-108.0	2830	4.6	2.5	
Se	82	1	No Gas	-0.063	-610.5	-15	-273.1	2	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	666902	0.72	660437	100.98	70	120	
Ge	72	2	He	395113	0.69	399803	98.83	70	120	
Ge	72	1	No Gas	1273317	0.22	1268211	100.40	70	120	
In	115	1	No Gas	1292352	2.33	1277171	101.19	70	120	
Bi	209	1	No Gas	872733	0.78	864958	100.90	70	120	

Sample Report

Sample Table

Sample Name	LCS-190792
Data File Name	044SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\031523A.b
Acq Date Time	2023-03-15T12:41:03-05:00
Sample Type	Sample
Dilution	1
Comment	TW DOD B 190792
ISTD Ref FileName	024CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	0.132	0.132	14.68	43204	0.00	2000	
Be	9	1	No Gas	46.275	46.275	0.91	125057	0.04	2000	
V	51	2	He	47.966	47.966	1.22	180331	0.03	2000	
Cr	52	2	He	47.052	47.052	1.45	197901	0.02	2000	
Fe	56	2	He	4869.353	4869.353	1.33	16565320	0.03	200000	
Se	78	2	He	49.046	49.046	8.29	3223	1.52	2000	
As	75	2	He	49.195	49.195	0.62	32946	0.15	2000	
Ca	44	2	He	4776.601	4776.601	2.19	136185	3.51	200000	
Na	23	2	He	4997.256	4997.256	1.94	3331320	0.15	200000	
Mg	24	2	He	5022.226	5022.226	2.15	1982475	0.25	200000	
K	39	2	He	5021.664	5021.664	1.97	3032728	0.17	200000	
Mn	55	2	He	48.894	48.894	1.64	151408	0.03	2000	
Co	59	2	He	49.108	49.108	2.54	248811	0.02	2000	
Ni	60	2	He	49.184	49.184	0.87	61194	0.08	2000	
Cu	63	2	He	49.264	49.264	1.37	155296	0.03	2000	
Zn	66	2	He	49.660	49.660	2.99	34835	0.14	2000	
Al	27	2	He	51.046	51.046	3.87	14735	0.35	2000	
B	11	1	No Gas	4.198	4.198	4.37	11913	0.04	2000	
Al	27	1	No Gas	49.921	49.921	3.52	516672	0.01	2000	
Si	28	1	No Gas	47.393	47.393	8.64	706161	0.01	2000	
Ag	107	1	No Gas	50.477	50.477	1.07	380931	0.01	2000	
Cd	111	1	No Gas	48.828	48.828	1.56	68472	0.07	2000	
Sr	88	1	No Gas	0.033	0.033	6.05	1100	0.00	2000	
Mo	95	1	No Gas	47.557	47.557	0.49	152934	0.03	2000	
Sn	118	1	No Gas	0.017	0.017	231.43	707	0.00	2000	
Sb	121	1	No Gas	48.261	48.261	3.88	333986	0.01	2000	
Ba	137	1	No Gas	47.483	47.483	0.94	123446	0.04	2000	
Tl	205	1	No Gas	48.234	48.234	1.94	475783	0.01	2000	
Tl	203	1	No Gas	47.355	47.355	1.53	197828	0.02	2000	
Pb	208	1	No Gas	47.912	47.912	1.36	687400	0.01	2000	
U	238	1	No Gas	0.001	0.001	98.55	37	0.00	2000	
Ca	43	2	He	4672.244	4672.244	1.09	7816	59.78	200000	
Sb	121	2	He	48.609	48.609	1.60	172662	0.03	2000	
Ti	47	2	He	47.714	47.714	5.05	7352	0.65	2000	
Cu	63	1	No Gas	48.644	48.644	3.10	327055	0.01	2000	
Zn	66	1	No Gas	48.039	48.039	3.62	88142	0.05	2000	
Se	82	1	No Gas	49.376	49.376	1.14	5490	0.90	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	687062	0.82	660437	104.03	70	120	
Ge	72	2	He	408832	1.34	399803	102.26	70	120	
Ge	72	1	No Gas	1327029	3.54	1268211	104.64	70	120	
In	115	1	No Gas	1306259	1.19	1277171	102.28	70	120	

Sample Report

Bi	209	1	No Gas	903270	1.56	864958	104.43	70	120	

Sample Report

Sample Table

Sample Name	HS23030399-01
Data File Name	046SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\031523A.b
Acq Date Time	2023-03-15T12:45:02-05:00
Sample Type	Sample
Dilution	1
Comment	TW DOD B 190792
ISTD Ref FileName	024CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	22.913	22.913	0.27	265172	0.01	2000	
Be	9	1	No Gas	0.057	0.057	9.43	175	0.03	2000	
V	51	2	He	1.061	1.061	4.64	7830	0.01	2000	
Cr	52	2	He	0.432	0.432	17.93	14671	0.00	2000	
Fe	56	2	He	666.586	666.586	3.07	2357202	0.03	200000	
Se	78	2	He	0.553	0.553	121.79	274	0.20	2000	
As	75	2	He	1.420	1.420	8.47	1203	0.12	2000	
Ca	44	2	He	25964.531	25964.531	0.58	762507	3.41	200000	
Na	23	2	He	228573.263	228573.263	0.53	156259191	0.15	200000	>LDR
Mg	24	2	He	22165.721	22165.721	1.04	9044574	0.25	200000	
K	39	2	He	1223.062	1223.062	1.54	850034	0.14	200000	
Mn	55	2	He	232.857	232.857	1.03	743202	0.03	2000	
Co	59	2	He	3.425	3.425	1.02	18032	0.02	2000	
Ni	60	2	He	10.745	10.745	3.00	14017	0.08	2000	
Cu	63	2	He	7.354	7.354	2.82	25093	0.03	2000	
Zn	66	2	He	15.962	15.962	0.38	12159	0.13	2000	
Al	27	2	He	27.790	27.790	2.95	8637	0.32	2000	
B	11	1	No Gas	31.684	31.684	1.58	49216	0.06	2000	
Al	27	1	No Gas	26.888	26.888	11.54	294406	0.01	2000	
Si	28	1	No Gas	13379.931	13379.931	0.56	71175807	0.02	2000	>LDR
Ag	107	1	No Gas	0.017	0.017	21.01	240	0.01	2000	
Cd	111	1	No Gas	0.061	0.061	78.33	88	0.07	2000	
Sr	88	1	No Gas	499.531	499.531	1.18	8472852	0.01	2000	
Mo	95	1	No Gas	0.936	0.936	4.30	3044	0.03	2000	
Sn	118	1	No Gas	0.068	0.068	24.95	933	0.01	2000	
Sb	121	1	No Gas	0.655	0.655	1.86	4774	0.01	2000	
Ba	137	1	No Gas	248.074	248.074	1.09	638630	0.04	2000	
Tl	205	1	No Gas	0.020	0.020	24.74	327	0.01	2000	
Tl	203	1	No Gas	0.024	0.024	65.95	163	0.01	2000	
Pb	208	1	No Gas	0.196	0.196	1.72	3647	0.01	2000	
U	238	1	No Gas	0.787	0.787	1.60	10244	0.01	2000	
Ca	43	2	He	26846.791	26846.791	0.99	46368	57.90	200000	
Sb	121	2	He	0.671	0.671	6.15	2520	0.03	2000	
Ti	47	2	He	1.148	1.148	31.86	193	0.59	2000	
Cu	63	1	No Gas	8.965	8.965	1.26	64034	0.01	2000	
Zn	66	1	No Gas	15.440	15.440	3.68	30341	0.05	2000	
Se	82	1	No Gas	1.146	1.146	66.82	122	0.94	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	699548	1.04	660437	105.92	70	120	
Ge	72	2	He	422698	0.53	399803	105.73	70	120	
Ge	72	1	No Gas	1352458	0.75	1268211	106.64	70	120	
In	115	1	No Gas	1296640	0.25	1277171	101.52	70	120	
Bi	209	1	No Gas	860526	0.05	864958	99.49	70	120	

Sample Report

Sample Table

Sample Name	HS23030399-01SD
Data File Name	047SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\031523A.b
Acq Date Time	2023-03-15T12:47:03-05:00
Sample Type	Sample
Dilution	5
Comment	TW DOD B 190792
ISTD Ref FileName	024CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	6.325	31.624	2.06	106581	0.01	2000	
Be	9	1	No Gas	0.015	0.077	6.19	62	0.03	2000	
V	51	2	He	2.258	11.288	1.83	12293	0.02	2000	
Cr	52	2	He	3.167	15.834	4.17	25618	0.01	2000	
Fe	56	2	He	145.016	725.079	1.80	520153	0.03	200000	
Se	78	2	He	-0.117	-0.587	-42.86	230	-0.05	2000	
As	75	2	He	0.631	3.155	18.01	656	0.10	2000	
Ca	44	2	He	5180.142	25900.710	1.09	151494	3.42	200000	
Na	23	2	He	47043.708	235218.538	1.14	31935125	0.15	200000	
Mg	24	2	He	4699.439	23497.194	1.37	1903427	0.25	200000	
K	39	2	He	259.741	1298.707	0.76	268190	0.10	200000	
Mn	55	2	He	47.903	239.515	0.51	152220	0.03	2000	
Co	59	2	He	0.700	3.499	7.50	3727	0.02	2000	
Ni	60	2	He	3.486	17.430	3.19	4678	0.07	2000	
Cu	63	2	He	1.923	9.614	2.45	7479	0.03	2000	
Zn	66	2	He	3.120	15.599	9.03	3044	0.10	2000	
Al	27	2	He	6.334	31.670	16.47	2527	0.25	2000	
B	11	1	No Gas	8.770	43.850	0.18	18733	0.05	2000	
Al	27	1	No Gas	5.993	29.964	10.50	84072	0.01	2000	
Si	28	1	No Gas	2623.430	13117.149	2.24	14480840	0.02	2000	>LDR
Ag	107	1	No Gas	0.005	0.025	45.54	153	0.00	2000	
Cd	111	1	No Gas	0.003	0.016	813.04	8	0.04	2000	
Sr	88	1	No Gas	103.096	515.482	0.78	1795858	0.01	2000	
Mo	95	1	No Gas	0.186	0.929	19.82	667	0.03	2000	
Sn	118	1	No Gas	0.245	1.226	98.33	1813	0.01	2000	
Sb	121	1	No Gas	0.153	0.765	12.25	1247	0.01	2000	
Ba	137	1	No Gas	48.749	243.745	0.33	129179	0.04	2000	
Tl	205	1	No Gas	0.010	0.048	45.50	233	0.00	2000	
Tl	203	1	No Gas	0.011	0.055	45.58	113	0.01	2000	
Pb	208	1	No Gas	0.016	0.080	44.41	1223	0.00	2000	
U	238	1	No Gas	0.166	0.831	4.43	2254	0.01	2000	
Ca	43	2	He	5215.442	26077.209	2.59	8950	58.27	200000	
Sb	121	2	He	0.149	0.747	27.89	600	0.02	2000	
Ti	47	2	He	0.314	1.568	35.09	60	0.52	2000	
Cu	63	1	No Gas	2.392	11.962	4.46	19588	0.01	2000	
Zn	66	1	No Gas	3.258	16.288	8.02	8169	0.04	2000	
Se	82	1	No Gas	0.241	1.205	299.29	18	1.32	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	716115	0.34	660437	108.43	70	120	
Ge	72	2	He	419434	0.15	399803	104.91	70	120	
Ge	72	1	No Gas	1366588	1.03	1268211	107.76	70	120	
In	115	1	No Gas	1331445	2.22	1277171	104.25	70	120	

Sample Report

Bi	209	1	No Gas	890636	0.24	864958	102.97	70	120	

Sample Report

Sample Table

Sample Name	HS23030399-01MS
Data File Name	048SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\031523A.b
Acq Date Time	2023-03-15T12:49:01-05:00
Sample Type	Sample
Dilution	1
Comment	TW DOD B 190792
ISTD Ref FileName	024CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	23.195	23.195	0.67	266357	0.01	2000	
Be	9	1	No Gas	47.889	47.889	1.39	131011	0.04	2000	
V	51	2	He	50.163	50.163	0.43	195285	0.03	2000	
Cr	52	2	He	47.664	47.664	0.92	207597	0.02	2000	
Fe	56	2	He	5483.599	5483.599	1.01	19332339	0.03	200000	
Se	78	2	He	49.107	49.107	2.66	3346	1.47	2000	
As	75	2	He	52.415	52.415	1.69	36362	0.14	2000	
Ca	44	2	He	30595.087	30595.087	2.17	900420	3.40	200000	
Na	23	2	He	238849.769	238849.769	1.02	163663701	0.15	200000	>LDR
Mg	24	2	He	27144.268	27144.268	0.42	11101742	0.24	200000	
K	39	2	He	6303.740	6303.740	0.27	3916529	0.16	200000	
Mn	55	2	He	286.728	286.728	1.87	917115	0.03	2000	
Co	59	2	He	51.015	51.015	2.22	267900	0.02	2000	
Ni	60	2	He	58.181	58.181	1.94	74973	0.08	2000	
Cu	63	2	He	50.886	50.886	1.00	166210	0.03	2000	
Zn	66	2	He	62.669	62.669	0.52	45329	0.14	2000	
Al	27	2	He	79.127	79.127	4.94	23261	0.34	2000	
B	11	1	No Gas	31.573	31.573	0.43	48779	0.06	2000	
Al	27	1	No Gas	73.062	73.062	2.65	765034	0.01	2000	
Si	28	1	No Gas	13439.479	13439.479	0.47	71878921	0.02	2000	>LDR
Ag	107	1	No Gas	47.628	47.628	0.96	362250	0.01	2000	
Cd	111	1	No Gas	48.125	48.125	2.04	67993	0.07	2000	
Sr	88	1	No Gas	508.122	508.122	0.89	8749729	0.01	2000	
Mo	95	1	No Gas	48.634	48.634	1.21	157608	0.03	2000	
Sn	118	1	No Gas	0.026	0.026	129.23	757	0.00	2000	
Sb	121	1	No Gas	48.479	48.479	1.01	344097	0.01	2000	
Ba	137	1	No Gas	298.758	298.758	1.14	780732	0.04	2000	
Tl	205	1	No Gas	44.109	44.109	0.56	414403	0.01	2000	
Tl	203	1	No Gas	43.009	43.009	1.15	171119	0.03	2000	
Pb	208	1	No Gas	48.189	48.189	1.56	658424	0.01	2000	
U	238	1	No Gas	0.796	0.796	2.37	10348	0.01	2000	
Ca	43	2	He	31098.110	31098.110	1.14	53832	57.77	200000	
Sb	121	2	He	49.012	49.012	0.73	180412	0.03	2000	
Ti	47	2	He	53.370	53.370	3.37	8523	0.63	2000	
Cu	63	1	No Gas	52.670	52.670	0.47	362881	0.01	2000	
Zn	66	1	No Gas	61.702	61.702	1.19	115499	0.05	2000	
Se	82	1	No Gas	49.837	49.837	8.74	5680	0.88	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	695519	1.38	660437	105.31	70	120	
Ge	72	2	He	423677	0.52	399803	105.97	70	120	
Ge	72	1	No Gas	1359832	0.74	1268211	107.22	70	120	
In	115	1	No Gas	1316493	1.73	1277171	103.08	70	120	
Bi	209	1	No Gas	860122	0.34	864958	99.44	70	120	

Sample Report

Sample Table

Sample Name	HS23030399-01MSD
Data File Name	049SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\031523A.b
Acq Date Time	2023-03-15T12:51:01-05:00
Sample Type	Sample
Dilution	1
Comment	TW DOD B 190792
ISTD Ref FileName	024CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	23.626	23.626	2.14	269482	0.01	2000	
Be	9	1	No Gas	48.287	48.287	2.16	131595	0.04	2000	
V	51	2	He	50.440	50.440	0.91	193266	0.03	2000	
Cr	52	2	He	48.499	48.499	0.76	207705	0.02	2000	
Fe	56	2	He	5495.828	5495.828	1.37	19071580	0.03	200000	
Se	78	2	He	50.338	50.338	3.41	3370	1.49	2000	
As	75	2	He	52.054	52.054	0.35	35550	0.15	2000	
Ca	44	2	He	30753.172	30753.172	1.42	890886	3.45	200000	
Na	23	2	He	239095.839	239095.839	0.94	161260594	0.15	200000	>LDR
Mg	24	2	He	27726.393	27726.393	0.82	11162375	0.25	200000	
K	39	2	He	6276.840	6276.840	1.73	3838905	0.16	200000	
Mn	55	2	He	285.318	285.318	1.02	898313	0.03	2000	
Co	59	2	He	51.682	51.682	1.04	267167	0.02	2000	
Ni	60	2	He	58.450	58.450	0.93	74141	0.08	2000	
Cu	63	2	He	51.155	51.155	0.84	164469	0.03	2000	
Zn	66	2	He	63.091	63.091	0.59	44915	0.14	2000	
Al	27	2	He	78.673	78.673	2.53	22769	0.35	2000	
B	11	1	No Gas	31.846	31.846	2.87	48953	0.07	2000	
Al	27	1	No Gas	72.539	72.539	0.72	757580	0.01	2000	
Si	28	1	No Gas	13336.430	13336.430	0.36	71140889	0.02	2000	>LDR
Ag	107	1	No Gas	47.680	47.680	1.51	355173	0.01	2000	
Cd	111	1	No Gas	48.391	48.391	1.15	66965	0.07	2000	
Sr	88	1	No Gas	512.750	512.750	2.30	8645931	0.01	2000	
Mo	95	1	No Gas	49.396	49.396	0.86	156785	0.03	2000	
Sn	118	1	No Gas	0.048	0.048	15.44	840	0.01	2000	
Sb	121	1	No Gas	48.086	48.086	1.04	340402	0.01	2000	
Ba	137	1	No Gas	301.954	301.954	0.79	772844	0.04	2000	
Tl	205	1	No Gas	44.099	44.099	1.98	410040	0.01	2000	
Tl	203	1	No Gas	43.605	43.605	1.99	171702	0.03	2000	
Pb	208	1	No Gas	48.056	48.056	2.19	649849	0.01	2000	
U	238	1	No Gas	0.815	0.815	4.19	10488	0.01	2000	
Ca	43	2	He	31474.578	31474.578	1.46	53628	58.69	200000	
Sb	121	2	He	50.108	50.108	1.47	181555	0.03	2000	
Ti	47	2	He	52.190	52.190	1.65	8206	0.64	2000	
Cu	63	1	No Gas	52.047	52.047	1.02	357672	0.01	2000	
Zn	66	1	No Gas	60.561	60.561	0.31	113092	0.05	2000	
Se	82	1	No Gas	48.805	48.805	6.58	5547	0.88	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	692990	1.72	660437	104.93	70	120	
Ge	72	2	He	417065	1.30	399803	104.32	70	120	
Ge	72	1	No Gas	1356189	0.39	1268211	106.94	70	120	
In	115	1	No Gas	1289400	2.28	1277171	100.96	70	120	
Bi	209	1	No Gas	851345	0.96	864958	98.43	70	120	

Sample Report

Sample Table

Sample Name	HS23030399-01PDS
Data File Name	050SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\031523A.b
Acq Date Time	2023-03-15T12:53:01-05:00
Sample Type	Sample
Dilution	1
Comment	TW DOD B 190792
ISTD Ref FileName	024CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	23.099	23.099	1.06	266381	0.01	2000	
Be	9	1	No Gas	92.837	92.837	1.06	254848	0.04	2000	
V	51	2	He	96.616	96.616	0.41	369281	0.03	2000	
Cr	52	2	He	93.353	93.353	0.59	390668	0.02	2000	
Fe	56	2	He	10202.527	10202.527	0.16	35635084	0.03	200000	
Se	78	2	He	98.672	98.672	2.06	6424	1.54	2000	
As	75	2	He	100.939	100.939	1.31	69191	0.15	2000	
Ca	44	2	He	35178.164	35178.164	1.47	1025980	3.43	200000	
Na	23	2	He	241391.128	241391.128	0.48	163920404	0.15	200000	>LDR
Mg	24	2	He	31934.804	31934.804	1.02	12943947	0.25	200000	
K	39	2	He	10999.467	10999.467	0.44	6688640	0.16	200000	
Mn	55	2	He	333.777	333.777	2.65	1057953	0.03	2000	
Co	59	2	He	96.825	96.825	0.11	503855	0.02	2000	
Ni	60	2	He	104.048	104.048	2.21	132698	0.08	2000	
Cu	63	2	He	95.286	95.286	1.78	307301	0.03	2000	
Zn	66	2	He	110.559	110.559	1.10	78604	0.14	2000	
Al	27	2	He	123.839	123.839	2.61	35666	0.35	2000	
B	11	1	No Gas	31.074	31.074	0.52	48281	0.06	2000	
Al	27	1	No Gas	129.935	129.935	14.11	1304956	0.01	2000	
Si	28	1	No Gas	13498.175	13498.175	0.71	70273382	0.02	2000	>LDR
Ag	107	1	No Gas	96.822	96.822	2.22	711208	0.01	2000	
Cd	111	1	No Gas	95.000	95.000	0.94	129690	0.07	2000	
Sr	88	1	No Gas	514.949	514.949	1.69	8566034	0.01	2000	
Mo	95	1	No Gas	96.976	96.976	1.93	303544	0.03	2000	
Sn	118	1	No Gas	0.025	0.025	55.48	723	0.00	2000	
Sb	121	1	No Gas	92.529	92.529	0.95	639122	0.01	2000	
Ba	137	1	No Gas	349.786	349.786	1.87	882996	0.04	2000	
Tl	205	1	No Gas	101.532	101.532	1.44	937472	0.01	2000	
Tl	203	1	No Gas	100.105	100.105	2.26	391387	0.03	2000	
Pb	208	1	No Gas	95.392	95.392	1.19	1280430	0.01	2000	
U	238	1	No Gas	0.811	0.811	4.10	10368	0.01	2000	
Ca	43	2	He	35616.468	35616.468	0.64	61102	58.29	200000	
Sb	121	2	He	93.181	93.181	0.35	339890	0.03	2000	
Ti	47	2	He	95.885	95.885	2.30	15169	0.63	2000	
Cu	63	1	No Gas	97.722	97.722	1.58	652653	0.01	2000	
Zn	66	1	No Gas	108.875	108.875	1.36	196768	0.06	2000	
Se	82	1	No Gas	99.543	99.543	5.42	11043	0.90	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	698028	2.01	660437	105.69	70	120	
Ge	72	2	He	419887	0.58	399803	105.02	70	120	
Ge	72	1	No Gas	1323723	2.03	1268211	104.38	70	120	
In	115	1	No Gas	1272006	2.55	1277171	99.60	70	120	
Bi	209	1	No Gas	845576	1.45	864958	97.76	70	120	

Sample Report

Sample Table

Sample Name	MBLK-190792
Data File Name	052SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\031523A.b
Acq Date Time	2023-03-15T12:56:59-05:00
Sample Type	Sample
Dilution	1
Comment	TW DOD B 190792
ISTD Ref FileName	024CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	1	No Gas	0.942	0.942	2.04	53133	0.00	2000	
Be	9	1	No Gas	0.013	0.013	30.36	53	0.02	2000	
V	51	2	He	0.614	0.614	3.71	6008	0.01	2000	
Cr	52	2	He	0.212	0.212	87.16	13503	0.00	2000	
Fe	56	2	He	1.331	1.331	4.16	18803	0.01	200000	
Se	78	2	He	-0.320	-0.320	-73.54	215	-0.15	2000	
As	75	2	He	0.094	0.094	64.08	286	0.03	2000	
Ca	44	2	He	2.870	2.870	115.77	747	0.38	200000	
Na	23	2	He	60.123	60.123	4.78	68846	0.09	200000	
Mg	24	2	He	1.363	1.363	16.81	1323	0.10	200000	
K	39	2	He	9.916	9.916	23.75	117560	0.01	200000	
Mn	55	2	He	0.087	0.087	7.38	900	0.01	2000	
Co	59	2	He	0.012	0.012	15.98	150	0.01	2000	
Ni	60	2	He	0.094	0.094	39.04	360	0.03	2000	
Cu	63	2	He	0.124	0.124	21.47	1687	0.01	2000	
Zn	66	2	He	0.252	0.252	45.04	1017	0.02	2000	
Al	27	2	He	-0.168	-0.168	-100.87	687	-0.02	2000	
B	11	1	No Gas	1.765	1.765	10.97	9065	0.02	2000	
Al	27	1	No Gas	0.136	0.136	117.23	23921	0.00	2000	
Si	28	1	No Gas	2.329	2.329	16.24	480609	0.00	2000	
Ag	107	1	No Gas	0.002	0.002	571.19	127	0.00	2000	
Cd	111	1	No Gas	-0.002	-0.002	-13.28	0	0.97	2000	
Sr	88	1	No Gas	0.038	0.038	17.38	1167	0.00	2000	
Mo	95	1	No Gas	0.070	0.070	46.76	280	0.03	2000	
Sn	118	1	No Gas	0.001	0.001	4572.80	623	0.00	2000	
Sb	121	1	No Gas	0.146	0.146	9.10	1180	0.01	2000	
Ba	137	1	No Gas	0.028	0.028	98.11	450	0.01	2000	
Tl	205	1	No Gas	0.011	0.011	32.72	243	0.00	2000	
Tl	203	1	No Gas	0.018	0.018	28.20	140	0.01	2000	
Pb	208	1	No Gas	-0.007	-0.007	-170.39	903	0.00	2000	
U	238	1	No Gas	0.000	0.000	-146.57	17	0.00	2000	
Ca	43	2	He	27.186	27.186	57.08	60	45.31	200000	
Sb	121	2	He	0.148	0.148	3.16	587	0.03	2000	
Ti	47	2	He	0.019	0.019	193.67	13	0.14	2000	
Cu	63	1	No Gas	0.207	0.207	17.36	4534	0.00	2000	
Zn	66	1	No Gas	0.326	0.326	44.58	2724	0.01	2000	
Se	82	1	No Gas	-0.556	-0.556	-167.47	-72	0.77	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	716736	0.84	660437	108.52	70	120	
Ge	72	2	He	414330	0.27	399803	103.63	70	120	

Sample Report

Ge	72	1	No Gas	1348402	0.74	1268211	106.32	70	120	
In	115	1	No Gas	1295269	3.56	1277171	101.42	70	120	
Bi	209	1	No Gas	888940	0.70	864958	102.77	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	053_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\031523A.b
Acq Date Time	2023-03-15T12:58:59-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	024CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	No Gas	95.088	1.373	942971	0.77	100	95.1	90	110	
Be	9	1	No Gas	96.181	0.371	258363	0.45	100	96.2	90	110	
V	51	2	He	98.860	1.158	373499	0.70	100	98.9	90	110	
Cr	52	2	He	98.879	1.034	408365	0.48	100	98.9	90	110	
Fe	56	2	He	10055.730	1.438	34726705	1.48	10000	100.6	90	110	
Se	78	2	He	99.964	1.730	6431	1.45	100	100.0	90	110	
As	75	2	He	101.230	1.369	68608	1.03	100	101.2	90	110	
Ca	44	2	He	9963.185	1.509	287772	0.98	10000	99.6	90	110	
Na	23	2	He	10181.057	0.191	6863201	0.44	10000	101.8	90	110	
Mg	24	2	He	10219.301	0.714	4096085	0.98	10000	102.2	90	110	
K	39	2	He	10209.767	1.206	6146284	0.88	10000	102.1	90	110	
Mn	55	2	He	100.418	1.620	315141	1.42	100	100.4	90	110	
Co	59	2	He	99.584	1.156	512359	0.86	100	99.6	90	110	
Ni	60	2	He	99.731	1.376	125754	0.90	100	99.7	90	110	
Cu	63	2	He	100.812	1.643	321367	1.25	100	100.8	90	110	
Zn	66	2	He	100.365	2.021	70627	2.01	100	100.4	90	110	
Al	27	2	He	106.987	2.879	30564	2.79	100	107.0	90	110	
B	11	1	No Gas	482.166	1.268	641390	1.53	500	96.4	90	110	
Al	27	1	No Gas	103.196	1.600	1045274	1.35	100	103.2	90	110	
Si	28	1	No Gas	604.095	2.336	3593137	1.27	5000	12.1	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	102.378	2.396	768362	1.65	100	102.4	90	110	
Cd	111	1	No Gas	98.038	1.946	136724	1.49	100	98.0	90	110	
Sr	88	1	No Gas	100.852	2.739	1714369	2.10	100	100.9	90	110	
Mo	95	1	No Gas	97.903	2.029	313095	1.61	100	97.9	90	110	
Sn	118	1	No Gas	98.038	1.191	452228	1.30	100	98.0	90	110	
Sb	121	1	No Gas	97.171	1.020	672964	0.98	100	97.2	90	110	
Ba	137	1	No Gas	98.307	1.046	253821	0.27	100	98.3	90	110	
Tl	205	1	No Gas	101.828	1.553	976269	0.55	100	101.8	90	110	
Tl	203	1	No Gas	99.289	1.242	403148	1.16	100	99.3	90	110	
Pb	208	1	No Gas	99.460	1.184	1386071	0.38	100	99.5	90	110	
U	238	1	No Gas	98.121	1.570	1300270	2.18	100	98.1	90	110	
Ca	43	2	He	9987.495	1.188	16951	1.22	10000	99.9	90	110	
Sb	121	2	He	99.587	0.759	359150	0.47	100	99.6	90	110	
Ti	47	2	He	100.804	1.661	15766	2.00	100	100.8	90	110	
Cu	63	1	No Gas	101.268	1.089	678101	1.44	100	101.3	90	110	
Se	82	1	No Gas	100.109	5.890	11143	6.15	100	100.1	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	682981	0.79	660437	103.41	70	120	
Ge	72	2	He	415156	0.53	399803	103.84	70	120	
Ge	72	1	No Gas	1327172	1.04	1268211	104.65	70	120	
In	115	1	No Gas	1299336	0.82	1277171	101.74	70	120	
Bi	209	1	No Gas	878004	1.22	864958	101.51	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	054_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\031523A.b
Acq Date Time	2023-03-15T13:00:56-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	024CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Li	7	1	No Gas	0.708	9.2	50671	0.7	0.5	CCB Main CR1 Failed
Be	9	1	No Gas	0.026	38.1	90	30.9	0.5	
V	51	2	He	-0.010	-49.6	3711	1.1	2.5	
Cr	52	2	He	0.485	14.2	14725	2.5	2.5	
Fe	56	2	He	1.953	9.8	21127	2.3	100	
Se	78	2	He	-0.286	-7.0	219	1.1	2	
As	75	2	He	0.103	15.5	294	4.0	2.5	
Ca	44	2	He	0.580	192.9	687	5.1	100	
Na	23	2	He	33.609	3.0	51529	1.9	100	
Mg	24	2	He	1.533	27.7	1403	12.1	100	
K	39	2	He	5.019	28.1	115668	0.7	100	
Mn	55	2	He	0.029	99.2	727	12.0	2.5	
Co	59	2	He	0.015	22.1	167	9.2	2.5	
Ni	60	2	He	0.051	155.3	310	33.7	2.5	
Cu	63	2	He	-0.067	-24.2	1093	5.0	2	
Zn	66	2	He	-0.127	-90.6	760	9.9	2.5	
Al	27	2	He	0.002	16643.9	740	11.7	5	
B	11	1	No Gas	13.439	10.5	25129	7.3	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	-0.011	-460.7	22859	1.8	5	
Si	28	1	No Gas	1.270	80.6	484099	0.6	10	
Ag	107	1	No Gas	0.026	29.5	317	17.4	2.5	
Cd	111	1	No Gas	0.048	35.9	73	34.5	1	
Sr	88	1	No Gas	0.028	49.5	1040	22.7	2.5	
Mo	95	1	No Gas	0.085	35.8	340	28.1	2.5	
Sn	118	1	No Gas	0.102	27.9	1137	10.5	5	
Sb	121	1	No Gas	0.114	7.7	970	6.3	2.5	
Ba	137	1	No Gas	-0.083	-23.3	173	29.0	2.5	
Tl	205	1	No Gas	0.145	21.7	1573	19.9	1	
Tl	203	1	No Gas	0.136	9.3	637	8.7	1	
Pb	208	1	No Gas	0.027	50.0	1400	14.3	2.5	
U	238	1	No Gas	0.035	36.2	497	34.3	2.5	
Ca	43	2	He	17.204	53.6	43	35.3	100	
Sb	121	2	He	0.104	22.8	433	20.8	2.5	
Ti	47	2	He	-0.024	-150.4	7	86.6	2.5	
Cu	63	1	No Gas	-0.074	-33.0	2677	5.7	2.5	
Se	82	1	No Gas	0.005	10674.3	-9	-777.9	2	

QC ISTD Table

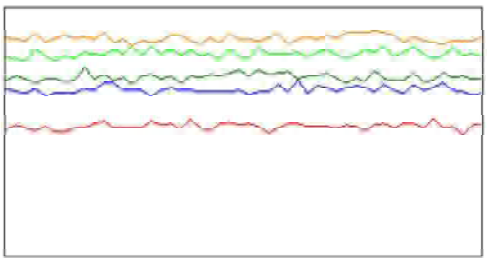
Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	714847	0.61	660437	108.24	70	120	
Ge	72	2	He	417948	1.01	399803	104.54	70	120	
Ge	72	1	No Gas	1374181	0.74	1268211	108.36	70	120	
In	115	1	No Gas	1350687	1.58	1277171	105.76	70	120	
Bi	209	1	No Gas	900742	0.75	864958	104.14	70	120	

Tune Check Report

Operator Name	ALSHS NoUser
Acq/Data Batch	C:\Agilent\ICPMH\1\DATA\031523A.b
Acq. Date-Time	3/15/2023 10:42:52 AM
Report Comment	---
Instrument Name	G8421A SG18523544

[No Gas]

Sensitivity



Sampling Period [sec]	0.514
Integration Time [sec]	0.1

Mass	Range	Count	Resp [cps/ug/l]	Resp (Required) [cps/ug/l]	Resp (Flag)
9	5000	2628	26277.92		
24	10000	8196	81960.18		
59	20000	13475	134747.11		
115	20000	17591	175908.75		
208	10000	7244	72437.65		

Mass	Resp Ratio	Resp Ratio (Required)	Resp Ratio (Flag)
9		-	
24		-	
59		-	
115		-	
208		-	

Mass	RSD%	RSD% (Required)	RSD% (Flag)
9	2.572	5.000	
24	1.816	5.000	
59	2.066	5.000	
115	1.636	5.000	
208	2.068	5.000	

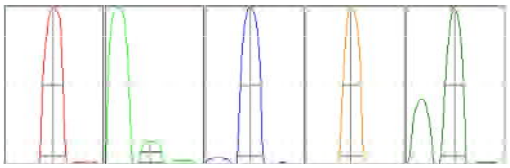
Mass	Background	Background (Required)	Background (Flag)
9	2.100		
24	1.400		
59	1.600		
115	1.800		
208	5.300		

Oxide/Doubly Charged Ratio

Oxide	156 / 140 0.616 %
Doubly Charged	70 / 140 1.113 %

Tune Check Report

Resolution/Axis



Integration Time [sec]	0.1
Acquisition Time [sec]	37.4
Y Axis	Linear

Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
9	2737.51	9.00	8.90 - 9.10	
24	8150.20	23.90	23.90 - 24.10	
59	13813.81	58.90	58.90 - 59.10	
115	18071.00	114.90	114.90 - 115.10	
208	7306.31	208.00	207.90 - 208.10	

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
9	0.63	0.783		
24	0.64	0.751		
59	0.60	0.777		
115	0.54	0.727		
208	0.57	0.767		

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas	0.48 L/min	Dilution Gas	0.60 L/min
RF Power	1600 W	Option Gas	---	Auxiliary Gas	0.90 L/min
RF Matching	1.80 V	Nebulizer Pump	0.10 rps	Plasma Gas	15.0 L/min
Sample Depth	8.0 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	0.0 V	Omega Lens	9.5 V	Deflect	16.2 V
Extract 2	-200.0 V	Cell Entrance	-30 V	Plate Bias	-50 V
Omega Bias	-90 V	Cell Exit	-50 V		

Cell Parameters

Use Gas	No	3rd Gas Flow	---	Energy Discrimination	5.0 V
He Flow	0.0 mL/min	OctP Bias	-8.0 V		
H2 Flow	---	OctP RF	200 V		

QP Parameters

Mass Gain	133	Axis Gain	1.0003	QP Bias	-3.0 V
Mass Offset	125	Axis Offset	0.06		

Hardware Settings

Torch

Torch H	1.3 mm	Torch V	-0.6 mm

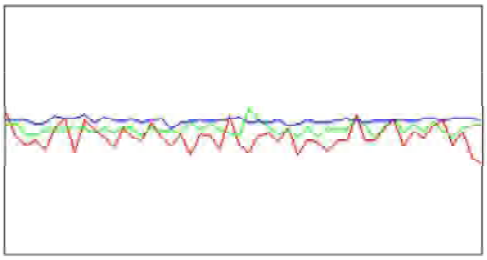
EM

Discriminator	4.6 mV	Analog HV	2952 V	Pulse HV	1615 V

[He]

Tune Check Report

Sensitivity



Sampling Period [sec]	0.306
Integration Time [sec]	0.1

Mass	Range	Count	Resp [cps/ug/l]	Resp (Required) [cps/ug/l]	Resp (Flag)
9	200	95	945.03		
24	1000	508	5078.52		
59	10000	5403	54025.23		

Mass	Resp Ratio	Resp Ratio (Required)	Resp Ratio (Flag)
9		-	
24		-	
59		-	

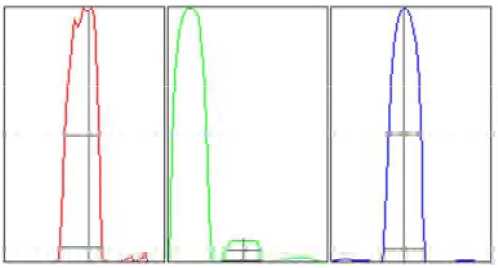
Mass	RSD%	RSD% (Required)	RSD% (Flag)
9	10.142	5.000	Fail
24	4.562	5.000	
59	1.902	5.000	

Mass	Background	Background (Required)	Background (Flag)
9	0.400		
24	0.400		
59	0.300		

Oxide/Doubly Charged Ratio

Oxide	156 / 140 1.182 %
Doubly Charged	70 / 140 1.005 %

Resolution/Axis



Integration Time [sec]	0.1
Acquisition Time [sec]	22.24
Y Axis	Linear

Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
9	92.51	9.10	8.90 - 9.10	
24	482.60	23.95	23.90 - 24.10	
59	5489.94	58.90	58.90 - 59.10	

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
9	0.65	0.784		
24	0.64	0.743		

Tune Check Report

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
59	0.60	0.775		

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas	0.48 L/min	Dilution Gas	0.60 L/min
RF Power	1600 W	Option Gas	---	Auxiliary Gas	0.90 L/min
RF Matching	1.80 V	Nebulizer Pump	0.10 rps	Plasma Gas	15.0 L/min
Sample Depth	8.0 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	0.0 V	Omega Lens	9.6 V	Deflect	0.5 V
Extract 2	-200.0 V	Cell Entrance	-40 V	Plate Bias	-60 V
Omega Bias	-90 V	Cell Exit	-60 V		

Cell Parameters

Use Gas	Yes	3rd Gas Flow	---	Energy Discrimination	3.0 V
He Flow	4.0 mL/min	OctP Bias	-18.0 V		
H2 Flow	---	OctP RF	200 V		

QP Parameters

Mass Gain	133	Axis Gain	1.0003	QP Bias	-15.0 V
Mass Offset	125	Axis Offset	0.06		

Hardware Settings

Torch

Torch H	1.3 mm	Torch V	-0.6 mm

EM

Discriminator	4.6 mV	Analog HV	2952 V	Pulse HV	1615 V

HS23030399 Wet Chemistry

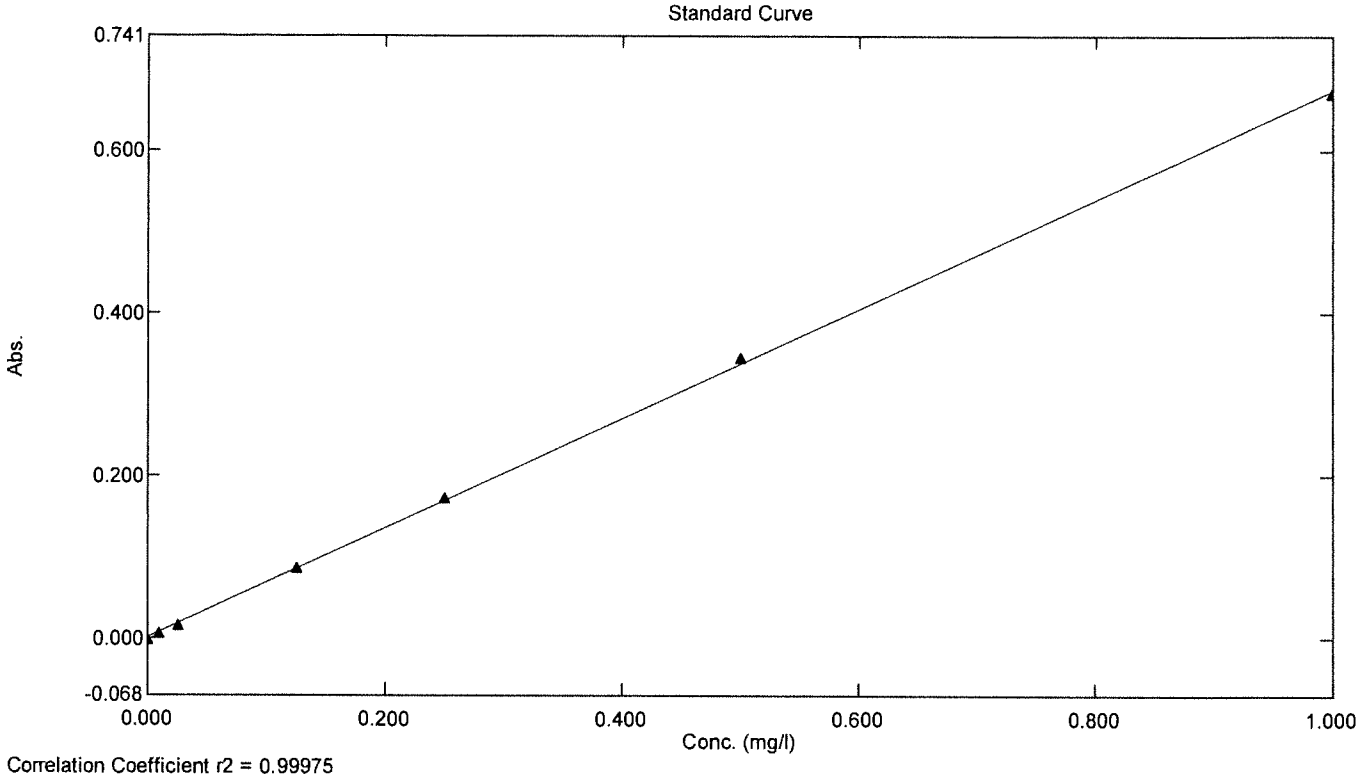
ALS WO# HS23030399

HS2303039
HS230399

Standard Table Report

03/13/2023 05:16:02 PM

File Name: C:\Program Files (x86)\Shimadzu\UVProbe\Data\CR6+_UNKNOWN\2023\03082023CR6_W.pho



Correlation Coefficient r2 = 0.99975

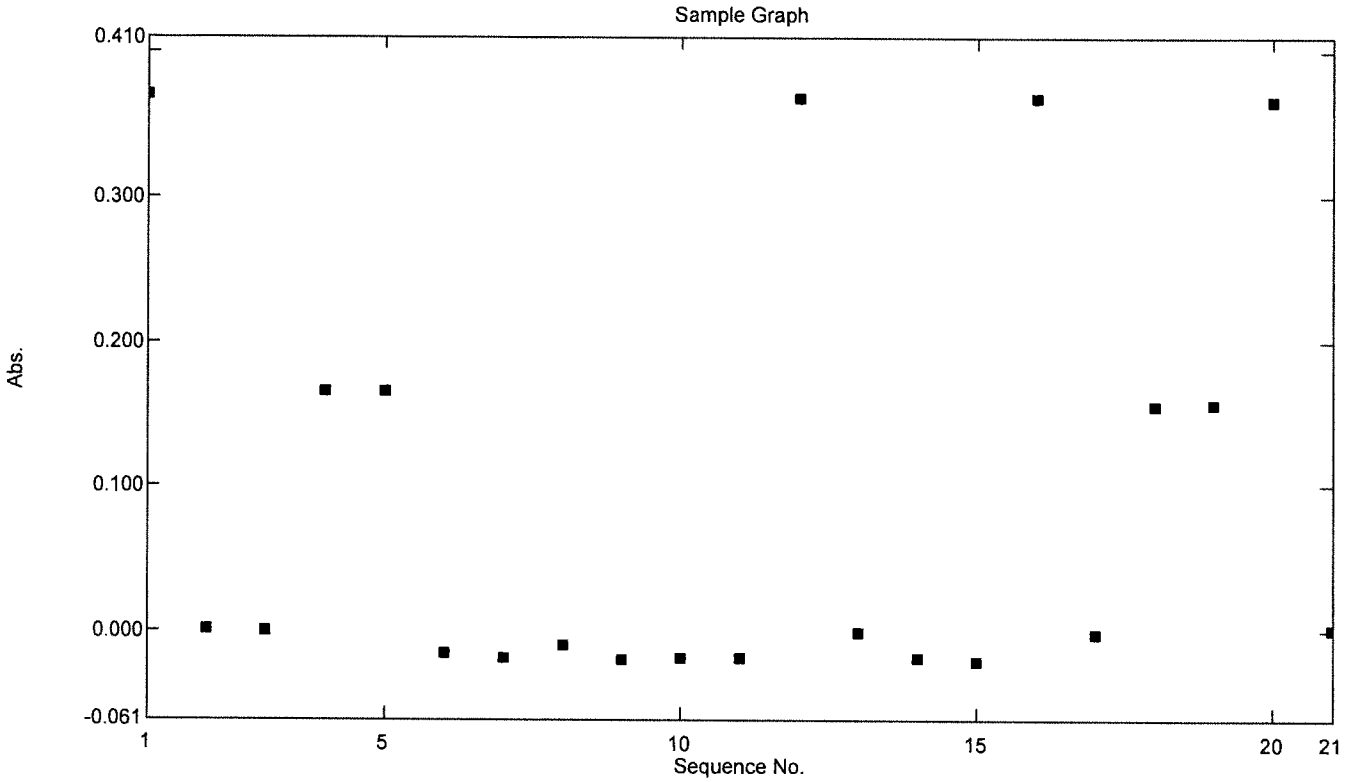
Standard Table

	Sample ID	Type	Ex	Conc	WL540.0	Wgt.Factor	Comments
1	STD1	Standard		0.000	-0.000	1.000	
2	STD2	Standard		0.010	0.007	1.000	
3	STD3	Standard		0.025	0.018	1.000	
4	STD4	Standard		0.125	0.086	1.000	
5	STD5	Standard		0.250	0.173	1.000	
6	STD6	Standard		0.500	0.345	1.000	
7	STD7	Standard		1.000	0.670	1.000	05/02/2023
8							

Sample Table Report

03/13/2023 05:15:54 PM

File Name: C:\Program Files (x86)\Shimadzu\UVProbe\Data\CR6+_UNKNOWN\2023\03082023CR6_W.pho



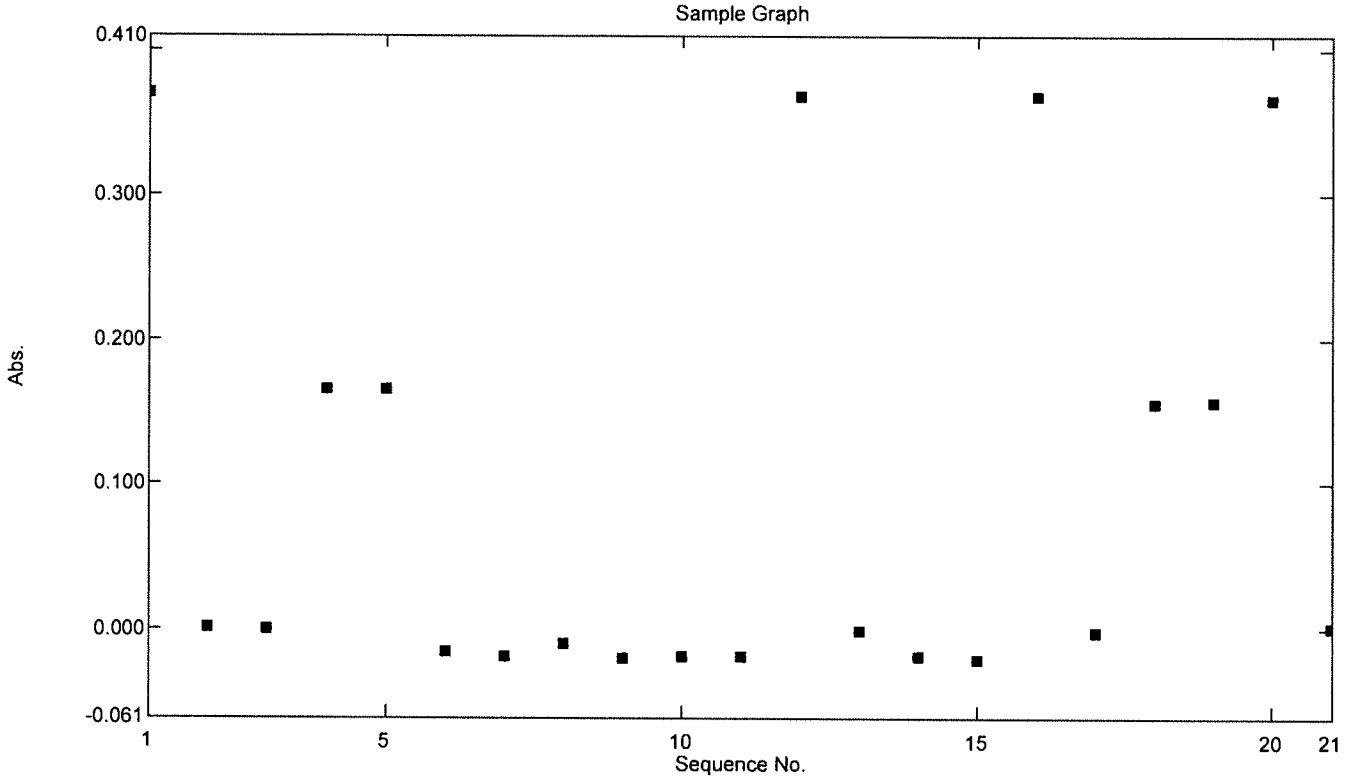
Sample Table

	Sample ID	Type	Ex	Date	Time	Conc	WL540.0	Comments
1	CCV	Unknown		03/08/2023	11:24:53 AM	0.549	0.371	CCV- 231103602
2	CCB	Unknown		03/08/2023	11:25:21 AM	-0.002	0.001	LCS- 321103601
3	MBLK	Unknown		03/08/2023	11:25:30 AM	-0.003	0.000	WC- 13
4	LCS	Unknown		03/08/2023	11:27:38 AM	0.243	0.166	
5	LCSD	Unknown		03/08/2023	11:28:43 AM	0.243	0.165	
6	P7.17	Unknown		03/08/2023	11:30:18 AM	-0.026	-0.015	0 HS23030400-15
7	P7.17 BKG	Unknown		03/08/2023	11:31:17 AM	-0.032	-0.019	
8	P7.16	Unknown		03/08/2023	11:32:39 AM	-0.019	-0.010	0 HS23030400-16
9	P7.16 BKG	Unknown		03/08/2023	11:33:22 AM	-0.034	-0.020	
10	2H1824.SP650	Unknown		03/08/2023	11:34:23 AM	-0.032	-0.019	0 HS23030369-01
11	2H1824.SP650BKG	Unknown		03/08/2023	11:35:08 AM	-0.031	-0.019	
12	CCV2	Unknown		03/08/2023	11:35:45 AM	0.545	0.369	
13	CCB2	Unknown		03/08/2023	11:36:08 AM	-0.006	-0.002	
14	LH18.24.SP140	Unknown		03/08/2023	11:36:56 AM	-0.032	-0.019	0 HS23030399-01
15	LH18.24.SP140 BKG	Unknown		03/08/2023	11:37:30 AM	-0.035	-0.022	
16	CCV3	Unknown		03/08/2023	11:37:46 AM	0.545	0.368	
17	CCB3	Unknown		03/08/2023	11:37:58 AM	-0.007	-0.002	
18	P2.17MS	Unknown		03/08/2023	11:41:44 AM	0.229	0.156	HS23030400-15
19	P2.17MSD	Unknown		03/08/2023	11:42:06 AM	0.230	0.157	

Sample Table Report

03/13/2023 05:15:54 PM

File Name: C:\Program Files (x86)\Shimadzu\UVProbe\Data\CR6+_UNKNOWN\2023\03082023CR6_W.pho



Sample Table

	Sample ID	Type	Ex	Date	Time	Conc	WL540.0	Comments
20	CCV4	Unknown		03/08/2023	11:42:18 AM	0.542	0.366	
21	CCB4	Unknown		03/08/2023	11:42:36 AM	-0.002	0.001	
22								

HS23030399-E2300240 Perchlorate Report
Level IV

ALS WO# HS23030399

March 17, 2023 Service Request No:E2300240

Dane Wacasey
ALS Group USA, Corp.
10450 Stancliff Road
Suite 210
Houston, TX 77099-4338

Laboratory Results for: HS23030399

Dear Dane,

Enclosed are the results of the sample(s) submitted to our laboratory March 13, 2023
For your reference, these analyses have been assigned our service request number **E2300240.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current TNI standards, where applicable, and except as noted in the laboratory case narrative provided. All results are intended to be considered in their entirety and ALS Environmental is not responsible for use of less than the complete final report. Results apply only to the items submitted to the laboratory, as received for analysis. In accordance with the current TNI Standard, a statement on the estimated uncertainty of measurement of any quantitative analysis will be supplied upon request.

Please contact me if you have any questions. My extension is 2188. You may also contact me via email at James.Guin@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental



James Guin

Certificate of Analysis

ALS Environmental - Houston HRMS
10450 Stancliff Rd, Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

ALS Environmental

Client:	ALS Environmental - US	**Service Request No.:**	E2300240
Project:	HS23030399	**Date Received:**	03/14/23
Sample Matrix:	Water		

CASE NARRATIVE

All analyses were performed in adherence to the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier IV. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

One sample was received for analysis at ALS Environmental in Houston on 03/14/23.

The sample was received in good condition and is consistent with the accompanying chain of custody form. The sample was stored in a refrigerator at 4°C upon receipt at the laboratory.

Data Validation Notes and Discussion

Precision and Accuracy:

EQ2300127: Laboratory Control Spike/Duplicate Laboratory Control Spike (LCS/DLCS) samples were analyzed and reported in addition to a MS/MSD for this extraction batch.

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.

Use of ALS group USA Corp dba ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.

Client: ALS Environmental - US **Service Request:**E2300240
Project: HS23030399

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
E2300240-001	LH18/24-SP140_030723	3/7/2023	1300

Service Request Summary

Folder #: **E2300240**
Client Name: ALS Environmental - US
Project Name: HS23030399
Project Number:

Report To: Dane Wacasey
ALS Group USA, Corp.
10450 Stancliff Road
Houston, TX 77099-4338
USA
Phone Number: 281-575-2190
Cell Number:
Fax Number: 281-530-5887
E-mail: dane.wacasey@alsglobal.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 03/13/23
Internal Due Date: 3/16/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23030399
EDD: BASIC_WQC_CASNo_LOD

1 120 mL-Plastic Bottle Natural WM Unpreserved
Location: EHRMS-AirArch 1
Pressure Gas:

Lab Samp No.	Client Samp No	Matrix	Collected	HOUSTON ClO4 DOD/6850
E2300240-001	LH18/24-SP140_030723	Water	03/07/23 1300	IV

Service Request Summary

Folder #: **E2300240**
Client Name: ALS Environmental - US
Project Name: HS23030399
Project Number:

Report To: Dane Wacasey
ALS Group USA, Corp.
10450 Stancliff Road
Houston, TX 77099-4338
USA
Phone Number: 281-575-2190
Cell Number:
Fax Number: 281-530-5887
E-mail: dane.wacasey@alsglobal.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: CGRANDITS
Date Received: 03/13/23
Internal Due Date: 3/16/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23030399
EDD: BASIC_WQC_CASNo_LOD

1 120 mL-Plastic Bottle Natural WM Unpreserved
Location: EHRMS-AirArch 1
Pressure Gas:

Data Qualifiers

Lab Standard

+	Possible Tedlar bag artifact.
A	TIC is a suspected aldol-condensation product
B	Analyte found in the associated method blank as well as in the sample.
BC	Reported results are not blank corrected.
BH	The back section of the tube yielded higher results than the front.
BT	Results indicated possible breakthrough; back section >=10% front section.
C	Result identification confirmed.
D	Compound identified in an analysis at a secondary dilution factor
D	Spike was diluted out
DE	Reported results are corrected for desorption efficiency.
E	Estimated value. Concentration above calibration range
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
H	The chromatographic fingerprint of the sample resembles a petroleum product but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
H1	Sample analysis performed past holding time. See case narrative.
H2	Initial analysis within holding time. Reanalysis for the required dilution was past holding time.
H3	Sample was received and analyzed past holding time.
H4	Sample was extracted past required extraction holding time, but analyzed within analysis holding time. See case narrative.
I	(Auto) The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
I	Internal standard not within the specified limits. See case narrative.
I	The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
J	Estimated Value. Concentration found below MRL.
K	A deflection in the QC ion may indicate interference with the quantitation of this ion. The concentration of this analyte should be considered as an estimate.
K	Analyte was detected above the method reporting limit prior to normalization.
K	The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
L1	Laboratory control sample recovery outside the specified limits; results may be biased high.
L2	Laboratory control sample recovery outside the specified limits; results may be biased low.
L3	Laboratory control sample recovery outside the specified limits.
M	Matrix interference; results may be biased high.
M	The duplicate injection precision not met.

Data Qualifiers

Lab Standard

M1	Matrix interference due to coelution with a non-target compound; results may be biased high.
N	Presumptive evidence of a compound for TICs that have been identified based on a mass spectral library search.
N	The Matrix Spike sample recovery is not within control limits. See case narrative.
O	The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
P	Indicates chlorodiphenyl ether interference present at the retention time of the target compound.
P	Pesticide/Aroclor target analyte > 40% difference for detected concentrations between GC columns
Q	Indicates as estimated value because the P and P + 2 theoretical abundance ratio does not meet method criteria.
R	Duplicate Precision not met.
R1	Duplicate precision not within the specified limits; however, the results are below the MRL and considered estimated.
S	Surrogate recovery not within specified limits.
S	The reported value was determined by the Method of Standard Additions (MSA).
T	Analyte is a tentatively identified compound, result is estimated.
U	Compound was analyzed for, but was not detected (ND).
V1	The continuing calibration verification standard was outside (biased high) the specified limits for this compound.
V2	The continuing calibration verification standard was outside (biased low) the specified limits for this compound.
W	Result quantified, but the corresponding peak was detected outside the generated retention time window.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
X	See case narrative.
Y	Recovery outside limits
Y	The chromatogram resembles a petroleum product but does not match the calibration standard.
Z	The chromatogram does not resemble a petroleum product.
i	The MRL/MDL has been elevated due to a matrix interference.

ALS Laboratory Group

Acronyms

Cal	Calibration
Conc	CONCentration
Dioxin(s)	Polychlorinated dibenzo-p-dioxin(s)
EDL	Estimated Detection Limit
EMPC	Estimated Maximum Possible Concentration
Flags	Data qualifiers
Furan(s)	Polychlorinated dibenzofuran(s)
g	Grams
ICAL	Initial CALibration
ID	IDentifier
Ions	Masses monitored for the analyte during data acquisition
L	Liter (s)
LCS	Laboratory Control Sample
DLCS	Duplicate Laboratory Control Sample
MB	Method Blank
MCL	Method Calibration Limit
MDL	Method Detection Limit
mL	Milliliters
MS	Matrix Spiked sample
DMS	Duplicate Matrix Spiked sample
NO	Number of peaks meeting all identification criteria
PCDD(s)	Polychlorinated dibenzo-p-dioxin(s)
PCDF(s)	Polychlorinated dibenzofuran(s)
ppb	Parts per billion
ppm	Parts per million
ppq	Parts per quadrillion
ppt	Parts per trillion
QA	Quality Assurance
QC	Quality Control
Ratio	Ratio of areas from monitored ions for an analyte
% Rec.	Percent recovery
RPD	Relative Percent Difference
RRF	Relative Response Factor
RT	Retention Time
SDG	Sample Delivery Group
S/N	Signal-to-noise ratio
TEF	Toxicity Equivalence Factor
TEQ	Toxicity Equivalence Quotient

10450 Stancliff Rd, Houston, TX 77099 | 281-530-5656 | www.alsglobal.com

ALS Environmental

State Certifications, Accreditations, and Licenses

Agency	Number	Expire Date
Arizona Department of Health Services	AZ0793	5/27/2023
Arkansas Department of Environmental Quality	22-041-0	3/27/2023
California Department of Health Services	2919-2023	4/30/2023
Department of Defense	L22-90	3/31/2024
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Hawaii Department of Health	2022	4/30/2023
Illinois Environmental Protection Agency	2000322022-9	5/9/2023
Kansas Department of Health and Environment	E-10352 2022-2023	7/31/2023
Louisiana Department of Environmental Quality	03087-2022	6/30/2023
Louisiana Department of Health and Hospitals	LA028-2023	12/31/2023
Maine Department of Health and Human Services	2022017	6/5/2024
Maryland Department of the Environment	343	6/30/2023
Michigan Depratment of Environmental Quality	9971-2022	4/30/2023
Minnesota Department of Health	2368363	12/31/2023
Nebraska Department of Health and Human Services	NE-OS-25-13	4/30/2023
Nevada Department of Conservation and Natural Resources	TX026932023-1	7/31/2023
New Hampshire Environmental Laboratory Accreditation Program	209422	4/24/2023
New Jersey Department of Environmental Protection	TX008-2023	6/30/2023
New York Department of Health	11707	3/31/2023
Oklahoma Department of Environmental Quality	2022-141	8/31/2023
Oregon Environmental Laboratory Accreditation Program	TX200002	5/15/2023
Pennsylvania Department of Environmental Protection	68-03441-016	6/30/2023
Perry Johnson Laboratory Accreditation	L22-91	3/31/2024
Tennessee Department of Environment and Concervation	04016-2022	4/30/2023
Texas Commision on Environmental Quality	T104704231-22-29	4/30/2023
Utah Department of Health Environmental Laboratory Certification	TX026932022-13	7/31/2023
Washington Department of Ecology	C819-22	11/14/2023

ALS

Chain of Custody

ALS Environmental - Houston HRMS
10450 Stancliff Rd, Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

10450 Stancliff Rd, Ste 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887
www.alsglobal.com

Subcontract Chain of Custody

SAMPLING STATE: Dept of Defense **COC ID:** 21069

SUBCONTRACT TO:

ALS Environmental
10450 Stancliff RoadSuite 210
Houston, TX 77084

Phone: +1 281 530 5656

CUSTOMER INFORMATION:

Company:	ALS Houston
Contact:	Dane J. Wacasey
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Email:	Dane.Wacasey@alsglobal.com
Alternate Contact:	Jumoke M. Lawal
Email:	jumoke.lawal@alsglobal.com

INVOICE INFORMATION:

Company:	ALS Houston
Contact:	Accounts Payable
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Reference:	HS23030399
TSR:	Houston House Acct

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS23030399-01**	**LH18/24-SP140_030723**	**Water**	**07 Mar 2023 13:00**
	6850-Perch. DOD Level II & Level IV in separate pdf			16 Mar 2023

Comments: Please analyze for the analysis listed above.
Send report to the emails shown above.

QC Level: DOD IV (DoD Data Package)

Relinquished By: _____ Date/Time: _____

Received By: _____ Date/Time: 3-13-23 0800

Cooler ID(s): _____ Temperature(s): _____

ALS Environmental

Cooler Receipt Form

Project Chemist JH

Client/Project ALS-H

Thermometer ID 1871

Date/Time Received: 3.13.23 Initials: CG

Date/Time Logged in: 3-13-23 Initials CG

1. Method of delivery: ○ US Mail ○ Fed Ex ○ UPS ○ DHL ☒ ALS Courier ○ Client

2. Samples received in: ☒ Cooler ○ Box ○ Envelope ○ Other

3. Were custody seals on coolers? ○ Yes ☒ No

If yes, how many and where?

Were they intact? ○ Yes ○ No ☒ N/A

Were they signed and dated? ○ Yes ○ No ☒ N/A

4. Packing Material: ○ Inserts ☒ Baggies ○ Bubble Wrap ○ Gel Packs ☒ Wet Ice ○ Sleeves ○ Other

5. Foreign or Regulated Soil? ○ Yes ○ No Location of Sampling:

Cooler Tracking Number	COC ID	Date Opened	Time Opened	Opened By	Temp. °C	Temp Blank?
NA		3-13-23	0800	CG	0.9	☑
						☐
						☐
						☐

6. Were custody papers properly filled out (ink, signed, dated, etc)? ☒ Yes ○ No

7. Did all bottles arrive in good condition (not broken, no signs of leakage)? ☒ Yes ○ No

8. Were all sample labels complete (i.e., sample ID, analysis, preservation, etc)? ☒ Yes ○ No

9. Were appropriate bottles/containers and volumes received for the requested tests? ☒ Yes ○ No

10. Did sample labels and tags agree with custody documents? ☒ Yes ○ No

Notes, Discrepancies, & Resolutions:

Service request Label:

10450 Stancliff Rd., Suite 210
Houston, TX 77099
T: +1 713 266 1599
F: +1 713 266 1599
www.alsglobal.com

SAMPLE ACCEPTANCE POLICY

This policy outlines the criteria samples must meet to be accepted by ALS Environmental – Houston HRMS.

Cooler Custody Seals (desirable, mandatory if specified in SAP):

- ✓ Intact on outside of cooler, signed and dated

Chain-of-Custody (COC) documentation (mandatory):

The following is required on each COC:

- ✓ Sample ID, the location, date and time of collection, collector's name, preservation type, sample type, and any other special remarks concerning the sampleThe COC must be completed in ink.
- ✓ Signature and date of relinquishing party.

In the absence of a COC at sample receipt, the COC will be requested from the client.

Sample Integrity (mandatory):

Samples are inspected upon arrival to ensure that sample integrity was not compromised during transfer to the laboratory.

- ✓ Sample containers must arrive in good condition (not broken or leaking).
- ✓ Samples must be labeled appropriately, including Sample IDs, and requested test using durable labels and indelible ink.
- ✓ The correct type of sample bottle must be used for the method requested.
- ✓ An appropriate sample volume, or weight, must be received.
- ✓ Sample IDs and number of containers must reconcile with the COC.
- ✓ Samples must be received within the method defined holding time.

Temperature Requirement (varies by sample matrix):

- ✓ Aqueous and Non-aqueous samples must be shipped and stored cold, at 0 to 6ºC.
- ✓ Tissue samples must be shipped and stored frozen, at -20 to -10ºC.
- ✓ Air samples are shipped and stored cold, at 0 to 6ºC
- ✓ The sample temperature must be recorded on the COC

All cooler inspections are documented on the Cooler Receipt Form (CRF). A separate CRF is completed for each service request. Any samples not meeting the above criteria are noted on the CRF and the Project Manager notified. The Project Manager must resolve any sample integrity issues with the client prior to proceeding with the analysis. Such resolutions are documented in writing and filed with the project folder. Data associated with samples received outside of this acceptance policy will be qualified on the case narrative of the final report

Preparation Information Benchsheets

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

Preparation Information Benchsheet

Prep Run#: 416444 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/XMI **Prep Method:** Method **Prep Date/Time:** 3/14/23 08:36

#	Lab Code	Client ID	B#	Method /Test	pH	Cl	Matrix	Amt. Ext.	Sample Description
1	E2300231-001	RSA-095-INT-02	.01	6850/ClO4 DOD			Water	10mL	
2	E2300231-002	RSA-095-INT-05	.01	6850/ClO4 DOD			Water	10mL	
3	E2300231-003	RSA-095-INT-06	.01	6850/ClO4 DOD			Water	10mL	
4	E2300231-004	RSA-195-INT-05	.01	6850/ClO4 DOD			Water	10mL	
5	E2300231-005	RSA-195-INT-04	.01	6850/ClO4 DOD			Water	10mL	
6	E2300235-001	46DP09-GP01-5156-022823	.01	6850/ClO4 DOD			Water	10mL	
7	E2300235-002	46DP09-GP02-6065-022823	.01	6850/ClO4 DOD			Water	10mL	
8	E2300235-003	WO-EB01-022823	.01	6850/ClO4 DOD			Water	10mL	
9	E2300239-001	LH18/24-SP650_030723_AIX	.01	6850/ClO4 DOD			Water	10mL	
10	E2300240-001	LH18/24-SP140_030723	.01	6850/ClO4 DOD			Water	10mL	
11	EQ2300127-01	MB		6850/ClO4			Liquid	10mL	
12	EQ2300127-02	LCS		6850/ClO4			Liquid	10mL	
13	EQ2300127-03	DLCS		6850/ClO4			Liquid	10mL	
14	R2301866-011	2303021402C BLM-13-300	.01	6850/ClO4			Water	10mL	
15	R2301866-013	2303020954A BLM-9-419	.01	6850/ClO4			Water	10mL	
16	R2301868-012	2303040818 100L-SB-14	.01	6850/ClO4			Water	10mL	
17	R2301870-012	2303041458 100L-SB-16	.01	6850/ClO4			Water	10mL	
18	R2301872-012	2303040953 200L-SB-17	.01	6850/ClO4			Water	10mL	
19	R2301874-012	2303041117 100L-SB-18	.01	6850/ClO4			Water	10mL	
20	R2301876-012	2303041223 100L-SB-19	.01	6850/ClO4			Water	10mL	
21	R2301914-005	2303061044C ST-4-690	.01	6850/ClO4			Water	10mL	
22	R2301914-014	2303061515C ST-4-481	.01	6850/ClO4			Water	10mL	

Spiking Solutions

Name: Perchlorate Internal Standard 1ug/mL Inventory ID 226778 Logbook Ref: Perchlorate Internal Standard Expires On: 05/31/2023

E2300231-001	100.00µL	E2300231-002	100.00µL	E2300231-003	100.00µL	E2300231-004	100.00µL	E2300231-005	100.00µL	E2300235-001	100.00µL
E2300235-002	100.00µL	E2300235-003	100.00µL	E2300239-001	100.00µL	E2300240-001	100.00µL	EQ2300127-01	100.00µL	EQ2300127-01	100.00µL
EQ2300127-02	100.00µL	EQ2300127-02	100.00µL	EQ2300127-03	100.00µL	EQ2300127-03	100.00µL	R2301866-011	100.00µL	R2301866-013	100.00µL
R2301868-012	100.00µL	R2301870-012	100.00µL	R2301872-012	100.00µL	R2301874-012	100.00µL	R2301876-012	100.00µL	R2301914-005	100.00µL
R2301914-014	100.00µL										

Name: Perchlorate Intermediate Stock1 Inventory ID 227236 Logbook Ref: Perchlorate (1st Source) Expires On: 07/31/2023

EQ2300127-02	1.00µL	EQ2300127-02	1.00µL	EQ2300127-03	1.00µL	EQ2300127-03	1.00µL

Preparation Information Benchsheet

Prep Run#: 416444 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/XMI **Prep Method:** Method **Prep Date/Time:** 3/14/23 08:36

Preparation Materials

Water HPLC Grade	01/04/2023 Water (226857)	6850 Amber Glass screw vial	2mL Screw Top Vial (221894)	6850 0.45um syringe filters	6850 Syringe Filters (224414)
6850 Luer-Lok Syringes	Luer-Lok Syringes (221305)				

Preparation Steps

Step: Preparation
Started: 3/14/23 08:36
Finished: 3/14/23 10:50
By: XMI
Comments

Comments: _____

Reviewed By: XMI Date: 03/14/23

Chain of Custody

Relinquished By: _____ Date: _____ Extracts Examined

Received By: _____ Date: _____ Yes No

Analytical Results

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300240
Project:	HS23030399	**Date Collected:**	3/ 7/23 1300
Sample Matrix:	Water	**Date Received:**	3/13/23
Sample Name:	LH18/24-SP140_030723	**Units:**	µg/L
Lab Code:	E2300240-001	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**12600**		100	50.0	25.0	1000	3/14/23	3/15/23 15:52	416444	797835	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300240
Project:	HS23030399	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	EQ2300127-01	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	ND	U	0.100	0.0500	0.0250	1	3/14/23	3/15/23 12:30	416444	797835	

Accuracy & Precision

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23030399
Sample Matrix: Water

Service Request: E2300240
Date Analyzed: 3/15/23

Lab Control Sample Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Units: µg/L
Basis: NA

Extraction Lot: 416444

	Lab Control Sample EQ2300127-02			Duplicate Lab Control Sample EQ2300127-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Perchlorate	0.106	0.100	106	0.0940	0.100	94	84 - 119	12	15

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300240
Project:	HS23030399	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2300127-02	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.106**		0.100	0.0500	0.0250	1	3/14/23	3/15/23 12:36	416444	797835	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300240
Project:	HS23030399	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2300127-03	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.0940**	J	0.100	0.0500	0.0250	1	3/14/23	3/15/23 12:42	416444	797835	

Initial Calibration

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

20230201-793296

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XMI
2nd Review: Kneir

ICAL Date: 2/1/2023
Cal. Std. xp: 07/31/2023
ICAL ID: EC2300002

Mobile Phases : A:0.10% Formic Acid/Water 3210303-02 **B:**MeOH 224417

	Sample Name		File Name	Acquisition Method	Dilution	R	Comments	Date/Time
1	PERCHLORATE1		20230201-003	Perchlorate6850c.lcm	1x	☒	227245	2/1/2023 11:50
2	PERCHLORATE2		20230201-004	Perchlorate6850c.lcm	1x	☒	227246	2/1/2023 11:55
3	PERCHLORATE3		20230201-005	Perchlorate6850c.lcm	1x	☒	227247	2/1/2023 12:01
4	PERCHLORATE4		20230201-006	Perchlorate6850c.lcm	1x	☒	227248	2/1/2023 12:07
5	PERCHLORATE5		20230201-007	Perchlorate6850c.lcm	1x	☒	227249	2/1/2023 12:13
6	PERCHLORATE6		20230201-008	Perchlorate6850c.lcm	1x	☒	227250	2/1/2023 12:19
7	PERCHLORATE7		20230201-009	Perchlorate6850c.lcm	1x	☒	227251	2/1/2023 12:25
8	PERCHLORATE8		20230201-010	Perchlorate6850c.lcm	1x	☒	227252	2/1/2023 12:30
9	PERCHLORATE9		20230201-011	Perchlorate6850c.lcm	1x	☒	227253	2/1/2023 12:36
10	PERCHLORATE10		20230201-012	Perchlorate6850c.lcm	1x	☒	227254	2/1/2023 12:42
11	PERCHLORATEICV		20230201-013	Perchlorate6850c.lcm	1x	☒	227256	2/1/2023 12:48
12	LODV		20230201-014	Perchlorate6850c.lcm	1x	☒	225199	2/1/2023 12:54
13	ICS		20230201-015	Perchlorate6850c.lcm	1x	☒	32103024	2/1/2023 13:00
14	PERCHLORATE7		20230201-016	Perchlorate6850c.lcm	1x	☒	227251	2/1/2023 15:24
15	EQ2300047-01		20230201-017	Perchlorate6850c.lcm	1x	☒		2/1/2023 15:30
16	EQ2300047-02		20230201-018	Perchlorate6850c.lcm	1x	☒		2/1/2023 15:36
17	EQ2300047-03		20230201-019	Perchlorate6850c.lcm	1x	☒		2/1/2023 15:41
18	R2300589-005		20230201-020	Perchlorate6850c.lcm	1x	☒		2/1/2023 15:48
19	R2300589-010		20230201-021	Perchlorate6850c.lcm	1x	☒	DNU-BAD PEAK SHAPE	2/1/2023 15:54
20	R2300648-018		20230201-022	Perchlorate6850c.lcm	1x	☒		2/1/2023 16:00
21	R2300648-025		20230201-023	Perchlorate6850c.lcm	1x	☒		2/1/2023 16:06
22	PERCHLORATE7		20230201-024	Perchlorate6850c.lcm	1x	☒	227251	2/1/2023 16:17
23	E2300092-001		20230201-025	Perchlorate6850c.lcm	1x	☒		2/1/2023 16:23
24	E2300092-002		20230201-026	Perchlorate6850c.lcm	1x	☒		2/1/2023 16:29
25	E2300092-003		20230201-027	Perchlorate6850c.lcm	1x	☒		2/1/2023 16:35
26	E2300092-004		20230201-028	Perchlorate6850c.lcm	1x	☒		2/1/2023 16:41
27	E2300094-001		20230201-029	Perchlorate6850c.lcm	1x	☒		2/1/2023 16:47
28	E2300094-002		20230201-030	Perchlorate6850c.lcm	1x	☒		2/1/2023 16:52
29	E2300094-003		20230201-031	Perchlorate6850c.lcm	1x	☒		2/1/2023 16:58
30	E2300094-004		20230201-032	Perchlorate6850c.lcm	1x	☒		2/1/2023 17:04
31	E2300094-005		20230201-033	Perchlorate6850c.lcm	1x	☒		2/1/2023 17:10
32	PERCHLORATE7		20230201-034	Perchlorate6850c.lcm	1x	☒	227251	2/1/2023 17:16
33	E2300096-001		20230201-035	Perchlorate6850c.lcm	1x	☒		2/1/2023 17:21
34	E2300096-002		20230201-036	Perchlorate6850c.lcm	1x	☒		2/1/2023 17:27
35	E2300096-003		20230201-037	Perchlorate6850c.lcm	1x	☒		2/1/2023 17:33
36	E2300096-004		20230201-038	Perchlorate6850c.lcm	1x	☒		2/1/2023 17:39
37	E2300096-005		20230201-039	Perchlorate6850c.lcm	1x	☒		2/1/2023 17:45
38	E2300096-006		20230201-040	Perchlorate6850c.lcm	1x	☒		2/1/2023 17:51
39	E2300096-007		20230201-041	Perchlorate6850c.lcm	1x	☒		2/1/2023 17:56
40	PERCHLORATE7		20230201-042	Perchlorate6850c.lcm	1x	☒	227251	2/1/2023 18:02

Initial Calibration - Detailed Report

Calibration ID: EC2300002 **Instrument ID:** E-LCMS-01
Column Name: 1

#	Lab Code	Sample Name	File Location	Aquisition Date
01	EC2300002-01	PERCHLORATE1	20230201-003	02/01/2023 11:50
02	EC2300002-02	PERCHLORATE2	20230201-004	02/01/2023 11:55
03	EC2300002-03	PERCHLORATE3	20230201-005	02/01/2023 12:01
04	EC2300002-04	PERCHLORATE4	20230201-006	02/01/2023 12:07
05	EC2300002-05	PERCHLORATE5	20230201-007	02/01/2023 12:13
06	EC2300002-06	PERCHLORATE6	20230201-008	02/01/2023 12:19
07	EC2300002-07	PERCHLORATE7	20230201-009	02/01/2023 12:25
08	EC2300002-08	PERCHLORATE8	20230201-010	02/01/2023 12:30
09	EC2300002-09	PERCHLORATE9	20230201-011	02/01/2023 12:36
10	EC2300002-10	PERCHLORATE10	20230201-012	02/01/2023 12:42

Analyte **Curve Fit** **Weighting**

Perchlorate **Average RF** **RSD = 4.86** **Average RF = 0.1385**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.1000	0.1253	02	0.5000	0.13	03	0.7000	0.1346	04	1.0000	0.1399
05	2.0000	0.1406	06	5.0000	0.1404	07	10.0000	0.1416	08	20.0000	0.1407
09	30.0000	0.1447	10	50.0000	0.1477						

Analyte

Perchlorate RSE = 4.86

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.1000	0.0904	-9.6	02	0.5000	0.469	-6.1	03	0.7000	0.680	-2.8
04	1.0000	1.01	0.9	05	2.0000	2.03	1.5	06	5.0000	5.07	1.3
07	10.0000	10.2	2.2	08	20.0000	20.3	1.5	09	30.0000	31.3	4.5
10	50.0000	53.3	6.6								

Initial Calibration Verification Summary Report

Calibration ID:	EC2300002	**Instrument ID:**	E-LCMS-01
Datafile ID:	20230201-013	**Column Name:**	1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
Perchlorate	EC2300002-11	T	Average RF	10	10.538	ng/mL	5.4	<= 15

Insight Report

Printed at 2/1/2023 2:06:14 PM

Method File: I:\LCMS01\DATA\02012023\20230201.lcm
Project File: I:\LCMS01\DATA\02012023\20230201.damlp

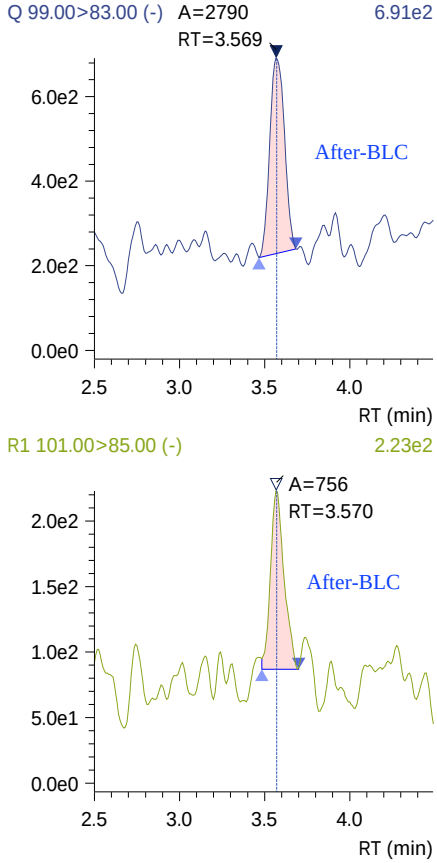
PERCHLORATE1

Sample ID: PERCHLORATE1
Date Acquired: 2/1/2023 11:50:11 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\02012023\20230201-003.lcd
Vial: 1 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	M	3.569	2790	222693	0.0904	ng/mL	101.00 >85.00	27.11	24.11 -44.78
Sodium Perchlorate-18O4_IS	Auto	3.568	222693	222693	1.0000	ng/mL	----	----	

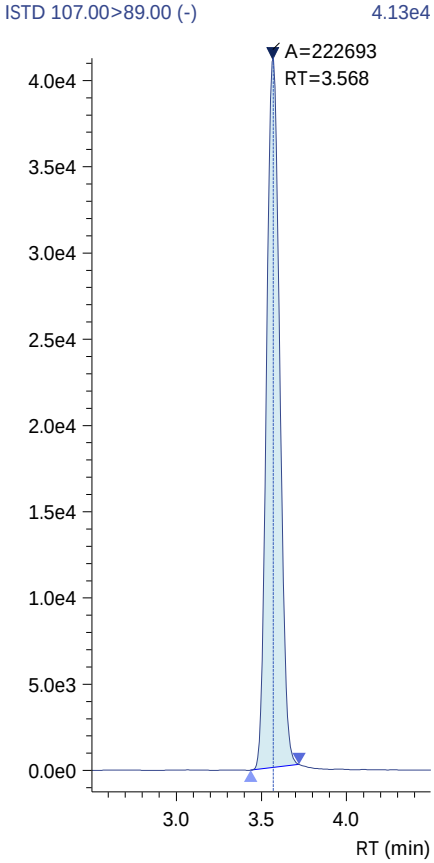
Perchlorate

Conc 0.0904
R#1 27.11 (31.99)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/1/2023 1:30:25 PM

Method File: I:\LCMS01\DATA\20230201\20230201ICAL.lcm
Project File: I:\LCMS01\DATA\20230201\20230201ICAL.damIp

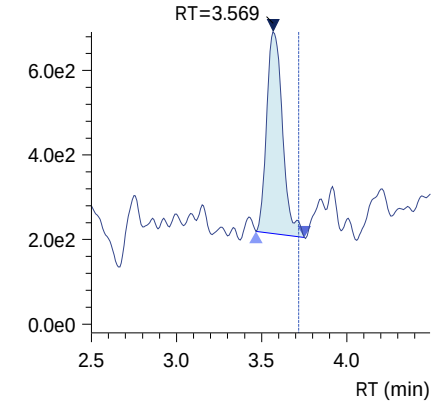
PERCHLORATE1

Sample ID: PERCHLORATE1
Date Acquired: 2/1/2023 11:50:11 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\02012023\20230201-003.lcd
Vial: 1 | Inj. Volume: 25.0000uL | Tray: 1

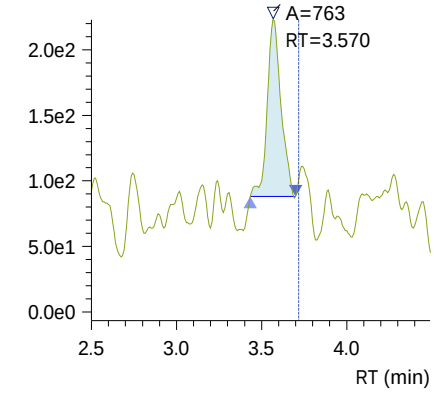
Perchlorate

Conc 0.0996
R#1 24.56 (34.45)

Q 99.00>83.00 (-) A=3105 6.91e2



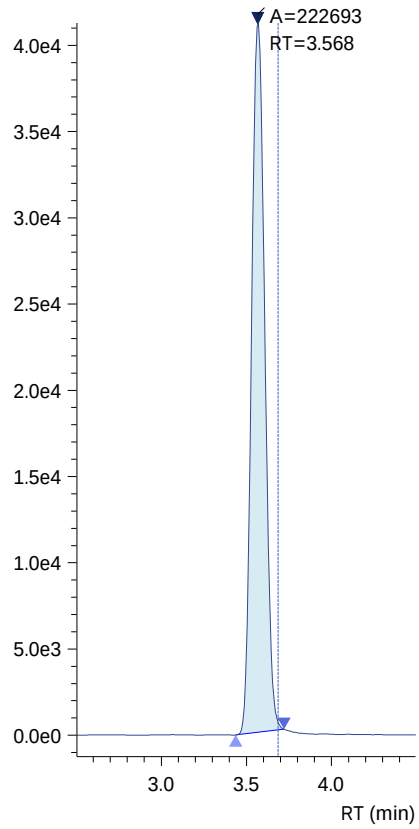
R1 101.00>85.00 (-) 2.23e2



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 4.13e4



Insight Report

Printed at 2/1/2023 2:06:14 PM

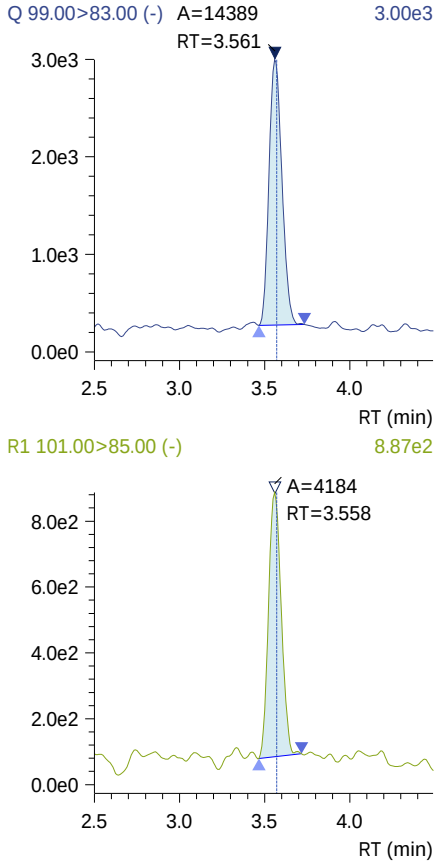
PERCHLORATE2

Sample ID: PERCHLORATE2
Date Acquired: 2/1/2023 11:55:59 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\02012023\20230201-004.lcd
Vial: 2 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.561	14389	221291	0.4694	ng/mL	101.00 >85.00	29.08	24.11 -44.78
Sodium Perchlorate-18O4_IS	Auto	3.558	221291	221291	1.0000	ng/mL	----	----	

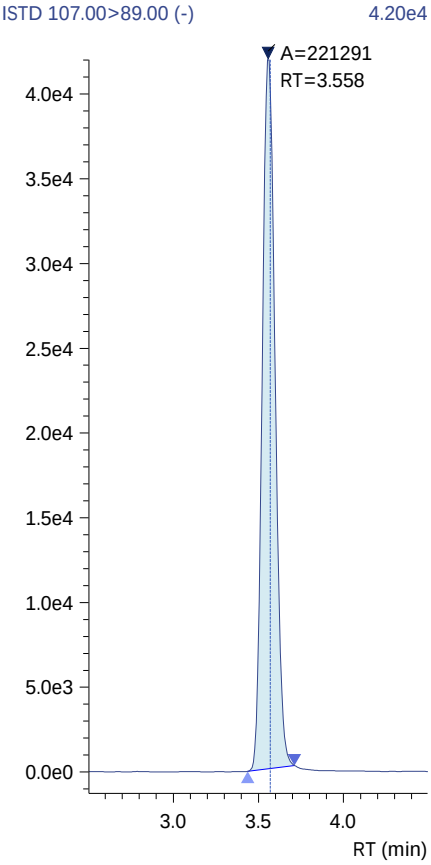
Perchlorate

Conc 0.4694
R#1 29.08 (31.99)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/1/2023 2:06:14 PM

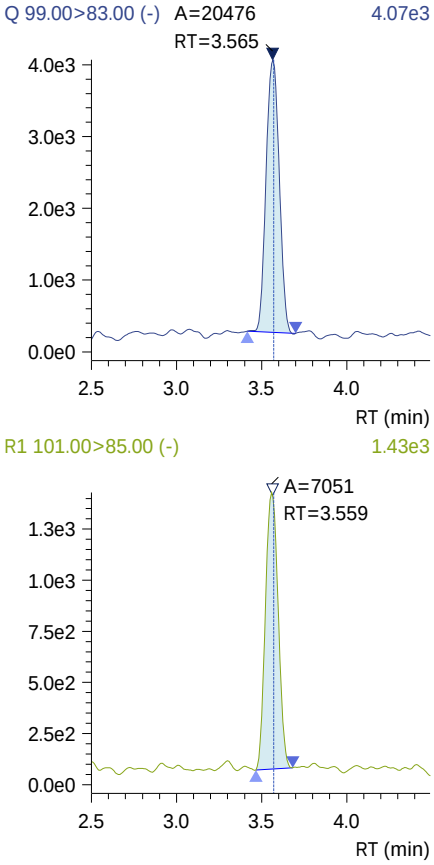
PERCHLORATE3

Sample ID: PERCHLORATE3
Date Acquired: 2/1/2023 12:01:49 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\02012023\20230201-005.lcd
Vial: 3 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.565	20476	217325	0.6801	ng/mL	101.00 >85.00	34.44	24.11 -44.78
Sodium Perchlorate-18O4_IS	Auto	3.559	217325	217325	1.0000	ng/mL	----	----	

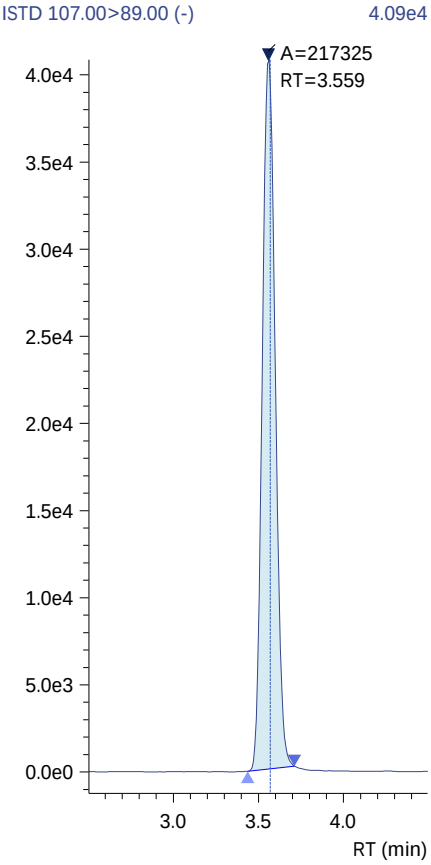
Perchlorate

Conc 0.6801
R#1 34.44 (31.99)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/1/2023 2:06:14 PM

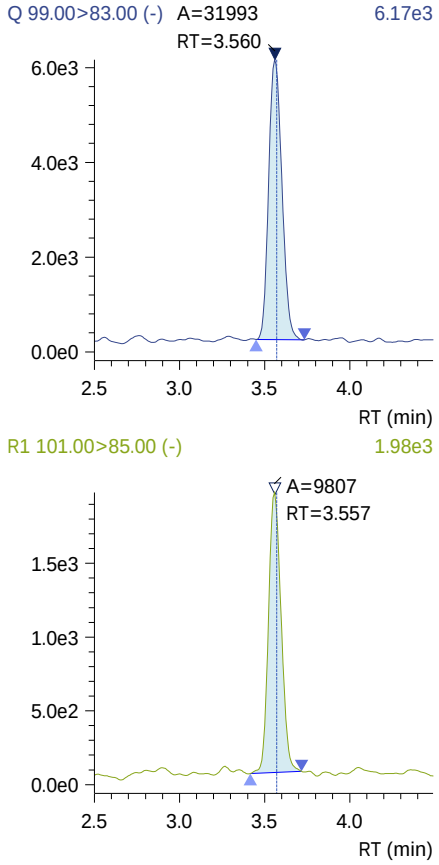
PERCHLORATE4

Sample ID: PERCHLORATE4
Date Acquired: 2/1/2023 12:07:38 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\02012023\20230201-006.lcd
Vial: 4 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.560	31993	228763	1.0095	ng/mL	101.00 >85.00	30.65	24.11 -44.78
Sodium Perchlorate-18O4_IS	Auto	3.557	228763	228763	1.0000	ng/mL	----	----	

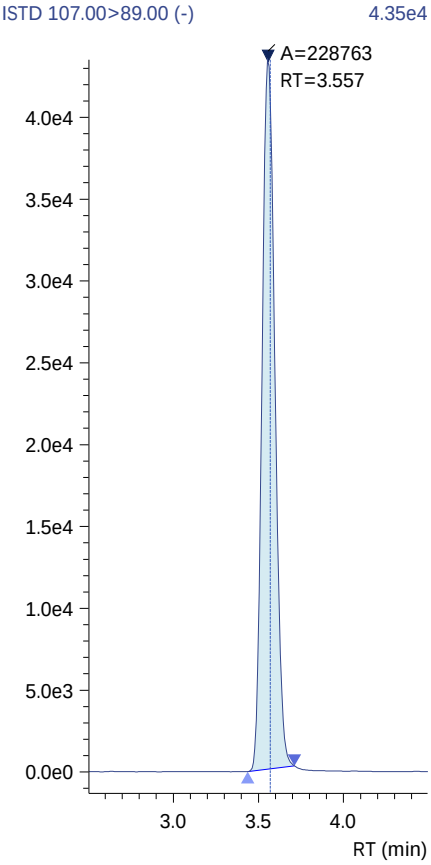
Perchlorate

Conc 1.0095
R#1 30.65 (31.99)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 2/1/2023 2:06:14 PM

PERCHLORATE5

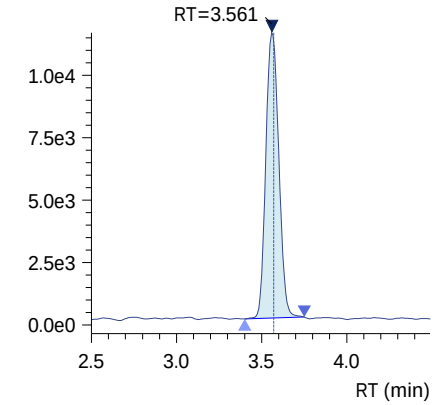
Sample ID: PERCHLORATE5
Date Acquired: 2/1/2023 12:13:29 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\02012023\20230201-007.lcd
Vial: 5 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.561	60751	216066	2.0296	ng/mL	101.00 >85.00	32.70	24.11 -44.78
Sodium Perchlorate-18O4_IS	Auto	3.557	216066	216066	1.0000	ng/mL	----	----	

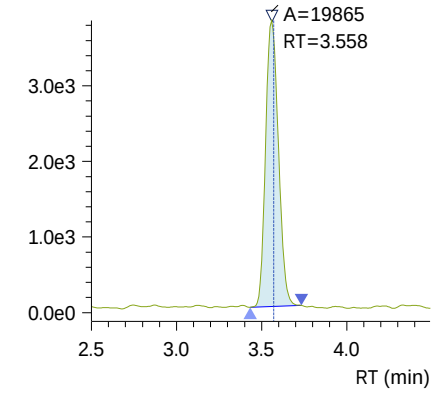
Perchlorate

Conc 2.0296
R#1 32.70 (31.99)

Q 99.00>83.00 (-) A=60751 1.17e4



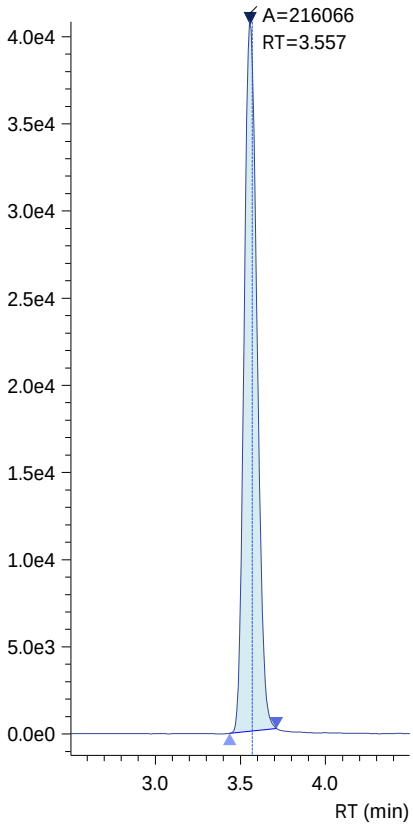
R1 101.00>85.00 (-) 3.87e3



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 4.09e4



Insight Report

Printed at 2/1/2023 2:06:14 PM

PERCHLORATE6

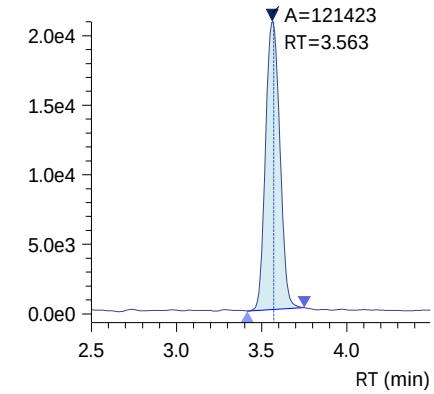
Sample ID: PERCHLORATE6
Date Acquired: 2/1/2023 12:19:20 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\02012023\20230201-008.lcd
Vial: 6 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.563	121423	172986	5.0667	ng/mL	101.00	32.55	24.11
							>85.00		-44.78
Sodium Perchlorate-18O4_IS	Auto	3.558	172986	172986	1.0000	ng/mL	----	----	

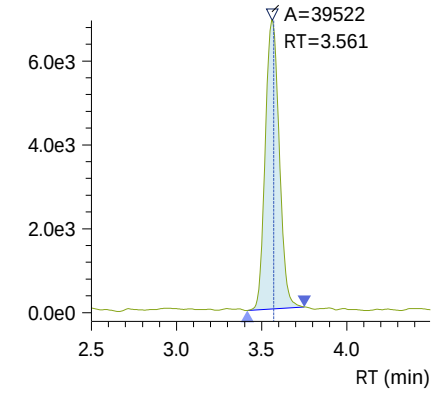
Perchlorate

Conc 5.0667
R#1 32.55 (31.99)

Q 99.00>83.00 (-) 2.10e4



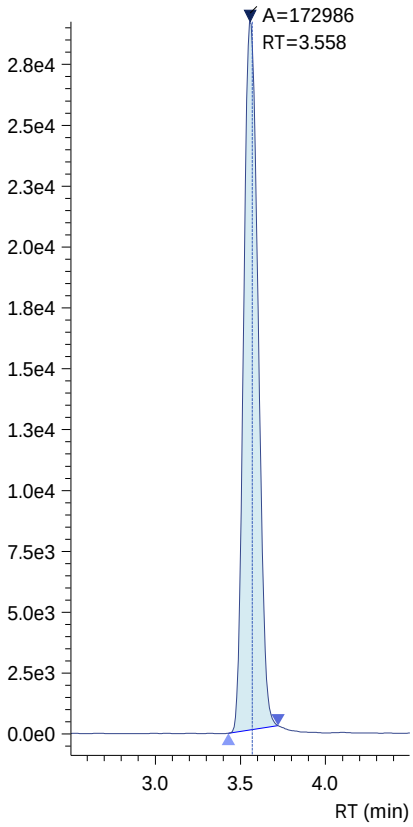
R1 101.00>85.00 (-) 6.97e3



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.93e4



Insight Report

Printed at 2/1/2023 2:06:14 PM

PERCHLORATE7

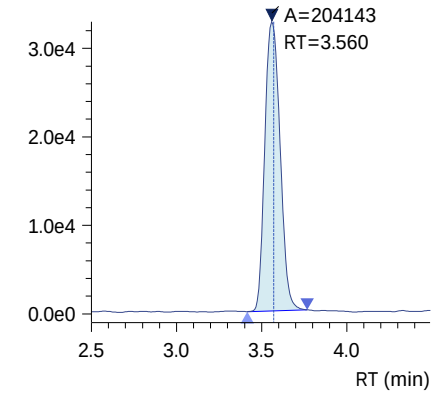
Sample ID: PERCHLORATE7
Date Acquired: 2/1/2023 12:25:10 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\02012023\20230201-009.lcd
Vial: 7 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.560	2041 43	144196	10.2 192	ng/mL	101.00 >85.00	31.99	24.11 -44.78
Sodium Perchlorate-18O4_IS	Auto	3.555	1441 96	144196	1.0000	ng/mL	----	----	

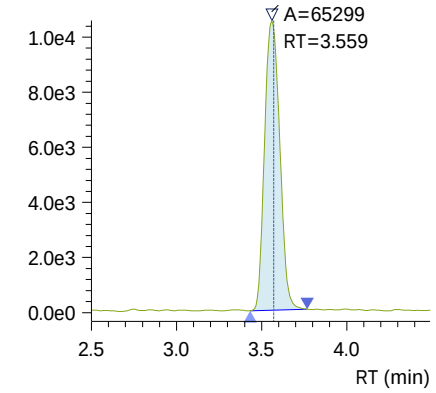
Perchlorate

Conc 10.2192
R#1 31.99 (31.99)

Q 99.00>83.00 (-) 3.30e4



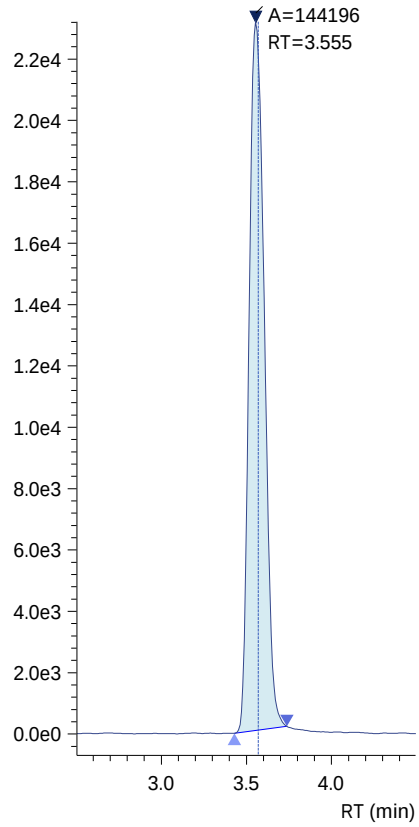
R1 101.00>85.00 (-) 1.06e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.32e4



Insight Report

Printed at 2/1/2023 2:06:14 PM

PERCHLORATE8

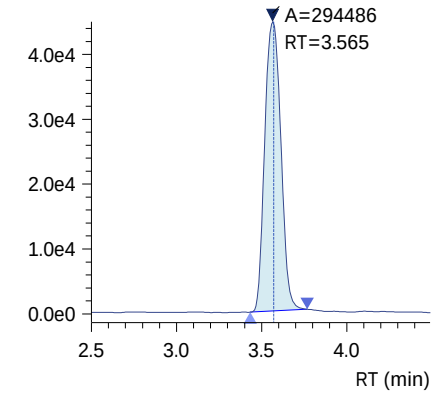
Sample ID: PERCHLORATE8
Date Acquired: 2/1/2023 12:30:57 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\02012023\20230201-010.lcd
Vial: 8 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.565	294486	104680	20.3065	ng/mL	101.00 >85.00	32.66	24.11 -44.78
Sodium Perchlorate-18O4_IS	Auto	3.557	104680	104680	1.0000	ng/mL	----	----	

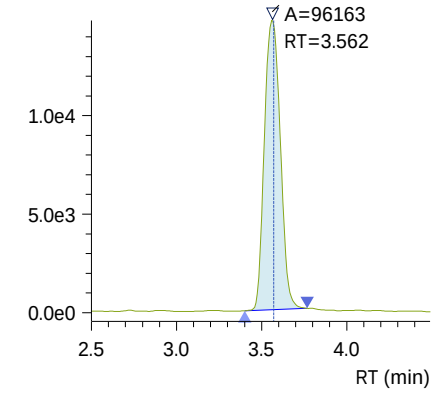
Perchlorate

Conc 20.3065
R#1 32.66 (31.99)

Q 99.00>83.00 (-) 4.50e4



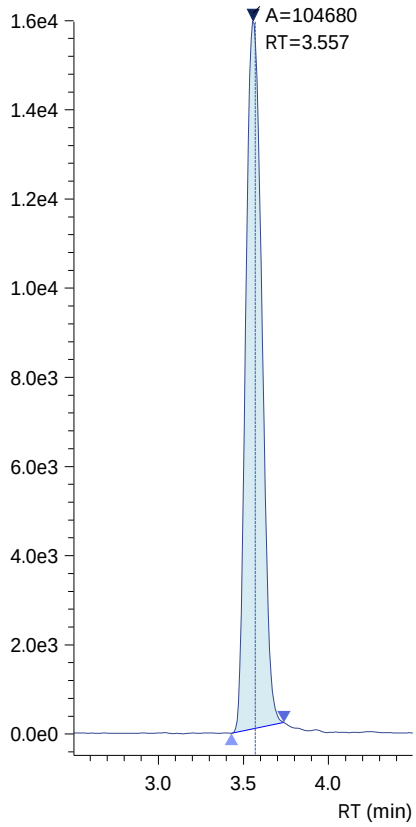
R1 101.00>85.00 (-) 1.48e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.60e4



Insight Report

Printed at 2/1/2023 2:06:14 PM

PERCHLORATE9

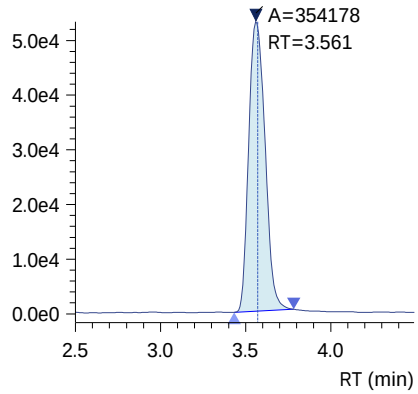
Sample ID: PERCHLORATE9
Date Acquired: 2/1/2023 12:36:45 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\02012023\20230201-011.lcd
Vial: 9 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.561	3541	81577	31.3	ng/mL	101.00	31.89	24.11
			78		395		>85.00		-44.78
Sodium Perchlorate-18O4 _IS	Auto	3.557	81577	81577	1.0000	ng/mL	----	----	

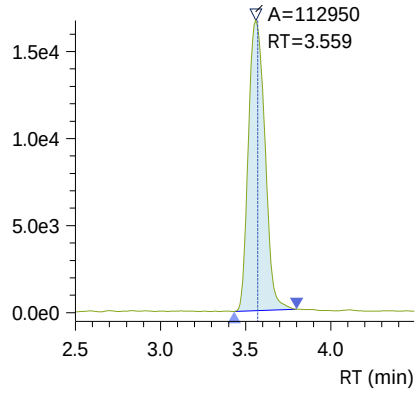
Perchlorate

Conc 31.3395
R#1 31.89 (31.99)

Q 99.00>83.00 (-) 5.34e4



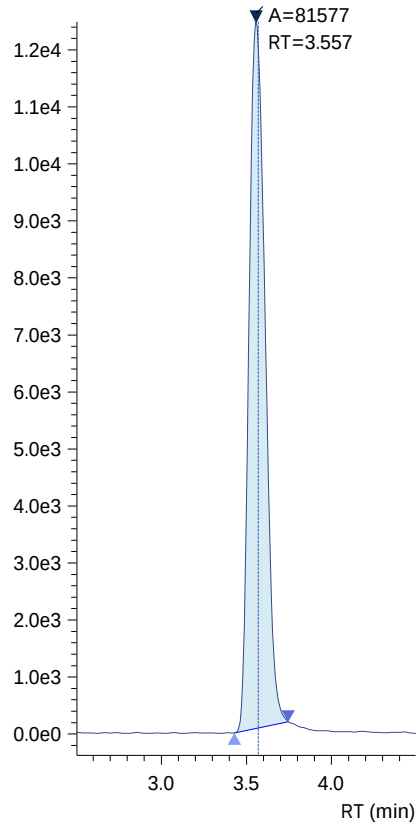
R1 101.00>85.00 (-) 1.68e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.25e4



Insight Report

Printed at 2/1/2023 2:06:14 PM

PERCHLORATE10

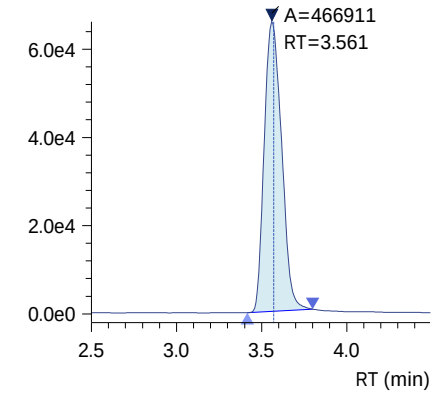
Sample ID: PERCHLORATE10
Date Acquired: 2/1/2023 12:42:34 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\02012023\20230201-012.lcd
Vial: 10 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.561	4669	63237	53.2	ng/mL	101.00	32.40	24.11
			11		964		>85.00		-44.78
Sodium Perchlorate-18O4_IS	Auto	3.554	63237	63237	1.0000	ng/mL	----	----	

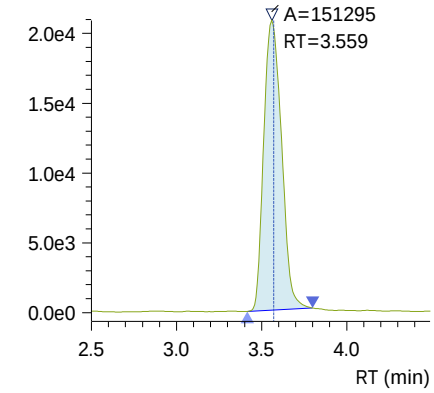
Perchlorate

Conc 53.2964
R#1 32.40 (31.99)

Q 99.00>83.00 (-) 6.62e4



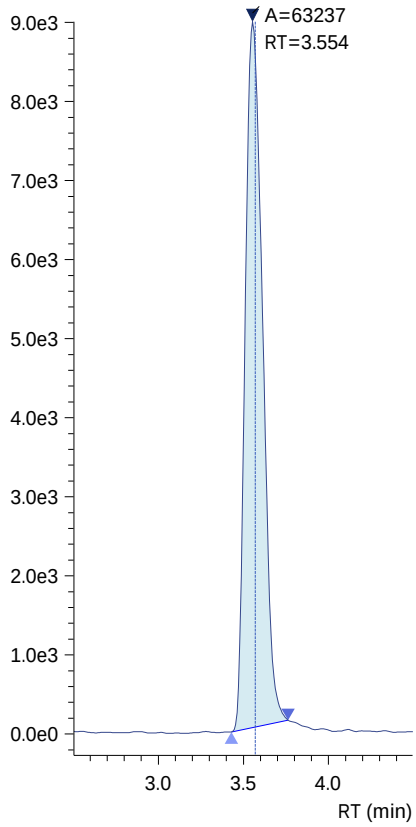
R1 101.00>85.00 (-) 2.09e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 9.01e3



Insight Report

Printed at 2/1/2023 2:06:14 PM

PERCHLORATEICV

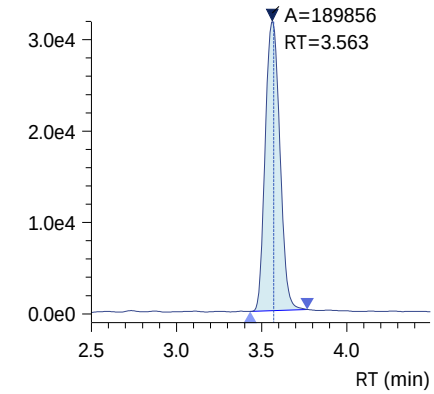
Sample ID: PERCHLORATEICV
Date Acquired: 2/1/2023 12:48:22 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\02012023\20230201-013.lcd
Vial: 11 | Inj. Volume: 25.0000uL | Tray: 1

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.563	189856 56	130049	10.5 379	ng/mL	101.00 >85.00	32.76	24.11 -44.78
Sodium Perchlorate-18O4_IS	Auto	3.557	130049	130049	1.0000	ng/mL	----	----	

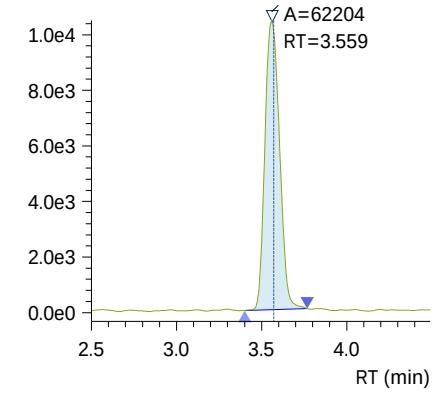
Perchlorate

Conc 10.5379
R#1 32.76 (31.99)

Q 99.00>83.00 (-) 3.20e4



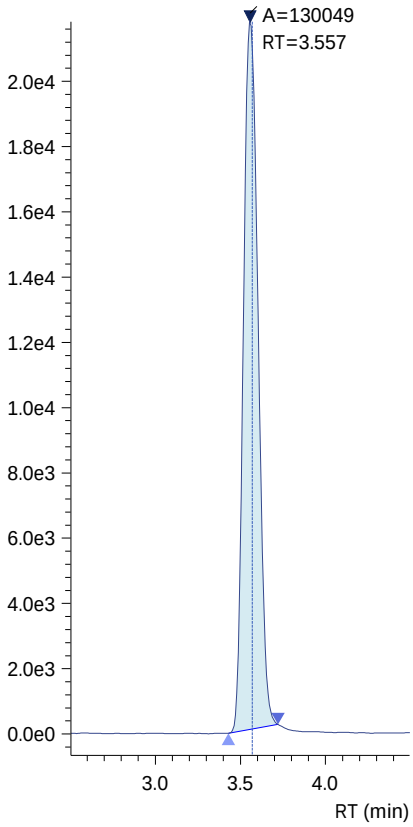
R1 101.00>85.00 (-) 1.05e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.18e4



Chromatograms and Selected Ion Monitoring

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 320, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

20230315-797835

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XMI
2nd Review: KNEIR

ICAL Date: 2/1/2023
Cal. Std. xp: 07/31/2023
ICAL ID: EC2300002

Mobile Phases : A:0.10% Formic Acid/Water 3210303-05 **B:**MeOH 224417

	Sample Name		File Name	Acquisition Method	Dilution	R	Comments	Date/Time
1	IB		20230315-001	Perchlorate6850c.lcm	1x	☒		3/15/2023 8:46
2	LODV		20230315-002	Perchlorate6850c.lcm	1x	☒	DNU-IR	3/15/2023 8:52
3	ICS		20230315-003	Perchlorate6850c.lcm	1x	☒	32103024	3/15/2023 8:58
4	LODV		20230315-004	Perchlorate6850c.lcm	1x	☒	227501	3/15/2023 9:05
5	PERCHLORATE7		20230315-005	Perchlorate6850c.lcm	1x	☒	227251	3/15/2023 9:25
6	EQ2300128-01		20230315-006	Perchlorate6850c.lcm	1x	☒		3/15/2023 9:30
7	EQ2300128-02		20230315-007	Perchlorate6850c.lcm	1x	☒		3/15/2023 9:36
8	EQ2300128-03		20230315-008	Perchlorate6850c.lcm	1x	☒		3/15/2023 9:42
9	R2301893-005		20230315-009	Perchlorate6850c.lcm	1x	☒		3/15/2023 10:05
10	R2301893-010		20230315-010	Perchlorate6850c.lcm	1x	☒		3/15/2023 10:10
11	R2301893-015		20230315-011	Perchlorate6850c.lcm	1x	☒		3/15/2023 10:21
12	R2301893-020		20230315-012	Perchlorate6850c.lcm	1x	☒		3/15/2023 10:27
13	R2301893-025		20230315-013	Perchlorate6850c.lcm	1x	☒		3/15/2023 10:33
14	R2301893-034		20230315-014	Perchlorate6850c.lcm	1x	☒		3/15/2023 10:38
15	R2301893-035		20230315-015	Perchlorate6850c.lcm	1x	☒	DNU-RR	3/15/2023 10:44
16	PERCHLORATE7		20230315-016	Perchlorate6850c.lcm	1x	☒	227251	3/15/2023 10:50
17	R2301893-044		20230315-017	Perchlorate6850c.lcm	1x	☒		3/15/2023 10:55
18	R2301893-045		20230315-018	Perchlorate6850c.lcm	1x	☒		3/15/2023 11:01
19	R2301893-050		20230315-019	Perchlorate6850c.lcm	1x	☒		3/15/2023 11:07
20	EQ2300128-04		20230315-020	Perchlorate6850c.lcm	1x	☒		3/15/2023 11:13
21	EQ2300128-05		20230315-021	Perchlorate6850c.lcm	1x	☒		3/15/2023 11:19
22	R2301893-055		20230315-022	Perchlorate6850c.lcm	1x	☒		3/15/2023 11:27
23	R2301896-009		20230315-023	Perchlorate6850c.lcm	1x	☒		3/15/2023 11:33
24	R2301896-010		20230315-024	Perchlorate6850c.lcm	1x	☒		3/15/2023 11:39
25	R2301896-015		20230315-025	Perchlorate6850c.lcm	1x	☒		3/15/2023 11:44
26	R2301896-024		20230315-026	Perchlorate6850c.lcm	1x	☒		3/15/2023 11:50
27	PERCHLORATE7		20230315-027	Perchlorate6850c.lcm	1x	☒	227251	3/15/2023 11:56
28	R2301896-025		20230315-028	Perchlorate6850c.lcm	1x	☒		3/15/2023 12:02
29	R2301896-034		20230315-029	Perchlorate6850c.lcm	1x	☒		3/15/2023 12:07
30	R2301896-035		20230315-030	Perchlorate6850c.lcm	1x	☒		3/15/2023 12:13
31	R2301896-040		20230315-031	Perchlorate6850c.lcm	1x	☒	DNU-CONFIRM PEAK	3/15/2023 12:19
32	R2301896-045		20230315-032	Perchlorate6850c.lcm	1x	☒		3/15/2023 12:24
33	EQ2300127-01		20230315-033	Perchlorate6850c.lcm	1x	☒		3/15/2023 12:30
34	EQ2300127-02		20230315-034	Perchlorate6850c.lcm	1x	☒		3/15/2023 12:36
35	EQ2300127-03		20230315-035	Perchlorate6850c.lcm	1x	☒		3/15/2023 12:42
36	E2300231-001		20230315-036	Perchlorate6850c.lcm	1x	☒		3/15/2023 12:48
37	E2300231-002		20230315-037	Perchlorate6850c.lcm	1x	☒		3/15/2023 12:54

20230315-797835

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XMI
2nd Review: KNEIR

ICAL Date: 2/1/2023
Cal. Std. xp: 07/31/2023
ICAL ID: EC2300002

Mobile Phases : **A:**0.10% Formic Acid/Water 3210303-05 **B:**MeOH 224417

	Sample Name		File Name	Acquisition Method	Dilution	R	Comments	Date/Time
38	PERCHLORATE7		20230315-038	Perchlorate6850c.lcm	1x	☒	227251	3/15/2023 12:59
39	E2300231-003		20230315-039	Perchlorate6850c.lcm	1x	☒		3/15/2023 13:05
40	E2300231-004		20230315-040	Perchlorate6850c.lcm	1x	☒	DNU-IR	3/15/2023 13:11
41	E2300231-005		20230315-041	Perchlorate6850c.lcm	1x	☒		3/15/2023 13:16
42	E2300235-001		20230315-042	Perchlorate6850c.lcm	1x	☒		3/15/2023 13:22
43	E2300235-002		20230315-043	Perchlorate6850c.lcm	1x	☒		3/15/2023 13:28
44	E2300235-003		20230315-044	Perchlorate6850c.lcm	1x	☒		3/15/2023 13:34
45	E2300239-001		20230315-045	Perchlorate6850c.lcm	1x	☒		3/15/2023 13:39
46	E2300240-001		20230315-046	Perchlorate6850c.lcm	1x	☒	DNU-out of ICAL range	3/15/2023 13:45
47	R2301866-011		20230315-047	Perchlorate6850c.lcm	1x	☒		3/15/2023 13:51
48	R2301866-013		20230315-048	Perchlorate6850c.lcm	1x	☒		3/15/2023 13:57
49	PERCHLORATE7		20230315-049	Perchlorate6850c.lcm	1x	☒	227251	3/15/2023 14:37
50	R2301868-012		20230315-050	Perchlorate6850c.lcm	1x	☒		3/15/2023 14:44
51	R2301870-012		20230315-051	Perchlorate6850c.lcm	1x	☒		3/15/2023 14:50
52	R2301872-012		20230315-052	Perchlorate6850c.lcm	1x	☒		3/15/2023 14:56
53	R2301874-012		20230315-053	Perchlorate6850c.lcm	1x	☒		3/15/2023 15:01
54	R2301876-012		20230315-054	Perchlorate6850c.lcm	1x	☒		3/15/2023 15:07
55	R2301914-005		20230315-055	Perchlorate6850c.lcm	1x	☒		3/15/2023 15:13
56	R2301914-014		20230315-056	Perchlorate6850c.lcm	1x	☒		3/15/2023 15:19
57	R2301896-040		20230315-057	Perchlorate6850c.lcm	1x	☒		3/15/2023 15:24
58	E2300231-004		20230315-058	Perchlorate6850c.lcm	1x	☒		3/15/2023 15:30
59	E2300240-001		20230315-059	Perchlorate6850c.lcm	1000x	☒		3/15/2023 15:52
60	PERCHLORATE7		20230315-060	Perchlorate6850c.lcm	1x	☒	227251	3/15/2023 16:59

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2300240
Project:	HS23030399	**Date Analyzed:**	3/15/23 12:59

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20230315\20230315-038	**Lab Code:**	EQ2300132-04
Instrument ID:	E-LCMS-01	**Analysis Lot:**	797835
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	167,281	3.56
	Upper Limit ==>	250,922	5.56
	Lower Limit ==>	83,641	1.56
Associated Analyses			
Continuing Calibration Verification	EQ2300132-04	207,678	3.39

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23030399

Service Request: E2300240
Date Analyzed: 3/15/23 14:37

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID: I:\LCMS01\DATA\20230315\20230315-049
Instrument ID: E-LCMS-01
Analytical Method: 6850

Lab Code: EQ2300132-05
Analysis Lot: 797835
Signal ID: 1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	167,281	3.56
	Upper Limit ==>	250,922	5.56
	Lower Limit ==>	83,641	1.56
Associated Analyses			
Continuing Calibration Verification	EQ2300132-05	222,551	3.38
LH18/24-SP140_030723	E2300240-001	182,697	3.37

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2300240
Project:	HS23030399	**Date Analyzed:**	3/15/23 16:59

Internal Standard Area and RT Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

File ID:	I:\LCMS01\DATA\20230315\20230315-060-5	**Lab Code:**	EQ2300132-06
Instrument ID:	E-LCMS-01	**Analysis Lot:**	797835
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	167,281	3.56
	Upper Limit ==>	250,922	5.56
	Lower Limit ==>	83,641	1.56
Associated Analyses			
Continuing Calibration Verification	EQ2300132-06	173,264	3.35

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23030399

Service Request: E2300240
Date Analyzed: 3/15/23

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20230315\20230315-038

Calibration Date: 2/1/23
Calibration ID: EC2300002
Analysis Lot: 797835
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	8.67	0.1385	0.1201	-13.3	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23030399

Service Request: E2300240
Date Analyzed: 3/15/23

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20230315\20230315-049

Calibration Date: 2/1/23
Calibration ID: EC2300002
Analysis Lot: 797835
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	8.68	0.1385	0.1203	-13.2	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23030399

Service Request: E2300240
Date Analyzed: 3/15/23

Continuing Calibration Verification Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20230315\20230315-060-5

Calibration Date: 2/1/23
Calibration ID: EC2300002
Analysis Lot: 797835
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	10.8	0.1385	0.1495	7.9	NA	± 15 %	Average RF

Insight Report

Printed at 3/16/2023 9:16:42 AM

Method File: I:\LCMS01\DATA\20230315\20230315.lcm
Project File: I:\LCMS01\DATA\20230315\20230315.damlp

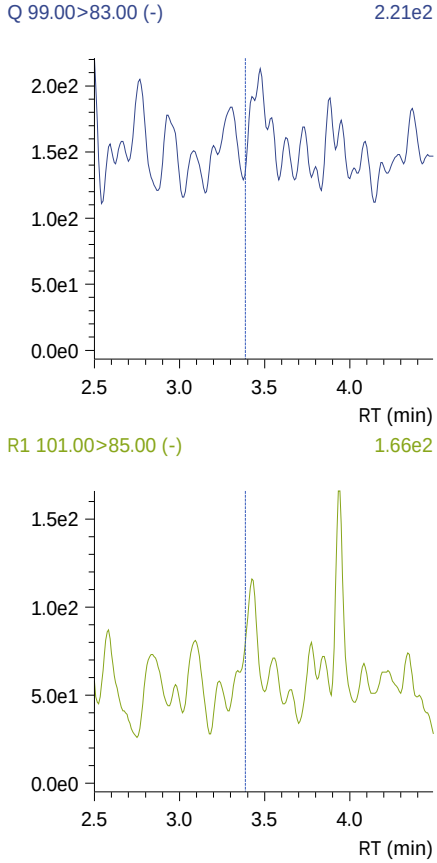
IB

Sample ID: IB
Date Acquired: 3/15/2023 8:46:51 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230315\20230315-001.lcd
Vial: 4 | Inj. Volume: 25.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	228254	----	ng/mL	101.00 >85.00	0.00	22.03 -40.92
Sodium Perchlorate-18O4_IS	Auto	3.430	228254	228254	1.0000	ng/mL	----	----	

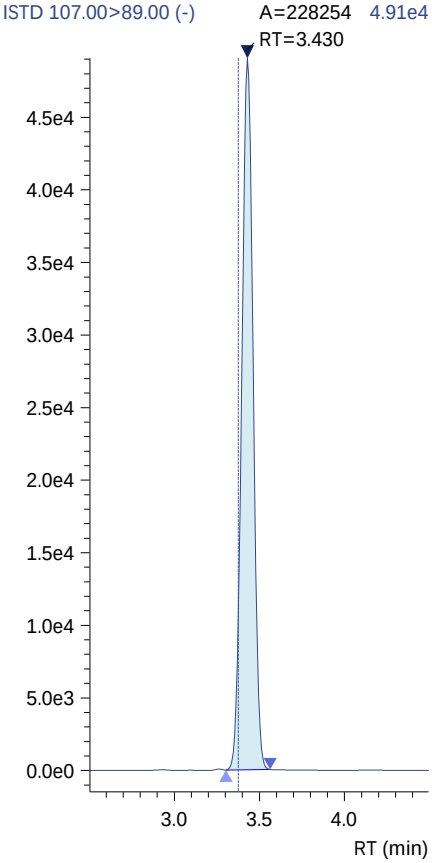
Perchlorate

Conc ----
R#1 0.00 (31.48)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 3/16/2023 9:16:42 AM

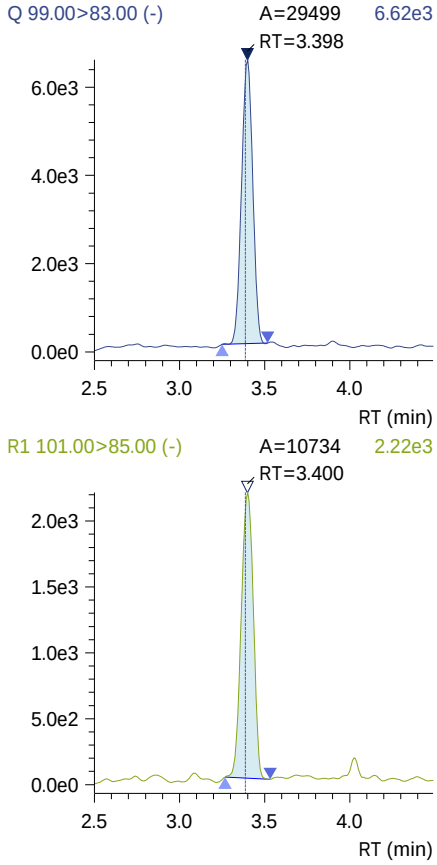
ICS

Sample ID: ICS
Date Acquired: 3/15/2023 8:58:42 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230315\20230315-003.lcd
Vial: 2 | Inj. Volume: 25.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.398	29499	198883	1.0707	ng/mL	101.00 >85.00	36.39	22.03 -40.92
Sodium Perchlorate-18O4_IS	Auto	3.394	198883	198883	1.0000	ng/mL	----	----	

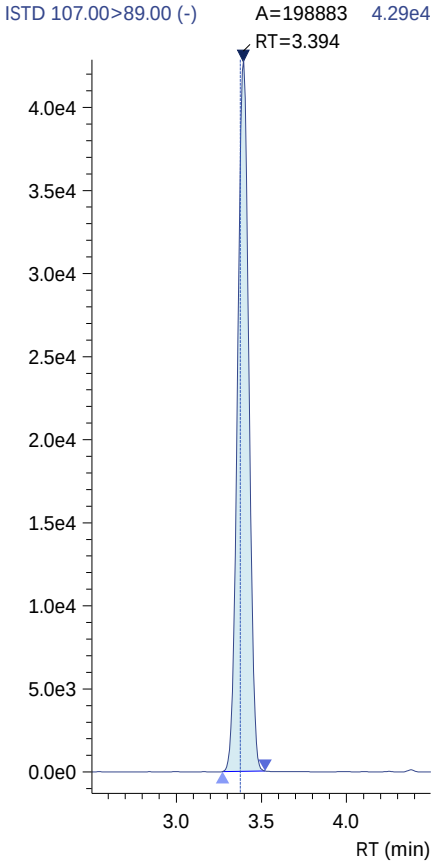
Perchlorate

Conc 1.0707
R#1 36.39 (31.48)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 3/16/2023 9:16:42 AM

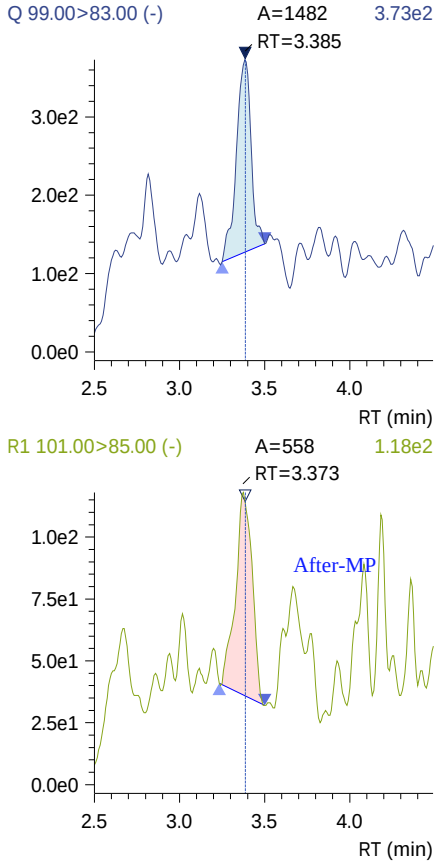
LODV

Sample ID: LODV
Date Acquired: 3/15/2023 9:05:11 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230315\20230315-004.lcd
Vial: 1 | Inj. Volume: 25.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	MI R1	3.385	1482	174618	0.0613	ng/mL	101.00 >85.00	37.64	22.03 -40.92
Sodium Perchlorate-18O4_IS	Auto	3.383	174618	174618	1.0000	ng/mL	----	----	

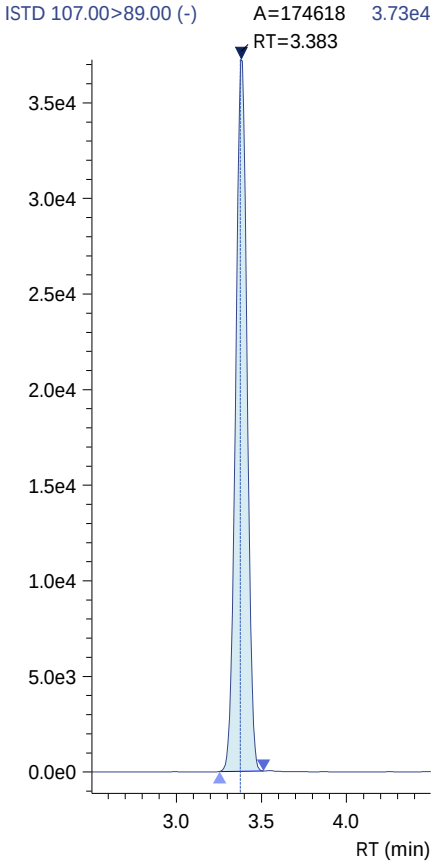
Perchlorate

Conc 0.0613
R#1 37.64 (31.48)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 3/16/2023 9:18:29 AM

Method File: I:\LCMS01\DATA\20230315\20230315.lcm
Project File: I:\LCMS01\DATA\20230315\20230315.damlp

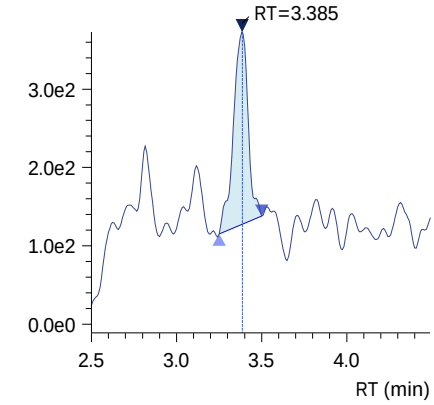
LODV

Sample ID: LODV
Date Acquired: 3/15/2023 9:05:11 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230315\20230315-004.lcd
Vial: 1 | Inj. Volume: 25.0000uL | Tray: 0

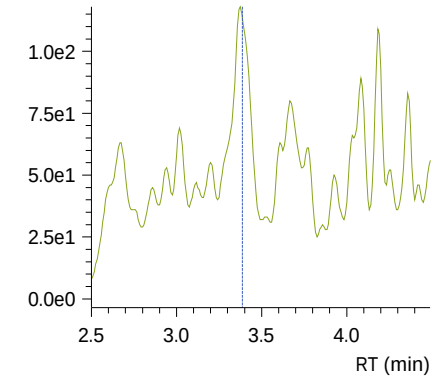
Perchlorate

Conc 0.0606
R#1 0.00 (31.48)

Q 99.00>83.00 (-) A=1482 3.73e2



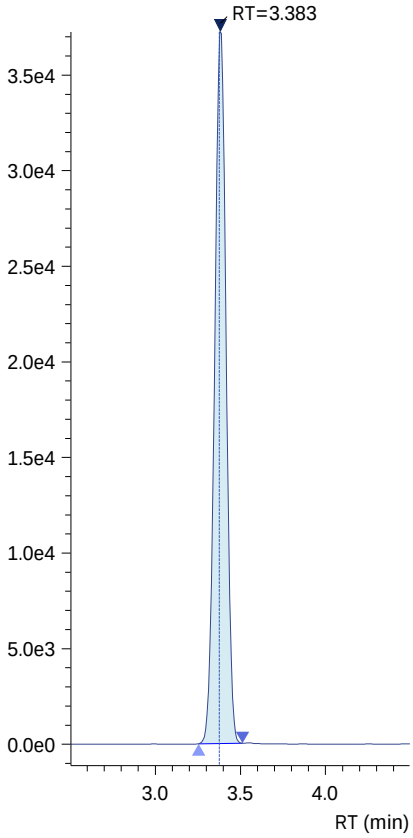
R1 101.00>85.00 (-) 1.18e2



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) A=174618 3.73e4



Insight Report

Printed at 3/16/2023 9:16:42 AM

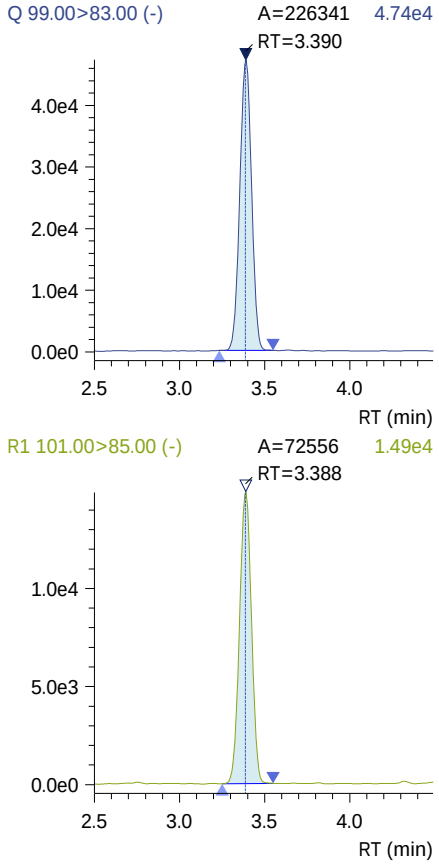
PERCHLORATE7

Sample ID: PERCHLORATE7
Date Acquired: 3/15/2023 9:25:10 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230315\20230315-005.lcd
Vial: 3 | Inj. Volume: 25.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.390	226341	177502	9.2044	ng/mL	101.00 >85.00	32.06	22.03 -40.92
Sodium Perchlorate-18O4_IS	Auto	3.385	177502	177502	1.0000	ng/mL	----	----	

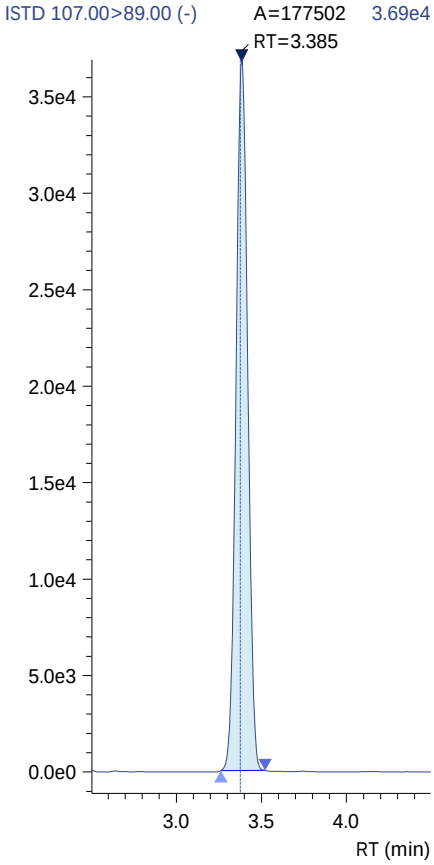
Perchlorate

Conc 9.2044
R#1 32.06 (31.48)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 3/16/2023 9:16:42 AM

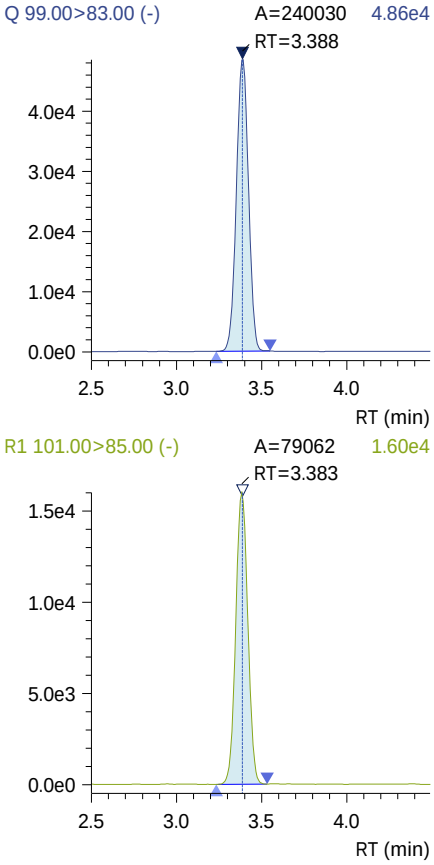
PERCHLORATE7

Sample ID: PERCHLORATE7
Date Acquired: 3/15/2023 11:56:15 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230315\20230315-027.lcd
Vial: 3 | Inj. Volume: 25.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.388	240030	198746	8.7177	ng/mL	101.00 >85.00	32.94	22.03 -40.92
Sodium Perchlorate-18O4_IS	Auto	3.385	198746	198746	1.0000	ng/mL	----	----	

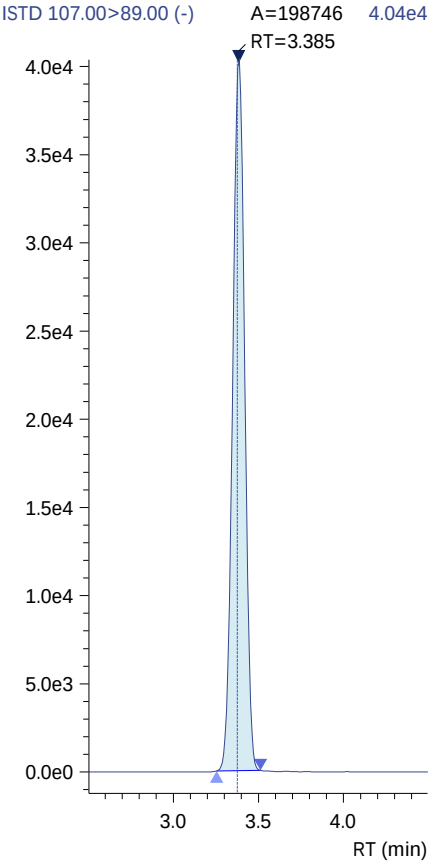
Perchlorate

Conc 8.7177
R#1 32.94 (31.48)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 3/16/2023 9:16:42 AM

EQ2300127-01

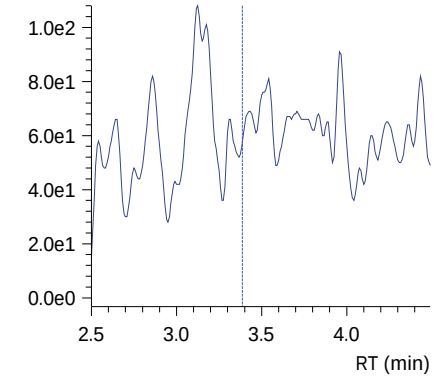
Sample ID: EQ2300127-01
Date Acquired: 3/15/2023 12:30:34 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230315\20230315-033.lcd
Vial: 26 | Inj. Volume: 25.0000uL | Tray: 4

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	201202	----	ng/mL	101.00 >85.00	0.00	22.03 -40.92
Sodium Perchlorate-18O4_IS	Auto	3.385	201202	201202	1.0000	ng/mL	----	----	

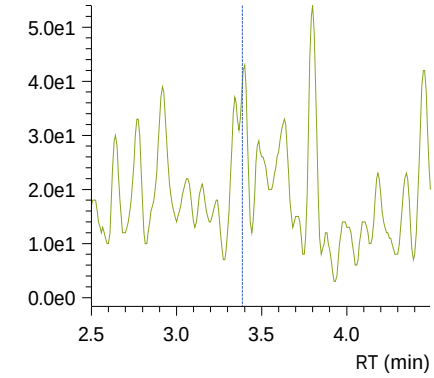
Perchlorate

Conc ----
R#1 0.00 (31.48)

Q 99.00>83.00 (-) 1.08e2



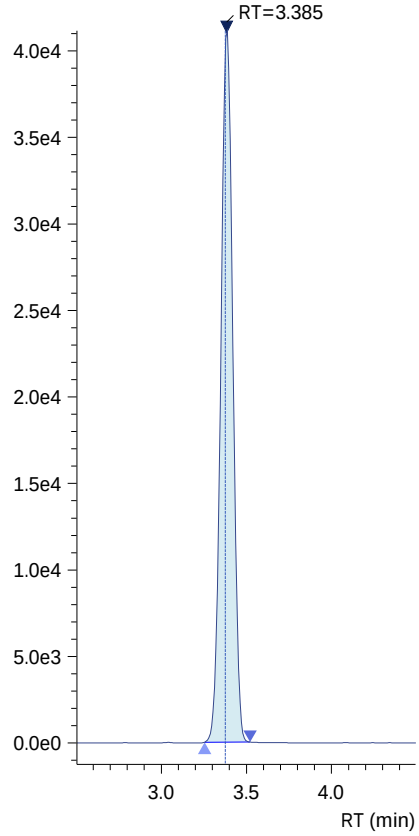
R1 101.00>85.00 (-) 5.40e1



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) A=201202 4.12e4



Insight Report

Printed at 3/16/2023 9:16:42 AM

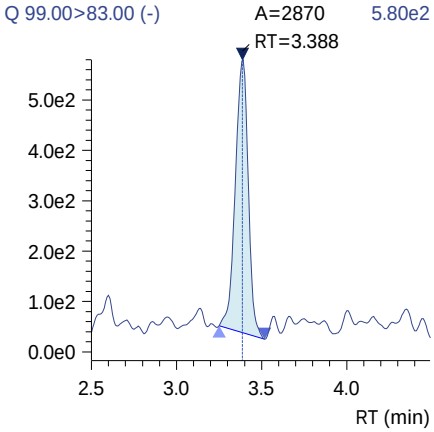
EQ2300127-02

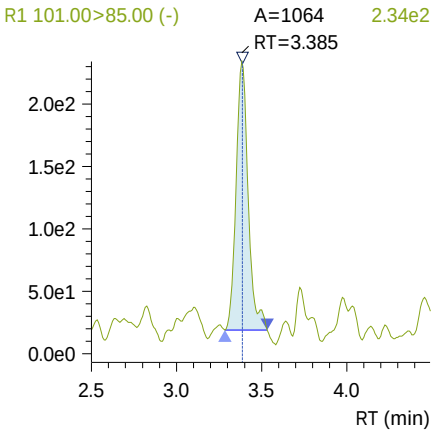
Sample ID: EQ2300127-02
Date Acquired: 3/15/2023 12:36:18 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230315\20230315-034.lcd
Vial: 27 | Inj. Volume: 25.0000uL | Tray: 4

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.388	2870	195012	0.1062	ng/mL	101.00 >85.00	37.05	22.03 -40.92
Sodium Perchlorate-18O4_IS	Auto	3.383	1950 12	195012	1.0000	ng/mL	----	----	

Perchlorate

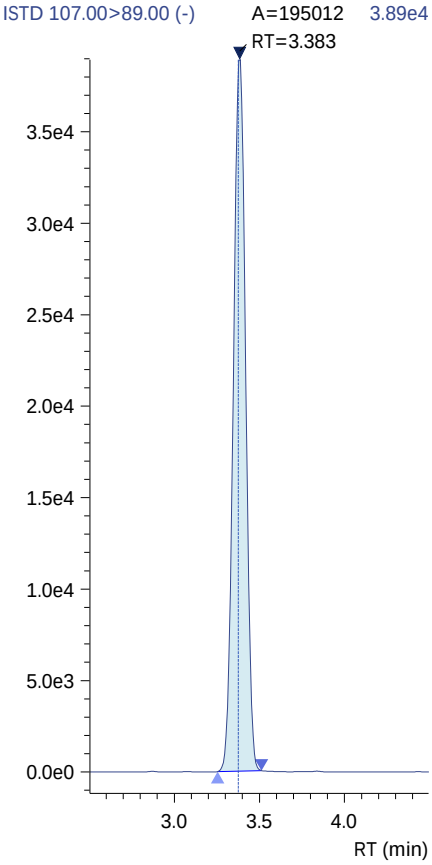
Conc 0.1062
R#1 37.05 (31.48)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 3/16/2023 9:16:42 AM

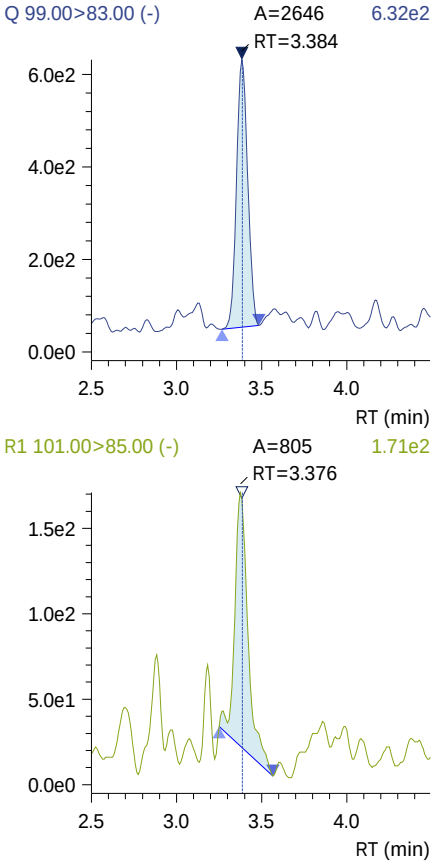
EQ2300127-03

Sample ID: EQ2300127-03
Date Acquired: 3/15/2023 12:42:02 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230315\20230315-035.lcd
Vial: 28 | Inj. Volume: 25.0000uL | Tray: 4

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.384	2646	203253	0.0940	ng/mL	101.00 >85.00	30.41	22.03 -40.92
Sodium Perchlorate-18O4_IS	Auto	3.381	2032 53	203253	1.0000	ng/mL	----	----	

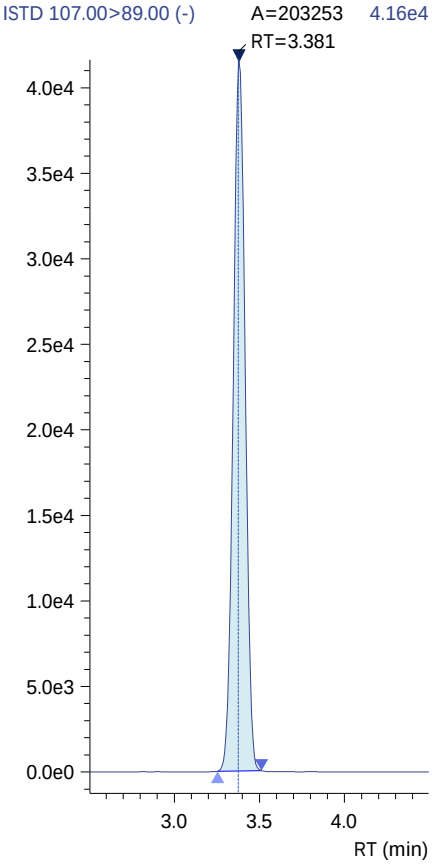
Perchlorate

Conc 0.0940
R#1 30.41 (31.48)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 3/16/2023 9:16:42 AM

PERCHLORATE7

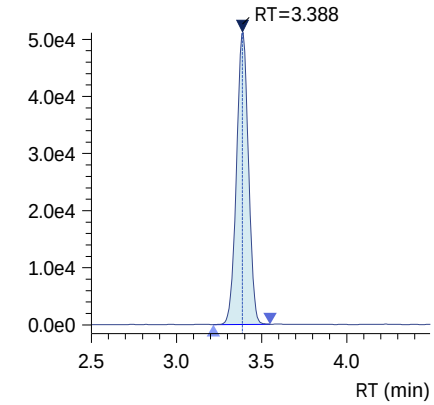
Sample ID: PERCHLORATE7
Date Acquired: 3/15/2023 12:59:44 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230315\20230315-038.lcd
Vial: 3 | Inj. Volume: 25.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.388	249399	207678	8.6684	ng/mL	101.00 >85.00	30.71	22.03 -40.92
Sodium Perchlorate-18O4_IS	Auto	3.385	207678	207678	1.0000	ng/mL	----	----	

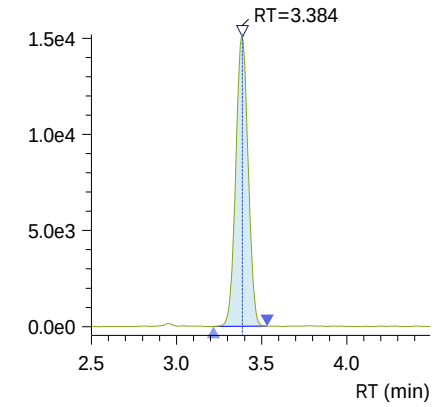
Perchlorate

Conc 8.6684
R#1 30.71 (31.48)

Q 99.00>83.00 (-) A=249399 5.12e4



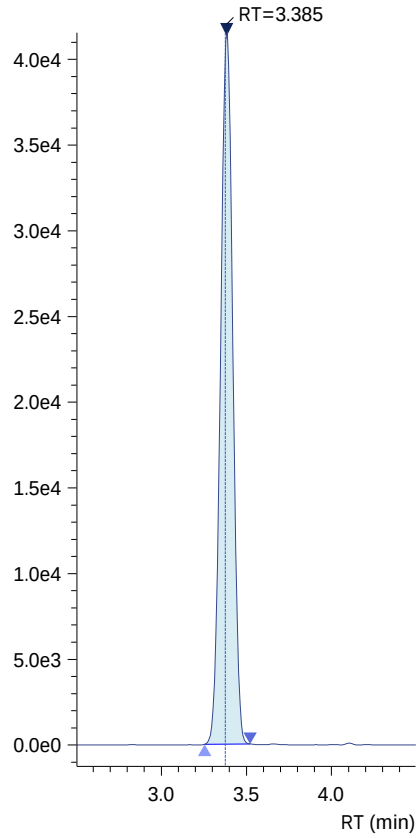
R1 101.00>85.00 (-) A=76584 1.52e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) A=207678 4.16e4



Insight Report

Printed at 3/16/2023 9:16:42 AM

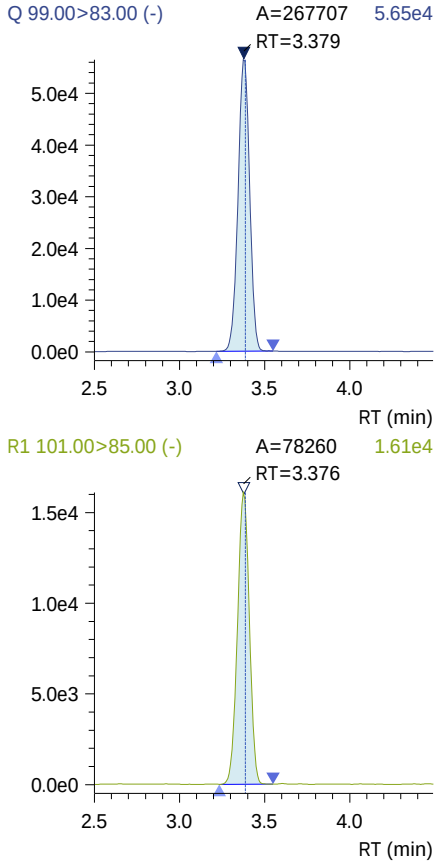
PERCHLORATE7

Sample ID: PERCHLORATE7
Date Acquired: 3/15/2023 2:37:55 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230315\20230315-049.lcd
Vial: 3 | Inj. Volume: 25.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.379	267707	222551	8.6829	ng/mL	101.00 >85.00	29.23	22.03 -40.92
Sodium Perchlorate-18O4_IS	Auto	3.375	222551	222551	1.0000	ng/mL	----	----	

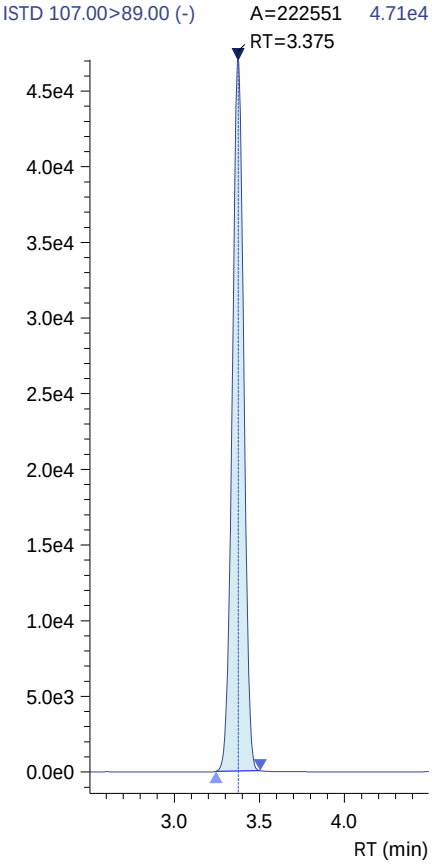
Perchlorate

Conc 8.6829
R#1 29.23 (31.48)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 3/16/2023 9:16:42 AM

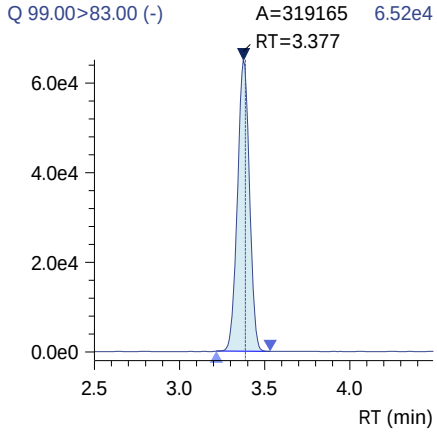
E2300240-001X1000

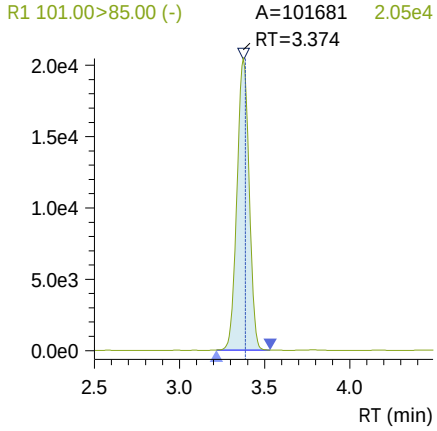
Sample ID: E2300240-001
Date Acquired: 3/15/2023 3:52:02 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230315\20230315-059.lcd
Vial: 38 | Inj. Volume: 25.0000uL | Tray: 4

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.377	3191 65	182697	12.6 101	ng/mL	101.00 >85.00	31.86	22.03 -40.92
Sodium Perchlorate-18O4_IS	Auto	3.373	1826 97	182697	1.0000	ng/mL	----	----	

Perchlorate

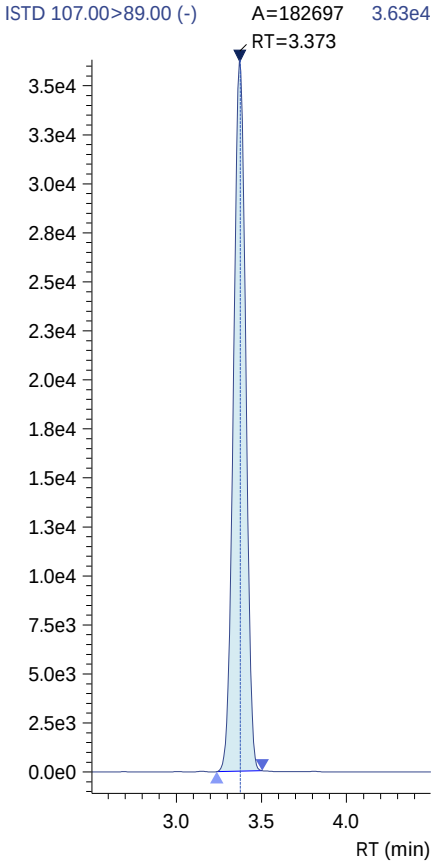
Conc 12.6101
R#1 31.86 (31.48)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 3/16/2023 9:16:42 AM

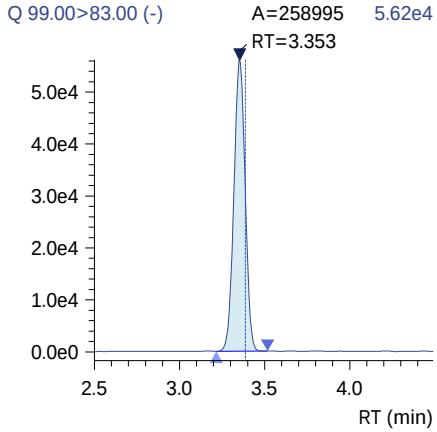
PERCHLORATE7

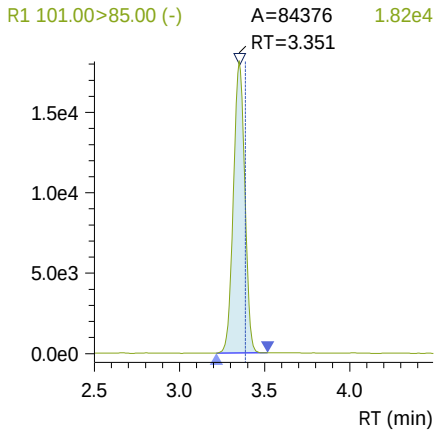
Sample ID: PERCHLORATE7
Date Acquired: 3/15/2023 4:59:53 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230315\20230315-060-5.lcd
Vial: 3 | Inj. Volume: 25.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.353	2589 95	173264	10.7 899	ng/mL	101.00 >85.00	32.58	22.03 -40.92
Sodium Perchlorate-18O4_IS	Auto	3.350	1732 64	173264	1.0000	ng/mL	----	----	

Perchlorate

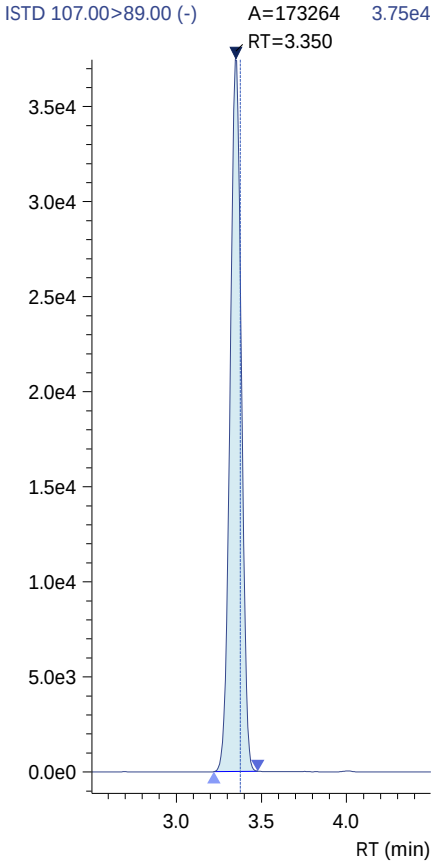
Conc 10.7899
R#1 32.58 (31.48)





Sodium Perchlorate-18O4_IS

Conc 1.0000



HS23030401 Longhorn GW Treatment Plant
Weekly Samples Cover Page

ALS WO# HS23030401

ALS Environmental
ALS Group USA, Corp
10450 Stancliff Road, Suite 210
Houston, TX 77099
T : +1 281 530 5656
F : +1 281 530 5887
www.alsglobal.com

Table of Contents

HS23030401 Longhorn GW Treatment Plant Weekly Samples Cover Page
- CoverPage
- HS23030401 Longhorn GW Treatment Plant Weekly Samples Final
  - CoverLetter
  - Sample Summary
  - CaseNarrative
  - LH18/24-SP650_030723
  - Dates Report
  - QC
  - Acronyms
  - Certifications
  - SampleReceiptCheckList
  - COC
- HS23030401 Wet Chemistry
- HS23030401 E2300225 Perchlorate Report Level IV
  - CoverLetter
  - Certificate of Analysis
  - Chain of Custody
  - Preparation Sheets
  - Analytical Results
  - Accuracy and Precision
  - Initial Calibration

Table of Contents (continued)

Chromatograms and Selected Ion Monitoring

10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887
alsglobal.com

WorkOrder: HS23030401

Longhorn GW Treatment Plant Weekly Samples

Bhate Environmental Associates, Inc.

Marcia Olive
445 Union Blvd Ste 129
Lakewood CO 80228

21-Mar-2023

HS23030401 Longhorn GW Treatment Plant Weekly Samples Final

ALS WO# HS23030401

10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887

March 17, 2023

Marcia Olive
Bhate Environmental Associates, Inc.
445 Union Blvd Ste 129
Lakewood, CO 80228

Work Order: **HS23030401**

Laboratory Results for: **Longhorn GW Treatment Plant Weekly Samples**

Dear Marcia Olive,

ALS Environmental received 3 sample(s) on Mar 08, 2023 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Generated By: JUMOKE.LAWAL
Dane J. Wacasey

ALS Houston, US Date: 17-Mar-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
Work Order: HS23030401

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS23030401-01	LH18/24-SP650_030723	Water		07-Mar-2023 13:00	08-Mar-2023 10:15	☐
HS23030401-02	LH18/24-SP650_030723_AIX	Water		07-Mar-2023 13:00	08-Mar-2023 10:15	☐
HS23030401-03	LH18/24-SP650_030723_BIX	Water		07-Mar-2023 13:00	08-Mar-2023 10:15	☐

ALS Houston, US Date: 17-Mar-23

Client: Bhate Environmental Associates, Inc. **CASE NARRATIVE**
Project: Longhorn GW Treatment Plant Weekly Samples
Work Order: HS23030401

WetChemistry by Method E365.3

Batch ID: R430120

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method E350.3

Batch ID: R430087

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method E415.1

Batch ID: R430030

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

ALS Houston, US

Date: 17-Mar-23

Client: Bhate Environmental Associates, Inc.

ANALYTICAL REPORT

Project: Longhorn GW Treatment Plant Weekly Samples

WorkOrder:HS23030401

Sample ID: LH18/24-SP650_030723

Lab ID:HS23030401-01

Collection Date: 07-Mar-2023 13:00

Matrix:Water

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
AMMONIA AS N BY E350.3(ISE)		**Method:E350.3**						Analyst: MZD
Nitrogen, Ammonia (As N)	**31**	a	**0.10**	**0.10**	**0.20**	**mg/L**	1	13-Mar-2023 12:09
ORTHO PHOSPHATE (PO4) AS P BY E365.3-1978		**Method:E365.3**						Analyst: MZD
Phosphorus, Total Orthophosphate (As P)	**4.46**	a	**0.100**	**0.125**	**0.250**	**mg/L**	10	09-Mar-2023 12:54
TOTAL ORGANIC CARBON BY E415.1		**Method:E415.1**						Analyst: JAC
Organic Carbon, Total	**17.6**	a	**0.500**	**1.00**	**1.00**	**mg/L**	1	14-Mar-2023 13:25

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 17-Mar-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
WorkOrder: HS23030401

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R430030 (0)	**Test Name :** TOTAL ORGANIC CARBON BY E415.1				**Matrix:** Water	
HS23030401-01	LH18/24-SP650_030723	07 Mar 2023 13:00			14 Mar 2023 13:25	1
Batch ID: R430087 (0)	**Test Name :** AMMONIA AS N BY E350.3(ISE)				**Matrix:** Water	
HS23030401-01	LH18/24-SP650_030723	07 Mar 2023 13:00			13 Mar 2023 12:09	1
Batch ID: R430120 (0)	**Test Name :** ORTHO PHOSPHATE (PO4) AS P BY E365.3-1978				**Matrix:** Water	
HS23030401-01	LH18/24-SP650_030723	07 Mar 2023 13:00			09 Mar 2023 12:54	10

ALS Houston, US Date: 17-Mar-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
WorkOrder: HS23030401

QC BATCH REPORT

Batch ID: R430030 (0) **Instrument: TOC_05** **Method: TOTAL ORGANIC CARBON BY E415.1**

MBLK Sample ID: **MBLK-03142023** Units: **mg/L** Analysis Date: **14-Mar-2023 12:04**
Client ID: Run ID: **TOC_05_430030** SeqNo: **7171829** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	1.00	1.00								U

LCS Sample ID: **LCS-03142023** Units: **mg/L** Analysis Date: **14-Mar-2023 12:18**
Client ID: Run ID: **TOC_05_430030** SeqNo: **7171830** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	10.78	1.00	10	0	108	85 - 115				

LCSD Sample ID: **LCSD-03142023** Units: **mg/L** Analysis Date: **14-Mar-2023 12:33**
Client ID: Run ID: **TOC_05_430030** SeqNo: **7171831** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	10.78	1.00	10	0	108	85 - 115	10.78	0	20	

MS Sample ID: **HS23030401-01MS** Units: **mg/L** Analysis Date: **14-Mar-2023 13:39**
Client ID: **LH18/24-SP650_030723** Run ID: **TOC_05_430030** SeqNo: **7171835** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	28.33	1.00	10	17.57	108	80 - 120				

The following samples were analyzed in this batch: HS23030401-01

ALS Houston, US Date: 17-Mar-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
WorkOrder: HS23030401

QC BATCH REPORT

Batch ID: R430087 (0) **Instrument: WetChem_HS** **Method: AMMONIA AS N BY E350.3(ISE)**

MBLK Sample ID: **MBLK-R430087** Units: **mg/L** Analysis Date: **13-Mar-2023 12:09**
Client ID: Run ID: **WetChem_HS_430087** SeqNo: **7173349** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	0.10	0.20								U

LCS Sample ID: **LCS-R430087** Units: **mg/L** Analysis Date: **13-Mar-2023 12:09**
Client ID: Run ID: **WetChem_HS_430087** SeqNo: **7173348** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	10.5	0.20	10	0	105	80 - 120				

MS Sample ID: **HS23030496-01MS** Units: **mg/L** Analysis Date: **13-Mar-2023 12:09**
Client ID: Run ID: **WetChem_HS_430087** SeqNo: **7173351** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	10.47	0.20	10	0.068	104	80 - 120				

MSD Sample ID: **HS23030496-01MSD** Units: **mg/L** Analysis Date: **13-Mar-2023 12:09**
Client ID: Run ID: **WetChem_HS_430087** SeqNo: **7173350** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	10.47	0.20	10	0.068	104	80 - 120	10.47	0.0191	20	

The following samples were analyzed in this batch: HS23030401-01

ALS Houston, US Date: 17-Mar-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
WorkOrder: HS23030401

QC BATCH REPORT

Batch ID: R430120 (0) **Instrument:** UV-2450 **Method:** ORTHO PHOSPHATE (PO4) AS P BY E365.3-1978

MBLK Sample ID: **MBLK-R430120** Units: **mg/L** Analysis Date: **09-Mar-2023 12:54**
Client ID: Run ID: **UV-2450_430120** SeqNo: **7174033** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As P)	0.0125	0.0250								U

LCS Sample ID: **LCS-R430120** Units: **mg/L** Analysis Date: **09-Mar-2023 12:54**
Client ID: Run ID: **UV-2450_430120** SeqNo: **7174032** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As P)	0.253	0.0250	0.25	0	101	85 - 115				

MS Sample ID: **HS23030401-01MS** Units: **mg/L** Analysis Date: **09-Mar-2023 12:54**
Client ID: **LH18/24-SP650_030723** Run ID: **UV-2450_430120** SeqNo: **7174035** PrepDate: DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As P)	6.81	0.250	2.5	4.46	94.0	80 - 120				

MSD Sample ID: **HS23030401-01MSD** Units: **mg/L** Analysis Date: **09-Mar-2023 12:54**
Client ID: **LH18/24-SP650_030723** Run ID: **UV-2450_430120** SeqNo: **7174034** PrepDate: DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As P)	6.82	0.250	2.5	4.46	94.4	80 - 120	6.81	0.147	20	

The following samples were analyzed in this batch: HS23030401-01

ALS Houston, US Date: 17-Mar-23

Client: Bhate Environmental Associates, Inc.
Project: Longhorn GW Treatment Plant Weekly Samples
WorkOrder: **HS23030401**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	22-041-0	27-Mar-2023
California	2919 2022-2023	30-Apr-2023
Dept of Defense	L21-682	31-Dec-2023
Florida	E87611-36	30-Jun-2023
Illinois	2000322022-9	09-May-2023
Kansas	E-10352; 2022-2023	31-Jul-2023
Kentucky	123043, 2022-2023	30-Apr-2023
Louisiana	03087, 2022-2023	30-Jun-2023
Maryland	343, 2022-2023	30-Jun-2023
North Carolina	624-2023	31-Dec-2023
North Dakota	R-193 2022-2023	30-Apr-2023
Oklahoma	2022-141	31-Aug-2023
Texas	T104704231-22-29	30-Apr-2023
Utah	TX026932022-13	31-Jul-2023

ALS Houston, US Date: 17-Mar-23

Sample Receipt Checklist

Work Order ID: HS23030401 **Date/Time Received:** 08-Mar-2023 10:15

Client Name: Bhate Environmental **Received by:** Paresh M. Giga

Completed By: /S/ Paresh M. Giga (eSignature) 08-Mar-2023 12:44 (Date/Time) **Reviewed by:** /S/ Dane J. Wacasey (eSignature) 09-Mar-2023 08:29 (Date/Time)

Matrices: **Water** Carrier name: **FedEx Priority Overnight**

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
VOA/TX1005/TX1006 Solids in hermetically sealed vials?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	1 Page(s)
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	COC IDs:none
Samplers name present on COC?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	1.4C/0.9C U/C	IR31	
Cooler(s)/Kit(s):	49894		
Date/Time sample(s) sent to storage:	3/8/23 12:55		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐
pH adjusted?	Yes ☐	No ☑	N/A ☐
pH adjusted by:			

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:

CHAIN OF CUSTODY

Name Of Lab Shipping To: ALS 10450 Stancliff Rd. Suite 210 Houston, TX. 77099 (281) 530-5656 ATTN: Dane Wacasey

Project: BHATE
LONGHORN ARMY AMMN. PLANT (LHAAP)
GROUNDWATER TREATMENT PLANT (GWTP)
KARNACK, TEXAS

Project No. NWO1312.0150.0 16.0001

Job: GROUNDWATER TREATMENT PLANT WEEKLY SAMPLES

Prepared By: Scott Beesinger

P.O. Number

HS23030401

Bhate Environmental Associates, Inc.
Longhorn GW Treatment Plant Weekly Samples

Field Sample I.D.	Sample Matrix	Date / Time	MS / MSD	No. OF CONTAINERS	Analyses: AMMONIA-N	TOTAL ORGANIC CARBON	ORTHO-PHOSPHATE	PERCHLORATE	Remarks (Preservatives, etc.)	Lab I.D.#
LH18/24-SP650_030723	Water	03/07/23 / 13:00		3	X	X			H2SO4	
LH18/24-SP650_030723	Water	03/07/23 / 13:00		1			X		NONE	
LH18/24-SP650_030723_AIX	Water	03/07/23 / 13:00		1				X	NONE	
LH18/24-SP650_030723_BIX	Water	03/07/23 / 13:00		1				X	NONE	

Additional Remarks: 24 HR. TAT on Perchlorate Samples. Standard TAT on all other parameters

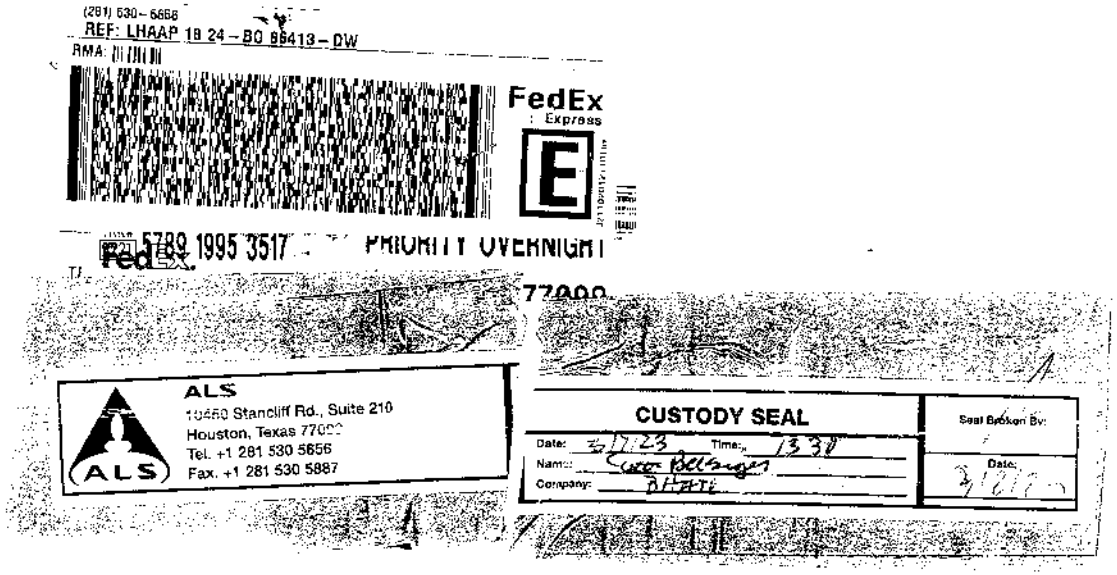
Relinquished By:	Date	Time	Received By:	Date	Time	Relinquished By:	Date	Time	Received By:	Date	Time
Scott Beesinger	03/07/23	13:30		3/8/23	10:15						

For Lab Use Only

Received At Lab By:	Date	Time	Airbill No.	Opened By:	Date	Time	Temp of Container	Seal No.	Condition
UPS 1.40 #31									

Remarks:

(Word) S:\Users\Forms\Chain of Custody - BiWeekly


(281) 530-5656
REF: LHAAP 18 24 - BO 86413 - DW
RMA:
FedEx Express
5789 1995 3517
PRIORITY OVERNIGHT
77090
ALS
19459 Stancliff Rd., Suite 210
Houston, Texas 77090
Tel. +1 281 530 5656
Fax. +1 281 530 5887
CUSTODY SEAL
Date: 3/7/23 Time: 1330
Name: Chris Bellinger
Company: ALS
Seal Broken By:
Date: 3/7/23

March 09, 2023 Service Request No:E2300225

Marcia Olive
Bhate Environmental Associates, Inc.
445 Union Blvd
Suite 129
Lakewood, CO 80228

Laboratory Results for: LHAAP

Dear Marcia,

Enclosed are the results of the sample(s) submitted to our laboratory March 08, 2023
For your reference, these analyses have been assigned our service request number **E2300225.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current TNI standards, where applicable, and except as noted in the laboratory case narrative provided. All results are intended to be considered in their entirety and ALS Environmental is not responsible for use of less than the complete final report. Results apply only to the items submitted to the laboratory, as received for analysis. In accordance with the current TNI Standard, a statement on the estimated uncertainty of measurement of any quantitative analysis will be supplied upon request.

Please contact me if you have any questions. My extension is 2188. You may also contact me via email at James.Guin@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

James Guin

ADDRESS 10450 Stancliff Rd., Suite 210, Houston, TX 77099
PHONE +1 281 530 5656 | FAX +1 281 530 5887
ALS Group USA, Corp.
dba ALS Environmental

Certificate of Analysis

ALS Environmental - Houston HRMS
10450 Stancliff Rd, Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

ALS Environmental

Client:	Bhate Environmental Associates	**Service Request No.:**	E2300225
Project:	LHAAP	**Date Received:**	03/08/23
Sample Matrix:	Water		

CASE NARRATIVE

All analyses were performed in adherence to the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Two were received for analysis at ALS Environmental in Houston on 03/08/23.

The samples were received in good condition and are consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

Data Validation Notes and Discussion

Precision and Accuracy:

EQ2300114: Laboratory Control Spike/Duplicate Laboratory Control Spike (LCS/DLCS) samples were analyzed and reported in lieu of a MS/MSD for this extraction batch.

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.

Use of ALS group USA Corp dba ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.

Client: Bhate Environmental Associates, Inc. **Service Request:**E2300225
Project: LHAAP/NWO1312.0150.016.0001

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
E2300225-001	LH18/24-SP650_030723_AIX	3/7/2023	1300
E2300225-002	LH18/24-SP650_030723_BIX	3/7/2023	1300

Service Request Summary

Folder #: **E2300225**
Client Name: Bhate Environmental Associates, Inc.
Project Name: LHAAP
Project Number: NWO1312.0150.016.0001

Report To: Marcia Olive
Bhate Environmental Associates, Inc.
445 Union Blvd
Lakewood, CO 80228
USA
Phone Number: 303-597-2450
Cell Number:
Fax Number:
E-mail: molive@bhate.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: JGUIN
Date Received: 03/08/23
Internal Due Date: 3/9/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number:
EDD: BASIC_WQC_CASNo_LOD

2 120 mL-Plastic Bottle Natural WM Unpreserved
Location: SMO
Pressure Gas:
Rush

Lab Samp No.	Client Samp No	Matrix	Collected	HOUSTON ClO4 DOD/6850
E2300225-001	LH18/24-SP650_030723_AIX	Water	03/07/23 1300	**IV**
E2300225-002	LH18/24-SP650_030723_BIX	Water	03/07/23 1300	**IV**

Service Request Summary

Folder #: **E2300225**
Client Name: Bhate Environmental Associates, Inc.
Project Name: LHAAP
Project Number: NWO1312.0150.016.0001

Report To: Marcia Olive
Bhate Environmental Associates, Inc.
445 Union Blvd
Lakewood, CO 80228
USA
Phone Number: 303-597-2450
Cell Number:
Fax Number:
E-mail: molive@bhate.com

Project Chemist: James Guin
Originating Lab: HOUSTON
Logged By: JGUIN
Date Received: 03/08/23
Internal Due Date: 3/9/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number:
EDD: BASIC_WQC_CASNo_LOD

2 120 mL-Plastic Bottle Natural WM Unpreserved
Location: SMO
Pressure Gas:
Rush

Data Qualifiers

Lab Standard

+	Possible Tedlar bag artifact.
A	TIC is a suspected aldol-condensation product
B	Analyte found in the associated method blank as well as in the sample.
BC	Reported results are not blank corrected.
BH	The back section of the tube yielded higher results than the front.
BT	Results indicated possible breakthrough; back section >=10% front section.
C	Result identification confirmed.
D	Compound identified in an analysis at a secondary dilution factor
D	Spike was diluted out
DE	Reported results are corrected for desorption efficiency.
E	Estimated value. Concentration above calibration range
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
H	The chromatographic fingerprint of the sample resembles a petroleum product but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
H1	Sample analysis performed past holding time. See case narrative.
H2	Initial analysis within holding time. Reanalysis for the required dilution was past holding time.
H3	Sample was received and analyzed past holding time.
H4	Sample was extracted past required extraction holding time, but analyzed within analysis holding time. See case narrative.
I	(Auto) The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
I	Internal standard not within the specified limits. See case narrative.
I	The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
J	Estimated Value. Concentration found below MRL.
K	A deflection in the QC ion may indicate interference with the quantitation of this ion. The concentration of this analyte should be considered as an estimate.
K	Analyte was detected above the method reporting limit prior to normalization.
K	The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
L1	Laboratory control sample recovery outside the specified limits; results may be biased high.
L2	Laboratory control sample recovery outside the specified limits; results may be biased low.
L3	Laboratory control sample recovery outside the specified limits.
M	Matrix interference; results may be biased high.
M	The duplicate injection precision not met.

Data Qualifiers

Lab Standard

M1	Matrix interference due to coelution with a non-target compound; results may be biased high.
N	Presumptive evidence of a compound for TICs that have been identified based on a mass spectral library search.
N	The Matrix Spike sample recovery is not within control limits. See case narrative.
O	The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
P	Indicates chlorodiphenyl ether interference present at the retention time of the target compound.
P	Pesticide/Aroclor target analyte > 40% difference for detected concentrations between GC columns
Q	Indicates as estimated value because the P and P + 2 theoretical abundance ratio does not meet method criteria.
R	Duplicate Precision not met.
R1	Duplicate precision not within the specified limits; however, the results are below the MRL and considered estimated.
S	Surrogate recovery not within specified limits.
S	The reported value was determined by the Method of Standard Additions (MSA).
T	Analyte is a tentatively identified compound, result is estimated.
U	Compound was analyzed for, but was not detected (ND).
V1	The continuing calibration verification standard was outside (biased high) the specified limits for this compound.
V2	The continuing calibration verification standard was outside (biased low) the specified limits for this compound.
W	Result quantified, but the corresponding peak was detected outside the generated retention time window.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
X	See case narrative.
Y	Recovery outside limits
Y	The chromatogram resembles a petroleum product but does not match the calibration standard.
Z	The chromatogram does not resemble a petroleum product.
i	The MRL/MDL has been elevated due to a matrix interference.

ALS Laboratory Group

Acronyms

Cal	Calibration
Conc	CONCentration
Dioxin(s)	Polychlorinated dibenzo-p-dioxin(s)
EDL	Estimated Detection Limit
EMPC	Estimated Maximum Possible Concentration
Flags	Data qualifiers
Furan(s)	Polychlorinated dibenzofuran(s)
g	Grams
ICAL	Initial CALibration
ID	IDentifier
Ions	Masses monitored for the analyte during data acquisition
L	Liter (s)
LCS	Laboratory Control Sample
DLCS	Duplicate Laboratory Control Sample
MB	Method Blank
MCL	Method Calibration Limit
MDL	Method Detection Limit
mL	Milliliters
MS	Matrix Spiked sample
DMS	Duplicate Matrix Spiked sample
NO	Number of peaks meeting all identification criteria
PCDD(s)	Polychlorinated dibenzo-p-dioxin(s)
PCDF(s)	Polychlorinated dibenzofuran(s)
ppb	Parts per billion
ppm	Parts per million
ppq	Parts per quadrillion
ppt	Parts per trillion
QA	Quality Assurance
QC	Quality Control
Ratio	Ratio of areas from monitored ions for an analyte
% Rec.	Percent recovery
RPD	Relative Percent Difference
RRF	Relative Response Factor
RT	Retention Time
SDG	Sample Delivery Group
S/N	Signal-to-noise ratio
TEF	Toxicity Equivalence Factor
TEQ	Toxicity Equivalence Quotient

10450 Stancliff Rd, Houston, TX 77099 | 281-530-5656 | www.alsglobal.com

State Certifications, Accreditations, and Licenses

Agency	Number	Expire Date
Arizona Department of Health Services	AZ0793	5/27/2023
Arkansas Department of Environmental Quality	22-041-0	3/27/2023
California Department of Health Services	2919-2023	4/30/2023
Department of Defense	L22-90	3/31/2024
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Florida Department of Health	E87611-36	6/30/2023
Hawaii Department of Health	2022	4/30/2023
Illinois Environmental Protection Agency	2000322022-9	5/9/2023
Kansas Department of Health and Environment	E-10352 2022-2023	7/31/2023
Louisiana Department of Environmental Quality	03087-2022	6/30/2023
Louisiana Department of Health and Hospitals	LA028-2023	12/31/2023
Maine Department of Health and Human Services	2022017	6/5/2024
Maryland Department of the Environment	343	6/30/2023
Michigan Depratment of Environmental Quality	9971-2022	4/30/2023
Minnesota Department of Health	2368363	12/31/2023
Nebraska Department of Health and Human Services	NE-OS-25-13	4/30/2023
Nevada Department of Conservation and Natural Resources	TX026932023-1	7/31/2023
New Hampshire Environmental Laboratory Accreditation Program	209422	4/24/2023
New Jersey Department of Environmental Protection	TX008-2023	6/30/2023
New York Department of Health	11707	3/31/2023
Oklahoma Department of Environmental Quality	2022-141	8/31/2023
Oregon Environmental Laboratory Accreditation Program	TX200002	5/15/2023
Pennsylvania Department of Environmental Protection	68-03441-016	6/30/2023
Perry Johnson Laboratory Accreditation	L22-91	3/31/2024
Tennessee Department of Environment and Concervation	04016-2022	4/30/2023
Texas Commision on Environmental Quality	T104704231-22-29	4/30/2023
Utah Department of Health Environmental Laboratory Certification	TX026932022-13	7/31/2023
Washington Department of Ecology	C819-22	11/14/2023

Chain of Custody

ALS Environmental - Houston HRMS
10450 Stancliff Rd, Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

10450 Stancliff Rd, Ste 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887
www.alsglobal.com

Subcontract Chain of Custody

SAMPLING STATE: **Dept of Defense** **COC ID:** **21073**

SUBCONTRACT TO:

ALS Environmental
10450 Stancliff RoadSuite 210
Houston, TX 77084

Phone: +1 281 530 5656

RUSH

CUSTOMER INFORMATION:

Company:	ALS Houston
Contact:	Dane J. Wacasey
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Email:	Dane.Wacasey@alsglobal.com
Alternate Contact:	Jumoke M. Lawal
Email:	jumoke.lawal@alsglobal.com

INVOICE INFORMATION:

Company:	ALS Houston
Contact:	Accounts Payable
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Reference:	HS23030401
TSR:	Houston House Acct

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS23030401-02**	**LH18/24-SP650_030723_AIX**	**Water**	**07 Mar 2023 13:00**
	6850-Perch. DOD Level II & Level IV in separate pdf			09 Mar 2023
2.	**HS23030401-03**	**LH18/24-SP650_030723_BIX**	**Water**	**07 Mar 2023 13:00**
	6850-Perch. DOD Level II & Level IV in separate pdf			09 Mar 2023

Comments: Please analyze for the analysis listed above.
Send report to the emails shown above.

QC Level: DOD IV (DoD Data Package)

Relinquished By: _____ Date/Time: _____

Received By: _____ Date/Time: _____

Cooler ID(s): _____ Temperature(s): _____

Cooler Receipt Form

ALS Environmental

Project Chemist JG

Client/Project Ms Houston

Thermometer ID IR31

Date/Time Received: 03/08/23 1300 Initials: JG Date/Time Logged in: 03/08/23 1300 Initials JG

1. Method of delivery: ○ US Mail ○ Fed Ex ○ UPS ○ DHL ○ Courier ✓ Client

2. Samples received in: ✓ Cooler ○ Box ○ Envelope ○ Other

3. Were custody seals on coolers? ✓ Yes ○ No
   Were they intact? ✓ Yes ○ No ✓ N/A
   Were they signed and dated? ✓ Yes ○ No ○ N/A
   If yes, how many and where?

4. Packing Material: ○ Inserts ✓ Baggies ○ Bubble Wrap ○ Gel Packs ✓ Wet Ice ○ Sleeves ○ Other

5. Foreign or Regulated Soil? ○ Yes ○ No Location of Sampling:

Cooler Tracking Number	COC ID	Date Opened	Time Opened	Opened By	Temp. °C	Temp Blank?
		3/8/23	1300	JG	1.7	☑
						☐
						☐
						☐

6. Were custody papers properly filled out (ink, signed, dated, etc)? ✓ Yes ○ No
7. Did all bottles arrive in good condition (not broken, no signs of leakage)? ✓ Yes ○ No
8. Were all sample labels complete (i.e., sample ID, analysis, preservation, etc)? ✓ Yes ○ No
9. Were appropriate bottles/containers and volumes received for the requested tests? ✓ Yes ○ No
10. Did sample labels and tags agree with custody documents? ○ Yes ○ No

Notes, Discrepancies, & Resolutions:

Service request Label:

10450 Stancliff Rd., Suite 210
Houston, TX 77099
T: +1 713 266 1599
F: +1 713 266 1599
www.alsglobal.com

SAMPLE ACCEPTANCE POLICY

This policy outlines the criteria samples must meet to be accepted by ALS Environmental – Houston HRMS.

Cooler Custody Seals (desirable, mandatory if specified in SAP):

- ✓ Intact on outside of cooler, signed and dated

Chain-of-Custody (COC) documentation (mandatory):

The following is required on each COC:

- ✓ Sample ID, the location, date and time of collection, collector's name, preservation type, sample type, and any other special remarks concerning the sampleThe COC must be completed in ink.
- ✓ Signature and date of relinquishing party.

In the absence of a COC at sample receipt, the COC will be requested from the client.

Sample Integrity (mandatory):

Samples are inspected upon arrival to ensure that sample integrity was not compromised during transfer to the laboratory.

- ✓ Sample containers must arrive in good condition (not broken or leaking).
- ✓ Samples must be labeled appropriately, including Sample IDs, and requested test using durable labels and indelible ink.
- ✓ The correct type of sample bottle must be used for the method requested.
- ✓ An appropriate sample volume, or weight, must be received.
- ✓ Sample IDs and number of containers must reconcile with the COC.
- ✓ Samples must be received within the method defined holding time.

Temperature Requirement (varies by sample matrix):

- ✓ Aqueous and Non-aqueous samples must be shipped and stored cold, at 0 to 6ºC.
- ✓ Tissue samples must be shipped and stored frozen, at -20 to -10ºC.
- ✓ Air samples are shipped and stored cold, at 0 to 6ºC
- ✓ The sample temperature must be recorded on the COC

All cooler inspections are documented on the Cooler Receipt Form (CRF). A separate CRF is completed for each service request. Any samples not meeting the above criteria are noted on the CRF and the Project Manager notified. The Project Manager must resolve any sample integrity issues with the client prior to proceeding with the analysis. Such resolutions are documented in writing and filed with the project folder. Data associated with samples received outside of this acceptance policy will be qualified on the case narrative of the final report

Preparation Information Benchsheets

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

Preparation Information Benchsheet

Prep Run#: 416139 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/XMI **Prep Method:** Method **Prep Date/Time:** 3/8/23 13:07

#	Lab Code	Client ID	B#	Method /Test	pH	Cl	Matrix	Amt. Ext.	Sample Description
1	E2300221-001	RSA-095-INT-03	.01	6850/ClO4 DOD			Water	10mL	
2	E2300221-002	RSA-095-INT-04	.01	6850/ClO4 DOD			Water	10mL	
3	E2300225-001	LH18/24-SP650_030723_AIX	.01	6850/ClO4 DOD			Water	10mL	
4	E2300225-002	LH18/24-SP650_030723_BIX	.01	6850/ClO4 DOD			Water	10mL	
5	EQ2300114-01	MB		6850/ClO4			Liquid	10mL	
6	EQ2300114-02	LCS		6850/ClO4			Liquid	10mL	
7	EQ2300114-03	DLCS		6850/ClO4			Liquid	10mL	
8	R2301578-012	2302211253 200L-SB-17	.01	6850/ClO4			Water	10mL	
9	R2301584-009	2302220942Y 600-E-280	.01	6850/ClO4			Water	10mL	
10	R2301664-014	2302231435C 100-C-365	.01	6850/ClO4			Water	10mL	
11	R2301664-016	2302231516Y 200-C-170	.01	6850/ClO4			Water	10mL	
12	R2301664-021	2302241041Y 200-F-370	.01	6850/ClO4			Water	10mL	
13	R2301664-028	2302241538X 300-E-183	.01	6850/ClO4			Water	10mL	
14	R2301716-012	2302271323 100L-SB-15	.01	6850/ClO4			Water	10mL	
15	R2301727-012	2302280853 100L-SB-13	.01	6850/ClO4			Water	10mL	

Spiking Solutions

Name: Perchlorate Internal Standard 1ug/mL Inventory ID 226778 Logbook Ref: Perchlorate Internal Standard Expires On: 05/31/2023

E2300221-001	100.00µL	E2300221-002	100.00µL	E2300225-001	100.00µL	E2300225-002	100.00µL	EQ2300114-01	100.00µL	EQ2300114-01	100.00µL
EQ2300114-02	100.00µL	EQ2300114-02	100.00µL	EQ2300114-03	100.00µL	EQ2300114-03	100.00µL	R2301578-012	100.00µL	R2301584-009	100.00µL
R2301664-014	100.00µL	R2301664-016	100.00µL	R2301664-021	100.00µL	R2301664-028	100.00µL	R2301716-012	100.00µL	R2301727-012	100.00µL

Name: Perchlorate Intermediate Stock1 Inventory ID 227236 Logbook Ref: Perchlorate (1st Source) Expires On: 07/31/2023

EQ2300114-02	1.00µL	EQ2300114-02	1.00µL	EQ2300114-03	1.00µL	EQ2300114-03	1.00µL

Preparation Steps

Step: Preparation
Started: 3/8/23 13:07
Finished: 3/9/23 10:21
By: XMI
Comments

Comments:

Preparation Information Benchsheet

Prep Run#: 416139
Team: Semivoa GCMS/XMI

Prep WorkFlow: GenExt28Day
Prep Method: Method

Status: Prepped
Prep Date/Time: 3/8/23 13:07

Reviewed By: XMI Date: 03/08/23

Chain of Custody

Relinquished By: _____ Date: _____

Received By: _____ Date: _____

Extracts Examined
Yes No

Analytical Results

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Bhate Environmental Associates, Inc.	**Service Request:**	E2300225
Project:	LHAAP/NWO1312.0150.016.0001	**Date Collected:**	3/ 7/23 1300
Sample Matrix:	Water	**Date Received:**	3/ 8/23
Sample Name:	LH18/24-SP650_030723_AIX	**Units:**	µg/L
Lab Code:	E2300225-001	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**39.2**		0.100	0.0500	0.0250	1	3/ 8/23	3/9/23 09:55	416139	797078	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Bhate Environmental Associates, Inc.	**Service Request:**	E2300225
Project:	LHAAP/NWO1312.0150.016.0001	**Date Collected:**	3/ 7/23 1300
Sample Matrix:	Water	**Date Received:**	3/ 8/23
Sample Name:	LH18/24-SP650_030723_BIX	**Units:**	µg/L
Lab Code:	E2300225-002	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**3420**		20.0	10.0	5.00	200	3/ 8/23	3/9/23 10:00	416139	797078	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Bhate Environmental Associates, Inc.	**Service Request:**	E2300225
Project:	LHAAP/NWO1312.0150.016.0001	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	EQ2300114-01	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	ND	U	0.100	0.0500	0.0250	1	3/ 8/23	3/9/23 09:20	416139	797078	

Accuracy & Precision

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Bhate Environmental Associates, Inc. **Service Request:** E2300225
Project: LHAAP/NWO1312.0150.016.0001 **Date Analyzed:** 3/ 9/23
Sample Matrix: Water

Lab Control Sample Summary
Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850 **Units:** µg/L
Prep Method: Method **Basis:** NA

Extraction Lot: 416139

	Lab Control Sample EQ2300114-02			Duplicate Lab Control Sample EQ2300114-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Perchlorate	0.104	0.100	104	0.107	0.100	107	84 - 119	3	15

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Bhate Environmental Associates, Inc.	**Service Request:**	E2300225
Project:	LHAAP/NWO1312.0150.016.0001	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2300114-02	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.104**		0.100	0.0500	0.0250	1	3/ 8/23	3/9/23 09:31	416139	797078	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Bhate Environmental Associates, Inc.	**Service Request:**	E2300225
Project:	LHAAP/NWO1312.0150.016.0001	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2300114-03	**Basis:**	NA

Perchlorates in Water, Soils, Solid Wastes Using High Performance LC/Electrospray/Mass Spectrometry

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.107**		0.100	0.0500	0.0250	1	3/ 8/23	3/9/23 09:37	416139	797078	

HS23030401 Wet Chemistry

ALS WO# HS23030401

NIT- AmN-W_ISE/350.3.

HS230304O1

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

Logbook **32115**

Ion Selective Electrode Logbook

Analyst: MD				Date: 03/13/23 12:09	
Method: SM4500NH3-D/EPA 350.3 or SM4500 NH3 B-F					
Probe Calibration Date: 03/13/23		Cal Std ID: 321103401-06)		Probe ID: NH3-8	
Std Level		mV	Conc., mg/L:	Sodium Thiosulfate ID: 3100606219	
STD 1 (mg/L):	0.2	122.2	0.187	Std Level	mV	Conc., mg/L:
STD 2 (mg/L):	1	79.3	1.004	STD 4 (mg/L)10	26.5	9.993
STD 3 (mg/L):	5	47.1	4.981	STD 5 (mg/L)50	-10.0	50.022
LSC / MS Spike ID:		3100606922		ICAL Date & Slope:		
ICV Cal STD ID:		321103401		98.4% / -54.6mV		
DPD Reagent ID:		3100606413				

WO # / SX #	Bottle #	Initial g or ml	Final Vol. ml	Dilution Factor	Initial Conc. mg/L	Final Conc. mg/L	Chlorine Check (+/-)	Comments
ICV		50ml	50ml		9.523			
ICB					0.013			
MBlk					0.013			
LCS					10.498			
HS230304O1-01					30.705		-ve	
G96-02					0.066		-ve	
G96-01					0.068		-ve	
G96-01MS					10.468		-ve	
G96-01MSD					10.470		-ve	
G96-03					0.055		-ve	
G96-04		0.1ml		100X	0.306		-ve	
G96-05					0.132		-ve	
CCV		50ml			10.111			
CCB		↓			0.009			
HS230447-02		5ml	50ml	10X	6.463		+ve	Highlychlorine
G47-08					6.655		+ve	
G47-11					5.403		+ve	
G47-14					6.760		+ve	
G47-17					5.901		+ve	
175-01		50ml	50ml		9.034			
CCV					9.691			
CCB		↓	↓		0.009			
								MD 03/13/23

Batch ID: G30087	Reported By MD	Reviewed By:

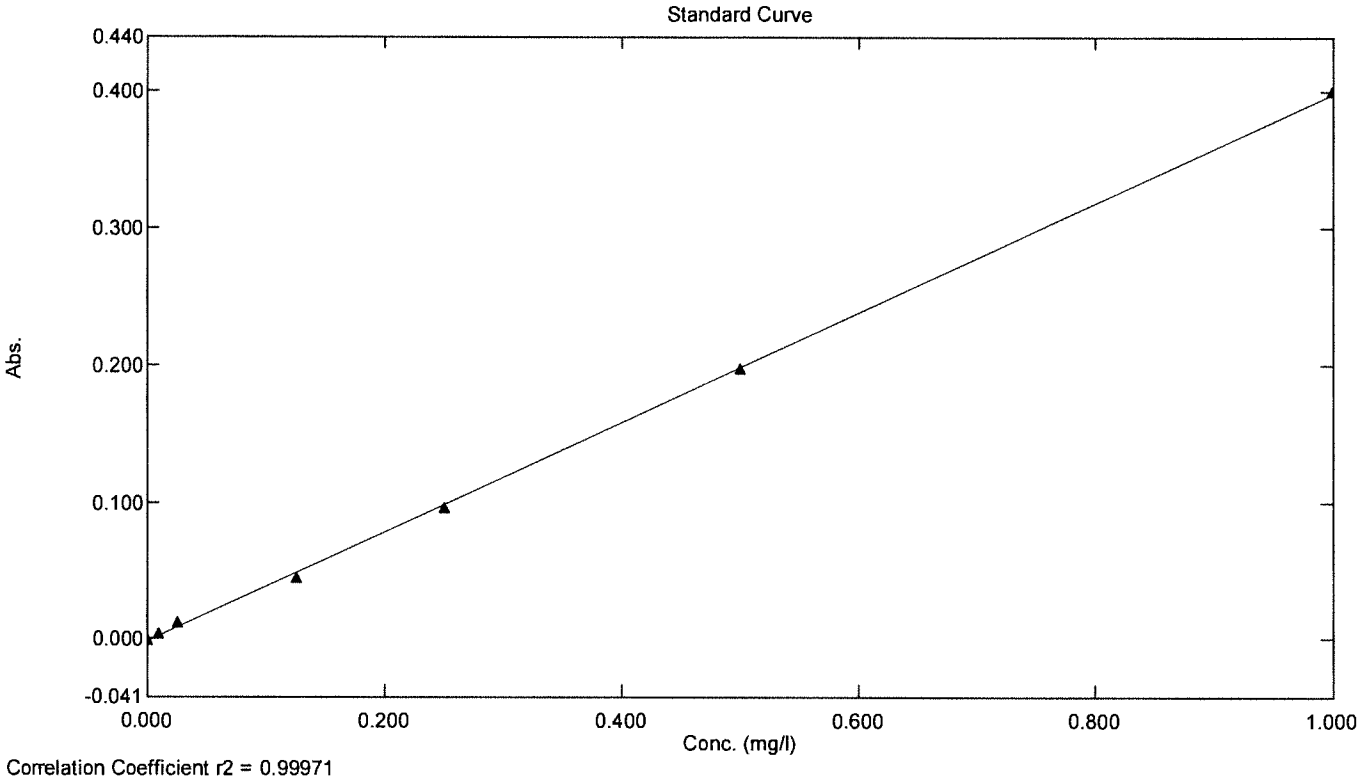
©2018 ALS Laboratory Group

HS23030401

Standard Table Report

03/16/2023 06:39:02 PM

File Name: C:\Program Files (x86)\Shimadzu\UVProbe\Data\P_ORTHO (365.3 METHOD)\2023\03092023_P_ORTHO_W.pho



Correlation Coefficient r2 = 0.99971

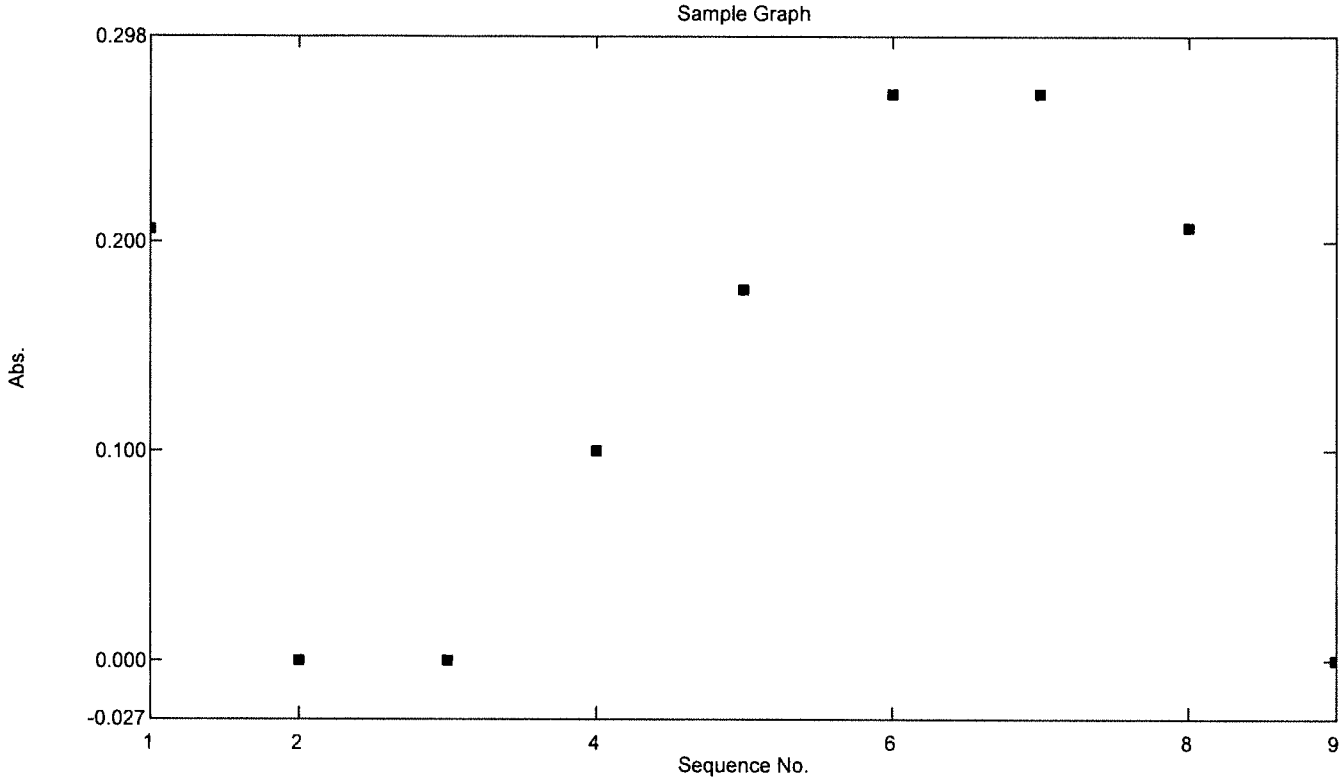
Standard Table

	Sample ID	Type	Ex	Conc	WL650.0	Wgt.Factor	Comments
1	STD1	Standard		0.000	-0.000	1.000	
2	STD2	Standard		0.010	0.005	1.000	
3	STD3	Standard		0.025	0.012	1.000	
4	STD4	Standard		0.125	0.045	1.000	
5	STD5	Standard		0.250	0.096	1.000	
6	STD6	Standard		0.500	0.197	1.000	
7	STD7	Standard		1.000	0.400	1.000	
8							

Sample Table Report

03/16/2023 06:39:04 PM

File Name: C:\Program Files (x86)\Shimadzu\UVProbe\Data\P_ORTHO (365.3 METHOD)\2023\03092023_P_ORTHO_W.pho



Sample Table

	Sample ID	Date	Time	Conc	WL650.	Comments
1	CCV	03/09/2023	12:54:11 PM	0.518	0.206	
2	CCB	03/09/2023	12:54:24 PM	0.003	-0.000	
3	MBLK	03/09/2023	12:54:27 PM	0.003	-0.000	
4	LCS	03/09/2023	12:54:41 PM	0.253	0.100	
5	HS23030401.01	03/09/2023	12:55:07 PM	0.446	0.177	PF:10X
6	HS23030401.01MS	03/09/2023	12:55:25 PM	0.681	0.271	PF:10X
7	HS23030401.01MSD	03/09/2023	12:55:27 PM	0.682	0.271	PF:10X
8	CCV2	03/09/2023	12:55:45 PM	0.521	0.207	AM-321100712 WC-20
9	CCB2	03/09/2023	12:55:53 PM	0.003	-0.000	11N-3100606911 WC-13
10						

C:\TOC-L\Data\2022_12_22_002_CAL.tlx

HS23030401

	Type	Analysis	Sample Nam	Sample ID	Origin	Manual Diluti	Result	Notes	Status
1	Standard	NPOC	CAL	3100606518	12_22_2022	1.000			Completed
2	Unknown	NPOC	ICV	3100606203	12_22_2022	1.000	NPOC:10.7		Completed
3	Unknown	NPOC	ICB		12_22_2022	1.000	NPOC:0.34		Completed

C:\TOC-L\Data\2022_12_22_002_CAL.tlx

	Date / Time	Vial
1	12/22/2022	1, 2, 3, 4, 5,
2	12/22/2022	8
3	12/22/2022	1

TOC-Control L Report

2022_12_22_002_CAL.tlx

Instr.Information

Instrument Options	TOC/ASI/IC Unit/
Catalyst	Regular Sensitivity

Cal. Curve

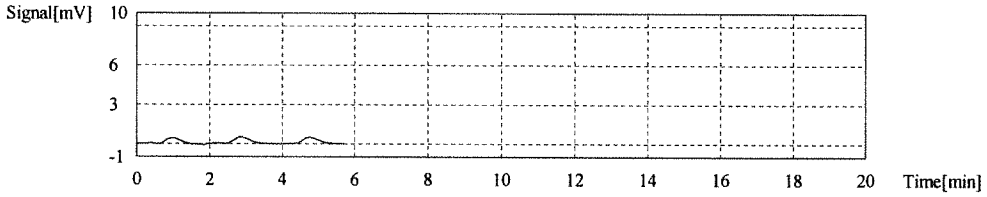
Sample Name:	CAL
Sample ID:	3100606518
Cal. Curve:	12_22_2022.2022_12_22_13_06_45.cal
Status	Completed

Type	Anal
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	1.350	50uL	1.000	*******		12/22/2022 12:15:57 PM
2	1.448	50uL	1.000	*******		12/22/2022 12:18:06 PM
3	1.380	50uL	1.000	*******		12/22/2022 12:20:13 PM

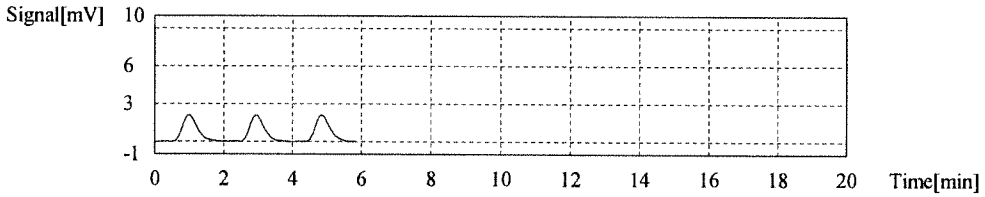
Acid Add.	1.500%
Sparge Gas Flow	80mL/min
Sp. Time	120.0sec
Mean Area	1.393



Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	6.297	50uL	1.000	*******		12/22/2022 12:28:55 PM
2	5.988	50uL	1.000	*******		12/22/2022 12:31:02 PM
3	6.247	50uL	1.000	*******		12/22/2022 12:33:14 PM

Acid Add.	1.500%
Sparge Gas Flow	80mL/min
Sp. Time	120.0sec
Mean Area	6.177



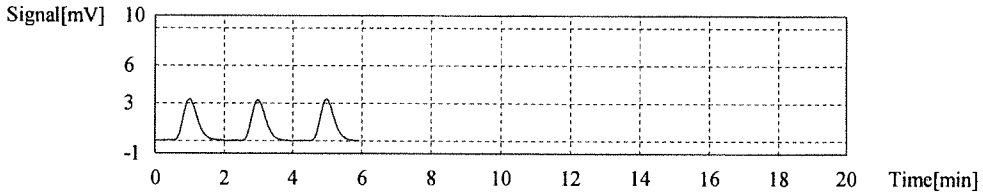
Conc: 2.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	9.406	50uL	1.000	*******		12/22/2022 12:41:58 PM
2	9.448	50uL	1.000	*******		12/22/2022 12:44:11 PM
3	9.385	50uL	1.000	*******		12/22/2022 12:46:20 PM

TOC-Control L Report

2022_12_22_002_CAL.tlx

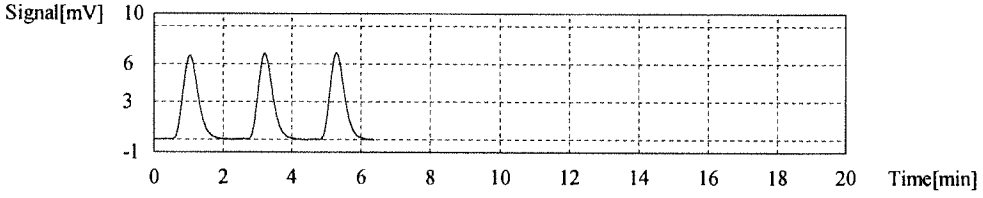
Acid Add. 1.500%
Sparge Gas Flow 80mL/min
Sp. Time 120.0sec
Mean Area 9.413



Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	20.41	50uL	1.000	*******		12/22/2022 12:55:16 PM
2	20.23	50uL	1.000	*******		12/22/2022 12:57:35 PM
3	20.36	50uL	1.000	*******		12/22/2022 12:59:53 PM

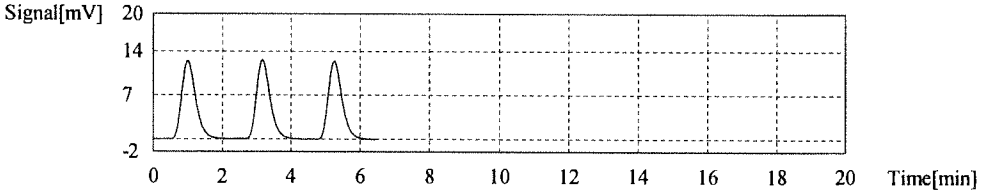
Acid Add. 1.500%
Sparge Gas Flow 80mL/min
Sp. Time 120.0sec
Mean Area 20.33



Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	35.65	50uL	1.000	*******		12/22/2022 1:08:48 PM
2	35.20	50uL	1.000	*******		12/22/2022 1:11:07 PM
3	35.02	50uL	1.000	*******		12/22/2022 1:13:30 PM

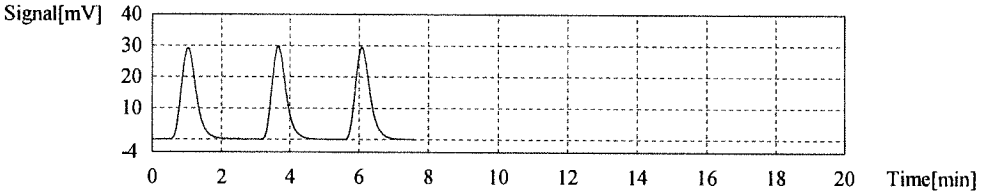
Acid Add. 1.500%
Sparge Gas Flow 80mL/min
Sp. Time 120.0sec
Mean Area 35.29



Conc: 25.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	88.49	50uL	1.000	*******		12/22/2022 1:22:53 PM
2	87.55	50uL	1.000	*******		12/22/2022 1:25:34 PM
3	87.85	50uL	1.000	*******		12/22/2022 1:28:20 PM

Acid Add. 1.500%
Sparge Gas Flow 80mL/min
Sp. Time 120.0sec
Mean Area 87.96



Conc: 50.00mg/L